IGEL OS Release Notes

Notes for Release 11.08.200

Software:	Version	11.08.200
Release Date:	2022-10-18	
Release Notes:	Version	RN-1108200-1
Last update:	2022-10-17	

The Release Notes for IGEL OS 11.08.200 are also available in the following formats:

- Plain text: readme_11.08.200.txt

Supported Devices 11.08.200

UD2-LX:	UD2-LX 52
	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 20
	UD7-LX 11
	UD7-LX 10

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.08.200

Clients

Product	Version
Amazon WorkSpaces Client	3.1.9
Chromium	105.0.5195.125-igel1663653255
Cisco JVDI Client	14.1.2
Cisco Webex VDI plugin	42.8.0.23214
Cisco Webex Meetings VDI plugin	41.12.6.12
Cisco Webex Meetings VDI plugin	42.2.10.7
Cisco Webex Meetings VDI plugin	42.6.8.5
Zoom Media Plugin	5.10.6.21295
Zoom Media Plugin	5.11.2.21530
Zoom Media Plugin	5.8.4.21112
Citrix HDX Realtime Media Engine	2.9.400
Citrix Workspace App	20.10.0.6
Citrix Workspace App	22.05.0.16
Citrix Workspace App	22.07.0.20
deviceTRUST Citrix Channel	21.1.310.0
Crossmatch DP Citrix Channel	0125
Conky System Monitor	1.10.8-1
ControlUp Agent	8.1.5.500
deskMate Client	2.1.3
DriveLock Agent	20.1.4.30482
Ericom PowerTerm	14.0.3.71814
Evidian AuthMgr	1.5.8134
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech Plugins	3.8.0

FabulaTech USB for Remote Desktop	6.0.35
FabulaTech Scanner for Remote Desktop	3.0.1.0
FabulaTech Webcam for Remote Desktop	2.8.10
Firefox	91.13.0
IBM iAccess Client Solutions	1.1.8.6
IGEL RDP Client	2.2igel1663073494
IGEL AVD Client	1.1.0igel1663740227
deviceTRUST RDP Channel	21.1.310.0
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
Lakeside SysTrack Channel	9.0
Login VSI Enterprise	4.8.6
NCP Secure Enterprise Client	5.10_rev40552
NX Client	7.8.2-4igel1644853628
Open VPN	2.6.0~git20220818-1igel1661859138
Zulu JRE	8.0.345-1
Parallels Client	18.3.1
Spice GTK (Red Hat Virtualization)	0.41-2igel1661863274
Remote Viewer (Red Hat Virtualization)	11.0-2igel1661863477
Usbredir (Red Hat Virtualization)	0.11.0-2igel1633506980
SpeechWrite	1.0
Stratusphere UX Connector ID Key software	6.6.0-3
Systancia AppliDis	6.1.4-17
HP Anyware PCoIP Software Client	22.07.0-18.04
ThinLinc Client	4.14.0-2324
ThinPrint Client	7-7.6.126
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	4.16.0-1igel1611217037

VNC Viewer	1.12.0+dfsg-4igel1648284944
VMware Horizon Client	2206-8.6.0-20094634
Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	2017/09/29
Grundig Business Systems dictation driver	0.12/21-12-21
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	4.0.2
Philips Speech driver	13.1.10

Signature

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.10
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7-20210902
PKCS#11 Library cryptovision sc/interface	8.0.13
PKCS#11 Library Thales SafeNet	10.8.1013
PKCS#11 Library OpenSC	0.22.0-2igel1643799581
PKCS#11 Library SecMaker NetID Enterprise	6.8.3.21
PKCS#11 Library SecMaker NetID Client	1.0.2.67
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.8-1igel1632136057
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35

Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.5.0-2igel1646035471
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.9.8-1igel1655196158
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.10
OpenSSL	1.1.1-1ubuntu2.1~18.04.20
OpenSSH Client	9.0p1-1+b1igel1661867805
OpenSSH Server	9.0p1-1+b1igel1661867805
Bluetooth stack (bluez)	5.65-1igel1663161703
MESA OpenGL stack	22.1.7-0igel1661885230
VAAPI ABI Version	0.40
VDPAU Library version	1.5-1igel1646992192
Graphics Driver INTEL	2.99.917+git20210115-1igel1647326046
Graphics Driver ATI/RADEON	19.1.0-3igel1657777718
Graphics Driver ATI/AMDGPU	22.0.0-3igel1661860347
Graphics Driver Nouveau (Nvidia Legacy)	1.0.17-2igel1644486678
Graphics Driver Nvidia	470.141.03-0ubuntu0.20.04.1
Graphics Driver VMware	13.3.0-3igel1628859075
Graphics Driver QXL (Spice)	0.1.5-2build1igel1634304534
Graphics Driver FBDEV	0.5.0-2igel1644486279
Graphics Driver VESA	2.5.0-1igel1628504011
Input Driver Evdev	2.10.6-2igel1629196047
Input Driver Elographics	1.4.2-1igel1629196349
Input Driver eGalax	2.5.8825
Input Driver Synaptics	1.9.1-2igel1646823146

Input Driver VMMouse	13.1.0-1ubuntu2igel1628499891
Input Driver Wacom	0.39.0-0ubuntu1igel1629136980
Input Driver ELO Multitouch	3.0.0
Input Driver ELO Singletouch	5.1.0
Kernel	5.17.15 #mainline-lxos_dev-g1663242518
Xorg X11 Server	21.1.4igel1657689370
Xorg Xephyr	21.1.4igel1657689370
CUPS printing daemon	2.2.7-1ubuntu2.9igel1654064309
PrinterLogic	25.1.0.500
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel14
XFCE4 Window Manager	4.14.5-1~18.04igel1643191202
ISC DHCP Client	4.3.5-3ubuntu7.3
NetworkManager	1.32.12-0ubuntu1igel1656495558
ModemManager	1.18.10-2igel1662722763
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 0.10 Fluendo aacdec	0.10.42
GStreamer 0.10 Fluendo asfdemux	0.10.92
GStreamer 0.10 Fluendo h264dec	0.10.59
GStreamer 0.10 Fluendo mp3dec	0.10.41
GStreamer 0.10 Fluendo mpegdemux	0.10.85
GStreamer 0.10 Fluendo mpeg4videodec	0.10.44
GStreamer 0.10 Fluendo vadec	0.10.229
GStreamer 0.10 Fluendo wmadec	0.10.70
GStreamer 0.10 Fluendo wmvdec	0.10.66
GStreamer 1.x	1.20.3-2igel1655908747
GStreamer 1.0 Fluendo aacdec	1.0.1
GStreamer 1.0 Fluendo asfdemux	1.0.1
GStreamer 1.0 Fluendo h264dec	1.0.3
GStreamer 1.0 Fluendo mp3dec	1.0.1

GStreamer 1.0 Fluendo mpeg4videodec	1.0.1
GStreamer 1.0 Fluendo vadec	1.0.2
GStreamer 1.0 Fluendo wmadec	1.0.1
GStreamer 1.0 Fluendo wmvdec	1.0.1
WebKit2Gtk	2.36.7-1igel1661518099
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.38-dfsg-3igel1662536482
Virtualbox X11 Guest Utils	6.1.38-dfsg-3igel1662536482
Open VM Tools	11.0.5-4ubuntu0.18.04.2
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.2
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.22.1-3igel1661859915
Qemu Guest Agent	7.1+dfsg-2igel1663754599

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.20-1igel1660111560
Mobile Device Access USB (imobile)	1.3.0-6igel12
Mobile Device Access USB (gphoto)	2.5.29-1igel1653377622
VPN OpenConnect	9.01-1igel1657119743
Scanner support	1.0.27-1
VirtualBox VM within IGEL OS	6.1.38-dfsg-3igel1662536482
Virtual Background for Webcam	

Services

Service	Size	Reduced Firmware
Asian Language Support	24.8 M	Included

Java SE Runtime Environment	43.2 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	370.2 M	Included
Ericom PowerTerm InterConnect	11.5 M	Included
Media Player	768.0 K	Included
Local Browser (Firefox) Citrix Appliance	94.5 M	Included
VMware Horizon RDP	7.0 M	Included
Cendio ThinLinc	12.8 M	Included
Printing (Internet printing protocol CUPS)	22.5 M	Included
NoMachine NX	30.8 M	Included
VMware Horizon	295.8 M	Included
Voice over IP (Ekiga)	7.2 M	Included
Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	30.8 M	Not included
Fluendo GStreamer Codec Plugins	7.2 M	Included
IBM i Access Client Solutions	128.5 M	Not included
Red Hat Enterprise Virtualization	3.0 M	Included
Parallels Client	6.8 M	Included
NVIDIA graphics driver	280.2 M	Not included
Imprivata Appliance	16.0 M	Included
AppliDis	512.0 K	Included
Evidian AuthMgr	3.0 M	Included
Hardware Video Acceleration	16.5 M	Included
Extra Font Package	1.2 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	4.2 M	Included
Cisco JVDI client	76.0 M	Included

PrinterLogic	53.2 M	Not included
Biosec BS Login	10.2 M	Not included
Login VSI Login Enterprise	32.8 M	Not included
Stratusphere UX CID Key software	8.5 M	Not included
Elastic Filebeat	25.0 M	Not included
AVD	130.5 M	Included
Local Browser (Chromium)	112.0 M	Not included
Amazon WorkSpaces Client	37.2 M	Included
deskMate client	6.5 M	Included
Cisco Webex VDI	75.0 M	Not included
Cisco Webex Meetings VDI	130.5 M	Not included
Zoom Media Plugin	138.8 M	Not included
DriveLock	14.8 M	Included
SpeechWrite Client	256.0 K	Included
IGEL Imprivata Agent	256.0 K	Included
Fluendo Browser Codec Plugins	4.5 M	Included
HP Factory deployment documentation	90.0 M	Included
BIOS Tools	256.0 K	Included
HP Anyware Client	18.5 M	Included
90meter Smart Card Support	256.0 K	Included
Virtual Background for Webcam (Limited IGEL Support) Limited Support Features Mobile Device Access USB (Limited support) Virtualbox (Limited support) VPN OpenConnect (Limited support) Scanner support / SANE (Limited support)	256.0 K	Not included
Mobile Device Access USB (Limited support)	512.0 K	Not included
VPN OpenConnect (Limited support)	1.2 M	Not included

Scanner support / SANE (Limited support)	2.8 M	Not included
VirtualBox (Limited support)	74.0 M	Not included
Virtual Background for Webcam (Limited IGEL Support)	38.0 M	Included

Known Issues 11.08.200

Citrix

- To launch **multiple desktop sessions** with Citrix HDX RTME and Citrix H.264 acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

- This workaround is not applicable when **Enable Secure ICA** is active for the specific delivery group.
- Adding **smartcard readers** during running / active sessions does not work. The **reader is visible, but cannot be used due to unknown reader status**. Only relevant for **CWA versions earlier than 2112**.
- There are known issues with **GStreamer 1.0** in combination with Citrix. These occur with **multimedia redirection of H.264, MPEG1, and MPEG2.** (GStreamer 1.0 is used if browser content redirection is enabled active.)
- **Browser content redirection** does not work with activated DRI3 and hardware-accelerated H.264 deep compression codec enabled.
- Enabled **DRI3** on an **AMD GPU with enabled Citrix H.264 acceleration** could lead to a **freeze**. **Selective H.264 mode (API v2) is not affected** by this issue.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- Currently, **H.264** for Citrix sessions **cannot be used in parallel with video input acceleration**.
- With start of Self-Service, it is possible that the process **ServiceRecord is segfaulted** - **Self-Service cannot be started afterwards**. A **cache cleanup with reboot** should help, also the **following parameters should be set to "true"**.
  More...

Parameter	Clean up UI cache after Self-Service termination
Registry	`ica.selfservice.cleanupwebui`
Value	<u>false</u> / true

Parameter	Clean up Store cache after Self-Service termination
Registry	`ica.selfservice.cleanupstore`
Value	<u>false</u> / true

OSC Installer

- **OSC not deployable with IGEL Deployment Appliance**: **Version 11.3 or later** is **required** for deploying IGEL OS 11.06. and following.

AVD

- **AVD MS-Teams optimization can crash the AVD client if H264 software decoder is used** (fluh264dec). AVD prefers the hardware decoders (fluvadec) but when there are no hardware decoders or when all hardware decoders are in use already, the software decoder is utilized, which may randomly crash the AVD client. It is likely when it crashes in a certain MS-Teams call, it might crash quite soon again when rejoining the same call. A fix for that is under development.
  A **workaround** is to **disable incoming video** in such MS-Teams calls, which is an option in the "..." menu from the control bar during an active call.
- **H264 hardware decoding for MS-Teams optimization** is currently **limited to non-AMD devices** due to stability issues on AMD devices.

VMware Horizon

- After **disconnect of an RDP-based session**, the **Horizon main window** which contains the server or sessions overview, **cannot be resized** anymore.
- **Copying Text from Horizon Blast sessions** is not possible.
- The **on-screen keyboard in Horizon appliance mode** does not work correctly with the local logon.
  It is necessary to switch off local logon and enable the following two keys via IGEL registry:
  `userinterface.softkeyboard.autoshow`
  `userinterface.softkeyboard.autohide`
- **Zoom VDI Media Plugin** versions **below 5.8.0** make **Horizon Client crash upon connection to the remote desktop** in cases when TC Setup is running at the same time.
- **With the usage of the PCoIP protocol, the virtual channel provided by VMware used for serial port and scanner redirection could freeze on logout** from the remote session.
  This **happens only with enabled scanner or serial port redirection**. The freeze does not occur if both redirection methods are enabled or none of them. **The Blast Protocol is not affected** by this bug.
  The respective settings can be found in the IGEL Registry:
  `vmware.view.enable-serial-port-redir`
  `vmware.view.enable-scanner-redir`
- **Keyboard Input Source Language Synchronization** works only with usage of **local layout and deadkeys enabled**.
  If a **keyboard layout is used which has deadkeys disabled** (which is the default on IGEL OS), **Horizon client falls back to en-US layout**.
- **PCoIP sessions may crash** in some cases, **switching to Blast Protocol is recommended** then. **H.264/HEVC encoding** can be **disabled** when **overall performance** is too **low**.

- **Client drive mapping and USB redirection for storage devices** can be enabled at the same time, but this could lead to sporadical problems.
  Horizon Client tracks the drives which are dynamically mounted and adds them to the remote session using client drive mapping, means USB redirection is not used for these devices then. However, in case of devices like USB SD card readers, Horizon does not map them as client drives but forcefully uses USB redirection which results in an unclean unmount.
  As a **workaround**, the IDs of these card readers can be added to IGEL USB access rules and denied.

Parallels Client

- **Attached storage devices appear as network drives** in the remote session.
- **USB device redirection** is considered **experimental for the Parallels client for Linux**.

Firefox

- With **enabled Citrix Browser Content Redirection (BCR)**, **Firefox has no H.264 and AAC multimedia codec support**. This means **when codec support is needed in Firefox, BCR needs to be disabled**. Citrix Browser Content Redirection is disabled by default.

Network

- **Wakeup** from system suspend **fails on DELL Latitude 5510**.
- If applications are configured to start after established network connection and network mounts are configured, **spurious "Failed to start application" notifications** may be shown. The applications still start.

Wi-Fi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Cisco JVDI Client

- There may be a **segfault** shown in the logs (during log out of Citrix Desktop session). Occurs only when using **Citrix Workspace app 2010** and **Cisco JVDI**.

Base system

- **Hyper-V (Generation 2) needs a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.
- **Update from memory stick requires network online state** (at least when multiple update stages are triggered / necessary).

Conky

- The **right screen when using a multiscreen environment** may not be shown correctly. **Workaround**: The horizontal offset should be set to the width of the monitor (e.g. if the monitor has a width of 1920, the offset should be set to 1920).

Firmware Update

- On **devices with 2 GB of flash** storage, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Please visit Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a possible solution and additional information.

Appliance Mode

- When ending a **Citrix session in browser appliance mode**, the browser is restarted twice instead of once.
- Appliance mode RHEV/Spice: **spice-xpi firefox plugin** is no longer supported. The **Console Invocation** has to allow **Native** client (**auto** is also possible) and should be started in fullscreen to prevent any opening windows.
- **Browser Appliance mode** can fail when the **Web URL contains special control characters** like ampersands (& character). **Workaround**: Add quotes at the beginning and the end of an affected URL. Example: 'https://www.google.com/search?q=aSearchTerm&source=lnms&tbm=isch'

Audio

- **IGEL UD2 (D220)** fails to restore the **volume level** of the speaker when the device used firmware version 11.01.110 before.
- **Audio jack detection** on **Advantech POC-W243L** does not work. Therefore, sound output goes through a possibly connected headset and also the internal speakers.
- **UD3 M340C**: **Sound preferences** are **showing Headphone & Microphone**, although not connected.

Multimedia

- Multimedia redirection with **GStreamer** could fail when using **Nouveau GPU** driver.

Hardware

- Some newer **Delock 62599 active DisplayPort to DVI (4k)** adapters only work on INTEL-based devices.

Remote Management

- **AIT feature** with **IGEL Starter License** is only supported by UMS version 6.05.100 or newer.

Security Fixes 11.08.200

Chromium

- Fixed Chromium browser security issues:
  More...

  CVE-2022-3075, CVE-2022-3058,
  CVE-2022-3057, CVE-2022-3056, CVE-2022-3055, CVE-2022-3054, CVE-2022-3053,
  CVE-2022-3052, CVE-2022-3051, CVE-2022-3050, CVE-2022-3049, CVE-2022-3048,
  CVE-2022-3047, CVE-2022-3046, CVE-2022-3045, CVE-2022-3044, CVE-2022-3043,
  CVE-2022-3042, CVE-2022-3041, CVE-2022-3040, CVE-2022-3039, CVE-2022-3038,
  CVE-2022-2861, CVE-2022-2860, CVE-2022-2859, CVE-2022-2858, CVE-2022-2857,
  CVE-2022-2856, CVE-2022-2855, CVE-2022-2854, CVE-2022-2853, and CVE-2022-2852

- Fixed Chromium browser security issues:
  More...

  CVE-2022-3195, CVE-2022-3196, CVE-2022-3197, CVE-2022-3198,
  CVE-2022-3199, CVE-2022-3200, and CVE-2022-3201

- Updated **Chromium browser** to version **105.0.5195.125**.

Firefox

- Updated **Mozilla Firefox** to version **91.13.0 ESR**
- Fixes for **mfsa2022-35**, also known as CVE-2022-38472, CVE-2022-38473, CVE-2022-38478.
- Fixes for **mfsa2022-29**, also known as CVE-2022-36319, CVE-2022-36318.
- Fixes for **mfsa2022-25**, also known as:
  CVE-2022-34479, CVE-2022-34470, CVE-2022-34468, CVE-2022-34481,
  CVE-2022-31744, CVE-2022-34472, CVE-2022-2200, CVE-2022-34484
- Fixes for **mfsa2022-21**, also known as:
  CVE-2022-31736, CVE-2022-31737, CVE-2022-31738, CVE-2022-31740,
  CVE-2022-31741, CVE-2022-31742, CVE-2022-31747.

Base System

- Fixed **libinput** security issue CVE-2020-1215.
- Fixed **libarchive** security issue CVE-2022-26280.
- Fixed **ntfs-3g** security issues:
  More...

  CVE-2022-30789, CVE-2022-30788, CVE-2022-30787, CVE-2022-30786,
  CVE-2022-30785, CVE-2022-30784, CVE-2022-30783, and CVE-2021-46790

- Fixed **openssl1.0** security issues CVE-2022-2068 and CVE-2022-1292.
- Fixed **openssl** security issues CVE-2022-2097, CVE-2022-2068, and CVE-2022-1292.
- Fixed **gnupg2** security issues CVE-2022-34903 and CVE-2019-13050.

- Fixed **webkit2gtk** security issues:
  More...

  CVE-2022-26710, CVE-2022-22677, CVE-2022-22662, CVE-2022-30294,
  CVE-2022-30293, CVE-2022-26719, CVE-2022-26717, CVE-2022-26716,
  CVE-2022-26709, and CVE-2022-26700

- Fixed **nss** security issues CVE-2022-34480 and CVE-2022-22747.
- Fixed **Nvidia** graphics driver 470 security issues CVE-2022-31607 and CVE-2022-31608.
- Updated **Nvidia** graphics driver to version **470.141.03**.
- Fixed **curl** security issues CVE-2022-32208, CVE-2022-32207, CVE-2022-32206, and CVE-2022-32205.
- Fixed **curl** security issue CVE-2022-35252.
- Fixed **unzip** security issues CVE-2022-0530 and CVE-2022-0529.
- Fixed **freetype** security issues CVE-2022-31782, CVE-2022-27406, CVE-2022-27405, and CVE-2022-27404.
- Fixed **gnutls28** security issues CVE-2022-2509 and CVE-2021-4209.
- Fixed **mysql-5.7** security issue CVE-2022-21515.
- Fixed **python2.7** security issue CVE-2015-20107.
- Fixed **python3.6** security issue CVE-2015-20107.
- Fixed **net-snmp** security issues:
  More...

  CVE-2022-24810, CVE-2022-24809, CVE-2022-24808,
  CVE-2022-24807, CVE-2022-24806, CVE-2022-24805, and CVE-2022-248

- Fixed **zulu8-ca** security issues CVE-2022-34169, CVE-2022-25647, CVE-2022-21541, and CVE-2022-21540.
- Updated **zulu8-ca JRE** to version **8.0.345**.
- Fixed **libtirpc** security issue CVE-2021-46828.
- Updated **Intel microcode** to version **20220809** which fixed security issue CVE-2022-21233.
- Fixed **postgresql-10** security issue CVE-2022-1552.
- Fixed **webkit2gtk** security issues CVE-2022-32816, CVE-2022-32792, and CVE-2022-2294.
- Updated **webkit2gtk** to version **2.36.6**.
- Fixed **open-vm-tools** security issue CVE-2022-31676.
- Fixed **postgresql-10** security issue CVE-2022-2625.
- Fixed **libxslt** security issues CVE-2021-30560 and CVE-2019-5815.
- Fixed **zlib** security issue CVE-2022-37434.
- Fixed **rsync** security issue CVE-2022-37434.
- Fixed **webkit2gtk** security issue CVE-2022-32893.
- Fixed **gnutls28** security issues CVE-2022-2509 and CVE-2021-4209.
- Fixed **flac** security issues CVE-2017-6888, CVE-2020-0499, and CVE-2021-0561.
- Fixed **libsndfile** security issue CVE-2021-4156.
- Fixed **gst-plugins-good1.0** security issues
  More...

  CVE-2022-1920, CVE-2022-1921, CVE-2022-1922, CVE-2022-1923,
  CVE-2022-1924, CVE-2022-1925, and CVE-2022-2122

- Updated **GStreamer 1.x** to version 1.20.3.

- Fixed **vim** security issues CVE-2022-1621, CVE-2022-1620, CVE-2022-1619, CVE-2022-1616, CVE-2022-1154, and CVE-2022-0943.
- Fixed **tiff** security issues:
  More...

  CVE-2022-22844, CVE-2022-2058, CVE-2022-2057,CVE-2022-2056, CVE-2022-1355, CVE-2022-0924, CVE-2022-0909, CVE-2022-0908, CVE-2022-0907, CVE-2020-19144, and CVE-2020-19131.

- Fixed **qemu** security issues CVE-2022-35414, CVE-2022-2962, CVE-2022-1050, CVE-2022-0216, and CVE-2020-14394.
- Fixed **expat** security issue CVE-2022-40674.

X Server

- Fixed **Xorg** security issues CVE-2022-2319 and CVE-2022-2320.
- Updated **Xorg** server to version **21.1.4**.

New Features 11.08.200

Citrix

- Support for **dynamic emergency calling within MS Teams**

Parameter	Citrix Support for dynamic e911
Registry	`ica.emergencycalling`
Value	<u>false</u> /true

- Integrated **Citrix Workspace App 2207**.
  Available Citrix Workspace Apps in this release: **2207** (default), **2205** and **2010**.
  - **Composite USB redirection**

Parameter	Native USB Redirection class rule
Registry	`ica.usbredirection.devicepolicy.class_rule% .rule`
Value	<u>Deny</u>, Allow, Connect
Parameter	Native USB Redirection product rule
Registry	`ica.usbredirection.devicepolicy.product_rule %.rule`
Value	<u>Deny</u>, Allow, Connect

  - Citrix Workspace app allows the **splitting of composite USB devices**. A composite USB device can perform more than one function. These functions are accomplished by exposing each of those functions using different interfaces.
    An example of a composite USB device is the Bloomberg keyboard which consists of a keyboard, fingerprint reader, an audio device, and USB hub, etc.
  - The **Composite USB redirection** feature adds the **CONNECT value to the rules for USB devices**.
  - **CONNECT** – Set the "CONNECT" keyword to enable **auto-redirect of a device when a session starts**.
  - **ALLOW** – Set the "ALLOW" keyword to allow **auto-redirect of a device only after a session starts**. However, if the "CONNECT" or "ALLOW" keyword is set, the device is auto-redirected when it is unplugged and plugged in during a session.
  - When redirect the composite USB device, normally the whole device is forwarded to the virtual host. However, now there is the possibility to **split and forward only the child interfaces that use a generic USB channel.** To do this, it is necessary to **add the following filter parameters** (`split` and `intf`) **to the device rules**. The `split` parameter specifies whether a composite device must be forwarded as separate devices or as a single composite device. "Split=1" means that the selected child interfaces of a composite device must be forwarded as split devices, while split=0 must not be forwarded (If the split

parameter is omitted, Split=0 is assumed). The `intf` parameter selects the specific child interfaces of the composite unit to which the action is to be applied.

- In IGEL Setup, the device rules can be added under **Sessions > Citrix > Citrix Global > Native USB Redirection > Device Rules.** Adding the first two filter parameters Vendor id/vid and Product id/pid, which redirects the entire
composite device in the session. If splitting of the composite device is required, adding additional parameters in the "Extra config" as shown in the example is required.
Example:
`CONNECT: vid=047F pid=C039 split=1 intf=03` # Allow HID device and connect automatically.
`DENY: vid=047F pid=C039 split=1 intf=00` # Deny audio endpoints
`ALLOW: vid=047F pid=C039 split=1 intf=05` # Allow mgmt intf but do not connect automatically

- Note: Native USB Redirection for Citrix Sessions in IGEL OS - the third **option "connect" has been added to the class and device rules. Composite USB redirection can change the behavior. If a device is no longer redirected with CWA 2207, the rule should be changed to 'Connect'.**

- Enhancement to **improve audio quality**
  - Playback **Delay Thresh**

Parameter	Playback Delay Thresh
Registry	`ica.module.PlaybackDelayThreshV4`
Value	<u>50</u> (default)

    With this enhancement, **the maximum output buffering value is decreased from 200 ms to 50 ms in Citrix Workspace app**. As a result, the user experience of the interactive audio application is improved. Also, the Round trip time (RTT) is decreased by 150 ms. This parameter is **valid only when "AudioRedirectionV4" is set to "True"**.

  - **Audio Temp Latency Boost**

Parameter	Audio Temp Latency Boost
Registry	`ica.module.AudioTempLatencyBoostV4`
Value	<u>100</u> (default)

    When the audio throughput undergoes a sudden spike or is not enough for an unstable network, this value increases the output buffering value. This increase in the output buffering value provides smooth audio. However, the
    audio might be slightly delayed. This parameter is **only valid when "AudioRedirectionV4" and "AudioLatencyControlEnabled" are set to "True".**

- Improved **audio echo cancellation** support

Parameter	Improved audio echo cancellation support
Registry	`ica.module.enableechocancellation`
Value	<u>false</u> / true

- Support for **DPI matching**

Parameter	Support for DPI matching
Registry	`ica.wfclient.dpimatchingenabled`
Value	<u>false</u> / true

The display resolution and DPI scale values set in the Citrix Workspace app match the corresponding values in the virtual apps and desktops session. DPI scaling is mostly used with large size and high-resolution monitors to display
applications, text, images, and other graphical elements in a size that can be viewed comfortably.

- **App Protection**

Parameter	Citrix App Protection
Registry	`ica.appprotection`
Value	<u>false</u> / true

App protection is an add-on feature for the Citrix Workspace app that provides enhanced security when using Citrix Virtual Apps and Desktops published resources. Two policies provide **anti-keylogging and anti-screen-capturing
capabilities for a Citrix HDX session**. This feature is **fully supported only for workspace app 2207**, with older workspace apps, you may experience x11vnc crashes.

- Updated **deviceTRUST Client Extension** to version **21.1.310.0**.

OSC Installer

- Added **option in factory mode for an automatical shutdown after self-check**. Log file of this deployment self-check is written to dummy partition.

AVD

- Added **SIGTERM and SIGHUP signal handlers to disconnect sessions** once received these signals. Since remote log-off is not supported in RDP, both signal handlers perform a session disconnect.
- Fixed **audio crackling**
- Added potential fix for the **ClaimsTokenAuthChallenge issue that dialog pops up too often**.
- Added SIGTERM and SIGHUP. As soon as the **RdCoreSDK** supports session log-off as well, **SIGHUP handler will be used instead of the disconnect**.
- Added potential fixes for **crashes with enabled printer redirection**
- Fixed **MS-Teams VDI** the local video **window went black** occasionally.
- Applied patch to fix bug in boost 1.69.0 that caused the "User cancelled" issue. https://github.com/boostorg/container/commit/90de9533ecef08e98d82e8f8c26fad57839e4184 at boost 1.74.0
- Added two parameters regarding **MS-Teams (WebRTC) redirection video decoding**:

Registry	`sessions.wvd0.options.webrtchardwaredecoding`

Value	on / <u>auto</u> / off
Registry	`sessions.wvd0.options.webrtcdecodermaxthreads`
Value	<u>1</u> (default) / 0 (auto) / 0-16

RDP/IGEL RDP Client 2

- Updated **deviceTRUST Client Extension** to version **21.1.310.0**.

RD Web Access

- Added new parameter to enable support for **Interactive Logon Messages**.

Registry	`rdp.rd_web_access.options.remote_app_interactive_logon_message`
Type	bool
Value	enabled / <u>disabled</u>

VMware Horizon

- Updated **VMware Horizon** client to version **2206-8.6.0-20094634**

PowerTerm

- Updated **Ericom PowerTerm LTC** to version **14.0.3.71814**. This fixes scaling the emulation window to large sizes.

IBM_5250

- Added **startup splash screen** to IBM iAccess client. Thus, the user gets visual feedback of sessions about to start.

Parameter	Show splash screen at session startup
Registry	`ibm.iaccess.showsplash`
Value	<u>true</u> / false

HP Anyware

- **Renamed Teradici PCoIP Ultra** to **HP Anyware PCoIP**
  Updated HP Anyware PCoIP client to version **22.07.0-18.04**

Network

- Updated Modemmanager and libraries to improve **LTE device support**.

Wi-Fi

- Added **initial support for Realtek 8852ce Wi-Fi chipset**.

AppliDis

- Updated **Applidis SLB Linux client** to version **6.1.4.17**.

Smartcard

- Updated **Thales SafeNet Authentication client** to version **10.8.1013**.

CUPS Printing

Parameter	Make connected printer default printer
Registry	`print.cups.dynamic_default`
Type	bool
Value	enabled / disabled

- Added the **dynamic default printer** feature: If several printers are defined, the last plugged printer will be set as the default printer.
  On boot, the printer will be selected which is connected at the time.
  If more than one printer is connected at boot, the one which is the last in the list of printers defined in the OS gets the default.
  If a printer which was default is removed, the remaining printer will be elected as default.
  If more than one remains, the last in the list of printers defined in the OS, gets the default.
- Fixed **printer activation on USB hotplug** which could fail in rare occasions.
- Fixed cases where **choosing the first USB printer fails** as not named `usblp0` by the kernel as expected, as higher numbers were used (e.g. usblp2) even if no other USB printers were connected. The first USB printer is now defined as the one which is the first in the (sorted) list of all connected USB printers.
  Accordingly, the second USB printer is the second in the list of USB printers.
  For the case more than one USB printer is used at the same time, the first or second printer should not be used as a selection method, as the numbering is also depending on the timing the printer is registered on the endpoint. On the next boot, the numbering can be different especially if the devices are switched on individually.
  In this case, it's recommended to use instead the `usbclass` backend or selection by the USB Port on the endpoint or by the printer's USB IDs.
- Updated **HP Linux Imaging and Printing (HPLIP)** to version **3.22.6**

- Updated printer list to include **all new printers from HPLIP 3.22.6** (which do not require a proprietary plugin).

Cisco Webex

- Integrated **Cisco WebEx Meetings VDI plugins 42.6.8.5** and **42.2.10.7**
  Available plugins in this release: **42.6.8.5** (default), **42.2.10.7** and **41.12.6.12**
- Integrated C**isco WebEx VDI plugin 42.8.0.23214**

Cisco JVDI Client

- Integrated **Cisco JVDI 14.1.2**

Base System

- Updated **kernel** to version **5.17.15**.
- Updated **VDPAU** library to version **1.5**.
- Updated **gphoto** library to version **2.5.29**.
- Updated **OpenConnect VPN** client to version **9.01**.
- Updated **bluetooth stack (bluez)** to version **5.64**.
- Updated **OpenVPN** client to version **2.6.0 (with OpenVPN DCO support)**.
- Updated **MESA OpenGL stack** to version **22.1.5**.
- Updated **wireless regdb** to version **2022.06.06**.
- Added support for **webcam virtual background** (must be activated in **System > Fimware Customization > Features > Virtual Background for Webcam**)
  Minimum hardware requirements:
  - 4 GB RAM
  - Quad Core CPU with 1.5 GHz or higher
    - Also added new registry keys (to use the feature, `multimedia.webcam.virtual_background.enabled` must be set to **true**)

Parameter	Enable virtual background for webcam.
Registry	`multimedia.webcam.virtual_background.enabled`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Replace default webcam with virtual one.
Registry	`multimedia.webcam.virtual_background.replace_video0`
Type	bool
Value	<u>enabled</u> / disabled

Parameter	Select how the webcam to use should be choosen.
Registry	`multimedia.webcam.virtual_background.choose_webcam_by`
Range	[Use first webcam] [Choose by name] [Choose by vendor_id:product_id] [Choose by number]
Parameter	Select webcam by number (only valid if choose by number is used)
Registry	`multimedia.webcam.virtual_background.webcam_number`
Type	integer
Value	1
Parameter	Select webcam by name (only valid if choose by name is used)
Registry	`multimedia.webcam.virtual_background.webcam_name`
Type	string
Value	empty
Parameter	Select webcam by vendor_id:product_id (only valid if choose by vendor_id:product_id is used)
Registry	`multimedia.webcam.virtual_background.webcam_vendor_product`
Type	string
Value	empty
Parameter	Background picture file to use as virtual background
Registry	`multimedia.webcam.virtual_background.background_file`
Type	string
Value	empty
Parameter	Strength of background blurring
Registry	`multimedia.webcam.virtual_background.blur`
Type	integer

Value	25

Parameter	Select type of virtual background.
Registry	`multimedia.webcam.virtual_background.type`
Range	[Use blur] [Use background picture]
Parameter	Select resolution to use.
Registry	`multimedia.webcam.virtual_background.resolution`
Range	[webcam default] [webcam max] [1280x720] [640x480] [480x360]
Parameter	Select model for background segmentation.
Registry	`multimedia.webcam.virtual_background.backscrub.model`
Range	[segm_full] [selfiesegmentation] [segm_lite] [deeplabv3]
Value	segm_full

- Added possibility to **use ntfs with compression as Chromium and Firefox profile partition filesystem**.
- Changed registry keys (**added ntfs option**):

Parameter	Firefox Profiles Partition Filesystem Type
Registry	`system.customization.ffpro.fs_type`
Range	[reiser4] [ext4] [f2fs] [ntfs]
Parameter	Chromium Profiles Partition Filesystem Type
Registry	`system.customization.chpro.fs_type`
Range	[reiser4] [ext4] [f2fs] [ntfs]

zoomvdi

- Added **Smart Virtual Background support** for zoomvdi.

IGEL Setup	Sessions > Unified Communication > Zoom Client Selection
Parameter	Smart Virtual Background Support
Registry	`multimedia.zoomvdi.smartvb`

Type	string
Value	[Off][Auto][Always]

- Integrated **Zoom VDI plugin 5.11.2.21530**
  Available plugins in this release: **5.11.2.21530** (default), **5.10.6.21295** and **5.8.4.21112**

Hardware

- Updated **DisplayLink driver** to version **5.6.0**.
- Improved **performance of AMD devices and DisplayLink solutions**.
- Added hardware support for **Dell Optiplex 3000TC**

TC Setup (Java)

- Updated **TC Setup** to version **6.10.4**.

Fabulatech

- Updated **FabulaTech Scanner for Remote Desktop** to version **3.0.1.0**

Resolved Issues 11.08.200

OSC Installer

- Fixed **wrong icon** in OSC installer.
- Fixed deploying **IGEL OS GPT images** to **Fujitsu Lifebook U7311** via IGEL **SCCM Add-On**.

RDP/IGEL RDP Client 2

- Fixed RDP Client displaying a **wrong error message when the account is locked**.

Amazon Workspace Client

- Fixed **deviceTRUST virtual channel** configuration.

Chromium

- Fixed **hardware-accelerated video decoding** on newer **Intel chipsets using the iHD VA-API backend**.

Firefox

- Fixed Firefox **tabs crashing if the system uses iHD VAAPI driver**.

Network

- Fixed **MBB connection editor**

Wi-Fi

- Fixed: **System regulatory domain** now also set on the **self-managed driver rtl8852be**
- Fixed: **HP Probook 450 G8** with **Intel AX201 Wi-Fi**.
- Fixed: **Realtek 8852BE** Wi-Fi chipsets **(included in HP T655)**
- Fixed missing firmware files of **iwlwifi driver for INTEL chipsets**.

Imprivata

- Improved **disconnect/reconnect speed with Imprivata and Horizon**. Fixes Imprivata/Horizon roaming issue.
- Added: Minor improvements on **Vendor Launch Scripts**.

AppliDis

- Fixed wrong **port for HTTPS**.

Smartcard

- Fixed startup of **SecMaker Net iD service**.

Base System

- Fixed confusing **touchpad functions** if changed between right- and left-hand mouse.
- Fixed **touchpad enable / disable by hotkey**.
- Fixed **battery notification**.
- Fixed: Not rotate **SystemInformation.log** at startup. Rotation is only done with a successful upload.
- Fixed failed **firmware update from servers with low bandwidth**
- Fixed **NTP** time configuration **in Setup Assistant** if time was set before issued starter license.
- Fixed **corrupted BIOS update** where relevant files were missing in rare cases.
- Added **experimental DSC over DP MST** support to Intel graphic driver.
- Added new registry key:

Parameter	Enable DSC over DP MST support (experimental).
Registry	`x.drivers.intel.dsc_over_dp_mst`
Type	bool
Value	enabled / disabled

- Updated **fwupd** tool to fix possible issue with **LVFS BIOS update**.

X11 System

- Updated **xprintidle** to version **0.2.4**, which offers reasonable output also when DPMS state is not On.
- Added **support for HDMI4 to HDMI8 connectors** as newer devices possibly have these connectors.
- Changed registry keys to **allow HDMI connectors up to HDMI8**:

More...

Parameter	Monitor
Registry	`x.xserver%.connector`
Range	[Automatic][VGA][VGA(II)][DVI-D][DVI-D(II)][DisplayPort][DisplayPort(II)][DisplayPort(III)][DisplayPort(IV)][DisplayPort(V)][DisplayPort(VI)][DisplayPort(VII)]

	[DisplayPort(VIII)][HDMI][HDMI(II)][HDMI(III)][HDMI(IV)][HDMI(V)][HDMI(VI)][HDMI(VII)][HDMI(VIII)][Internal Panel(LVDS)][Internal Panel(LVDS II)][Internal Panel(eDP)][Internal Panel(eDP II)][DVI-D(III)][DVI-D(IV)][DVI-D(V)][DVI-D(VI)][DVI-D(VII)][DVI-D(VIII)]
Value	Automatic
Parameter	Monitor
Registry	`x.xserver%.screen1.connector`
Range	[Automatic][VGA][VGA(II)][DVI-D][DVI-D(II)][DisplayPort][DisplayPort(II)][DisplayPort(III)][DisplayPort(IV)][DisplayPort(V)][DisplayPort(VI)][DisplayPort(VII)][DisplayPort(VIII)][HDMI][HDMI(II)][HDMI(III)][HDMI(IV)][HDMI(V)][HDMI(VI)][HDMI(VII)][HDMI(VIII)][Internal Panel(LVDS)][Internal Panel(LVDS II)][Internal Panel(eDP)][Internal Panel(eDP II)][DVI-D(III)][DVI-D(IV)][DVI-D(V)][DVI-D(VI)][DVI-D(VII)][DVI-D(VIII)]
Value	Automatic
Parameter	Monitor
Registry	`x.xserver%.screen2.connector`
Range	[Automatic][VGA][VGA(II)][DVI-D][DVI-D(II)][DisplayPort][DisplayPort(II)][DisplayPort(III)][DisplayPort(IV)][DisplayPort(V)][DisplayPort(VI)][DisplayPort(VII)][DisplayPort(VIII)][HDMI][HDMI(II)][HDMI(III)][HDMI(IV)][HDMI(V)][HDMI(VI)][HDMI(VII)][HDMI(VIII)][Internal Panel(LVDS)][Internal Panel(LVDS II)][Internal Panel(eDP)][Internal Panel(eDP II)][DVI-D(III)][DVI-D(IV)][DVI-D(V)][DVI-D(VI)][DVI-D(VII)][DVI-D(VIII)]
Value	Automatic
Parameter	Monitor
Registry	`x.xserver%.screen3.connector`

Range	[Automatic][VGA][VGA(II)][DVI-D][DVI-D(II)][DisplayPort][DisplayPort(II)][DisplayPort(III)][DisplayPort(IV)][DisplayPort(V)][DisplayPort(VI)][DisplayPort(VII)][DisplayPort(VIII)][HDMI][HDMI(II)][HDMI(III)][HDMI(IV)][HDMI(V)][HDMI(VI)][HDMI(VII)][HDMI(VIII)][Internal Panel(LVDS)][Internal Panel(LVDS II)][Internal Panel(eDP)][Internal Panel(eDP II)][DVI-D(III)][DVI-D(IV)][DVI-D(V)][DVI-D(VI)][DVI-D(VII)][DVI-D(VIII)]
Value	Automatic
Parameter	Monitor
Registry	`x.xserver%.screen4.connector`
Range	[Automatic][VGA][VGA(II)][DVI-D][DVI-D(II)][DisplayPort][DisplayPort(II)][DisplayPort(III)][DisplayPort(IV)][DisplayPort(V)][DisplayPort(VI)][DisplayPort(VII)][DisplayPort(VIII)][HDMI][HDMI(II)][HDMI(III)][HDMI(IV)][HDMI(V)][HDMI(VI)][HDMI(VII)][HDMI(VIII)][Internal Panel(LVDS)][Internal Panel(LVDS II)][Internal Panel(eDP)][Internal Panel(eDP II)][DVI-D(III)][DVI-D(IV)][DVI-D(V)][DVI-D(VI)][DVI-D(VII)][DVI-D(VIII)]
Value	Automatic
Parameter	Monitor
Registry	`x.xserver%.screen5.connector`
Range	[Automatic][VGA][VGA(II)][DVI-D][DVI-D(II)][DisplayPort][DisplayPort(II)][DisplayPort(III)][DisplayPort(IV)][DisplayPort(V)][DisplayPort(VI)][DisplayPort(VII)][DisplayPort(VIII)][HDMI][HDMI(II)][HDMI(III)][HDMI(IV)][HDMI(V)][HDMI(VI)][HDMI(VII)][HDMI(VIII)][Internal Panel(LVDS)][Internal Panel(LVDS II)][Internal Panel(eDP)][Internal Panel(eDP II)][DVI-D(III)][DVI-D(IV)][DVI-D(V)][DVI-D(VI)][DVI-D(VII)][DVI-D(VIII)]
Value	Automatic
Parameter	Monitor
Registry	`x.xserver%.screen6.connector`

Range	[Automatic][VGA][VGA(II)][DVI-D][DVI-D(II)][DisplayPort][DisplayPort(II)][DisplayPort(III)][DisplayPort(IV)][DisplayPort(V)][DisplayPort(VI)][DisplayPort(VII)][DisplayPort(VIII)][HDMI][HDMI(II)][HDMI(III)][HDMI(IV)][HDMI(V)][HDMI(VI)][HDMI(VII)][HDMI(VIII)][Internal Panel(LVDS)][Internal Panel(LVDS II)][Internal Panel(eDP)][Internal Panel(eDP II)][DVI-D(III)][DVI-D(IV)][DVI-D(V)][DVI-D(VI)][DVI-D(VII)][DVI-D(VIII)]
Value	Automatic
Parameter	Monitor
Registry	`x.xserver%.screen7.connector`
Range	[Automatic][VGA][VGA(II)][DVI-D][DVI-D(II)][DisplayPort][DisplayPort(II)][DisplayPort(III)][DisplayPort(IV)][DisplayPort(V)][DisplayPort(VI)][DisplayPort(VII)][DisplayPort(VIII)][HDMI][HDMI(II)][HDMI(III)][HDMI(IV)][HDMI(V)][HDMI(VI)][HDMI(VII)][HDMI(VIII)][Internal Panel(LVDS)][Internal Panel(LVDS II)][Internal Panel(eDP)][Internal Panel(eDP II)][DVI-D(III)][DVI-D(IV)][DVI-D(V)][DVI-D(VI)][DVI-D(VII)][DVI-D(VIII)]
Value	Automatic

- Updated **ATI / Radeon graphic driver** to version **19.1.0** which fixed issues with radeon Xorg driver and rotation.
- Updated **amdgpu graphic driver** to version **22.0.0** which improves performance with DisplayLink USB solutions.

Audio

- Fixed audio output via **display port/HDMI for HP Elitedesk 800 G6**
- Fixed issues with **3.5mm audio jack on LG AiO 24CN67** and **24CN65** devices.

Hardware

- Improved **bluetooth stability**.

Notes for Release 11.08.110

Software:	Version	11.08.110
Release Date:	2022-09-15	
Release Notes:	Version	RN-1108110-1
Last update:	2022-09-15	

- Supported Devices 11.08.110(see page 37)
- Component Versions 11.08.110(see page 38)
- Known Issues 11.08.110(see page 46)
- Security Fixes 11.08.110(see page 51)
- New Features 11.08.110(see page 53)
- Resolved Issues 11.08.110(see page 57)

The Release Notes for IGEL OS 11.08.110 are also available in the following formats:

- Plain text: readme_11.08.110.txt

Supported Devices 11.08.110

UD2-LX:	UD2-LX 52
	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 20
	UD7-LX 11
	UD7-LX 10

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.08.110

Clients

Product	Version
Amazon WorkSpaces Client	3.1.9
Chromium	104.0.5112.79-igel1659897252
Cisco JVDI Client	14.1.1
Cisco Webex VDI plugin	42.6.0.22645
Cisco Webex Meetings VDI plugin	41.12.6.12
Cisco Webex Meetings VDI plugin	42.3.1.12
Cisco Webex Meetings VDI plugin	42.5.5.9
Zoom Media Plugin	5.10.0.21068
Zoom Media Plugin	5.10.6.21295
Zoom Media Plugin	5.8.4.21112
Citrix HDX Realtime Media Engine	2.9.400
Citrix Workspace App	20.10.0.6
Citrix Workspace App	22.03.0.24
Citrix Workspace App	22.05.0.16
deviceTRUST Citrix Channel	20.2.310.0
Crossmatch DP Citrix Channel	0125
Conky System Monitor	1.10.8-1
ControlUp Agent	8.1.5.500
deskMate Client	2.1.3
DriveLock Agent	20.1.4.30482
Ericom PowerTerm	14.0.1.62267
Evidian AuthMgr	1.5.8134
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech Plugins	3.8.0

FabulaTech USB for Remote Desktop	6.0.35
FabulaTech Scanner for Remote Desktop	2.7.0.1
FabulaTech Webcam for Remote Desktop	2.8.10
Firefox	91.9.1
IBM iAccess Client Solutions	1.1.8.6
IGEL RDP Client	2.2igel1648540238
IGEL AVD Client	1.0.99.7igel1651063614
deviceTRUST RDP Channel	20.2.310.0
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
Lakeside SysTrack Channel	9.0
Login VSI Enterprise	4.8.6
NCP Secure Enterprise Client	5.10_rev40552
NX Client	7.8.2-4igel1644853628
Open VPN	2.5.6-1igel1647855849
Zulu JRE	8.0.345-1
Parallels Client	18.3.1
Spice GTK (Red Hat Virtualization)	0.39-3igel1633543285
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.11.0-2igel1633506980
SpeechWrite	1.0
Stratusphere UX Connector ID Key software	6.6.0-3
Systancia AppliDis	6.0.0-4
Teradici PCoIP Software Client	22.04.0-18.04
ThinLinc Client	4.14.0-2324
ThinPrint Client	7-7.6.126
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	4.16.0-1igel1611217037
VNC Viewer	1.12.0+dfsg-3igel1644994551
VMware Horizon Client	2203-8.5.0-19586897

Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	2017/09/29
Grundig Business Systems dictation driver	0.12/21-12-21
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	4.0.2
Philips Speech driver	13.1.10

Signature

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.10
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7-20210902
PKCS#11 Library cryptovision sc/interface	8.0.13
PKCS#11 Library Thales SafeNet	10.8.28
PKCS#11 Library OpenSC	0.22.0-2igel1643799581
PKCS#11 Library SecMaker NetID Enterprise	6.8.3.21
PKCS#11 Library SecMaker NetID Client	1.0.2.67
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.8-1igel1632136057
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.5.0-2igel1646035471
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.9.5-3igel1646034250
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.10
OpenSSL	1.1.1-1ubuntu2.1~18.04.20
OpenSSH Client	8.9p1-3igel1646033299
OpenSSH Server	8.9p1-3igel1646033299
Bluetooth stack (bluez)	5.64-0igel1647863644
MESA OpenGL stack	21.3.7-1igel1646288715
VAAPI ABI Version	0.40
VDPAU Library version	1.4-3igel1099
Graphics Driver INTEL	2.99.917+git20210115-1igel1647326046
Graphics Driver ATI/RADEON	19.1.0-3igel1657777718
Graphics Driver ATI/AMDGPU	22.0.0-1igel1645768768
Graphics Driver Nouveau (Nvidia Legacy)	1.0.17-2igel1644486678
Graphics Driver Nvidia	470.129.06-0ubuntu0.21.10.1
Graphics Driver VMware	13.3.0-3igel1628859075
Graphics Driver QXL (Spice)	0.1.5-2build1igel1634304534
Graphics Driver FBDEV	0.5.0-2igel1644486279
Graphics Driver VESA	2.5.0-1igel1628504011
Input Driver Evdev	2.10.6-2igel1629196047
Input Driver Elographics	1.4.2-1igel1629196349
Input Driver eGalax	2.5.8825
Input Driver Synaptics	1.9.1-2igel1646823146
Input Driver VMMouse	13.1.0-1ubuntu2igel1628499891
Input Driver Wacom	0.39.0-0ubuntu1igel1629136980

Input Driver ELO Multitouch	3.0.0
Input Driver ELO Singletouch	5.1.0
Kernel	5.15.26 #mainline-lxos_dev-g1657794738
Xorg X11 Server	21.1.4igel1657689370
Xorg Xephyr	21.1.4igel1657689370
CUPS printing daemon	2.2.7-1ubuntu2.9igel1654064309
PrinterLogic	25.1.0.500
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel14
XFCE4 Window Manager	4.14.5-1~18.04igel1643191202
ISC DHCP Client	4.3.5-3ubuntu7.3
NetworkManager	1.32.12-0ubuntu1igel1656495558
ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 0.10 Fluendo aacdec	0.10.42
GStreamer 0.10 Fluendo asfdemux	0.10.92
GStreamer 0.10 Fluendo h264dec	0.10.59
GStreamer 0.10 Fluendo mp3dec	0.10.41
GStreamer 0.10 Fluendo mpegdemux	0.10.85
GStreamer 0.10 Fluendo mpeg4videodec	0.10.44
GStreamer 0.10 Fluendo vadec	0.10.229
GStreamer 0.10 Fluendo wmadec	0.10.70
GStreamer 0.10 Fluendo wmvdec	0.10.66
GStreamer 1.x	1.18.5-1igel1633086114
GStreamer 1.0 Fluendo aacdec	1.0.1
GStreamer 1.0 Fluendo asfdemux	1.0.1
GStreamer 1.0 Fluendo h264dec	1.0.3
GStreamer 1.0 Fluendo mp3dec	1.0.1
GStreamer 1.0 Fluendo mpeg4videodec	1.0.1
GStreamer 1.0 Fluendo vadec	1.0.2

GStreamer 1.0 Fluendo wmadec	1.0.1
GStreamer 1.0 Fluendo wmvdec	1.0.1
WebKit2Gtk	2.36.6-1igel1660197492
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.32-dfsg-1igel1643178233
Virtualbox X11 Guest Utils	6.1.32-dfsg-1igel1643178233
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.22.1-1igel1646032976
Qemu Guest Agent	7.0+dfsg-7igel1654064676

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.19-1igel1633453264
Mobile Device Access USB (imobile)	1.3.0-6igel12
Mobile Device Access USB (gphoto)	2.5.27-1igel8
VPN OpenConnect	8.20-1igel1645458039
Scanner support	1.0.27-1
VirtualBox VM within IGEL OS	6.1.32-dfsg-1igel1643178233

Services

Service	Size	Reduced Firmware
Asian Language Support	24.8 M	Included
Java SE Runtime Environment	43.2 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	373.8 M	Included

Ericom PowerTerm InterConnect	11.5 M	Included
Media Player	768.0 K	Included
Local Browser (Firefox) Citrix Appliance	94.5 M	Included
VMware Horizon RDP	6.5 M	Included
Cendio ThinLinc	12.8 M	Included
Printing (Internet printing protocol CUPS)	23.8 M	Included
NoMachine NX	30.8 M	Included
VMware Horizon	281.5 M	Included
Voice over IP (Ekiga)	7.2 M	Included
Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	30.8 M	Not included
Fluendo GStreamer Codec Plugins	7.2 M	Included
IBM i Access Client Solutions	128.2 M	Not included
Red Hat Enterprise Virtualization	3.0 M	Included
Parallels Client	6.8 M	Included
NVIDIA graphics driver	280.0 M	Not included
Imprivata Appliance	16.0 M	Included
AppliDis	256.0 K	Included
Evidian AuthMgr	3.0 M	Included
Hardware Video Acceleration	16.2 M	Included
Extra Font Package	1.2 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	4.2 M	Included
Cisco JVDI client	76.0 M	Included
PrinterLogic	53.2 M	Not included
Biosec BS Login	10.2 M	Not included
Login VSI Login Enterprise	32.8 M	Not included

Stratusphere UX CID Key software	8.5 M	Not included
Elastic Filebeat	25.0 M	Not included
AVD	129.5 M	Included
Local Browser (Chromium)	112.0 M	Not included
Amazon WorkSpaces Client	36.8 M	Included
deskMate client	6.5 M	Included
Cisco Webex VDI	78.2 M	Not included
Cisco Webex Meetings VDI	140.8 M	Not included
Zoom Media Plugin	136.5 M	Not included
DriveLock	14.8 M	Included
SpeechWrite Client	256.0 K	Included
IGEL Imprivata Agent	256.0 K	Included
Fluendo Browser Codec Plugins	4.5 M	Included
HP Factory deployment documentation	90.0 M	Included
Teradici PCoIP Client	17.5 M	Included
90meter Smart Card Support	256.0 K	Included
Virtualbox (Limited support) Mobile Device Access USB (Limited support) VPN OpenConnect (Limited support) Scanner support / SANE (Limited support) Limited Support Features	256.0 K	Not included
Mobile Device Access USB (Limited support)	512.0 K	Not included
VPN OpenConnect (Limited support)	1.2 M	Not included
Scanner support / SANE (Limited support)	2.8 M	Not included
VirtualBox (Limited support)	72.8 M	Not included

Known Issues 11.08.110

Citrix

- To launch **multiple desktop sessions** with Citrix HDX RTME and Citrix H.264 acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

- This workaround is not applicable when **Enable Secure ICA** is active for the specific delivery group.
- Adding **smartcard readers** during running / active sessions does not work. The **reader is visible, but cannot be used due to unknown reader status**. Only relevant for **CWA versions earlier than 2112**.
- There are known issues with **GStreamer 1.0** in combination with Citrix. These occur with **multimedia redirection of H.264, MPEG1, and MPEG2.** (GStreamer 1.0 is used if browser content redirection is enabled active.)
- **Browser content redirection** does not work with activated DRI3 and hardware-accelerated H.264 deep compression codec enabled.
- Enabled **DRI3** on an **AMD GPU with enabled Citrix H.264 acceleration** could lead to a **freeze**. **Selective H.264 mode (API v2) is not affected** by this issue.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- Currently, **H.264** for Citrix sessions **cannot be used in parallel with video input acceleration**.
- With start of Self-Service, it is possible that the process **ServiceRecord is segfaulted** - **Self-Service cannot be started afterwards**. A **cache cleanup with reboot** should help, also the **following parameters should be set to "true"**.
  More...

Parameter	Clean up UI cache after Self-Service termination
Registry	`ica.selfservice.cleanupwebui`
Value	<u>false</u> / true

Parameter	Clean up Store cache after Self-Service termination
Registry	`ica.selfservice.cleanupstore`
Value	<u>false</u> / true

OSC Installer

- **OSC not deployable with IGEL Deployment Appliance**: New version **11.3 is required** for deployment of IGEL OS 11.06. and later.

AVD

- **AVD MS-Teams optimization can crash the AVD client if H264 software decoder is used** (fluh264dec). AVD prefers the hardware decoders (fluvadec) but when there are no hardware decoders or when all hardware decoders are in use already, the software decoder is utilized, which may randomly crash the AVD client. It is likely when it crashes in a certain MS-Teams call, it might crash quite soon again when rejoining the same call. A fix for that is under development.
  A **workaround** is to **disable incoming video** in such MS-Teams calls, which is an option in the "..." menu from the control bar during an active call.
- **H264 hardware decoding for MS-Teams optimization** is currently **limited to non-AMD devices** due to stability issues on AMD devices.

VMware Horizon

- After **disconnect of an RDP-based session**, the **Horizon main window** which contains the server or sessions overview, **cannot be resized** anymore.
- **Copying Text from Horizon Blast sessions** is not possible.
- The **on-screen keyboard in Horizon appliance mode** does not work correctly with the local logon.
  It is necessary to switch off local logon and enable the following two keys via IGEL registry:
  `userinterface.softkeyboard.autoshow`
  `userinterface.softkeyboard.autohide`
- **Zoom VDI Media Plugin** versions **below 5.8.0** make **Horizon Client crash upon connection to the remote desktop** in cases when TC Setup is running at the same time.
- **With the usage of the PCoIP protocol, the virtual channel provided by VMware used for serial port and scanner redirection could freeze on logout** from the remote session.
  This **happens only with enabled scanner or serial port redirection**. The freeze does not occur if both redirection methods are enabled or none of them. **The Blast Protocol is not affected** by this bug.
  The respective settings can be found in the IGEL Registry:
  `vmware.view.enable-serial-port-redir`
  `vmware.view.enable-scanner-redir`
- **Keyboard Input Source Language Synchronization** works only with usage of **local layout and deadkeys enabled**.
  If a **keyboard layout is used which has deadkeys disabled** (which is the default on IGEL OS), **Horizon client falls back to en-US layout**.
- **PCoIP sessions may crash** in some cases, **switching to Blast Protocol is recommended** then.
  H.264/HEVC encoding can be **disabled** when **overall performance** is too **low**.

- **Client drive mapping and USB redirection for storage devices** can be enabled at the same time, but this could lead to sporadical problems.
  Horizon Client tracks the drives which are dynamically mounted and adds them to the remote session using client drive mapping, means USB redirection is not used for these devices then. However, in case of devices like USB SD card readers, Horizon does not map them as client drives but forcefully uses USB redirection which results in an unclean unmount.
  As a **workaround**, the IDs of these card readers can be added to IGEL USB access rules and denied.

Parallels Client

- **Attached storage devices appear as network drives** in the remote session.
- **USB device redirection** is considered **experimental for the Parallels client for Linux**.

Firefox

- With **enabled Citrix Browser Content Redirection (BCR)**, **Firefox has no H.264 and AAC multimedia codec support**. This means **when codec support is needed in Firefox, BCR needs to be disabled**. Citrix Browser Content Redirection is disabled by default.

Network

- **Wakeup** from system suspend **fails on DELL Latitude 5510**.
- If applications are configured to start after established network connection and network mounts are configured, **spurious "Failed to start application" notifications** may be shown. The applications still start.

Wi-Fi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Cisco JVDI Client

- There may be a **segfault** shown in the logs (during log out of Citrix Desktop session). Occurs only when using **Citrix Workspace app 2010** and **Cisco JVDI**.

Base system

- **Hyper-V (Generation 2) needs a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.
- **Update from memory stick requires network online state** (at least when multiple update stages are triggered / necessary).

Conky

- The **right screen when using a multiscreen environment** may not be shown correctly. **Workaround**: The horizontal offset should be set to the width of the monitor (e.g. if the monitor has a width of 1920, the offset should be set to 1920).

Firmware Update

- On **devices with 2 GB of flash** storage, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Please visit Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a possible solution and additional information.

Appliance Mode

- When ending a **Citrix session in browser appliance mode**, the browser is restarted twice instead of once.
- Appliance mode RHEV/Spice: **spice-xpi firefox plugin** is no longer supported. The **Console Invocation** has to allow **Native** client (**auto** is also possible) and should be started in fullscreen to prevent any opening windows.
- **Browser Appliance mode** can fail when the **Web URL contains special control characters** like ampersands (& character). **Workaround**: Add quotes at the beginning and the end of an affected URL. Example: 'https://www.google.com/search?q=aSearchTerm&source=lnms&tbm=isch'

Audio

- **IGEL UD2 (D220)** fails to restore the **volume level** of the speaker when the device used firmware version 11.01.110 before.
- **Audio jack detection** on **Advantech POC-W243L** does not work. Therefore, sound output goes through a possibly connected headset and also the internal speakers.
- **UD3 M340C**: **Sound preferences** are **showing Headphone & Microphone**, although not connected.

Multimedia

- Multimedia redirection with **GStreamer** could fail when using **Nouveau GPU** driver.

Hardware

- Some newer **Delock 62599 active DisplayPort to DVI (4k)** adapters only work on INTEL-based devices.

Remote Management

- **AIT feature** with **IGEL Starter License** is only supported by UMS version 6.05.100 or newer.

Security Fixes 11.08.110

Chromium

- Fixed Chromium browser security issues:
  More...

  CVE-2022-2624, CVE-2022-2623, CVE-2022-2622, CVE-2022-2621, CVE-2022-2620,
  CVE-2022-2619, CVE-2022-2618, CVE-2022-2617, CVE-2022-2616, CVE-2022-2615,
  CVE-2022-2614, CVE-2022-2613, CVE-2022-2612, CVE-2022-2611, CVE-2022-2610,
  CVE-2022-2609, CVE-2022-2608, CVE-2022-2607, CVE-2022-2606, CVE-2022-2605,
  CVE-2022-2604, CVE-2022-2603, CVE-2022-2481, CVE-2022-2480, CVE-2022-2479,
  CVE-2022-2478, CVE-2022-2477, and CVE-2022-2163

- Fixed Chromium browser security issues:
  More...

  CVE-2022-2296, CVE-2022-2295, CVE-2022-2294, CVE-2022-2165, CVE-2022-2164,
  CVE-2022-2163, CVE-2022-2162, CVE-2022-2161, CVE-2022-2160, CVE-2022-2158,
  CVE-2022-2157, CVE-2022-2156, CVE-2022-2011, CVE-2022-2010, CVE-2022-2008, and CVE-2022-2007

- **Google** is **aware** that an **exploit for CVE-2022-2294 exists in the wild**.
- Updated **Chromium** browser to version **104.0.5112.79**

Base System

- Fixed **gnupg2** security issues CVE-2019-13050 and CVE-2022-34903.
- Fixed **cups** security issues CVE-2022-26691, CVE-2020-10001, and CVE-2019-8842.
- Fixed **ntfs-3g** security issues:
  More...

  CVE-2022-30789, CVE-2022-30788, CVE-2022-30787,CVE-2022-30786,
  CVE-2022-30785, CVE-2022-30784, CVE-2022-30783, and CVE-2021-46790

- Fixed **libvirt** security issue CVE-2022-0897.
- Fixed **qemu** security issue CVE-2021-3611.
- Fixed **webkit2gtk** security issues:
  More...

  CVE-2022-26710, CVE-2022-22677, CVE-2022-22662, CVE-2022-30294,
  CVE-2022-30293, CVE-2022-26719, CVE-2022-26717, CVE-2022-26716,
  CVE-2022-26709, and CVE-2022-26700

- Fixed **openssl1.0** security issue CVE-2022-2068.
- Fixed **openssl** security issues CVE-2022-2097 and CVE-2022-2068.
- Fixed **libarchive** security issue CVE-2022-26280.
- Fixed **ffmpeg** security issues DSA-5124-1 and DSA-5126-1.
- Fixed **nss** security issues CVE-2022-34480 and CVE-2022-22747.
- Fixed **kernel** security issue CVE-2022-32250.
- Fixed **libtirpc** security issue CVE-2021-46828.

- Fixed **unzip** security issues CVE-2022-0530 and CVE-2022-0529.
- Fixed **freetype** security issues CVE-2022-31782, CVE-2022-27406, CVE-2022-27405, and CVE-2022-27404.
- Fixed **gnutls28** security issues CVE-2022-2509 and CVE-2021-4209.
- Fixed **mysql-5.7** security issue CVE-2022-21515.
- Fixed **python2.7** security issue CVE-2015-20107.
- Fixed **python3.6** security issue CVE-2015-20107.
- Fixed **net-snmp** security issues:
  More...

  CVE-2022-24810, CVE-2022-24809, CVE-2022-24808,
  CVE-2022-24807, CVE-2022-24806, CVE-2022-24805, and CVE-2022-248

- Fixed **zulu8-ca** security issues CVE-2022-34169, CVE-2022-25647, CVE-2022-21541, and CVE-2022-21540.
- Fixed **curl** security issues CVE-2022-32208, CVE-2022-32207, CVE-2022-32206, and CVE-2022-32205.
- Fixed **postgresql-10** security issue CVE-2022-1552.
- Fixed **webkit2gtk** security issues CVE-2022-32816, CVE-2022-32792, and CVE-2022-2294.

X Server

- Fixed **xorg** security issues CVE-2022-2319 and CVE-2022-2320.
- Updated **Xorg** server to version **21.1.4**.

New Features 11.08.110

VMware Horizon

- Added system-wide handler to **start links which use the vmware-view protocol**.
  View session can now be started by Chromium or any other application which uses xdg-open.

Chromium

- Added **list and dictionary support for custom policies**.

Smartcard

- Added **support for Cherry eHealth ST-1506 in USB RNDIS mode**. There is a systray icon per device. The tooltip says whether it is connected or disconnected in terms of network configuration. **Per device, one instance** of the template `devices.cherry.terminal%` **must be created and configured. By default, none is configured and so the feature is essentially disabled.**
- This is for potentially distinguishing multiple connected devices and **may contain a MAC address or the value of the udev property** `ID_NET_NAME_PATH`. It **may be left empty if only one device shall be supported**:

Parameter	Device ID
Registry	`devices.cherry.terminal%.rndis.device_id`
Type	string
Value	empty (Default)
Parameter	Device IP address
Registry	`devices.cherry.terminal%.rndis.device_ipaddress`
Type	string
Value	192.168.42.42 (Default)
Parameter	Host IP address
Registry	`devices.cherry.terminal%.rndis.host_ipaddress`
Type	string
Value	192.168.42.1 (Default)

- This port on the host will be passed through to the same port on the device:

Parameter	Device TCP port
Registry	`devices.cherry.terminal%.rndis.device_tcpport`
Type	string
Value	4742 (Default)

- This port on the host will be passed through to the same port on the device:

Parameter	Passed through device UDP port
Registry	`devices.cherry.terminal%.rndis.device_udpport`
Type	string
Value	4742 (Default)

- This port on the host will be forwarded to the device's port 443:

Parameter	Host SSL port
Registry	`devices.cherry.terminal%.rndis.host_sslport`
Type	string
Value	empty (Default)

- Added support for **concurrent usage of multiple smartcard middleware libraries for authentication with smartcard to Active Directory / Kerberos and Citrix**.
  In the Setup on page **Security > Smartcard > Middleware**, multiple libraries can be activated. **If none is activated, OpenSC is taken as fallback**.

Cisco Webex

- Integrated **WebEx VDI Client 42.6.0.22645**

Base System

- Added **LVFS utility for BIOS update**. For detailed instructions, see BIOS Update for Devices Supported by LVFS.

  ⚠ Please note: IGEL supports just the mechanism – BIOS updates are executed at own risk (as usual).

Parameter	Allow installation of bios version that's older than current.
Registry	`fwtools.bios_tools.allow_downgrade`
Value	enabled / <u>disabled</u>

Parameter	Allow installation of bios version that's equivalent to current.
Registry	`fwtools.bios_tools.allow_reinstall`
Value	enabled / <u>disabled</u>

- Added parameter for LVFS BIOS update:

IGEL Setup	**System > Firmware Customization > Features**
Parameter	BIOS Tools
Registry	`services.bios_tools.enabled`
Value	enabled / <u>disabled</u>
Parameter	BIOS Update file
Registry	`fwtools.bios_tools.bios_update_file`
Value	empty (Default)
Note	The URL or path to the BIOS Update binary must be entered here (e.g. any `*.cab` file for LVFS). LVFS BIOS Updates can be downloaded at https://fwupd.org/lvfs/.

- Download credentials:

Parameter	Download Username
Registry	`fwtools.bios_tools.bios_download_username`
Value	empty (Default)
Parameter	Download Password
Registry	`fwtools.bios_tools.bios_download_crypt_password`
Value	empty (Default)

- **Known issue**: **No support for BIOS password handling**.

- Added a Generic Device **Command "BIOS - Trigger update" to trigger BIOS updates via UMS**.
- Added new registry key to **disable DisplayPort MST support of amdgpu driver**:

Parameter	Disable DP MST support of the AMDPU DRM driver.
Registry	`x.drivers.amdgpu.disable_dp_mst_support`
Type	bool
Value	enabled / <u>disabled</u>

X11 System

- Updated **ATI/Radeon graphic driver** to version **19.1.0**.
- Updated **amdgpu graphic driver** to version **22.0.0**.

Login Enterprise

- Updated **Login VSI Enterprise** to version **4.8.6**.

zoomvdi

- Integrated **Zoom VDI client 5.10.6.21295**
  Available Zoom Media Plugins in this release: **5.8.4.21112, 5.10.0.21068**, and **5.10.6.21295** (default)

Multimedia

- Updated **Fluendo GStreamer 1.x multimedia codecs** to **fix stability problems with AVD Teams** Optimization:
  More...

gst-fluendo-aacdec	1.0.1
gst-fluendo-asfdemux	1.0.1
gst-fluendo-h264dec	1.0.3
gst-fluendo-mp3	1.0.1
gst-fluendo-mpeg4video	1.0.1
gst-fluendo-vadec - h264_mpeg4	1.0.2
gst-fluendo-wmadec	1.0.1
gst-fluendo-wmvdec	1.0.1

Hardware

- Added hardware support for **HP T655 Elite Thin Client**.

TC Setup (Java)

- Updated **TC Setup** to version **6.10.3**.

Resolved Issues 11.08.110

Citrix

- Fixed: **Random disconnects, segfaults or session freezes with enabled H.264 decoding** in Citrix sessions.
- Improved **keyboard layout synchronization**:
    - required setting: `ica.module.virtualdriver.keyboardsync.enable=true` (**changed to default=true**)
    - for configuring the **new KeyboardSyncMode**. Windows Server may require config, see https://docs.citrix.com/en-us/citrix-workspace-app-for-linux/configure-xenapp.htm#keyboard-layout-synchronization:
    default for `ica.wfclient.keyboardsyncmode` **changed to "dynamic"**
    - for configuring **new KeyboardEventMode**:
    default for `ica.wfclient.keyboardeventmode` **changed to "Unicode"**

AVD

- Fixed stability issues of **MS Teams Optimization in AVD with enabled H.264 decoding** via updated Fluendo codec pack and switch of Radeon(SI) driver from **vdpau to vaapi**.

Chromium

- Added : User is **asked where to save each file before downloading** for the case no download location is set.
- Fixed **hardware accelerated video decoding on** newer **Intel chipsets** using **the iHD VA-API backend**.

Network

- Fixed **MBB connection editor**
- Fixed negotiation of inner method for **802.1X PEAP authentication**

Wi-Fi

- Added registry key for **set of WPA supplicant parameter** `wpa_deny_ptk0_rekey`.
This **should be changed to "driver-dependent"** (i.e. deny unless driver explicitly asserts capability) **or "always"** if WLAN problems are associated with messages of the form " `kernel: Rekeying PTK for STA ... but driver can't safely do that` ".
The default "**never**" preserves the traditional behavior.
More...

Parameter	Deny PTK0 rekey
Registry	`network.interfaces.wirelesslan.device0.wpa_deny_ptk0_rekey`
Range	[never] [driver-dependent] [always]
Value	never

- Added missing **German text for Wi-Fi passphrase**.
- Added missing **firmware files for Intel AX210 Wi-Fi adapters**.

HID

- Fixed **touchpad acceleration** if **libinput** driver is used.

Base System

- Fixed failed **firmware update from servers with low bandwidth**.
- Fixed **touchpad** enable / disable by **hotkey**.
- Fixed **sporadic downgrade issue** - as occured **with 11.07.191**.
- Added several registry keys to **set new kernel commandline options**:
  More...

Parameter	Use polling for IRQs.
Registry	`system.kernel.bootparams.irqpoll`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Disable use of Hyperthreading.
Registry	`system.kernel.bootparams.nosmt`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Enable debug output for i8042 driver.
Registry	`system.kernel.bootparams.i8042.debug`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Do not use muxing for i8042 driver.
Registry	`system.kernel.bootparams.i8042.nomux`

Type	bool
Value	enabled / <u>disabled</u>
Parameter	Disable use of PnP configuration for i8042 driver.
Registry	`system.kernel.bootparams.i8042.nopnp`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Disable use of AUX loopback command for i8042 driver.
Registry	`system.kernel.bootparams.i8042.noloop`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Ignore timeout signaled by controller for i8042 driver.
Registry	`system.kernel.bootparams.i8042.notimeout`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Reset controller during init for i8042 driver.
Registry	`system.kernel.bootparams.i8042.reset`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Set PCI kernel parameters.
Registry	`system.kernel.bootparams.pci`
Range	[No setting] [Conf1] [Conf2] [Nodomains] [Nommconf] [Nomsi] [Nocrs] [Noacpi] [Routeirq]
Value	No setting
Parameter	Set kernel clocksource to use.
Registry	`system.kernel.bootparams.clocksource`
Range	[Default] [Jiffies] [ACPI PM] [HPET] [TSC]
Value	no
Parameter	PCIe Active State Power Management setting.

Registry	`system.kernel.bootparams.pcie_aspm`
Range	[On] [Off]
Value	On
Parameter	Dynamic ticks setting.
Registry	`system.kernel.bootparams.nohz`
Range	[On] [Off]
Value	On
Parameter	Delay in seconds before new devices are scanned.
Registry	`system.kernel.bootparams.usb_storage_delay`
Type	integer
Value	0 (Default)

X11 System

- Added a new registry key to enable the old monitor connector scheme:
  More...

Parameter	Use old DP connector setup name handling.
Registry	`x.drm_daemon.use_legacy_dp_handling`
Type	bool
Value	enabled / <u>disabled</u>

- Updated **ati/radeon** graphic driver to **version 19.1.0** which **fixed issues with radeon Xorg driver and rotation**.

X Server

- Fixed **DisplayPort on Shuttle DS77U** device.
- Some **older ATI/Radeon cards have issues with current Xorg servers**. For that reason, switch to an older one was added.
  Added a new registry key to switch to an older Xorg server version:
  More...

Parameter	Use older xorg server version.
Registry	`x.server.use_legacy_xorg_server`
Type	bool

Value	enabled / disabled

Audio

- Fixed **audio output via display port/HDMI for HP Elitedesk 800 G6**
- Use this registry key to **set the default audio device as fallback device after device unplug**: **More...**

Parameter	Use default audio device as fallback device
Registry	`multimedia.use_default_fallback`
Type	bool
Value	enabled / disabled

Hardware

- Fixed **ADS-TEC front key**.
- Fixed issue with **Intel Elkhart devices like HP t550**.

Notes for Release 11.07.920

Software:	Version	11.07.920
Release Date:	2022-09-15	
Release Notes:	Version	RN-1107920-1
Last update:	2022-09-15	

The Release Notes for IGEL OS 11.07.920 are also available in the following formats:

- Plain text: readme_11.07.920.txt

Supported Devices 11.07.920

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 20
	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.07.920

Clients

Product	Version
Amazon WorkSpaces Client	3.1.9
Chromium	104.0.5112.79-igel1659897252
Cisco JVDI Client	14.1.1
Cisco Webex VDI plugin	42.4.0.21893
Cisco Webex Meetings VDI plugin	41.12.6.12
Cisco Webex Meetings VDI plugin	42.3.1.12
Cisco Webex Meetings VDI plugin	42.5.5.9
Zoom Media Plugin	5.10.0.21068
Zoom Media Plugin	5.10.6.21295
Zoom Media Plugin	5.8.4.21112
Citrix HDX Realtime Media Engine	2.9.400
Citrix Workspace App	20.10.0.6
Citrix Workspace App	22.03.0.24
Citrix Workspace App	22.05.0.16
deviceTRUST Citrix Channel	20.2.310.0
Crossmatch DP Citrix Channel	0125
Conky System Monitor	1.10.8-1
ControlUp Agent	8.1.5.500
deskMate Client	2.1.3
DriveLock Agent	20.1.4.30482
Ericom PowerTerm	14.0.1.62267
Evidian AuthMgr	1.5.8134
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech Plugins	3.8.0

FabulaTech USB for Remote Desktop	6.0.35
FabulaTech Scanner for Remote Desktop	2.7.0.1
FabulaTech Webcam for Remote Desktop	2.8.10
Firefox	91.9.1
IBM iAccess Client Solutions	1.1.8.6
IGEL RDP Client	2.2igel1648540238
IGEL AVD Client	1.0.99.7igel1651063614
deviceTRUST RDP Channel	20.2.310.0
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
Lakeside SysTrack Channel	9.0
Login VSI Enterprise	4.5.11
NCP Secure Enterprise Client	5.10_rev40552
NX Client	7.8.2-4igel1644853628
Open VPN	2.6.0~git20220808-1igel1660123886
Zulu JRE	8.0.345-1
Parallels Client	18.3.1
Spice GTK (Red Hat Virtualization)	0.39-3igel1633543285
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.11.0-2igel1633506980
SpeechWrite	1.0
Stratusphere UX Connector ID Key software	6.6.0-3
Systancia AppliDis	6.0.0-4
Teradici PCoIP Software Client	22.04.0-18.04
ThinLinc Client	4.14.0-2324
ThinPrint Client	7-7.6.126
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	4.16.0-1igel1611217037
VNC Viewer	1.12.0+dfsg-3igel1644994551
VMware Horizon Client	2203-8.5.0-19586897

Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	2017/09/29
Grundig Business Systems dictation driver	0.12/21-12-21
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	4.0.2
Philips Speech driver	13.1.10

Signature

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.10
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7-20210902
PKCS#11 Library cryptovision sc/interface	8.0.13
PKCS#11 Library Thales SafeNet	10.8.28
PKCS#11 Library OpenSC	0.22.0-2igel1643799581
PKCS#11 Library SecMaker NetID Enterprise	6.8.3.21
PKCS#11 Library SecMaker NetID Client	1.0.2.67
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.8-1igel1632136057
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.5.0-2igel1646035471
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.9.5-3igel1646034250
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.10
OpenSSL	1.1.1-1ubuntu2.1~18.04.20
OpenSSH Client	8.9p1-3igel1646033299
OpenSSH Server	8.9p1-3igel1646033299
Bluetooth stack (bluez)	5.64-0ubuntu1igel1660041146
MESA OpenGL stack	22.1.5-1igel1659869061
VAAPI ABI Version	0.40
VDPAU Library version	1.5-1igel1646992192
Graphics Driver INTEL	2.99.917+git20210115-1igel1647326046
Graphics Driver ATI/RADEON	19.1.0-3igel1657777718
Graphics Driver ATI/AMDGPU	22.0.0-2igel1657776223
Graphics Driver Nouveau (Nvidia Legacy)	1.0.17-2igel1644486678
Graphics Driver Nvidia	470.141.03-0ubuntu0.20.04.1
Graphics Driver VMware	13.3.0-3igel1628859075
Graphics Driver QXL (Spice)	0.1.5-2build1igel1634304534
Graphics Driver FBDEV	0.5.0-2igel1644486279
Graphics Driver VESA	2.5.0-1igel1628504011
Input Driver Evdev	2.10.6-2igel1629196047
Input Driver Elographics	1.4.2-1igel1629196349
Input Driver eGalax	2.5.8825
Input Driver Synaptics	1.9.1-2igel1646823146
Input Driver VMMouse	13.1.0-1ubuntu2igel1628499891
Input Driver Wacom	0.39.0-0ubuntu1igel1629136980

Input Driver ELO Multitouch	3.0.0
Input Driver ELO Singletouch	5.1.0
Kernel	5.17.15 #mainline-lxos_dev-g1659943300
Xorg X11 Server	21.1.4igel1657689370
Xorg Xephyr	21.1.4igel1657689370
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.500
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel14
XFCE4 Window Manager	4.14.5-1~18.04igel1643191202
ISC DHCP Client	4.3.5-3ubuntu7.3
NetworkManager	1.32.12-0ubuntu1igel1656495558
ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 0.10 Fluendo aacdec	0.10.42
GStreamer 0.10 Fluendo asfdemux	0.10.92
GStreamer 0.10 Fluendo h264dec	0.10.59
GStreamer 0.10 Fluendo mp3dec	0.10.41
GStreamer 0.10 Fluendo mpegdemux	0.10.85
GStreamer 0.10 Fluendo mpeg4videodec	0.10.44
GStreamer 0.10 Fluendo vadec	0.10.229
GStreamer 0.10 Fluendo wmadec	0.10.70
GStreamer 0.10 Fluendo wmvdec	0.10.66
GStreamer 1.x	1.18.5-1igel1633086114
GStreamer 1.0 Fluendo aacdec	0.10.42
GStreamer 1.0 Fluendo asfdemux	0.10.92
GStreamer 1.0 Fluendo h264dec	0.10.59
GStreamer 1.0 Fluendo mp3dec	0.10.41
GStreamer 1.0 Fluendo mpeg4videodec	0.10.44
GStreamer 1.0 Fluendo vadec	0.10.229

GStreamer 1.0 Fluendo wmadec	0.10.70
GStreamer 1.0 Fluendo wmvdec	0.10.66
WebKit2Gtk	2.36.6-1igel1660197492
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.32-dfsg-1igel1643178233
Virtualbox X11 Guest Utils	6.1.32-dfsg-1igel1643178233
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.22.1-1igel1646032976
Qemu Guest Agent	6.2+dfsg-3igel1646036781

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.19-1igel1633453264
Mobile Device Access USB (imobile)	1.3.0-6igel12
Mobile Device Access USB (gphoto)	2.5.29-1igel1653377622
VPN OpenConnect	9.01-1igel1657119743
Scanner support	1.0.27-1
VirtualBox VM within IGEL OS	6.1.32-dfsg-1igel1643178233

Services

Service	Size	Reduced Firmware
Asian Language Support	24.8 M	Included
Java SE Runtime Environment	43.2 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	373.8 M	Included

Ericom PowerTerm InterConnect	11.5 M	Included
Media Player	768.0 K	Included
Local Browser (Firefox) Citrix Appliance	94.5 M	Included
VMware Horizon RDP	6.5 M	Included
Cendio ThinLinc	12.8 M	Included
Printing (Internet printing protocol CUPS)	23.8 M	Included
NoMachine NX	30.8 M	Included
VMware Horizon	281.5 M	Included
Voice over IP (Ekiga)	7.2 M	Included
Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	30.8 M	Not included
Fluendo GStreamer Codec Plugins	7.5 M	Included
IBM i Access Client Solutions	128.2 M	Not included
Red Hat Enterprise Virtualization	3.0 M	Included
Parallels Client	6.8 M	Included
NVIDIA graphics driver	280.2 M	Not included
Imprivata Appliance	16.0 M	Included
AppliDis	256.0 K	Included
Evidian AuthMgr	3.0 M	Included
Hardware Video Acceleration	15.0 M	Included
Extra Font Package	1.2 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	4.2 M	Included
Cisco JVDI client	76.0 M	Included
PrinterLogic	53.2 M	Not included
Biosec BS Login	10.2 M	Not included
Login VSI Login Enterprise	32.8 M	Not included

Stratusphere UX CID Key software	8.5 M	Not included
Elastic Filebeat	25.0 M	Not included
AVD	129.5 M	Included
Local Browser (Chromium)	112.0 M	Not included
Amazon WorkSpaces Client	36.8 M	Included
deskMate client	6.5 M	Included
Cisco Webex VDI	77.0 M	Not included
Cisco Webex Meetings VDI	140.8 M	Not included
Zoom Media Plugin	136.5 M	Not included
DriveLock	14.8 M	Included
SpeechWrite Client	256.0 K	Included
IGEL Imprivata Agent	256.0 K	Included
Fluendo Browser Codec Plugins	4.5 M	Included
HP Factory deployment documentation	90.0 M	Included
Teradici PCoIP Client	17.5 M	Included
90meter Smart Card Support	256.0 K	Included
Virtualbox (Limited support) Mobile Device Access USB (Limited support) VPN OpenConnect (Limited support) Scanner support / SANE (Limited support) Limited Support Features	256.0 K	Not included
Mobile Device Access USB (Limited support)	512.0 K	Not included
VPN OpenConnect (Limited support)	1.2 M	Not included
Scanner support / SANE (Limited support)	2.8 M	Not included
VirtualBox (Limited support)	72.5 M	Not included

Known Issues 11.07.920

Citrix

- To launch **multiple desktop sessions** with Citrix HDX RTME and Citrix H.264 acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

- This workaround is not applicable when **Enable Secure ICA** is active for the specific delivery group.
- Adding **smartcard readers** during running / active sessions does not work. The **reader is visible, but cannot be used due to unknown reader status**. Only relevant for **CWA versions earlier than 2112**.
- There are known issues with **GStreamer 1.0** in combination with Citrix. These occur with **multimedia redirection of H.264, MPEG1, and MPEG2.** (GStreamer 1.0 is used if browser content redirection is enabled active.)
- **Browser content redirection** does not work with activated DRI3 and hardware-accelerated H.264 deep compression codec enabled.
- Enabled **DRI3** on an **AMD GPU with enabled Citrix H.264 acceleration** could lead to a **freeze**. **Selective H.264 mode (API v2) is not affected** by this issue.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- Currently, **H.264** for Citrix sessions **cannot be used in parallel with video input acceleration**.
- With start of Self-Service, it is possible that the process **ServiceRecord is segfaulted** - **Self-Service cannot be started afterwards**. A **cache cleanup with reboot** should help, also the **following parameters should be set to "true"**.
  More...

Parameter	Clean up UI cache after Self-Service termination
Registry	`ica.selfservice.cleanupwebui`
Value	<u>false</u> / true

Parameter	Clean up Store cache after Self-Service termination
Registry	`ica.selfservice.cleanupstore`
Value	<u>false</u> / true

OSC Installer

- **OSC not deployable with IGEL Deployment Appliance**: New version **11.3 is required** for deployment of IGEL OS 11.06. and later.

AVD

- **AVD MS-Teams optimization can crash the AVD client if H264 software decoder is used** (fluh264dec). AVD prefers the hardware decoders (fluvadec) but when there are no hardware decoders or when all hardware decoders are in use already, the software decoder is utilized, which may randomly crash the AVD client. It is likely when it crashes in a certain MS-Teams call, it might crash quite soon again when rejoining the same call. A fix for that is under development.
A **workaround** is to **disable incoming video** in such MS-Teams calls, which is an option in the "..." menu from the control bar during an active call.
- **H264 hardware decoding for MS-Teams optimization** is currently **limited to non-AMD devices** due to stability issues on AMD devices.

VMware Horizon

- After **disconnect of an RDP-based session**, the **Horizon main window** which contains the server or sessions overview, **cannot be resized** anymore.
- **Copying Text from Horizon Blast sessions** is not possible.
- The **on-screen keyboard in Horizon appliance mode** does not work correctly with the local logon.
It is necessary to switch off local logon and enable the following two keys via IGEL registry:
`userinterface.softkeyboard.autoshow`
`userinterface.softkeyboard.autohide`
- **Zoom VDI Media Plugin** versions **below 5.8.0** make **Horizon Client crash upon connection to the remote desktop** in cases when TC Setup is running at the same time.
- **With the usage of the PCoIP protocol, the virtual channel provided by VMware used for serial port and scanner redirection could freeze on logout** from the remote session.
This **happens only with enabled scanner or serial port redirection**. The freeze does not occur if both redirection methods are enabled or none of them. **The Blast Protocol is not affected** by this bug.
The respective settings can be found in the IGEL Registry:
`vmware.view.enable-serial-port-redir`
`vmware.view.enable-scanner-redir`
- **Keyboard Input Source Language Synchronization** works only with usage of **local layout and deadkeys enabled**.
If a **keyboard layout is used which has deadkeys disabled** (which is the default on IGEL OS), **Horizon client falls back to en-US layout**.
- **PCoIP sessions may crash** in some cases, **switching to Blast Protocol is recommended** then.
H.264/HEVC encoding can be **disabled** when **overall performance** is too **low**.

- **Client drive mapping and USB redirection for storage devices** can be enabled at the same time, but this could lead to sporadical problems.
  Horizon Client tracks the drives which are dynamically mounted and adds them to the remote session using client drive mapping, means USB redirection is not used for these devices then. However, in case of devices like USB SD card readers, Horizon does not map them as client drives but forcefully uses USB redirection which results in an unclean unmount.
  As a **workaround**, the IDs of these card readers can be added to IGEL USB access rules and denied.

Parallels Client

- **Attached storage devices appear as network drives** in the remote session.
- **USB device redirection** is considered **experimental for the Parallels client for Linux**.

Firefox

- With **enabled Citrix Browser Content Redirection (BCR)**, **Firefox has no H.264 and AAC multimedia codec support**. This means **when codec support is needed in Firefox, BCR needs to be disabled**. Citrix Browser Content Redirection is disabled by default.

Network

- **Wakeup** from system suspend **fails on DELL Latitude 5510**.
- If applications are configured to start after established network connection and network mounts are configured, **spurious "Failed to start application" notifications** may be shown. The applications still start.

Wi-Fi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Cisco JVDI Client

- There may be a **segfault** shown in the logs (during log out of Citrix Desktop session). Occurs only when using **Citrix Workspace app 2010** and **Cisco JVDI**.

Base system

- **Hyper-V (Generation 2) needs a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.
- **Update from memory stick requires network online state** (at least when multiple update stages are triggered / necessary).

Conky

- The **right screen when using a multiscreen environment** may not be shown correctly.
  Workaround: The horizontal offset should be set to the width of the monitor (e.g. if the monitor has a width of 1920, the offset should be set to 1920).

Firmware Update

- On **devices with 2 GB of flash** storage, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Please visit Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a possible solution and additional information.

Appliance Mode

- When ending a **Citrix session in browser appliance mode**, the browser is restarted twice instead of once.
- Appliance mode RHEV/Spice: **spice-xpi firefox plugin** is no longer supported.
  The **Console Invocation** has to allow **Native** client (**auto** is also possible) and should be started in fullscreen to prevent any opening windows.
- **Browser Appliance mode** can fail when the **Web URL contains special control characters** like ampersands (& character).
  Workaround: Add quotes at the beginning and the end of an affected URL. Example: 'https://www.google.com/search?q=aSearchTerm&source=lnms&tbm=isch'

Audio

- **IGEL UD2 (D220)** fails to restore the **volume level** of the speaker when the device used firmware version 11.01.110 before.
- **Audio jack detection** on **Advantech POC-W243L** does not work. Therefore, sound output goes through a possibly connected headset and also the internal speakers.
- **UD3 M340C**: **Sound preferences** are **showing Headphone & Microphone**, although not connected.

Multimedia

- Multimedia redirection with **GStreamer** could fail when using **Nouveau GPU** driver.

Hardware

- Some newer **Delock 62599 active DisplayPort to DVI (4k)** adapters only work on INTEL-based devices.

Remote Management

- **AIT feature** with **IGEL Starter License** is only supported by UMS version 6.05.100 or newer.

Security Fixes 11.07.920

Chromium

- Fixed Chromium browser security issues:
  More...

  CVE-2022-2624, CVE-2022-2623, CVE-2022-2622, CVE-2022-2621,
  CVE-2022-2620, CVE-2022-2619, CVE-2022-2618, CVE-2022-2617,
  CVE-2022-2616, CVE-2022-2615, CVE-2022-2614, CVE-2022-2613,
  CVE-2022-2612, CVE-2022-2611, CVE-2022-2610, CVE-2022-2609,
  CVE-2022-2608, CVE-2022-2607, CVE-2022-2606, CVE-2022-2605,
  CVE-2022-2604, CVE-2022-2603, CVE-2022-2481, CVE-2022-2480,
  CVE-2022-2479, CVE-2022-2478, CVE-2022-2477, and CVE-2022-2163

- Fixed Chromium browser security issues:
  More...

  CVE-2022-2296, CVE-2022-2295, CVE-2022-2294, CVE-2022-2165,
  CVE-2022-2164, CVE-2022-2163, CVE-2022-2162, CVE-2022-2161,
  CVE-2022-2160, CVE-2022-2158, CVE-2022-2157, CVE-2022-2156,
  CVE-2022-2011, CVE-2022-2010, CVE-2022-2008, and CVE-2022-2007

- **Google** is aware that an **exploit for CVE-2022-2294 exists in the wild**.
- Updated **Chromium** browser to **version 104.0.5112.79**

Base System

- Fixed **libinput** security issue CVE-2020-1215.
- Fixed **libarchive** security issue CVE-2022-26280.
- Fixed **ntfs-3g** security issues:
  More...

  CVE-2022-30789, CVE-2022-30788, CVE-2022-30787, CVE-2022-30786,
  CVE-2022-30785, CVE-2022-30784, CVE-2022-30783, and CVE-2021-46790

- Fixed **openssl1.0** security issues CVE-2022-2068 and CVE-2022-1292.
- Fixed **openssl** security issues CVE-2022-2097, CVE-2022-2068, and CVE-2022-1292.
- Fixed **gnupg2** security issues CVE-2022-34903 and CVE-2019-13050.
- Fixed **webkit2gtk** security issues:
  More...

  CVE-2022-26710, CVE-2022-22677, CVE-2022-22662, CVE-2022-30294,
  CVE-2022-30293, CVE-2022-26719, CVE-2022-26717, CVE-2022-26716,
  CVE-2022-26709, and CVE-2022-26700

- Fixed **nss** security issues CVE-2022-34480 and CVE-2022-22747.
- Fixed **Nvidia** graphics driver 470 security issues CVE-2022-31607 and CVE-2022-31608.
- Updated **Nvidia** graphics driver to **version 470.141.03**.
- Fixed **curl** security issues CVE-2022-32208, CVE-2022-32207, CVE-2022-32206, and CVE-2022-32205.

- Fixed **unzip** security issues CVE-2022-0530 and CVE-2022-0529.
- Fixed **freetype** security issues CVE-2022-31782, CVE-2022-27406, CVE-2022-27405, and CVE-2022-27404.
- Fixed **gnutls28** security issues CVE-2022-2509 and CVE-2021-4209.
- Fixed **mysql-5.7** security issue CVE-2022-21515.
- Fixed **python2.7** security issue CVE-2015-20107.
- Fixed **python3.6** security issue CVE-2015-20107.
- Fixed **net-snmp** security issues:
  More...

  CVE-2022-24810, CVE-2022-24809, CVE-2022-24808,
  CVE-2022-24807, CVE-2022-24806, CVE-2022-24805, and CVE-2022-248

- Fixed **zulu8-ca** security issues CVE-2022-34169, CVE-2022-25647, CVE-2022-21541, and CVE-2022-21540.
- Updated **zulu8-ca JRE** to **version 8.0.345**.
- Fixed **libtirpc** security issue CVE-2021-46828.
- Updated **Intel microcode** to **version 20220809** which fixed security issue CVE-2022-21233.
- Fixed **postgresql-10** security issue CVE-2022-1552.
- Fixed **webkit2gtk** security issues CVE-2022-32816, CVE-2022-32792, and CVE-2022-2294.
- Updated **webkit2gtk** to **version 2.36.6**.

X Server

- Fixed **xorg** security issues CVE-2022-2319 and CVE-2022-2320.
- Updated **Xorg server** to **version 21.1.4**.

New Features 11.07.920

Chromium

- Added **list and dictionary support for custom policies**.

Base System

- Added new registry key to disable **DisplayPort MST** support of **amdgpu driver**.
  More...

Parameter	Disable DP MST support of the AMDPU DRM driver.
Registry	`x.drivers.amdgpu.disable_dp_mst_support`
Type	bool
Value	enabled / <u>disabled</u>

- Updated **kernel** to version **5.17.15**.
- Updated **VDPAU** library to version **1.5**.
- Updated **gphoto** library to version **2.5.29**.
- Updated **OpenConnect VPN** client to version **9.01**.
- Updated **bluetooth stack (bluez)** to version **5.64**.
- Updated **OpenVPN** client to version **2.6.0 (with OpenVPN DCO support)**.
- Updated **MESA OpenGL stack** to version **22.1.5**.
- Updated **wireless regdb** to version **2022.06.06**.

X11 System

- Updated **ATI/Radeon** graphic driver to version **19.1.0**.
- Updated **amdgpu** graphic driver to version **22.0.0**.

zoomvdi

- Integrated **Zoom VDI** client **5.10.6.21295**
  Available Zoom Media Plugins in this release: **5.8.4.21112**, **5.10.0.21068**, and **5.10.6.21295** (default)

Hardware

- Updated **DisplayLink** driver to version **5.6.0**.
- Improved **performance of AMD devices** and **DisplayLink** solutions.

Resolved Issues 11.07.920

Chromium

- Added: User is **asked where to save each file before downloading** for the case no download location is set.
- Fixed **hardware accelerated video decoding** on newer **Intel chipsets** using the **iHD VA-API backend**.

Network

- Fixed **MBB connection editor**
- Fixed negotiation of inner method for **802.1X PEAP authentication**

Wi-Fi

- Added registry key for **set of WPA supplicant parameter** `wpa_deny_ptk0_rekey`.
  This should be changed to "**driver-dependent**" (i.e. deny unless driver explicitly asserts capability) or "**always**" if WLAN problems are associated with messages of the form "**kernel: Rekeying PTK for STA ... but driver can't safely do that**".
  The default "**never**" preserves the traditional behavior.
  More...

Parameter	Deny PTK0 rekey
Registry	`network.interfaces.wirelesslan.device0.wpa_deny_ptk0_rekey`
Range	[never] [driver-dependent] [always]
Value	never

- Added missing **German text for Wi-Fi passphrase**.
- Added missing **firmware files for Intel AX210 Wi-Fi adapters**.

HID

- Fixed **touchpad acceleration** if **libinput** driver is used.

Base System

- Fixed failed **firmware update from servers with low bandwidth**.
- Fixed **touchpad** enable / disable by **hotkey**.
- Fixed **sporadic downgrade issue** - as occured **with 11.07.191**.
- Added several registry keys to **set new kernel commandline options**:

More...

Parameter	Use polling for IRQs.
Registry	`system.kernel.bootparams.irqpoll`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Disable use of Hyperthreading.
Registry	`system.kernel.bootparams.nosmt`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Enable debug output for i8042 driver.
Registry	`system.kernel.bootparams.i8042.debug`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Do not use muxing for i8042 driver.
Registry	`system.kernel.bootparams.i8042.nomux`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Disable use of PnP configuration for i8042 driver.
Registry	`system.kernel.bootparams.i8042.nopnp`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Disable use of AUX loopback command for i8042 driver.
Registry	`system.kernel.bootparams.i8042.noloop`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Ignore timeout signaled by controller for i8042 driver.
Registry	`system.kernel.bootparams.i8042.notimeout`
Type	bool

Value	enabled / <u>disabled</u>
Parameter	Reset controller during init for i8042 driver.
Registry	`system.kernel.bootparams.i8042.reset`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Set PCI kernel parameters.
Registry	`system.kernel.bootparams.pci`
Range	[No setting] [Conf1] [Conf2] [Nodomains] [Nommconf] [Nomsi] [Nocrs] [Noacpi] [Routeirq]
Value	No setting
Parameter	Set kernel clocksource to use.
Registry	`system.kernel.bootparams.clocksource`
Range	[Default] [Jiffies] [ACPI PM] [HPET] [TSC]
Value	no
Parameter	PCIe Active State Power Management setting.
Registry	`system.kernel.bootparams.pcie_aspm`
Range	[On] [Off]
Value	On
Parameter	Dynamic ticks setting.
Registry	`system.kernel.bootparams.nohz`
Range	[On] [Off]
Value	On
Parameter	Delay in seconds before new devices are scanned.
Registry	`system.kernel.bootparams.usb_storage_delay`
Type	integer
Value	0 (Default)

X11 System

- Added a new registry key to enable the old monitor connector scheme:
  More...

Parameter	Use old DP connector setup name handling.
Registry	`x.drm_daemon.use_legacy_dp_handling`
Type	bool
Value	enabled / <u>disabled</u>

- Updated **ati/radeon** graphic driver to **version 19.1.0** which **fixed issues with radeon Xorg driver and rotation**.
- Updated **amdgpu** graphic driver to v**ersion 22.0.0** which **improves performance with DisplayLink USB solutions**.

X Server

- Fixed **DisplayPort on Shuttle DS77U** device.
- Some **older ATI/Radeon cards have issues with current Xorg servers**. For that reason, switch to an older one was added.
  Added a new registry key to switch to an older Xorg server version:
  More...

Parameter	Use older xorg server version.
Registry	`x.server.use_legacy_xorg_server`
Type	bool
Value	enabled / <u>disabled</u>

Audio

- Fixed **audio output via display port/HDMI for HP Elitedesk 800 G6**

Hardware

- Fixed issue with **Intel Elkhart devices like HP t550**.

Notes for Release 11.07.170

Software:	Version	11.07.170
Release Date:	2022-06-28	
Release Notes:	Version	RN-1107170-1
Last update:	2022-06-28	

- Supported Devices 11.07.170(see page 85)
- Component Versions 11.07.170(see page 86)
- Known Issues 11.07.170(see page 94)
- Security Fixes 11.07.170(see page 99)
- New Features 11.07.170(see page 100)
- Resolved Issues 11.07.170(see page 102)

The Release Notes for IGEL OS 11.07.170 are also available in the following formats:

- Plain text: readme11.07.170.txt

Supported Devices 11.07.170

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 20
	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.07.170

Clients

Product	Version
Amazon WorkSpaces Client	3.1.9
Chromium	102.0.5005.61-igel1653480432
Cisco JVDI Client	14.1.1
Cisco Webex VDI plugin	42.4.0.21893
Cisco Webex Meetings VDI plugin	41.12.6.12
Cisco Webex Meetings VDI plugin	42.3.1.12
Cisco Webex Meetings VDI plugin	42.5.5.9
Zoom Media Plugin	5.10.0.21068
Zoom Media Plugin	5.4.59458
Zoom Media Plugin	5.9.6.20931
Citrix HDX Realtime Media Engine	2.9.400
Citrix Workspace App	20.10.0.6
Citrix Workspace App	22.03.0.24
Citrix Workspace App	22.05.0.16
deviceTRUST Citrix Channel	20.2.310.0
Crossmatch DP Citrix Channel	0125
Conky System Monitor	1.10.8-1
ControlUp Agent	8.1.5.500
deskMate Client	2.1.3
DriveLock Agent	20.1.4.30482
Ericom PowerTerm	14.0.1.62267
Evidian AuthMgr	1.5.8134
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech Plugins	3.8.0

FabulaTech USB for Remote Desktop	6.0.35
FabulaTech Scanner for Remote Desktop	2.7.0.1
FabulaTech Webcam for Remote Desktop	2.8.10
Firefox	91.9.1
IBM iAccess Client Solutions	1.1.8.6
IGEL RDP Client	2.2igel1648540238
IGEL AVD Client	1.0.99.7igel1651063614
deviceTRUST RDP Channel	20.2.310.0
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
Lakeside SysTrack Channel	9.0
Login VSI Enterprise	4.5.11
NCP Secure Enterprise Client	5.10_rev40552
NX Client	7.8.2-4igel1644853628
Open VPN	2.5.6-1igel1647855849
Zulu JRE	8.0.332-1
Parallels Client	18.3.1
Spice GTK (Red Hat Virtualization)	0.39-3igel1633543285
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.11.0-2igel1633506980
SpeechWrite	1.0
Stratusphere UX Connector ID Key software	6.6.0-3
Systancia AppliDis	6.0.0-4
Teradici PCoIP Software Client	22.04.0-18.04
ThinLinc Client	4.14.0-2324
ThinPrint Client	7-7.6.126
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	4.16.0-1igel1611217037
VNC Viewer	1.12.0+dfsg-3igel1644994551
VMware Horizon Client	2203-8.5.0-19586897

Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	2017/09/29
Grundig Business Systems dictation driver	0.12/21-12-21
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	4.0.2
Philips Speech driver	13.1.10

Signature

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.10
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7-20210902
PKCS#11 Library cryptovision sc/interface	8.0.13
PKCS#11 Library Thales SafeNet	10.8.28
PKCS#11 Library OpenSC	0.22.0-2igel1643799581
PKCS#11 Library SecMaker NetID Enterprise	6.8.3.21
PKCS#11 Library SecMaker NetID Client	1.0.2.67
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.8-1igel1632136057
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.5.0-2igel1646035471
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.9.5-3igel1646034250
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.9
OpenSSL	1.1.1-1ubuntu2.1~18.04.17
OpenSSH Client	8.9p1-3igel1646033299
OpenSSH Server	8.9p1-3igel1646033299
Bluetooth stack (bluez)	5.64-0igel1647863644
MESA OpenGL stack	21.3.7-1igel1646288715
VAAPI ABI Version	0.40
VDPAU Library version	1.4-3igel1099
Graphics Driver INTEL	2.99.917+git20210115-1igel1647326046
Graphics Driver ATI/RADEON	19.1.0-2igel1629135948
Graphics Driver ATI/AMDGPU	22.0.0-1igel1645768768
Graphics Driver Nouveau (Nvidia Legacy)	1.0.17-2igel1644486678
Graphics Driver Nvidia	470.129.06-0ubuntu0.21.10.1
Graphics Driver VMware	13.3.0-3igel1628859075
Graphics Driver QXL (Spice)	0.1.5-2build1igel1634304534
Graphics Driver FBDEV	0.5.0-2igel1644486279
Graphics Driver VESA	2.5.0-1igel1628504011
Input Driver Evdev	2.10.6-2igel1629196047
Input Driver Elographics	1.4.2-1igel1629196349
Input Driver eGalax	2.5.8825
Input Driver Synaptics	1.9.1-2igel1646823146
Input Driver VMMouse	13.1.0-1ubuntu2igel1628499891
Input Driver Wacom	0.39.0-0ubuntu1igel1629136980

Input Driver ELO Multitouch	3.0.0
Input Driver ELO Singletouch	5.1.0
Kernel	5.15.26 #mainline-lxos-g1652790891
Xorg X11 Server	21.1.3igel1645782509
Xorg Xephyr	21.1.3igel1645782509
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.500
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel14
XFCE4 Window Manager	4.14.5-1~18.04igel1643191202
ISC DHCP Client	4.3.5-3ubuntu7.3
NetworkManager	1.32.12-0ubuntu1igel1641211455
ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 0.10 Fluendo aacdec	0.10.42
GStreamer 0.10 Fluendo asfdemux	0.10.92
GStreamer 0.10 Fluendo h264dec	0.10.59
GStreamer 0.10 Fluendo mp3dec	0.10.41
GStreamer 0.10 Fluendo mpegdemux	0.10.85
GStreamer 0.10 Fluendo mpeg4videodec	0.10.44
GStreamer 0.10 Fluendo vadec	0.10.229
GStreamer 0.10 Fluendo wmadec	0.10.70
GStreamer 0.10 Fluendo wmvdec	0.10.66
GStreamer 1.x	1.18.5-1igel1633086114
GStreamer 1.0 Fluendo aacdec	0.10.42
GStreamer 1.0 Fluendo asfdemux	0.10.92
GStreamer 1.0 Fluendo h264dec	0.10.59
GStreamer 1.0 Fluendo mp3dec	0.10.41
GStreamer 1.0 Fluendo mpeg4videodec	0.10.44
GStreamer 1.0 Fluendo vadec	0.10.229

GStreamer 1.0 Fluendo wmadec	0.10.70
GStreamer 1.0 Fluendo wmvdec	0.10.66
WebKit2Gtk	2.34.6-1igel1645163872
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.32-dfsg-1igel1643178233
Virtualbox X11 Guest Utils	6.1.32-dfsg-1igel1643178233
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.22.1-1igel1646032976
Qemu Guest Agent	6.2+dfsg-3igel1646036781

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.19-1igel1633453264
Mobile Device Access USB (imobile)	1.3.0-6igel12
Mobile Device Access USB (gphoto)	2.5.27-1igel8
VPN OpenConnect	8.20-1igel1645458039
Scanner support	1.0.27-1
VirtualBox VM within IGEL OS	6.1.32-dfsg-1igel1643178233

Services

Service	Size	Reduced Firmware
Asian Language Support	22.5 M	Included
Java SE Runtime Environment	36.5 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	322.0 M	Included

Ericom PowerTerm InterConnect	10.2 M	Included
Media Player	512.0 K	Included
Local Browser (Firefox) Citrix Appliance	81.5 M	Included
VMware Horizon RDP	5.5 M	Included
Cendio ThinLinc	11.0 M	Included
Printing (Internet printing protocol CUPS)	22.2 M	Included
NoMachine NX	27.2 M	Included
VMware Horizon	243.0 M	Included
Voice over IP (Ekiga)	6.5 M	Included
Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	27.0 M	Not included
Fluendo GStreamer Codec Plugins	6.5 M	Included
IBM i Access Client Solutions	128.2 M	Not included
Red Hat Enterprise Virtualization	2.8 M	Included
Parallels Client	6.0 M	Included
NVIDIA graphics driver	260.5 M	Not included
Imprivata Appliance	14.2 M	Included
AppliDis	256.0 K	Included
Evidian AuthMgr	2.8 M	Included
Hardware Video Acceleration	14.2 M	Included
Extra Font Package	1.0 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	3.8 M	Included
Cisco JVDI client	66.8 M	Included
PrinterLogic	47.8 M	Not included
Biosec BS Login	10.0 M	Not included
Login VSI Login Enterprise	28.8 M	Not included

Stratusphere UX CID Key software	7.5 M	Not included
Elastic Filebeat	22.2 M	Not included
AVD	113.8 M	Included
Local Browser (Chromium)	97.5 M	Not included
Amazon WorkSpaces Client	32.2 M	Included
deskMate client	5.8 M	Included
Cisco Webex VDI	70.8 M	Not included
Cisco Webex Meetings VDI	129.2 M	Not included
Zoom Media Plugin	124.0 M	Not included
DriveLock	13.2 M	Included
SpeechWrite Client	256.0 K	Included
IGEL Imprivata Agent	256.0 K	Included
Fluendo Browser Codec Plugins	4.0 M	Included
HP Factory deployment documentation	88.5 M	Included
Teradici PCoIP Client	15.5 M	Included
90meter Smart Card Support	256.0 K	Included
Virtualbox (Limited support) Mobile Device Access USB (Limited support) VPN OpenConnect (Limited support) Scanner support / SANE (Limited support) Limited Support Features	256.0 K	Not included
Mobile Device Access USB (Limited support)	256.0 K	Not included
VPN OpenConnect (Limited support)	1.2 M	Not included
Scanner support / SANE (Limited support)	2.5 M	Not included
VirtualBox (Limited support)	65.2 M	Not included

Known Issues 11.07.170

Citrix

- To launch **multiple desktop sessions** with Citrix HDX RTME and Citrix H.264 acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

- This workaround is not applicable when **Enable Secure ICA** is active for the specific delivery group.
- Adding **smartcard readers** during running / active sessions does not work. The **reader is visible, but cannot be used due to unknown reader status**. Only relevant for **CWA versions earlier than 2112**.
- There are known issues with **GStreamer 1.0** in combination with Citrix. These occur with **multimedia redirection of H.264, MPEG1, and MPEG2.** (GStreamer 1.0 is used if browser content redirection is enabled active.)
- **Browser content redirection** does not work with activated DRI3 and hardware-accelerated H.264 deep compression codec enabled.
- Enabled **DRI3** on an **AMD GPU with enabled Citrix H.264 acceleration** could lead to a **freeze**. **Selective H.264 mode (API v2) is not affected** by this issue.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- Currently, **H.264** for Citrix sessions **cannot be used in parallel with video input acceleration**.
- With start of Self-Service, it is possible that the process **ServiceRecord is segfaulted** - **Self-Service cannot be started afterwards**. A **cache cleanup with reboot** should help, also the **following parameters should be set to "true"**.
  More...

Parameter	Clean up UI cache after Self-Service termination
Registry	`ica.selfservice.cleanupwebui`
Value	<u>false</u> / true

Parameter	Clean up Store cache after Self-Service termination
Registry	`ica.selfservice.cleanupstore`
Value	<u>false</u> / true

OSC Installer

- **OSC not deployable with IGEL Deployment Appliance**: New version **11.3 is required** for deployment of IGEL OS 11.06. and later.

AVD

- **AVD MS-Teams optimization can crash the AVD client if H264 software decoder is used** (fluh264dec). AVD prefers the hardware decoders (fluvadec) but when there are no hardware decoders or when all hardware decoders are in use already, the software decoder is utilized, which may randomly crash the AVD client. It is likely when it crashes in a certain MS-Teams call, it might crash quite soon again when rejoining the same call. A fix for that is under development.
  A **workaround** is to **disable incoming video** in such MS-Teams calls, which is an option in the "..." menu from the control bar during an active call.
- **H264 hardware decoding for MS-Teams optimization** is currently **limited to non-AMD devices** due to stability issues on AMD devices.

VMware Horizon

- After **disconnect of an RDP-based session**, the **Horizon main window** which contains the server or sessions overview, **cannot be resized** anymore.
- **Copying Text from Horizon Blast sessions** is not possible.
- The **on-screen keyboard in Horizon appliance mode** does not work correctly with the local logon.
  It is necessary to switch off local logon and enable the following two keys via IGEL registry:
  `userinterface.softkeyboard.autoshow`
  `userinterface.softkeyboard.autohide`
- **Zoom VDI Media Plugin** versions **below 5.8.0** make **Horizon Client crash upon connection to the remote desktop** in cases when TC Setup is running at the same time.
- **With the usage of the PCoIP protocol, the virtual channel provided by VMware used for serial port and scanner redirection could freeze on logout** from the remote session.
  This **happens only with enabled scanner or serial port redirection**. The freeze does not occur if both redirection methods are enabled or none of them. **The Blast Protocol is not affected** by this bug.
  The respective settings can be found in the IGEL Registry:
  `vmware.view.enable-serial-port-redir`
  `vmware.view.enable-scanner-redir`
- **Keyboard Input Source Language Synchronization** works only with usage of **local layout and deadkeys enabled**.
  If a **keyboard layout is used which has deadkeys disabled** (which is the default on IGEL OS), **Horizon client falls back to en-US layout**.
- **PCoIP sessions may crash** in some cases, **switching to Blast Protocol is recommended** then. **H.264/HEVC encoding** can be **disabled** when **overall performance** is too **low**.

- **Client drive mapping and USB redirection for storage devices** can be enabled at the same time, but this could lead to sporadical problems.
  Horizon Client tracks the drives which are dynamically mounted and adds them to the remote session using client drive mapping, means USB redirection is not used for these devices then. However, in case of devices like USB SD card readers, Horizon does not map them as client drives but forcefully uses USB redirection which results in an unclean unmount.
  As a **workaround**, the IDs of these card readers can be added to IGEL USB access rules and denied.

Parallels Client

- **Attached storage devices appear as network drives** in the remote session.
- **USB device redirection** is considered **experimental for the Parallels client for Linux**.

Firefox

- With **enabled Citrix Browser Content Redirection (BCR)**, **Firefox has no H.264 and AAC multimedia codec support**. This means **when codec support is needed in Firefox, BCR needs to be disabled**. Citrix Browser Content Redirection is disabled by default.

Network

- **Wakeup** from system suspend **fails on DELL Latitude 5510**.
- If applications are configured to start after established network connection and network mounts are configured, **spurious "Failed to start application" notifications** may be shown. The applications still start.

Wi-Fi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Cisco JVDI Client

- There may be a **segfault** shown in the logs (during log out of Citrix Desktop session). Occurs only when using **Citrix Workspace app 2010** and **Cisco JVDI**.

Base system

- **Hyper-V (Generation 2) needs a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.
- **Update from memory stick requires network online state** (at least when multiple update stages are triggered / necessary).
- **Glibc** has a serious **memcpy performance regression on AMD Zen-based systems**.

Conky

- The **right screen when using a multiscreen environment** may not be shown correctly.
  Workaround: The horizontal offset should be set to the width of the monitor (e.g. if the monitor has a width of 1920, the offset should be set to 1920).

Firmware Update

- On **devices with 2 GB of flash** storage, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Please visit Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a possible solution and additional information.

Appliance Mode

- When ending a **Citrix session in browser appliance mode**, the browser is restarted twice instead of once.
- Appliance mode RHEV/Spice: **spice-xpi firefox plugin** is no longer supported.
  The **Console Invocation** has to allow **Native** client (**auto** is also possible) and should be started in fullscreen to prevent any opening windows.
- **Browser Appliance mode** can fail when the **Web URL contains special control characters** like ampersands (& character).
  Workaround: Add quotes at the beginning and the end of an affected URL. Example: 'https://www.google.com/search?q=aSearchTerm&source=lnms&tbm=isch'

Audio

- **IGEL UD2 (D220)** fails to restore the **volume level** of the speaker when the device used firmware version 11.01.110 before.
- **Audio jack detection** on **Advantech POC-W243L** does not work. Therefore, sound output goes through a possibly connected headset and also the internal speakers.
- **UD3 M340C**: **Sound preferences** are **showing Headphone & Microphone**, although not connected.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU** driver.

Hardware

- Some newer **Delock 62599 active DisplayPort to DVI (4k)** adapters only work on INTEL-based devices.

Remote Management

- **AIT feature** with **IGEL Starter License** is only supported by UMS version 6.05.100 or newer.

Security Fixes 11.07.170

Firefox

- **Updated Firefox** to version **91.9.1**
  Fixes critical CVEs as below:
  CVE-2022-1802: **Prototype pollution in Top-Level Await implementation**
  CVE-2022-1529: **Untrusted input used in JavaScript object indexing, leading to prototype pollution**

Chromium

- Fixed Chromium browser security issues:
  CVE-2022-1876, CVE-2022-1875,
  CVE-2022-1874, CVE-2022-1873, CVE-2022-1872, CVE-2022-1871, CVE-2022-1870,
  CVE-2022-1869, CVE-2022-1868, CVE-2022-1867, CVE-2022-1866, CVE-2022-1865,
  CVE-2022-1864, CVE-2022-1863, CVE-2022-1862, CVE-2022-1861, CVE-2022-1860,
  CVE-2022-1859, CVE-2022-1858, CVE-2022-1857, CVE-2022-1856, CVE-2022-1855,
  CVE-2022-1854, and CVE-2022-1853
- **Updated** to **Chromium** version **102.0.5005.61**.

New Features 11.07.170

Citrix

- Integrated **Citrix Workspace App 2205**.
  Available Citrix Workspace apps in this release: **2205** (default), **2203** and **2010**
- Added registry keys for Citrix Workspace app 2205:
  - **Authentication enhancement** for Storebrowse:
    More...

Parameter	Disable Authentication enhancement for Storebrowse
Registry	`ica.authman.StorebrowseIPCDisabled`
Value	<u>true</u> / false

  An authentication dialog is present inside Citrix Workspace app and the store details are displayed on the login screen. The authentication tokens are encrypted and stored so that it is not necessary to re-enter credentials when the system or session restarts.

  - **Email-based auto-discovery** of store:
    More...

Parameter	Email-based auto-discovery of store
Registry	`ica.authman.AppConfigEnabled`
Value	true / <u>false</u>

  Automatically discovers the store associated with the email address.
  - **Feature Flag Management**:
    More...

Parameter	Feature flag management
Registry	`ica.module.enablelaunchdarkly`
Value	disable / <u>enable</u>

  For the case an issue occurs with Citrix Workspace app in production, it is possible to disable an affected feature dynamically in Citrix Workspace app during runtime. For that feature flags and a third-party service called LaunchDarkly are used.

Imprivata

- **Improved reconnect/disconnect times** with Imprivata and Horizon
- Added parameter for **inserting Citrix NetScaler cookie**:
  More...

Parameter	NetScaler COOKIEINSERT
Registry	`imprivata.cookieinsert`
Type	string

Cisco JVDI Client

- Integrated **Cisco JVDI client 14.1.1**

Cisco Webex

- Integrated **Cisco WebEx Meetings VDI Plugin 42.5.5.9**
  Available Webex Meetings Plugins in this release: **42.5.5.9** (default), **42.3.1.12**, and **41.12.6.12**

Base system

- Updated **glibc** to version **2.31-0ubuntu9.9** with **memcpy** improvements.
- Updated **IGEL EULA** to **version of 1st July 2022**.

Evidian

- Updated **rsUserAuth** to version **1.5.8134**

Remote Management

- Added new **generic UMS job to update HP G5 USB-C docking stations**.
  More...

Parameter	The path to the firmware file on the device
Registry	`update.devices.hp_g5_dock.path`
Value	**/wfs/hp_g5_dock_firmware.cab**
Parameter	Whether the update should proceed even if the provided firmware is older than the current one on the Dock.
Registry	`update.devices.hp_g5_dock.allow_downgrade`
Value	enabled / <u>disabled</u>

Resolved Issues 11.07.170

RD Web Access

- **Fixed virtual channel plugins** in RD Web Access sessions: **PhilipsSpeech**, **deviceTRUST**, **Diktamen**, **Grundig**, **Lakeside**, and **Olympus**.

Imprivata

- Fixed Imprivata **data partition not fully populated/created**.
- Fixed **FUS password not being accepted**.

CUPS Printing

- Fixed **support for usb-to-parallel adapters**

Base system

- Fixed **sporadic firmware downgrade** issues from 11.07 to 11.05.

Conky

- Fixed **special characters** in **custom_text**.

Storage Devices

- Added parameter for **Mobile Device Access USB** to **ignore exposed PTP interface**:
  More...

Parameter	Don't query the PTP interface
Registry	`sessions.mtp-devices0.omit_ptp`
Type	bool
Value	enabled / <u>disabled</u>

X11 system

- Added new registry key to fix issues with **DP MST** handling:
  More...

Parameter	Use new DP MST connector setup name handling.

Tooltip	Use this if you have issues with not getting all displays configured.
Registry	`x.drm_daemon.use_new_dp_mst_handling`
Type	bool
Value	enabled / <u>disabled</u>

Window manager

- Fixed **random restart** of the panel **when dragging around taskbar items**.

Notes for Release 11.07.140

Software:	Version	11.07.140
Release Date:	2022-05-31	
Release Notes:	Version	RN-1107140-1
Last update:	2022-05-27	

- Supported Devices 11.07.140(see page 105)
- Component Versions 11.07.140(see page 106)
- Known Issues 11.07.140(see page 114)
- Security Fixes 11.07.140(see page 118)
- New Features 11.07.140(see page 121)
- Resolved Issues 11.07.140(see page 122)

The Release Notes for IGEL OS 11.07.140 are also available in the following formats:

- Plain text: RNs_11.07.140.txt

Supported Devices 11.07.140

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 20
	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.07.140

Clients

Product	Version
Amazon WorkSpaces Client	3.1.9
Chromium	101.0.4951.64-igel1652263123
Cisco JVDI Client	14.1.0
Cisco Webex VDI plugin	42.4.0.21893
Cisco Webex Meetings VDI plugin	41.10.11.5
Cisco Webex Meetings VDI plugin	42.2.4.12
Cisco Webex Meetings VDI plugin	42.3.1.12
Zoom Media Plugin	5.10.0.21068
Zoom Media Plugin	5.4.59458
Zoom Media Plugin	5.9.6.20931
Citrix HDX Realtime Media Engine	2.9.400
Citrix Workspace App	20.10.0.6
Citrix Workspace App	22.02.0.20
Citrix Workspace App	22.03.0.24
deviceTRUST Citrix Channel	20.2.310.0
Crossmatch DP Citrix Channel	0125
deskMate Client	2.1.3
DriveLock Agent	20.1.4.30482
Ericom PowerTerm	14.0.1.62267
Evidian AuthMgr	1.5.7789
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech Plugins	3.8.0
FabulaTech USB for Remote Desktop	6.0.35
FabulaTech Scanner for Remote Desktop	2.7.0.1

FabulaTech Webcam for Remote Desktop	2.8.10
Firefox	91.9.0
IBM iAccess Client Solutions	1.1.8.6
IGEL RDP Client	2.2igel1648540238
IGEL AVD Client	1.0.99.7igel1651063614
deviceTRUST RDP Channel	20.2.310.0
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
Lakeside SysTrack Channel	9.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	7.8.2-4igel1644853628
Open VPN	2.5.6-1igel1647855849
Zulu JRE	8.0.332-1
Parallels Client	18.3.1
Spice GTK (Red Hat Virtualization)	0.39-3igel1633543285
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.11.0-2igel1633506980
SpeechWrite	1.0
Stratusphere UX Connector ID Key software	6.6.0-3
Systancia AppliDis	6.0.0-4
Teradici PCoIP Software Client	22.04.0-18.04
ThinLinc Client	4.14.0-2324
ThinPrint Client	7-7.6.126
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	4.16.0-1igel1611217037
VNC Viewer	1.12.0+dfsg-3igel1644994551
VMware Horizon Client	2203-8.5.0-19586897
Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	2017/09/29
Grundig Business Systems dictation driver	0.12/21-12-21
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	4.0.2
Philips Speech driver	13.1.10

Signature

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.10
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7-20210902
PKCS#11 Library cryptovision sc/interface	8.0.13
PKCS#11 Library Thales SafeNet	10.8.28
PKCS#11 Library OpenSC	0.22.0-2igel1643799581
PKCS#11 Library SecMaker NetID Enterprise	6.8.3.21
PKCS#11 Library SecMaker NetID Client	1.0.2.67
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.8-1igel1632136057
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.5.0-2igel1646035471

Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.9.5-3igel1646034250
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.9
OpenSSL	1.1.1-1ubuntu2.1~18.04.17
OpenSSH Client	8.9p1-3igel1646033299
OpenSSH Server	8.9p1-3igel1646033299
Bluetooth stack (bluez)	5.64-0igel1647863644
MESA OpenGL stack	21.3.7-1igel1646288715
VAAPI ABI Version	0.40
VDPAU Library version	1.4-3igel1099
Graphics Driver INTEL	2.99.917+git20210115-1igel1647326046
Graphics Driver ATI/RADEON	19.1.0-2igel1629135948
Graphics Driver ATI/AMDGPU	22.0.0-1igel1645768768
Graphics Driver Nouveau (Nvidia Legacy)	1.0.17-2igel1644486678
Graphics Driver Nvidia	470.129.06-0ubuntu0.21.10.1
Graphics Driver VMware	13.3.0-3igel1628859075
Graphics Driver QXL (Spice)	0.1.5-2build1igel1634304534
Graphics Driver FBDEV	0.5.0-2igel1644486279
Graphics Driver VESA	2.5.0-1igel1628504011
Input Driver Evdev	2.10.6-2igel1629196047
Input Driver Elographics	1.4.2-1igel1629196349
Input Driver eGalax	2.5.8825
Input Driver Synaptics	1.9.1-2igel1646823146
Input Driver VMMouse	13.1.0-1ubuntu2igel1628499891
Input Driver Wacom	0.39.0-0ubuntu1igel1629136980
Input Driver ELO Multitouch	3.0.0

Input Driver ELO Singletouch	5.1.0
Kernel	5.15.26 #mainline-lxos-g1652790891
Xorg X11 Server	21.1.3igel1645782509
Xorg Xephyr	21.1.3igel1645782509
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.500
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel14
XFCE4 Window Manager	4.14.5-1~18.04igel1643191202
ISC DHCP Client	4.3.5-3ubuntu7.3
NetworkManager	1.32.12-0ubuntu1igel1641211455
ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 0.10 Fluendo aacdec	0.10.42
GStreamer 0.10 Fluendo asfdemux	0.10.92
GStreamer 0.10 Fluendo h264dec	0.10.59
GStreamer 0.10 Fluendo mp3dec	0.10.41
GStreamer 0.10 Fluendo mpegdemux	0.10.85
GStreamer 0.10 Fluendo mpeg4videodec	0.10.44
GStreamer 0.10 Fluendo vadec	0.10.229
GStreamer 0.10 Fluendo wmadec	0.10.70
GStreamer 0.10 Fluendo wmvdec	0.10.66
GStreamer 1.x	1.18.5-1igel1633086114
GStreamer 1.0 Fluendo aacdec	0.10.42
GStreamer 1.0 Fluendo asfdemux	0.10.92
GStreamer 1.0 Fluendo h264dec	0.10.59
GStreamer 1.0 Fluendo mp3dec	0.10.41
GStreamer 1.0 Fluendo mpeg4videodec	0.10.44
GStreamer 1.0 Fluendo vadec	0.10.229
GStreamer 1.0 Fluendo wmadec	0.10.70

GStreamer 1.0 Fluendo wmvdec	0.10.66
WebKit2Gtk	2.34.6-1igel1645163872
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.32-dfsg-1igel1643178233
Virtualbox X11 Guest Utils	6.1.32-dfsg-1igel1643178233
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.22.1-1igel1646032976
Qemu Guest Agent	6.2+dfsg-3igel1646036781

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.19-1igel1633453264
Mobile Device Access USB (imobile)	1.3.0-6igel12
Mobile Device Access USB (gphoto)	2.5.27-1igel8
VPN OpenConnect	8.20-1igel1645458039
Scanner support	1.0.27-1
VirtualBox VM within IGEL OS	6.1.32-dfsg-1igel1643178233

Services

Service	Size	Reduced Firmware
Asian Language Support	22.5 M	Included
Java SE Runtime Environment	36.5 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	320.2 M	Included
Ericom PowerTerm InterConnect	10.2 M	Included

Media Player	512.0 K	Included
Local Browser (Firefox) Citrix Appliance	81.5 M	Included
VMware Horizon RDP	5.5 M	Included
Cendio ThinLinc	11.0 M	Included
Printing (Internet printing protocol CUPS)	22.2 M	Included
NoMachine NX	27.2 M	Included
VMware Horizon	243.0 M	Included
Voice over IP (Ekiga)	6.5 M	Included
Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	27.0 M	Not included
Fluendo GStreamer Codec Plugins	6.5 M	Included
IBM i Access Client Solutions	128.2 M	Not included
Red Hat Enterprise Virtualization	2.8 M	Included
Parallels Client	6.0 M	Included
NVIDIA graphics driver	260.5 M	Not included
Imprivata Appliance	14.2 M	Included
AppliDis	256.0 K	Included
Evidian AuthMgr	2.8 M	Included
Hardware Video Acceleration	14.2 M	Included
Extra Font Package	1.0 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	3.8 M	Included
Cisco JVDI client	66.5 M	Included
PrinterLogic	47.8 M	Not included
Biosec BS Login	10.0 M	Not included
Login VSI Login Enterprise	28.8 M	Not included
Stratusphere UX CID Key software	7.5 M	Not included

Elastic Filebeat	22.2 M	Not included
AVD	113.8 M	Included
Local Browser (Chromium)	97.8 M	Not included
Amazon WorkSpaces Client	32.2 M	Included
deskMate client	5.8 M	Included
Cisco Webex VDI	70.8 M	Not included
Cisco Webex Meetings VDI	111.5 M	Not included
Zoom Media Plugin	124.0 M	Not included
DriveLock	13.2 M	Included
SpeechWrite Client	256.0 K	Included
Fluendo Browser Codec Plugins	4.0 M	Included
HP Factory deployment documentation	88.5 M	Included
Teradici PCoIP Client	15.5 M	Included
90meter Smart Card Support	256.0 K	Included
Virtualbox (Limited support) Mobile Device Access USB (Limited support) VPN OpenConnect (Limited support) Scanner support / SANE (Limited support) Limited Support Features	256.0 K	Not included
Mobile Device Access USB (Limited support)	256.0 K	Not included
VPN OpenConnect (Limited support)	1.2 M	Not included
Scanner support / SANE (Limited support)	2.5 M	Not included
VirtualBox (Limited support)	65.2 M	Not included

Known Issues 11.07.140

Citrix

- To launch **multiple desktop sessions** with Citrix HDX RTME and Citrix H.264 acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

- This workaround is not applicable when **Enable Secure ICA** is active for the specific delivery group.
- Adding **smartcard readers** during running / active sessions does not work. The **reader is visible, but cannot be used due to unknown reader status**. Only relevant for **CWA versions earlier than 2112**.
- There are known issues with **GStreamer 1.0** in combination with Citrix. These occur with **multimedia redirection of H.264, MPEG1, and MPEG2.** (GStreamer 1.0 is used if browser content redirection is enabled active.)
- **Browser content redirection** does not work with activated DRI3 and hardware-accelerated H.264 deep compression codec enabled.
- Enabled **DRI3** on an **AMD GPU with enabled Citrix H.264 acceleration** could lead to a **freeze**. **Selective H.264 mode (API v2) is not affected** by this issue.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- Currently, **H.264** for Citrix sessions **cannot be used in parallel with video input acceleration**.

OSC Installer

- **OSC not deployable with IGEL Deployment Appliance**: New version **11.3 is required** for deployment of IGEL OS 11.06. and later.

AVD

- **AVD MS-Teams optimization can crash the AVD client if H264 software decoder is used** (fluh264dec). AVD prefers the hardware decoders (fluvadec) but when there are no hardware decoders or when all hardware decoders are in use already, the software decoder is utilized, which may randomly crash the AVD client. It is likely when it crashes in a certain MS-Teams call, it might crash quite soon again when rejoining the same call. A fix for that is under development.

A **workaround** is to **disable incoming video** in such MS-Teams calls, which is an option in the "..." menu from the control bar during an active call.

- **H264 hardware decoding for MS-Teams optimization** is currently **limited to non-AMD devices** due to stability issues on AMD devices.

VMware Horizon

- After **disconnect of an RDP-based session**, the **Horizon main window** which contains the server or sessions overview, **cannot be resized** anymore.
- **Copying Text from Horizon Blast sessions** is not possible.
- The **on-screen keyboard in Horizon appliance mode** does not work correctly with the local logon.
  It is necessary to switch off local logon and enable the following two keys via IGEL registry:
  ```
  userinterface.softkeyboard.autoshow
  userinterface.softkeyboard.autohide
  ```
- **Zoom VDI Media Plugin** versions **below 5.8.0** make **Horizon Client crash upon connection to the remote desktop** in cases when TC Setup is running at the same time.
- **With the usage of the PCoIP protocol, the virtual channel provided by VMware used for serial port and scanner redirection could freeze on logout** from the remote session.
  This **happens only with enabled scanner or serial port redirection**. The freeze does not occur if both redirection methods are enabled or none of them. **The Blast Protocol is not affected** by this bug.
  The respective settings can be found in the IGEL Registry:
  ```
  vmware.view.enable-serial-port-redir
  vmware.view.enable-scanner-redir
  ```
- **Keyboard Input Source Language Synchronization** works only with usage of **local layout and deadkeys enabled**.
  If a **keyboard layout is used which has deadkeys disabled** (which is the default on IGEL OS), **Horizon client falls back to en-US layout**.
- **PCoIP sessions may crash** in some cases, **switching to Blast Protocol is recommended** then. **H.264/HEVC encoding** can be **disabled** when **overall performance** is too **low**.
- **Client drive mapping and USB redirection for storage devices** can be enabled at the same time, but this could lead to sporadical problems.
  Horizon Client tracks the drives which are dynamically mounted and adds them to the remote session using client drive mapping, means USB redirection is not used for these devices then. However, in case of devices like USB SD card readers, Horizon does not map them as client drives but forcefully uses USB redirection which results in an unclean unmount.
  As a **workaround**, the IDs of these card readers can be added to IGEL USB access rules and denied.

Parallels Client

- **Attached storage devices appear as network drives** in the remote session.
- **USB device redirection** is considered **experimental for the Parallels client for Linux**.

Firefox

- With **enabled Citrix Browser Content Redirection (BCR)**, **Firefox has no H.264 and AAC multimedia codec support**. This means **when codec support is needed in Firefox, BCR needs to be disabled**. Citrix Browser Content Redirection is disabled by default.

Network

- **Wakeup** from system suspend **fails on DELL Latitude 5510**.
- If applications are configured to start after established network connection and network mounts are configured, **spurious "Failed to start application" notifications** may be shown. The applications still start.

Wi-Fi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume. **Workaround**: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Cisco JVDI Client

- There may be a **segfault** shown in the logs (during log out of Citrix Desktop session). Occurs only when using **Citrix Workspace app 2010** and **Cisco JVDI**.

Base system

- **Hyper-V (Generation 2) needs a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.
- **Update from memory stick requires network online state** (at least when multiple update stages are triggered / necessary).
- **Glibc** has a serious **memcpy performance regression on AMD Zen-based systems**.

Conky

- The **right screen when using a multiscreen environment** may not be shown correctly. **Workaround**: The horizontal offset should be set to the width of the monitor (e.g. if the monitor has a width of 1920, the offset should be set to 1920).

Firmware Update

- On **devices with 2 GB of flash** storage, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Please visit Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a possible solution and additional information.

Appliance Mode

- When ending a **Citrix session in browser appliance mode**, the browser is restarted twice instead of once.
- Appliance mode RHEV/Spice: **spice-xpi firefox plugin** is no longer supported.
The **Console Invocation** has to allow **Native** client (auto is also possible) and should be started in fullscreen to prevent any opening windows.
- **Browser Appliance mode** can fail when the **Web URL contains special control characters** like ampersands (& character).
Workaround: Add quotes at the beginning and the end of an affected URL. Example: 'https://www.google.com/search?q=aSearchTerm&source=lnms&tbm=isch'

Audio

- **IGEL UD2 (D220)** fails to restore the **volume level** of the speaker when the device used firmware version 11.01.110 before.
- **Audio jack detection** on **Advantech POC-W243L** does not work. Therefore, sound output goes through a possibly connected headset and also the internal speakers.
- **UD3 M340C**: **Sound preferences** are **showing Headphone & Microphone**, although not connected.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU** driver.

Hardware

- Some newer **Delock 62599 active DisplayPort to DVI (4k)** adapters only work on INTEL-based devices.

Remote Management

- **AIT feature** with **IGEL Starter License** is only supported by UMS version 6.05.100 or newer.

Security Fixes 11.07.140

VMware Horizon

- Updated **Horizon Client** to version **2203 8.5.0-19586897**

Teradici PCoIP Client

- Updated **Teradici PCoIP Ultra** client to version **22.04**.

Chromium

- Fixed Chromium browser security issues:
  More...

  CVE-2022-1641, CVE-2022-1640,
  CVE-2022-1639, CVE-2022-1638, CVE-2022-1637, CVE-2022-1636, CVE-2022-1635,
  CVE-2022-1634, CVE-2022-1633, CVE-2022-1501, CVE-2022-1500, CVE-2022-1499,
  CVE-2022-1498, CVE-2022-1497, CVE-2022-1496, CVE-2022-1495, CVE-2022-1494,
  CVE-2022-1493, CVE-2022-1492, CVE-2022-1491, CVE-2022-1490, CVE-2022-1489,
  CVE-2022-1488, CVE-2022-1487, CVE-2022-1486, CVE-2022-1485, CVE-2022-1484,
  CVE-2022-1483, CVE-2022-1482, CVE-2022-1481, CVE-2022-1480, CVE-2022-1479,
  CVE-2022-1478, CVE-2022-1477, CVE-2022-1314, CVE-2022-1313, CVE-2022-1312,
  CVE-2022-1311, CVE-2022-1310, CVE-2022-1309, CVE-2022-1308, CVE-2022-1307,
  CVE-2022-1306, CVE-2022-1305, and CVE-2022-1364

- Updated **Chromium** browser to version **101.0.4951.64**

Firefox

- Updated Mozilla **Firefox** to version **91.9.0 ESR**
- Fixes for **mfsa2022-17**, also known as
  CVE-2022-29914, CVE-2022-29909, CVE-2022-29916,
  CVE-2022-29911, CVE-2022-29912, CVE-2022-29917.
- Fixes for **mfsa2022-14**, also known as
  CVE-2022-1097, CVE-2022-28281, CVE-2022-1196, CVE-2022-28282,
  CVE-2022-28285, CVE-2022-28286, CVE-2022-24713, CVE-2022-28289.
- Fixes for **mfsa2022-11**, also known as
  CVE-2022-26383, CVE-2022-26384, CVE-2022-26387,
  CVE-2022-26381, CVE-2022-26386.

Base system

- Fixed **curl** security issues:

More...

CVE-2022-2777, CVE-2022-30115, CVE-2022-27782,
CVE-2022-27781, CVE-2022-27780, CVE-2022-27779,
CVE-2022-27778, CVE-2022-27775, CVE-2022-27774, CVE-2022-22576

- Fixed **ghostscript** security issue CVE-2019-25059.
- Fixed **libsdl1.2** security issue CVE-2021-33657.
- Fixed **libsepol** security issues CVE-2021-36087, CVE-2021-36086, CVE-2021-36085, and CVE-2021-36084.
- Fixed **bash** security issue CVE-2019-18276.
- Fixed **zulu8-ca** security issues:
  More...

  CVE-2022-21426, CVE-2022-21434, CVE-2022-21443,
  CVE-2022-21476, CVE-2022-21496, and CVE-2018-25032

- Fixed **rsyslog** security issue CVE-2022-24903.
- Fixed **mysql-5.7** security issues:
  More...

  CVE-2022-21460, CVE-2022-21454, CVE-2022-21451,
  CVE-2022-21444, CVE-2022-21427, and CVE-2022-21417

- Fixed **sqlite3** security issue CVE-2021-36690.
- Fixed **openssl1.0** security issue CVE-2022-1292.
- Fixed **openssl** security issue CVE-2022-1292.
- Fixed **dbus** security issue CVE-2020-35512.
- Fixed **nss** security issue CVE-2020-25648.
- Fixed **dnsmasq** security issue CVE-2022-0934.
- Fixed **cifs-utils** security issues CVE-2022-29869 and CVE-2022-27239.
- Fixed **libxml2** security issue CVE-2022-29824.
- Fixed **cifs-utils** security issues CVE-2022-29869 and CVE-2022-27239.
- Fixed **openldap** security issue CVE-2022-29155.
- Fixed **pcre3** security issues CVE-2020-14155 and CVE-2019-20838.
- Fixed **tiff** security issues:
  More...

  CVE-2022-0891, CVE-2022-0865, CVE-2022-0562,
  CVE-2022-0561, and CVE-2020-35522

- Updated **Intel microcode** to version **20220510**.
- Updated **AMD microcode** to version from **20220408**.
- Fixed security issue CVE-2022-21151.
- Fixed **sshd** security issue CVE-2002-20001 (Denial of Service).
- Added new registry key to **prevent D(HE)ater CVE-2002-20001 DoS attacks**:
  More...

Parameter	Disable Diffie Hellman key exchange algorithms
Registry	`network.ssh_server.disable_dhe_kexalgorithms`

Type	bool
Value	enabled / <u>disabled</u>

- Fixed **Nvidia** security issues CVE-2022-28181, CVE-2022-28182, CVE-2022-28183, and CVE-2022-28184.

New Features 11.07.140

ThinLinc

- Updated **ThinLinc** client to **version 4.14.0**

Chromium

- Changed **Safe Browsing default** value to "**enabled**".

IGEL Setup	Sessions > Chromium Browser > Chromium Browser Global > Security
Parameter	Safe Browsing
Registry	`chromiumglobal.app.safebrowsing_enabled`
Type	bool
Value	<u>enabled</u> / disabled

Smartcard

- Added support for **concurrent usage of multiple smartcard middleware libraries** for authentication with a smartcard to **Active Directory / Kerberos and Citrix**.
  In the Setup on page **Security > Smartcard > Middleware**, multiple libraries can be activated. **If none is activated, OpenSC is taken as fallback.**

Cisco Webex

- Integrated **Cisco WebEx VDI** plugin **42.4.0.21893**

zoomvdi

- Integrated **Zoom VDI** plugin **5.10.0.21068**
  Available plugins in this release: **5.10.0.21068 (default)**, **5.9.6.20931**, and **5.4.59458**

TC Setup (Java)

- Updated **TC Setup** to version **6.10.2**

Resolved Issues 11.07.140

Citrix

- Added parameter for **Citrix Workspace app 2203 Keyboard sync feature**:
  - Parameter to configure new **KeyboardSyncMode** as following.
    Windows Server may require config as well, further information via https://docs.citrix.com/en-us/citrix-workspace-app-for-linux/configure-xenapp.html#keyboard-layout-synchronization:
    More...

Parameter	Configure KeyboardSyncMode
Registry	`ica.wfclient.keyboardsyncmode`
Value	no / dynamic / once
Note	**no** – indicates that the client uses the keyboard layout present on the server. **dynamic** – synchronizes the client keyboard layout to the server when client keyboard layout is changed. **once** – when session launches

  - to configure **new KeyboardEventMode**:
    More...

Parameter	Configure KeyboardEventMode
Registry	`ica.wfclient.keyboardeventmode`
Value	Unicode / Scancode
Note	Citrix recommends **"Scancode" for KeyboardSyncMode=no** and **"Unicode" for the other values**.

RDP/IGEL RDP Client 2

- Fixed **RDP drive redirection** redirecting the same drive twice if storage hotplug is set to static.

RD Web Access

- Fixed RD Web **ignoring RD Gateway when starting apps from browser**.

Chromium

- Fixed an issue with the **startup URL containing a '&'** character.

Network

- Fixed **802.1X authentication method PEAP-TLS** - was broken since 11.07.100 due to incompatibility with Network Manager 1.32.

Application Launcher

- Fixed application launcher **starting multiple times if auto-restart was enabled**.

Base system

- Fixed non-working **DRM/KMS driver on Zebra ET51 tablet**.
- Fixed **downgrading from 11.07. to 11.05.** firmware versions
- Fixed **XServer startup for Device Encryption login screen** on devices with Intel-powered graphics, such as H830.

Driver

- Added **bluetooth driver for Realtek RTL8852BE** device.

X11 system

- Add option to **force special handling of Nvidia graphics cards**.
  More...

Parameter	Force X injected DRM data with nvidia driver
Registry	`x.drivers.nvidia.force_quack`
Value	enabled / <u>disabled</u>

X server

- Fixed **detection of** some **Nvidia Quadro T400 graphic cards**.

Remote Management

- **Deallocate resources used for Websocket connection** after closing the connection.
- Added parameter to **control ICG reconnecting**:

More...

Parameter	Reconnect Interval (seconds)
Registry	`system.remotemanager.reconnect_interval`
Value	20 (default)

Notes for Release 11.07.110

Software:	Version	11.07.110
Release Date:	2022-04-29	
Release Notes:	Version	RN-1107110-1
Last update:	2022-04-29	

- Supported Devices 11.07.110(see page 126)
- Component Versions 11.07.110(see page 127)
- Known Issues 11.07.110(see page 135)
- Security Fixes 11.07.110(see page 139)
- New Features 11.07.110(see page 140)
- Resolved Issues 11.07.110(see page 142)

The Release Notes for IGEL OS 11.07.110 are also available in the following formats:

- Plain text: RNs_1107110.txt

Supported Devices 11.07.110

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 20
	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.07.110

Clients

Product	Version
Amazon WorkSpaces Client	3.1.9
Chromium	100.0.4896.75-igel1649171874
Cisco JVDI Client	14.1.0
Cisco Webex VDI plugin	42.2.0.21338
Cisco Webex Meetings VDI plugin	41.10.11.5
Cisco Webex Meetings VDI plugin	42.2.4.12
Cisco Webex Meetings VDI plugin	42.3.1.12
Zoom Media Plugin	5.4.59458
Zoom Media Plugin	5.8.4.21112
Zoom Media Plugin	5.9.6.20931
Citrix HDX Realtime Media Engine	2.9.400
Citrix Workspace App	20.10.0.6
Citrix Workspace App	22.02.0.20
Citrix Workspace App	22.03.0.24
deviceTRUST Citrix Channel	20.2.310.0
Crossmatch DP Citrix Channel	0125
deskMate Client	2.1.3
DriveLock Agent	20.1.4.30482
Ericom PowerTerm	14.0.1.62267
Evidian AuthMgr	1.5.7789
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech Plugins	3.8.0
FabulaTech USB for Remote Desktop	6.0.35
FabulaTech Scanner for Remote Desktop	2.7.0.1

FabulaTech Webcam for Remote Desktop	2.8.10
Firefox	91.6.1
IBM iAccess Client Solutions	1.1.8.6
IGEL RDP Client	2.2igel1648540238
IGEL AVD Client	1.0.99.7igel1651063614
deviceTRUST RDP Channel	20.2.310.0
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
Lakeside SysTrack Channel	9.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	7.8.2-4igel1644853628
Open VPN	2.5.6-1igel1647855849
Zulu JRE	8.0.322-1
Parallels Client	18.3.1
Spice GTK (Red Hat Virtualization)	0.39-3igel1633543285
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.11.0-2igel1633506980
SpeechWrite	1.0
Stratusphere UX Connector ID Key software	6.6.0-3
Systancia AppliDis	6.0.0-4
Teradici PCoIP Software Client	21.03.0-18.04
ThinLinc Client	4.13.0-2172
ThinPrint Client	7-7.6.126
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	4.16.0-1igel1611217037
VNC Viewer	11.12.0+dfsg-3igel1644994551
VMware Horizon Client	2111.1-8.4.1-19480456
Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	2017/09/29
Grundig Business Systems dictation driver	0.12/21-12-21
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	4.0.2
Philips Speech driver	13.1.10

Signature

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.10
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7-20210902
PKCS#11 Library cryptovision sc/interface	8.0.13
PKCS#11 Library Thales SafeNet	10.8.28
PKCS#11 Library OpenSC	0.22.0-2igel1643799581
PKCS#11 Library SecMaker NetID Enterprise	6.8.3.21
PKCS#11 Library SecMaker NetID Client	1.0.2.67
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.8-1igel1632136057
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.5.0-2igel1646035471

Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.9.5-3igel1646034250
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.8
OpenSSL	1.1.1-1ubuntu2.1~18.04.15
OpenSSH Client	8.9p1-3igel1646033299
OpenSSH Server	8.9p1-3igel1646033299
Bluetooth stack (bluez)	5.64-0igel1647863644
MESA OpenGL stack	21.3.7-1igel1646288715
VAAPI ABI Version	0.40
VDPAU Library version	1.4-3igel1099
Graphics Driver INTEL	2.99.917+git20210115-1igel1647326046
Graphics Driver ATI/RADEON	19.1.0-2igel1629135948
Graphics Driver ATI/AMDGPU	22.0.0-1igel1645768768
Graphics Driver Nouveau (Nvidia Legacy)	1.0.17-2igel1644486678
Graphics Driver Nvidia	470.103.01-0ubuntu0.21.10.1
Graphics Driver VMware	13.3.0-3igel1628859075
Graphics Driver QXL (Spice)	0.1.5-2build1igel1634304534
Graphics Driver FBDEV	0.5.0-2igel1644486279
Graphics Driver VESA	2.5.0-1igel1628504011
Input Driver Evdev	2.10.6-2igel1629196047
Input Driver Elographics	1.4.2-1igel1629196349
Input Driver eGalax	2.5.8825
Input Driver Synaptics	1.9.1-2igel1646823146
Input Driver VMMouse	13.1.0-1ubuntu2igel1628499891
Input Driver Wacom	0.39.0-0ubuntu1igel1629136980
Input Driver ELO Multitouch	3.0.0

Input Driver ELO Singletouch	5.1.0
Kernel	5.15.26 #mainline-lxos-g1647514766
Xorg X11 Server	21.1.3igel1645782509
Xorg Xephyr	21.1.3igel1645782509
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.500
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel14
XFCE4 Window Manager	4.14.5-1~18.04igel1643191202
ISC DHCP Client	4.3.5-3ubuntu7.3
NetworkManager	1.32.12-0ubuntu1igel1641211455
ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 0.10 Fluendo aacdec	0.10.42
GStreamer 0.10 Fluendo asfdemux	0.10.92
GStreamer 0.10 Fluendo h264dec	0.10.59
GStreamer 0.10 Fluendo mp3dec	0.10.41
GStreamer 0.10 Fluendo mpegdemux	0.10.85
GStreamer 0.10 Fluendo mpeg4videodec	0.10.44
GStreamer 0.10 Fluendo vadec	0.10.229
GStreamer 0.10 Fluendo wmadec	0.10.70
GStreamer 0.10 Fluendo wmvdec	0.10.66
GStreamer 1.x	1.18.5-1igel1633086114
GStreamer 1.0 Fluendo aacdec	0.10.42
GStreamer 1.0 Fluendo asfdemux	0.10.92
GStreamer 1.0 Fluendo h264dec	0.10.59
GStreamer 1.0 Fluendo mp3dec	0.10.41
GStreamer 1.0 Fluendo mpeg4videodec	0.10.44
GStreamer 1.0 Fluendo vadec	0.10.229
GStreamer 1.0 Fluendo wmadec	0.10.70

GStreamer 1.0 Fluendo wmvdec	0.10.66
WebKit2Gtk	2.34.6-1igel1645163872
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.32-dfsg-1igel1643178233
Virtualbox X11 Guest Utils	6.1.32-dfsg-1igel1643178233
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.22.1-1igel1646032976
Qemu Guest Agent	6.2+dfsg-3igel1646036781

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.19-1igel1633453264
Mobile Device Access USB (imobile)	1.3.0-6igel12
Mobile Device Access USB (gphoto)	2.5.27-1igel8
VPN OpenConnect	8.20-1igel1645458039
Scanner support	1.0.27-1
VirtualBox VM within IGEL OS	6.1.32-dfsg-1igel1643178233

Services

Service	Size	Reduced Firmware
Asian Language Support	22.5 M	Included
Java SE Runtime Environment	36.5 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	320.2 M	Included
Ericom PowerTerm InterConnect	10.2 M	Included

Media Player	512.0 K	Included
Local Browser (Firefox) Citrix Appliance	81.8 M	Included
VMware Horizon RDP	5.5 M	Included
Cendio ThinLinc	10.0 M	Included
Printing (Internet printing protocol CUPS)	22.2 M	Included
NoMachine NX	27.2 M	Included
VMware Horizon	216.2 M	Included
Voice over IP (Ekiga)	6.5 M	Included
Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	27.0 M	Not included
Fluendo GStreamer Codec Plugins	6.5 M	Included
IBM i Access Client Solutions	128.2 M	Not included
Red Hat Enterprise Virtualization	2.8 M	Included
Parallels Client	6.0 M	Included
NVIDIA graphics driver	261.0 M	Not included
Imprivata Appliance	14.2 M	Included
AppliDis	256.0 K	Included
Evidian AuthMgr	2.8 M	Included
Hardware Video Acceleration	14.2 M	Included
Extra Font Package	1.0 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	3.8 M	Included
Cisco JVDI client	66.5 M	Included
PrinterLogic	47.8 M	Not included
Biosec BS Login	10.0 M	Not included
Login VSI Login Enterprise	28.8 M	Not included
Stratusphere UX CID Key software	7.5 M	Not included

Elastic Filebeat	22.2 M	Not included
AVD	113.8 M	Included
Local Browser (Chromium)	94.2 M	Not included
Amazon WorkSpaces Client	32.2 M	Included
deskMate client	5.8 M	Included
Cisco Webex VDI	60.0 M	Not included
Cisco Webex Meetings VDI	111.5 M	Not included
Zoom Media Plugin	127.8 M	Not included
DriveLock	13.2 M	Included
SpeechWrite Client	256.0 K	Included
Fluendo Browser Codec Plugins	4.0 M	Included
HP Factory deployment documentation	88.5 M	Included
Teradici PCoIP Client	16.0 M	Included
90meter Smart Card Support	256.0 K	Included
Virtualbox (Limited support) Mobile Device Access USB (Limited support) VPN OpenConnect (Limited support) Scanner support / SANE (Limited support) Limited Support Features	256.0 K	Not included
Mobile Device Access USB (Limited support)	256.0 K	Not included
VPN OpenConnect (Limited support)	1.2 M	Not included
Scanner support / SANE (Limited support)	2.5 M	Not included
VirtualBox (Limited support)	65.2 M	Not included

Known Issues 11.07.110

Citrix

- To launch **multiple desktop sessions** with Citrix HDX RTME and Citrix H.264 acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

- This workaround is not applicable when **Enable Secure ICA** is active for the specific delivery group.
- Adding **smartcard readers** during running / active sessions does not work. The **reader is visible, but cannot be used due to unknown reader status**. Only relevant for **CWA versions earlier than 2112**.
- There are known issues with **GStreamer 1.0** in combination with Citrix. These occur with **multimedia redirection of H.264, MPEG1, and MPEG2.** (GStreamer 1.0 is used if browser content redirection is enabled active.)
- **Browser content redirection** does not work with activated DRI3 and hardware-accelerated H.264 deep compression codec enabled.
- Enabled **DRI3** on an **AMD GPU with enabled Citrix H.264 acceleration** could lead to a **freeze**. **Selective H.264 mode (API v2) is not affected** by this issue.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- Currently, **H.264** for Citrix sessions **cannot be used in parallel with video input acceleration**.

OSC Installer

- **OSC not deployable with IGEL Deployment Appliance**: New version **11.3 is required** for deployment of IGEL OS 11.06. and later.

AVD

- **AVD MS-Teams optimization can crash the AVD client if H264 software decoder is used** (fluh264dec). AVD prefers the hardware decoders (fluvadec) but when there are no hardware decoders or when all hardware decoders are in use already, the software decoder is utilized, which may randomly crash the AVD client. It is likely when it crashes in a certain MS-Teams call, it might crash quite soon again when rejoining the same call. A fix for that is under development.

A **workaround** is to **disable incoming video** in such MS-Teams calls, which is an option in the "..." menu from the control bar during an active call.

- **H264 hardware decoding for MS-Teams optimization** is currently **limited to non-AMD devices** due to stability issues on AMD devices.

VMware Horizon

- After **disconnect of an RDP-based session**, the **Horizon main window** which contains the server or sessions overview, **cannot be resized** anymore.
- **Copying Text from Horizon Blast sessions** is not possible.
- The **on-screen keyboard in Horizon appliance mode** does not work correctly with the local logon.
  It is necessary to switch off local logon and enable the following two keys via IGEL registry:
  `userinterface.softkeyboard.autoshow`
  `userinterface.softkeyboard.autohide`
- **Zoom VDI Media Plugin** versions **below 5.8.0** make **Horizon Client crash upon connection to the remote desktop** in cases when TC Setup is running at the same time.
- **With the usage of the PCoIP protocol, the virtual channel provided by VMware used for serial port and scanner redirection could freeze on logout** from the remote session.
  This **happens only with enabled scanner or serial port redirection**. The freeze does not occur if both redirection methods are enabled or none of them. **The Blast Protocol is not affected** by this bug.
  The respective settings can be found in the IGEL Registry:
  `vmware.view.enable-serial-port-redir`
  `vmware.view.enable-scanner-redir`
- **Keyboard Input Source Language Synchronization** works only when using a local layout with deadkeys enabled.
  If a **keyboard layout is used which has deadkeys disabled** (which is the default on IGEL OS), **Horizon client falls back to en-US layout**.
- **PCoIP sessions may crash** in some cases, **switching to Blast Protocol is recommended** then.
  H.264/HEVC encoding can be **disabled** when **overall performance** is too **low**.
- **Client drive mapping and USB redirection for storage devices** can be enabled at the same time, but this could lead to sporadical problems.
  Horizon Client tracks the drives which are dynamically mounted and adds them to the remote session using client drive mapping, means USB redirection is not used for these devices then.
  However, in case of devices like USB SD card readers, Horizon does not map them as client drives but forcefully uses USB redirection which results in an unclean unmount.
  As a **workaround**, the IDs of these card readers can be added to IGEL USB access rules and denied.

Parallels Client

- **Attached storage devices appear as network drives** in the remote session.
- **USB device redirection** is considered **experimental for the Parallels client for Linux**.

Firefox

- With **enabled Citrix Browser Content Redirection (BCR)**, **Firefox has no H.264 and AAC multimedia codec support**. This means **when codec support is needed in Firefox, BCR needs to be disabled**. Citrix Browser Content Redirection is disabled by default.

Network

- **Wakeup** from system suspend **fails on DELL Latitude 5510**.
- If applications are configured to start after established network connection and network mounts are configured, **spurious "Failed to start application" notifications** may be shown. The applications still start.

Wi-Fi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume. **Workaround**: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Cisco JVDI Client

- There may be a **segfault** shown in the logs (during log out of Citrix Desktop session). Occurs only when using **Citrix Workspace app 2010** and **Cisco JVDI**.

Base system

- **Hyper-V (Generation 2) needs a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.
- **Update from memory stick requires network online state** (at least when multiple update stages are triggered / necessary).

Conky

- The **right screen when using a multiscreen environment** may not be shown correctly. **Workaround**: The horizontal offset should be set to the width of the monitor (e.g. if the monitor has a width of 1920, the offset should be set to 1920).

Firmware Update

- On **devices with 2 GB of flash** storage, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Please visit Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a possible solution and additional information.

Appliance Mode

- When ending a **Citrix session in browser appliance mode**, the browser is restarted twice instead of once.
- Appliance mode RHEV/Spice: **spice-xpi firefox plugin** is no longer supported.
The **Console Invocation** has to allow **Native** client (auto is also possible) and should be started in fullscreen to prevent any opening windows.
- **Browser Appliance mode** can fail when the **Web URL contains special control characters** like ampersands (& character).
Workaround: Add quotes at the beginning and the end of an affected URL. Example: 'https://www.google.com/search?q=aSearchTerm&source=lnms&tbm=isch'

Audio

- **IGEL UD2 (D220)** fails to restore the **volume level** of the speaker when the device used firmware version 11.01.110 before.
- **Audio jack detection** on **Advantech POC-W243L** does not work. Therefore, sound output goes through a possibly connected headset and also the internal speakers.
- **UD3 M340C**: **Sound preferences** are **showing Headphone & Microphone**, although not connected.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU** driver.

Hardware

- Some newer **Delock 62599 active DisplayPort to DVI (4k)** adapters only work on INTEL-based devices.

Remote Management

- **AIT feature** with **IGEL Starter License** is only supported by UMS version 6.05.100 or newer.

Security Fixes 11.07.110

Chromium

- Fixed security issue CVE-2022-1096.
- Fixed security issues:
  CVE-2022-1232, CVE-2022-1146, CVE-2022-1145,
  CVE-2022-1144, CVE-2022-1143, CVE-2022-1142, CVE-2022-1141, CVE-2022-1139,
  CVE-2022-1138, CVE-2022-1137, CVE-2022-1136, CVE-2022-1135, CVE-2022-1134,
  CVE-2022-1133, CVE-2022-1132, CVE-2022-1131, CVE-2022-1130, CVE-2022-1129,
  CVE-2022-1128, CVE-2022-1127, and CVE-2022-1125
- **Updated** Chromium browser to version **100.0.4896.75**

Base system

- Fixed **kernel** security issues CVE-2022-1015 and CVE-2022-1016.
- Fixed **python2.7** security issues CVE-2022-0391 and CVE-2021-4189.
- Fixed **python3.6** security issues CVE-2022-0391, CVE-2021-4189, and CVE-2021-3426.
- Fixed **zlib** security issue CVE-2018-25032.
- Fixed **rsync** security issue CVE-2018-25032.
- Fixed **paramiko** security issue CVE-2022-24302.
- Fixed **xz-utils** security issue CVE-2022-1271.
- Fixed **tcpdump** security issues CVE-2020-8037 and CVE-2018-16301.
- Fixed **gzip** security issue CVE-2022-1271.

New Features 11.07.110

Citrix

- Integrated **Citrix Workspace App 2203**.
- Available Citrix Workspace apps in this release: **2203** (default), **2202** and **2010**
- Added registry keys for Citrix Workspace App 2203:
  - for configuring the **new KeyboardSyncMode**. Windows Server may require config, see https://docs.citrix.com/en-us/citrix-workspace-app-for-linux/configure-xenapp.html#keyboard-layout-synchronization
    More...

Parameter	Configure KeyboardSyncMode
Registry	`ica.wfclient.keyboardsyncmode`
Value	<u>no</u> / dynamic / once
Note:	**no** - Indicates that the client uses the keyboard layout present on the server.
	dynamic - This option synchronizes the client keyboard layout to the server when you change the client keyboard layout.
	once - when the session launches

  - for configuring **new KeyboardEventMode**:
    More...

Parameter	Configure KeyboardEventMode
Registry	`ica.wfclient.keyboardeventmode`
Value	Unicode/ <u>Scancode</u>
Note:	Citrix recommends "**Scancode**" for **KeyboardSyncMode=no** and "**Unicode**" for the other values.

- Fixed implementation for **DNSCacheEnabled**.

AVD

- Updated **AVD client** to version **1.0.99.7**
- Added and enabled **MS-Teams optimization**

VMware Horizon

- Added system-wide handler to **start links which use the vmware-view protocol**.
  View session can now be **started by Chromium or** any **other application** which **uses xdg-open**.
- Updated **Horizon Client** to version **2111.1-8.4.1-19480456** which **fixes the typematic (key-repeat)** issue

Wi-Fi

- Added support for **Realtek 8852be WiFi cards**.

Cisco JVDI Client

- Updated **Cisco JVDI** to version **14.1.0**

Base system

- Added new field netmask to **SystemInformationLog** - only relevant for specific customer.

zoomvdi

- Updated **Zoom Media Plugin** to version **5.9.6.20931**
  Available Zoom Media Plugins in this release: **5.4.59458**, **5.8.4.21112**, and **5.9.6.20931**

Resolved Issues 11.07.110

Citrix

- Fix for **Self-Service enumeration** problem with consecutive users **when Multi user is off**. Introduced new parameters to **enable cleanup after Self-Service termination**:
  More...

Parameter	Clean up UI cache after Self-Service termination
Registry	`ica.selfservice.cleanupwebui`
Value	<u>false</u> / true
Parameter	Clean up Store cache after Self-Service termination
Registry	`ica.selfservice.cleanupstore`
Value	<u>false</u> / true

RD Web Access

- Fixed RD Web Access **autostart error**.

Chromium

- Fixed **custom downloads** not working **when the path was invalid**
- Fixed '**custom location**' for Chromium Browser downloads

Imprivata

- Fixed VMware **disconnect delay**

HID

- Fixed issues with **non working touchpads**, **touchscreens**, and **multimedia keys**.

CUPS Printing

- Fixed **printer selection by pattern** where manufacturer or product pattern could be left empty.

Base system

- Fixed **loss of settings on certain hardware devices** after update from a 11.05.xxx or older firmware version.
- Fixed **reliability of power off** in case **UD Pocket** stick is removed.
- Fixed / stabilized **factory reset with enabled device encryption**.

Driver

- Fixed **Olympus Dictation** devices **DS-5000**, **DS-7000**, and **DS-9500** buttons disturbing client side window handling.

Hardware

- Fixed non working **Bluetooth with Mediatek MT7961**.
- Fixed issue with **suspend/resume on Lenovo K14 Gen1 with Mediatek WiFi card**.

Remote Management

- Reduced **UMS communication load for asset inventory tracker (AIT)** feature.

Notes for Release 11.07.100

Software:	Version	11.07.100
Release Date:	2022-03-29	
Release Notes:	Version	RN-1107100-1
Last update:	2022-03-29	

- Supported Devices 11.07.100(see page 145)
- Component Versions 11.07.100(see page 146)
- Known Issues 11.07.100(see page 154)
- Security Fixes 11.07.100(see page 157)
- New Features 11.07.100(see page 161)
- Resolved Issues 11.07.100(see page 168)

The Release Notes for IGEL OS 11.07.100 are also available in the following formats:

- Plain text: RNs_1107100.txt
- HTML: lxos_11.07.100.html

Supported Devices 11.07.100

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 20
	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.07.100

Clients

Product	Version
Amazon WorkSpaces Client	3.1.9
Chromium	99.0.4844.74-igel1647438342
Cisco JVDI Client	14.0.3
Cisco Webex VDI plugin	42.2.0.21338
Cisco Webex Meetings VDI plugin	41.10.11.5
Cisco Webex Meetings VDI plugin	42.2.4.12
Cisco Webex Meetings VDI plugin	42.3.1.12
Zoom Media Plugin	5.4.59458
Zoom Media Plugin	5.8.4.21112
Zoom Media Plugin	5.9.0.20720
Citrix HDX Realtime Media Engine	2.9.400
Citrix Workspace App	20.10.0.6
Citrix Workspace App	21.11.0.20
Citrix Workspace App	21.12.0.18
deviceTRUST Citrix Channel	20.2.310.0
Crossmatch DP Citrix Channel	0125
deskMate Client	2.1.3
DriveLock Agent	20.1.4.30482
Ericom PowerTerm	14.0.1.62267
Evidian AuthMgr	1.5.7789
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech Plugins	3.8.0
FabulaTech USB for Remote Desktop	6.0.35
FabulaTech Scanner for Remote Desktop	2.7.0.1

FabulaTech Webcam for Remote Desktop	2.8.10
Firefox	91.6.1
IBM iAccess Client Solutions	1.1.8.6
IGEL RDP Client	2.2igel1643693920
IGEL AVD Client	1.0.39igel1646773894
deviceTRUST RDP Channel	20.2.310.0
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
Lakeside SysTrack Channel	9.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	7.8.2-4igel1644853628
Open VPN	2.5.6-1igel1647855849
Zulu JRE	8.0.322-1
Parallels Client	18.3.1
Spice GTK (Red Hat Virtualization)	0.39-3igel1633543285
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.11.0-2igel1633506980
SpeechWrite	1.0
Stratusphere UX Connector ID Key software	6.6.0-3
Systancia AppliDis	6.0.0-4
Teradici PCoIP Software Client	21.03.0-18.04
ThinLinc Client	4.13.0-2172
ThinPrint Client	7-7.6.126
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	4.16.0-1igel1611217037
VNC Viewer	1.12.0+dfsg-3igel1644994551
VMware Horizon Client	2111-8.4.0-18957622
Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	2017/09/29
Grundig Business Systems dictation driver	0.12/21-12-21
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	4.0.2
Philips Speech driver	13.1.10

Signature

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.10
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7-20210902
PKCS#11 Library cryptovision sc/interface	8.0.13
PKCS#11 Library Thales SafeNet	10.8.28
PKCS#11 Library OpenSC	0.22.0-2igel1643799581
PKCS#11 Library SecMaker NetID Enterprise	6.8.3.21
PKCS#11 Library SecMaker NetID Client	1.0.2.67
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.8-1igel1632136057
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.5.0-2igel1646035471

Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.9.5-3igel1646034250
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.8
OpenSSL	1.1.1-1ubuntu2.1~18.04.15
OpenSSH Client	8.9p1-3igel1646033299
OpenSSH Server	8.9p1-3igel1646033299
Bluetooth stack (bluez)	5.64-0igel1647863644
MESA OpenGL stack	21.3.7-1igel1646288715
VAAPI ABI Version	0.40
VDPAU Library version	1.4-3igel1099
Graphics Driver INTEL	2.99.917+git20210115-1igel1647326046
Graphics Driver ATI/RADEON	19.1.0-2igel1629135948
Graphics Driver ATI/AMDGPU	22.0.0-1igel1645768768
Graphics Driver Nouveau (Nvidia Legacy)	1.0.17-2igel1644486678
Graphics Driver Nvidia	470.103.01-0ubuntu0.21.10.1
Graphics Driver VMware	13.3.0-3igel1628859075
Graphics Driver QXL (Spice)	0.1.5-2build1igel1634304534
Graphics Driver FBDEV	0.5.0-2igel1644486279
Graphics Driver VESA	2.5.0-1igel1628504011
Input Driver Evdev	2.10.6-2igel1629196047
Input Driver Elographics	1.4.2-1igel1629196349
Input Driver eGalax	2.5.8825
Input Driver Synaptics	1.9.1-2igel1646823146
Input Driver VMMouse	13.1.0-1ubuntu2igel1628499891
Input Driver Wacom	0.39.0-0ubuntu1igel1629136980
Input Driver ELO Multitouch	3.0.0

Input Driver ELO Singletouch	5.1.0
Kernel	5.15.26 #mainline-lxos-g1647852051
Xorg X11 Server	21.1.3igel1645782509
Xorg Xephyr	21.1.3igel1645782509
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.500
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel14
XFCE4 Window Manager	4.14.5-1~18.04igel1643191202
ISC DHCP Client	4.3.5-3ubuntu7.3
NetworkManager	1.32.12-0ubuntu1igel1641211455
ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 0.10 Fluendo aacdec	0.10.42
GStreamer 0.10 Fluendo asfdemux	0.10.92
GStreamer 0.10 Fluendo h264dec	0.10.59
GStreamer 0.10 Fluendo mp3dec	0.10.41
GStreamer 0.10 Fluendo mpegdemux	0.10.85
GStreamer 0.10 Fluendo mpeg4videodec	0.10.44
GStreamer 0.10 Fluendo vadec	0.10.229
GStreamer 0.10 Fluendo wmadec	0.10.70
GStreamer 0.10 Fluendo wmvdec	0.10.66
GStreamer 1.x	1.18.5-1igel1633086114
GStreamer 1.0 Fluendo aacdec	0.10.42
GStreamer 1.0 Fluendo asfdemux	0.10.92
GStreamer 1.0 Fluendo h264dec	0.10.59
GStreamer 1.0 Fluendo mp3dec	0.10.41
GStreamer 1.0 Fluendo mpeg4videodec	0.10.44
GStreamer 1.0 Fluendo vadec	0.10.229
GStreamer 1.0 Fluendo wmadec	0.10.70

GStreamer 1.0 Fluendo wmvdec	0.10.66
WebKit2Gtk	2.34.6-1igel1645163872
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.32-dfsg-1igel1643178233
Virtualbox X11 Guest Utils	6.1.32-dfsg-1igel1643178233
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.22.1-1igel1646032976
Qemu Guest Agent	6.2+dfsg-3igel1646036781

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.19-1igel1633453264
Mobile Device Access USB (imobile)	1.3.0-6igel12
Mobile Device Access USB (gphoto)	2.5.27-1igel8
VPN OpenConnect	8.20-1igel1645458039
Scanner support	1.0.27-1
VirtualBox VM within IGEL OS	6.1.32-dfsg-1igel1643178233

Services

Service	Size	Reduced Firmware
Asian Language Support	22.5 M	Included
Java SE Runtime Environment	36.5 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	311.0 M	Included
Ericom PowerTerm InterConnect	10.2 M	Included

Media Player	512.0 K	Included
Local Browser (Firefox) Citrix Appliance	81.8 M	Included
VMware Horizon RDP	5.5 M	Included
Cendio ThinLinc	10.0 M	Included
Printing (Internet printing protocol CUPS)	22.2 M	Included
NoMachine NX	27.2 M	Included
VMware Horizon	216.2 M	Included
Voice over IP (Ekiga)	6.5 M	Included
Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	27.0 M	Not included
Fluendo GStreamer Codec Plugins	6.5 M	Included
IBM i Access Client Solutions	128.2 M	Not included
Red Hat Enterprise Virtualization	2.8 M	Included
Parallels Client	6.0 M	Included
NVIDIA graphics driver	261.0 M	Not included
Imprivata Appliance	14.2 M	Included
AppliDis	256.0 K	Included
Evidian AuthMgr	2.8 M	Included
Hardware Video Acceleration	14.2 M	Included
Extra Font Package	1.0 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	3.8 M	Included
Cisco JVDI client	66.2 M	Included
PrinterLogic	47.8 M	Not included
Biosec BS Login	10.0 M	Not included
Login VSI Login Enterprise	28.8 M	Not included
Stratusphere UX CID Key software	7.5 M	Not included

Elastic Filebeat	22.2 M	Not included
AVD	105.8 M	Included
Local Browser (Chromium)	94.2 M	Not included
Amazon WorkSpaces Client	32.2 M	Included
deskMate client	5.8 M	Included
Cisco Webex VDI	60.0 M	Not included
Cisco Webex Meetings VDI	111.5 M	Not included
Zoom Media Plugin	127.8 M	Not included
DriveLock	13.2 M	Included
SpeechWrite Client	256.0 K	Included
Fluendo Browser Codec Plugins	4.0 M	Included
HP Factory deployment documentation	88.5 M	Included
Teradici PCoIP Client	16.0 M	Included
90meter Smart Card Support	256.0 K	Included
Virtualbox (Limited support) Mobile Device Access USB (Limited support) VPN OpenConnect (Limited support) Scanner support / SANE (Limited support) Limited Support Features	256.0 K	Not included
Mobile Device Access USB (Limited support)	256.0 K	Not included
VPN OpenConnect (Limited support)	1.2 M	Not included
Scanner support / SANE (Limited support)	2.5 M	Not included
VirtualBox (Limited support)	65.2 M	Not included

Known Issues 11.07.100

Citrix

- To launch **multiple desktop sessions** with Citrix HDX RTME and Citrix H.264 acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

- This workaround is not applicable when **Enable Secure ICA** is active for the specific delivery group.
- Adding **smartcard readers** during running / active sessions does not work. The **reader is visible, but cannot be used due to unknown reader status**. Only relevant for **CWA versions earlier than 2112**.
- There are known issues with **GStreamer 1.0** in combination with Citrix. These occur with **multimedia redirection of H.264, MPEG1, and MPEG2.** (GStreamer 1.0 is used if browser content redirection is enabled active.)
- **Browser content redirection** does not work with activated DRI3 and hardware-accelerated H.264 deep compression codec enabled.
- Enabled **DRI3** on an **AMD GPU with enabled Citrix H.264 acceleration** could lead to a **freeze**. **Selective H.264 mode (API v2) is not affected** by this issue.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- Currently, **H.264** for Citrix sessions **cannot be used in parallel with video input acceleration**.

OSC Installer

- **OSC not deployable with IGEL Deployment Appliance**: New version **11.3 is required** for deployment of IGEL OS 11.06. and later.

VMware Horizon

- After **disconnect of an RDP-based session**, the **Horizon main window** which contains the server or sessions overview, **cannot be resized** anymore.
- **Copying Text from Horizon Blast sessions** is not possible.
- The **on-screen keyboard in Horizon appliance mode** does not work correctly with the local logon.
  It is necessary to switch off local logon and enable the following two keys via IGEL registry:
  `userinterface.softkeyboard.autoshow`
  `userinterface.softkeyboard.autohide`
- **Zoom VDI Media Plugin** versions **below 5.8.0** make **Horizon Client crash upon connection to the remote desktop** in cases when TC Setup is running at the same time.

- **With the usage of the PCoIP protocol, the virtual channel provided by VMware used for serial port and scanner redirection could freeze on logout** from the remote session.
  This **happens only with enabled scanner or serial port redirection**. The freeze does not occur if both redirection methods are enabled or none of them. **The Blast Protocol is not affected** by this bug.
  The respective settings can be found in the IGEL Registry:
  ```
  vmware.view.enable-serial-port-redir
  vmware.view.enable-scanner-redir
  ```
- **Keyboard Input Source Language Synchronization** works only when using a local layout with deadkeys enabled.
  If a **keyboard layout is used which has deadkeys disabled** (which is the default on IGEL OS), **Horizon client falls back to en-US layout**.
- **PCoIP sessions may crash** in some cases, **switching to Blast Protocol is recommended** then.
  H.264/HEVC encoding can be **disabled** when **overall performance** is too **low**.
- **Client drive mapping and USB redirection for storage devices** can be enabled at the same time, but this could lead to sporadical problems.
  Horizon Client tracks the drives which are dynamically mounted and adds them to the remote session using client drive mapping, means USB redirection is not used for these devices then. However, in case of devices like USB SD card readers, Horizon does not map them as client drives but forcefully uses USB redirection which results in an unclean unmount.
  As a **work-around**, the IDs of these card readers can be added to IGEL USB access rules and denied.

Parallels Client

- **Attached storage devices appear as network drives** in the remote session.
- **USB device redirection** is considered **experimental for the Parallels client for Linux**.

Firefox

- With **enabled Citrix Browser Content Redirection (BCR)**, **Firefox has no H.264 and AAC multimedia codec support**. This means **when codec support is needed in Firefox, BCR needs to be disabled**. Citrix Browser Content Redirection is disabled by default.

Network

- **Wakeup** from system suspend **fails on DELL Latitude 5510**.

Wi-Fi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Cisco JVDI Client

- There may be a **segfault** shown in the logs (during log out of Citrix Desktop session). Occurs only when using **Citrix Workspace app 2010** and **Cisco JVDI**.

Base system

- **Hyper-V (Generation 2) needs a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.
- **Update from memory stick requires network online state** (at least when multiple update stages are triggered / necessary).

Conky

- The **right screen when using a multiscreen environment** may not be shown correctly. **Workaround**: The horizontal offset should be set to the width of the monitor (e.g. if the monitor has a width of 1920, the offset should be set to 1920).

Firmware update

- On **devices with 2 GB of flash** storage, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Please visit Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a possible solution and additional information.

Appliance Mode

- When ending a **Citrix session in browser appliance mode**, the browser is restarted twice instead of once.
- Appliance mode RHEV/Spice: **spice-xpi firefox plugin** is no longer supported. The **Console Invocation** has to allow **Native** client (auto is also possible) and should be started in fullscreen to prevent any opening windows.
- **Browser Appliance mode** can fail when the **Web URL contains special control characters** like ampersands (& character). **Workaround**: Add quotes at the beginning and the end of an affected URL. Example: 'https://www.google.com/search?q=aSearchTerm&source=lnms&tbm=isch'

Audio

- **IGEL UD2 (D220)** fails to restore the **volume level** of the speaker when the device used firmware version 11.01.110 before.
- **Audio jack detection** on **Advantech POC-W243L** does not work. Therefore, sound output goes through a possibly connected headset and also the internal speakers.
- **UD3-M340C**: **Sound preferences** are **showing Headphone & Microphone**, although not connected.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU** driver.

Hardware

- Some newer **Delock 62599 active DisplayPort to DVI (4k)** adapters only work on INTEL-based devices.

Remote Management

- **AIT feature** with **IGEL Starter License** is only supported by UMS version 6.05.100 or newer.

Security Fixes 11.07.100

Chromium

- Fixed **chromium-browser** security issues:
  More...

  CVE-2021-37973, CVE-2021-37972,
  CVE-2021-37971, CVE-2021-37970, CVE-2021-37969, CVE-2021-37968,
  CVE-2021-37967, CVE-2021-37966, CVE-2021-37965, CVE-2021-37964,
  CVE-2021-37963, CVE-2021-37962, CVE-2021-37961, CVE-2021-37960,
  CVE-2021-37959, CVE-2021-37958, CVE-2021-37957, CVE-2021-37956,
  CVE-2021-30633, CVE-2021-30632, CVE-2021-30631, CVE-2021-30630,
  CVE-2021-30629, CVE-2021-30628, CVE-2021-30627, CVE-2021-30626,
  CVE-2021-30625, CVE-2021-30624, CVE-2021-30623, CVE-2021-30622,
  CVE-2021-30621, CVE-2021-30620, CVE-2021-30619, CVE-2021-30618,
  CVE-2021-30617, CVE-2021-30616, CVE-2021-30615, CVE-2021-30614,
  CVE-2021-30613, CVE-2021-30612, CVE-2021-30611, CVE-2021-30610,
  CVE-2021-30609, CVE-2021-30608, CVE-2021-30607, CVE-2021-30606,
  CVE-2021-30604, CVE-2021-30603, CVE-2021-30602, CVE-2021-30601,
  CVE-2021-30600, CVE-2021-30599, CVE-2021-30598, CVE-2021-30597,
  CVE-2021-30596, CVE-2021-30594, CVE-2021-30593, CVE-2021-30592,
  CVE-2021-30591, CVE-2021-30590, CVE-2021-30589, CVE-2021-30588,
  CVE-2021-30587, CVE-2021-30586, CVE-2021-30585, CVE-2021-30584,
  CVE-2021-30583, CVE-2021-30582, CVE-2021-30581, CVE-2021-30580,
  CVE-2021-30579, CVE-2021-30578, CVE-2021-30577, CVE-2021-30576,
  CVE-2021-30575, CVE-2021-30574, CVE-2021-30573, CVE-2021-30572,
  CVE-2021-30571, CVE-2021-30569, CVE-2021-30568, CVE-2021-30567,
  CVE-2021-30566, CVE-2021-30565, CVE-2021-37976, CVE-2021-37975,
  CVE-2021-37974, CVE-2021-37977, CVE-2021-37979, CVE-2021-37980,
  CVE-2021-37981, CVE-2021-37982, CVE-2021-37983, CVE-2021-37984,
  CVE-2021-37985, CVE-2021-37986, CVE-2021-37987, CVE-2021-37988,
  CVE-2021-37989, CVE-2021-37990, CVE-2021-37991, CVE-2021-37992,
  CVE-2021-37993, CVE-2021-37996, CVE-2021-37994, CVE-2021-37995,
  CVE-2021-38003, CVE-2021-38002, CVE-2021-38001, CVE-2021-38000,
  CVE-2021-37999, CVE-2021-37998, and CVE-2021-37997

Base system

- Fixed **binutils** security issues CVE-2021-3487 and CVE-2020-16592.
- Fixed **bind9** security issues CVE-2021-25219 and CVE-2021-25220.
- Fixed **libcaca** security issues CVE-2021-30499 and CVE-2021-30498.
- Fixed **icu** security issue CVE-2020-21913.
- Fixed **mysql-5.7** security issues:
  More...

  CVE-2021-35624, CVE-2021-35604, CVE-2022-21367,
  CVE-2022-21344, CVE-2022-21304, CVE-2022-21303,
  CVE-2022-21270, and CVE-2022-21245

- Fixed **postgresql-10** security issues CVE-2021-23222 and CVE-2021-23214.

- Fixed **nfs-utils** security issue CVE-2019-3689.
- Fixed **openssh** security issue CVE-2021-41617.
- Fixed **qemu** security issues:
  More...

  CVE-2021-3748, CVE-2021-3713, CVE-2021-3682,
  CVE-2021-3638, CVE-2021-3608, CVE-2021-3607, CVE-2021-3582, CVE-2021-3546,
  CVE-2021-3545, CVE-2021-3544, CVE-2021-3527, CVE-2021-3416, CVE-2021-3409,
  CVE-2021-3392, CVE-2021-20263, CVE-2021-20257, CVE-2021-20221, CVE-2021-20181,
  CVE-2020-35517, CVE-2020-35506, CVE-2020-35505, CVE-2020-35504,
  CVE-2020-29443, CVE-2020-25085, CVE-2020-17380, CVE-2021-20203,
  CVE-2021-20196, CVE-2021-20255, and CVE-2021-4158

- Fixed **tpm2-tools** security issue CVE-2021-3565.
- Fixed **chromium-browser** security issues:
  More...

  CVE-2021-38022, CVE-2021-38021,
  CVE-2021-38020, CVE-2021-38019, CVE-2021-38018, CVE-2021-38017,
  CVE-2021-38016, CVE-2021-38015, CVE-2021-38014, CVE-2021-38013,
  CVE-2021-38012, CVE-2021-38011, CVE-2021-38010, CVE-2021-38009,
  CVE-2021-38008, CVE-2021-38007, CVE-2021-38006, CVE-2021-38005, CVE-2021-4102,
  CVE-2021-4101, CVE-2021-4100, CVE-2021-4099, CVE-2021-4098, CVE-2021-4078,
  CVE-2021-4068, CVE-2021-4066, CVE-2021-4065, CVE-2021-4064, CVE-2021-4063,
  CVE-2021-4062, CVE-2021-4059, CVE-2021-4058, CVE-2021-4057, CVE-2021-4056,
  CVE-2021-4055, CVE-2021-4054, CVE-2021-4053, CVE-2021-4052, CVE-2022-0120,
  CVE-2022-0118, CVE-2022-0117, CVE-2022-0116, CVE-2022-0115, CVE-2022-0114,
  CVE-2022-0113, CVE-2022-0112, CVE-2022-0111, CVE-2022-0110, CVE-2022-0109,
  CVE-2022-0108, CVE-2022-0107, CVE-2022-0106, CVE-2022-0105, CVE-2022-0104,
  CVE-2022-0103, CVE-2022-0102, CVE-2022-0101, CVE-2022-0100, CVE-2022-0099,
  CVE-2022-0098, CVE-2022-0097, CVE-2022-0096, CVE-2022-0311, CVE-2022-0310,
  CVE-2022-0309, CVE-2022-0308, CVE-2022-0307, CVE-2022-0306, CVE-2022-0305,
  CVE-2022-0304, CVE-2022-0302, CVE-2022-0301, CVE-2022-0300, CVE-2022-0298,
  CVE-2022-0297, CVE-2022-0296, CVE-2022-0295, CVE-2022-0294, CVE-2022-0293,
  CVE-2022-0292, CVE-2022-0291, CVE-2022-0290, CVE-2022-0289, CVE-2022-0980,
  CVE-2022-0979, CVE-2022-0978, CVE-2022-0977, CVE-2022-0976, CVE-2022-0975,
  CVE-2022-0974, CVE-2022-0973, CVE-2022-0972, and CVE-2022-0971

- Fixed **vim** security issues:
  More...

  CVE-2021-3928, CVE-2021-3927, CVE-2021-3903,
  CVE-2021-4069, CVE-2021-4019, and CVE-2021-3984

- Fixed **hivex** security issue CVE-2021-3504.
- Fixed **heimdal** security issue CVE-2021-3671.
- Fixed **nss** security issue CVE-2021-43527.
- Fixed **glib2.0** security issue CVE-2021-3800.
- Fixed **python3.6** security issues CVE-2021-3737 and CVE-2021-3733.
- Fixed **samba** security issues:
  More...

CVE-2021-3671, CVE-2020-25722, CVE-2020-25717,
CVE-2016-2124, and CVE-2021-44142

- Fixed **xorg-server** security issues CVE-2021-4011, CVE-2021-4010, CVE-2021-4009, and CVE-2021-4008.
- Fixed **webkit2gtk** security issues:
  More...

  CVE-2021-30809, CVE-2021-30836, CVE-2021-30818, CVE-2021-30823,
  CVE-2021-30884, CVE-2021-30888, CVE-2021-30889, CVE-2021-30897,
  CVE-2021-30887, CVE-2021-30890, CVE-2021-45482, CVE-2021-45481,
  CVE-2021-45483, CVE-2021-30934, CVE-2021-30936, CVE-2021-30951,
  CVE-2021-30952, CVE-2021-30953, CVE-2021-30954, CVE-2021-30984,
  CVE-2022-22592, CVE-2022-22590, CVE-2022-22589, and CVE-2022-22620

- Fixed **policykit-1** security issue CVE-2021-4034.
- Fixed **bluez** security issues CVE-2021-43400 and CVE-2021-41229.
- Fixed **ghostscript** security issues CVE-2021-45949 and CVE-2021-45944.
- Fixed **lxml** security issue CVE-2021-43818.
- Fixed **pillow** security issues:
  More...

  CVE-2022-22817, CVE-2022-22816, CVE-2022-22815,
  CVE-2021-34552, and CVE-2021-23437

- Fixed **systemd** security issue CVE-2021-3997.
- Fixed **bubblewrap** security issue CVE-2020-5291.
- Fixed **libgcrypt20** security issues CVE-2021-40528, CVE-2021-33560, and CVE-2019-13627.
- Fixed **ntfs-3g** security issues:
  More...

  CVE-2021-39263, CVE-2021-39262, CVE-2021-39261,
  CVE-2021-39260, CVE-2021-39259, CVE-2021-39258, CVE-2021-39257,
  CVE-2021-39256, CVE-2021-39255, CVE-2021-39254, CVE-2021-39253,
  CVE-2021-39252, CVE-2021-39251, CVE-2021-35269, CVE-2021-35268,
  CVE-2021-35267, CVE-2021-35266, CVE-2021-33289, CVE-2021-33287,
  CVE-2021-33286, and CVE-2021-33285

- Fixed **cifs-utils** security issues CVE-2021-20208 and CVE-2020-14342.
- Fixed **qtsvg-opensource-src** security issues CVE-2021-45930, CVE-2021-3481, and CVE-2018-19869.
- Fixed **shadow** security issue CVE-2018-7169.
- Fixed **ldns** security issues CVE-2020-19861 and CVE-2020-19860.
- Fixed **expat** security issues:
  More...

  CVE-2022-23990, CVE-2022-23852, CVE-2022-22827,
  CVE-2022-22826, CVE-2022-22825, CVE-2022-22824, CVE-2022-22823,
  CVE-2022-22822, CVE-2021-46143, CVE-2021-45960, CVE-2019-15903,
  CVE-2018-20843, CVE-2013-0340, CVE-2022-25315, CVE-2022-25314,
  CVE-2022-25313, CVE-2022-25236, and CVE-2022-25235

- Fixed **libvirt** security issues CVE-2021-4147 and CVE-2021-3667.
- Fixed **libproxy** security issues CVE-2020-26154 and CVE-2020-25219.

- Fixed **libssh** security issues:
  More...

  CVE-2020-1730, CVE-2019-14889, CVE-2018-10933,
  CVE-2021-3634, and CVE-2020-16135

- Fixed **speex** security issue CVE-2020-23903.
- Fixed **libxml2** security issue CVE-2022-23308.
- Fixed **cyrus-sasl2** security issue CVE-2022-24407.
- Fixed **glibc** security issues:
  More...

  CVE-2022-23219, CVE-2022-23218, CVE-2021-3999,
  CVE-2021-35942, CVE-2021-3326, CVE-2021-27645, CVE-2020-6096, CVE-2020-29562,
  CVE-2020-27618, CVE-2019-25013, and CVE-2016-10228

- Fixed **openssl1.0** security issue CVE-2022-0778.
- Fixed **openssl** security issue CVE-2022-0778.
- Fixed **tar** security issue CVE-2021-20193.
- Fixed **openvpn** security issue CVE-2022-0547.
- Fixed **duplicated User IDs**.
- Fixed **kernel** security issue CVE-2022-0847, also **known as Dirty Pipe**.
- Fixed security issues CVE-2021-0127 and CVE-2021-0146 via **updated intel-microcode** to version **20220207**

New Features 11.07.100

Citrix

- Changed: For **Browser Content Redirection**, the **Chromium Embedded Framework** is used by default now - Parameter `ica.allregions.usecefbrowser` is set to **true** (as default).
- Added **Citrix Workspace App 2112**
  Available Citrix Workspace Apps in this release: 2112 (default), 2111, and 2010
- New features:
  - The **cursor color inverts based on the background color of a text**.
    More...

Parameter	Support for cursor color inverting
Registry	`ica.wfclient.invertcursorenabled`
Value	<u>false</u> / true

  - Enhancement on **smartcard support**.
    More...

Parameter	SmartCard driver
Registry	`ica.module.VirtualDriver.SmartCard.drivername`
Value	<u>VDSCARD.DLL</u> / VDSCARDV2.DLL
Note	VDSCARDV2.DLL supports the Plug and Play functionality for smartcard reader

  - The **PulseAudio library** is **used instead of ALSA** to access multiple audio devices within a session (Experimental).
    More...

Parameter	Multiple Audio Device support
Registry	`ica.module.audioredirectionv4`
Value	<u>false</u> / true

  - Note: The **VdcamVersion4Support** is **renamed** to **AudioRedirectionV4**, so registry key `ica.module.vdcamversion4support` is removed.
  - **UDP audio through Citrix Gateway** (Experimental).
    More...

Parameter	UDP audio through Citrix Gateway
Registry	`ica.module.enableudpthroughgateway`
Value	<u>false</u> / true

- **Webcam redirection for 64-bit apps** (Technical Preview)
  For 64-bit webcam redirection, the following parameters must be enabled:
  `ica.wfclient.allowaudioinput = True` (default)
  `ica.wfclient.hdxh264inputenabled = True`
- Added a registry key to enable **hardware acceleration for webcam redirection with 64-bit applications**. The effect is based on prerequisites as following:
  `ica.wfclient.allowaudioinput=true`
  (default), `ica.wfclient.hdxh264inputenabled=true`,
  `ica.wfclient.hdxwebcamenabled=true` and available acceleration hardware plus license.
  More...

Parameter	Enable gstreamer input hardware encoder
Registry	`ica.wfclient.gstread_encoder`
Value	false / <u>true</u>

- **Known issue**: Currently, **H.264 for Citrix sessions in parallel with the above video acceleration will fail**, only either or is possible.
- Updated **signotec Virtual Channel Driver** to version **8.0.10**

AVD

- Added **global proxy setting via Automatic Proxy Configuration** (`pac` file).
- The following parameters need to be set accordingly:
  More...

IGEL Setup	**Network > Proxy**
Parameter	Automatic proxy configuration
IGEL Setup	**Sessions > AVD > AVD Sessions > AVD Session > Proxy**
Parameter	Global Proxy Setting

- Added **version notification when new IGEL AVD client versions are available**. To disable the notification, the following parameter has been added:
  More...

Registry	`sessions.wvd%.options.version-check`
Value	<u>enabled</u> / disabled

Parallels Client

- Updated **Parallels client** to version **18.3.1**

NX client

- Updated **NX client** to version **7.8.2**

Chromium

- **Removed** support for **TLS 1.0 and 1.1**.
- Updated **Chromium** Browser to version **99.0.4844.74**.

Firefox

- Updated **Mozilla Firefox** to version **91.6.1 ESR**.

Network

- Updated **Network Manager** to version **1.32**.

Wi-Fi

- Updated **Network Manager** to version **1.32**.
- Added **ath11k** Wi-Fi driver.
- Updated **wpa_supplicant** to version **2.10**.

Smartcard

- Updated **cryptovision sc/interface** to version **8.0.13**. Changes are:
  - Support for CardOS 5.4 / 5.5
  - Support for DTRUST 4.x
  - Support for Bayern-PKI Legacy-Karte
  - Support for ePasslet-Suite-3.5 on NXP JCOP4
  - Integration of CardOS based "PKIBw-Karte 7.1" (tPKI)
- Added new **smartcard middleware SecMaker Net iD Client**. The existing middleware **SecMaker Net iD** remains in the firmware and is **renamed to SecMaker Net iD Enterprise** (no need for configuration changes).
  More...

IGEL Setup	**Security > Smartcard > Middleware**
Parameter	Secmaker Net iD Client
Registry	`scard.pkcs11.use_netid-client`
Value	<u>false</u> / true

IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with SecMaker Net iD Client smartcards
Registry	`vmware.view.pkcs11.use_netid-client`
Value	<u>false</u> / true

IGEL Setup	**Sessions > Firefox Browser > Firefox Browser Global > Smartcard Middleware**
Parameter	SecMaker Net iD Client Security Device
Registry	`browserglobal.security_device.use_netid-client`
Value	<u>false</u> / true

IGEL Setup	**Sessions > Chromium Browser > Chromium Browser Global > Smartcard Middleware**
Parameter	SecMaker Net iD Client Security Device
Registry	`chromiumglobal.security_device.use_netid-client`
Value	<u>false</u> / true

- Updated **Athena IDProtect smartcard library** to version **7-20210902**. This fixes smartcard logon using Horizon client and CRYPTAS TicTok v2 cards.
- Added configuration parameters for options of **PC/SC lite smartcard daemon** which are needed in some cases:
  More...

Parameter	Maximum number of threads
Registry	`scard.pcscd.max_thread`
Value	200 (default)

Parameter	Maximum number of card handles per thread
Registry	`scard.pcscd.max_card_handle_per_thread`
Value	200 (default)

Parameter	Maximum number of card handles per reader
Registry	`scard.pcscd.max_card_handle_per_reader`
Value	200 (default)

Parameter	Keep card always powered on
Registry	`scard.pcscd.power_on`
Value	false (default)

Cisco Webex

- Updated **Cisco WebEx VDI plugin** to version **42.2**
- Updated **Cisco WebEx Meeting VDI plugins**. Available plugins in this release: **42.3.1.12** (default), **42.2.4.12**, and **41.10.11.5**

Base system

- Added support for **Thai keyboard layout and localization**.
- Updated **kernel** to version **5.15.26**
- Fixed security issue **CVE-2022-0185**.
- Updated **intel-microcode** to version **20220207** to fix security issues CVE-2021-0127 and CVE-2021-0146.
- Updated **mesa** to version **21.3.7**.
- Switched to **Ubuntu Focal version** of **glibc**.
- Switched to **Ubuntu Focal version** of **libstdc++6**

- Updated **HP documentation for devices deployed directly by HP**.
- Added new registry key to include **systemd** information **in the support files**.
  More...

Parameter	Collect systemd information for support files
Registry	`debug.collect_sysd_info_for_support`
Value	enabled / <u>disabled</u>

- Added new registry key to include **systemd-analyze plot in the support files**.
  More...

Parameter	Include systemd-analyze plot svg-image in support files
Registry	`debug.create_sysd_plot_for_support`
Value	enabled / <u>disabled</u>

- **Teradici PCoIP Client** does **not require an Add-On license anymore**, this is now part of the Workspace Edition license.
- Added new registry key to **switch between the default (igel) and the unchanged asound2 pulse plugin** type:
  More...

Parameter	Asound2 plugins type
Registry	`multimedia.alsa.asound2_plugin_type`
Range	[<u>default</u>] [igel] [vanilla]

CID Key Agent

- Updated **Stratusphere UX Agent** to version **6.6.0-3**

Driver

- Updated **Philips Speech dictation drivers** to version **13.1.10**. Changes are amongst others:
  - Increased robustness in session switching/roaming use cases
  - Support of Philips SmartMike Duo USB devices
  - RDP plugins now use native freerdp instead of elusiva interface

X server

- Updated **Xorg** server to version **21.1**

Window manager

- Added: The l**ocation of the notification pop-up window** is now configurable.
  More...

Parameter	Location of notifications
Registry	`windowmanager.wm%.variables.notifications.location`

Range	[Top left] [Bottom left] [Top right] [Bottom right] [Center]

Audio

- Added audio support for **LG AiO with Realtek ALC256 chipset**.
- Updated **EPOS** Connect to version **7.0.0.19714**.

Multimedia

- Added a parameter to control the **webcam powerline frequency**. The "**Auto**" option **uses the camera's default settings**.
  More...

IGEL Setup	**Registry > multimedia > webcam**
Parameter	powerline_frequency
Registry	`multimedia.webcam.powerline_frequency`
Range	[Auto] [50 HZ] [60 HZ]

zoomvdi

- Updated **Zoom VDI plugin** to version **5.9.0.20720**
  Available plugins in this release: **5.9.0.20720** (default), **5.8.4.21112**, and **5.4.59458**

Misc

- Added **representation of all systemd-units installed in the firmware** is **now included in the support_information**, which can be created in the UMS.

Hardware

- Added **HP mt46 Mobile Thin Client** into supported hardware list.
- Updated **NVIDIA** driver to version **470.86**.
- Added **gddccontrol** to **control monitor parameters** like brightness, contrast, and so on.

TC Setup (Java)

- Updated **TC Setup** to version **6.10.1**.

Remote Management

- Added: Transfer **details** (MAC addresses etc.) **of all available network adapters**.
- Added support for **device-specific attributes defined by the UMS**. The list of device attributes is received from the UMS during boot. To access the data, the new rmagent commands are available:

  /sbin/rmagent-devattrs-enum
  Enumerate the list in the form: **ATTR_NAME:ATTR_TYPE:ATTR_VALUE**. The enumeration is ordered according to the attribute's order id.

  /sbin/rmagent-devattrs-enum-range \<ATTR_NAME>
  Enumerate entries of the given range. The enumeration is ordered according to the range item's order id.

  /sbin/rmagent-devattrs-get-type \<ATTR_NAME>
  Print type of the given attribute. Known types are string, number, data or range.

/sbin/rmagent-devattrs-get \\<ATTR_NAME>
Print value of the given attribute.

/sbin/rmagent-devattrs-set \\<ATTR_NAME> \\<ATTR_VALUE>
Set the given attribute to the specified value. The command doesn't check value type but permission rule defined for the attribute.

/sbin/rmagent-devattrs-reset \\<ATTR_NAME>
Reset the given attribute, the attribute doesn't have then an empty value.

/sbin/rmagent-devattrs-sync
Calculate current checksum and send the attribute list to the UMS if the checksum is different than the sum received from the UMS.

/sbin/rmagent-write-device-attributes
Send the attribute list to the UMS.

As attribute name, the UMS internal name of the attribute must be used. See Managing IGEL OS Devices by Device Specific Data - What Device Attributes Can Do for You.

Fabulatech

- Updated **Fabulatech USB Redirection Client** plugins to **3.8.0**
- Updated **FabulaTech USB for Remote Desktop** to version **6.0.35**.
- Added: **FabulaTech device redirection** now **works with Horizon Blast**

Resolved Issues 11.07.100

Citrix

- With **CWA 2012**, **Citrix** has **revised** the **client drive mapping**, with which we can no longer preset the right of the drives. Since then, the user can assign these rights in the session itself. So that this selection remains also over a
  reboot, we store the necessary file persistently on our system.
- Updated **window manager** so that the proxy Authentication window comes to the foreground and is focused when the Citrix Brower content redirection with Cef is used.
- Fixed **window settings** for Citrix Desktop sessions
- Added parameter for **Browser Content Redirection with CEF** to enable global proxy support. **More...**

Parameter	Browser content redirection with CEF via proxy
Registry	`ica.module.virtualdriver.webpageredirection.cef_proxy_env`
Value	<u>true</u> / false

- Fixed **multimedia support** for Citrix **when used HWA in Firefox**.
- Fixed **high CPU load in MS Teams** and **Citrix Workspace App 2112**.

OSC Installer

- Fixed **OSC Recovery with enabled "Migrate Old Settings"**
- Fixed OSC issue with **bogus character in license type field and not shown add-on licenses**.
- Fixed returning to installer after **closing Factory ID window**.

AVD

- Added several **performance optimizations**.

RDP/IGEL RDP Client 2

- Fixed **wrong error message** when RDP session was closed by idle timeout.

RD Web Access

- Fixed RD Web Access **windows moving out of the screen**.
- Fixed **downloading published applications**.

Parallels Client

- Fixed **multi-monitor** issues.

X session (Xephyr)

- Fixed **segfault with xdmcp sessions** to an OpenVMS environment.
- Fixed **fullscreen and workarea x sessions** that are **expanded over 2 or more monitors**: The session window opens properly and the single monitors are detected inside the x session.
- Fixed **host chooser button events** in x sessions with connection type "indirect via localhost".

Firefox

- Fixed usage of **Athena IDProtect** smartcards.
- Fixed **usage of IGEL extensions when private browsing is enabled**. These are important to set restricted kiosk mode settings.
- Fixed installed **translations for user interface**.
- Fixed **download prevention with restricted / hidden file system access**. Without the fix, the current browser implicitly put the file into the standard Downloads folder - without the possibility to interfere.
- Fixed **crash** which always occurred **during the internal probing of 3D support for WebGL**. So WebGL is now available again for the supported display drivers.
- Fixed client **certificate management via IGEL TC Setup**. Firefox's standard certificate dialog is used now.

Chromium

- Fixed **comma-separated strings in custom policies** broke some Chromium Browser policies.
- Fixed **emojis have not been loaded** in Chromium (also affects Chromium Embedded Framework).
- **Removed "What's new" tab** showing on the first start and after Chromium updates.

Network

- Fixed **could not mount** issue **with some NFS 4.1 and 4.2 servers (QNAP)**.
- Fixed **global no-proxy list** getting effective via gconf2. This e.g. can help Citrix Workspace App using the right proxy configuration.
- **Removed** now **unsupported samba security modes** (NTLM, NTLMi, and LanMan) as these would cause mount failures. This removes also support for very old SMB v1 servers. Changed the following registry key to:
  More...

Parameter	Security Mode
Registry	`network.smbmount%.security_mode`
Range	[default] [ntlmv2] [NTLMSSP] [ntlmv2i] [NTLMSSPi]

Wi-Fi

- Added setup registry key to **select between wpa_supplicant/iwd as Wireless back-end**.
- **AVM Fritz!WLAN N v2 USB Stick**, only works with iNet Wireless Daemon (iwd) as Wi-Fi back-end.
  More...

Parameter	Wi-Fi backend
Registry	`network.interfaces.wirelesslan.wireless_backend`
Range	[iNet Wireless Daemon (iwd)]
Value	Wi-Fi Protected Access client and IEEE 802.1X supplicant (wpa_supplicant)

- Fixed issue with **TP-Link AC600** not working on 5GHz (8821au driver).
- Improved **reconfiguring regulatory domain** settings at runtime

Open VPN

- Added **config parameter for extending arguments of VPN command**:
  More...

Registry	`sessions.openvpn%.vpnopts.extend_opts`
Value	extend parameter as string

- Enter parameter starting with `` `--` ``.
  Example: `` `--ping 10 --ping-restart 120` ``
- Parameters that are already set in the GUI must not be used.

Imprivata

- Fixed **Imprivata data partition**: remove outdated artefacts, keep latest version of the configuration-editor

Smartcard

- Added **option to unlock screen lock in case of Kerberos smartcard login** by only checking the PIN of the smart card.
  More...

Parameter	Only check smartcard PIN on unlock
Registry	`auth.login.pkcs11_screenlock_unlock`
Value	<u>false</u> / true

- Fixed: Maximum **number of simultaneous smartcard context**s were **raised in smartcard resource manager PC/SC lite**.

HID

- **Changed default** of `userinterface.touchpad.tapping.TapButton1` registry key **to 1** so tapping is active as default again (if set to 0 tapping is disabled).

CUPS Printing

- Fixed handling of **more than one printer and printer selection by USB IDs.**
  - Fixed **classification of some HP printers as scanners only** which made printing impossible because of missing access rights.
- Fixed **TCP/IP print server** functionality **with USB printers**. Printing was not possible in some cases, e.g. when certain other USB devices were connected.

Base system

- Added driver for several **Intel SOC NVME controller**. Required for e.g. HP G8 250.
- Added new parameter for **custom font path configuration**. Add a new instance for each custom font path:
  More...

Parameter	Enable Custom Font Path
Registry	`x.fontpaths.custom<instance nr>.enabled`
Value	enabled / <u>disabled</u>

Parameter	Custom Font Path
Registry	`x.fontpaths.custom<instance nr>.path`
Parameter	Font Path Position
Registry	`x.fontpaths.custom<instance nr>.position`
Value	99 (default)

- Fixed **display configuration problems caused by wrong access permissions** of `/wfs/user/graphic` folder.
- Fixed **battery indicator**.
- Fixed **Setup Assistant** - After acceptance of EULA, **Demo License flow was not available**.
- Fixed **wrongly shown Starter license info in Product ID** on fully licensed devices.
- Fixed product id for **IGEL UD6**.
- Fixed issues with **global proxy configuration**.
- Fixed sporadic failures while **custom partition initialisation**.
- Fixed **Finish** button **label in Setup Assistant.**
- Fixed **missing generation number in Product ID** (About and UMS).
- Fixed **applications from custom partition get killed** when network is up.
- Fixed IGEL system uses **far too much RAM inside a VM**.
- Added **registry key to allow old weak public key algorithms for older SSH** servers.
  More...

Parameter	Disable weak Pubkey algorithms
Registry	`network.ssh_client.disable_weak_pubkey_algos`
Type	bool
Value	<u>enabled</u> / disabled

- Added registry key to **switch between the default (igel) and the unchanged asound2 pulse plugin** type:
  More...

Parameter	Asound2 plugins type
Registry	`multimedia.alsa.asound2_plugin_type`
Range	[<u>default</u>] [igel] [vanilla]

Driver

- Fixed **Citrix terminate** with Olympus RM4010P connected and hardware button pressed.
- Fixed **Olympus FootSwitch** being detected **as mouse buttons.**
- Added driver for **MediaTek MT7921**.
- Fixed several problems of **MediaTek MT7921** driver.

X11 system

- Added new registry keys which can be useful to fix issues with **monitors not waking up after DPMS off events**.
  More...

Parameter	Quirk for DPMS Off to On event.
Registry	`x.dpms_quirks.off_on.quirk`
Range	[none] [refresh-change]
Parameter	Wait time in seconds before executing quirk after DPMS event.
Registry	`x.dpms_quirks.off_on.wait_before`
Type	string
Value	1
Parameter	Wait time in seconds between two quirk states.
Registry	`x.dpms_quirks.off_on.wait_between`
Type	string
Value	3
Parameter	Wait time in seconds after execution of quirk.
Registry	`x.dpms_quirks.off_on.wait_after`
Type	string
Value	1
Parameter	Xrandr connector names where quirk should apply (empty means all)
Registry	`x.dpms_quirks.off_on.connectors_to_quirk`
Type	string
Value	empty

X server

- Fixed **monitor configuration when modesetting graphics driver is enabled**.
- Added new registry keys for **xorg modesetting** options:
  More...

Parameter	Use linear framebuffer instead of tiling one.
Registry	`x.drivers.modesetting.use_linear_framebuffer`
Range	[Default] [True] [False]

Parameter	Use variable refresh rate.
Registry	`x.drivers.modesetting.use_variable_refresh`
Range	[Default] [True] [False]
Parameter	Use async flips for secondary video outputs on multi-display setups.
Registry	`x.drivers.modesetting.use_async_flip_secondaries`
Range	[Default] [True] [False]
Parameter	Use DRI3 page flipping.).
Registry	`x.drivers.modesetting.use_page_flip`
Range	[Default] [True] [False]
Parameter	Use shadow framebuffer layer (default on).
Registry	`x.drivers.modesetting.use_shadow_fb`
Range	[Default] [True] [False]
Parameter	Use double buffer for shadow updates (default depends on hardware).
Registry	`x.drivers.modesetting.use_double_shadow`
Range	[Default] [True] [False]
Parameter	Use software cursor (default off).
Registry	`x.drivers.modesetting.use_sw_cursor`
Range	[Default] [True] [False]
Parameter	Use gamma look up table (warning some devices have problems with this).
Registry	`x.drivers.modesetting.use_gamma_lut`
Range	[Default] [True] [False]

Window manager

- Fixed **taskbar clock is displaying seconds** (again) if enabled in system registry.
- Fixed **taskbar** was displayed incorrectly in some special configuration cases.

VirtualBox

- Added new registry key to **disable initial boot framebuffer**
  More...

Parameter	Disable use of initial boot framebuffer.
Registry	`system.kernel.bootparams.vga_off`
Type	bool
Value	enabled / <u>disabled</u>

Audio

- Fixed `multimedia.disable_audio.pci` registry key setting.
- Fixed **switch of Speaker / Headsets**

Multimedia

- Added new registry key to **prefer i965 VAAPI driver over iHD** (if usage of iHD cause trouble) **More...**

Parameter	Prefer i965 over iHD VAAPI driver
Registry	`multimedia.vaapi.prefer_i965`
Range	[<u>Default</u>] [Prefer] [Force]

Remote Management

- Fixed opening communication ports in rmagent - **now all network ports use IPv4 only**.
- Fixed **keepalive mechanism** in rmagent. The mechanism must prevent premature closing connection by the UMS if a remote command takes a time period over 30 seconds.
- Fixed **removing files in the file transfer** mechanism. Files are properly removed from the file system, when files are not assigned anymore to a device in the UMS.
- Fixed **UMS file transfer of trusted certificates** which have spaces in file names.
- Fixed **IP address retrieving of a WLAN interface**.
- Fixed **losing ICG connection on switching from LAN to WLAN** - now a new ICG connection is established.
- Fixed spurious **creation of empty directories** `/wfs/ca-certs?*` and `/wfs/user?*` when using certificates with spaces in filenames for file transfer.
- **Changed applying of remote settings received during boot** - the settings are synced with the current local settings at the end of the boot process. If these changes require a system interaction to be applied (like restart of some
services) then the user is asked about applying. The dialog is optional and quits after a timeout. This bugfix solves the problem, that the "Apply changes" dialog is shown on every boot.
- Fixed **evaluation of the exit status of a UMS generic job** if the corresponding generic command is implemented as a systemd service.

IGEL Cloud Gateway

- Fixed exchange of the **ICG certificate chain**.

VNC

- Fixed **keyboard mapping in shadowing sessions**, especially with backslash, euro and at keys in French keyboard layout.

Notes for Release 11.06.250

Software:	Version	11.06.250
Release Date:	2022-02-07	
Release Notes:	Version	RN-1106250-1
Last update:	2022-02-07	

Supported Devices 11.06.250

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 20
	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.06.250

Clients

Product	Version
Amazon WorkSpaces Client	3.1.9
Chromium	95.0.4638.69-igel1635513789
Cisco JVDI Client	14.0.3
Cisco Webex VDI plugin	41.12.0.20899
Cisco Webex Meetings VDI plugin	41.10.9.15
Cisco Webex Meetings VDI plugin	41.12.6.12
Cisco Webex Meetings VDI plugin	42.1.1.20
Zoom Media Plugin	5.4.59458
Zoom Media Plugin	5.8.4.21112
Zoom Media Plugin	5.9.0.20720
Citrix HDX Realtime Media Engine	2.9.400
Citrix Workspace App	20.10.0.6
Citrix Workspace App	21.11.0.20
Citrix Workspace App	21.12.0.18
deviceTRUST Citrix Channel	20.2.310.0
Crossmatch DP Citrix Channel	0125
deskMate Client	2.1.3
DriveLock Agent	20.1.4.30482
Ericom PowerTerm	14.0.1.62267
Evidian AuthMgr	1.5.7789
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech Plugins	3.7.3
FabulaTech USB for Remote Desktop	6.0.28
FabulaTech Scanner for Remote Desktop	2.7.0.1

FabulaTech Webcam for Remote Desktop	2.8.10
Firefox	91.3.0
IBM iAccess Client Solutions	1.1.8.6
IGEL RDP Client	2.2igel1639469055
IGEL AVD Client	1.0.37igel1639058670
deviceTRUST RDP Channel	20.2.310.0
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
Lakeside SysTrack Channel	9.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	7.1.3-1igel9
Open VPN	2.5.1-3igel1621236751
Zulu JRE	8.0.302-1
Parallels Client	18.2.0
Spice GTK (Red Hat Virtualization)	0.39-1igel106
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.8.0-1+b1igel71
SpeechWrite	1.0
Stratusphere UX Connector ID Key software	6.5.0-2
Teradici PCoIP Software Client	21.03.0-18.04
ThinLinc Client	4.13.0-2172
ThinPrint Client	7-7.6.126
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	4.16.0-1igel1611217037
VNC Viewer	1.11.0+dfsg-2igel19
VMware Horizon Client	2111-8.4.0-18957622
Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	2017/09/29

Grundig Business Systems dictation driver	0.12/21-12-21
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	4.0.1
Philips Speech driver	12.9.1

Signature

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.9
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7-20210902
PKCS#11 Library cryptovision sc/interface	7.3.1
PKCS#11 Library Thales SafeNet	10.8.28
PKCS#11 Library OpenSC	0.21.0-1igel39
PKCS#11 Library SecMaker NetID	6.8.3.21
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.8-1igel1632136057
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.36-2igel1636006599
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.9.1-1igel18
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.7
OpenSSL	1.1.1-1ubuntu2.1~18.04.13
OpenSSH Client	8.4p1-5igel6
OpenSSH Server	8.4p1-5igel6
Bluetooth stack (bluez)	5.56-0ubuntu2igel12
MESA OpenGL stack	21.1.5-1igel145
VAAPI ABI Version	0.40
VDPAU Library version	1.4-3igel1099
Graphics Driver INTEL	2.99.917+git20200515-igel1013
Graphics Driver ATI/RADEON	19.1.0-2igel1066
Graphics Driver ATI/AMDGPU	19.1.0-2+git20210202igel1122
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	460.91.03-0ubuntu0.20.04.1
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel1012
Graphics Driver VESA	2.4.0-1igel1010
Input Driver Evdev	2.10.6-2igel1037
Input Driver Elographics	1.4.2-1igel1113
Input Driver eGalax	2.5.8825
Input Driver Synaptics	1.9.1-1ubuntu1igel1009
Input Driver VMMouse	13.1.0-1ubuntu2igel957
Input Driver Wacom	0.39.0-0ubuntu1igel1036
Input Driver ELO Multitouch	3.0.0
Input Driver ELO Singletouch	5.1.0
Kernel	5.12.19 #mainline-lxos_dev-g1634042087
Xorg X11 Server	1.20.11-1igel1120

Xorg Xephyr	1.20.11-1igel1120
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.500
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel14
XFCE4 Window Manager	4.14.5-1~18.04igel1600422786
ISC DHCP Client	4.3.5-3ubuntu7.3
NetworkManager	1.30.0-2igel114
ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 0.10 Fluendo aacdec	0.10.42
GStreamer 0.10 Fluendo asfdemux	0.10.92
GStreamer 0.10 Fluendo h264dec	0.10.59
GStreamer 0.10 Fluendo mp3dec	0.10.41
GStreamer 0.10 Fluendo mpegdemux	0.10.85
GStreamer 0.10 Fluendo mpeg4videodec	0.10.44
GStreamer 0.10 Fluendo vadec	0.10.229
GStreamer 0.10 Fluendo wmadec	0.10.70
GStreamer 0.10 Fluendo wmvdec	0.10.66
GStreamer 1.x	1.18.5-1igel1633086114
GStreamer 1.0 Fluendo aacdec	0.10.42
GStreamer 1.0 Fluendo asfdemux	0.10.92
GStreamer 1.0 Fluendo h264dec	0.10.59
GStreamer 1.0 Fluendo mp3dec	0.10.41
GStreamer 1.0 Fluendo mpeg4videodec	0.10.44
GStreamer 1.0 Fluendo vadec	0.10.229
GStreamer 1.0 Fluendo wmadec	0.10.70
GStreamer 1.0 Fluendo wmvdec	0.10.66
WebKit2Gtk	2.32.4-1igel1632209494
Python2	2.7.17

Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.22-dfsg-1igel55
Virtualbox X11 Guest Utils	6.1.22-dfsg-1igel55
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.20.0-2igel104
Qemu Guest Agent	5.2+dfsg-3igel17

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.17-3igel5
Mobile Device Access USB (imobile)	1.3.0-6igel12
Mobile Device Access USB (gphoto)	2.5.27-1igel8
VPN OpenConnect	8.10-2igel6
Scanner support	1.0.27-1
VirtualBox	6.1.22-dfsg-1igel55

Services

Service	Size	Reduced Firmware
Asian Language Support	24.8 M	Included
Java SE Runtime Environment	43.0 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	361.2 M	Included
Ericom PowerTerm InterConnect	11.5 M	Included
Media Player	768.0 K	Included
Local Browser (Firefox) Citrix Appliance	94.8 M	Included

VMware Horizon RDP	6.2 M	Included
Cendio ThinLinc	11.5 M	Included
Printing (Internet printing protocol CUPS)	23.8 M	Included
NoMachine NX	31.8 M	Included
VMware Horizon	251.0 M	Included
Voice over IP (Ekiga)	7.2 M	Included
Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	30.8 M	Not included
Fluendo GStreamer Codec Plugins	7.5 M	Included
IBM i Access Client Solutions	128.2 M	Not included
Red Hat Enterprise Virtualization	3.5 M	Included
Parallels Client	6.8 M	Included
NVIDIA graphics driver	181.5 M	Not included
Imprivata Appliance	16.0 M	Included
AppliDis	256.0 K	Included
Evidian AuthMgr	3.0 M	Included
Hardware Video Acceleration	15.8 M	Included
Extra Font Package	1.2 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	4.0 M	Included
Cisco JVDI client	75.5 M	Included
PrinterLogic	53.2 M	Not included
Biosec BS Login	10.2 M	Not included
Login VSI Login Enterprise	32.8 M	Not included
Stratusphere UX CID Key software	3.2 M	Not included
Elastic Filebeat	25.0 M	Not included
AVD	120.5 M	Included
Local Browser (Chromium)	105.5 M	Not included

Amazon WorkSpaces Client	36.8 M	Included
deskMate client	6.5 M	Included
Cisco Webex VDI	55.0 M	Not included
Cisco Webex Meetings VDI	103.8 M	Not included
Zoom Media Plugin	145.0 M	Not included
DriveLock	14.8 M	Included
SpeechWrite Client	256.0 K	Included
Fluendo Browser Codec Plugins	4.5 M	Included
HP Factory deployment documentation	27.5 M	Included
Teradici PCoIP Client	18.2 M	Included
90meter Smart Card Support	256.0 K	Included
Virtualbox (Limited support) Mobile Device Access USB (Limited support) VPN OpenConnect (Limited support) Scanner support / SANE (Limited support) Limited Support Features	256.0K	Not included
Mobile Device Access USB (Limited support)	512.0 K	Not included
VPN OpenConnect (Limited support)	1.2 M	Not included
Scanner support / SANE (Limited support)	2.8 M	Not included
VirtualBox (Limited support)	70.8 M	Not included

Known Issues 11.06.250

Citrix

- To launch **multiple desktop sessions** with Citrix HDX RTME and Citrix H.264 acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

- This workaround is not applicable when **Enable Secure ICA** is active for the specific delivery group.
- Adding **smartcard readers** during running / active sessions does not work. The **reader is visible, but cannot be used due to unknown reader status**. Only relevant for **CWA versions earlier than 2112**.
- There are known issues with **GStreamer 1.0** and **usage in Citrix**. These occur with **multimedia redirection of H.264, MPEG1, and MPEG2.** (GStreamer 1.0 is used if browser content redirection is enabled active.)
- **Browser content redirection** does not work with activated DRI3 and hardware-accelerated H.264 deep compression codec enabled.
- Enabled **DRI3** and an **AMD GPU Citrix H.264 acceleration** could lead to a **freeze**. **Selective H.264 mode (API v2) is not affected** by this issue.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.

OSC Installer

- **OSC not deployable with IGEL Deployment Appliance**: New version **11.3 is required for 11.06 deployment**.

VMware Horizon

- After **disconnect of an RDP-based session**, the **Horizon main window** which contains the server or sessions overview, **cannot be resized** anymore.
- **Copying Text from Horizon Blast sessions** is not possible.
- The **on-screen keyboard in Horizon appliance mode** does not work correctly with the local logon.
  It is necessary to switch off local logon and enable the following two keys via IGEL registry:
  `userinterface.softkeyboard.autoshow`
  `userinterface.softkeyboard.autohide`
- **Zoom VDI Media Plugin** versions **below 5.8.0** make **Horizon Client crash upon connection to the remote desktop** in cases when TC Setup is running at the same time.
- **With the usage of the PCoIP protocol, the virtual channel provided by VMware used for serial port and scanner redirection could freeze on logout** from the remote session.

This **happens only with enabled scanner or serial port redirection**. The freeze does not occur if both redirection methods are enabled or none of them. **The Blast Protocol is not affected** by this bug.

The respective settings can be found in the IGEL Registry:

```
vmware.view.enable-serial-port-redir
vmware.view.enable-scanner-redir
```

- **Keyboard Input Source Language Synchronization** works only when using a local layout with deadkeys enabled.
  If a **keyboard layout is used which has deadkeys disabled** (which is the default on IGEL OS), **Horizon client falls back to en-US layout**.
- **PCoIP sessions may crash** in some cases, **switching to Blast Protocol is recommended** then. **H.264/HEVC encoding** can be **disabled** when **overall performance** is too **low**.
- **Client drive mapping and USB redirection for storage devices can be switched on at the same time**, but could lead to problems under some circumstances:
  Horizon Client tracks the drives which are dynamically mounted and adds them to the remote session using client drive mapping, i.e. USB redirection is then not used for these devices. However, in the case of devices like USB SD card readers, Horizon does not map them as client drives but forcefully uses USB redirection which results in an unclean unmount.
  As a **work-around**, the IDs of these card readers can be added to IGEL USB access rules and denied.

Parallels Client

- **Storage devices** attached to the thin client will **appear as network drives** in the remote session.
- **USB device redirection** is considered **experimental for the Parallels client for Linux**.

Firefox

- With **enabled Citrix Browser Content Redirection (BCR)**, **Firefox has no H.264 and AAC multimedia codec support**. This means **when codec support is needed in Firefox, BCR needs to be disabled**. Citrix Browser Content Redirection is disabled by default.

Network

- **Wakeup** from system suspend **fails on DELL Latitude 5510**.

Wi-Fi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Cisco JVDI Client

- There may be a **segfault** shown in the logs (during log out of Citrix Desktop session). Occurs only when using **Citrix Workspace app 2010** and **Cisco JVDI**.

Base system

- **Hyper-V (Generation 2) needs a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.
- **Update from memory stick requires network online state** (at least when multiple update stages are involved.
- **Wrong license information** may be shown **in Product ID**. In detail, 'Starter License' is indicated sporadically by Product ID suffix 'Starter', even with deployed and enabled WE license.

Conky

- The **right screen when using a multiscreen environment** may not be shown correctly.
  Workaround: The horizontal offset should be set to the width of the monitor (e.g. if the monitor has a width of 1920, the offset should be set to 1920)

Firmware update

- On **devices with 2 GB of flash** storage, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Please visit Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a possible solution and additional information.

Appliance Mode

- When ending a **Citrix session in browser appliance mode**, the browser is restarted twice instead of once.
- Appliance mode RHEV/Spice: **spice-xpi firefox plugin** is no longer supported.
  The **Console Invocation** has to allow **Native** client (auto is also possible) and should be started in fullscreen to prevent any opening windows.
- **Browser Appliance mode** can fail when the **Web URL contains special control characters** like ampersands (& character).
  Workaround: Add quotes at the beginning and the end of an affected URL. Example: 'https://www.google.com/search?q=aSearchTerm&source=lnms&tbm=isch'

Audio

- **IGEL UD2 (D220)** fails to restore the **volume level** of the speaker when the device used firmware version 11.01.110 before.
- **Audio jack detection** on **Advantech POC-W243L** does not work. Therefore, sound output goes through a possibly connected headset and also the internal speakers.
- **UD3-M340C**: **Sound preferences** are **showing Headphone & Microphone**, although not connected.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU** driver.

Hardware

- Some newer **Delock 62599 active DisplayPort to DVI (4k)** adapters only work on INTEL-based devices.

Remote Management

- **AIT feature** with **IGEL Starter License** is only supported by UMS version 6.05.100 or newer.

Security Fixes 11.06.250

Base system

- Update **policykit-1 package** for CVE-2021-4034 (fixes **Polkit Escalation of Privilege**).

Citrix

- **Removed registry key** `ica.appprotection` due to possible security vulnerability. Please follow this document for more information: https://support.citrix.com/article/CTX338435.

New Features 11.06.250

Smartcard

- Updated smartcard reader driver **MUSCLE CCID** to version **1.4.36**.
- Updated smartcard reader driver **ACS CCID** to version **1.1.8**.

Cisco JVDI Client

- Updated **Cisco JVDI** to version **14.0.3**

Base system

- Added support for **Thai keyboard layout and localization**.

Zoom VDI

- Integrated **Zoom Plugin 5.9.0.20720**
  Available Zoom Plugins in this release: **5.9.0.20720** (default), **5.8.4.21112**, and **5.4.59458**

Citrix

- Integrated **Citrix Workspace app 21.12**
  Available Citrix Workspace Apps in this release: **21.12** (default), **21.11**, and **20.10**
- New features:
  - The **cursor color inverts based on the background color of a text**.
    More...

Parameter	Support for cursor color inverting
Registry	`ica.wfclient.invertcursorenabled`
Value	<u>false</u> / true

  - Enhancement on s**martcard support**.
    More...

Parameter	SmartCard driver
Registry	`ica.module.VirtualDriver.SmartCard.drivername`
Value	<u>VDSCARD.DLL</u> / VDSCARDV2.DLL
Note	VDSCARDV2.DLL supports the Plug and Play functionality for smartcard reader

  - The **PulseAudio library** is **used instead of ALSA** to access multiple audio devices within a session (Experimental).
    More...

Parameter	Multiple Audio Device support
Registry	`ica.module.audioredirectionv4`

Value	false / true

- Note: The **VdcamVersion4Support** is **renamed** to **AudioRedirectionV4**, so registry key `ica.module.vdcamversion4support` is removed.
- **UDP audio through Citrix Gateway** (Experimental).
  More...

Parameter	UDP audio through Citrix Gateway
Registry	`ica.module.enableudpthroughgateway`
Value	false / true

- **Webcam redirection for 64-bit apps** (Technical Preview)
  For 64bit webcam redirection the following parameters must be enabled:
  `ica.wfclient.allowaudioinput = True` (default)
  `ica.wfclient.hdxh264inputenabled = True`
- For **Browser Content Redirection**, the **Chromium Embedded Framework** is **used by default now**. Parameter `ica.allregions.usecefbrowser` was **set to default value "true"**.

VMware Horizon

- Updated **Horizon Client** to version **2111 8.4.0-18957622**

Cisco Webex

- Available **Cisco Webex Meetings VDIs** in this release: **42.1.1.20** (default), **41.12.6.12**, and **41.10.9.15**
- Integrated **Cisco Webex VDI 41.12.0.20899**

Multimedia

- Added **libcam-tools** to firmware.

Resolved Issues 11.06.250

Citrix

- Fixed **window settings** for Citrix Desktop sessions
- Fixed, no useless **"to" icon** is created **with the StoreFront session**.
- Fixed **startup of Self-Service after reboot** in some cases.
- Added a parameter to **control** if the **cache of Self-Service files is persistent over reboots**:
  More...

Parameter	Persistent cache of configuration and UI
Registry	`ica.selfservice.persistentcache`
Value	<u>true</u> / false

- In 2112 CWA, Citrix introduced a **fix for a video flicker by always capturing the camera at maximum resolution** (1080 or 720p depending on the camera's capabilities) **and then scaling down dynamically to match the constraints set by Teams servers**. Example: in a conference call, the Teams servers might only require 360p at the beginning of the call and 480p as the call progresses.
  This scaling causes high CPU usage on thin clients as we are capturing HD video constantly, even if the endpoint is low-powered.
  Workaround: Add the following custom command under **System > Firmware Customization > Custom Commands > Desktop > Final desktop command**:
  ```
  mkdir -p /var/.config/citrix/hdx_rtc_engine
  touch /var/.config/citrix/hdx_rtc_engine/config.json
  echo "{" > /var/.config/citrix/hdx_rtc_engine/config.json
  echo "\"UseDefaultCameraConfig\":0" >> /var/.config/citrix/hdx_rtc_engine/config.json
  echo "}" >> /var/.config/citrix/hdx_rtc_engine/config.json
  ```

Base system

- Fixed **Product ID for IGEL UD6**.
- Fixed prevented **detection of USB device by its UUID**
- Fixed missing **generation number in Product ID** (**About** and **UMS**)
- Added new registry key to include **systemd information in the support files**.
  More...

Parameter	Collect systemd information for support files
Registry	`debug.collect_sysd_info_for_support`
Value	<u>disabled</u> / enabled

- Added new registry key to include **systemd-analyze plot in the support files**.
  More...

Parameter	Include systemd-analyze plot svg-image in support files

Registry	`debug.create_sysd_plot_for_support`
Value	<u>disabled</u> / enabled

OSC Installer

- Fixed **OSC Recovery with enabled "Migrate Old Settings"**

RDP/IGEL RDP Client 2

- Fixed **native USB redirection of Elatec TWN4 MultiTech 2 LF RFID reader**
- Fixed wrong error message when **RDP session was closed by idle timeout**

AVD

- Added full **support for Thai (Kedmanee) keyboard layout**
- Added **support for Thai (Pattachote)** only with `sessions.wvd%.options.remote-keymapping=on`
- Added potential support for **other keyboard layouts** when the **special key codes** are of the type `0xeXX`
- Added new **parameter for avoiding incompatibilities between the AAD login and the QWebEngine** we use. **Enablement** of this new parameter is **needed when AAD login hangs** (likely showing a white screen after the username has been entered):
  More...

Registry	`sessions.wvd%.options.compact-login-view`
Value	enabled / <u>disabled</u>

RD Web Access

- Fixed **downloading published applications**

VMware Horizon

- Fixed **not starting Firefox if called by Horizon client for 2FA**. Libraries from Horizon installation were prevented by **apparmor**.

Firefox

- Added **apparmor exception to fix webrtc**
- Fixed usage of **Athena IDProtect smartcards**
- **Removed superfluous permission dialog** before **starting Horizon** client **or Citrix receiver from the browser**.

Network

- Fixed: **Network interfaces** were unusable when name assignment failed due to length. In such cases, **names are now determined according to NamePolicy=mac**.
- Improved **synchronization of IPv4 and IPv6** when both are desired
- Added a **registry key for specifying a period in seconds to wait for Ethernet link settings**. A value greater than "0" can be beneficial in the case where applying the link settings would interfere with 802.1X authentication.
  More...

Parameter	Wait for Ethernet link configuration
Registry	`network.interfaces.ethernet.device%.wait_for_link_config`
Type	integer
Value	<u>1</u> (default)

Wi-Fi

- Fixed "bestsignal" in `network.interfaces.wirelesslan.device0.bssid` and `network.interfaces.wirelesslan.device0.alt_ssid%.bssid` had no effect.
- Improved reconfiguring **regulatory domain settings at runtime**
- Fixed: **Enabling wpa supplicant's background scan** was broken (settings `network.interfaces.wirelesslan.device0.bgscan.**`) since the step to Network Manager 1.30.0

Smartcard

- Fixed **smartcard PIN** verify with **HP Skylab smartcard keyboard**.
- Fixed **pcsc_scan** and **ATR_analysis** tools and **updated list of known smartcards**.

Base system

- Fix **USB deny rules** not working in certain situations.
- Added new parameter to **enable English international dead keys**:
  More...

Parameter	English (International) dead keys
Registry	`userinterface.keyboard.us_intl_compose`
Value	<u>disabled</u> / enabled

- Added parameter to enable **dead keys**:
  More...

IGEL Setup	**User Interface > Input > Keyboard**
Parameter	Enable dead keys
Registry	`userinterface.keyboard.usedeadkeys`
Value	<u>disabled</u> / enabled

- Fixed **Setup Assistant** - After acceptance of EULA, **Demo License flow** was **not available**.
- Fixed removal of **Kerberos credential cache after session logoff**.
- Fixed **faulty suspend with locked screen**.

Firmware update

- Implemented support for **FTP over implicit TLS (port 990)**

Driver

- Updated **Grundig Dictation** driver to version **0.12/21-12-21**
  - Fix crashes with newer Citrix clients
  - Add support to set up default speaker & microphone in Citrix & RDP session
  - Add support for Olympus DS-xxxx configuration
  - Various bug fixes

X server

- Fixed **XC font service support**

Audio

- Fixed `multimedia.disable_audio.pci` registry key setting
- Fixed **switch of Speaker / Headsets**

Remote Management

- Fixed **evaluation of the exit status of a UMS generic job** if the corresponding generic command is implemented as a `systemd` service.

Notes for Release 11.06.210

Software:	Version	11.06.210
Release Date:	2021-11-30	
Release Notes:	Version	RN-1106210-1
Last update:	2021-11-30	

The Release Notes for IGEL OS 11.06.210 are available in the following formats:

- Plain text: RNs_1106210.txt
- HTML: lxos_11.06.210.html

Notes for Release 11.05.133

Software:	Version	11.05.133
Release Date:	2021-04-29	
Release Notes:	Version	RN-1105133-1
Last update:	2021-04-26	

Supported Devices 11.05.133

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 20
	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.05.133

Clients

Product	Version
Chromium (experimental)	88.0.4324.150-igel1612763117
CID Key	6.5.0-2
Cisco JVDI Client	14.0.0
Cisco Webex Teams VDI Client	41.4.0.18516
Cisco Webex Meetings VDI Client	41.4.0.162
Zoom Media Plugin	5.5.12716
Citrix HDX Realtime Media Engine	2.9.300
Citrix Workspace App	19.12.0.19
Citrix Workspace App	20.12.0.12
Citrix Workspace App	21.03.0.38
deskMate Client	2.1.3
deviceTRUST Citrix Channel	20.1.200.0
Crossmatch DP Citrix Channel	0125
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	14.0.0.45623
Evidian AuthMgr	1.5.7617
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech USB for Remote Desktop	6.0.28
FabulaTech Scanner for Remote Desktop	2.7.0.1
FabulaTech Webcam for Remote Desktop	2.8.10
Firefox	78.6.1
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2igel1605251065
IGEL WVD Client	1.0.24igel1619015530

Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	20.1.200.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.11.2-1igel8
Open VPN	2.5.0-1igel1606475118
Zulu JRE	8.48.0.51-2
Parallels Client	17.1.3
Spice GTK (Red Hat Virtualization)	0.39-1igel106
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.8.0-1+b1igel71
SpeechWrite	1.0
Teradici PCoIP Software Client	21.03.0-18.04
ThinLinc Client	4.12.0-6517
ThinPrint Client	7-7.6.126
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	1.0.5-1igel1583919770
VNC Viewer	1.10.1+dfsg-9igel17
VMware Horizon Client	2012-8.1.0-17349998
Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20201118
Philips Speech driver	12.9.1

Signature

Kofax SPVC Citrix Channel	3.1.41.0

signotec Citrix Channel	8.0.9
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7
PKCS#11 Library cryptovision sc/interface	7.3.1
PKCS#11 Library Gemalto SafeNet	10.7.77
PKCS#11 Library OpenSC	0.21.0-1igel39
PKCS#11 Library SecMaker NetID	6.8.3.21
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel2
Reader Driver Gemalto eToken	10.7.77
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.31-1igel12
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.9.0-1igel18
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.5
OpenSSL	1.1.1-1ubuntu2.1~18.04.7
OpenSSH Client	8.4p1-3igel4
OpenSSH Server	8.4p1-3igel4
Bluetooth stack (bluez)	5.55-0ubuntu1.1igel10

MESA OpenGL stack	20.2.6-1igel131
VAAPI ABI Version	0.40
VDPAU Library version	1.4-3igel1099
Graphics Driver INTEL	2.99.917+git20200515-igel1013
Graphics Driver ATI/RADEON	19.1.0-2igel1066
Graphics Driver ATI/AMDGPU	19.1.0-2+git20200828igel1064
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	450.102.04-0ubuntu0.20.04.1
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel1012
Graphics Driver VESA	2.4.0-1igel1010
Input Driver Evdev	2.10.6-2igel1037
Input Driver Elographics	1.4.1-1+b6igel952
Input Driver eGalax	2.5.8825
Input Driver Synaptics	1.9.1-1ubuntu1igel1009
Input Driver VMMouse	13.1.0-1ubuntu2igel957
Input Driver Wacom	0.39.0-0ubuntu1igel1036
Input Driver ELO Multitouch	3.0.0
Input Driver ELO Singletouch	5.1.0
Kernel	5.9.16 #mainline-lxos-g1615563496
Xorg X11 Server	1.20.10-2igel1100
Xorg Xephyr	1.20.10-2igel1100
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.425
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel13
XFCE4 Window Manager	4.14.2-1~18.04igel1600339249
ISC DHCP Client	4.3.5-3ubuntu7.1
NetworkManager	1.20.4-2ubuntu2.2igel109

ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 0.10 Fluendo aacdec	0.10.42
GStreamer 0.10 Fluendo asfdemux	0.10.90
GStreamer 0.10 Fluendo h264dec	0.10.58
GStreamer 0.10 Fluendo mp3dec	0.10.40
GStreamer 0.10 Fluendo mpegdemux	0.10.85
GStreamer 0.10 Fluendo mpeg4videodec	0.10.44
GStreamer 0.10 Fluendo vadec	0.10.224
GStreamer 0.10 Fluendo wmadec	0.10.70
GStreamer 0.10 Fluendo wmvdec	0.10.66
GStreamer 1.x	1.18.3-1igel283
GStreamer 1.0 Fluendo aacdec	0.10.42.2-8d6d
GStreamer 1.0 Fluendo asfdemux	0.10.90
GStreamer 1.0 Fluendo h264dec	0.10.58
GStreamer 1.0 Fluendo mp3dec	0.10.40
GStreamer 1.0 Fluendo mpeg4videodec	0.10.44
GStreamer 1.0 Fluendo vadec	0.10.224
GStreamer 1.0 Fluendo wmadec	0.10.70
GStreamer 1.0 Fluendo wmvdec	0.10.66
WebKit2Gtk	2.30.4-1igel40
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.18-dfsg-3igel52
Virtualbox X11 Guest Utils	6.1.18-dfsg-3igel52
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1

Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.20.0-2igel104
Qemu Guest Agent	5.2+dfsg-3igel17

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.17-3igel5
Mobile Device Access USB (imobile)	1.3.0-5igel11
Mobile Device Access USB (gphoto)	2.5.26-2igel7
VPN OpenConnect	8.10-2igel6
Scanner support	1.0.27-1
VirtualBox	6.1.18-dfsg-3igel52

Services

Service	Size	Reduced Firmware
Asian Language Support	22.5 M	Included
Java SE Runtime Environment	36.0 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	329.0M	Included
Ericom PowerTerm InterConnect	15.5 M	Included
Media Player	512.0 K	Included
Local Browser (Firefox) Citrix Appliance	76.5 M	Included
VMware Horizon RDP	4.5 M	Included
Cendio ThinLinc	10.0 M	Included
Printing (Internet printing protocol CUPS)	22.2 M	Included
NoMachine NX	26.8 M	Included
VMware Horizon	131.2 M	Included
Voice over IP (Ekiga)	6.5 M	Included

Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	27.0 M	Not included
Fluendo GStreamer Codec Plugins	6.5 M	Included
IBM i Access Client Solutions	72.5 M	Not included
Red Hat Enterprise Virtualization	3.0 M	Included
Parallels Client	5.5 M	Included
NVIDIA graphics driver	126.8 M	Not included
Imprivata Appliance	10.8 M	Included
Evidian AuthMgr	2.5 M	Included
Hardware Video Acceleration	13.5 M	Included
Extra Font Package	1.0 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	3.5 M	Included
Cisco JVDI client	61.8 M	Included
PrinterLogic	40.8 M	Not included
Biosec BS Login	10.0 M	Not included
Login VSI Login Enterprise	28.8 M	Not included
Stratusphere UX CID Key software	2.8 M	Not included
Elastic Filebeat	15.8 M	Not included
WVD	89.2 M	Included
Local Browser (Chromium)	87.8 M	Not included
deskMate client	5.8 M	Included
Cisco Webex Teams VDI	43.8 M	Not included
Cisco Webex Meetings VDI	32.8 M	Not included
Zoom VDI Media Plugin	47.2 M	Not included
DriveLock	13.2 M	Included
SpeechWrite Client	256.0 K	Included
Teradici PCoIP Client	16.0 M	Included
90meter Smart Card Support	256.0 K	Included

Virtualbox (Limited support) Mobile Device Access USB (Limited support) VPN OpenConnect (Limited support) Scanner support / SANE (Limited support) Limited Support Features	256.0K	Not included
Mobile Device Access USB (Limited support)	256.0 K	Not included
VPN OpenConnect (Limited support)	1.0 M	Not included
Scanner support / SANE (Limited support)	2.5 M	Not included
VirtualBox (Limited support)	63.8 M	Not included

General Information 11.05.133

ⓘ To be beneficial to all new features and implementations, it is recommended to use UMS 6.07.100 or higher and update the corresponding profiles.

⚠ Firmware downgrade to older versions (11.01 or 11.02) is not possible, due to the unsigned firmware update files.

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Known Issues 11.05.133

Citrix

- To launch **multiple desktop sessions** with Citrix HDX RTME and Citrix H.264 acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / disabled

- This workaround is not applicable when **Enable Secure ICA** is active for the specific delivery group.
- Adding **smartcard readers** while the session is ongoing does not work. The reader is visible, but **cannot be used due to permanently unknown reader status**.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H.264, MPEG1, and MPEG2**. GStreamer1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with activated DRI3 and hardware-accelerated H.264 deep compression codec.
- With activated DRI3 and an AMD GPU, **Citrix H.264 acceleration plugin could freeze**. Selective H.264 mode (API v2) is not affected by this issue.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.

VMware Horizon

- **Client drive mapping** and **USB redirection** for storage devices **should not be enabled both at the same time**.
  - On the one hand, when using USB redirection for storage devices:
    The USB on-insertion feature is only working when the client drive mapping is switched off.
    In the IGEL Setup client drive mapping can be found in:
    Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping.
    It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules.
    Furthermore, Horizon Client relies on the OS to mount the storage devices themselves.
    Enable local `Storage Hotplug` on setup page **Devices > Storage Devices > Storage Hotplug**.

- **External drives** mounted already before connection do not appear in the remote desktop. Workaround: **map the directory /media as a drive**. Then the external devices will show up inside the media drive.
- After disconnect of an RDP-based session, the **Horizon main window** which contains the server or sessions overview, **cannot be resized anymore**.
- **Copying Text from Horizon Blast sessions** isn't possible.
- The **on-screen keyboard in Horizon appliance mode** does not work correctly with the local logon.
  You have to switch off the local logon and switch on these two keys in the IGEL registry:
  `userinterface.softkeyboard.autoshow`
  `userinterface.softkeyboard.autohide`
- **Zoom VDI Media Plugin makes Horizon Client crash** upon connection to the remote desktop in cases when TCSetup is running at the same time.
- **When using the PCoIP protocol the virtual channel provided by VMware used for serial port and scanner redirection can make Horizon client hang** on logout from the remote session.
  This happens if you enable only one of scanner or serial port redirection. The freeze does not occur if both redirection methods are enabled or none of them. The Blast Protocol isn't affected by this bug.
  The respective settings can be found here in the IGEL Registry:
  `vmware.view.enable-serial-port-redir`
  `vmware.view.enable-scanner-redir`

Parallels Client

- **Native USB redirection** does not work with Parallels Client.

Chromium

- **H.264 decoding is not supported** anymore.

WiFi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Cisco JVDI Client

- There may be a **segfault** shown in the logs (during log out of Citrix Desktop session). Occurs only when using **Citrix Workspace app 20.10** and **Cisco JVDI**.

Base system

- **Hyper-V (Generation 2) needs a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.
- **Update from memory stick requires network online state** (at least when multiple update stages are involved)
- **Unreliable messages** in user dialog for applying settings during boot. Could occur when new settings were fetched from the UMS.

deskMate

- Some **stability issues** may remain.

Firmware update

- On **devices with 2 GB of flash** storage, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Please visit Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a possible solution and additional information.

Appliance Mode

- When ending a **Citrix session in browser appliance mode**, the browser is restarted twice instead of once.
- Appliance mode RHEV/Spice: **spice-xpi firefox plugin** is no longer supported.
  The **Console Invocation** has to allow **Native** client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

VirtualBox

- The current **VirtualBox Guest Tools/Drivers will not work with VirtualBox 5.2.x or older hosts**. This results in a black screen and non-working graphic.
  Possible workaround: Installation with **Failsafe Installation + Recovery** and set of `x.drivers.force_vesa` registry key to "true".

Audio

- **IGEL UD2 (D220)** fails to restore the **volume level** of the speaker when the device used firmware version 11.01.110 before.
- **Audio jack detection** on **Advantec POC-W243L** does not work. Therefore, sound output goes through a possibly connected headset and also the internal speakers.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU** driver.

Hardware

- Some newer **Delock 62599 active DisplayPort to DVI (4k)** adapters only work on INTEL-based devices.

Remote Management

- **AIT feature** with **IGEL Starter License** is only supported by UMS version 6.05.100 or newer.

Security Fixes 11.05.133

Remote Management

- Fixed a **possible privilege escalation** while sending **user logoff event to the UMS**.

New Features 11.05.133

Citrix

- Integrated **Zoom Media Plugin 5.5.12716.0227**
- Added: In **StoreFront** sessions, **HTTP can now be selected for the URL** in addition to HTTPS.
- Implement "**Synchronize Citrix password with screensaver**" for **SelfService**. The parameter for StoreFront was reused.

UD Pocket

- Added official support for **Secured Kobra Stick from DIGITTRADE**.

VMware Horizon

- Added **switch for enabling Cisco Webex Meetings** within VMware Horizon.
  More...

Parameter	Cisco Webex Meetings VDI
Registry	`vmware.view.vdciscomeetings.enable`
Type	bool
Value	enabled / <u>disabled</u>

- **Removed** deprecated **ThinPrint virtual channel (tprpdp.so)** from Horizon sessions used for virtual printing. It is **replaced by Horizon's integrated printing mechanism**.

Imprivata

- Added registry key to overcome the **window overlap**. That occurred when using local setup or hotkeyed applications like the 'Display switch'.
  More...

IGEL Setup	**Registry**
Registry	`imprivata.avoid_focus_ownership`
Type	bool
Value	enabled / <u>disabled</u>

Smartcard

- Added smartcard reader driver for **DIGITTRADE** "**Secured Kobra Stick**".

WVD

- Added **WVD printer redirection**.
  More...

Registry	`sessions.wvd%.printing.cups`
Value	<u>enabled</u> / disabled

Registry	`print.cups.printer%.map_wvd`
Value	<u>enabled</u> / disabled
Registry	`print.cups.printer%.wvd_printer_driver`
Value	""

- The **default Windows driver name is "Microsoft PS Class Driver"**, which should be installed by default and work generically.
  To install a **custom printer driver**, the exact name must be set and the driver must be installed on the WVD side.

Base system

- **Post-session commands**: Added support to monitor multiple sessions and have a post-session command triggered if all sessions exited successfully.

Resolved Issues 11.05.133

Citrix

- Integrated **HDX Realtime Optimization Pack 2.9.300**
- Updated **Grundig Dictation driver** to version **20-09-16**. This **fixes termination of Citrix sessions when USB devices are plugged or unplugged** - happens with Citrix Workspace App versions newer than 20.09.
- **Citrix Hardware Decoder doesn't crash** anymore **when using 12 CPU cores** (or even more) at the server.

WVD

- Fixed **forced Azure re-authentication** (every 30 minutes)

Parallels Client

- Updated **Parallels client** to version **17.1.3**

Teradici PCoIP Client

- **Teradici client** update **21.03**

Imprivata

- Fixed **missing vendor logo**

Firefox

- Fixed **apparmor** rule for allowing Firefox to use **widevine DRM plugin**.

Smartcard

- Fixed **smartcard resource manager**: Reset is triggered when eject of smartcard fails.

Cisco Webex

- Updated **Cisco Webex Teams VDI** to **41.4.0.18516**
- Updated **Cisco Webex Meetings VDI** to **41.4.0.162**
- Please **make sure your Webex meetings client version is WBS 41.4.0 or later**, otherwise it will fail to launch Webex VDI optimized meeting.

Cisco JVDI Client

- Updated **Cisco JVDI** to **14.0.0**

IBM_5250

- Fixed **error** in **iAccess configuration**.

Base system

- Fixed **bootcode update** is **done on each reboot** on some **EFI** devices.
- Changed: Minimized **periodic write access to permanent storage**.

Firmware update

- Added: **sftp** protocol supports now the following **key exchange methods**:
  `ecdh-sha2-nistp256 (BSI)`

```
ecdh-sha2-nistp384 (BSI)
ecdh-sha2-nistp521 (BSI)
curve25519-sha256 (BSI)
curve25519-sha256@libssh.org (BSI)
diffie-hellman-group-exchange-sha256
diffie-hellman-group-exchange-sha1
diffie-hellman-group14-sha1
diffie-hellman-group1-sha1
```

X11 system

- Fixed **monitor sorting order** to be independent from montior startup time (GTK-3)
- Fixed **panel on wrong monitor**, when original monitor takes longer to come online
- Fixed **Turkish (Q) and Turkish (F) keyboard layout** configuration.
- Fixed **panel keyboard layout** indicator for **French (Switzerland), Turkish (Q) and Turkish (F)** keyboard layouts.
- Added **inhibit screensaver** while a **Cisco Webex Meetings** session is active in Citrix Workspace App.

Audio

- Fixed **not working** audio on **Intel Tiger Lake-based** devices.
- Fixed **automatic start of output audio** stream in **ALSA Pulse PCM**. The bug caused a complete **freeze of a Parallels session** while playback audio data.
- Bugfix for USB audio **default device switch** and update of **igel-sound-control**

Hardware

- Fixed **touchpad** issues for some **Dynabook laptops**.

Remote Management

- Fixed **execution of generic commands (Deploy Jabra Xpress package)** if they invoked as a UMS scheduled job.
- Fixed **handling of UMS scheduled jobs during boot** process.

Network

- Improved **network device order** for **LG CL600N, LG CN650N**
- The currently used parameter `tls-remote` is **deprecated** and was **removed in openVPN 2.4**. It was be **changed to** `verify-x509-name` .

H264

- **Citrix Hardware Decoder doesn't crash** anymore **when using 12 CPU cores** (or even more) at the server.

Notes for Release 11.05.120

Software:	Version	11.05.120
Release Date:	2021-03-25	
Release Notes:	Version	RN-1105120-1
Last update:	2021-03-23	

IGEL OS 11

Supported Devices 11.05.120

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 20
	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.05.120

Clients

Product	Version
Chromium (experimental)	88.0.4324.150-igel1612763117
CID Key	6.5.0-2
Cisco JVDI Client	12.9.3
Cisco Webex Teams VDI Client	41.1.0.17621
Cisco Webex Meetings VDI Client	41.2.0.142
Zoom Media Plugin	5.4.59458.0109
Citrix HDX Realtime Media Engine	2.9.200-2506
Citrix Workspace App	19.12.0.19
Citrix Workspace App	20.12.0.12
Citrix Workspace App	21.03.0.38
deskMate Client	2.1.3
deviceTRUST Citrix Channel	20.1.200.0
Crossmatch DP Citrix Channel	0125
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	14.0.0.45623
Evidian AuthMgr	1.5.7617
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech USB for Remote Desktop	6.0.28
FabulaTech Scanner for Remote Desktop	2.7.0.1
FabulaTech Webcam for Remote Desktop	2.8.10
Firefox	78.6.1
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2igel1605251065
IGEL WVD Client	1.0.22igel1612537530

Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	20.1.200.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.11.2-1igel8
Open VPN	2.5.0-1igel1606475118
Zulu JRE	8.48.0.51-2
Parallels Client (64 bit)	17.1.2.1
Spice GTK (Red Hat Virtualization)	0.39-1igel106
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.8.0-1+b1igel71
SpeechWrite	1.0
Teradici PCoIP Software Client	20.10.0-18.04
ThinLinc Client	4.12.0-6517
ThinPrint Client	7-7.6.126
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	1.0.5-1igel1583919770
VNC Viewer	1.10.1+dfsg-9igel17
VMware Horizon Client	2012-8.1.0-17349998
Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20201118
Philips Speech driver	12.9.1

Signature

Kofax SPVC Citrix Channel	3.1.41.0

signotec Citrix Channel	8.0.9
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7
PKCS#11 Library cryptovision sc/interface	7.3.1
PKCS#11 Library Gemalto SafeNet	10.7.77
PKCS#11 Library OpenSC	0.21.0-1igel39
PKCS#11 Library SecMaker NetID	6.8.3.21
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel2
Reader Driver Gemalto eToken	10.7.77
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.31-1igel12
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.9.0-1igel16
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.5
OpenSSL	1.1.1-1ubuntu2.1~18.04.7
OpenSSH Client	8.4p1-3igel4
OpenSSH Server	8.4p1-3igel4
Bluetooth stack (bluez)	5.55-0ubuntu1.1igel10

MESA OpenGL stack	20.2.6-1igel131
VAAPI ABI Version	0.40
VDPAU Library version	1.4-3igel1099
Graphics Driver INTEL	2.99.917+git20200515-igel1013
Graphics Driver ATI/RADEON	19.1.0-2igel1066
Graphics Driver ATI/AMDGPU	19.1.0-2+git20200828igel1064
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	450.102.04-0ubuntu0.20.04.1
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel1012
Graphics Driver VESA	2.4.0-1igel1010
Input Driver Evdev	2.10.6-2igel1037
Input Driver Elographics	1.4.1-1+b6igel952
Input Driver eGalax	2.5.8825
Input Driver Synaptics	1.9.1-1ubuntu1igel1009
Input Driver VMMouse	13.1.0-1ubuntu2igel957
Input Driver Wacom	0.39.0-0ubuntu1igel1036
Input Driver ELO Multitouch	3.0.0
Input Driver ELO Singletouch	5.1.0
Kernel	5.9.16 #mainline-lxos-g1615563496
Xorg X11 Server	1.20.10-2igel1100
Xorg Xephyr	1.20.10-2igel1100
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.425
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel13
XFCE4 Window Manager	4.14.2-1~18.04igel1600339249
ISC DHCP Client	4.3.5-3ubuntu7.1
NetworkManager	1.20.4-2ubuntu2.2igel109

ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 0.10 Fluendo aacdec	0.10.42
GStreamer 0.10 Fluendo asfdemux	0.10.90
GStreamer 0.10 Fluendo h264dec	0.10.58
GStreamer 0.10 Fluendo mp3dec	0.10.40
GStreamer 0.10 Fluendo mpegdemux	0.10.85
GStreamer 0.10 Fluendo mpeg4videodec	0.10.44
GStreamer 0.10 Fluendo vadec	0.10.224
GStreamer 0.10 Fluendo wmadec	0.10.70
GStreamer 0.10 Fluendo wmvdec	0.10.66
GStreamer 1.x	1.18.3-1igel283
GStreamer 1.0 Fluendo aacdec	0.10.42.2-8d6d
GStreamer 1.0 Fluendo asfdemux	0.10.90
GStreamer 1.0 Fluendo h264dec	0.10.58
GStreamer 1.0 Fluendo mp3dec	0.10.40
GStreamer 1.0 Fluendo mpeg4videodec	0.10.44
GStreamer 1.0 Fluendo vadec	0.10.224
GStreamer 1.0 Fluendo wmadec	0.10.70
GStreamer 1.0 Fluendo wmvdec	0.10.66
WebKit2Gtk	2.30.4-1igel40
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.18-dfsg-3igel52
Virtualbox X11 Guest Utils	6.1.18-dfsg-3igel52
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1

Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.20.0-2igel104
Qemu Guest Agent	5.2+dfsg-3igel17

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.17-3igel5
Mobile Device Access USB (imobile)	1.3.0-5igel11
Mobile Device Access USB (gphoto)	2.5.26-2igel7
VPN OpenConnect	8.10-2igel6
Scanner support	1.0.27-1
VirtualBox	6.1.18-dfsg-3igel52

Services

Service	Size	Reduced Firmware
Asian Language Support	22.5 M	Included
Java SE Runtime Environment	36.0 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	329.0M	Included
Ericom PowerTerm InterConnect	15.5 M	Included
Media Player	512.0 K	Included
Local Browser (Firefox) Citrix Appliance	76.5 M	Included
VMware Horizon RDP	4.5 M	Included
Cendio ThinLinc	10.0 M	Included
Printing (Internet printing protocol CUPS)	22.2 M	Included
NoMachine NX	26.8 M	Included
VMware Horizon	131.2 M	Included
Voice over IP (Ekiga)	6.5 M	Included
Citrix Appliance	768.0 K	Included

NCP Enterprise VPN Client	27.0 M	Not included
Fluendo GStreamer Codec Plugins	6.5 M	Included
IBM i Access Client Solutions	72.5 M	Not included
Red Hat Enterprise Virtualization	3.0 M	Included
Parallels Client	5.5 M	Included
NVIDIA graphics driver	126.8 M	Not included
Imprivata Appliance	10.8 M	Included
Evidian AuthMgr	2.5 M	Included
Hardware Video Acceleration	13.5 M	Included
Extra Font Package	1.0 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	3.5 M	Included
Cisco JVDI client	45.8 M	Included
PrinterLogic	40.8 M	Not included
Biosec BS Login	10.0 M	Not included
Login VSI Login Enterprise	28.8 M	Not included
Stratusphere UX CID Key software	2.8 M	Not included
Elastic Filebeat	15.8 M	Not included
WVD	88.2 M	Included
Local Browser (Chromium)	87.8 M	Not included
deskMate client	5.8 M	Included
Cisco Webex Teams VDI	36.8 M	Not included
Cisco Webex Meetings VDI	32.2 M	Not included
Zoom VDI Media Plugin	42.2 M	Not included
DriveLock	13.2 M	Included
SpeechWrite Client	256.0 K	Included
Teradici PCoIP Client	14.5 M	Included
90meter Smart Card Support	256.0 K	Included

Virtualbox (Limited support) Mobile Device Access USB (Limited support) VPN OpenConnect (Limited support) Scanner support / SANE (Limited support) Limited Support Features	256.0K	Not included
Mobile Device Access USB (Limited support)	256.0 K	Not included
VPN OpenConnect (Limited support)	1.0 M	Not included
Scanner support / SANE (Limited support)	2.5 M	Not included
VirtualBox (Limited support)	63.8 M	Not included

General Information 11.05.120

ⓘ To be beneficial to all new features and implementations, it is recommended to use UMS 6.07.100 or higher and update the corresponding profiles.

❗ Firmware downgrade to older versions (11.01 or 11.02) is not possible, due to the unsigned firmware update files.

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Known Issues 11.05.120

Citrix

- For using **multiple desktop sessions** with Citrix HDX RTME and Citrix H.264 acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

- This workaround is not applicable when **Enable Secure ICA** is active for the specific delivery group.
- Adding **smartcard readers** while the session is ongoing does not work. The reader is visible, but **cannot be used due to permanently unknown reader status**.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H.264, MPEG1, and MPEG2**. GStreamer1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with activated DRI3 and hardware-accelerated H.264 deep compression codec.
- With activated DRI3 and an AMD GPU, **Citrix H.264 acceleration plugin could freeze**. Selective H.264 mode (API v2) is not affected by this issue.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.

VMware Horizon

- **Client drive mapping** and **USB redirection** for storage devices **should not be enabled both at the same time**.
  - On the one hand, when using USB redirection for storage devices:
    The USB on-insertion feature is only working when the client drive mapping is switched off.
    In the IGEL Setup client drive mapping can be found in:
    Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping.
    It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules.
    Furthermore, Horizon Client relies on the OS to mount the storage devices themselves.
    Enable local `Storage Hotplug` on setup page **Devices > Storage Devices > Storage Hotplug**.

- **External drives** mounted already before connection do not appear in the remote desktop. Workaround: **map the directory /media as a drive**. Then the external devices will show up inside the media drive.
- After disconnect of an RDP-based session, the **Horizon main window** which contains the server or sessions overview, **cannot be resized anymore**.
- **Copying Text from Horizon Blast sessions** isn't possible.
- The **on-screen keyboard in Horizon appliance mode** does not work correctly with the local logon.
  You have to switch off the local logon and switch on these two keys in the IGEL registry:
  `userinterface.softkeyboard.autoshow`
  `userinterface.softkeyboard.autohide`
- **Zoom VDI Media Plugin makes Horizon Client crash** upon connection to the remote desktop in cases when TCSetup is running at the same time.
- **When using the PCoIP protocol the virtual channel provided by VMware used for serial port and scanner redirection can make Horizon client hang** on logout from the remote session.
  This happens if you enable only one of scanner or serial port redirection. The freeze does not occur if both redirection methods are enabled or none of them. The Blast Protocol isn't affected by this bug
  The respective settings can be found here in the IGEL Registry:
  `vmware.view.enable-serial-port-redir`
  `vmware.view.enable-scanner-redir`

Parallels Client

- **Native USB redirection** does not work with Parallels Client.

Chromium

- **H.264 decoding is not supported anymore / in this release**.

WiFi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Cisco JVDI Client

- There may be a **segfault** shown in the logs (during log out of Citrix Desktop session). Occurs only when using **Citrix Workspace app 20.10** and **Cisco JVDI**.

Base system

- **Hyper-V (Generation 2) needs a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.
- **Update from memory stick requires network online state** (at least when multiple update stages are involved)
- **Unreliable messages** in user dialog for applying settings during boot. Could occur when new settings were fetched from the UMS.

deskMate

- Some **stability issues** may remain.

Firmware update

- On **devices with 2 GB of flash** storage, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Please visit Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a possible solution and additional information.

Appliance Mode

- When ending a **Citrix session in browser appliance mode**, the browser is restarted twice instead of once.
- Appliance mode RHEV/Spice: **spice-xpi firefox plugin** is no longer supported.
  The **Console Invocation** has to allow **Native** client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

VirtualBox

- The current **VirtualBox Guest Tools/Drivers will not work with VirtualBox 5.2.x or older hosts**. This results in a black screen and non-working graphic.
  Possible workaround: Installation with **Failsafe Installation + Recovery** and set of `x.drivers.force_vesa` registry key to true.

Audio

- **IGEL UD2 (D220)** fails to restore the **volume level** of the speaker when the device used firmware version 11.01.110 before.
- **Audio jack detection** on **Advantec POC-W243L** does not work. Therefore, sound output goes through a possibly connected headset and also the internal speakers.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the Nouveau GPU driver.

Hardware

- Some newer **Delock 62599 active DisplayPort to DVI (4k)** adapters only work on INTEL-based devices.

Remote Management

- **AIT feature** with **IGEL Starter License** is only supported by UMS version 6.05.100 or newer.

New Features 11.05.120

OSC Installer

- Enhanced OSC Installer for **creating so-called factory preload images** (master images)
- Added possibility to **add initial settings** to OSC Installer ISO.

Citrix

- Added **automatic configuration of the Citrix webcam redirection** in ICA sessions.
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > HDX Multimedia**
Parameter	Automatic HDX webcam configuration
Registry	`ica.igel_hdxwebcam.enabled`
Value	<u>enabled</u> / disabled
IGEL Setup	**Sessions > Citrix > Citrix Global > HDX Multimedia**
Parameter	Resolution grade
Registry	`ica.igel_hdxwebcam.quality`
Range	[Very low][Low][<u>Normal</u>] [High][Very high][Best]
IGEL Setup	**Sessions > Citrix > Citrix Global > HDX Multimedia**
Parameter	Minimal frame rate
Registry	`ica.igel_hdxwebcam.framerate`
Value	15

- Added **configuration for h264 encoding** in the Citrix webcam redirection.
  More...

Parameter	HDX Webcam H264 encoding
Registry	`ica.wfclient.hdxh264inputenabled`
Value	enabled / <u>disabled</u>

- Added configuration for **native h264 encoding** provided by webcam and used in the Citrix webcam redirection. This parameter requires the `ica.wfclient.hdxh264inputenabled` to be set to true.
  More...

Parameter	HDX Webcam H264 native

Registry	`ica.wfclient.hdxh264enablenative`
Value	enabled / <u>disabled</u>

- Available **Citrix Workspace apps** in this release: **21.03(default), 20.12 and 19.12**
- Added new Citrix feature for an enhanced experience of **multi-monitor scenarios**.
  You can save the selection for a multi-monitor screen layout. Pinning helps to relaunch a session with the selected layout, resulting in an optimized user experience.
  Note: Works only with Self Service.
  More...

Parameter	Enhanced Experience of Multi-Monitor scenarios
Registry	`ica.authman.screenpinenabled`
Value	enabled / <u>disabled</u>

- **All parameters of the Citrix set log program** are now available via setup under `ica.logging.setlog`. Logging can be set easier and permanent.
  Therefore, changed the structure of parameters to show the inheritance.

VMware Horizon

- Fixed **broken session handling** when using Webex Teams, Horizon session could only be started once.

WVD

- New **WVD icon**.

Network

- Added **Realtek RTL8125 2.5Gigabit Ethernet** driver.

WiFi

- Added support for **Realtek RTW8852AE WiFi** device.

Hardware

- Added hardware support for **LG 34CN650N AiO**.

Resolved Issues 11.05.120

OSC Installer

- Fixed OSC 11.05.xxx **not deployable with Deployment Appliance (ODA)**.

Citrix

- Fixed link to icacontrol
- Fixed: **Several audio device problems** through an enabled registry key `ica.module.vdcamversion4support`. The default was changed to disabled. This ensures that Citrix CWA behaves as before.
  More...

Parameter	Multiple Audio Device support
Registry	`ica.module.vdcamversion4support`
Value	enabled / <u>disabled</u>

- Fixed **Citrix logging**, the log file is written as expected.

RDP/IGEL RDP Client 2

- Added parameter to enable **serverside audio for RDP** sessions.
  More...

Parameter	Enable serverside audio
Registry	`sessions.winconnect%.option.enable-serverside-audio`
Value	enabled / <u>disabled</u>

Parallels Client

- Fixed an issue where the **post-session command** got triggered too early when using the Parallels Client.

Network

- Fixed network device order for **LG 34CN650W** and **CL600W** devices.
- Fixed a **graphics distortion in Setup Assistant**

WiFi

- Added registry key for **tweaking the WPA supplicant**. In general, the value is a comma-separated list of names. If it contains LATESUCCESS, a late EAP-Success message will be ignored.
  More...

Parameter	IGEL Tweaks

Registry	`network.interfaces.wirelesslan.device0.wpa.igel_tweaks`
Value	`" "`

- Added registry key to **activate the use of Broadcom sta driver** (needed for older Broadcom WiFi devices).
  More...

Parameter	Use Broadcom sta driver instead of b43 for WLAN
Registry	`network.drivers.broadcom.use_broadcom_sta`
Value	enabled / <u>disabled</u>

NCP VPN

- Fixed **NCP session start**.

Smartcard

- Fixed: Usage of **Nexus Personal** smartcard in combination with **Gemalto IDBridge CT30** reader, in Citrix and RDP

Base system

- Fixed **custom environment variables** when an administrator password is set.
- Fixed **boot problems** due to 2 partitions are marked active (legacy boot with GPT partition table).
- Fixed **RDP not triggering the post-session command** on session disconnect.
- Fixed **grub boot code and boot error message**: Unknown TPM error.
- Fixed **Demo License browser crashes after EULA**.

X11 system

- Fixed **taskbar hide/show delay** has no effect

VirtualBox

- Fixed **screen resolution issues with SINA OS 3.5.1 version**.
- Fixed **screen remains black after started multi-monitor configuration in VirtualBox**.
- Fixed **second screen in VirtualBox environment only is configured with 1024x768**.
- Fixed issue when getting **screen resolution from special VirtualBox version**.

Audio

- Improved **playback function** in the **ALSA Pulse PCM** - for applications using ALSA API (e.g. Citrix Workspace App).

Hardware

- Fixed **microphone detection on Dell Optiplex devices**.

Remote Management

- Fixed WOL proxy command.

IGEL OS Creator (OSC)

Supported Devices

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 20
	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

- Component Versions 11.05.120(see page 235)
- New Features 11.05.120(see page 237)
- Resolved Issues 11.05.120(see page 238)

Component Versions 11.05.120

Clients

Product	Version
Zulu JRE	8.48.0.51-2

System Components

OpenSSL	1.0.2n-1ubuntu5.5
OpenSSL	1.1.1-1ubuntu2.1~18.04.7
Bluetooth stack (bluez)	5.55-0ubuntu1.1igel10
MESA OpenGL stack	20.2.6-1igel131
VDPAU Library version	1.4-3igel1099
Graphics Driver INTEL	2.99.917+git20200515-igel1013
Graphics Driver ATI/RADEON	19.1.0-2igel1066
Graphics Driver ATI/AMDGPU	19.1.0-2+git20200828igel1064
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	450.102.04-0ubuntu0.20.04.1
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel1012
Graphics Driver VESA	2.4.0-1igel1010
Input Driver Evdev	2.10.6-2igel1037
Input Driver Elographics	1.4.1-1+b6igel952
Input Driver Synaptics	1.9.1-1ubuntu1igel1009
Input Driver VMMouse	13.1.0-1ubuntu2igel957
Input Driver Wacom	0.39.0-0ubuntu1igel1036
Kernel	5.9.16 #mainline-lxos-g1615563496
Xorg X11 Server	1.20.10-2igel1100
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel13

XFCE4 Window Manager	4.14.2-1~18.04igel1600339249
ISC DHCP Client	4.3.5-3ubuntu7.1
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.18-dfsg-3igel52
Virtualbox X11 Guest Utils	6.1.18-dfsg-3igel52
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.20.0-2igel104
Qemu Guest Agent	5.2+dfsg-3igel17

Services

Service	Size	Reduced Firmware
Java SE Runtime Environment	36.0 M	Included
NVIDIA graphics driver	122.5 M	Included

New Features 11.05.120

OSC Installer

- Enhanced OSC Installer for **creating so-called factory preload images** (master images)
- Added possibility to **add initial settings to OSC Installer ISO**.

Resolved Issues 11.05.120

OSC Installer

- Fixed OSC 11.05.xxx **not deployable with Deployment Appliance (ODA)**.

Notes for Release 11.05.100

Software:	Version	11.05.100
Release Date:	2021-02-25	
Release Notes:	Version	RN-1105100-1
Last update:	2021-03-08	

- IGEL OS 11
- IGEL OS Creator (OSC)

IGEL OS 11

Supported Devices 11.05.100

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 20
	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.05.100

Clients

Product	Version
Chromium	88.0.4324.150-igel1612763117
CID Key	6.5.0-2
Cisco JVDI Client	12.9.3
Cisco Webex Teams VDI Client	41.1.0.17621
Cisco Webex Meetings VDI Client	41.2.0.142
Zoom Media Plugin	5.4.59458.0109
Citrix HDX Realtime Media Engine	2.9.200-2506
Citrix Workspace App	19.12.0.19
Citrix Workspace App	20.10.0.6
Citrix Workspace App	20.12.0.12
deskMate Client	2.1.3
deviceTRUST Citrix Channel	20.1.200.0
Crossmatch DP Citrix Channel	0125
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	14.0.0.45623
Evidian AuthMgr	1.5.7617
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech USB for Remote Desktop	6.0.28
FabulaTech Scanner for Remote Desktop	2.7.0.1
FabulaTech Webcam for Remote Desktop	2.8.10
Firefox	78.6.1
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2igel1605251065
IGEL WVD Client	1.0.22igel1612537530

Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	20.1.200.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.11.2-1igel8
Open VPN	2.5.0-1igel1606475118
Zulu JRE	8.48.0.51-2
Parallels Client (64 bit)	17.1.2.1
Spice GTK (Red Hat Virtualization)	0.39-1igel106
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.8.0-1+b1igel71
SpeechWrite	1.0
Teradici PCoIP Software Client	20.10.0-18.04
ThinLinc Client	4.12.0-6517
ThinPrint Client	7-7.6.126
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	1.0.5-1igel1583919770
VNC Viewer	1.10.1+dfsg-9igel17
VMware Horizon Client	2012-8.1.0-17349998
Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20201118
Philips Speech driver	12.9.1

Signature

Kofax SPVC Citrix Channel	3.1.41.0

signotec Citrix Channel	8.0.9
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7
PKCS#11 Library cryptovision sc/interface	7.3.1
PKCS#11 Library Gemalto SafeNet	10.7.77
PKCS#11 Library OpenSC	0.21.0-1igel39
PKCS#11 Library SecMaker NetID	6.8.3.21
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel2
Reader Driver Gemalto eToken	10.7.77
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.31-1igel11
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.9.0-1igel16
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.5
OpenSSL	1.1.1-1ubuntu2.1~18.04.7
OpenSSH Client	8.4p1-3igel4
OpenSSH Server	8.4p1-3igel4
Bluetooth stack (bluez)	5.55-0ubuntu1.1igel10

MESA OpenGL stack	20.2.6-1igel131
VAAPI ABI Version	0.40
VDPAU Library version	1.4-3igel1099
Graphics Driver INTEL	2.99.917+git20200515-igel1013
Graphics Driver ATI/RADEON	19.1.0-2igel1066
Graphics Driver ATI/AMDGPU	19.1.0-2+git20200828igel1064
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	450.102.04-0ubuntu0.20.04.1
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel1012
Graphics Driver VESA	2.4.0-1igel1010
Input Driver Evdev	2.10.6-2igel1037
Input Driver Elographics	1.4.1-1+b6igel952
Input Driver eGalax	2.5.8825
Input Driver Synaptics	1.9.1-1ubuntu1igel1009
Input Driver VMMouse	13.1.0-1ubuntu2igel957
Input Driver Wacom	0.39.0-0ubuntu1igel1036
Input Driver ELO Multitouch	3.0.0
Input Driver ELO Singletouch	5.1.0
Kernel	5.9.16 #mainline-lxos-g1613995475
Xorg X11 Server	1.20.10-2igel1100
Xorg Xephyr	1.20.10-2igel1100
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.425
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel13
XFCE4 Window Manager	4.14.2-1~18.04igel1600339249
ISC DHCP Client	4.3.5-3ubuntu7.1
NetworkManager	1.20.4-2ubuntu2.2igel105

ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 0.10 Fluendo aacdec	0.10.42
GStreamer 0.10 Fluendo asfdemux	0.10.90
GStreamer 0.10 Fluendo h264dec	0.10.58
GStreamer 0.10 Fluendo mp3dec	0.10.40
GStreamer 0.10 Fluendo mpegdemux	0.10.85
GStreamer 0.10 Fluendo mpeg4videodec	0.10.44
GStreamer 0.10 Fluendo vadec	0.10.224
GStreamer 0.10 Fluendo wmadec	0.10.70
GStreamer 0.10 Fluendo wmvdec	0.10.66
GStreamer 1.x	1.18.3-1igel283
GStreamer 1.0 Fluendo aacdec	0.10.42.2-8d6d
GStreamer 1.0 Fluendo asfdemux	0.10.90
GStreamer 1.0 Fluendo h264dec	0.10.58
GStreamer 1.0 Fluendo mp3dec	0.10.40
GStreamer 1.0 Fluendo mpeg4videodec	0.10.44
GStreamer 1.0 Fluendo vadec	0.10.224
GStreamer 1.0 Fluendo wmadec	0.10.70
GStreamer 1.0 Fluendo wmvdec	0.10.66
WebKit2Gtk	2.30.4-1igel40
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.18-dfsg-1igel49
Virtualbox X11 Guest Utils	6.1.18-dfsg-1igel49
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1

Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.20.0-2igel104
Qemu Guest Agent	5.2+dfsg-3igel17

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.17-3igel5
Mobile Device Access USB (imobile)	1.3.0-5igel11
Mobile Device Access USB (gphoto)	2.5.26-2igel7
VPN OpenConnect	8.10-2igel6
Scanner support	1.0.27-1
VirtualBox	6.1.18-dfsg-1igel49

Services

Service	Size	Reduced Firmware
Asian Language Support	22.5 M	Included
Java SE Runtime Environment	36.0 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	235.8 M	Included
Ericom PowerTerm InterConnect	15.5 M	Included
Media Player	512.0 K	Included
Local Browser (Firefox) Citrix Appliance	76.5 M	Included
VMware Horizon RDP	4.5 M	Included
Cendio ThinLinc	10.0 M	Included
Printing (Internet printing protocol CUPS)	22.2 M	Included
NoMachine NX	26.8 M	Included
VMware Horizon	131.2 M	Included
Voice over IP (Ekiga)	6.5 M	Included
Citrix Appliance	768.0 K	Included

NCP Enterprise VPN Client	27.0 M	Not included
Fluendo GStreamer Codec Plugins	6.5 M	Included
IBM i Access Client Solutions	72.5 M	Not included
Red Hat Enterprise Virtualization	3.0 M	Included
Parallels Client	5.5 M	Included
NVIDIA graphics driver	126.8 M	Not included
Imprivata Appliance	10.8 M	Included
Evidian AuthMgr	2.5 M	Included
Hardware Video Acceleration	13.5 M	Included
Extra Font Package	1.0 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	3.5 M	Included
Cisco JVDI client	45.8 M	Included
PrinterLogic	40.8 M	Not included
Biosec BS Login	10.0 M	Not included
Login VSI Login Enterprise	28.8 M	Not included
Stratusphere UX CID Key software	2.8 M	Not included
Elastic Filebeat	15.8 M	Not included
WVD	88.2 M	Included
Local Browser (Chromium)	87.8 M	Not included
deskMate client	5.8 M	Included
Cisco Webex Teams VDI	36.8 M	Not included
Cisco Webex Meetings VDI	32.2 M	Not included
Zoom VDI Media Plugin	42.2 M	Not included
DriveLock	13.2 M	Included
SpeechWrite Client	256.0 K	Included
Teradici PCoIP Client	14.5 M	Included
90meter Smart Card Support	256.0 K	Included

Mobile Device Access USB (Limited support)	256.0 K	Not included
VPN OpenConnect (Limited support)	1.0 M	Not included
Scanner support / SANE (Limited support)	2.5 M	Not included
VirtualBox (Limited support)	63.8 M	Not included

General Information 11.05.100

> ⓘ To be beneficial to all new features and implementations, it is recommended to use UMS 6.07.100 or higher and update the corresponding profiles.

> 🔴 Firmware downgrade to older versions (11.01 or 11.02) is not possible, due to the unsigned firmware update files.

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Known Issues 11.05.100

Firmware Update

- On **devices with 2 GB of flash storag**e, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Check Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a solution.

Citrix

- With activated **DRI3** and an **AMD GPU Citrix H.264 acceleration plugin** could freeze. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H.264, MPEG1 and MPEG2**. GStreamer1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with activated **DRI3** and **hardware accelerated H.264 deep compression codec**.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264** acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / disabled

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

- **Adding smartcard readers** while the **session is ongoing** does not work. The **reader** is **visible**, **but cannot be used** due to permanently unknown reader status.

VMware Horizon

- **Client drive mapping** and **USB redirection** for storage devices should not be enabled both at the same time.
  - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Enable local **Storage Hotplug** on Setup page **Devices > Storage Devices > Storage Hotplug**.

- **External drives** mounted already before connection do not appear in the **remote desktop**. Workaround: map the directory /media as a drive. Then the external devices will show up inside the media drive.
- **After the disconnect of an RDP-based session**, the Horizon main **window** which contains the server or sessions overview **cannot be resized anymore**.
- **Copying a text from Horizon Blast** sessions is not possible.
- The **on-screen keyboard** in **Horizon appliance mode** does not work correctly with local logon. Workaround: **Switch off local logon** and switch on the corresponding two keys via IGEL registry:
  - `userinterface.softkeyboard.autoshow`
  - `userinterface.softkeyboard.autohide`
- **Zoom VDI Media Plugin makes Horizon Client crash** upon connection to the remote desktop in cases **when TC Setup is running at the same time**.

Chromium

- **H.264 decoding is not supported** anymore.

Wi-Fi

- **TP-Link Archer T2UH Wi-Fi adapters** do not work after system suspend/resume. Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.

Cisco JVDI Client

- There may be a **segfault shown in the logs** (during logout of Citrix Desktop session). This occurs only when using **Citrix Workspace app 20.10 and Cisco JVDI**.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU driver**.

Hyper-V

- **Hyper-V** (Generation 2) needs **a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.

VirtualBox

- The current **VirtualBox Guest Tools/Drivers** will not work with **VirtualBox 5.2.x or older** hosts which leads to a black screen and non-working graphics.
  Possible workaround: Install with 'Failsafe Installation + Recovery' and set the registry key `x.drivers.force_vesa` to 'true'.

Audio

- **Audio jack detection on Advantech POC-W243L** doesn't work. Therefore, sound output goes through a possibly connected headset and the internal speakers.
- **IGEL UD2 (D220)** fails to restore the volume level of the speaker when the device used **firmware version 11.01.110** before.

Hardware

- Some newer **Delock 62599 active DisplayPort-to-DVI (4k)** adapters only work with INTEL devices.

Remote Management

- **AIT feature with IGEL Starter License** is only **supported** by **UMS version 6.05.100 or newer**.

Base system

- **Update from memory stick** requires network online state (at least when multiple update stages are involved).
- **Unreliable messages in user dialog for applying settings during boot**. Could occur when new settings were fetched from the UMS.

deskMate

- Some stability issues may remain.

Appliance Mode

- When **ending a Citrix session** in browser appliance mode, the **browser is restarted twice** instead of once.
- Appliance mode **RHEV/Spice**: **spice-xpi firefox plugin** is no longer supported. The **Console Invocation** has to allow 'Native' client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

Security Fixes 11.05.100

Citrix

- Fixed file properties for `/var/log/.ctxlogconf` adjusted, **so no code can be executed by the user**.

Firefox

- **Added** `view-source:file:///` **to the blocklist** in case the browser should not have random access to the local file system.

Base system

- Fixed **bluez** security issue CVE-2020-0556.
- Fixed **librsvg** security issue CVE-2019-20446.
- Fixed **ppp** security issue CVE-2020-15704.
- Fixed **chromium-browser** security issues:
  More...

  CVE-2020-6541, CVE-2020-6540,
  CVE-2020-6539, CVE-2020-6538, CVE-2020-6537, CVE-2020-6536, CVE-2020-6535,
  CVE-2020-6534, CVE-2020-6533, CVE-2020-6532, CVE-2020-6531, CVE-2020-6530,
  CVE-2020-6529, CVE-2020-6528, CVE-2020-6527, CVE-2020-6526, CVE-2020-6525,
  CVE-2020-6524, CVE-2020-6523, CVE-2020-6522, CVE-2020-6521, CVE-2020-6520,
  CVE-2020-6519, CVE-2020-6518, CVE-2020-6517, CVE-2020-6516, CVE-2020-6515,
  CVE-2020-6514, CVE-2020-6513, CVE-2020-6512, CVE-2020-6511, CVE-2020-6510,
  CVE-2020-6509, CVE-2020-6507, CVE-2020-6506, CVE-2020-6505, CVE-2020-6496,
  CVE-2020-6495, CVE-2020-6494, CVE-2020-6493, CVE-2020-6571, CVE-2020-6570,
  CVE-2020-6569, CVE-2020-6568, CVE-2020-6567, CVE-2020-6566, CVE-2020-6565,
  CVE-2020-6564, CVE-2020-6563, CVE-2020-6562, CVE-2020-6561, CVE-2020-6560,
  CVE-2020-6559, CVE-2020-6558, CVE-2020-6556, CVE-2020-6555, CVE-2020-6554,
  CVE-2020-6553, CVE-2020-6552, CVE-2020-6551, CVE-2020-6550, CVE-2020-6549,
  CVE-2020-6548, CVE-2020-6547, CVE-2020-6546, CVE-2020-6545, CVE-2020-6544,
  CVE-2020-6543, CVE-2020-6542, CVE-2020-6576, CVE-2020-6575, CVE-2020-6574,
  CVE-2020-6573, CVE-2020-15966, CVE-2020-15965, CVE-2020-15964, CVE-2020-15963,
  CVE-2020-15962, CVE-2020-15961, CVE-2020-15960, CVE-2020-15959, CVE-2020-6557,
  CVE-2020-15992, CVE-2020-15991, CVE-2020-15990, CVE-2020-15989,
  CVE-2020-15988, CVE-2020-15987, CVE-2020-15986, CVE-2020-15985,
  CVE-2020-15984, CVE-2020-15983, CVE-2020-15982, CVE-2020-15981,
  CVE-2020-15980, CVE-2020-15979, CVE-2020-15978, CVE-2020-15977,
  CVE-2020-15976, CVE-2020-15975, CVE-2020-15974, CVE-2020-15973,
  CVE-2020-15972, CVE-2020-15971, CVE-2020-15970, CVE-2020-15969,
  CVE-2020-15968, CVE-2020-15967, CVE-2020-16017, CVE-2020-16013,
  CVE-2020-16011, CVE-2020-16009, CVE-2020-16008, CVE-2020-16007,
  CVE-2020-16006, CVE-2020-16005, CVE-2020-16003, CVE-2020-16002,
  CVE-2020-16001, CVE-2020-16000, CVE-2020-15999, CVE-2020-16036,
  CVE-2020-16035, CVE-2020-16034, CVE-2020-16033, CVE-2020-16032,
  CVE-2020-16031, CVE-2020-16030, CVE-2020-16029, CVE-2020-16028,
  CVE-2020-16027, CVE-2020-16026, CVE-2020-16025, CVE-2020-16024,
  CVE-2020-16023, CVE-2020-16022, CVE-2020-16021, CVE-2020-16020,
  CVE-2020-16019, CVE-2020-16018, CVE-2020-16015, CVE-2020-16014,

CVE-2020-16012, CVE-2019-8075, CVE-2020-16042, CVE-2020-16041, CVE-2020-16040,
CVE-2020-16039, CVE-2020-16038, CVE-2020-16037, CVE-2021-21116,
CVE-2021-21115, CVE-2021-21114, CVE-2021-21113, CVE-2021-21112,
CVE-2021-21111, CVE-2021-21110, CVE-2021-21109, CVE-2021-21108,
CVE-2021-21107, CVE-2021-21106, CVE-2020-16043, CVE-2020-15995,
CVE-2021-21148, CVE-2021-21147, CVE-2021-21146, CVE-2021-21145,
CVE-2021-21144, CVE-2021-21143, CVE-2021-21142, CVE-2021-21141,
CVE-2021-21140, CVE-2021-21139, CVE-2021-21138, CVE-2021-21137,
CVE-2021-21136, CVE-2021-21135, CVE-2021-21134, CVE-2021-21133,
CVE-2021-21132, CVE-2021-21131, CVE-2021-21130, CVE-2021-21129,
CVE-2021-21128, CVE-2021-21127, CVE-2021-21126, CVE-2021-21125,
CVE-2021-21124, CVE-2021-21123, CVE-2021-21122, CVE-2021-21121,
CVE-2021-21120, CVE-2021-21119, CVE-2021-21118, CVE-2021-21117, and
CVE-2020-16044.

- Fixed **ffmpeg** security issues CVE-2020-14212, CVE-2020-13904, CVE-2020-35965, and
  CVE-2020-35964.
- Fixed **pulseaudio** security issues CVE-2020-11931 and CVE-2020-16123.
- Fixed **nss** security issues CVE-2020-6829, CVE-2020-12401, CVE-2020-12400, and CVE-2020-12403.
- Fixed libvirt security issues CVE-2020-14301, CVE-2020-12430, CVE-2020-10701, and
  CVE-2020-14339.
- Fixed **libslirp** security issues CVE-2020-10756, CVE-2020-29130, and CVE-2020-29129.
- Fixed **samba** security issues:
  More...

  CVE-2020-14303, CVE-2020-1472, CVE-2020-1472,
  CVE-2020-14383, CVE-2020-14323, and CVE-2020-14318.

- Fixed **qemu** security issues:
  More...

  CVE-2020-16092, CVE-2020-14364, CVE-2020-15863, CVE-2020-13800,
  CVE-2020-13791, CVE-2020-13754, CVE-2020-13659, CVE-2020-13362,
  CVE-2020-13361, CVE-2020-13253, CVE-2020-12829, CVE-2020-10761,
  CVE-2020-28916, CVE-2020-27821, CVE-2020-27661, CVE-2020-27617,
  CVE-2020-27616, CVE-2020-25723, CVE-2020-25707, CVE-2020-25625,
  CVE-2020-25624, CVE-2020-25085, CVE-2020-25084, and CVE-2020-15859.

- Fixed **bind9** security issues CVE-2020-8624, CVE-2020-8623, and CVE-2020-8622.
- Fixed **grub2** security issues:
  More...

  CVE-2020-10713, CVE-2020-14308, CVE-2020-14309, CVE-2020-14310,
  CVE-2020-14311, CVE-2020-15706, and CVE-2020-15707.

- Fixed **sane-backends** security issues:
  More...

  CVE-2020-12867, CVE-2020-12866, CVE-2020-12865, CVE-2020-12864,
  CVE-2020-12863, CVE-2020-12862, and CVE-2020-12861.

- Fixed **ghostscript** security issues:
  More...

CVE-2020-17538, CVE-2020-16310, CVE-2020-16309, CVE-2020-16308,
CVE-2020-16307, CVE-2020-16306, CVE-2020-16305, CVE-2020-16304,
CVE-2020-16303, CVE-2020-16302, CVE-2020-16301, CVE-2020-16300,
CVE-2020-16299, CVE-2020-16298, CVE-2020-16297, CVE-2020-16296,
CVE-2020-16295, CVE-2020-16294, CVE-2020-16293, CVE-2020-16292,
CVE-2020-16291, CVE-2020-16290, CVE-2020-16289, CVE-2020-16288,
CVE-2020-16287, CVE-2020-16, CVE-2020-8112, CVE-2020-6851,
CVE-2020-27845, CVE-2020-27843, CVE-2020-27842, CVE-2020-27841,
CVE-2020-27824, CVE-2020-27814, and CVE-2018-5727.

- Fixed **net-snmp** security issues CVE-2020-15862 and CVE-2020-15861.
- Fixed **curl** security issues:
  More...

  CVE-2020-8231, CVE-2020-8177, CVE-2020-8169,
  CVE-2020-8286, CVE-2020-8285, and CVE-2020-8284.

- Fixed **chrony** security issue CVE-2020-14367.
- Fixed **libx11** security issue CVE-2020-14344.
- Fixed **xorg-server** security issues:
  More...

  CVE-2020-14347, CVE-2020-25712, CVE-2020-14360, CVE-2020-14362,
  CVE-2020-14361, CVE-2020-14346, and CVE-2020-14345.

- Fixed **cairo** security issues CVE-2018-19876 and CVE-2020-35492.
- Fixed **openssl1.0** security issues:
  More...

  CVE-2020-1968, CVE-2019-1563, CVE-2019-1551,
  CVE-2019-1547, and CVE-2020-1971.

- Fixed **libproxy** security issues CVE-2020-25219 and CVE-2020-26154.
- Fixed **gnupg2** security issue CVE-2019-14855.
- Fixed **util-linux** security issue CVE-2018-7738.
- Fixed **ntp** security issue CVE-2019-8936.
- Fixed **tigervnc** security issue CVE-2020-26117.
- Fixed **brotli** security issue CVE-2020-8927.
- Fixed **vim** security issue CVE-2019-20807.
- Fixed **python2.7** security issue CVE-2020-26116.
- Fixed **python3.6** security issue CVE-2020-26116.
- Fixed **freetype** security issue CVE-2020-15999.
- Fixed **perl** security issues CVE-2020-12723, CVE-2020-10878 and CVE-2020-10543.
- Fixed **spice** security issue CVE-2020-14355.
- Fixed **glibc** security issue CVE-2017-18269.
- Fixed **python-cryptography** security issue CVE-2020-25659.
- Fixed **openldap** security issues CVE-2020-25692, CVE-2020-25710, and CVE-2020-25709.
- Fixed **libexif** security issue CVE-2020-0452.
- Fixed **krb5** security issue CVE-2020-28196.
- Fixed **libvncserver** security issues CVE-2018-21247, and CVE-2020-14396.
- Fixed **poppler** security issues CVE-2020-27778, CVE-2019-9959, CVE-2019-10871, and CVE-2018-21009.

- Fixed **xdg-utils** security issue CVE-2020-27748.
- Fixed **wpa** security issue CVE-2020-12695.
- Fixed **x11vnc** security issue CVE-2020-29074.
- Fixed **spice-gtk** security issue CVE-2020-14355.
- Fixed **libssh2** security issues CVE-2019-17498 and CVE-2019-13115.
- Fixed **spice-vdagent** security issues:
  More...

  CVE-2020-25653, CVE-2020-25652, CVE-2020-25651,
  CVE-2020-25650, and CVE-2020-2565.

- Fixed **openssl** security issue CVE-2020-1971.
- Fixed **libxml2** security issue CVE-2020-24977.
- Fixed **webkit2gtk** security issues:
  More...

  CVE-2020-9983, CVE-2020-9952, CVE-2020-9951,
  CVE-2020-9948, and CVE-2020-13584.

- Fixed **lxml** security issue CVE-2020-27783.
- Fixed **p11-kit** security issues CVE-2020-29363, CVE-2020-29362, and CVE-2020-29361.
- Fixed **wavpack** security issue CVE-2020-35738.
- Fixed **nvidia-graphics-drivers-450** security issues CVE-2021-1053 and CVE-2021-1052.
- Fixed **tar** security issues CVE-2019-9923 and CVE-2018-20482.
- Fixed **pillow** security issues CVE-2020-35655 and CVE-2020-35653.
- Fixed **dnsmasq** security issues:
  More...

  CVE-2020-25687, CVE-2020-25686, CVE-2020-25685,
  CVE-2020-25684, CVE-2020-25683, CVE-2020-25682,
  CVE-2020-25681 and CVE-2019-14834.

- Fixed **sudo** security issues CVE-2021-3156 and CVE-2021-23239.
- Fixed **privilege escalation via** environment variable `PATH` in `/bin/usershell` binary.
- Fixed **privilege escalation via** environment variables in the `/bin/update` binary.
- Fixed **BleedingTooth** security issue which means CVE-2020-12351, CVE-2020-12352 and CVE-2020-24490.
- Fixed **kernel** security issues named **Platypus** (CVE-2020-8694 and CVE-2020-8695).
- Fixed possible security issue
- Fixed a **local command injection with SSH** session.

Remote Management

- Added **secure channel** for following commands
  `show_message` , `get_file_from_url` , `write_file_to_url`
  and `upload_tc_support_information`
  sends all relevant data in a secured way.

VNC

- Fixed a **secure terminal** and **secure VNC shadowing** remote code execution vulnerability.

New Features 11.05.100

Citrix

- The new "**screen pinning**" feature **for Citrix desktop sessions** has been integrated. With this feature, it is possible to **start multiple Citrix desktop sessions on different screens**.
  The following parameters have been added for this purpose:
  - This parameter **defines** the **session name** on which the settings are to be used. Also the known **wildcards like * and ? are possible** here.
    More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Window**
Parameter	Citrix session name
Registry	`ica.destination_window.session%.name`
Value	""

  - The parameter **defines** which **mode** should be **used**.
    More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Window**
Parameter	Multimonitor full-screen mode
Registry	`ica.destination_window.session%.multimonitor_mode`
Range	[Restrict full-screen session to one monitor] [Expand full-screen session across all monitors] [Expand the session over a self-selected number of monitors]

  - For "**Restrict full-screen session to one monitor**"
    also `ica.destination_window.session%.monitor` needs **to be set**.
    For "**Expand the session over a self-selected number of monitors**"
    also `ica.destination_window.session%.multimonitor_selection` needs **to be set**.
    Further information is also offered **via tooltip**.
    More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Window**
Parameter	Desktop session start monitor
Registry	`ica.destination_window.session%.monitor`
Range	[1st Monitor][2nd Monitor][3rd Monitor][4rd ...]
IGEL Setup	**Sessions > Citrix > Citrix Global > Window**

Parameter	Monitor selection
Registry	`ica.destination_window.session%.multimonitor_selection`
Value	""

- Integrated **HDX RTME 2.9.200** for the usage of SfB (Skype for Business).
- Available **Citrix Workspace apps** in this release: **20.12 (default)**, **20.10** and **19.12**.
- Added new feature, where **multiple audio devices could be mapped inside the sessions**. This will display audio devices with their device name and not only HDX audio.
  More...

Parameter	Multiple Audio Device support
Registry	`ica.module.vdcamversion4support`
Value	<u>true</u>/false

- Note: **Bluetooth devices** are currently **not supported for Device Redirection**.
- New **centralized Citrix logging in IGEL OS**, only one parameter is needed to activate logging.
  More...

Parameter	Enable logging for Citrix sessions
Registry	`ica.logging.debug`
Value	on/<u>off</u>

- Since **Workspace app 20.09**, the tool **setlog** is **used to configure the logging**. For this purpose, parameters are provided in the registry `ica.logging.setlog`, but usually nothing needs to be changed.
- Fixed issue: **mic** and **webcam** devices can be **redirected using Browser Content Redirection**.
  More...

Parameter	Enables mic and webcam redirection using BCR
Registry	`ica.allregions.cefenablemediadevices`
Value	[Factory default is "**"] [False][True]

- Added new parameter **Readers Status Poll Period** to **specify the delay**, in milliseconds, **for reading information from a smartcard** after the card is inserted or removed, or a reader is disconnected, etc.
  More...

Parameter	Readers Status Poll Period
Registry	`ica.wfclient.ReadersStatusPollPeriod`
Type	Integer
Value	<u>250</u>/Range 100..5000

- Integrated **Zoom** Media Plugin **5.4.59458.0109**

- The **default** value of the parameter `ica.module.vdcamversion4support` was **set to "true"**.

WVD

- Added option to **always prompt for password upon session host connection**.
  More...

Parameter	Always prompt for password upon session host connection
Registry	`sessions.wvd%.options.always-prompt-for-session-password`
Type	bool
Value	enabled / <u>disabled</u>
Note:	The same can be achieved on the server side by setting the RDP group policy of "Always prompt for password upon connection".

- Added options to configure **Fabulatech for WVD**. This includes **Webcam redirection**, **Scanner redirection**, and **USB redirection**.
- The **USB redirection** configuration is **still to be done** via **Sessions > RDP > RDP Global > Fabulatech USB Redirection**. Later releases should mirror that under WVD as well.
- There are **global WVD settings** to select which redirections (Webcam, Scanner, USB) should be enabled for WVD.
- There is a **switch per WVD session** that allows **to enable/disable Fabulatech for that sessions** respectively.
- Note: Technically, the **Fabulatech redirections** are **selected system-wide**. That means, when **Scanner redirection** is enabled for Citrix and **Webcam redirection** is enabled for WVD, both these redirections are visible in Citrix and in WVD sessions. Only disabling Fabulatech support in general for a WVD session is possible.
  More...

IGEL Setup	**Sessions > WVD > WVD Global > Plugins > Fabulatech**
Parameter	Fabulatech Webcam Redirection
Registry	`wvd.plugins.fabulatech.webcam`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > WVD > WVD Global > Plugins > Fabulatech**
Parameter	Fabulatech Scanner Redirection
Registry	`wvd.plugins.fabulatech.scanner`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > WVD > WVD Global > Plugins > Fabulatech**
Parameter	Fabulatech USB Redirection

Registry	`wvd.plugins.fabulatech.usb`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > WVD > WVD Sessions > WVD Session > Plugins > Fabulatech**
Parameter	Fabulatech Webcam/Scanner/USB Redirection
Registry	`sessions.wvd%.plugins.fabulatech`
Value	enabled / <u>disabled</u>

- Integrated **Zoom** Media Plugin **5.4.59458.0109** with support for WVD.
  More...

IGEL Setup	**Sessions > WVD > WVD Sessions > WVD Session > Plugins > Fabulatech**
Parameter	Zoom VDI Media Plugin
Registry	`sessions.wvd%.plugins.zoomvdi`
Value	enabled / <u>disabled</u>

- Added option to **always prompt for username and password upon session host connection**.
  More...

Parameter	Always prompt for username and password upon session host connection
Registry	`sessions.wvd%.options.always-prompt-for-session-username-and-password`
Type	bool
Value	enabled / <u>disabled</u>

- Added option to **preset the workspace view zoom**
  More...

Parameter	Initial workspace zoom
Registry	`sessions.wvd%.options.workspacezoom`
Type	string
Value	<u>100</u>

- Added option to **select specific monitors in a multimonitor session**.
  Only monitors matching this mask are used.
  - Monitors start with zero (0).
  - If empty all monitors are enabled, which is the default.
  - Can be one or a comma-separated list of the following specifiers without the quotes:

- "1-2": An inclusive range of monitor indexes.
- "-2": An inclusive range beginning from 0 to the given monitor index.
- "2-": An inclusive range beginning with the specified monitor up to index 63, which is the maximum monitor index supported.
- "2,3,5": A comma-separated list of monitor indexes.
  More...

Parameter	Multimonitor enable mask
Registry	`sessions.wvd%.options.multimonitormask`
Type	string
Value	(empty by default)

- If the **username** is **preset with a string that starts with "@"**, the **rest of the string** is **taken as** a **preset domain** name. The user then only needs to enter her/his username and the domain name is automatically appended for AAD login.
- Additionally, the following parameter has been added to **allow/disallow the preset domain being overwritten when the username enters a name that contains an @** symbol itself. If this option is enabled, the entered domain is accepted. Otherwise, the entered domain is replaced by the preset domain.
  More...

Parameter	Allow preset domain overwrite
Registry	`sessions.wvd%.options.allow-preset-domain-overwrite`
Type	bool
Value	enabled / <u>disabled</u>

- Added **company logo customization**, but the download of custom images to the local filesystem needs to be defined. So **at the moment, the settings are not really useful, except for disabling the IGEL logo** maybe.
  More...

Parameter	Disable company logo
Registry	`sessions.wvd%.options.no`[1]`-logo`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Logo image filename
Registry	`sessions.wvd%.options.logo-image`

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[1] http://options.no

Type	string
Value	(empty by default)

- Added **background customization**, but download of custom images to the local filesystem needs to be defined. So **at the moment, the settings are not really useful, except for disabling the background image or defining a solid color for the background**.
More…

Parameter	Disable background image
Registry	`sessions.wvd%.options.no`[2]`-background`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Background image filename or color (#rrggbb)
Registry	`sessions.wvd%.options.background-image`
Type	string
Value	(empty by default) / filename / #rrggbb

VMware Horizon

- Updated **Horizon** Client to version **2012-8.1.0-17349998**
- Integrated **Zoom** Media Plugin **5.4.59458.0109**
- Fixed failure to **start Horizon serial port redirection service at boot time**

Chromium

- Updated **Chromium** browser to version **88.0.4324.150**.
- **H.264 decoding** is **not supported** anymore.
- **Custom preferences** setup is **not supported** anymore.
- Reworked **custom commandline** setup: Enter **all commandline parameters in a single entry field**.

Wi-Fi

- Added support for **WPS push button connect method**

Imprivata

- Added: The **FUS Username** is an **editable combobox with prefilled values** now. Set of an **own string** is also **possible**.
    - Hostname of the endpoint
    - MAC address of the endpoint
    - Serial number of the endpoint
    More…

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2 http://options.no

IGEL Setup	**Sessions > Appliance mode > Imprivata**
Parameter	FUS User
Registry	`imprivata.fus.user`

Smartcard

- Updated **A.E.T. Europe SafeSign Identity Client** to version **3.6.0.0**.
- Added **Smartcard PIN passthrough** in **Firefox** and **Chromium**. The PIN will be cached while logging on via Active Directory/Kerberos with smartcard. In Firefox and Chromium, no further PIN input is necessary to use the smartcard.
  More...

Parameter	Smartcard PIN caching
Registry	`scard.pkcs11.pin_cache.enable`
Value	enabled / <u>disabled</u>

- Updated **SecMaker Net iD** to version **6.8.3**. New features are:
  - Support for Thales IDPrime 940 SIS & IDPrime 3940 SIS
  - Support for FIPS level 3 versions of Thales IDPrime MD smart cards (based on MD830B and MD840)
  - Support for FINEID 3.0
  - Updated support for Yubico YubiKey serial numbers (version 5 and later)
  - Updated support for Feitian ePass FIDO serial numbers (version 99 and later)
    For detailed release information, see https://docs.secmaker.com/net-id-enterprise/6.8/nie-release-notes/nie-683-release-notes.html.

ThinPrint

- Added **ezeep by ThinPrint** support **for WVD**
  More...

IGEL Setup	**Sessions > WVD > WVD Sessions > WVD Session > Printing > ezeep by ThinPrint**
Parameter	Printing with ezeep
Registry	`sessions.wvd%.printing.thinprint-ezeep`
Value	enabled / <u>disabled</u>
Note	• Ezeep is directly related to the ThinPrint configuration under **Devices > Printer > ThinPrint > ...** • When ThinPrint configuration is changed, you need to close running WVD sessions and reconnect to make ThinPrint/Ezeep work again for the related session.

Application Launcher

- Added **optional custom message in 'About' page of application launcher**. The message is displayed **below** the **License Information** section. The text can be plain text or HTML, supported HTML subset are mentioned in Qt RichText.
  More...

Parameter	Custom message
Registry	`userinterface.launcher.custom_message`
Value	<u>empty</u>

Cisco Webex

- Integrated **Cisco Webex Meetings 41.2.0.142**
- Integrated **Cisco Webex Teams 41.1.0.17621**

Cisco JVDI Client

- Integrated **Cisco JVDI 12.9.3** client

Base system

- Added **post-session command** support **for WVD** sessions.
- Updated **OpenVPN** to version **2.5.0**.
- Updated **OpenSSH** to version **8.4p1-2**.
- Added **warning at boot** time **if Workspace Edition maintenance has expired**.
- Updated **Fluendo multimedia codecs**.
- Updated **Linux kernel** to version **5.9.16**.
- Added **inhibit screensaver** when **Zoom**, **Teams** or **Skype for Business** meeting is **active**. Possible for native clients and Citrix optimization plugins.
  More...

Parameter	Enable debug logging for igel-screensaver-monitor
Registry	`debug.tools.igel-screensaver-monitor.enable`
Value	enabled / <u>disabled</u>

- Added functionality to **change the desktop icon font color** via new Setup parameter.
  More...

IGEL Setup	**User Interface > Desktop**
Parameter	Desktop Icon Font Color
Registry	`windowmanager.defaulttheme.desktop.iconfont_color`

CID Key Agent

- Update of **CID Key Agent** to version **6.5.0-2**

Driver

- Updated **Olympus dictation driver** for **Citrix** and **RDP** to version **20201118**.
  The changes are:
    - Support motion events for Olympus RecMic devices
    - Support integration with the Olympus AudioSDK for limited server-side device communication
- Updated **Crossmatch driver** to version **0125**.
  The changes are:
    - Improved USB encryption for the 4500 readers
    - Support for the 5300-101 reader (the 5300-100 was already supported)
- Updated **deviceTRUST** client plugin for **Citrix** and **RDP** to version **20.1.200.0**. Detailed release notes can be found at https://docs.devicetrust.com/docs/releases-igel-20.1.200/.

X11 system

- Enhanced `x.xserver%.mirror_mode` registry key with new **Scaling down mode** (Scales all monitors to the monitor with the lowest resolution)
  More...

Parameter	Choose the mode which should be used for mirroring monitors if resolution differs
Registry	`x.xserver%.mirror_mode`
Range	[Default] [Biggest common resolution] [Scaling] [Scaling down]

Audio

- Added **EPOS Connect 5.0.1.2795**
  More...

IGEL Setup	**Devices > Unified Communications > EPOS Audio > EPOS Connect**
Parameter	Enable EPOS Connect
Registry	`devices.epos.connect.enable`
Type	bool
Value	enabled / disabled
IGEL Setup	**Devices > Unified Communications > EPOS Audio > EPOS Connect**
Parameter	Tenant ID
Registry	`devices.epos.connect.tenant_id`
Type	string
Value	''

IGEL Setup	**Devices > Unified Communications > EPOS Audio > EPOS Connect**
Parameter	Backend Endpoint
Registry	`devices.epos.connect.tenant_url`
Type	string
Value	''
IGEL Setup	**Devices > Unified Communications > EPOS Audio > EPOS Connect**
Parameter	Proxy
Registry	`devices.epos.connect.proxy`
Type	string
Value	''
Registry	`devices.epos.connect.log_level`
Value	Trace / Debug / <u>Information</u> / Warnings / Errors / Exceptions / No logs

- **Pulseaudio** upgraded to the **13.99** version.
- Added parameter to **differentiate sound volume for applications**. If the parameter is set to true, each application can set its own volume level. Otherwise, the sound volume is set to the same value as the default volume for output and input device respectively.
  More...

Registry	`userinterface.sound.app_volume_ctrl`
Value	<u>true</u> / false

Misc

- Added **DriveLock Agent 20.1.4.30482** for USB device access control.
  More...

IGEL Setup	**Devices > Storage Devices > DriveLock**
Parameter	Enable DriveLock agent
Registry	`devices.drivelock.enable`
Value	enabled / <u>disabled</u>
IGEL Setup	**Devices > Storage Devices > DriveLock**
Parameter	DES server URL

Registry	`devices.drivelock.server`
Value	(empty)
IGEL Setup	**Devices > Storage Devices > DriveLock**
Parameter	Tenant
Registry	`devices.drivelock.tenant`
Value	root

Evidian

- Added **new** session type **RD Web Access**.
- Updated **Evidian** to version **1.5.7617**.

Hardware

- Added hardware support for new **IGEL UD7-LX 20 (H860C)**.
- Added hardware support for **LG 34CN650N AiO**.
- Added hardware support for **Dell Wyse Z Class thin client**.
- Added hardware support for **Lenovo ThinkCentre M70q**.
- Added hardware support for **Dell Wyse 5470**.
- Added hardware support for **Lenovo L14**.
- Added hardware support for **Lenovo ThinkCentre M75n**.
- Added hardware support for **Lenovo 14w**.
- Added hardware support for **LG CN65 All in one**.
- Added hardware support for **DELL LATITUDE 5510**.
- Added hardware support for **ELO i2 Touch all-in-one (15 and 22) inch**.
- Added detection of **UD Pocket UC5-LX 2**.
- Added support for headset **Jabra Evolve2 65**.

Remote Management

- Added support for **Reportable Heartbeats to the UMS**.
- Added support for **exchanging ICG certificates**.
- The remote management of the endpoint device automatically installs TLS certificates provided by the UMS into the local trusted CA certificates storage. **The automatic deployment of TLS certificates to endpoint** devices **requires UMS 6.06.100 or higher**. This feature allows verifying certificates used in downloading files from the UMS, downloading of a firmware update and custom partition archives over HTTPS or FTPS protocols. The **verifying of certificates must be enabled by** the parameter `system.security.remote_management.tls_verify_peer`. **More...**

Registry	`system.security.remote_management.tls_verify_peer`
Value	true / false

Registry	`system.security.remote_management.tls_hostname_validation`
Value	<u>true</u> / false

- Added support for UMS commands to **store and remove ICG configuration**.
- Introduced parameters for **ICG Websocket connections**: **debug log**, **network timeout** (in seconds) and **ping-pong interval** (in seconds). The parameters are applied on the next established ICG agent connection and ICG tunnel connections: VNC and Secure Terminal.
  More...

Registry	`system.icg.websocket.debug`
Value	<u>off</u> / all / tunnel / agent
Registry	`system.icg.websocket.network_timeout`
Value	<u>30</u>
Registry	`system.icg.websocket.pingpong_interval`
Value	<u>120</u>

- IGEL Remote Management agent sends now **keep-alive packets to the ICG server to prevent the Websocket connection to the ICG server from being closed by networking infrastructure**. The Websocket's ping-pong mechanism is used for that purpose (see RFC6455). The **keep-alive interval** in seconds can be **configured by** the parameter `system.icg.websocket.pingpong_interval`, 0 disables the keep-alive mechanism.
  More...

Registry	`system.icg.websocket.pingpong_interval`
Value	<u>120</u>

Fabulatech

- Updated **FabulaTech USB for Remote Desktop** to version **6.0.28**
- Updated **FabulaTech Scanner for Remote Desktop** to version **2.7.0.1**
- Fixed **FabulaTech scanner redirection not working for Citrix** if it's exclusively enabled in IGEL Setup.

Resolved Issues 11.05.100

Citrix

- Fixed the problem with **apparmor** and the **Citrix MS Teams** workaround
- Following registry keys help to **edit horizontal and vertical window size** (works only for desktops not for applications).
  More...

Parameter	Set desired horizontal window dimension
Registry	`ica.allregions.desiredhres`
Value	[**] [640] [800] [1024] [1280] [1600]
Parameter	Set desired vertical window dimension
Registry	`ica.allregions.desiredvres`
Value	[**] [480] [600] [768] [1024] [1200]

- Citrix **Desktop** sessions **have a sound device** again, when using **smartcard watch daemon**.
  `scard.scwatchd.insert_action = su user -c /config/sessions/pnlogin0`
- Parameter `ica.module.virtualdrivers.vdwebrtc.keyboard_workaround` has been removed. This workaround is no longer needed because the problem is **solved as of CWA 20.10**.
- Added new parameters to **add config parameters** for **Citrix USB devices**: the parameter string is appended to the config line in `usb.conf`, when the **device is explicitly allowed**. Citrix introduced this to handle special behavior with single devices, e.g. to set
  "`disableselectconfig=1`".
  More...

Parameter	Extra Config
Registry	`ica.usbredirection.devicepolicy.product_rule%.parameter`
Type	String
Value	""
Parameter	Extra Config
Registry	`ica.usbredirection.devicepolicy.product_rule_igel%.parameter`
Type	String
Value	""

- Improved **Fabulatech USB Redirection** and **Scanner** Support
- New parameter added:
  More...

Parameter	Fabulatech loglevel
Registry	`ica.module.virtualdriver.fabulatech.loglevel`
Value	1

- Added new parameter **AckDelayThresh**: Max time (in milliseconds) between sending "resource free" message if any resources free. Default=350
  More...

Parameter	AckDelayThresh
Registry	`ica.module.AckDelayThresh`
Type	Integer
Value	350

- Added new parameter **AudioBufferSizeMilliseconds**: Audio buffer size, in ms. Default=200 ms
  More...

Parameter	AudioBufferSizeMilliseconds
Registry	`ica.module.AudioBufferSizeMilliseconds`
Type	Integer
Value	200

- Added new parameter **AudioLatencyControlEnabled**: Enables latency control. Default=False
  More...

Parameter	AudioLatencyControlEnabled
Registry	`ica.module.AudioLatencyControlEnabled`
Type	Boolean
Value	true / false

- Added new parameter **AudioMaxLatency**: Sets the maximum latency (in ms) before trying to discard audio data. Default=300 ms
  More...

Parameter	AudioMaxLatency
Registry	`ica.module.AudioMaxLatency`
Type	Integer
Value	300

- Added new parameter **AudioLatencyCorrectionInterval**: Defines how often to correct the latency (in ms). Default=300 ms

More...

Parameter	AudioLatencyCorrectionInterval
Registry	`ica.module.AudioLatencyCorrectionInterval`
Type	Integer
Value	300

- Added new parameter **AudioTempLatencyBoost**: Sets the higher latency band (in ms) above the lower PlaybackDelayThresh band. Default=300 ms
  More...

Parameter	AudioTempLatencyBoost
Registry	`ica.module.AudioTempLatencyBoost`
Type	Integer
Value	300

- Added new parameter **CommandAckThresh**: Number of free client command buffers causing a "resource free" message to be sent to the server. Default=10
  More...

Parameter	CommandAckThresh
Registry	`ica.module.CommandAckThresh`
Type	Integer
Value	10

- Added new parameter **DataAckThresh**: Number of free client data buffers causing a "resource free" message to be sent to the server. Default=10
  More...

Parameter	DataAckThresh
Registry	`ica.module.DataAckThresh`
Type	Integer
Value	10

- Added new parameter **MaxDataBufferSize**: Maximum size of each data buffer. Default=2048 bytes
  More...

Parameter	MaxDataBufferSize
Registry	`ica.module.MaxDataBufferSize`
Type	Integer
Value	2048

- Added new parameter **NumCommandBuffers**: Number of client buffers to use for audio commands. Default=64
  More...

Parameter	NumCommandBuffers
Registry	`ica.module.NumCommandBuffers`
Type	Integer
Value	64

- Added new parameter **PlaybackDelayThresh**: Delay (in ms) between being asked to start audio playback and actually starting audio playback in order to build up a backlog of sound. Default=150
  More...

Parameter	PlaybackDelayThresh
Registry	`ica.module.PlaybackDelayThresh`
Type	Integer
Value	150

- Fixed: **ICA Connection Center** starts again as expected.
- Fixed **Citrix Kerberos Passthrough** authentication.
- Added: When the **password has expired** but the **password change is not allowed** on the Citrix server, the **Citrix error message** is displayed.
- Added: The parameter for `mouseinput ica.wfclient.mousesendcontrolv` is available with this release on the Setup page **Sessions > Citrix > Citrix Global > Keyboard**.
- Added: The parameter for the **Citrix Connection bar** `ica.allregions.connectionbar` is available on the Setup page **Sessions > Citrix > Citrix Global > Window**.
- Fixed **Citrix sessions with H.264 hardware acceleration on and DRI3** off that crashed with error message: `The X Request 130.1 caused error: 10 BadAccess`.

OSC Installer

- Fixed **warning message after feature deselection for installations on 2 GB flashes**.
- Fixed a **display** issue with **Intel and Nvidia GPU**.

RDP/IGEL RDP Client 2

- Fixed **USB redirection** for RDP sessions.
- Added new parameter to enable/disable **dynamic drive mapping**.
  More...

Registry	`rdp.winconnect.enable-dynamic-drivemapping`
Value	enabled / disabled
Registry	`sessions.winconnect%.option.enable-dynamic-drivemapping`
Range	Global Setting / On / Off

- Fixed **login information not** being **set after reboot**.
- Improved **error logging**.

WVD

- WVD now comes with **Qt 5.12.10** in order **to get fixes mainly for QWebEngine**. This should **fix** issues with **.htaccess protected login pages**.
- Fixed **proxy usage** for WVD feed download.

RD Web Access

- Fixed **RD Web Access Login** not working with **user@domain**.
- Fixed **RD Web Access username** not being set correctly **after reboot**.

VMware Horizon

- Fixed **remember last user** functionality in Horizon **local logon**
- Fixed **Local Logon Window** for visibility in **appliance mode**
- When using the **PCoIP** protocol, the **virtual channel** provided by VMware used **for both serial port and scanner redirection** may **hang on logout**.
  The virtual channel is not used when both redirection methods are set to "false" which is the default.
  For the usage of either one of these redirection methods, enable the corresponding parameter below **to prevent the logout freeze**.
  These settings can be found here in the IGEL Registry:
  `vmware.view.enable-serial-port-redir`
  `vmware.view.enable-scanner-redir`

Firefox

- Fixed **smartcard access** in Firefox. Before this fix, smartcards were not recognized in seldom cases.
- Fixed possibility to use the **pre-installed spellcheckers** in Firefox input fields.

Chromium

- Fixed **browser** and **download history not** being **cleared**.
- Fixed Chromium browser was not clearing browsing history properly.
- Fixed: **Custom Chromium Policies** datatypes now written in the correct way to `policies.json`
- Fixed **resetting kiosk mode** would only work **after reboot**
- Fixed: Chromium settings were **parent settings did not influence the child settings**

Network

- Added registry keys for enabling/disabling **sending of hostname in DHCPv4** and **DHCPv6 requests**.
  More...

Parameter	Send hostname in DHCP requests
Registry	`network.dhcp.send_hostname`
Range	[Disabled][Network Manager default]

Value	Network Manager default
Parameter	Send hostname in DHCPv6 requests
Registry	`network.dhcp6.send_hostname`
Range	[Disabled][Network Manager default]
Value	Network Manager default

- Fixed: **SCEP** failed when `scep_getca` received only a single certificate.
- Added registry key specifying **the number of 802.1X authentication attempts on Ethernet**.
  More...

Registry	`network.interfaces.ethernet.device%.ieee8021x.auth_attempts`
Type	Integer
Value	1

- The **default** value of `network.interfaces.ethernet.device%.nm_disable_link_config` (forbidding Network Manager to modify Ethernet link settings) has been **changed to "true"**.
- Fixed handling of **DNS default domain**
- Added registry key for **disabling Ethernet link reconfiguration by Network Manager**.
  More...

Parameter	Disable NetworkManager link configuration
Registry	`network.interfaces.ethernet.device%.nm_disable_link_config`
Type	bool
Value	true / false

- **Setting** this **to "true"** can be **beneficial when 802.1X authentication is disturbed**. It is currently enforced automatically in the case of e1000e drivers.
- **Changed default** value of **minimum size of a TCP packet** from 750 **to 500 bytes** as a result this would allow a **minimal MTU size of 576 bytes**.

Wi-Fi

- Added missing **iwlwifi-6000-4 firmware file**.
- Fixed issues with **D-Link DWA-131 WLAN dongle**.
- **Removed** `network.drivers.use_backport_drivers` IGEL registry key as this is not used anymore.
- Added some missing **iwlwifi firmware files** to IGEL OS.

Open VPN

- Fixed **segmentation fault** when nameserver is used.
  Now it is allowed to use an empty password for the private key. **Important**: **Not enter a password** when the private key doesn't have one.

- OpenConnect VPN: Different protocols are selectable:
  More...

Parameter	protocol
Registry	`sessions.openconnect%.vpnopts.protocol`
Value	Cisco AnyConnect / Juniper Network / Junos Pulse / PAN GlobalProtect

Imprivata

- Fixed: Usage the **Horizon Window Size** settings
- Fixed: Set **keyboard repeat rate** correctly on Horizon session end
- Added Imprivatas "**grid-theme**" feature
  More...

Parameter	PIE Application Launcher for Citrix
Registry	`imprivata.grid_theme`
Value	enabled / disabled

Smartcard

- Added parameter to **disable HID Global OMNIKEY smartcard reader driver**. **If** this driver is **disabled**, some of the readers are **handled by the MUSCLE CCID driver**. This can help when problems with OMNIKEY reader driver occur.
  More...

Parameter	HID Global OMNIKEY driver for smart card readers
Registry	`scard.pcscd.omnikey_enable`
Value	enabled / disabled

HID

- Fixing **double tapping of desktop icons** on **touchscreen** devices.

CUPS Printing

- Fixed **CUPS printer spooling configuration** where printjob files were preserved in the spooling directory too long and could fill up the file system.

Logging

- Fixed: **Filebeat** now **starts after the hostnames are set** so they will be shown in the logs.

Base system

- Fixed problems with **hostnames containing one or more "_"** characters.
- **Post-session command binaries and return codes are now customizable** via registry. Allows post-session commands if a binary doesn't return 0.
  - Name of the binary:

More...

Parameter	Binary
Registry	`pcom.valid_return_codes%.binary`
Value	binary name

- Comma-separated return codes (e.g. 7,99) or/and return code ranges (e.g. 3..5 for 3,4,5) to be accepted:

More...

Parameter	Return Codes
Registry	`pcom.valid_return_codes%.returncodes`
Value	e.g. 3,5,10..15 for 3,5,10,11,12,13,14,15

- Improved **post-session** command parameter `pcom.valid_return_codes%.returncodes` to handle **ranges a la 1..255** (see tooltip).
- Fixed **remembering last user name with Active Directory/Kerberos** logon. Before this fix, the user name could not be stored in UMS to appear again after a reboot.
- Fixed possibility to **add certificates to Chromium and Firefox** which are given **in DER** format.
- Fixed **default browser** not being set properly **after reboot**.
- Fix **GtkMessage** dialog localization.
- Fixed: **Fluendo vadec codec** update closed a **memory leak** with AMD devices using VAAPI acceleration.
- Fixed possible USB issues with **suspend/resume on IGEL M350C** devices.
- Fixed: **Shutdown delay** when post-session command is enabled.
- Fixed **NetworkManager** could not create **ipv6 pid/lease file** while **apparmor** is active.
- Bugfix for missing **bluetooth tray icon** after suspend

Storage Devices

- Fixed display of **hotplug eject menu in appliance mode**

X11 system

- Fixed display **hotplug detection** not working in some situations.
- Fixed **Display Switch** sometimes **losing config** after reboot.
- Fixed missing **custom background image after migration** from OS 10.
- Fixed **sporadic hang in logoff session restart**.
- Updated **Display Switch rotate buttons** to have usable size.
- Added registry key to solve an issue with **buggy monitors connected over a DP-to-DVI adapter** (only works for Radeon devices like UD3 LX50).

More...

Parameter	Fix issues with buggy monitors connected over DP-DVI adapter
Registry	`x.drivers.ati.dp_dvi_probe_workaround`

Type	bool
Value	enabled / <u>disabled</u>

- Fixed **touchpad** enable and disable **with hotkey**.
- Fixed issues if **2 DisplayPort MST Hubs** are connected behind each other.
- Fixed **notifications** not being hidden properly when **in do-not-disturb mode**.
- Fixed **monitor configuration** issues with **DisplayLink-based Dockingstations** with more than one independent monitor output.
- Fixed issue with non-correctly working **default mirror mode**.
- Fixed **screen** configuration issues with **Nvidia** and I**ntel graphics cards in one device**.
- Added: Allowance of **up to 8** different **custom wallpapers** (was limited to 4 up to now).
- Added notification mute-all parameter in Setup to **mute all notifications including urgent ones**.

X server

- Fixed tearing issue of **UD7 with additional graphic card**.

Window manager

- Fixed **desktop icons not** being **restricted to one monitor**.
- Fixed a bug where **icons** were **missing or miss-aligned** in some multiscreen setups.
- Fixed **notify window width** not remaining constant.
- Fixed **crash of start menu** when it is not populated with any items.
- Fixed **start monitor mapping for Firefox**.
- Fixed **notification urgency** for **critical background color**.

VirtualBox

- Fixed **authentication window popup** if screen configuration is changed in Virtualbox.

Audio

- Fixed erroneous **closing of the Pulse PCM device** as well as a possible **deadlock in the ALSA Pulse PCM**.
- Fixed the ALSA Pulse PCM - a possible deadlock while writing audio data and closing Pulse PCM.
- Fixed audio for **HP Elitebook TRRS 840 G7**
- Fixed **internal microphone** in **Elitebook TRRS 840 G7**
- Fixed **headset not** properly **detected** if connected on boot in **UD2-LX50**.
- Fixed microphone issues with **UD3-LX60** device.
- Fixed a **sporadic aborting of an application** on closing **ALSA Pulse PCM**. The problem concerns only applications using ALSA API directly, like Citrix Receiver.
- Added **debug output to the ALSA Pulse PCM** which must be **enabled by** the environment variable `ALSA_PULSE_PCM_DEBUG=1`, the debug output is collected then by the system logging facility (journalctl).
- Fixed **missing audio tray icon** after suspend

Evidian

- Fixed **error on restart**.

Hardware

- Added script to fix issues with **DP MST KVM** and **connected DaisyChaining monitors**.

- Fixed: When KVM is used, **mishandling of connectors** can occur.
  Added **possible workaround** via adding `/etc/igel/kms/kvm-workaround.sh` to
  the `userinterface.rccustom.custom_cmd_x11_init` registry key.

TC Setup (Java)

- Fixed problems with **passwords** of a length **longer than 127 characters**.

Remote Management

- Fixed **automatic establishment of the configured ICG connection** if the UMS Server is
  unreachable.
- Fixed **sending the user logoff message** to the UMS.
- Fixed: Disabled **Nagle caching algorithm** on the underlying TCP socket used for SSL connection
  between IGEL rmagent and UMS.
- Fixed **sporadic failures while retrieving the Unit ID** by the IGEL Remote Management agent.
- Fixed **ICG HA functionality** broken in the **11.04.100 release**.

VNC

- Fixed handling of **CapsLock status in VNC server**. Keyboard input now appears correctly also
  when CapsLock is active on the client or server side. This especially fixes upper case "umlaut"
  characters with Swiss German keyboard layout.

CA Certificates Contained in IGEL OS 11.05

IGEL OS 11.05 contains the following CA certificates:

Certificate name	Expiry date	File in /etc/ssl/certs
ACCVRAIZ1	Dec 31 09:37:37 2030 GMT	`ACCVRAIZ1.crt`
AC RAIZ FNMT-RCM	Jan 1 00:00:00 2030 GMT	`AC_RAIZ_FNMT-RCM.crt`
Actalis Authentication Root CA	Sep 22 11:22:02 2030 GMT	`Actalis_Authentication_Root_CA.crt`
AffirmTrust Commercial	Dec 31 14:06:06 2030 GMT	`AffirmTrust_Commercial.crt`
AffirmTrust Networking	Dec 31 14:08:24 2030 GMT	`AffirmTrust_Networking.crt`
AffirmTrust Premium	Dec 31 14:10:36 2040 GMT	`AffirmTrust_Premium.crt`
AffirmTrust Premium ECC	Dec 31 14:20:24 2040 GMT	`AffirmTrust_Premium_ECC.crt`
Amazon Root CA 1	Jan 17 00:00:00 2038 GMT	`AmazonRootCA1.pem`
Amazon Root CA 1	Jan 17 00:00:00 2038 GMT	`Amazon_Root_CA_1.crt`
Amazon Root CA 2	May 26 00:00:00 2040 GMT	`Amazon_Root_CA_2.crt`
Amazon Root CA 3	May 26 00:00:00 2040 GMT	`Amazon_Root_CA_3.crt`
Amazon Root CA 4	May 26 00:00:00 2040 GMT	`Amazon_Root_CA_4.crt`
Atos TrustedRoot 2011	Dec 31 23:59:59 2030 GMT	`Atos_TrustedRoot_2011.crt`
Autoridad de Certificacion Firmaprofesional CIF A62634068	Dec 31 08:38:15 2030 GMT	`Autoridad_de_Certificacion_Firmaprofesional_CIF_A62634068.crt`
Baltimore CyberTrust Root	May 12 23:59:00 2025 GMT	`BTCTRoot.pem`

Certificate name	Expiry date	File in /etc/ssl/certs
Baltimore CyberTrust Root	May 12 23:59:00 2025 GMT	`Baltimore_CyberTrust_Root.crt`
Buypass Class 2 Root CA	Oct 26 08:38:03 2040 GMT	`Buypass_Class_2_Root_CA.crt`
Buypass Class 3 Root CA	Oct 26 08:28:58 2040 GMT	`Buypass_Class_3_Root_CA.crt`
CA Disig Root R2	Jul 19 09:15:30 2042 GMT	`CA_Disig_Root_R2.crt`
CFCA EV ROOT	Dec 31 03:07:01 2029 GMT	`CFCA_EV_ROOT.crt`
COMODO Certification Authority	Dec 31 23:59:59 2029 GMT	`COMODO_Certification_Authority.crt`
COMODO ECC Certification Authority	Jan 18 23:59:59 2038 GMT	`COMODO_ECC_Certification_Authority.crt`
COMODO RSA Certification Authority	Jan 18 23:59:59 2038 GMT	`COMODO_RSA_Certification_Authority.crt`
Certigna	Jun 29 15:13:05 2027 GMT	`Certigna.crt`
Certigna Root CA	Oct 1 08:32:27 2033 GMT	`Certigna_Root_CA.crt`
Certum Trusted Network CA	Dec 31 12:07:37 2029 GMT	`Certum_Trusted_Network_CA.crt`
Certum Trusted Network CA 2	Oct 6 08:39:56 2046 GMT	`Certum_Trusted_Network_CA_2.crt`
Chambers of Commerce Root - 2008	Jul 31 12:29:50 2038 GMT	`Chambers_of_Commerce_Root_-_2008.crt`
Class 3 Public Primary Certification Authority - G2 (c) 1998 VeriSign, Inc. - For authorized use only VeriSign Trust Network	Aug 1 23:59:59 2028 GMT	`Class3PCA_G2_v2.pem`
Class 4 Public Primary Certification Authority - G2 (c) 1998 VeriSign, Inc. - For authorized use only VeriSign Trust Network	Aug 1 23:59:59 2028 GMT	`Class4PCA_G2_v2.pem`
AAA Certificate Services	Dec 31 23:59:59 2028 GMT	`Comodo_AAA_Services_root.crt`

Certificate name	Expiry date	File in /etc/ssl/certs
Cybertrust Global Root	Dec 15 08:00:00 2021 GMT	`Cybertrust_Global_Root.crt`
D-TRUST Root Class 3 CA 2 2009	Nov 5 08:35:58 2029 GMT	`D-TRUST_Root_Class_3_CA_2_2009.crt`
D-TRUST Root Class 3 CA 2 EV 2009	Nov 5 08:50:46 2029 GMT	`D-TRUST_Root_Class_3_CA_2_EV_2009.crt`
DST Root CA X3	Sep 30 14:01:15 2021 GMT	`DST_Root_CA_X3.crt`
DigiCert Global Root CA	Nov 10 00:00:00 2031 GMT	`DigiCertGlobalRootCA.pem`
DigiCert Global Root CA	Mar 8 12:00:00 2023 GMT	`DigiCertSHA2SecureServerCA.pem`
DigiCert Assured ID Root CA	Nov 10 00:00:00 2031 GMT	`DigiCert_Assured_ID_Root_CA.crt`
DigiCert Assured ID Root G2	Jan 15 12:00:00 2038 GMT	`DigiCert_Assured_ID_Root_G2.crt`
DigiCert Assured ID Root G3	Jan 15 12:00:00 2038 GMT	`DigiCert_Assured_ID_Root_G3.crt`
DigiCert Global Root CA	Nov 10 00:00:00 2031 GMT	`DigiCert_Global_Root_CA.crt`
DigiCert Global Root G2	Jan 15 12:00:00 2038 GMT	`DigiCert_Global_Root_G2.crt`
DigiCert Global Root G3	Jan 15 12:00:00 2038 GMT	`DigiCert_Global_Root_G3.crt`
DigiCert High Assurance EV Root CA	Nov 10 00:00:00 2031 GMT	`DigiCert_High_Assurance_EV_Root_CA.crt`
DigiCert Trusted Root G4	Jan 15 12:00:00 2038 GMT	`DigiCert_Trusted_Root_G4.crt`
E-Tugra Certification Authority	Mar 3 12:09:48 2023 GMT	`E-Tugra_Certification_Authority.crt`
EC-ACC	Jan 7 22:59:59 2031 GMT	`EC-ACC.crt`

Certificate name	Expiry date	File in /etc/ssl/certs
Entrust.net[3] Certification Authority (2048)	Jul 24 14:15:12 2029 GMT	`Entrust.net_Premium_2048_Secure_Server_CA.crt`
Entrust Root Certification Authority	Nov 27 20:53:42 2026 GMT	`Entrust_Root_Certification_Authority.crt`
Entrust Root Certification Authority - EC1	Dec 18 15:55:36 2037 GMT	`Entrust_Root_Certification_Authority_-_EC1.crt`
Entrust Root Certification Authority - G2	Dec 7 17:55:54 2030 GMT	`Entrust_Root_Certification_Authority_-_G2.crt`
Entrust Root Certification Authority - G4	Dec 27 11:41:16 2037 GMT	`Entrust_Root_Certification_Authority_-_G4.crt`
GDCA TrustAUTH R5 ROOT	Dec 31 15:59:59 2040 GMT	`GDCA_TrustAUTH_R5_ROOT.crt`
GlobalSign	Dec 15 08:00:00 2021 GMT	`GSR2.pem`
GTE CyberTrust Global Root	Aug 13 23:59:00 2018 GMT	`GTECTGlobalRoot.pem`
GTS Root R1	Jun 22 00:00:00 2036 GMT	`GTS_Root_R1.crt`
GTS Root R2	Jun 22 00:00:00 2036 GMT	`GTS_Root_R2.crt`
GTS Root R3	Jun 22 00:00:00 2036 GMT	`GTS_Root_R3.crt`
GTS Root R4	Jun 22 00:00:00 2036 GMT	`GTS_Root_R4.crt`
GeoTrust Global CA	May 21 04:00:00 2022 GMT	`GeoTrust_Global_CA.pem`
GeoTrust Primary Certification Authority - G2	Jan 18 23:59:59 2038 GMT	`GeoTrust_Primary_Certification_Authority_-_G2.crt`
GlobalSign	Jan 19 03:14:07 2038 GMT	`GlobalSign_ECC_Root_CA_-_R4.crt`
GlobalSign	Jan 19 03:14:07 2038 GMT	`GlobalSign_ECC_Root_CA_-_R5.crt`

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3 http://Entrust.net

Certificate name	Expiry date	File in /etc/ssl/certs
GlobalSign Root CA	Jan 28 12:00:00 2028 GMT	`GlobalSign_Root_CA.crt`
GlobalSign	Dec 15 08:00:00 2021 GMT	`GlobalSign_Root_CA_-_R2.crt`
GlobalSign	Mar 18 10:00:00 2029 GMT	`GlobalSign_Root_CA_-_R3.crt`
GlobalSign	Dec 10 00:00:00 2034 GMT	`GlobalSign_Root_CA_-_R6.crt`
Global Chambersign Root - 2008	Jul 31 12:31:40 2038 GMT	`Global_Chambersign_Root_-_2008.crt`
Go Daddy Class 2 Certification Authority	Jun 29 17:06:20 2034 GMT	`Go_Daddy_Class_2_CA.crt`
Go Daddy Root Certificate Authority - G2	Dec 31 23:59:59 2037 GMT	`Go_Daddy_Root_Certificate_Authority_-_G2.crt`
Hellenic Academic and Research Institutions ECC RootCA 2015	Jun 30 10:37:12 2040 GMT	`Hellenic_Academic_and_Research_Institutions_ECC_RootCA_2015.crt`
Hellenic Academic and Research Institutions RootCA 2011	Dec 1 13:49:52 2031 GMT	`Hellenic_Academic_and_Research_Institutions_RootCA_2011.crt`
Hellenic Academic and Research Institutions RootCA 2015	Jun 30 10:11:21 2040 GMT	`Hellenic_Academic_and_Research_Institutions_RootCA_2015.crt`
Hongkong Post Root CA 1	May 15 04:52:29 2023 GMT	`Hongkong_Post_Root_CA_1.crt`
Hongkong Post Root CA 3	Jun 3 02:29:46 2042 GMT	`Hongkong_Post_Root_CA_3.crt`
ISRG Root X1	Jun 4 11:04:38 2035 GMT	`ISRG_Root_X1.crt`
IdenTrust Commercial Root CA 1	Jan 16 18:12:23 2034 GMT	`IdenTrust_Commercial_Root_CA_1.crt`
IdenTrust Public Sector Root CA 1	Jan 16 17:53:32 2034 GMT	`IdenTrust_Public_Sector_Root_CA_1.crt`
Imprivata Embedded Code Signing CA	Sep 7 16:20:00 2033 GMT	`Imprivata.crt`

Certificate name	Expiry date	File in /etc/ssl/certs
Izenpe.com[4]	Dec 13 08:27:25 2037 GMT	`Izenpe.com.crt`
Microsec e-Szigno Root CA 2009	Dec 30 11:30:18 2029 GMT	`Microsec_e-Szigno_Root_CA_2009.crt`
Microsoft ECC Root Certificate Authority 2017	Jul 18 23:16:04 2042 GMT	`Microsoft_ECC_Root_Certificate_Authority_2017.crt`
Microsoft RSA Root Certificate Authority 2017	Jul 18 23:00:23 2042 GMT	`Microsoft_RSA_Root_Certificate_Authority_2017.crt`
NAVER Global Root Certification Authority	Aug 18 23:59:59 2037 GMT	`NAVER_Global_Root_Certification_Authority.crt`
NetLock Arany (Class Gold) Főtanúsítvány	Dec 6 15:08:21 2028 GMT	`NetLock_Arany_=Class_Gold=_Főtanúsítvány.crt`
Network Solutions Certificate Authority	Dec 31 23:59:59 2029 GMT	`Network_Solutions_Certificate_Authority.crt`
OISTE WISeKey Global Root GB CA	Dec 1 15:10:31 2039 GMT	`OISTE_WISeKey_Global_Root_GB_CA.crt`
OISTE WISeKey Global Root GC CA	May 9 09:58:33 2042 GMT	`OISTE_WISeKey_Global_Root_GC_CA.crt`
Class 3 Public Primary Certification Authority	Aug 1 23:59:59 2028 GMT	`Pcs3ss_v4.pem`
QuoVadis Root Certification Authority	Mar 17 18:33:33 2021 GMT	`QuoVadis_Root_CA.crt`
QuoVadis Root CA 1 G3	Jan 12 17:27:44 2042 GMT	`QuoVadis_Root_CA_1_G3.crt`
QuoVadis Root CA 2	Nov 24 18:23:33 2031 GMT	`QuoVadis_Root_CA_2.crt`
QuoVadis Root CA 2 G3	Jan 12 18:59:32 2042 GMT	`QuoVadis_Root_CA_2_G3.crt`
QuoVadis Root CA 3	Nov 24 19:06:44 2031 GMT	`QuoVadis_Root_CA_3.crt`
QuoVadis Root CA 3 G3	Jan 12 20:26:32 2042 GMT	`QuoVadis_Root_CA_3_G3.crt`

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4 http://Izenpe.com

Certificate name	Expiry date	File in /etc/ssl/certs
SSL.com[5] EV Root Certification Authority ECC	Feb 12 18:15:23 2041 GMT	`SSL.com_EV_Root_Certification_Authority_ECC.crt`
SSL.com[6] EV Root Certification Authority RSA R2	May 30 18:14:37 2042 GMT	`SSL.com_EV_Root_Certification_Authority_RSA_R2.crt`
SSL.com[7] Root Certification Authority ECC	Feb 12 18:14:03 2041 GMT	`SSL.com_Root_Certification_Authority_ECC.crt`
SSL.com[8] Root Certification Authority RSA	Feb 12 17:39:39 2041 GMT	`SSL.com_Root_Certification_Authority_RSA.crt`
SZAFIR ROOT CA2	Oct 19 07:43:30 2035 GMT	`SZAFIR_ROOT_CA2.crt`
SecureSign RootCA11	Apr 8 04:56:47 2029 GMT	`SecureSign_RootCA11.crt`
SecureTrust CA	Dec 31 19:40:55 2029 GMT	`SecureTrust_CA.crt`
Secure Global CA	Dec 31 19:52:06 2029 GMT	`Secure_Global_CA.crt`
Security Communication RootCA2	May 29 05:00:39 2029 GMT	`Security_Communication_RootCA2.crt`
Security Communication RootCA1	Sep 30 04:20:49 2023 GMT	`Security_Communication_Root_CA.crt`
Sonera Class2 CA	Apr 6 07:29:40 2021 GMT	`Sonera_Class_2_Root_CA.crt`
Staat der Nederlanden EV Root CA	Dec 8 11:10:28 2022 GMT	`Staat_der_Nederlanden_EV_Root_CA.crt`
Staat der Nederlanden Root CA - G3	Nov 13 23:00:00 2028 GMT	`Staat_der_Nederlanden_Root_CA_-_G3.crt`
Starfield Class 2 Certification Authority	Jun 29 17:39:16 2034 GMT	`Starfield_Class_2_CA.crt`
Starfield Root Certificate Authority - G2	Dec 31 23:59:59 2037 GMT	`Starfield_Root_Certificate_Authority_-_G2.crt`

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5 http://SSL.com
6 http://SSL.com
7 http://SSL.com
8 http://SSL.com

Certificate name	Expiry date	File in /etc/ssl/certs
Starfield Services Root Certificate Authority - G2	Dec 31 23:59:59 2037 GMT	`Starfield_Services_Root_Certificate_Authority_-_G2.crt`
SwissSign Gold CA - G2	Oct 25 08:30:35 2036 GMT	`SwissSign_Gold_CA_-_G2.crt`
SwissSign Silver CA - G2	Oct 25 08:32:46 2036 GMT	`SwissSign_Silver_CA_-_G2.crt`
T-TeleSec GlobalRoot Class 2	Oct 1 23:59:59 2033 GMT	`T-TeleSec_GlobalRoot_Class_2.crt`
T-TeleSec GlobalRoot Class 3	Oct 1 23:59:59 2033 GMT	`T-TeleSec_GlobalRoot_Class_3.crt`
TUBITAK Kamu SM SSL Kok Sertifikasi - Surum 1	Oct 25 08:25:55 2043 GMT	`TUBITAK_Kamu_SM_SSL_Kok_Sertifikasi_-_Surum_1.crt`
TWCA Global Root CA	Dec 31 15:59:59 2030 GMT	`TWCA_Global_Root_CA.crt`
TWCA Root Certification Authority	Dec 31 15:59:59 2030 GMT	`TWCA_Root_Certification_Authority.crt`
TeliaSonera Root CA v1	Oct 18 12:00:50 2032 GMT	`TeliaSonera_Root_CA_v1.crt`
TrustCor ECA-1	Dec 31 17:28:07 2029 GMT	`TrustCor_ECA-1.crt`
TrustCor RootCert CA-1	Dec 31 17:23:16 2029 GMT	`TrustCor_RootCert_CA-1.crt`
TrustCor RootCert CA-2	Dec 31 17:26:39 2034 GMT	`TrustCor_RootCert_CA-2.crt`
Trustis FPS Root CA	Jan 21 11:36:54 2024 GMT	`Trustis_FPS_Root_CA.crt`
Trustwave Global Certification Authority	Aug 23 19:34:12 2042 GMT	`Trustwave_Global_Certification_Authority.crt`
Trustwave Global ECC P256 Certification Authority	Aug 23 19:35:10 2042 GMT	`Trustwave_Global_ECC_P256_Certification_Authority.crt`

Certificate name	Expiry date	File in /etc/ssl/certs
Trustwave Global ECC P384 Certification Authority	Aug 23 19:36:43 2042 GMT	`Trustwave_Global_ECC_P384_Certification_Authority.crt`
UCA Extended Validation Root	Dec 31 00:00:00 2038 GMT	`UCA_Extended_Validation_Root.crt`
UCA Global G2 Root	Dec 31 00:00:00 2040 GMT	`UCA_Global_G2_Root.crt`
USERTrust ECC Certification Authority	Jan 18 23:59:59 2038 GMT	`USERTrust_ECC_Certification_Authority.crt`
USERTrust RSA Certification Authority	Jan 18 23:59:59 2038 GMT	`USERTrust_RSA_Certification_Authority.crt`
VeriSign Universal Root Certification Authority	Dec 1 23:59:59 2037 GMT	`VeriSign_Universal_Root_Certification_Authority.crt`
XRamp Global Certification Authority	Jan 1 05:37:19 2035 GMT	`XRamp_Global_CA_Root.crt`
certSIGN ROOT CA	Jul 4 17:20:04 2031 GMT	`certSIGN_ROOT_CA.crt`
certSIGN ROOT CA G2	Feb 6 09:27:35 2042 GMT	`certSIGN_Root_CA_G2.crt`
e-Szigno Root CA 2017	Aug 22 12:07:06 2042 GMT	`e-Szigno_Root_CA_2017.crt`
ePKI Root Certification Authority	Dec 20 02:31:27 2034 GMT	`ePKI_Root_Certification_Authority.crt`
emSign ECC Root CA - C3	Feb 18 18:30:00 2043 GMT	`emSign_ECC_Root_CA_-_C3.crt`
emSign ECC Root CA - G3	Feb 18 18:30:00 2043 GMT	`emSign_ECC_Root_CA_-_G3.crt`
emSign Root CA - C1	Feb 18 18:30:00 2043 GMT	`emSign_Root_CA_-_C1.crt`
emSign Root CA - G1	Feb 18 18:30:00 2043 GMT	`emSign_Root_CA_-_G1.crt`

IGEL OS Creator (OSC)

Supported Devices

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 20
	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

- Component Versions 11.05.100
- New Features 11.05.100
- Resolved Issues 11.05.100

Component Versions 11.05.100

Clients

Product	Version
Zulu JRE	8.48.0.51-2

System Components

OpenSSL	1.0.2n-1ubuntu5.5
OpenSSL	1.1.1-1ubuntu2.1~18.04.7
Bluetooth stack (bluez)	5.55-0ubuntu1.1igel10
MESA OpenGL stack	20.2.6-1igel131
VDPAU Library version	1.4-3igel1099
Graphics Driver INTEL	2.99.917+git20200515-igel1013
Graphics Driver ATI/RADEON	19.1.0-2igel1066
Graphics Driver ATI/AMDGPU	19.1.0-2+git20200828igel1064
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	450.102.04-0ubuntu0.20.04.1
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel1012
Graphics Driver VESA	2.4.0-1igel1010
Input Driver Evdev	2.10.6-2igel1037
Input Driver Elographics	1.4.1-1+b6igel952
Input Driver Synaptics	1.9.1-1ubuntu1igel1009
Input Driver VMMouse	13.1.0-1ubuntu2igel957
Input Driver Wacom	0.39.0-0ubuntu1igel1036
Kernel	5.9.16 #mainline-lxos-g1613995475
Xorg X11 Server	1.20.10-2igel1100
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel13

XFCE4 Window Manager	4.14.2-1~18.04igel1600339249
ISC DHCP Client	4.3.5-3ubuntu7.1
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.18-dfsg-1igel49
Virtualbox X11 Guest Utils	6.1.18-dfsg-1igel49
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.20.0-2igel104
Qemu Guest Agent	5.2+dfsg-3igel17

Services

Service	Size	Reduced Firmware
Java SE Runtime Environment	36.0 M	Included
NVIDIA graphics driver	122.5 M	Included

New Features 11.05.100

Base system

- Updated **Linux kernel** to version **5.9.16**.

Hardware

- Added hardware support for new **IGEL UD7-LX 20 (H860C)**.
- Added hardware support for **LG 34CN650N AiO**.
- Added hardware support for **Dell Wyse Z Class thin client**.
- Added hardware support for **Lenovo ThinkCentre M70q**.
- Added hardware support for **Dell Wyse 5470**.
- Added hardware support for **Lenovo L14**.
- Added hardware support for **Lenovo ThinkCentre M75n**.
- Added hardware support for **Lenovo 14w**.
- Added hardware support for **LG CN65 All in one**.
- Added hardware support for **DELL LATITUDE 5510**.
- Added hardware support for **ELO i2 Touch all-in-one (15 and 22) inch**.
- Added detection of **UD Pocket UC5-LX 2**.

Resolved Issues 11.05.100

OSC Installer

- Fixed **warning** message a**fter feature deselection for installations on 2 GB flashes**.
- Fixed a **display** issue **with Intel** and **Nvidia GPU**.

Notes for Release 11.04.270

Software:	Version	11.04.270
Release Date:	2021-02-11	
Release Notes:	Version	RN-1104270-1
Last update:	2021-02-10	

Supported Devices 11.04.270

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.04.270

Clients

Product	Version
Chromium	83.0.4103.61-0ubuntu0.18.04.1
Cisco JVDI Client	12.9.3
Cisco Webex Teams VDI Client	41.1.0.17621
Cisco Webex Meetings VDI Client	41.2.0.142
Zoom Media Plugin	5.4.53376
Citrix HDX Realtime Media Engine	2.9.0-2330
Citrix Workspace App	19.12.0.19
Citrix Workspace App	20.10.0.6
Citrix Workspace App	20.12.0.12
deviceTRUST Citrix Channel	20.1.200.0
Crossmatch DP Citrix Channel	0515.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	14.0.0.45623
Evidian AuthMgr	1.5.7617
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech USB for Remote Desktop	6.0.28
Firefox	68.12.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2igel1600249269
IGEL WVD Client	1.0.21igel1608136172
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	20.1.200.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.11.2-1igel8

Open VPN	2.4.4-2ubuntu1.3
Zulu JRE	8.48.0.51-2
Parallels Client (64 bit)	17.1.2.1
Spice GTK (Red Hat Virtualization)	0.38-2igel93
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.8.0-1+b1igel71
Teradici PCoIP Software Client	20.10.0-18.04
ThinLinc Client	4.12.0-6517
ThinPrint Client	7.5.88
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	1.0.5-1igel1583919770
VNC Viewer	1.10.1+dfsg-4igel13
VMware Horizon Client	5.5.0-16946361
Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20200323
Philips Speech driver	12.9.1

Signature

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.9
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7
PKCS#11 Library cryptovision sc/interface	7.3.1
PKCS#11 Library Gemalto SafeNet	10.7.77
PKCS#11 Library OpenSC	0.20.0-3igel37
PKCS#11 Library SecMaker NetID	6.8.1.31
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel2
Reader Driver Gemalto eToken	10.7.77
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.31-1igel11
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.26-3igel14
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.3
OpenSSL	1.1.1-1ubuntu2.1~18.04.6
OpenSSH Client	7.6p1-4ubuntu0.3
OpenSSH Server	7.6p1-4ubuntu0.3
Bluetooth stack (bluez)	5.52-1igel6
MESA OpenGL stack	20.0.8-1igel117
VAAPI ABI Version	0.40
VDPAU Library version	1.4-1igel1003

Graphics Driver INTEL	2.99.917+git20200515-igel1013
Graphics Driver ATI/RADEON	19.1.0-1+git20200220igel987
Graphics Driver ATI/AMDGPU	19.1.0-1+git20200318igel986
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	440.100-0ubuntu0.20.04.1
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel975
Input Driver Elographics	1.4.1-1+b6igel952
Input Driver eGalax	2.5.8825
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel957
Input Driver Wacom	0.36.1-0ubuntu2igel888
Input Driver ELO Multitouch	3.0.0
Input Driver ELO Singletouch	5.1.0
Kernel	5.4.48 #mainline-lxos-g1607354578
Xorg X11 Server	1.20.8-2igel1016
Xorg Xephyr	1.20.8-2igel1016
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.425
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel13
XFCE4 Window Manager	4.14.2-1~18.04igel1600339249
ISC DHCP Client	4.3.5-3ubuntu7.1
NetworkManager	1.20.4-2ubuntu2.2igel105
ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 0.10 Fluendo aacdec	0.10.42

GStreamer 0.10 Fluendo asfdemux	0.10.90
GStreamer 0.10 Fluendo h264dec	0.10.58
GStreamer 0.10 Fluendo mp3dec	0.10.40
GStreamer 0.10 Fluendo mpegdemux	0.10.85
GStreamer 0.10 Fluendo mpeg4videodec	0.10.44
GStreamer 0.10 Fluendo vadec	0.10.224
GStreamer 0.10 Fluendo wmadec	0.10.70
GStreamer 0.10 Fluendo wmvdec	0.10.66
GStreamer 1.x	1.16.2-4igel239
GStreamer 1.0 Fluendo aacdec	0.10.42.2-8d6d
GStreamer 1.0 Fluendo asfdemux	0.10.90
GStreamer 1.0 Fluendo h264dec	0.10.58
GStreamer 1.0 Fluendo mp3dec	0.10.40
GStreamer 1.0 Fluendo mpeg4videodec	0.10.44
GStreamer 1.0 Fluendo vadec	0.10.224
GStreamer 1.0 Fluendo wmadec	0.10.70
GStreamer 1.0 Fluendo wmvdec	0.10.66
WebKit2Gtk	2.28.3-2igel36
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.10-dfsg-1igel41
Virtualbox X11 Guest Utils	6.1.10-dfsg-1igel41
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.20.0-1igel95
Qemu Guest Agent	5.0-5igel12

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.17-3igel5
Mobile Device Access USB (imobile)	1.2.1~git20191129.9f79242-1+b1igel8
Mobile Device Access USB (gphoto)	2.5.25-2igel4
VPN OpenConnect	8.10-1igel4
Scanner support	1.0.27-1
VirtualBox	6.1.10-dfsg-1igel41

Services

Service	Size	Reduced Firmware
Asian Language Support	22.5 M	Included
Java SE Runtime Environment	36.0 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	235.5 M	Included
Ericom PowerTerm InterConnect	15.5 M	Included
Media Player	512.0 K	Included
Local Browser (Firefox) Citrix Appliance	70.5 M	Included
VMware Horizon RDP	4.2. M	Included
Cendio ThinLinc	10.0 M	Included
Printing (Internet printing protocol CUPS)	22.2 M	Included
NoMachine NX	26.8 M	Included
VMware Horizon	123.2 M	Included
Voice over IP (Ekiga)	6.5 M	Included
Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	27.0 M	Not included
Fluendo GStreamer Codec Plugins	7.5 M	Included

IBM i Access Client Solutions	72.5 M	Not included
Red Hat Enterprise Virtualization	3.0 M	Included
Parallels Client	5.5 M	Included
NVIDIA graphics driver	115.0 M	Not included
Imprivata Appliance	10.8 M	Included
Evidian AuthMgr	2.5 M	Included
Hardware Video Acceleration	13.0 M	Included
Extra Font Package	1.0 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	48.0 M	Included
Cisco JVDI client	45.8 M	Included
PrinterLogic	40.8 M	Not included
Biosec BS Login	10.0 M	Not included
Login VSI Login Enterprise	28.8 M	Not included
Stratusphere UX CID Key software	2.8 M	Not included
Elastic Filebeat	15.8 M	Not included
WVD	14.0 M	Included
Local Browser (Chromium)	81.2 M	Not included
deskMate client	5.8 M	Included
Cisco Webex Teams VDI	36.8 M	Not included
Cisco Webex Meetings VDI	32.2 M	Not included
Zoom Media Plugin	40.5 M	Not included
Teradici PCoIP Client	14.5 M	Included
90meter Smart Card Support	256.0 K	Included
Mobile Device Access USB (Limited support)	256.0 K	Not included
VPN OpenConnect (Limited support)	1.5 M	Not included
Scanner support / SANE (Limited support)	2.5 M	Not included
VirtualBox (Limited support)	62.5 M	Not included

General Information 11.04.270

ⓘ To be beneficial to all new features and implementations, it is recommended to use UMS 6.06.100 or higher and update the corresponding profiles.

⚠ Firmware downgrade to older versions (11.01 or 11.02) is not possible, due to the unsigned firmware update files.

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Known Issues 11.04.270

Firmware Update

- On **devices with 2 GB of flash storag**e, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Check Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a solution.

Firefox

- **Firefox IGEL extensions are not updated automatically** under some circumstances. After an update from 11.03.xxx to 11.04.100, the IGEL extensions will stay on the old version.
  In this case, the following settings concerning **kiosk mode** cannot be executed:
    - Switch off hotkey for new window/tab
    - Blocking of internal browser pages like preferences, file picker, specific local directories

  As a workaround:

- a **reset to defaults** should be performed
- or the **browser's mimetype template** can be switched **from "Standard" to "Minimal"** by registry key `browserglobal.app.mimetypes_template` . There, the browser profile is renewed as well.
  After the TC received the new setting, **reboot** and **set** the `mimetypes_template` registry key to **"Standard"** again.

Citrix

- With activated **DRI3** and an **AMD GPU Citrix H.264 acceleration plugin** could freeze. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H.264, MPEG1 and MPEG2**. GStreamer1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with activated **DRI3** and **hardware accelerated H.264 deep compression codec**.
- **Citrix StoreFront login** with **Gemalto smartcard** middleware does not detect smartcard correctly if the card is inserted after start of login.
  Workaround: Insert the smartcard before starting the StoreFront login.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264** acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

- During the running **Microsoft Teams Optimization of Citrix Workspace App 20.09**, **webcam redirection** or **screen sharing** may lead to **display errors** like black stripes or flickering.

VMware Horizon

- **Client drive mapping** and **USB redirection** for storage devices should not be enabled both at the same time.
  - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Enable local `Storage Hotplug` on Setup page **Devices > Storage Devices > Storage Hotplug**.
- **External drives** mounted already before connection do not appear in the **remote desktop**. Workaround: map the directory /media as a drive. Then the external devices will show up inside the media drive.
- **After the disconnect of an RDP-based session**, the Horizon main **window** which contains the server or sessions overview **cannot be resized anymore**.
- **Seamless application windows in Horizon Client may not be displayed correctly**. When starting the first seamless app, a new iconified window appears in the taskbar, and only if you click on it, the application will show up.
  On some hardware (UD7-H850, UD2-M250, UD2-D220), however, the client aborts when this new window is de-iconified.
- When using the **RDP protocol**, the remote session has a fixed offset of approximately the height of the menu bar. That means you have a black bar on top of the window and as a result of that, the **Windows panel on the bottom is cut off**.
- **Modifier keys** (`Shift/Ctrl/Win/Alt`) in session windows using **RDP protocol** do not send the keyup event and **keep being pressed**, even when actually released. Only when closing the session with a mouse, the modifiers are reset.
- **Copying a text from Horizon Blast** sessions is not possible.
- The **on-screen keyboard** in **Horizon appliance mode** does not work correctly with local logon. Workaround: **Switch off local logon** and switch on the corresponding two keys via IGEL registry:
  - `userinterface.softkeyboard.autoshow`
  - `userinterface.softkeyboard.autohide`

Wi-Fi

- TP-Link Archer T2UH Wi-Fi adapters does not work after system suspend/resume. Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.

Smartcard

- **Citrix Certificate Identity Declaration login** does not work with **SecMaker** smartcards.

Cisco JVDI Client

- There may be a **segfault shown in the logs** (during logout of Citrix Desktop session). This occurs only when using **Citrix Workspace app 20.10 and Cisco JVDI**.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU driver**.

Hyper-V

- **Hyper-V** (Generation 2) needs **a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.

VirtualBox

- The current **VirtualBox Guest Tools/Drivers** will not work with **VirtualBox 5.2.x or older** hosts which leads to a black screen and non-working graphics.
  Possible workaround: Install with 'Failsafe Installation + Recovery' and set the registry key `x.drivers.force_vesa` to 'true'.
- When running in VirtualBox virtualization, **resizing the window will not automatically change desktop resolution** of IGEL OS guest.

Audio

- **Audio jack detection on Advantech POC-W243L** doesn't work. Therefore, sound output goes through a possibly connected headset and the internal speakers.
- **IGEL UD2 (D220)** fails to restore the volume level of the speaker when the device used **firmware version 11.01.110** before.

Hardware

- **HP t730** could freeze when monitors with **different resolutions** are connected (1920x1200 + 2560x1440 + 3840x1600 for example). When this occurs, the registry key `x.drivers.kms.best_console_mode` has to be set to **disabled**.
- Some newer **Delock 62599 active DisplayPort-to-DVI (4k)** adapters only work with INTEL devices.

Remote Management

- **AIT feature with IGEL Starter License** is only **supported** by **UMS version 6.05.100 or newer**.

Base system

- **Update from memory stick** requires network online state (at least when multiple update stages are involved).

deskMate

- Some stability issues may remain.

Appliance Mode

- When **ending a Citrix session** in browser appliance mode, the **browser is restarted twice** instead of once.

- Appliance mode **RHEV/Spice**: **spice-xpi firefox plugin** is no longer supported. The **Console Invocation** has to allow 'Native' client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

Security Fixes 11.04.270

VNC

- Fixed **Secure Terminal** and **Secure VNC Shadowing** remote code execution vulnerability.

New Features 11.04.270

Citrix

- Integrated **Zoom Media Plugin 5.4.53376.1029**
- Integrated **Citrix Workspace App 20.12**
  Available Citrix Workspace apps in this release: **20.12** (default), **20.10**, and 19.12.
- New Feature: **App Protection [Experimental]**. App Protection is an add-on feature that provides **enhanced security when using Citrix Virtual Apps and Desktops**. The feature **restricts the ability of clients to be compromised by keylogging and screen capturing malware**.
  More...

Parameter	Citrix App Protection
Registry	`ica.appprotection`
Value	enabled / disabled
Note:	Experimental feature This feature is **currently only available for Self-Service sessions**.

- Fixed Issue: **mic** and **webcam** devices can be **redirected using Browser Content Redirection**.
  More...

Parameter	Enables mic and webcam redirection using BCR
Registry	`ica.allregions.cefenablemediadevices`
Value	[Factory default is "*"] [False][True]

VMware Horizon

- Integrated **Zoom Media Plugin 5.4.53376.1029**
- Updated VMware Horizon Client to version **5.5.0-16946361**

Smartcard

- Added **Smartcard PIN passthrough in Firefox** and **Chromium**. The PIN will be **cached while logging on via Active Directory/Kerberos** with a smartcard. In Firefox and Chromium, no further PIN input is necessary to use the smartcard.
  More...

Parameter	Smartcard PIN caching
Registry	`scard.pkcs11.pin_cache.enable`
Value	enabled / disabled

Cisco JVDI Client

- Integrated **Cisco JVDI 12.9.3** client

Cisco Webex

- Integrated **Cisco Webex Meetings 41.2.0.142**
- Integrated **Cisco Webex Teams 41.1.0.17621**

Evidian

- New session type **RD Web Access**.
- Updated Evidian to version **1.5.7617**.

Audio

- Added parameter to **control applying of sound volume to application's streams**. If the parameter is set to "true", each application can set its own volume level. Otherwise, the sound volume is set to the same value as the default volume for output and input device respectively. **More...**

Registry	`userinterface.sound.app_volume_ctrl`
Value	<u>enabled </u>/ disabled

Resolved Issues 11.04.270

Citrix

- Fixed Citrix **Kerberos Passthrough authentication**.
- The parameter `ica.module.virtualdrivers.vdwebrtc.keyboard_workaround` has been **removed**. This workaround is **no longer needed** because **the problem is solved as of CWA 20.10**.

VMware Horizon

- Fixed failure to start Horizon **serial port redirection service at boot time**.
- Fixed **remember last user functionality in Horizon local logon**.
- Fixed **VMware integrated printing**.

RDP/IGEL RDP Client 2

- Added **new parameter** to enable/disable **dynamic drive mapping**.
  More...

Registry	`rdp.winconnect.enable-dynamic-drivemapping`
Value	<u>enabled</u> / disabled
Registry	`sessions.winconnect%.option.enable-dynamic-drivemapping`
Range	<u>Global setting</u> / on / off

- Fixed **login information** not being set after reboot.

RD Web Access

- Fixed RD Web Access **login not working with user@domain**.

WVD

- Fixed **proxy usage for WVD feed download**.

Parallels Client

- Fixed a bug with Parallels not working if the **Parallels RAS omits the machine name in the application list**.

Evidian

- Fixed **error on restart**.

Firefox

- Fixed usage of a **pre-installed spellchecker in Firefox** input fields.
- Added **TLS 1.3** to the range of "**Maximum supported encryption protocol**" from **Sessions > Firefox Browser > Firefox Browser Global > Encryption**.
  More...

Parameter	Maximum supported encryption protocol

Registry	`browserglobal.app.security_tls_version_max`
Range	[SSL3] [TLS 1.0] [TLS 1.1] [TLS 1.2] [TLS 1.3]

Chromium

- Fixed: **Custom Chromium Policies** datatypes now **written** in the correct way to **policies.json**.
- Fixed **browser** and **download history not** being **cleared**.

Audio

- Fixed a **sporadic aborting** of an application **on closing ALSA Pulse PCM**. The problem affects only applications using ALSA API directly like Citrix Workspace App.
- Added **debug output to the ALSA Pulse PCM** which **must be enabled by** the environment variable `ALSA_PULSE_PCM_DEBUG=1`, the debug output is collected by the system logging facility (`journalctl`).
- Fixed **missing default setup device** after **reboot**.

VNC

- Fixed handling of **CapsLock status in VNC server**. Keyboard input now appears correctly, also if CapsLock is active on the client or server side. **This especially fixes upper case 'umlaut' characters** with Swiss and German keyboard layouts.

Network

- Fixed bug: SCEP **failed** when `scep_getca` **received only a single certificate**.

Base system

- Fixed issue with early **IGEL UD3-LX 60** (M350C) revisions that can lead to **read error from MMC**.
- Fixed **crash of IGEL monitoring agent**.
- Fixed possibility to **add certificates** to **Chromium** and **Firefox** which are given in **DER format**.
- The **Options dialog** keeps the **settings** that were **previously set**.
- Fix **GtkMessage dialog localization**.
- Fixed: **Shutdown delay** when **Post-session command** is enabled.
- Fixed **remembering last user name with Active Directory/Kerberos logon**. Before this fix, the user name could not be stored in the UMS to appear again after a reboot.

X11 system

- Added registry key to solve an issue with **buggy screens connected over a DP-to-DVI adapter** (only works for Radeon devices like IGEL UD3-LX 50).
  More...

Parameter	Fix issues with buggy monitors connected over DP-DVI adapter
Registry	`x.drivers.ati.dp_dvi_probe_workaround`
Value	enabled / disabled

- Updated **Display Switch rotate buttons** to usable size.
- Fixed **notifications not being hidden properly** when in **do-not-disturb mode**.

Window manager

- Fixed `notifyd` window **width not** remaining **constant**.
- Fixed **notification urgency critical background color**.

OS Converter

- Fixed **language chooser** in installations via **Deployment Appliance**.

Notes for Release 11.04.240

Software:	Version	11.04.240
Release Date:	2020-11-16	
Release Notes:	Version	RN-1104240-1
Last update:	2020-11-16	

Supported Devices 11.04.240

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.04.240

Clients

Product	Version
Chromium	83.0.4103.61-0ubuntu0.18.04.1
Cisco JVDI Client	12.9.1
Cisco Webex Teams VDI Client	3.0.16605.0
Cisco Webex Meetings VDI Client	40.10.5.2377
Zoom Media Plugin	5.4.53376
Citrix HDX Realtime Media Engine	2.9.0-2330
Citrix Workspace App	19.12.0.19
Citrix Workspace App	20.09.0.15
Citrix Workspace App	20.10.0.6
deviceTRUST Citrix Channel	20.1.200.0
Crossmatch DP Citrix Channel	0515.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	14.0.0.45623
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech USB for Remote Desktop	6.0.28
Firefox	68.12.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2igel1600249269
IGEL WVD Client	1.0.16igel1605091446
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	20.1.200.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.11.2-1igel8

Open VPN	2.4.4-2ubuntu1.3
Zulu JRE	8.48.0.51-2
Parallels Client (64 bit)	17.1.2.1
Spice GTK (Red Hat Virtualization)	0.38-2igel93
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.8.0-1+b1igel71
Teradici PCoIP Software Client	20.10.0-18.04
ThinLinc Client	4.12.0-6517
ThinPrint Client	7.5.88
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	1.0.5-1igel1583919770
VNC Viewer	1.10.1+dfsg-4igel13
VMware Horizon Client	5.4.1-15988340
Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20200323
Philips Speech driver	12.9.1

Signature

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.9
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7
PKCS#11 Library cryptovision sc/interface	7.3.1
PKCS#11 Library Gemalto SafeNet	10.7.77
PKCS#11 Library OpenSC	0.20.0-3igel37
PKCS#11 Library SecMaker NetID	6.8.1.31
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel2
Reader Driver Gemalto eToken	10.7.77
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.31-1igel11
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.26-3igel14
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.3
OpenSSL	1.1.1-1ubuntu2.1~18.04.6
OpenSSH Client	7.6p1-4ubuntu0.3
OpenSSH Server	7.6p1-4ubuntu0.3
Bluetooth stack (bluez)	5.52-1igel6
MESA OpenGL stack	20.0.8-1igel117
VAAPI ABI Version	0.40
VDPAU Library version	1.4-1igel1003

Graphics Driver INTEL	2.99.917+git20200515-igel1013
Graphics Driver ATI/RADEON	19.1.0-1+git20200220igel987
Graphics Driver ATI/AMDGPU	19.1.0-1+git20200318igel986
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	440.100-0ubuntu0.20.04.1
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel975
Input Driver Elographics	1.4.1-1+b6igel952
Input Driver eGalax	2.5.8825
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel957
Input Driver Wacom	0.36.1-0ubuntu2igel888
Input Driver ELO Multitouch	3.0.0
Input Driver ELO Singletouch	5.1.0
Kernel	5.4.48 #mainline-lxos-g1605521351
Xorg X11 Server	1.20.8-2igel1016
Xorg Xephyr	1.20.8-2igel1016
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.425
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel13
XFCE4 Window Manager	4.14.2-1~18.04igel1600339249
ISC DHCP Client	4.3.5-3ubuntu7.1
NetworkManager	1.20.4-2ubuntu2.2igel105
ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 0.10 Fluendo aacdec	0.10.42

GStreamer 0.10 Fluendo asfdemux	0.10.90
GStreamer 0.10 Fluendo h264dec	0.10.58
GStreamer 0.10 Fluendo mp3dec	0.10.40
GStreamer 0.10 Fluendo mpegdemux	0.10.85
GStreamer 0.10 Fluendo mpeg4videodec	0.10.44
GStreamer 0.10 Fluendo vadec	0.10.224
GStreamer 0.10 Fluendo wmadec	0.10.70
GStreamer 0.10 Fluendo wmvdec	0.10.66
GStreamer 1.x	1.16.2-4igel239
GStreamer 1.0 Fluendo aacdec	0.10.42.2-8d6d
GStreamer 1.0 Fluendo asfdemux	0.10.90
GStreamer 1.0 Fluendo h264dec	0.10.58
GStreamer 1.0 Fluendo mp3dec	0.10.40
GStreamer 1.0 Fluendo mpeg4videodec	0.10.44
GStreamer 1.0 Fluendo vadec	0.10.224
GStreamer 1.0 Fluendo wmadec	0.10.70
GStreamer 1.0 Fluendo wmvdec	0.10.66
WebKit2Gtk	2.28.3-2igel36
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.10-dfsg-1igel41
Virtualbox X11 Guest Utils	6.1.10-dfsg-1igel41
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.20.0-1igel95
Qemu Guest Agent	5.0-5igel12

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.17-3igel5
Mobile Device Access USB (imobile)	1.2.1~git20191129.9f79242-1+b1igel8
Mobile Device Access USB (gphoto)	2.5.25-2igel4
VPN OpenConnect	8.10-1igel4
Scanner support	1.0.27-1
VirtualBox	6.1.10-dfsg-1igel41

Services

Service	Size	Reduced Firmware
Asian Language Support	22.5 M	Included
Java SE Runtime Environment	36.0 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	235.8 M	Included
Ericom PowerTerm InterConnect	15.5 M	Included
Media Player	512.0 K	Included
Local Browser (Firefox) Citrix Appliance	70.5 M	Included
VMware Horizon RDP	4.2. M	Included
Cendio ThinLinc	10.0 M	Included
Printing (Internet printing protocol CUPS)	22.2 M	Included
NoMachine NX	26.8 M	Included
VMware Horizon	116.0 M	Included
Voice over IP (Ekiga)	6.5 M	Included
Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	27.0 M	Not included
Fluendo GStreamer Codec Plugins	7.5 M	Included

IBM i Access Client Solutions	72.5 M	Not included
Red Hat Enterprise Virtualization	3.0 M	Included
Parallels Client	5.5 M	Included
NVIDIA graphics driver	115.0 M	Not included
Imprivata Appliance	10.8 M	Included
Evidian AuthMgr	2.8 M	Included
Hardware Video Acceleration	13.0 M	Included
Extra Font Package	1.0 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	48.0 M	Included
Cisco JVDI client	45.8 M	Included
PrinterLogic	40.8 M	Not included
Biosec BS Login	10.0 M	Not included
Login VSI Login Enterprise	28.8 M	Not included
Stratusphere UX CID Key software	2.8 M	Not included
Elastic Filebeat	15.8 M	Not included
WVD	14.0 M	Included
Local Browser (Chromium)	81.2 M	Not included
deskMate client	5.8 M	Included
Cisco Webex Teams VDI	33.2 M	Not included
Cisco Webex Meetings VDI	40.8 M	Not included
Zoom Media Plugin	40.5 M	Not included
Teradici PCoIP Client	14.5 M	Included
90meter Smart Card Support	256.0 K	Included
Mobile Device Access USB (Limited support)	256.0 K	Not included
VPN OpenConnect (Limited support)	1.5 M	Not included
Scanner support / SANE (Limited support)	2.5 M	Not included
VirtualBox (Limited support)	62.5 M	Not included

General Information 11.04.240

ⓘ To be beneficial to all new features and implementations, it is recommended to use UMS 6.06.100 or higher and update the corresponding profiles.

⬦ Firmware downgrade to older versions (11.01 or 11.02) is not possible, due to the unsigned firmware update files.

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Known Issues 11.04.240

Firmware Update

- On **devices with 2 GB of flash storag**e, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Check Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a solution.

Firefox

- **Firefox IGEL extensions are not updated automatically** under some circumstances. After an update from 11.03.xxx to 11.04.100, the IGEL extensions will stay on the old version.
  In this case, the following settings concerning **kiosk mode** cannot be executed:
  - Switch off hotkey for new window/tab
  - Blocking of internal browser pages like preferences, file picker, specific local directories

   As a workaround:

- a **reset to defaults** should be performed
- or the **browser's mimetype template** can be switched **from "Standard" to "Minimal"** by registry key `browserglobal.app.mimetypes_template`. There, the browser profile is renewed as well.
  After the TC received the new setting, **reboot** and **set** the `mimetypes_template` registry key to **"Standard"** again.

Citrix

- With activated **DRI3** and an **AMD GPU Citrix H.264 acceleration plugin** could freeze. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H.264, MPEG1 and MPEG2**. GStreamer1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with activated **DRI3** and **hardware accelerated H.264 deep compression codec**.
- **Citrix StoreFront login** with **Gemalto smartcard** middleware does not detect smartcard correctly if the card is inserted after start of login.
  Workaround: Insert the smartcard before starting the StoreFront login.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264** acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

- During the running **Microsoft Teams Optimization of Citrix Workspace App 20.09**, **webcam redirection** or **screen sharing** may lead to **display errors** like black stripes or flickering.
- The **performance** of Citrix sessions when using **Workspace App 20.06** may be lower on some devices.
  A possible **workaround** is to **disable** the **virtual channels for Microsoft Teams** and **NSAP** or to set the **HDX transport protocol** to **TCP** only.
  - `ica.module.virtualdriver.vdwebrtc.enable`
  - `ica.module.virtualdriver.nsap.enable`

  The protocol can be set via the Setup parameter **Sessions > Citrix > Citrix Global > Options > HDX Adaptive Transport over EDT** or via the **server policy** 'HDX Adaptive Transport'.

VMware Horizon

- **Client drive mapping** and **USB redirection** for storage devices should not be enabled both at the same time.
  - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Enable local `Storage Hotplug` on Setup page **Devices > Storage Devices > Storage Hotplug**.
- **External drives** mounted already before connection do not appear in the **remote desktop**. Workaround: map the directory /media as a drive. Then the external devices will show up inside the media drive.
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  On some hardware (UD7-H850, UD2-M250, UD2-D220), however, the client aborts when this new window is de-iconified.
- When using the **RDP protocol**, the remote session has a fixed offset of approximately the height of the menu bar. That means you have a black bar on top of the window and as a result of that, the **Windows panel on the bottom is cut off**.
- **Modifier keys** (`Shift/Ctrl/Win/Alt`) in session windows using **RDP protocol** do not send the keyup event and **keep being pressed**, even when actually released. Only when closing the session with a mouse, the modifiers are reset.
- **Copying a text from Horizon Blast** sessions is not possible.
- The **on-screen keyboard** in **Horizon appliance mode** does not work correctly with local logon. Workaround: **Switch off local logon** and switch on the corresponding two keys via IGEL registry:
  - `userinterface.softkeyboard.autoshow`
  - `userinterface.softkeyboard.autohide`

Wi-Fi

- TP-Link Archer T2UH Wi-Fi adapters does not work after system suspend/resume. Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.

Smartcard

- **Citrix Certificate Identity Declaration login** does not work with **SecMaker** smartcards.

Cisco JVDI Client

- There may be a **segfault shown in the logs** (during logout of Citrix Desktop session). This occurs only when using **Citrix Workspace app 20.10 and Cisco JVDI**.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU driver**.

Hyper-V

- **Hyper-V** (Generation 2) needs **a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.

VirtualBox

- The current **VirtualBox Guest Tools/Drivers** will not work with **VirtualBox 5.2.x or older** hosts which leads to a black screen and non-working graphics.
  Possible workaround: Install with 'Failsafe Installation + Recovery' and set the registry key `x.drivers.force_vesa` to 'true'.
- When running in VirtualBox virtualization, **resizing the window will not automatically change desktop resolution** of IGEL OS guest.

Audio

- **Audio jack detection on Advantech POC-W243L** doesn't work. Therefore, sound output goes through a possibly connected headset and the internal speakers.
- **IGEL UD2 (D220)** fails to restore the volume level of the speaker when the device used **firmware version 11.01.110** before.

Hardware

- **HP t730** could freeze when monitors with **different resolutions** are connected (1920x1200 + 2560x1440 + 3840x1600 for example). When this occurs, the registry key `x.drivers.kms.best_console_mode` has to be set to **disabled**.
- Some newer **Delock 62599 active DisplayPort-to-DVI (4k)** adapters only work with INTEL devices.

Remote Management

- **AIT feature with IGEL Starter License** is only **supported** by **UMS version 6.05.100 or newer**.

Base system

- **Update from memory stick** requires network online state (at least when multiple update stages are involved).

deskMate

- Some stability issues may remain.

Appliance Mode

- When **ending a Citrix session** in browser appliance mode, the **browser is restarted twice** instead of once.
- Appliance mode **RHEV/Spice**: **spice-xpi firefox plugin** is no longer supported. The **Console Invocation** has to allow 'Native' client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

Security Fixes 11.04.240

Base system

- Fixed **BleedingTooth** security issue which means CVE-2020-12351, CVE-2020-12352, and CVE-2020-24490.

New Features 11.04.240

Citrix

- Integrated **Citrix Workspace app 20.10**.
  Available Citrix Workspace apps in this release: **20.10 (default)**, **20.09**, and **19.12**
- Added: **Multiple audio devices can be mapped inside the sessions**. This will display audio devices with their device name and not only HDX audio anymore:
  More...

Parameter	Multiple Audio Device support
Registry	`ica.module.vdcamversion4support`
Type	bool
Value	enabled / <u>disabled</u>

Note: Bluetooth devices are currently not supported for device redirection.

- Updates **Zoom Media Plugin** to version **5.4.53376.1029**

VMware Horizon

- Updated **Zoom Media Plugin** to version **5.4.53376.1029**
- Added support for **VMware Integrated Printing**.
  More...

Parameter	Integrated Printing
Registry	`vmware.view.integrated-printing`
Type	bool
Value	enabled / <u>disabled</u>

WVD

- New parameter to set **HTTP user agent string for AAD login requests**.
  More...

Parameter	HTTP user agent string
Registry	`sessions.wvd%.options.http-user-agent`
Type	editable
Value	<u>System Default</u> / Windows / Android / iOS / macOS / <custom-string>

Cisco Webex VDI

- Updated **Cisco Webex Teams VDI** to version **3.0.16605.0**
- Updated **Cisco Webex Meetings VDI** to version **40.10**

Cisco JVDI Client

- Updated **Cisco JVDI client** to version **12.9.1**

Fabulatech

- Updated **FabulaTech USB for Remote Desktop** to version **6.0.28**
- Updated **FabulaTech Scanner for Remote Desktop** to version **2.5.0.7**

Driver

- Updated **deviceTRUST** client plugin for Citrix and RDP to version **20.1.200.0**. Detailed release notes can be found at https://docs.devicetrust.com/docs/releases-igel-20.1.200/

Remote Management

- Added **support for exchanging ICG certificates**.
- The remote management of the endpoint device **automatically installs TLS certificates provided by the UMS into the local trusted CA certificates storage**. The **automatic deployment** of TLS certificates to endpoint devices **requires UMS 6.06.100 or higher**. This feature allows verifying certificates used when downloading files from the UMS, downloading a firmware update and custom partition archives over HTTPS or FTPS protocols. **The verifying of certificates must be enabled** by the parameter `system.security.remote_management.tls_verify_peer`. **More...**

Registry	`system.security.remote_management.tls_verify_peer`
Value	enabled / <u>disabled</u>
Registry	`system.security.remote_management.tls_hostname_validation`
Value	<u>enabled</u> / disabled

- Added support for **UMS commands to store and remove ICG configuration**.
- Introduced parameters for **ICG Websocket connections**: debug log, network timeout (in seconds), and ping-pong interval (in seconds). The **parameters** are **applied on the next** established **ICG agent connection** and **ICG tunnel connections**: VNC and Secure Terminal. The **ping-pong** mechanism is supported **only for ICG tunnel connections**. **More...**

Registry	`system.icg.websocket.debug`
Value	<u>off</u> / all / tunnel / agent
Registry	`system.icg.websocket.network_timeout`
Value	<u>30</u>
Registry	`system.icg.websocket.pingpong_interval`
Value	<u>120</u>

Resolved Issues 11.04.240

Citrix

- Fixed issue with **Workspace app 2010**: **Screen flickering** while running a video call or sharing the screen in Microsoft Teams.
- Fixed Issue with **Workspace app 2010**: **Microsoft Teams** calls are now working with **different keyboard layouts**.
- Fixed: **Improved pcom** parameter `pcom.valid_return_codes%.returncodes` to handle ranges a la 1..255 (see tooltip).

Wi-Fi

- Fixed issues with **D-Link DWA-131 WLAN dongle**.

X11 system

- Fixed a problem with **display hotplug detection** when the display switch is not used.
- Fixed issues if **2 DisplayPort MST Hubs** are connected behind each other.

WVD

- **WVD memory leak(s**) fixed.
- Switched back to **the local login mask when the AAD login fails** for whatever reason. At the moment, there is no error message shown. This will come in one of the next versions.

VMware Horizon

- Fixed **post-session behavior** for VMware Horizon sessions where some **exit codes of the client were discarded** and therefore did not trigger the post-session action.
- Fixed **Local Logon Window** in that now we prevent it to get iconified because it always needs to be visible, especially in appliance mode where there is no panel to de-iconify it.

CID Key Agent

- Update of **CID Key Agent** to version **6.5.0-1**

Teradici PCoIP Client

- Updated **Teradici PCoIP** client to version **20.10**

Network

- Changed: Usage of **r8168** as default network driver **on Lenovo M75 Nano**.
- Added support for some newer I**ntel e1000e network cards**.
- Fixed **logon by 802.1X authentication**.
- Fixed: Failing **Ethernet connection does not delay online state** reached by other means anymore.
- Added registry keys for enabling/disabling **sending of hostname in DHCPv4 and DHCPv6** requests.
  More...

Parameter	Send hostname in DHCP requests

Registry	`network.dhcp.send_hostname`
Range	[Disabled][Network Manager default]
Parameter	Send hostname in DHCPv6 requests
Registry	`network.dhcp6.send_hostname`
Range	[Disabled][Network Manager default]

- Added registry key for **disabling Ethernet link reconfiguration by Network Manager**.
  More...

Parameter	Disable NetworkManager link configuration
Registry	`network.interfaces.ethernet.device%.nm_disable_link_config`
Type	bool
Value	true / false
Note	Setting this to "true" can be beneficial when 802.1X authentication is disturbed by link. It is currently set automatically when e1000e drivers are used.

Open VPN

- Fixed **segmentation fault** if the nameserver is used.
  Now it is allowed to use an empty password for the private key. Not needed to enter a password when the private key does not have one.

Base system

- Fixed: The **fluendo vadec** update closed a **memory leak with AMD devices** using VAAPI acceleration.
- **Updated Fluendo multimedia codecs** to the following versions:
  More...

gst-fluendo-aacdec	8/10/2020
gst-fluendo-asfdemux	17/9/2020
gst-fluendo-h264dec	22/9/2020
gst-fluendo-mp3	17/9/2020
gst-fluendo-mpeg4video	18/9/2020
gst-fluendo-vadec	02/11/2020
gst-fluendo-wmadec	17/9/2020

gst-fluendo-wmvdec	17/9/2020

- Fixed possible **USB issues with suspend/resume on IGEL M350C** devices.
- Fixed: **Custom applications** did not run **while being offline** even if they did not need network.

Audio

- Fixed the **ALSA Pulse PCM** - a possible **deadlock** while writing audio data and closing Pulse PCM.
- Fixed **microphone** issues with **UD3-LX60** device.

Remote Management

- Fixed sporadic **failures while retrieving the Unit ID** by the IGEL Remote Management agent.
- Fixed **sending the user logoff message to the UMS**.

HID

- Updated **eGTouch (eGalax) drivers and xorg** configuration.
- Fixing **double tapping of desktop icons on touchscreen** devices.

Window manager

- Fixed **desktop icons** not being restricted to one monitor at all.

Notes for Release 11.04.200

Software:	Version	11.04.200
Release Date:	2020-10-08	
Release Notes:	Version	RN-1104200-1
Last update:	2020-10-08	

Supported Devices 11.04.200

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.04.200

Clients

Product	Version
Chromium	83.0.4103.61-0ubuntu0.18.04.1
Cisco JVDI Client	12.9.0
Cisco Webex Teams VDI Client	3.0.15711.0
Cisco Webex Meetings VDI Client	40.10.0.171
Zoom Media Plugin	5.2.456413
Citrix HDX Realtime Media Engine	2.9.0-2330
Citrix Workspace App	19.12.0.19
Citrix Workspace App	20.06.0.15
Citrix Workspace App	20.09.0.15
deviceTRUST Citrix Channel	19.1.200.2
Crossmatch DP Citrix Channel	0515.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	14.0.0.45623
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech USB for Remote Desktop	5.2.29
Firefox	68.12.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2igel1600249269
IGEL WVD Client	1.0.13igel1596142398
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.11.2-1igel8

Open VPN	2.4.4-2ubuntu1.3
Zulu JRE	8.48.0.51-2
Parallels Client (64 bit)	17.1.2.1
Spice GTK (Red Hat Virtualization)	0.38-2igel93
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.8.0-1+b1igel71
Teradici PCoIP Software Client	20.04.2-18.04
ThinLinc Client	4.12.0-6517
ThinPrint Client	7.5.88
Totem Media Player	2.30.2-0ubuntu1igel55
Parole Media Player	1.0.5-1igel1583919770
VNC Viewer	1.10.1+dfsg-4igel13
VMware Horizon Client	5.4.1-15988340
Voip Client Ekiga	4.0.1-9build1igel6

Dictation

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20200323
Philips Speech driver	12.9.1

Signature

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.9
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.6.0.0-AET.000
PKCS#11 Library Athena IDProtect	7
PKCS#11 Library cryptovision sc/interface	7.3.1
PKCS#11 Library Gemalto SafeNet	10.7.77
PKCS#11 Library OpenSC	0.20.0-3igel37
PKCS#11 Library SecMaker NetID	6.8.1.31
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel2
Reader Driver Gemalto eToken	10.7.77
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.31-1igel11
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.26-3igel14
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.3
OpenSSL	1.1.1-1ubuntu2.1~18.04.6
OpenSSH Client	7.6p1-4ubuntu0.3
OpenSSH Server	7.6p1-4ubuntu0.3
Bluetooth stack (bluez)	5.52-1igel6
MESA OpenGL stack	20.0.8-1igel117
VAAPI ABI Version	0.40
VDPAU Library version	1.4-1igel1003

Graphics Driver INTEL	2.99.917+git20200515-igel1013
Graphics Driver ATI/RADEON	19.1.0-1+git20200220igel987
Graphics Driver ATI/AMDGPU	19.1.0-1+git20200318igel986
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	440.100-0ubuntu0.20.04.1
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel975
Input Driver Elographics	1.4.1-1+b6igel952
Input Driver eGalax	2.5.7413
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel957
Input Driver Wacom	0.36.1-0ubuntu2igel888
Input Driver ELO Multitouch	3.0.0
Input Driver ELO Singletouch	5.1.0
Kernel	5.4.48 #mainline-lxos_dev-g1595410170
Xorg X11 Server	1.20.8-2igel1016
Xorg Xephyr	1.20.8-2igel1016
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.425
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel13
XFCE4 Window Manager	4.14.2-1~18.04igel1600339249
ISC DHCP Client	4.3.5-3ubuntu7.1
NetworkManager	1.20.4-2ubuntu2.2igel100
ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 1.x	1.16.2-4igel239

WebKit2Gtk	2.28.3-2igel36
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.10-dfsg-1igel41
Virtualbox X11 Guest Utils	6.1.10-dfsg-1igel41
Open VM Tools	11.0.5-4ubuntu0.18.04.1
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.20.0-1igel95
Qemu Guest Agent	5.0-5igel12

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.17-3igel5
Mobile Device Access USB (imobile)	1.2.1~git20191129.9f79242-1+b1igel8
Mobile Device Access USB (gphoto)	2.5.25-2igel4
VPN OpenConnect	8.10-1igel4
Scanner support	1.0.27-1
VirtualBox	6.1.10-dfsg-1igel41

Services

Service	Size	Reduced Firmware
Asian Language Support	24.8 M	Included
Java SE Runtime Environment	42.8 M	Included
Citrix Appliance Citrix Workspace app Citrix StoreFront	258.5 M	Included
Ericom PowerTerm InterConnect	17.8 M	Included
Media Player	768.0 K	Included

Local Browser (Firefox) Citrix Appliance	81.8 M	Included
VMware Horizon RDP	5.5. M	Included
Cendio ThinLinc	11.5 M	Included
Printing (Internet printing protocol CUPS)	23.8 M	Included
NoMachine NX	31.5 M	Included
VMware Horizon	193.2 M	Included
Voice over IP (Ekiga)	7.2 M	Included
Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	30.8 M	Not included
Fluendo GStreamer Codec Plugins	8.5 M	Included
IBM i Access Client Solutions	96.2 M	Not included
Red Hat Enterprise Virtualization	3.5 M	Included
Parallels Client	6.2 M	Included
NVIDIA graphics driver	128.5 M	Not included
Imprivata Appliance	16.0 M	Included
Evidian AuthMgr	3.0 M	Included
Hardware Video Acceleration	15.0 M	Included
Extra Font Package	1.2 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	54.8 M	Included
Cisco JVDI client	56.0 M	Included
PrinterLogic	50.8 M	Not included
Biosec BS Login	10.2 M	Not included
Login VSI Login Enterprise	32.8 M	Not included
Stratusphere UX CID Key software	3.2 M	Not included
Elastic Filebeat	25.0 M	Not included
WVD	16.2 M	Included

Local Browser (Chromium)	91.0 M	Not included
deskMate client	6.5 M	Included
Cisco Webex Teams VDI	40.2 M	Not included
Cisco Webex Meetings VDI	46.0 M	Not included
Zoom Media Plugin	42.0 M	Not included
Teradici PCoIP Client	8.8 M	Included
90meter Smart Card Support	256.0 K	Included
Mobile Device Access USB (Limited support)	512.0 K	Not included
VPN OpenConnect (Limited support)	1.8 M	Not included
Scanner support / SANE (Limited support)	2.8 M	Not included
VirtualBox (Limited support)	69.0 M	Not included

General Information 11.04.200

ⓘ To be beneficial to all new features and implementations, it is recommended to use UMS 6.05.110 or higher and update the corresponding profiles.

⚠ Firmware downgrade to older versions (11.01 or 11.02) is not possible, due to the unsigned firmware update files.

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Known Issues 11.04.200

Firmware Update

- On **devices with 2 GB of flash storag**e, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs. Check Error: "Not enough space on local drive" when Updating to IGEL OS 11.04 or Higher for a solution.

Firefox

- **Firefox IGEL extensions are not updated automatically** under some circumstances. After an update from 11.03.xxx to 11.04.100, the IGEL extensions will stay on the old version.
  In this case, the following settings concerning **kiosk mode** cannot be executed:
    - Switch off hotkey for new window/tab
    - Blocking of internal browser pages like preferences, file picker, specific local directories

  As a workaround:

- a **reset to defaults** should be performed
- or the **browser's mimetype template** can be switched **from "Standard" to "Minimal"** by registry key `browserglobal.app.mimetypes_template`. There, the browser profile is renewed as well.
  After the TC received the new setting, **reboot** and **set** the `mimetypes_template` registry key to **"Standard"** again.

Citrix

- With activated **DRI3** and an **AMD GPU Citrix H.264 acceleration plugin** could freeze. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H.264, MPEG1 and MPEG2**. GStreamer1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with activated **DRI3** and **hardware accelerated H.264 deep compression codec**.
- **Citrix StoreFront login** with **Gemalto smartcard** middleware does not detect smartcard correctly if the card is inserted after start of login.
  Workaround: Insert the smartcard before starting the StoreFront login.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264** acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

- During the running **Microsoft Teams Optimization of Citrix Workspace App 20.06/20.09**, **webcam redirection** or **screen sharing** may lead to **display error**s like black stripes or flickering.
- The **performance** of Citrix sessions when using **Workspace App 20.06** may be lower on some devices.
  A possible **workaround** is to **disable** the **virtual channels for Microsoft Teams** and **NSAP** or to set the **HDX transport protocol** to **TCP** only.
    - `ica.module.virtualdriver.vdwebrtc.enable`
    - `ica.module.virtualdriver.nsap.enable`

  The protocol can be set via the Setup parameter **Sessions > Citrix > Citrix Global > Options > HDX Adaptive Transport over EDT** or via the **server policy** 'HDX Adaptive Transport'.

VMware Horizon

- **Client drive mapping** and **USB redirection** for storage devices should not be enabled both at the same time.
    - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
    - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Enable local `Storage Hotplug` on Setup page **Devices > Storage Devices > Storage Hotplug**.
- **External drives** mounted already before connection do not appear in the **remote desktop**. Workaround: map the directory /media as a drive. Then the external devices will show up inside the media drive.
- **After the disconnect of an RDP-based session**, the Horizon main **window** which contains the server or sessions overview **cannot be resized anymore**.
- **Seamless application windows in Horizon Client may not be displayed correctly**. When starting the first seamless app, a new iconified window appears in the taskbar, and only if you click on it, the application will show up.
  On some hardware (UD7-H850, UD2-M250, UD2-D220), however, the client aborts when this new window is de-iconified.
- When using the **RDP protocol**, the remote session has a fixed offset of approximately the height of the menu bar. That means you have a black bar on top of the window and as a result of that, the **Windows panel on the bottom is cut off**.
- **Modifier keys** (`Shift/Ctrl/Win/Alt`) in session windows using **RDP protocol** do not send the keyup event and thus **keep being pressed even when actually released**. Only when you leave the session with the mouse, the modifiers are reset.
- **Copying a text from Horizon Blast** sessions is not possible.
- The **on-screen keyboard** in **Horizon appliance mode** doesn't work correctly with local logon. You have to switch off the local logon and switch on these two keys in the IGEL registry:
    - `userinterface.softkeyboard.autoshow`
    - `userinterface.softkeyboard.autohide`

Wi-Fi

- TP-Link Archer T2UH Wi-Fi adapters does not work after system suspend/resume. Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.

Smartcard

- **Citrix Certificate Identity Declaration login** does not work with **SecMaker** smartcards.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU driver**.

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- **Hyper-V** (Generation 2) needs **a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.

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- The current **VirtualBox Guest Tools/Drivers** will not work with **VirtualBox 5.2.x or older** hosts which leads to a black screen and non-working graphics.
  Possible workaround: Install with 'Failsafe Installation + Recovery' and set the registry key `x.drivers.force_vesa` to 'true'.
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- **Audio jack detection on Advantech POC-W243L** doesn't work. Therefore, sound output goes through a possibly connected headset and the internal speakers.
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- **Update from memory stick** requires network online state (when multiple update stages are involved).

deskMate

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- When **ending a Citrix session** in browser appliance mode, the **browser is restarted twice** instead of once.
- Appliance mode **RHEV/Spice**: **spice-xpi firefox plugin** is no longer supported. The **Console Invocation** has to allow 'Native' client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

Security Fixes 11.04.200

Firefox

- Updated Mozilla Firefox to **68.12.0esr**:
    - Fixes for **mfsa2020-11**, also known as CVE-2020-6819, CVE-2020-6820.
    - Fixes for **mfsa2020-13**, also known as
      More...

      CVE-2020-6828, CVE-2020-6827, CVE-2020-6821,
      CVE-2020-6822, and CVE-2020-6825

    - Fixes for **mfsa2020-17** also known as:
      More...

      CVE-2020-12387, CVE-2020-12388, CVE-2020-12389,
      CVE-2020-6831, CVE-2020-12392, CVE-2020-12393,
      and CVE-2020-1239

    - Fixes for **mfsa2020-21** also known as:
      More...

      CVE-2020-12399, CVE-2020-12405,
      CVE-2020-12406, CVE-2020-12410

    - Fixes for **mfsa2020-25** also known as:
      More...

      CVE-2020-12417, CVE-2020-12418, CVE-2020-12419,
      CVE-2020-12420, CVE-2020-12421

    - Fixes for **mfsa2020-31** also known as:
      More...

      CVE-2020-15652, CVE-2020-6514, CVE-2020-6463,
      CVE-2020-15650, CVE-2020-15649, and CVE-2020-15659

    - Fixes for **mfsa2020-37** also known as: CVE-2020-15663, CVE-2020-15664, and
      CVE-2020-15669

Base system

- Fixed privilege escalation via environment variables in the `/bin/update` binary.
- Fixed privilege escalation via environment variable `PATH` in `/bin/usershell` binary.
- Fixed privilege escalation via `PATH` environment variable in the `/bin/update` binary.

New Features 11.04.200

Citrix

- Integrated **Citrix Workspace app 20.09**. **Removed** Citrix Workspace app **18.10**.
  Available Citrix Workspace apps in this release: **20.09 (default)**, **20.06** and **19.12**.
  The **performance** of the Citrix Workspace app **20.09** was **improved** and a **more detailed logging** was implemented.
- Citrix **logging** was **summarized**. Now, only **one parameter** is needed to **activate logging**.
  More...

Parameter	Enable logging for Citrix sessions
Registry	`ica.logging.debug`
Value	on / <u>off</u>

- Since Workspace app 20.09, the tool **setlog** is used to **configure the logging**. For this purpose, parameters are provided in the registry `ica.logging.setlog`; usually, nothing needs to be changed.
- After **disabling logging**, the system must be **restarted** once.
- Integrated **Zoom Media Plugin 5.2.456413.0902**
- Added **PAC proxy auto configuration support** for Zoom Media Plugin (ZoomVDI).
  To configure, the following parameters need to be set:
  - `network.proxy.settings.sys_proxy_type="Automatic proxy configuration"`
  - `network.proxy.settings.sys_proxy_autoconfig_url="http://..."`

  Alternatively, the **manual HTTP/HTTPS proxy setting** configured at **IGEL Setup > Network > Proxy** is now used for Zoom Media Plugin.

- **Improved** configuration of **ZoomVDI** client.

Cisco Webex

- Integrated **Cisco Webex Meetings 40.10**.

Parallels Client

- Updated **Parallels** Client to version **17.1.2.1**.
  Fixed security vulnerability issue disclosed in the Parallels KB article https://kb.parallels.com/en/125112.

Audio

- Added **EPOS Connect 5.0.1.2795**.
  More...

IGEL Setup	**Devices > Unified Communications > EPOS Audio > EPOS Connect**
Parameter	Enable EPOS Connect
Registry	`devices.epos.connect.enable`

Type	bool
Value	enabled / <u>disabled</u>
IGEL Setup	**Devices > Unified Communications > EPOS Audio > EPOS Connect**
Parameter	Tenant ID
Registry	`devices.epos.connect.tenant_id`
Type	string
Value	''
IGEL Setup	**Devices > Unified Communications > EPOS Audio > EPOS Connect**
Parameter	Backend Endpoint
Registry	`devices.epos.connect.tenant_url`
Type	string
Value	''
IGEL Setup	**Devices > Unified Communications > EPOS Audio > EPOS Connect**
Parameter	Proxy
Registry	`devices.epos.connect.proxy`
Type	string
Value	''
Registry	`devices.epos.connect.log_level`
Value	Trace / Debug / <u>Information</u> / Warnings / Errors / Exceptions / No logs

Smartcard

- Updated **A.E.T. Europe SafeSign Identity Client** to version **3.6.0.0**.

Multimedia

- Added possibility to fetch **log files of the Zoom Media Plugin (ZoomVDI)** via **UMS support information**.

Hardware

- Added detection of **UD Pocket UC5-LX 2**.

Misc

- Updated **Login Enterprise** to version **4.2**.

Resolved Issues 11.04.200

Citrix

- Fixed the problem with **apparmor** and the **Citrix MS Teams workaround**.
- Fixed: In some Citrix sessions, there have been **sporadic appearances of black rectangles** when the feature "**Accelerated H.264 Deep Compression Codec**" is **active**.
- Integrated parameter to activate the workaround for the **keyboard language issue with MS Teams Optimization**.
  More...

Parameter	Microsoft Teams optimization keyboard language workaround
Registry	`ica.module.virtualdriver.vdwebrtc.keyboard_workaround`
Value	on / <u>off</u>

RDP/IGEL RDP Client 2

- Improved **error logging**.
- Fixed **USB redirection** for RDP sessions.

Firefox

- Fixed **smartcard access in Firefox**. Before this fix, **smartcards** were **not recognized occasionally**.

Network

- Fixed handling of **DNS default domain**.
- Added **registry** key specifying the **number of 802.1X authentication attempts on Ethernet**.
  More...

Registry	`network.interfaces.ethernet.device%.ieee8021x.auth_attempts`
Type	integer
Value	<u>1</u>

- **SCEP**: Fixed derivation of **802.1X identity** from client certificate.

Window manager

- Fixed **crash of start menu**, where it was not populated with any items.
- Fixed **start monitor mapping** for **Firefox**.

Wi-Fi

- **Added** missing **iwlwifi-6000-4 firmware file**.

Open VPN

- Fixed **segmentation fault** when **nameserver was used**.

- Added: **Different protocols** are now **selectable**:
  More...

Parameter	protocol
Registry	`sessions.openconnect%.vpnopts.protocol`
Value	<u>Cisco AnyConnect</u> / Juniper Network / Junos Pulse / PAN GlobalProtect

Base system

- Fixed **panels clock format** via registry key `windowmanager.wm%.variables.clock_time`.
- **Post-session command binaries** and **return codes** are **now customizable** via registry. Allows post-session commands if a binary doesn't return 0.
  Name of the binary:
  More...

Parameter	Binary
Registry	`pcom.valid_return_codes<NR>.binary`
Value	binary name

Comma seperated return codes (e.g. **7,99**) or/and **return code ranges** (e.g. **3..5** for 3,4,5) to be accepted:
More...

Parameter	Return Codes
Registry	`pcom.valid_return_codes<NR>.returncodes`
Value	e.g. 3,5,10..15 for 3,5,10,11,12,13,14,15

- Fixed problems with **hostnames containing** one or more **"_" characters**.
- Added: Show **AMD Memory Guard in Boot Mode**, when enabled.

Storage Devices

- Fixed **display of hotplug eject menu** in appliance mode.

Remote Management

- Fixed **ICG HA functionality broken** in **11.04.100**.
- Fixed **automatic establishment of the configured ICG connection** if the UMS Server is unreachable.

Notes for Release 11.04.100

Software:	Version	11.04.100
Release Date:	2020-08-05	
Release Notes:	Version	RN-1104100-1
Last update:	2020-08-05	

- IGEL OS 11
- IGEL OS Creator (OSC)

IGEL OS 11

Supported Devices 11.04.100

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.04.100

Clients

Product	Version
Chromium	83.0.4103.61-0ubuntu0.18.04.1
Cisco JVDI Client	12.9.0
Cisco Webex Teams VDI Client	3.0.15711.0
Cisco Webex Meetings VDI Client	40.7.0.375
Citrix HDX Realtime Media Engine	2.9.0-2330
Citrix Workspace App	18.10.0.11
Citrix Workspace App	19.12.0.19
Citrix Workspace App	20.06.0.15
deviceTRUST Citrix Channel	19.1.200.2
Crossmatch DP Citrix Channel	0515.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	14.0.0.45623
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech USB for Remote Desktop	5.2.29
Firefox	68.10.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
IGEL WVD Client	1.0.13igel1596142398
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64 Qualification at Imprivata in progress
deviceTRUST RDP Channel	19.1.200.2
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.11.2-1igel8

Open VPN	2.4.4-2ubuntu1.3
Zulu JRE	8.48.0.51-2
Parallels Client (64 bit)	17.1.1
Spice GTK (Red Hat Virtualization)	0.38-2igel93
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.8.0-1+b1igel71
Teradici PCoIP Software Client	20.04.2-18.04
ThinLinc Client	4.12.0-6517
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.5-1igel1583919770
VNC Viewer	1.10.1+dfsg-4igel13
VMware Horizon Client	5.4.1-15988340
Voip Client Ekiga	4.0.1

Dictation

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20200323
Philips Speech driver	12.9.1

Signature

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.9
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.0.101

PKCS#11 Library Athena IDProtect	7
PKCS#11 Library cryptovision sc/interface	7.3.1
PKCS#11 Library Gemalto SafeNet	10.7.77
PKCS#11 Library OpenSC	0.20.0-3igel37
PKCS#11 Library SecMaker NetID	6.8.1.31
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel2
Reader Driver Gemalto eToken	10.7.77
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.31-1igel11
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.26-3igel14
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.3
OpenSSL	1.1.1-1ubuntu2.1~18.04.6
OpenSSH Client	7.6p1-4ubuntu0.3
OpenSSH Server	7.6p1-4ubuntu0.3
Bluetooth stack (bluez)	5.52-1igel6
MESA OpenGL stack	20.0.8-1igel117
VAAPI ABI Version	0.40
VDPAU Library version	1.4-1igel1003
Graphics Driver INTEL	2.99.917+git20200515-igel1013
Graphics Driver ATI/RADEON	19.1.0-1+git20200220igel987
Graphics Driver ATI/AMDGPU	19.1.0-1+git20200318igel986

Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	440.100-0ubuntu0.20.04.1
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel975
Input Driver Elographics	1.4.1-1+b6igel952
Input Driver eGalax	2.5.7413
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel957
Input Driver Wacom	0.36.1-0ubuntu2igel888
Input Driver ELO Multitouch	3.0.0
Input Driver ELO Singletouch	5.1.0
Kernel	5.4.48 #mainline-lxos-g1595410170
Xorg X11 Server	1.20.8-2igel1016
Xorg Xephyr	1.20.8-2igel1016
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.425
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel13
XFCE4 Window Manager	4.14.2-1~18.04igel1595331607
ISC DHCP Client	4.3.5-3ubuntu7.1
NetworkManager	1.20.4-2ubuntu2.2igel100
ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 1.x	1.16.2-4igel239
WebKit2Gtk	2.28.3-2igel36
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.10-dfsg-1igel41
Virtualbox X11 Guest Utils	6.1.10-dfsg-1igel41
Open VM Tools	11.0.5-4ubuntu0.18.04.13
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.20.0-1igel95
Qemu Guest Agent	5.0-5igel12

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.17-3igel5
Mobile Device Access USB (imobile)	1.2.1~git20191129.9f79242-1+b1igel8
Mobile Device Access USB (gphoto)	2.5.25-2igel4
VPN OpenConnect	8.10-1igel4
Scanner support	1.0.27-1
VirtualBox	6.1.10-dfsg-1igel41

Services

Service	Size	Reduced Firmware
Asian Language Support	22.5 M	Included
Java SE Runtime Environment	36.0 M	Included
Citrix Workspace app Citrix Appliance Citrix StoreFront	219.5 M	Included
Ericom PowerTerm InterConnect	15.5 M	Included
Media Player	512.0 K	Included
Citrix Appliance Local Browser (Firefox)	70.2 M	Included
RDP VMware Horizon	4.2 M	Included

Cendio ThinLinc	10.0 M	Included
Printing (Internet printing protocol CUPS)	22.2 M	Included
NoMachine NX	26.8 M	Included
VMware Horizon	114.5 M	Included
Voice over IP (Ekiga)	6.5 M	Included
Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	27.0 M	Not included
Fluendo GStreamer Codec Plugins	6.8 M	Included
IBM i Access Client Solutions	72.5 M	Not included
Red Hat Enterprise Virtualization	3.0 M	Included
Parallels Client	5.5 M	Included
NVIDIA graphics driver	115.0 M	Not included
Imprivata Appliance	10.8 M	Included
Evidian AuthMgr	2.8 M	Included
Hardware Video Acceleration	13.0 M	Included
Extra Font Package	1.0 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	48.0 M	Included
Cisco JVDI client	45.8 M	Included
PrinterLogic	40.8 M	Not included
Biosec BS Login	10.0 M	Not included
Login VSI Login Enterprise	28.8 M	Not included
Stratusphere UX CID Key software	2.8 M	Not included
Elastic Filebeat	15.8 M	Not included
WVD	13.8 M	Included
Local Browser (Chromium)	81.2 M	Not included
deskMate client	5.8 M	Included
Cisco Webex Teams VDI	32.0 M	Not included
Cisco Webex Meetings VDI	36.8 M	Not included

Zoom Media Plugin	39.8 M	Not included
Teradici PCoIP Client	7.8 M	Included
90meter Smart Card Support	256.0 K	Included
Mobile Device Access USB (Limited support)	256.0 K	Not included
VPN OpenConnect (Limited support)	1.5 M	Not included
Scanner support / SANE (Limited support)	2.5 M	Not included
VirtualBox (Limited support)	62.5 M	Not included

General Information 11.04.100

ⓘ To be beneficial to all new features and implementations, it is recommended to use UMS 6.05.100 or higher and update the corresponding profiles.

🔴 Firmware downgrade to older versions (11.01 or 11.02) is not possible, due to the unsigned firmware update files.

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Known Issues 11.04.100

Firmware Update

- On **devices with 2 GB of flash storag**e, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs and unused features must be disabled in IGEL Setup under **System > Firmware Customization > Features** to perform the firmware update. For instructions on how to prevent issues with updating, see Adapting IGEL OS 11.04 or Higher for Devices with Small Storage.

Firefox

- **Firefox IGEL extensions are not updated automatically** under some circumstances. After an update from 11.03.xxx to 11.04.100, the IGEL extensions will stay on the old version.
  In this case, the following settings concerning **kiosk mode** cannot be executed:
    - Switch off hotkey for new window/tab
    - Blocking of internal browser pages like preferences, file picker, specific local directories

  As a workaround:

- a **reset to defaults** should be performed
- or the **browser's mimetype template** can be switched **from "Standard" to "Minimal"** by registry key `browserglobal.app.mimetypes_template` . There, the browser profile is renewed as well.
  After the TC received the new setting, **reboot** and **set** the `mimetypes_template` registry key to **"Standard"** again.

Citrix

- With activated **DRI3** and an **AMD GPU Citrix H.264 acceleration plugin** could freeze. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H.264, MPEG1 and MPEG2**. GStreamer1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with activated **DRI3** and **hardware accelerated H.264 deep compression codec**.
- **Citrix StoreFront login** with **Gemalto smartcard** middleware does not detect smartcard correctly if the card is inserted after start of login.
  Workaround: Insert the smartcard before starting the StoreFront login.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264** acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`

Value	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

- Using **CWA 19.x** sometimes **freezes the session** while session logoff from a published desktop. Workaround: **Use CWA 18.10.0**.
- During the running **Microsoft Teams Optimization of Citrix Workspace App 20.06**, **webcam redirection** or **screen sharing** may lead to **display error**s like black stripes or flickering.
- The **performance** of Citrix sessions when using **Workspace App 20.06** may be lower on some devices.
  A possible **workaround** is to **disable** the **virtual channels for Microsoft Teams** and **NSAP** or to set the **HDX transport protocol** to **TCP** only.
  - `ica.module.virtualdriver.vdwebrtc.enable`
  - `ica.module.virtualdriver.nsap.enable`
  - The protocol can be set via the Setup parameter **Sessions > Citrix > Citrix Global > Options > HDX Adaptive Transport over EDT** or via the **server policy** 'HDX Adaptive Transport'.

VMware Horizon

- **Client drive mapping** and **USB redirection** for storage devices should not be enabled both at the same time.
  - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Enable local `Storage Hotplug` on Setup page **Devices > Storage Devices > Storage Hotplug**.
- **External drives** mounted already before connection do not appear in the **remote desktop**. Workaround: map the directory /media as a drive. Then the external devices will show up inside the media drive.
- **After the disconnect of an RDP-based session**, the Horizon main **window** which contains the server or sessions overview **cannot be resized anymore**.
- **Seamless application windows in Horizon Client may not be displayed correctly**. When starting the first seamless app, a new iconified window appears in the taskbar, and only if you click on it, the application will show up.
  On some hardware (UD7-H850, UD2-M250, UD2-D220), however, the client aborts when this new window is de-iconified.

Imprivata

- On **devices with 2 GB of flash storage**, it could happen that there is not enough space to enable the **Imprivata partition after the update to 11.04.100**. In this case, a corresponding error message occurs and **unused features must be disabled** (in IGEL Setup under **System > Firmware Customization > Features**). Imprivata has to be (re-)enabled after a reboot then.

Wi-Fi

- TP-Link Archer T2UH Wi-Fi adapters does not work after system suspend/resume. Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.

Smartcard

- **Citrix Certificate Identity Declaration login** does not work with **SecMaker** smartcards.
- In seldom cases, the **authentication** hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: **spice-xpi firefox plugin** is no longer supported. The **Console Invocation** has to allow 'Native' client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU driver**.

Hyper-V

- **Hyper-V** (Generation 2) needs **a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.

VirtualBox

- The current **VirtualBox Guest Tools/Drivers** will not work with **VirtualBox 5.2.x or older** hosts which leads to a black screen and non-working graphics.
  Possible workaround: Install with 'Failsafe Installation + Recovery' and set the registry key `x.drivers.force_vesa` to 'true'.
- When running in VirtualBox virtualization, **resizing the window will not automatically change desktop resolution** of IGEL OS guest.

Audio

- **Audio jack detection on Advantech POC-W243L** doesn't work. Therefore, sound output goes through a possibly connected headset and the internal speakers.
- **IGEL UD2 (D220)** fails to restore the volume level of the speaker when the device used **firmware version 11.01.110** before.

Hardware

- **HP t730** could freeze when monitors with **different resolutions** are connected (1920x1200 + 2560x1440 + 3840x1600 for example). When this occurs, the registry key `x.drivers.kms.best_console_mode` has to be set to **disabled**.
- Some newer **Delock 62599 active DisplayPort-to-DVI (4k)** adapters only work with INTEL devices.

Remote Management

- **AIT feature with IGEL Starter License** is **supported** by the **UMS version 6.05.100**.

Base system

- **Update from memory stick** requires network online state (when multiple update stages are involved).

deskMate

- Integrated deskMate solution. Some stability issues may remain.

Security Fixes 11.04.100

Firefox

- Updated Mozilla **Firefox** to **68.10.0esr**:
    - Fixes for **mfsa2020-11**, also known as CVE-2020-6819 and CVE-2020-6820
    - Fixes for **mfsa2020-13**, also known as:
      More...

      CVE-2020-6828, CVE-2020-6827, CVE-2020-6821,
      CVE-2020-6822, and CVE-2020-6825

    - Fixes for **mfsa2020-17** also known as:
      More...

      CVE-2020-12387, CVE-2020-12388, CVE-2020-12389,
      CVE-2020-6831, CVE-2020-12392,
      CVE-2020-12393, and CVE-2020-1239

    - Fixes for **mfsa2020-21** also known as:
      More...

      CVE-2020-12399, CVE-2020-12405,
      CVE-2020-12406, and CVE-2020-12410

    - Fixes for **mfsa2020-25** also known as:
      More...

      CVE-2020-12417, CVE-2020-12418, CVE-2020-12419,
      CVE-2020-12420, and CVE-2020-12421

- Changed option to **deny local file browsing** via file:// URI per default now.
  More...

IGEL Setup	**Firefox Browser > Firefox Browser Global > Window**
Parameter	Hide local filesystem
Registry	`browserglobal.app.filepicker_dialog_hidden`
Value	enabled / disabled

Base system

- **SSH protocol version 1 is now disabled.** All remote connections via SSH must use SSHv2.

Driver

- Updated **Nvidia driver** to version **440.100**.

New Features 11.04.100

Citrix

- Integrated **Citrix Workspace App 20.06**.
  Available Citrix Workspace Apps in this release: **20.06** (default), **19.12**, and **18.10**
- Added a registry key to enable optimization for **Microsoft Teams**.
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Unified Communications > VDI Solutions**
Parameter	Microsoft Teams optimization
Registry	`ica.module.virtualdriver.vdwebrtc.enable`
Value	<u>on</u> / off

- Added a registry key to enable support for **NetScaler App Experience (NSAP)** virtual channel.
  More...

Parameter	HDX uses the NSAP virtual channel
Registry	`ica.module.virtualdriver.nsap.enable`
Value	<u>on</u> / off

- Integrated **Citrix HDX/RTME 2.9**.
- Integrated **ZOOM Media Plugin for Citrix** to optimize performance for ZOOM video calls and conferences.
- IGEL x64: 5.0.415463.0619 requires Windows x86 or x64: 5.0.24002.0619. https://support.zoom.us/hc/en-us/articles/360031096531-Getting-Started-with-VDI
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Unified Communications > VDI Solutions**
Parameter	Zoom Media Plugin
Registry	`ica.module.virtualdriver.vdzoom.enable`
Value	enabled / <u>disabled</u>

- Updated **signotec Virtual Channel** to version **8.0.9**.
  The corresponding changes are:
  - Logging has been improved.
  - A problem with the communication with the signature pads was fixed.
  - USB communication via bulk transfer is model-independent (improved speed).
- Removed parameter **Content redirection** / `ica.wfclient.crenabled` from TC Setup (**Sessions > Citrix > Citrix Global > HDX Multimedia**).

OSC Installer

- Added **dialog "Feature Selection" in IGEL OS Creator** for the selection of features to be installed on the target device. It interactively shows if the current selection of features fits onto the device. The selection of features is saved on the OSC installer medium (when allowed) and set as the default selection for the next installation. If **"Migrate Old Settings"** is selected, the set of features of the old installation is set as the default selection.
- **Reduced memory requirements** of OSC installer for **machines without Nvidia graphic card**.

WVD

- Added **AAC Codec support** to Audio Output redirection.
  More...

Registry	`sessions.wvd%.options.enable-aac`
Value	<u>enabled</u> / disabled

RDP/IGEL RDP Client 2

- Added the **possibility to add a black background** to the RDP auto-reconnect window.
  More...

Registry	`sessions.rdp.options.reconnect-black-fullscreen`
Type	bool
Value	enabled / <u>disabled</u>

- Added configuration option for the **amount of RDP auto-reconnect retries**. The default value will remain "20". A value of "0" means infinite retries.
  More...

Registry	`sessions.rdp.winconnect%.options.reconnect-max-retries`
Type	Integer
Value	<u>20</u>

VMware Horizon

- Updated **VMware Horizon** to version **5.4.1**.
  For usage with **Blast protocol**, it is recommended to enable **DRI3 graphics mode**:
  More...

Parameter	Use DRI3
Registry	`x.driver.use_dri3`
Value	enabled / <u>disabled</u>

- Fixed **handling of RDP's fullscreen mode span**, which means to combine all local monitors for one big remote session.

PowerTerm

- Updated **Ericom PowerTerm** LTC to version **14.0.0.45623**.

Parallels Client

- Updated **Parallels Client** to version **17.1.1**.

Teradici PCoIP Client

- Updated **Teradici PCoIP** Client to version **20.04.2-18.04**. The new version supports **hardware-accelerated H.264 decoding with Ultra PCoIP**.
- New parameters:
  More...

Parameter	Log level
Registry	`pcoip.log-level`
Value	0 / 1 / <u>2</u> / 3 / 4

  PCoIP sessions **can now use the global setting**.
  More...

Parameter	Show codec indicator
Registry	`pcoip.codec_indicator`
Value	<u>disabled</u> / enabled
Info	Show a small dot in the bottom left corner during the session to indicate which codec is being used. Green indicates simple codec; blue indicates tic2 codec. This setting is only available globally.

XEN

- Added support to run as **XEN guest system**.

NX client

- Updated **NoMachine NX Client** to version **6.11.2**.

ThinLinc

- Updated **ThinLinc** to version **4.12**.

Network

- **DHCP** changes:
  The system now sends a **vendor-class-identifier(option 60) "igel-dhcp-1"**. Furthermore, it requests **vendor-encapsulated-options (43)**. Those can be used to transfer IGEL-specific options **igelrmserver(224) and umsstructuretag(226)** in the vendor namespace (with the same option numbers and types) instead of in the global namespace.
  The former way is also still functional, but values transferred in the new way override those which were transferred the old way.
  Apart from 224 and 226 one more option is defined in the vendor space: **"exclusive", option 1,**

type byte. Its presence means that global options 224 and 226 shall not be interpreted in the traditional way and only settings in the vendor space apply.
IPv6 is not involved.

- Added support for **LTE module HP lt4132**.
- Updated **Network Manager** to version **1.20.4**.
    - The range of **network.interfaces.wirelesslan.device0.bgscan.module** now **includes "default" for** using **original upstream Network Manager settings**.
- Added some **additional Ethernet network drivers**.
    More...

    - amd-xgbe : AMD 10 Gigabit Ethernet driver
    - ec_bhf : Beckhoff EtherCAT
    - liquidio_vf : Cavium LiquidIO Intelligent Server Adapter Virtual Function driver
    - liquidio : Cavium LiquidIO Intelligent Server Adapter driver
    - thunder_bgx : Cavium Thunder BGX/MAC driver
    - nicvf : Cavium Thunder NIC Virtual Function driver
    - nicpf : Cavium Thunder NIC Physical Function driver
    - thunder_xcv : Cavium Thunder RGX/XCV driver
    - atlantic : aQuantia Corporation(R) network driver
    - be2net : Emulex OneConnect NIC driver 12.0.0.0
    - ixgb : Intel(R) PRO/10GbE network driver
    - igc : Intel(R) 2.5G Ethernet Linux driver
    - ice : Intel(R) Ethernet Connection E800 Series Linux driver
    - i40e : Intel(R) Ethernet Connection XL710 network driver
    - iavf : Intel(R) Ethernet Adaptive Virtual Function network driver
    - ixgbe : Intel(R) 10 Gigabit PCI Express network driver
    - igbvf : Intel(R) Gigabit Virtual Function network driver
    - ixgbevf : Intel(R) 10 Gigabit Virtual Function network driver
    - ena : Elastic Network Adapter (ENA)
    - nfp : The Netronome Flow Processor (NFP) driver
    - bna : QLogic BR-series 10G PCIe Ethernet driver
    - enic : Cisco VIC Ethernet NIC driver
    - mlx5_core : Mellanox 5th generation network adapters (ConnectX series) core driver
    - mlx4_en : Mellanox ConnectX HCA Ethernet driver
    - ionic : Pensando Ethernet NIC driver
    - sfc-falcon : Solarflare Falcon network driver
    - sfc : Solarflare network driver
    - dwc-xlgmac : Synopsys DWC XLGMAC driver
    - hinic : Huawei Intelligent NIC driver
    - cassini : Sun Cassini Ethernet driver
    - niu : NIU Ethernet driver
    - samsung-sxgbe : SAMSUNG 10G/2.5G/1G Ethernet PLATFORM driver
    - cxgb : Chelsio 10Gb Ethernet driver
    - qede : QLogic FastLinQ 4xxxx Ethernet driver
    - qlcnic : QLogic 1/10 GbE Converged/Intelligent Ethernet driver
    - qed : QLogic FastLinQ 4xxxx Core module
    - netxen_nic : QLogic/NetXen (1/10) GbE Intelligent Ethernet driver

- vxge : Neterion's X3100 Series 10GbE PCIe I/OVirtualized Server adapter
- myri10ge : Myricom 10G driver (10GbE)
- tehuti : Tehuti Networks(R) network driver
- bnxt_en : Broadcom BCM573xx network driver
- bnx2x : QLogic BCM57710/57711/57711E/57712/57712_MF/57800/57800_MF/ 57810/57810_MF/57840/57840_MF driver

- Added a registry key for specifying a **space-separated list of DNS resolver options**. See "**man resolv.conf**".
  More...

Parameter	Option list
Registry	`network.dns.options`
Type	string
Value	<u>empty</u>

Wi-Fi

- Added support for **WPA3 Personal network authentication**.
- Added a registry key for **preferring WPA3 Personal** (i.e. SAE) or **WPA2 Personal** at the time a connection is created with Wireless Manager when the access point offers both:
  More...

Parameter	Prefer WPA3 Personal to WPA2 Personal
Registry	`network.applet.wireless.prefer_sae`
Range	[<u>default</u>] [yes] [no]
Info	"default" currently means "no"

- Added **captive portal support for Wi-Fi**. Passing through a captive portal (which is basically a web application) is sometimes **necessary to achieve full network connectivity** (here also referred to as online state).
  - The **feature is disabled when** the following **registry key** is **empty**. Otherwise, it should be a **URI** that is **suitable for NetworkManager connectivity check**.
    More...

Parameter	Online check URI
Registry	`network.global.onlinecheck.uri`
Range	[] [http://connectivity-check.ubuntu.com/]
Value	<u>http://connectivity-check.ubuntu.com/</u>

  - The following key specifies the **conditions of the online check**. It is also required that **no Ethernet cable is plugged in** and **DHCP is not set** in the UMS.
    More...

Parameter	Condition for online check

Registry	`network.global.onlinecheck.condition`
Range	[None] [Network is user-defined] [Network is open]

- This key determines **how many seconds to wait for full network connectivity** before the network connection is considered complete with incomplete connectivity. The timeout should allow a user to do what is necessary for passing through the captive portal.
  More...

Parameter	Online check timeout
Registry	`network.global.onlinecheck.timeout`
Type	integer
Value	120

- Enabled **use of 802.11r**, also known as **fast BSS transition** or FT. This is confirmed to work at least in the **mode "over the air"**.

Smartcard

- Updated **OpenSC** to version **0.20.0**. See https://github.com/OpenSC/OpenSC/releases/tag/0.20.0 for detailed release notes.

Cisco JVDI Client

- Updated **Cisco JVDI** client to version **12.9.0**.

Cisco Webex VDI

- Integrated the new feature **Cisco Webex Teams VDI for Citrix** and **Horizon** sessions.
  Cisco Webex Teams version: **3.0.15711.0**
- Added a parameter to activate the feature within **Citrix**:
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Unified Communications > Cisco**
Parameter	Cisco Webex Teams VDI
Registry	`ica.module.virtualdriver.vdciscoteams.enable`
Value	enabled / disabled

- Added a parameter to activate the feature within **VMware**:
  More...

IGEL Setup	**Sessions > Horizon > Horizon Client Global > Unified Communications > Cisco**
Parameter	Cisco Webex Teams VDI - Horizon
Registry	`vmware.view.vdciscoteams.enable`
Value	enabled / disabled

- Integrated the new feature **Cisco Webex Meetings VDI for Citrix** sessions.
  Client Version: **40.7.0.375**
- Added a parameter to activate the feature within **Citrix**:
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Unified Communications > Cisco**
Parameter	Cisco Webex Meetings VDI
Registry	`ica.module.virtualdriver.vdciscomeetings.enable`
Value	enabled / <u>disabled</u>

Base system

- Updated base system to **Ubuntu LTS** version **18.04**.
- Updated **kernel** to version **5.4.48**.
- Added **notification for critical system out-of-memory state** when the available **system memory is lower than 40 MB** and **processes were killed** to prevent the system from freezing.
- Display **AMD Memory Guard in Boot Mode** when it's active.
- Added **notification option for Session Autostart** when a autostart delay is configured. It is possible to cancel the session autostart or to start immediately.
  More...

IGEL Setup	*** > Desktop integration**
Parameter	Autostart notification
Value	enabled / <u>disabled</u>

- Added correct **UI handling** for **Wacom DTU-1141B**.
- Updated **CA Certificates** to version **20190122** (Mozilla authority bundle version **2.30**). The following authorities were added:
  More...

  - "Certigna Root CA"
  - "GTS Root R1"
  - "GTS Root R2"
  - "GTS Root R3"
  - "GTS Root R4"
  - "UCA Extended Validation Root"
  - "UCA Global G2 Root"
  - "GlobalSign Root CA - R6"
  - "OISTE WISeKey Global Root GC CA"
  - "GDCA TrustAUTH R5 ROOT"
  - "SSL.com EV Root Certification Authority ECC"
  - "SSL.com EV Root Certification Authority RSA R2"
  - "SSL.com Root Certification Authority ECC"
  - "SSL.com Root Certification Authority RSA"
  - "TrustCor ECA-1"

- "TrustCor RootCert CA-1"
- "TrustCor RootCert CA-2"
- The following authorities were removed:
  More...

  - "Certplus Root CA G1"
  - "Certplus Root CA G2"
  - "OpenTrust Root CA G1"
  - "OpenTrust Root CA G2"
  - "OpenTrust Root CA G3"
  - "TÜRKTRUST Elektronik Sertifika Hizmet Saglayicisi H5"
  - "Visa eCommerce Root"
  - "ACEDICOM Root"
  - "AddTrust Low-Value Services Root"
  - "AddTrust Public Services Root"
  - "AddTrust Qualified Certificates Root"
  - "CA Disig Root R1"
  - "CNNIC ROOT"
  - "Camerfirma Chambers of Commerce Root"
  - "Camerfirma Global Chambersign Root"
  - "Certinomis - Autorit, Racine"
  - "Certum Root CA"
  - "China Internet Network Information Center EV Certificates Root"
  - "Comodo Secure Services root"
  - "Comodo Trusted Services root"
  - "DST ACES CA X6"
  - "GeoTrust Global CA 2"
  - "PSCProcert"
  - "Security Communication EV RootCA1"
  - "Swisscom Root CA 1"
  - "Swisscom Root CA 2"
  - "Swisscom Root EV CA 2"
  - "TURKTRUST Certificate Services Provider Root 2007"
  - "TUBITAK UEKAE Kok Sertifika Hizmet Saglayicisi - Surum 3"
  - "UTN USERFirst Hardware Root CA"
- Added parameter to override **rate limit of debug messages** in journal. It should be enabled for debugging processes which generate a big amount of messages in order to avoid skipping of messages.
  More...

Parameter	No rate limit
Registry	`system.journald.no_rate_limit`
Value	enabled / disabled

- It's possible to **extend the login options of the Kerberos** login window now.
  There are several new registry keys:

More...

Parameter	extended login
Registry	`sessions.xlock0.options.login_extension_active`
Value	enabled / <u>disabled</u>

If enabled, an "**Associate Type" combo box is shown**. The **entries of the combo box** are **configured with** the following **login_feature1**, **login_feature2**, and **login_feature3 keys**.

- Configure the **label of the "Associate Type" combo box**:
  More...

Parameter	login features label
Registry	`sessions.xlock0.options.login_features_label`
Value	Default: empty which means "Associate Type"

- **The first entry of the "Associate Type" combo box**. To enable the combo box entry, add e.g. the text "Store associate at home store".
  More...

Parameter	login_feature1
Registry	`sessions.xlock0.options.login_feature1`

If the entry is selected, the **username is expanded by a fixed string** defined in `login_extension_default` registry key.

- The **fixed username extension** for the first feature. It can be set e.g. by a script.
  More...

Parameter	login extension default value
Registry	`sessions.xlock0.options.login_extension_default`

- **The second entry of the "Associate Type" combo box.** To enable the combo box entry, add e.g. the text "Store associate visiting this store".
  More...

Parameter	login_feature2
Registry	`sessions.xlock0.options.login_feature2`

If the entry is selected, the **username is expanded by a suffix** that is **entered in a separate entry widget**.

- The **label of the entry field for the username suffix.** Set it e.g. to "Store Number".
  More...

Parameter	login_extension_label

Registry	`sessions.xlock0.options.login_extension_label`
Value	Default: empty which means "no label"

- **The third entry of the "Associate Type" combo box**. To enable the combo box entry, add e.g. the text "Homeoffice associate visiting this store".
  More...

Parameter	login_feature3
Registry	`sessions.xlock0.options.login_feature3`

If the entry is selected, **another domain** can be **selected from an appended domain combo box**.

- The **label for the domain entry field**.
  More...

Parameter	login domain label
Registry	`sessions.xlock0.options.login_domain_label`
Value	Default: empty which means "domain"

- The **extension to the username** is **added after a dot** ('.').
- For the **domain drop-down box**, **four different domains are configurable** here:
  More...

IGEL Setup	**Security > Active Directory/Kerberos > Domain 1 - 4**
Parameter	Fully qualified domain name
Registry	`auth.krb5.realms.realm0.realm`
Registry	`auth.krb5.realms.realm1.realm`
Registry	`auth.krb5.realms.realm2.realm`
Registry	`auth.krb5.realms.realm3.realm`

- There are keys to **add more domain names**:
  More...

Parameter	Domain
Registry	`auth.krb5.extended_domain%.name`
Info	Add a new instance for each domain entry.

- In the Kerberos login window, it's now possible to turn on or off **numlock** and/or **capslock for password input**.
  Registry keys:
  More...

Parameter	Handling of numlock
Registry	`sessions.xlock0.options.numlock_approach`
Range	[don't change] [set on] [set off]
Info	"set on": force numlock on when password is entered "set off": force numlock off when password is entered
Parameter	Handling of capslock
Registry	`sessions.xlock0.options.capslock_approach`
Range	[don't change] [set on] [set off]
Info	"set on": force capslock on when password is entered "set off": force capslock off when password is entered

- It's now possible to **show a message in the Kerberos login window**. Registry key:
  More...

Parameter	banner text
Registry	`sessions.xlock0.options.banner_text`
Info	The user will see the message on the top border.

- In the Kerberos login window, there is a **mode to convert passwords always to upper case**. To turn it on, use:
  More...

Parameter	case-insensitive password
Registry	`sessions.xlock0.options.case_insensitive_password`
Value	enabled / disabled

- With this key, the text for the **case-insensitive indicator** can be modified:
  More...

Parameter	case-insensitive text
Registry	`sessions.xlock0.options.case_insensitive_text`
Value	Default: empty which means "case-insensitive"

- Fixed **ThinkPad Brazil keyboard layout**.
- It is possible to **show a custom logo** in the Kerberos login window. Also, the **background and text color is customizable** now.
  Registry keys:
  More...

Parameter	path for login image
Registry	`sessions.xlock0.options.login_image`
Value	/usr/share/pixmaps/greeter-user.svg
Info	Supported image formats include: PNG, JPG, SVG
Parameter	set specific colors for greeter
Registry	`sessions.xlock0.options.set_color`
Value	enabled / disabled
Parameter	text color
Registry	`sessions.xlock0.options.text_color`
Value	#ffffff
Info	Text color in the format #rrggbb Example: #ff0077
Parameter	background color
Registry	`sessions.xlock0.options.background_color`
Value	#000000
Info	Background color in the format #rrggbb Example: #7700ff

- Added **new local logon method "Login with Smart Card Certificate"**. It implements the **pam_pkcs11 smartccard authentication module**. For a successful configuration, the following has to be provided via **UMS file transfer**:
    - **root and intermediate CA certificates** for verification of the client certificates in folder `/etc/pam_pkcs11/cacerts`
    - file `/etc/pam_pkcs11/cn_map` which contains **mappings of Common Names to UPN names**.
    Each line is in the format `\<common name> -> \<logon name>` where
      `\<common name>` is the common name part of the subject of the certificate
      `\<logon name>` is
    - in case of **Kerberos Enterprise** (`auth.login.krb5_enterprise`) **disabled**: the UPN name of the SubjectAltName extension of the certificate, e.g. user@MY.DOMAIN
    - in case of **Kerberos Enterprise** (`auth.login.krb5_enterprise`) **enabled**: the UPN name of the SubjectAltName extension of the certificate with Default Domain (`auth.krb5.libdefaults.default_realm`) suffix, e.g. user@DOMAIN.SUFFIX@DEFAULT.DOMAIN[9]

---

9 mailto:DOMAIN.SUFFIX@DEFAULT.DOMAIN

- The logon method **can** either **be used standalone or together with Kerberos logon** as a fallback if Kerberos does not succeed.
More...

Parameter	Login with Smart Card Certificate
Registry	`auth.login.pkcs11`
Value	<u>false</u> / true
Parameter	Certificate verification policy
Registry	`auth.login.pkcs11_cert_policy`
Value	<u>ca,ocsp_on,signature</u>
Parameter	Enable Debugging of Smart Card Certificate Logon
Registry	`auth.login.pkcs11_debug`
Value	<u>false</u> / true

- It is possible to expand the store number by a registry key:
More...

Parameter	expand store
Registry	`sessions.xlock0.options.expand_store`
Value	enabled / <u>disabled</u>

- Fixed: The **login screen** is **adjusted to lower resolutions**.
- It is possible to activate enter key to login on all fields.
More...

Parameter	auto login on all fields
Registry	`sessions.xlock0.options.auto_login`
Value	enabled / <u>disabled</u>

X11 system

- Changed: Use **modesetting graphics driver** on **devices with newer intel GPUs**.
- Changed registry key:
More...

Parameter	Use generic modesetting driver for INTEL hardware
Registry	`x.drivers.intel.use_modesetting`
Range	[<u>Auto</u>] [True] [False]

- Updated **DisplayLink driver** to version **5.3.1.34**.
- Added new registry key for **Nvidia cards** (use this **if you want to use PRIME**):

More...

Parameter	Enable/Disable NVIDIA Kernel Modesetting support
Registry	`x.drivers.nvidia.use_modeset`
Range	[Default] [Enabled] [Disabled]
Info	"Default" is currently the same as "disabled"

- Updated **florence soft keyboard** to version **0.6.3**.
- **Removed 640x480** from possible **display resolution range**.
- Added possibility to **change the order of primary** and **secondary graphic card**.
  New registry key:
  More...

Parameter	Make the secondary graphic card to the primary one
Registry	`x.drivers.swap_card0_with_card1`
Value	true / false

- Added possibility to **invert the order of all graphic card**s.
  New registry key:
  More...

Parameter	Invert default graphic card ordering
Registry	`x.drivers.swap_all`
Value	true / false

- Added possibility to **choose the driver** which should become **the primary graphic card**.
  New registry key:
  More...

Parameter	Choose which drivers should be preferred to become the primary graphic card
Registry	`x.drivers.preferred_driver`
Value	

X server

- Added possibility to influence **mode used for mirroring screens with different resolutions**.
  (Notice: here scaling may not always work).
  New registry key:
  More...

Parameter	Choose the mode which should be used for mirroring monitors if resolution differs
Registry	`x.xserver0.mirror_mode`

Range	[Default] [Biggest common resolution] [Scaling]
Value	Default (use panning if needed)

Driver

- Updated **Grundig Dictation driver for Citrix** and **RDP** to version **0.10**.
  The changes are:
  - Support **third-party USB HID devices** in a more flexible way
  - Fixed USB transfer overflow for **Philips LFH 9620**
  - Remove **erroneous debug output** in release configuration
  - Allow to **control** also **"Headphone" volume & switches**
- Updated **Olympus driver for dictation** to version **2020-03-23-143654**.
  Changelog:

  New:

  - DR-1200: PID 0225
  - DR-2300: PID 0256

  Changed:

  - PID 0253 from DR-2100 to DR-1200
- Updated **Philips Speech driver** to version **G12.9**.
  The changes are:
  - Support for **Philips SpeechLive**
  - Faster and more reliable remote session connection status check
  - **Shutdown of** the **PSPDispatcher.exe** on the server if it's not in use anymore.
- Updated **StepOver TCP client** and **Citrix plugin** to version **2.4.2**. Fixed **crash of Citrix** session while **using** the **signature pad**.

Audio

- Integrated **new sound mixer**.
- New combo box for **audio device selection in TC Setup** available:
  - **Accessories > Sound Preferences > Options > Default Sound Output**
  - **Accessories > Sound Preferences > Options > Default Sound Input**

Appliance Mode

- Integrated: The **new Browser Appliance mode** is the successor for the XenDesktop appliance mode. The Browser is configured as in XenDesktop appliance mode, but **does not use the upstream SAS window**.
  More...

IGEL Setup	**Sessions > Appliance Mode**
Parameter	Browser
Registry	`xen.xenapp-morph.enabled`
Type	Bool
Value	enabled / disabled

IGEL Setup	**Sessions > Appliance Mode > Browser**
Parameter	Web URL
Registry	`xen.xenapp-morph.xendeliveryserverurl`
Type	string

- A **hyperlink to the "On-screen Keyboard"** is available on the right side **under "Related Configurations"**.

Multimedia

- Added **ffmpeg support** for following codecs:
    - Added support for **new decoders**:
      More...

      flac, gif, libaom_av1, mjpeg, mjpegb,
      mp1,mp1float, mp2, mp3, mp3adu,
      mp3adufloat, mp3float, opus, theora, vorbis,
      vp2, vp8, vp9, and wavepack

    - Added support for **new encoder**: libopus
    - Added support for **new hwaccels**:
      More...

      mjpeg_vaapi, mpeg1_vdpau, mpeg2_vaapi,
      mpeg2_vdpau, vp8_vaapi, and vp9_vaapi

    - Added support for **new parsers**: avi, flac, gif, matroska, mp3, ogg, and wav
    - Added support for **new demuxers**: avi, flac, gif, matroska, ogg, and wav
    - Added support for **new muxers**: ogg and opus

Chromium Browser

- Integrated **Chromium** browser version **83.0.4103.61** as experimental feature.
  Configurable at **IGEL Setup > Sessions > Chromium Browser > Chromium Browser Global** and
  IGEL Setup > Sessions > Chromium Browser > Chromium Browser Sessions
- Main switch to enable and disable **IGEL configuration**:
  More...

IGEL Setup	**Sessions > Chromium Browser > Chromium Browser Global**
Parameter	Use IGEL Setup for configuration
Registry	`chromiumglobal.app.igelsetupconfig`
Value	disabled / <u>enabled</u>
Info	With disabled IGEL configuration, you can use the generic Custom Setup to configure Chromium. The Custom Setup can be found at **IGEL Setup > Sessions > Chromium Browser > Chromium Browser Global >**

	Custom Setup: Policies, Preferences, Commandline Options.

- Parameter for **enabling** and **disabling** the **H.264 decoding**:
More...

IGEL Setup	**Sessions > Chromium Browser > Chromium Browser Global**
Parameter	H.264 decoding
Registry	`chromiumglobal.app.h264_decoding`
Value	enabled / <u>disabled</u>
Info	Enable Audio/Video playback of non-free codecs (H.264+AAC) - the support is in a beta state and therefore disabled by default.

Evidian

- Added the Evidian **built-in option 'Process To Spy'**.
More...

Registry	`evidian.processtospy`
Value	YOUR-PROCESS / <u>disabled</u>

ControlUp

- Integrated **ControlUp Monitoring Tool for Citrix** and **Horizon** sessions.

Hardware

- Added hardware support for **Lenovo M625q**.
- Added hardware support for **LG CL600N**.
- Added hardware support for **HP Engage Go Mobile System**.
- Added hardware support for **Fujitsu FUTRO S740**.
- Added hardware support for **OnLogic CL210G-10**.
- Added hardware support for **OnLogic KARBON 300**.
- Added hardware support for **Rein Medical Clinio S 522TCT** and **S 524TCT**.
- Added hardware support for **HP t640 Thin Client**.
- Added basic support for **Macbook models 2018** and **newer**.
- Added support for **Sennheiser MB 660**, **SC 630**, **SC 45**, **SC 160 headsets**.
- Added support for **Plantronics Savi 8245 Office**, **Voyager 6200 UC**, **Savi 8220 headsets**.
- Added serial port driver for **Exar UART PCIe card**.
- Added driver for **GSPCA based webcams**.

TC Setup (Java)

- Added Setup page **Sessions > Horizon Client > Horizon Client Global > Window**. Settings for "**Window size**" and "**Multimonitor full-screen mode**" can be set.

These settings are repeated and originate in RDP Global but are now presented in a more obvious place for Horizon sessions.

IGEL Cloud Gateway

- Added support for **Secure Terminal over ICG**.
- **Changed default order of connecting to the IGEL Remote Management** - an available UMS Server is preferred now by default. The device establishes a configured ICG connection only if the UMS Server is not reachable. This behavior can be changed by the parameter:
  More...

Registry	`system.remotemanager.icg_try_ums_connect`
Value	<u>true</u> / false

Fabulatech

- Updated **FabulaTech Scanner for Remote Desktop** client to version **2.4.0.11**.
- Updated **FabulaTech plugins** to version **3.6.2**.
- Updated **Fabulatech USB for Remote Desktop plugins** to version **3.6.8**.

Jabra

- **Jabra Xpress** (JDU) is upgraded to the **7.2.0-509** version. List of the newly introduced parameters:
  More...

Registry	`jabra.xpress.show_jdu_gui`
Value	true / <u>false</u>
Registry	`jabra.xpress.device_dashboard.autopost`
Value	<u>true</u> / false

Resolved Issues 11.04.100

Citrix

- "**Green artifacts**" problem in Citrix sessions (most probably) fixed.
- Citrix **hardware video acceleration** supports the **latest Intel hardware**.

OSC Installer

- Fixed issue with **filesystems not** always get detected correctly in **initramfs OSC Installer** (needed for using iso file boot parameter).
- Fixed: **username and password in the error message** are not shown anymore when firmware file could not be downloaded.
- Get **URLs** with **username:password@** working.

RDP/IGEL RDP Client 2

- Fixed error when **renaming a non-empty shared folder**.

WVD

- Includes **WVD client with** fixed **RDcoreSDK** version.
- **Clipboard redirection** has potential privacy and security risks and is therefore **disabled by default**.
- **IGEL WVD Client** integrated

VMware Horizon

- Fixed missing **support for ThinPrint** and **Skype for Business** when starting **Horizon from Firefox browser**.

Firefox

- Fixed Firefox **block extension missing tabs** created via command line argument.
- Fixed **rtsp media stream** with enabled apparmor.
- **Show "blocked" page instead of closing tab** when blocked page is viewed in Firefox.
- Fixed functionality in the local setup to start the **certificate manager of the Firefox browser**.
- Fixed functionality in the local setup to **start the Firefox** browser **with the internal page to show the installed plugins**.
- Fixed **restart mechanism in the Firefox** browser where the browser could not be closed on suspend resulting in a superfluous browser window on resume.

Network

- Improved **Wi-Fi DHCP lease handling**: Leases are discarded when the network changes. The former behavior caused problems with certain iPhone IOS versions.
- **802.1X failures** now generally **result in falling back to a connection without authentication**, e.g. also in the case of 802.1X settings that don't make sense at all. This only **applies if the fallback is allowed** of course.
- **wpa_supplicant** now adds **timestamps to entries of its log file**.
- Use **e1000e driver** out of the kernel **as default** instead of the third-party driver.
- Added a registry key that determines whether **lldpd is in receive-only mode**.

More...

Parameter	Disable sending LLDP packets
Registry	`network.lldp.rxonly`
Value	<u>true</u>
Attention:	If the behavior since 10.06.100 shall be preserved, this key must be set to "false".

- Updated **scep** to version **0.7.0**.

Wi-Fi

- Fixed non-working **Marvell WLAN device 8997** (SDIO version).

NCP VPN

- Added fix for **NCP Secure Client**.

genucard VPN

- **genucard 3 is supported** now.

Imprivata

- **Control the visibility** of the **Horizon session control bar** via registry parameter:
  More...

Registry	`vmware.view.menu-bar`
Value	<u>enabled</u> / disabled

- Honor the Citrix Window Configuration in **Imprivata Appliance Mode**.
- Fixed **Lock key** and **Tap out** behavior.
- Fixed **MS RDSH** session.
- Simplified the configuration of **Imprivata FUS**.
- **Enable the following** if you use **Imprivata** versions **above 6.3**:
  More...

Registry	`imprivata.gain_permission`
Value	enabled / <u>disabled</u>

- Fixed **bug regarding Imprivata** and **On-Screen Keyboard**.
- **Restore the keyboard map** after Horizon sessions.

Smartcard

- Fixed not working **90meter in Firefox** when **apparmor is active**.
- Fixed problem in **smartcard resource manager PC/SC-Lite** which caused **disconnects of VMware Horizon sessions** when using smartcards with certain applications.
- Added **driver for** smartcard reader **Elatec TWN4 CCID** (USB 0x09D8:0x0425).
- Updated **cryptovision scInterface** to version **7.3.1**.
  The changes are:

More...

- Consolidated features of the last versions 7.2 and 7.1
- Malta eID Release
- Added Admin Card Gemalto V3

- Updated **PC/SC-Lite smartcard resource manager** to version **1.8.26**.

HID

- Fixed: **Switching touchpad to other driver** via IGEL registry key.

CUPS Printing

- Added new version **25.1.0.425** of **Printerlogic Printer Installer Client**.
- Added **new printer models** into IGEL OS from the current CUPS drivers.

Base System

- Fixed bug in **folder generation of the Application Launcher**.
- Fixed **TLS certificate verification** problem of **certificates signed by "USERTrust RSA CA"** or **"COMODO RSA CA"**. The problem could occur in clients like Citrix Workspace App and VMWare Horizon client.
- Fixed **password change with AD/Kerberos**. Before this fix, the password complexity rules were not enforced for users with the Reset Password permission for their account.
- You can now **connect to Bluetooth devices without pairing**. For this a new registry key is available.
  More...

Parameter	connect devices without pairing
Registry	`devices.bluetooth.connect_only`
Value	enabled / <u>disabled</u>

- **Some devices do not connect automatically after reboot**. To fix that, `bluetoothctl connect \<device-ID>` can be executed via script. If the **device is connected (0)** or **not (1)** can be seen in return value.
  Known devices that do not connect:
    - dialog semiconductor IoT Multi Sensor DK
- **SSHv1 support is now removed** due to newer openssh libraries.
- **Forcing** protocol **version 1** via **SSH Session > Options** is **no longer possible**.
- The `network.ssh_server.server_key_bits` registry key parameter is **removed** due to **deprecation of SSHv1**.
- Updates **systemd** to **Ubuntu Focal version**.
- Improved **stability of mounting network shares** when using a **static network configuration**.
- Fixed **apparmor cache** issue **after update with OSC installer**.
- Bug fix: **touchscreen calibration** on 1 or more normal screen with 1 touch screen environment.
- Fixed **syslog**, **kern.log**, **auth.log**, and **daemon.log** entries are **not shown in IGEL System Log Viewer**.
- Updated **Grub2** to current Debian SID/Bullseye version **2.04**.
- **Removed** deprecated registry keys `system.idlecommand`.
- New **Bluetooth pairing tool** and **Bluetooth tray icon** for Bionic.

- Updated **kernel** to mainline version **5.4.48**.
- If used as master image, the **image will expand itself to full size** (limited to 16 GiB) on flash. This is done only on first boot and never again.
- Possible **rollout of initial settings, certificates or licenses placed on first partition** for this you need to:
    a. Write image to your USB/Flash medium.
    b. Mount or simply access the **1. VFAT partition** which is present (should be empty).
    c. Copy your **setup.ini** and/or ****.lic files** to the 1st partition (no directories).
    d. Create a `ca-certs` directory and copy your certificates into it. They will be copied to the `/wfs/ca-certs` directory on first boot.
    e. You can now copy the USB/Flash medium several times if needed.
    f. On first boot, the device will reboot out of the splash screen (reread changed partition table)
    g. The settings, certificates and/or licenses will get rolled out and deleted from the 1st partition.
- Added initial support for **Thunderbolt devices** (only limited support here, may work but is not guaranteed).
- Updated IGEL **EULA**.
- Updated **AMD Microcode** to version **3.20191218.1**.
- Updated **Intel Microcode** to version **20200520** and a special update for **J1900 devices**.
- Updated **Intel Microcode** to **20200616** version.
- Added a **userspace oom killer** to the firmware.

Firmware Update

- An **ongoing firmware update can now be canceled by the use**r when the network online status could not be reached after 10 seconds (since start of the firmware update).

H264

- **Citrix hardware video acceleration** supports the latest Intel hardware.

Storage Devices

- Fixed mount issues with **Iphone XR/XE/11PRO**.
- **Mobile Device Access** feature respects USB Access Control now.
- Fixed unwanted **ownership change** of automounted Linux filesystem root directories.

X11 System

- Fixed **Display Switch not saving settings over reboot**.
    - **Default to settings from Setup** instead of mirror when no Display Switch profile is available.
- Prevent misconfiguration that **picks GPU without render capability as primary** (e.g. Displaylink).
- Improved **Nvidia** with **additional GPU handling**.
- Fixed error with s**ingle-gpu Nvidia card support**.

X server

- Fixed a **Xorg crash** due to a **NULL pointer dereference in the Intel drive**r.

Window Manager

- Fixed **random login** (greeter) **window focus** issues.

Shadowing/VNC

- Added the **"snapfb" option for the VNC server**.
  More...

Registry	`network.vncserver.snapfb`
Value	enabled / <u>disabled</u>
Info	This option should only be enabled with experienced delays in remote or shadowing session.

- Improved **security of the password authentication method** - the VNC server does not require anymore a file holding the password. **During client authentication**, the **server retrieves** now the **password from the IGEL Setup**.

VNC Viewer

- Fixed **occasional freeze of shadowing session** e.g. when resizing a window. Now **the session gets unlocked again after about 20 seconds**.
  More...

Parameter	Unlock X server in case of shadowing session freeze
Registry	`network.vncserver.grab_buster`
Type	bool
Value	<u>enabled</u> / disabled

VirtualBox

- Fixed **no automatic resolution changes** as **virtualbox guest** issue.

Audio

- Fixed **headset microphone using 3.5mm audio jack** in **Dell Wyse 3040**.
- Added possibility to **set** some **snd_hda_intel kernel module parameter** to overcome possible issues with sound devices.
  New registry keys:
  More...

Parameter	Enable Message Signaled Interrupt
Registry	`system.sound_driver.snd_hda_intel.enable_msi`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Force enable device
Registry	`system.sound_driver.snd_hda_intel.enable`

Type	bool
Value	enabled / disabled
Parameter	Position fix quirk
Registry	system.sound_driver.snd_hda_intel.position_fix
Range	[Default] [Auto (0)] [LPIB (1)] [POSBUF (2)] [VIACOMBO (3)] [COMBO (4)] [SKL+ (5)] [FIFO (6)]
Parameter	Change sound card order
Registry	system.sound_driver.snd_hda_intel.index
Type	integer
Value	empty
Parameter	Detection of DMIC devices
Registry	system.sound_driver.snd_hda_intel.dmic_detect
Range	[Default] [Disabled] [Enabled]
Parameter	Enable this if you encounter sound card problems
Registry	system.sound_driver.snd_hda_intel.single_cmd
Type	bool
Value	enabled / disabled
Parameter	Automatic power save timeout
Registry	system.sound_driver.snd_hda_intel.power_save
Type	integer
Value	empty
Parameter	Reset controller in power save mode
Registry	system.sound_driver.snd_hda_intel.power_save_controller
Type	bool
Value	enabled / disabled
Parameter	Choose sound model to use
Registry	system.sound_driver.snd_hda_intel.model
Type	string

Value	Auto
Parameter	If you encounter sound problems try to choose one of the alternative masks
Registry	`system.sound_driver.snd_hda_intel.probe_mask`
Range	[Auto] [1] [8]

- Old settings. **Command at startup removed**.

Jabra

- **Avoid deploying of the same Jabra Xpress package several times** on the same Jabra device.

Evidian

- Evidian now **triggers the regular Horizon session script**.

Hardware

- Fixed non-working **Prolific PL2303 USB-to-serial adapters**.

TC Setup (Java)

- **Removed "default" button** left of selection box IGEL Setup: **Sessions > Citrix > Citrix Global > Window > Multimonitor full-screen mode**.

Remote Management

- Fixed **repeated firmware registering over the ICG** which can occur after a new firmware was successfully registered in the UMS. The device invokes firmware registering again after every settings transfer from the device to the UMS. This behavior lasts until reboot.
- Fixed **syncing settings changed on the device if** the **UMS wasn't reachable**.
- Fixed handling of the **structure tag** if it was **configured in the system dialog "UMS Registering"**.

IGEL Cloud Gateway

- **Maximum waiting time for a response from the ICG server** can now be **configured by** the parameter **system.remotemanager.rmagent_timeout** (default: 90 seconds).

VNC

- **Shadowing notification** is **restricted to primary monitor** and **cannot be moved outside of the monitor's visible range**.
- Fixed **sporadic connection failure** in VNC server.
- Fixed **occasional freeze of shadowing session** e.g. when resizing a window. Now the session gets unlocked again after about 20 seconds.
  More...

Parameter	Unlock X server in case of shadowing session freeze
Registry	`network.vncserver.grab_buster`
Type	bool
Value	enabled / disabled

CA Certificates Contained in IGEL OS 11.04.100

Certificate name	Expiry date	File in /etc/ssl/certs
ACCVRAIZ1	Dec 31 09:37:37 2030 GMT	`ACCVRAIZ1.crt`
AC RAIZ FNMT-RCM	Jan 1 00:00:00 2030 GMT	`AC_RAIZ_FNMT-RCM.crt`
Actalis Authentication Root CA	Sep 22 11:22:02 2030 GMT	`Actalis_Authentication_Root_CA.crt`
AffirmTrust Commercial	Dec 31 14:06:06 2030 GMT	`AffirmTrust_Commercial.crt`
AffirmTrust Networking	Dec 31 14:08:24 2030 GMT	`AffirmTrust_Networking.crt`
AffirmTrust Premium	Dec 31 14:10:36 2040 GMT	`AffirmTrust_Premium.crt`
AffirmTrust Premium ECC	Dec 31 14:20:24 2040 GMT	`AffirmTrust_Premium_ECC.crt`
Amazon Root CA 1	Jan 17 00:00:00 2038 GMT	`AmazonRootCA1.pem)`
Amazon Root CA 1	Jan 17 00:00:00 2038 GMT	`Amazon_Root_CA_1.crt`
Amazon Root CA 2	May 26 00:00:00 2040 GMT	`Amazon_Root_CA_2.crt`
Amazon Root CA 3	May 26 00:00:00 2040 GMT	`Amazon_Root_CA_3.crt`
Amazon Root CA 4	May 26 00:00:00 2040 GMT	`Amazon_Root_CA_4.crt`
Atos TrustedRoot 2011	Dec 31 23:59:59 2030 GMT	`Atos_TrustedRoot_2011.crt`
Autoridad de Certificacion Firmaprofesional CIF A62634068	Dec 31 08:38:15 2030 GMT	`Autoridad_de_Certificacion_Firmaprofesional_CIF_A62634068.crt`
Baltimore CyberTrust Root	May 12 23:59:00 2025 GMT	`BTCTRoot.pem)`

Certificate name	Expiry date	File in /etc/ssl/certs
Baltimore CyberTrust Root	May 12 23:59:00 2025 GMT	`Baltimore_CyberTrust_Root.crt`
Buypass Class 2 Root CA	Oct 26 08:38:03 2040 GMT	`Buypass_Class_2_Root_CA.crt`
Buypass Class 3 Root CA	Oct 26 08:28:58 2040 GMT	`Buypass_Class_3_Root_CA.crt`
CA Disig Root R2	Jul 19 09:15:30 2042 GMT	`CA_Disig_Root_R2.crt`
CFCA EV ROOT	Dec 31 03:07:01 2029 GMT	`CFCA_EV_ROOT.crt`
COMODO Certification Authority	Dec 31 23:59:59 2029 GMT	`COMODO_Certification_Authority.crt`
COMODO ECC Certification Authority	Jan 18 23:59:59 2038 GMT	`COMODO_ECC_Certification_Authority.crt`
COMODO RSA Certification Authority	Jan 18 23:59:59 2038 GMT	`COMODO_RSA_Certification_Authority.crt`
Certigna	Jun 29 15:13:05 2027 GMT	`Certigna.crt`
Certigna Root CA	Oct 1 08:32:27 2033 GMT	`Certigna_Root_CA.crt`
Certinomis - Root CA	Oct 21 09:17:18 2033 GMT	`Certinomis_-_Root_CA.crt`
Class 2 Primary CA	Jul 6 23:59:59 2019 GMT	`Certplus_Class_2_Primary_CA.crt`
Certum Trusted Network CA	Dec 31 12:07:37 2029 GMT	`Certum_Trusted_Network_CA.crt`
Certum Trusted Network CA 2	Oct 6 08:39:56 2046 GMT	`Certum_Trusted_Network_CA_2.crt`
Chambers of Commerce Root - 2008	Jul 31 12:29:50 2038 GMT	`Chambers_of_Commerce_Root_-_2008.crt`
Class 3 Public Primary Certification Authority - G2 (c) 1998 VeriSign, Inc. - For	Aug 1 23:59:59 2028 GMT	`Class3PCA_G2_v2.pem)`

Certificate name	Expiry date	File in /etc/ssl/certs
authorized use only VeriSign Trust Network		
Class 4 Public Primary Certification Authority - G2 (c) 1998 VeriSign, Inc. - For authorized use only VeriSign Trust Network	Aug 1 23:59:59 2028 GMT	`Class4PCA_G2_v2.pem)`
AAA Certificate Services	Dec 31 23:59:59 2028 GMT	`Comodo_AAA_Services_root.crt`
Cybertrust Global Root	Dec 15 08:00:00 2021 GMT	`Cybertrust_Global_Root.crt`
D-TRUST Root Class 3 CA 2 2009	Nov 5 08:35:58 2029 GMT	`D-TRUST_Root_Class_3_CA_2_2009.crt`
D-TRUST Root Class 3 CA 2 EV 2009	Nov 5 08:50:46 2029 GMT	`D-TRUST_Root_Class_3_CA_2_EV_2009.crt`
DST Root CA X3	Sep 30 14:01:15 2021 GMT	`DST_Root_CA_X3.crt`
Deutsche Telekom Root CA 2	Jul 9 23:59:00 2019 GMT	`Deutsche_Telekom_Root_CA_2.crt`
DigiCert Global Root CA	Nov 10 00:00:00 2031 GMT	`DigiCertGlobalRootCA.pem)`
DigiCert Global Root CA	Mar 8 12:00:00 2023 GMT	`DigiCertSHA2SecureServerCA.pem)`
DigiCert Assured ID Root CA	Nov 10 00:00:00 2031 GMT	`DigiCert_Assured_ID_Root_CA.crt`
DigiCert Assured ID Root G2	Jan 15 12:00:00 2038 GMT	`DigiCert_Assured_ID_Root_G2.crt`
DigiCert Assured ID Root G3	Jan 15 12:00:00 2038 GMT	`DigiCert_Assured_ID_Root_G3.crt`
DigiCert Global Root CA	Nov 10 00:00:00 2031 GMT	`DigiCert_Global_Root_CA.crt`
DigiCert Global Root G2	Jan 15 12:00:00 2038 GMT	`DigiCert_Global_Root_G2.crt`

Certificate name	Expiry date	File in /etc/ssl/certs
DigiCert Global Root G3	Jan 15 12:00:00 2038 GMT	`DigiCert_Global_Root_G3.crt`
DigiCert High Assurance EV Root CA	Nov 10 00:00:00 2031 GMT	`DigiCert_High_Assurance_EV_Root_CA.crt`
DigiCert Trusted Root G4	Jan 15 12:00:00 2038 GMT	`DigiCert_Trusted_Root_G4.crt`
E-Tugra Certification Authority	Mar 3 12:09:48 2023 GMT	`E-Tugra_Certification_Authority.crt`
EC-ACC	Jan 7 22:59:59 2031 GMT	`EC-ACC.crt`
EE Certification Centre Root CA	Dec 17 23:59:59 2030 GMT	`EE_Certification_Centre_Root_CA.crt`
Entrust.net[10] Certification Authority (2048)	Jul 24 14:15:12 2029 GMT	`Entrust.net_Premium_2048_Secure_Server_CA.crt`
Entrust Root Certification Authority	Nov 27 20:53:42 2026 GMT	`Entrust_Root_Certification_Authority.crt`
Entrust Root Certification Authority - EC1	Dec 18 15:55:36 2037 GMT	`Entrust_Root_Certification_Authority_-_EC1.crt`
Entrust Root Certification Authority - G2	Dec 7 17:55:54 2030 GMT	`Entrust_Root_Certification_Authority_-_G2.crt`
GDCA TrustAUTH R5 ROOT	Dec 31 15:59:59 2040 GMT	`GDCA_TrustAUTH_R5_ROOT.crt`
GlobalSign	Dec 15 08:00:00 2021 GMT	`GSR2.pem)`
GTE CyberTrust Global Root	Aug 13 23:59:00 2018 GMT	`GTECTGlobalRoot.pem)`
GTS Root R1	Jun 22 00:00:00 2036 GMT	`GTS_Root_R1.crt`
GTS Root R2	Jun 22 00:00:00 2036 GMT	`GTS_Root_R2.crt`
GTS Root R3	Jun 22 00:00:00 2036 GMT	`GTS_Root_R3.crt`

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Certificate name	Expiry date	File in /etc/ssl/certs
GTS Root R4	Jun 22 00:00:00 2036 GMT	`GTS_Root_R4.crt`
GeoTrust Global CA	May 21 04:00:00 2022 GMT	`GeoTrust_Global_CA.crt`
GeoTrust Global CA	May 21 04:00:00 2022 GMT	`GeoTrust_Global_CA.pem)`
GeoTrust Primary Certification Authority	Jul 16 23:59:59 2036 GMT	`GeoTrust_Primary_Certification_Authority.crt`
GeoTrust Primary Certification Authority - G2	Jan 18 23:59:59 2038 GMT	`GeoTrust_Primary_Certification_Authority_-_G2.crt`
GeoTrust Primary Certification Authority - G3	Dec 1 23:59:59 2037 GMT	`GeoTrust_Primary_Certification_Authority_-_G3.crt`
GeoTrust Universal CA	Mar 4 05:00:00 2029 GMT	`GeoTrust_Universal_CA.crt`
GeoTrust Universal CA 2	Mar 4 05:00:00 2029 GMT	`GeoTrust_Universal_CA_2.crt`
GlobalSign	Jan 19 03:14:07 2038 GMT	`GlobalSign_ECC_Root_CA_-_R4.crt`
GlobalSign	Jan 19 03:14:07 2038 GMT	`GlobalSign_ECC_Root_CA_-_R5.crt`
GlobalSign Root CA	Jan 28 12:00:00 2028 GMT	`GlobalSign_Root_CA.crt`
GlobalSign	Dec 15 08:00:00 2021 GMT	`GlobalSign_Root_CA_-_R2.crt`
GlobalSign	Mar 18 10:00:00 2029 GMT	`GlobalSign_Root_CA_-_R3.crt`
GlobalSign	Dec 10 00:00:00 2034 GMT	`GlobalSign_Root_CA_-_R6.crt`
Global Chambersign Root - 2008	Jul 31 12:31:40 2038 GMT	`Global_Chambersign_Root_-_2008.crt`
Go Daddy Class 2 Certification Authority	Jun 29 17:06:20 2034 GMT	`Go_Daddy_Class_2_CA.crt`

Certificate name	Expiry date	File in /etc/ssl/certs
Go Daddy Root Certificate Authority - G2	Dec 31 23:59:59 2037 GMT	`Go_Daddy_Root_Certificate_Authority_-_G2.crt`
Hellenic Academic and Research Institutions ECC RootCA 2015	Jun 30 10:37:12 2040 GMT	`Hellenic_Academic_and_Research_Institutions_ECC_RootCA_2015.crt`
Hellenic Academic and Research Institutions RootCA 2011	Dec 1 13:49:52 2031 GMT	`Hellenic_Academic_and_Research_Institutions_RootCA_2011.crt`
Hellenic Academic and Research Institutions RootCA 2015	Jun 30 10:11:21 2040 GMT	`Hellenic_Academic_and_Research_Institutions_RootCA_2015.crt`
Hongkong Post Root CA 1	May 15 04:52:29 2023 GMT	`Hongkong_Post_Root_CA_1.crt`
ISRG Root X1	Jun 4 11:04:38 2035 GMT	`ISRG_Root_X1.crt`
IdenTrust Commercial Root CA 1	Jan 16 18:12:23 2034 GMT	`IdenTrust_Commercial_Root_CA_1.crt`
IdenTrust Public Sector Root CA 1	Jan 16 17:53:32 2034 GMT	`IdenTrust_Public_Sector_Root_CA_1.crt`
Imprivata Embedded Code Signing CA	Sep 7 16:20:00 2033 GMT	`Imprivata.crt`
Izenpe.com[11]	Dec 13 08:27:25 2037 GMT	`Izenpe.com`[12]`.crt`
LuxTrust Global Root 2	Mar 5 13:21:57 2035 GMT	`LuxTrust_Global_Root_2.crt`
Microsec e-Szigno Root CA 2009	Dec 30 11:30:18 2029 GMT	`Microsec_e-Szigno_Root_CA_2009.crt`
NetLock Arany (Class Gold) Főtanúsítvány	Dec 6 15:08:21 2028 GMT	`NetLock_Arany_=Class_Gold=_Főtanúsítvány.crt`
Network Solutions Certificate Authority	Dec 31 23:59:59 2029 GMT	`Network_Solutions_Certificate_Authority.crt`

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12 http://Izenpe.com

Certificate name	Expiry date	File in /etc/ssl/certs
OISTE WISeKey Global Root GA CA	Dec 11 16:09:51 2037 GMT	`OISTE_WISeKey_Global_Root_GA_CA.crt`
OISTE WISeKey Global Root GB CA	Dec 1 15:10:31 2039 GMT	`OISTE_WISeKey_Global_Root_GB_CA.crt`
OISTE WISeKey Global Root GC CA	May 9 09:58:33 2042 GMT	`OISTE_WISeKey_Global_Root_GC_CA.crt`
Class 3 Public Primary Certification Authority	Aug 1 23:59:59 2028 GMT	`Pcs3ss_v4.pem)`
QuoVadis Root Certification Authority	Mar 17 18:33:33 2021 GMT	`QuoVadis_Root_CA.crt`
QuoVadis Root CA 1 G3	Jan 12 17:27:44 2042 GMT	`QuoVadis_Root_CA_1_G3.crt`
QuoVadis Root CA 2	Nov 24 18:23:33 2031 GMT	`QuoVadis_Root_CA_2.crt`
QuoVadis Root CA 2 G3	Jan 12 18:59:32 2042 GMT	`QuoVadis_Root_CA_2_G3.crt`
QuoVadis Root CA 3	Nov 24 19:06:44 2031 GMT	`QuoVadis_Root_CA_3.crt`
QuoVadis Root CA 3 G3	Jan 12 20:26:32 2042 GMT	`QuoVadis_Root_CA_3_G3.crt`
SSL.com[13] EV Root Certification Authority ECC	Feb 12 18:15:23 2041 GMT	`SSL.com_EV_Root_Certification_Authority_ECC.crt`
SSL.com[14] EV Root Certification Authority RSA R2	May 30 18:14:37 2042 GMT	`SSL.com_EV_Root_Certification_Authority_RSA_R2.crt`
SSL.com[15] Root Certification Authority ECC	Feb 12 18:14:03 2041 GMT	`SSL.com_Root_Certification_Authority_ECC.crt`
SSL.com[16] Root Certification Authority RSA	Feb 12 17:39:39 2041 GMT	`SSL.com_Root_Certification_Authority_RSA.crt`
SZAFIR ROOT CA2	Oct 19 07:43:30 2035 GMT	`SZAFIR_ROOT_CA2.crt`

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13 http://SSL.com
14 http://SSL.com
15 http://SSL.com
16 http://SSL.com

Certificate name	Expiry date	File in /etc/ssl/certs
SecureSign RootCA11	Apr 8 04:56:47 2029 GMT	`SecureSign_RootCA11.crt`
SecureTrust CA	Dec 31 19:40:55 2029 GMT	`SecureTrust_CA.crt`
Secure Global CA	Dec 31 19:52:06 2029 GMT	`Secure_Global_CA.crt`
Security Communication RootCA2	May 29 05:00:39 2029 GMT	`Security_Communication_RootCA2.crt`
Security Communication RootCA1	Sep 30 04:20:49 2023 GMT	`Security_Communication_Root_CA.crt`
Sonera Class2 CA	Apr 6 07:29:40 2021 GMT	`Sonera_Class_2_Root_CA.crt`
Staat der Nederlanden EV Root CA	Dec 8 11:10:28 2022 GMT	`Staat_der_Nederlanden_EV_Root_CA.crt`
Staat der Nederlanden Root CA - G2	Mar 25 11:03:10 2020 GMT	`Staat_der_Nederlanden_Root_CA_-_G2.crt`
Staat der Nederlanden Root CA - G3	Nov 13 23:00:00 2028 GMT	`Staat_der_Nederlanden_Root_CA_-_G3.crt`
Starfield Class 2 Certification Authority	Jun 29 17:39:16 2034 GMT	`Starfield_Class_2_CA.crt`
Starfield Root Certificate Authority - G2	Dec 31 23:59:59 2037 GMT	`Starfield_Root_Certificate_Authority_-_G2.crt`
Starfield Services Root Certificate Authority - G2	Dec 31 23:59:59 2037 GMT	`Starfield_Services_Root_Certificate_Authority_-_G2.crt`
SwissSign Gold CA - G2	Oct 25 08:30:35 2036 GMT	`SwissSign_Gold_CA_-_G2.crt`
SwissSign Silver CA - G2	Oct 25 08:32:46 2036 GMT	`SwissSign_Silver_CA_-_G2.crt`
T-TeleSec GlobalRoot Class 2	Oct 1 23:59:59 2033 GMT	`T-TeleSec_GlobalRoot_Class_2.crt`
T-TeleSec GlobalRoot Class 3	Oct 1 23:59:59 2033 GMT	`T-TeleSec_GlobalRoot_Class_3.crt`

Certificate name	Expiry date	File in /etc/ssl/certs
TUBITAK Kamu SM SSL Kok Sertifikasi - Surum 1	Oct 25 08:25:55 2043 GMT	`TUBITAK_Kamu_SM_SSL_Kok_Sertifikasi_-_Surum_1.crt`
TWCA Global Root CA	Dec 31 15:59:59 2030 GMT	`TWCA_Global_Root_CA.crt`
TWCA Root Certification Authority	Dec 31 15:59:59 2030 GMT	`TWCA_Root_Certification_Authority.crt`
Government Root Certification Authority	Dec 5 13:23:33 2032 GMT	`Taiwan_GRCA.crt`
TeliaSonera Root CA v1	Oct 18 12:00:50 2032 GMT	`TeliaSonera_Root_CA_v1.crt`
TrustCor ECA-1	Dec 31 17:28:07 2029 GMT	`TrustCor_ECA-1.crt`
TrustCor RootCert CA-1	Dec 31 17:23:16 2029 GMT	`TrustCor_RootCert_CA-1.crt`
TrustCor RootCert CA-2	Dec 31 17:26:39 2034 GMT	`TrustCor_RootCert_CA-2.crt`
Trustis FPS Root CA	Jan 21 11:36:54 2024 GMT	`Trustis_FPS_Root_CA.crt`
UCA Extended Validation Root	Dec 31 00:00:00 2038 GMT	`UCA_Extended_Validation_Root.crt`
UCA Global G2 Root	Dec 31 00:00:00 2040 GMT	`UCA_Global_G2_Root.crt`
USERTrust ECC Certification Authority	Jan 18 23:59:59 2038 GMT	`USERTrust_ECC_Certification_Authority.crt`
USERTrust RSA Certification Authority	Jan 18 23:59:59 2038 GMT	`USERTrust_RSA_Certification_Authority.crt`
VeriSign Class 3 Public Primary Certification Authority - G4	Jan 18 23:59:59 2038 GMT	`VeriSign_Class_3_Public_Primary_Certification_Authority_-_G4.crt`
VeriSign Class 3 Public Primary Certification Authority - G5	Jul 16 23:59:59 2036 GMT	`VeriSign_Class_3_Public_Primary_Certification_Authority_-_G5.crt`
VeriSign Universal Root Certification Authority	Dec 1 23:59:59 2037 GMT	`VeriSign_Universal_Root_Certification_Authority.crt`

Certificate name	Expiry date	File in /etc/ssl/certs
VeriSign Class 3 Public Primary Certification Authority - G3	Jul 16 23:59:59 2036 GMT	`Verisign_Class_3_Public_Primary_Certification_Authority_-_G3.crt`
XRamp Global Certification Authority	Jan 1 05:37:19 2035 GMT	`XRamp_Global_CA_Root.crt`
certSIGN ROOT CA	Jul 4 17:20:04 2031 GMT	`certSIGN_ROOT_CA.crt`
ePKI Root Certification Authority	Dec 20 02:31:27 2034 GMT	`ePKI_Root_Certification_Authority.crt`
thawte Primary Root CA	Jul 16 23:59:59 2036 GMT	`thawte_Primary_Root_CA.crt`
thawte Primary Root CA - G2	Jan 18 23:59:59 2038 GMT	`thawte_Primary_Root_CA_-_G2.crt`
thawte Primary Root CA - G3	Dec 1 23:59:59 2037 GMT	`thawte_Primary_Root_CA_-_G3.crt`

IGEL OS Creator (OSC)

Supported Devices

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

- Component Versions 11.04.100
- General Information 11.04.100
- Known Issues 11.04.100
- Security Fixes 11.04.100
- New Features 11.04.100
- Resolved Issues 11.04.100

Component Versions 11.04.100

Clients

Product	Version
Chromium	83.0.4103.61-0ubuntu0.18.04.1
Cisco JVDI Client	12.9.0
Cisco Webex Teams VDI Client	3.0.15711.0
Cisco Webex Meetings VDI Client	40.7.0.375
Citrix HDX Realtime Media Engine	2.9.0-2330
Citrix Workspace App	18.10.0.11
Citrix Workspace App	19.12.0.19
Citrix Workspace App	20.06.0.15
deviceTRUST Citrix Channel	19.1.200.2
Crossmatch DP Citrix Channel	0515.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	14.0.0.45623
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.28.4-0ubuntu1.2
FabulaTech USB for Remote Desktop	5.2.29
Firefox	68.10.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
IGEL WVD Client	1.0.13igel1596142398
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64 Qualification at Imprivata in progress
deviceTRUST RDP Channel	19.1.200.2
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.11.2-1igel8

Open VPN	2.4.4-2ubuntu1.3
Zulu JRE	8.48.0.51-2
Parallels Client (64 bit)	17.1.1
Spice GTK (Red Hat Virtualization)	0.38-2igel93
Remote Viewer (Red Hat Virtualization)	8.0-2git20191213.e4bacb8igel83
Usbredir (Red Hat Virtualization)	0.8.0-1+b1igel71
Teradici PCoIP Software Client	20.04.2-18.04
ThinLinc Client	4.12.0-6517
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.5-1igel1583919770
VNC Viewer	1.10.1+dfsg-4igel13
VMware Horizon Client	5.4.1-15988340
Voip Client Ekiga	4.0.1

Dictation

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20200323
Philips Speech driver	12.9.1

Signature

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.9
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.4.2

Smartcard

PKCS#11 Library A.E.T SafeSign	3.0.101

PKCS#11 Library Athena IDProtect	7
PKCS#11 Library cryptovision sc/interface	7.3.1
PKCS#11 Library Gemalto SafeNet	10.7.77
PKCS#11 Library OpenSC	0.20.0-3igel37
PKCS#11 Library SecMaker NetID	6.8.1.31
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel2
Reader Driver Gemalto eToken	10.7.77
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.31-1igel11
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.26-3igel14
Cherry USB2LAN Proxy	3.2.0.3

System Components

OpenSSL	1.0.2n-1ubuntu5.3
OpenSSL	1.1.1-1ubuntu2.1~18.04.6
OpenSSH Client	7.6p1-4ubuntu0.3
OpenSSH Server	7.6p1-4ubuntu0.3
Bluetooth stack (bluez)	5.52-1igel6
MESA OpenGL stack	20.0.8-1igel117
VAAPI ABI Version	0.40
VDPAU Library version	1.4-1igel1003
Graphics Driver INTEL	2.99.917+git20200515-igel1013
Graphics Driver ATI/RADEON	19.1.0-1+git20200220igel987
Graphics Driver ATI/AMDGPU	19.1.0-1+git20200318igel986

Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	440.100-0ubuntu0.20.04.1
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel975
Input Driver Elographics	1.4.1-1+b6igel952
Input Driver eGalax	2.5.7413
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel957
Input Driver Wacom	0.36.1-0ubuntu2igel888
Input Driver ELO Multitouch	3.0.0
Input Driver ELO Singletouch	5.1.0
Kernel	5.4.48 #mainline-lxos-g1595410170
Xorg X11 Server	1.20.8-2igel1016
Xorg Xephyr	1.20.8-2igel1016
CUPS printing daemon	2.2.7-1ubuntu2.8igel32
PrinterLogic	25.1.0.425
Lightdm Graphical Login Manager	1.26.0-0ubuntu1igel13
XFCE4 Window Manager	4.14.2-1~18.04igel1595331607
ISC DHCP Client	4.3.5-3ubuntu7.1
NetworkManager	1.20.4-2ubuntu2.2igel100
ModemManager	1.10.0-1~ubuntu18.04.2
GStreamer 0.10	0.10.36-2ubuntu0.1igel201
GStreamer 1.x	1.16.2-4igel239
WebKit2Gtk	2.28.3-2igel36
Python2	2.7.17
Python3	3.6.9

VM Guest Support Components

Virtualbox Guest Utils	6.1.10-dfsg-1igel41
Virtualbox X11 Guest Utils	6.1.10-dfsg-1igel41
Open VM Tools	11.0.5-4ubuntu0.18.04.13
Open VM Desktop Tools	11.0.5-4ubuntu0.18.04.1
Xen Guest Utilities	7.10.0-0ubuntu1
Spice Vdagent	0.20.0-1igel95
Qemu Guest Agent	5.0-5igel12

Features with Limited IGEL Support

Mobile Device Access USB (MTP)	1.1.17-3igel5
Mobile Device Access USB (imobile)	1.2.1~git20191129.9f79242-1+b1igel8
Mobile Device Access USB (gphoto)	2.5.25-2igel4
VPN OpenConnect	8.10-1igel4
Scanner support	1.0.27-1
VirtualBox	6.1.10-dfsg-1igel41

Services

Service	Size	Reduced Firmware
Asian Language Support	22.5 M	Included
Java SE Runtime Environment	36.0 M	Included
Citrix Workspace app Citrix Appliance Citrix StoreFront	219.5 M	Included
Ericom PowerTerm InterConnect	15.5 M	Included
Media Player	512.0 K	Included
Citrix Appliance Local Browser (Firefox)	70.2 M	Included
RDP VMware Horizon	4.2 M	Included

Cendio ThinLinc	10.0 M	Included
Printing (Internet printing protocol CUPS)	22.2 M	Included
NoMachine NX	26.8 M	Included
VMware Horizon	114.5 M	Included
Voice over IP (Ekiga)	6.5 M	Included
Citrix Appliance	768.0 K	Included
NCP Enterprise VPN Client	27.0 M	Not included
Fluendo GStreamer Codec Plugins	6.8 M	Included
IBM i Access Client Solutions	72.5 M	Not included
Red Hat Enterprise Virtualization	3.0 M	Included
Parallels Client	5.5 M	Included
NVIDIA graphics driver	115.0 M	Not included
Imprivata Appliance	10.8 M	Included
Evidian AuthMgr	2.8 M	Included
Hardware Video Acceleration	13.0 M	Included
Extra Font Package	1.0 M	Included
Fluendo GStreamer AAC Decoder	1.2 M	Included
x32 Compatibility Support	48.0 M	Included
Cisco JVDI client	45.8 M	Included
PrinterLogic	40.8 M	Not included
Biosec BS Login	10.0 M	Not included
Login VSI Login Enterprise	28.8 M	Not included
Stratusphere UX CID Key software	2.8 M	Not included
Elastic Filebeat	15.8 M	Not included
WVD	13.8 M	Included
Local Browser (Chromium)	81.2 M	Not included
deskMate client	5.8 M	Included
Cisco Webex Teams VDI	32.0 M	Not included
Cisco Webex Meetings VDI	36.8 M	Not included

Zoom Media Plugin	39.8 M	Not included
Teradici PCoIP Client	7.8 M	Included
90meter Smart Card Support	256.0 K	Included
Mobile Device Access USB (Limited support)	256.0 K	Not included
VPN OpenConnect (Limited support)	1.5 M	Not included
Scanner support / SANE (Limited support)	2.5 M	Not included
VirtualBox (Limited support)	62.5 M	Not included

General Information 11.04.100

ⓘ To be beneficial to all new features and implementations, it is recommended to use UMS 6.04.100 or higher and update the corresponding profiles.

🔴 Firmware downgrade to older versions (11.01 or 11.02) is not possible, due to the unsigned firmware update files.

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Known Issues 11.04.100

Firmware Update

- On **devices with 2 GB of flash storag**e, it could happen that there is **not enough space for updating all features**. In this case, a corresponding error message occurs and unused features must be disabled in IGEL Setup under **System > Firmware Customization > Features** to perform the firmware update.

Firefox

- **Firefox IGEL extensions are not updated automatically** under some circumstances. After an update from 11.03.xxx to 11.04.100, the IGEL extensions will stay on the old version.
  In this case, the following settings concerning **kiosk mode** cannot be executed:
    - Switch off hotkey for new window/tab
    - Blocking of internal browser pages like preferences, file picker, specific local directories

  As a workaround:

- a **reset to defaults** should be performed
- or the **browser's mimetype template** can be switched **from "Standard" to "Minimal"** by registry key `browserglobal.app.mimetypes_template`. There, the browser profile is renewed as well.
  After the TC received the new setting, **reboot** and **set** the `mimetypes_template` registry key to **"Standard"** again.

Citrix

- With activated **DRI3** and an **AMD GPU Citrix H.264 acceleration plugin** could freeze. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H.264, MPEG1 and MPEG2**. GStreamer1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with activated **DRI3** and **hardware accelerated H.264 deep compression codec**.
- **Citrix StoreFront login** with **Gemalto smartcard** middleware does not detect smartcard correctly if the card is inserted after start of login.
  Workaround: Insert the smartcard before starting the StoreFront login.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264** acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`

Value	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

- Using **CWA 19.x** sometimes **freezes the session** while session logoff from a published desktop. Workaround: **Use CWA 18.10.0**.
- During the running **Microsoft Teams Optimization of Citrix Workspace App 20.06**, **webcam redirection** or **screen sharing** may lead to **display error**s like black stripes or flickering.
- The **performance** of Citrix sessions when using **Workspace App 20.06** may be lower on some devices.
  A possible **workaround** is to **disable** the **virtual channels for Microsoft Teams** and **NSAP** or to set the **HDX transport protocol** to **TCP** only.
  - `ica.module.virtualdriver.vdwebrtc.enable`
  - `ica.module.virtualdriver.nsap.enable`
  - The protocol can be set via the Setup parameter **Sessions > Citrix > Citrix Global > Options > HDX Adaptive Transport over EDT** or via the **server policy** 'HDX Adaptive Transport'.

VMware Horizon

- **Client drive mapping** and **USB redirection** for storage devices should not be enabled both at the same time.
  - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Enable local `Storage Hotplug` on Setup page **Devices > Storage Devices > Storage Hotplug**.
- **External drives** mounted already before connection do not appear in the **remote desktop**. Workaround: map the directory /media as a drive. Then the external devices will show up inside the media drive.
- **After the disconnect of an RDP-based session**, the Horizon main **window** which contains the server or sessions overview **cannot be resized anymore**.
- **Seamless application windows in Horizon Client may not be displayed correctly**. When starting the first seamless app, a new iconified window appears in the taskbar, and only if you click on it, the application will show up.
  On some hardware (UD7-H850, UD2-M250, UD2-D220), however, the client aborts when this new window is de-iconified.

Imprivata

- On **devices with 2 GB of flash storage**, it could happen that there is not enough space to enable the **Imprivata partition after the update to 11.04.100**. In this case, a corresponding error message occurs and **unused features must be disabled** (in IGEL Setup under **System > Firmware Customization > Features**). Imprivata has to be (re-)enabled after a reboot then.

Wi-Fi

- TP-Link Archer T2UH Wi-Fi adapters does not work after system suspend/resume. Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.

Smartcard

- **Citrix Certificate Identity Declaration login** does not work with **SecMaker** smartcards.
- In seldom cases, the **authentication** hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: **spice-xpi firefox plugin** is no longer supported. The **Console Invocation** has to allow 'Native' client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU driver**.

Hyper-V

- **Hyper-V** (Generation 2) needs **a lot of memory (RAM)**. The machine needs a sufficient amount of memory allocated.

VirtualBox

- The current **VirtualBox Guest Tools/Drivers** will not work with **VirtualBox 5.2.x or older** hosts which leads to a black screen and non-working graphics.
  Possible workaround: Install with 'Failsafe Installation + Recovery' and set the registry key `x.drivers.force_vesa` to 'true'.
- When running in VirtualBox virtualization, **resizing the window will not automatically change desktop resolution** of IGEL OS guest.

Audio

- **Audio jack detection on Advantech POC-W243L** doesn't work. Therefore, sound output goes through a possibly connected headset and the internal speakers.
- **IGEL UD2 (D220)** fails to restore the volume level of the speaker when the device used **firmware version 11.01.110** before.

Hardware

- **HP t730** could freeze when monitors with **different resolutions** are connected (1920x1200 + 2560x1440 + 3840x1600 for example). When this occurs, the registry key `x.drivers.kms.best_console_mode` has to be set to **disabled**.
- Some newer **Delock 62599 active DisplayPort-to-DVI (4k)** adapters only work with INTEL devices.

Remote Management

- **AIT feature with IGEL Starter License** is **supported** by the **UMS version 6.05.100**.

Base system

- **Update from memory stick** requires network online state (when multiple update stages are involved).

deskMate

- Integrated deskMate solution. Some stability issues may remain.

Security Fixes 11.04.100

Firefox

- Updated Mozilla **Firefox** to **68.10.0esr**:
    - Fixes for **mfsa2020-11**, also known as CVE-2020-6819 and CVE-2020-6820
    - Fixes for **mfsa2020-13**, also known as:
      More...

      CVE-2020-6828, CVE-2020-6827, CVE-2020-6821,
      CVE-2020-6822, and CVE-2020-6825

    - Fixes for **mfsa2020-17** also known as:
      More...

      CVE-2020-12387, CVE-2020-12388, CVE-2020-12389,
      CVE-2020-6831, CVE-2020-12392,
      CVE-2020-12393, and CVE-2020-1239

    - Fixes for **mfsa2020-21** also known as:
      More...

      CVE-2020-12399, CVE-2020-12405,
      CVE-2020-12406, and CVE-2020-12410

    - Fixes for **mfsa2020-25** also known as:
      More...

      CVE-2020-12417, CVE-2020-12418, CVE-2020-12419,
      CVE-2020-12420, and CVE-2020-12421

- Changed option to **deny local file browsing** via file:// URI per default now.
  More...

IGEL Setup	**Firefox Browser > Firefox Browser Global > Window**
Parameter	Hide local filesystem
Registry	`browserglobal.app.filepicker_dialog_hidden`
Value	enabled / disabled

Base system

- **SSH protocol version 1 is now disabled.** All remote connections via SSH must use SSHv2.

Driver

- Updated **Nvidia driver** to version **440.100**.

New Features 11.04.100

Citrix

- Integrated **Citrix Workspace App 20.06**.
  Available Citrix Workspace Apps in this release: **20.06** (default), **19.12**, and **18.10**
- Added a registry key to enable optimization for **Microsoft Teams**.
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Unified Communications > VDI Solutions**
Parameter	Microsoft Teams optimization
Registry	`ica.module.virtualdriver.vdwebrtc.enable`
Value	<u>on</u> / off

- Added a registry key to enable support for **NetScaler App Experience (NSAP)** virtual channel.
  More...

Parameter	HDX uses the NSAP virtual channel
Registry	`ica.module.virtualdriver.nsap.enable`
Value	<u>on</u> / off

- Integrated **Citrix HDX/RTME 2.9**.
- Integrated **ZOOM Media Plugin for Citrix** to optimize performance for ZOOM video calls and conferences.
- IGEL x64: 5.0.415463.0619 requires Windows x86 or x64: 5.0.24002.0619. https://support.zoom.us/hc/en-us/articles/360031096531-Getting-Started-with-VDI
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Unified Communications > VDI Solutions**
Parameter	Zoom Media Plugin
Registry	`ica.module.virtualdriver.vdzoom.enable`
Value	enabled / <u>disabled</u>

- Updated **signotec Virtual Channel** to version **8.0.9**.
  The corresponding changes are:
  - Logging has been improved.
  - A problem with the communication with the signature pads was fixed.
  - USB communication via bulk transfer is model-independent (improved speed).
- Removed parameter **Content redirection** / `ica.wfclient.crenabled` from TC Setup (**Sessions > Citrix > Citrix Global > HDX Multimedia**).

OSC Installer

- Added **dialog "Feature Selection" in IGEL OS Creator** for the selection of features to be installed on the target device. It interactively shows if the current selection of features fits onto the device. The selection of features is saved on the OSC installer medium (when allowed) and set as the default selection for the next installation. If **"Migrate Old Settings"** is selected, the set of features of the old installation is set as the default selection.
- **Reduced memory requirements** of OSC installer for **machines without Nvidia graphic card**.

WVD

- Added **AAC Codec support** to Audio Output redirection.
  More...

Registry	`sessions.wvd%.options.enable-aac`
Value	<u>enabled</u> / disabled

RDP/IGEL RDP Client 2

- Added the **possibility to add a black background** to the RDP auto-reconnect window.
  More...

Registry	`sessions.rdp.options.reconnect-black-fullscreen`
Type	bool
Value	enabled / <u>disabled</u>

- Added configuration option for the **amount of RDP auto-reconnect retries**. The default value will remain "20". A value of "0" means infinite retries.
  More...

Registry	`sessions.rdp.winconnect%.options.reconnect-max-retries`
Type	Integer
Value	<u>20</u>

VMware Horizon

- Updated **VMware Horizon** to version **5.4.1**.
  For usage with **Blast protocol**, it is recommended to enable **DRI3 graphics mode**:
  More...

Parameter	Use DRI3
Registry	`x.driver.use_dri3`
Value	enabled / <u>disabled</u>

- Fixed **handling of RDP's fullscreen mode span**, which means to combine all local monitors for one big remote session.

PowerTerm

- Updated **Ericom PowerTerm** LTC to version **14.0.0.45623**.

Parallels Client

- Updated **Parallels Client** to version **17.1.1**.

Teradici PCoIP Client

- Updated **Teradici PCoIP** Client to version **20.04.2-18.04**. The new version supports **hardware-accelerated H.264 decoding with Ultra PCoIP**.
- New parameters:
  More...

Parameter	Log level
Registry	`pcoip.log-level`
Value	0 / 1 / <u>2</u> / 3 / 4

  PCoIP sessions **can now use the global setting**.
  More...

Parameter	Show codec indicator
Registry	`pcoip.codec_indicator`
Value	<u>disabled</u> / enabled
Info	Show a small dot in the bottom left corner during the session to indicate which codec is being used. Green indicates simple codec; blue indicates tic2 codec. This setting is only available globally.

XEN

- Added support to run as **XEN guest system**.

NX client

- Updated **NoMachine NX Client** to version **6.11.2**.

ThinLinc

- Updated **ThinLinc** to version **4.12**.

Network

- **DHCP** changes:
  The system now sends a **vendor-class-identifier(option 60) "igel-dhcp-1"**. Furthermore, it requests **vendor-encapsulated-options (43)**. Those can be used to transfer IGEL-specific options **igelrmserver(224) and umsstructuretag(226)** in the vendor namespace (with the same option numbers and types) instead of in the global namespace.
  The former way is also still functional, but values transferred in the new way override those which were transferred the old way.
  Apart from 224 and 226 one more option is defined in the vendor space: **"exclusive", option 1,**

type byte. Its presence means that global options 224 and 226 shall not be interpreted in the traditional way and only settings in the vendor space apply.
IPv6 is not involved.

- Added support for **LTE module HP lt4132**.
- Updated **Network Manager** to version **1.20.4**.
    - The range of **network.interfaces.wirelesslan.device0.bgscan.module** now **includes "default" for** using **original upstream Network Manager settings**.
- Added some **additional Ethernet network drivers**.
  More...

    - amd-xgbe : AMD 10 Gigabit Ethernet driver
    - ec_bhf : Beckhoff EtherCAT
    - liquidio_vf : Cavium LiquidIO Intelligent Server Adapter Virtual Function driver
    - liquidio : Cavium LiquidIO Intelligent Server Adapter driver
    - thunder_bgx : Cavium Thunder BGX/MAC driver
    - nicvf : Cavium Thunder NIC Virtual Function driver
    - nicpf : Cavium Thunder NIC Physical Function driver
    - thunder_xcv : Cavium Thunder RGX/XCV driver
    - atlantic : aQuantia Corporation(R) network driver
    - be2net : Emulex OneConnect NIC driver 12.0.0.0
    - ixgb : Intel(R) PRO/10GbE network driver
    - igc : Intel(R) 2.5G Ethernet Linux driver
    - ice : Intel(R) Ethernet Connection E800 Series Linux driver
    - i40e : Intel(R) Ethernet Connection XL710 network driver
    - iavf : Intel(R) Ethernet Adaptive Virtual Function network driver
    - ixgbe : Intel(R) 10 Gigabit PCI Express network driver
    - igbvf : Intel(R) Gigabit Virtual Function network driver
    - ixgbevf : Intel(R) 10 Gigabit Virtual Function network driver
    - ena : Elastic Network Adapter (ENA)
    - nfp : The Netronome Flow Processor (NFP) driver
    - bna : QLogic BR-series 10G PCIe Ethernet driver
    - enic : Cisco VIC Ethernet NIC driver
    - mlx5_core : Mellanox 5th generation network adapters (ConnectX series) core driver
    - mlx4_en : Mellanox ConnectX HCA Ethernet driver
    - ionic : Pensando Ethernet NIC driver
    - sfc-falcon : Solarflare Falcon network driver
    - sfc : Solarflare network driver
    - dwc-xlgmac : Synopsys DWC XLGMAC driver
    - hinic : Huawei Intelligent NIC driver
    - cassini : Sun Cassini Ethernet driver
    - niu : NIU Ethernet driver
    - samsung-sxgbe : SAMSUNG 10G/2.5G/1G Ethernet PLATFORM driver
    - cxgb : Chelsio 10Gb Ethernet driver
    - qede : QLogic FastLinQ 4xxxx Ethernet driver
    - qlcnic : QLogic 1/10 GbE Converged/Intelligent Ethernet driver
    - qed : QLogic FastLinQ 4xxxx Core module
    - netxen_nic : QLogic/NetXen (1/10) GbE Intelligent Ethernet driver

- vxge : Neterion's X3100 Series 10GbE PCIe I/OVirtualized Server adapter
- myri10ge : Myricom 10G driver (10GbE)
- tehuti : Tehuti Networks(R) network driver
- bnxt_en : Broadcom BCM573xx network driver
- bnx2x : QLogic BCM57710/57711/57711E/57712/57712_MF/57800/57800_MF/ 57810/57810_MF/57840/57840_MF driver

- Added a registry key for specifying a **space-separated list of DNS resolver options**. See "**man resolv.conf**".
  More...

Parameter	Option list
Registry	`network.dns.options`
Type	string
Value	empty

Wi-Fi

- Added support for **WPA3 Personal network authentication**.
- Added a registry key for **preferring WPA3 Personal** (i.e. SAE) or **WPA2 Personal** at the time a connection is created with Wireless Manager when the access point offers both:
  More...

Parameter	Prefer WPA3 Personal to WPA2 Personal
Registry	`network.applet.wireless.prefer_sae`
Range	[default] [yes] [no]
Info	"default" currently means "no"

- Added **captive portal support for Wi-Fi**. Passing through a captive portal (which is basically a web application) is sometimes **necessary to achieve full network connectivity** (here also referred to as online state).
  - The **feature is disabled when** the following **registry key** is **empty**. Otherwise, it should be a **URI** that is **suitable for NetworkManager connectivity check**.
    More...

Parameter	Online check URI
Registry	`network.global.onlinecheck.uri`
Range	[] [http://connectivity-check.ubuntu.com/]
Value	http://connectivity-check.ubuntu.com/

  - The following key specifies the **conditions of the online check**. It is also required that **no Ethernet cable is plugged in** and **DHCP is not set** in the UMS.
    More...

Parameter	Condition for online check

Registry	`network.global.onlinecheck.condition`
Range	[None] [Network is user-defined] [Network is open]

- This key determines **how many seconds to wait for full network connectivity** before the network connection is considered complete with incomplete connectivity. The timeout should allow a user to do what is necessary for passing through the captive portal.
  More...

Parameter	Online check timeout
Registry	`network.global.onlinecheck.timeout`
Type	integer
Value	120

- Enabled **use of 802.11r**, also known as **fast BSS transition** or FT. This is confirmed to work at least in the **mode "over the air"**.

Smartcard

- Updated **OpenSC** to version **0.20.0**. See https://github.com/OpenSC/OpenSC/releases/tag/0.20.0 for detailed release notes.

Cisco JVDI Client

- Updated **Cisco JVDI** client to version **12.9.0**.

Cisco Webex VDI

- Integrated the new feature **Cisco Webex Teams VDI for Citrix** and **Horizon** sessions.
  Cisco Webex Teams version: **3.0.15711.0**
- Added a parameter to activate the feature within **Citrix**:
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Unified Communications > Cisco**
Parameter	Cisco Webex Teams VDI
Registry	`ica.module.virtualdriver.vdciscoteams.enable`
Value	enabled / disabled

- Added a parameter to activate the feature within **VMware**:
  More...

IGEL Setup	**Sessions > Horizon > Horizon Client Global > Unified Communications > Cisco**
Parameter	Cisco Webex Teams VDI - Horizon
Registry	`vmware.view.vdciscoteams.enable`
Value	enabled / disabled

- Integrated the new feature **Cisco Webex Meetings VDI for Citrix** sessions.
  Client Version: **40.7.0.375**
- Added a parameter to activate the feature within **Citrix**:
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Unified Communications > Cisco**
Parameter	Cisco Webex Meetings VDI
Registry	`ica.module.virtualdriver.vdciscomeetings.enable`
Value	enabled / <u>disabled</u>

Base system

- Updated base system to **Ubuntu LTS** version **18.04**.
- Updated **kernel** to version **5.4.48**.
- Added **notification for critical system out-of-memory state** when the available **system memory is lower than 40 MB** and **processes were killed** to prevent the system from freezing.
- Display **AMD Memory Guard in Boot Mode** when it's active.
- Added **notification option for Session Autostart** when a autostart delay is configured. It is possible to cancel the session autostart or to start immediately.
  More...

IGEL Setup	*** > Desktop integration**
Parameter	Autostart notification
Value	enabled / <u>disabled</u>

- Added correct **UI handling** for **Wacom DTU-1141B**.
- Updated **CA Certificates** to version **20190122** (Mozilla authority bundle version **2.30**). The following authorities were added:
  More...

  - "Certigna Root CA"
  - "GTS Root R1"
  - "GTS Root R2"
  - "GTS Root R3"
  - "GTS Root R4"
  - "UCA Extended Validation Root"
  - "UCA Global G2 Root"
  - "GlobalSign Root CA - R6"
  - "OISTE WISeKey Global Root GC CA"
  - "GDCA TrustAUTH R5 ROOT"
  - "SSL.com[17] EV Root Certification Authority ECC"
  - "SSL.com[18] EV Root Certification Authority RSA R2"

---

[17] http://SSL.com
[18] http://SSL.com

- "SSL.com[19] Root Certification Authority ECC"
- "SSL.com[20] Root Certification Authority RSA"
- "TrustCor ECA-1"
- "TrustCor RootCert CA-1"
- "TrustCor RootCert CA-2"
- The following authorities were removed:

  More...

  - "Certplus Root CA G1"
  - "Certplus Root CA G2"
  - "OpenTrust Root CA G1"
  - "OpenTrust Root CA G2"
  - "OpenTrust Root CA G3"
  - "TÜRKTRUST Elektronik Sertifika Hizmet Saglayicisi H5"
  - "Visa eCommerce Root"
  - "ACEDICOM Root"
  - "AddTrust Low-Value Services Root"
  - "AddTrust Public Services Root"
  - "AddTrust Qualified Certificates Root"
  - "CA Disig Root R1"
  - "CNNIC ROOT"
  - "Camerfirma Chambers of Commerce Root"
  - "Camerfirma Global Chambersign Root"
  - "Certinomis - Autorit, Racine"
  - "Certum Root CA"
  - "China Internet Network Information Center EV Certificates Root"
  - "Comodo Secure Services root"
  - "Comodo Trusted Services root"
  - "DST ACES CA X6"
  - "GeoTrust Global CA 2"
  - "PSCProcert"
  - "Security Communication EV RootCA1"
  - "Swisscom Root CA 1"
  - "Swisscom Root CA 2"
  - "Swisscom Root EV CA 2"
  - "TURKTRUST Certificate Services Provider Root 2007"
  - "TUBITAK UEKAE Kok Sertifika Hizmet Saglayicisi - Surum 3"
  - "UTN USERFirst Hardware Root CA"
- Added parameter to override **rate limit of debug messages** in journal. It should be enabled for debugging processes which generate a big amount of messages in order to avoid skipping of messages.

  More...

Parameter	No rate limit

---

[19] http://SSL.com
[20] http://SSL.com

Registry	`system.journald.no_rate_limit`
Value	enabled / <u>disabled</u>

- It's possible to **extend the login options of the Kerberos** login window now.
  There are several new registry keys:
  More...

Parameter	extended login
Registry	`sessions.xlock0.options.login_extension_active`
Value	enabled / <u>disabled</u>

If enabled, an "**Associate Type" combo box is shown**. The **entries of the combo box** are **configured with** the following **login_feature1**, **login_feature2**, and **login_feature3 keys**.

- Configure the **label of the "Associate Type" combo box**:
  More...

Parameter	login features label
Registry	`sessions.xlock0.options.login_features_label`
Value	Default: empty which means "Associate Type"

- **The first entry of the "Associate Type" combo box**. To enable the combo box entry, add e.g. the text "Store associate at home store".
  More...

Parameter	login_feature1
Registry	`sessions.xlock0.options.login_feature1`

If the entry is selected, the **username is expanded by a fixed string** defined in `login_extension_default` registry key.

- The **fixed username extension** for the first feature. It can be set e.g. by a script.
  More...

Parameter	login extension default value
Registry	`sessions.xlock0.options.login_extension_default`

- **The second entry of the "Associate Type" combo box.** To enable the combo box entry, add e.g. the text "Store associate visiting this store".
  More...

Parameter	login_feature2
Registry	`sessions.xlock0.options.login_feature2`

If the entry is selected, the **username is expanded by a suffix** that is **entered in a separate entry widget**.

- The **label of the entry field for the username suffix.** Set it e.g. to "Store Number".
  More...

Parameter	login_extension_label
Registry	`sessions.xlock0.options.login_extension_label`
Value	Default: empty which means "no label"

- **The third entry of the "Associate Type" combo box**. To enable the combo box entry, add e.g. the text "Homeoffice associate visiting this store".
  More...

Parameter	login_feature3
Registry	`sessions.xlock0.options.login_feature3`

If the entry is selected, **another domain** can be **selected from an appended domain combo box**.

- The **label for the domain entry field**.
  More...

Parameter	login domain label
Registry	`sessions.xlock0.options.login_domain_label`
Value	Default: empty which means "domain"

- The **extension to the username** is **added after a dot** ('.').
- For the **domain drop-down box**, **four different domains are configurable** here:
  More...

IGEL Setup	**Security > Active Directory/Kerberos > Domain 1 - 4**
Parameter	Fully qualified domain name
Registry	`auth.krb5.realms.realm0.realm`
Registry	`auth.krb5.realms.realm1.realm`
Registry	`auth.krb5.realms.realm2.realm`
Registry	`auth.krb5.realms.realm3.realm`

- There are keys to **add more domain names**:
  More...

Parameter	Domain
Registry	`auth.krb5.extended_domain%.name`
Info	Add a new instance for each domain entry.

- In the Kerberos login window, it's now possible to turn on or off **numlock** and/or **capslock for password input**.
  Registry keys:
  More...

Parameter	Handling of numlock
Registry	`sessions.xlock0.options.numlock_approach`
Range	[don't change] [set on] [set off]
Info	"set on": force numlock on when password is entered "set off": force numlock off when password is entered
Parameter	Handling of capslock
Registry	`sessions.xlock0.options.capslock_approach`
Range	[don't change] [set on] [set off]
Info	"set on": force capslock on when password is entered "set off": force capslock off when password is entered

- It's now possible to **show a message in the Kerberos login window**. Registry key:
  More...

Parameter	banner text
Registry	`sessions.xlock0.options.banner_text`
Info	The user will see the message on the top border.

- In the Kerberos login window, there is a **mode to convert passwords always to upper case**. To turn it on, use:
  More...

Parameter	case-insensitive password
Registry	`sessions.xlock0.options.case_insensitive_password`
Value	enabled / disabled

- With this key, the text for the **case-insensitive indicator** can be modified:
  More...

Parameter	case-insensitive text
Registry	`sessions.xlock0.options.case_insensitive_text`
Value	Default: empty which means "case-insensitive"

- Fixed **ThinkPad Brazil keyboard layout**.

- It is possible to **show a custom logo** in the Kerberos login window. Also, the **background and text color is customizable** now.
  Registry keys:
  More...

Parameter	path for login image
Registry	`sessions.xlock0.options.login_image`
Value	/usr/share/pixmaps/greeter-user.svg
Info	Supported image formats include: PNG, JPG, SVG
Parameter	set specific colors for greeter
Registry	`sessions.xlock0.options.set_color`
Value	enabled / disabled
Parameter	text color
Registry	`sessions.xlock0.options.text_color`
Value	#ffffff
Info	Text color in the format #rrggbb Example: #ff0077
Parameter	background color
Registry	`sessions.xlock0.options.background_color`
Value	#000000
Info	Background color in the format #rrggbb Example: #7700ff

- Added **new local logon method "Login with Smart Card Certificate"**. It implements the **pam_pkcs11 smartccard authentication module**. For a successful configuration, the following has to be provided via **UMS file transfer**:
  - **root and intermediate CA certificates** for verification of the client certificates in folder `/etc/pam_pkcs11/cacerts`
  - file `/etc/pam_pkcs11/cn_map` which contains **mappings of Common Names to UPN names**.
    Each line is in the format `\<common name> -> \<logon name>` where
    `\<common name>` is the common name part of the subject of the certificate
     `\<logon name>` is
    - in case of **Kerberos Enterprise** (`auth.login.krb5_enterprise`) **disabled**:
    the UPN name of the SubjectAltName extension of the certificate, e.g. user@MY.DOM

AIN[21]
- in case of **Kerberos Enterprise** (`auth.login.krb5_enterprise`) **enabled**: the UPN name of the SubjectAltName extension of the certificate with Default Domain (`auth.krb5.libdefaults.default_realm`) suffix, e.g. user@DOMAIN.SUFFIX@DEFAULT.DOMAIN[22]

- The logon method **can** either **be used standalone or together with Kerberos logon** as a fallback if Kerberos does not succeed.
  More...

Parameter	Login with Smart Card Certificate
Registry	`auth.login.pkcs11`
Value	<u>false</u> / true
Parameter	Certificate verification policy
Registry	`auth.login.pkcs11_cert_policy`
Value	<u>ca,ocsp_on,signature</u>
Parameter	Enable Debugging of Smart Card Certificate Logon
Registry	`auth.login.pkcs11_debug`
Value	<u>false</u> / true

- It is possible to expand the store number by a registry key:
  More...

Parameter	expand store
Registry	`sessions.xlock0.options.expand_store`
Value	enabled / <u>disabled</u>

- Fixed: The **login screen** is **adjusted to lower resolutions**.
- It is possible to activate enter key to login on all fields.
  More...

Parameter	auto login on all fields
Registry	`sessions.xlock0.options.auto_login`
Value	enabled / <u>disabled</u>

X11 system

- Changed: Use **modesetting graphics driver** on **devices with newer intel GPUs**.
- Changed registry key:
  More...

---

21 mailto:user@MY.DOMAIN
22 mailto:DOMAIN.SUFFIX@DEFAULT.DOMAIN

Parameter	Use generic modesetting driver for INTEL hardware
Registry	`x.drivers.intel.use_modesetting`
Range	[Auto] [True] [False]

- Updated **DisplayLink driver** to version **5.3.1.34**.
- Added new registry key for **Nvidia cards** (use this **if you want to use PRIME**):
  More...

Parameter	Enable/Disable NVIDIA Kernel Modesetting support
Registry	`x.drivers.nvidia.use_modeset`
Range	[Default] [Enabled] [Disabled]
Info	"Default" is currently the same as "disabled"

- Updated **florence soft keyboard** to version **0.6.3**.
- **Removed 640x480** from possible **display resolution range**.
- Added possibility to **change the order of primary** and **secondary graphic card**.
  New registry key:
  More...

Parameter	Make the secondary graphic card to the primary one
Registry	`x.drivers.swap_card0_with_card1`
Value	true / false

- Added possibility to **invert the order of all graphic card**s.
  New registry key:
  More...

Parameter	Invert default graphic card ordering
Registry	`x.drivers.swap_all`
Value	true / false

- Added possibility to **choose the driver** which should become **the primary graphic card**.
  New registry key:
  More...

Parameter	Choose which drivers should be preferred to become the primary graphic card
Registry	`x.drivers.preferred_driver`
Value	

X server

- Added possibility to influence **mode used for mirroring screens with different resolutions**. (Notice: here scaling may not always work).
  New registry key:
  More...

Parameter	Choose the mode which should be used for mirroring monitors if resolution differs
Registry	`x.xserver0.mirror_mode`
Range	[Default] [Biggest common resolution] [Scaling]
Value	Default (use panning if needed)

Driver

- Updated **Grundig Dictation driver for Citrix** and **RDP** to version **0.10**.
  The changes are:
  - Support **third-party USB HID devices** in a more flexible way
  - Fixed USB transfer overflow for **Philips LFH 9620**
  - Remove **erroneous debug output** in release configuration
  - Allow to **control** also **"Headphone" volume & switches**
- Updated **Olympus driver for dictation** to version **2020-03-23-143654**.
  Changelog:

  New:
  - DR-1200: PID 0225
  - DR-2300: PID 0256
  Changed:
  - PID 0253 from DR-2100 to DR-1200
- Updated **Philips Speech driver** to version **G12.9**.
  The changes are:
  - Support for **Philips SpeechLive**
  - Faster and more reliable remote session connection status check
  - **Shutdown of** the **PSPDispatcher.exe** on the server if it's not in use anymore.
- Updated **StepOver TCP client** and **Citrix plugin** to version **2.4.2**. Fixed **crash of Citrix** session while **using** the **signature pad**.

Audio

- Integrated **new sound mixer**.
- New combo box for **audio device selection in TC Setup** available:
  - **Accessories > Sound Preferences > Options > Default Sound Output**
  - **Accessories > Sound Preferences > Options > Default Sound Input**

Appliance Mode

- Integrated: The **new Browser Appliance mode** is the successor for the XenDesktop appliance mode. The Browser is configured as in XenDesktop appliance mode, but **does not use the upstream SAS window**.

More...

IGEL Setup	**Sessions > Appliance Mode**
Parameter	Browser
Registry	`xen.xenapp-morph.enabled`
Type	Bool
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Appliance Mode > Browser**
Parameter	Web URL
Registry	`xen.xenapp-morph.xendeliveryserverurl`
Type	string

- A **hyperlink to the "On-screen Keyboard"** is available on the right side **under "Related Configurations"**.

Multimedia

- Added **ffmpeg support** for following codecs:
    - Added support for **new decoders**:
      More...

      flac, gif, libaom_av1, mjpeg, mjpegb, mp1,mp1float, mp2, mp3, mp3adu, mp3adufloat, mp3float, opus, theora, vorbis, vp2, vp8, vp9, and wavepack

    - Added support for **new encoder**: libopus
    - Added support for **new hwaccels**:
      More...

      mjpeg_vaapi, mpeg1_vdpau, mpeg2_vaapi, mpeg2_vdpau, vp8_vaapi, and vp9_vaapi

    - Added support for **new parsers**: avi, flac, gif, matroska, mp3, ogg, and wav
    - Added support for **new demuxers**: avi, flac, gif, matroska, ogg, and wav
    - Added support for **new muxers**: ogg and opus

Chromium Browser

- Integrated **Chromium** browser version **83.0.4103.61** as experimental feature.
  Configurable at **IGEL Setup > Sessions > Chromium Browser > Chromium Browser Global** and
  IGEL Setup > Sessions > Chromium Browser > Chromium Browser Sessions
- Main switch to enable and disable **IGEL configuration**:
  More...

IGEL Setup	**Sessions > Chromium Browser > Chromium Browser Global**

Parameter	Use IGEL Setup for configuration
Registry	`chromiumglobal.app.igelsetupconfig`
Value	disabled / <u>enabled</u>
Info	With disabled IGEL configuration, you can use the generic Custom Setup to configure Chromium. The Custom Setup can be found at **IGEL Setup > Sessions > Chromium Browser > Chromium Browser Global > Custom Setup:** **Policies**, **Preferences**, **Commandline Options**.

- Parameter for **enabling** and **disabling** the **H.264 decoding**:
  More...

IGEL Setup	**Sessions > Chromium Browser > Chromium Browser Global**
Parameter	H.264 decoding
Registry	`chromiumglobal.app.h264_decoding`
Value	enabled / <u>disabled</u>
Info	Enable Audio/Video playback of non-free codecs (H.264+AAC) - the support is in a beta state and therefore disabled by default.

Evidian

- Added the Evidian **built-in option 'Process To Spy'**.
  More...

Registry	`evidian.processtospy`
Value	YOUR-PROCESS / <u>disabled</u>

ControlUp

- Integrated **ControlUp Monitoring Tool for Citrix** and **Horizon** sessions.

Hardware

- Added hardware support for **Lenovo M625q**.
- Added hardware support for **LG CL600N**.
- Added hardware support for **HP Engage Go Mobile System**.
- Added hardware support for **Fujitsu FUTRO S740**.
- Added hardware support for **OnLogic CL210G-10**.
- Added hardware support for **OnLogic KARBON 300**.
- Added hardware support for **Rein Medical Clinio S 522TCT** and **S 524TCT**.
- Added hardware support for **HP t640 Thin Client**.
- Added basic support for **Macbook models 2018** and **newer**.

- Added support for **Sennheiser MB 660**, **SC 630**, **SC 45**, **SC 160 headsets**.
- Added support for **Plantronics Savi 8245 Office**, **Voyager 6200 UC**, **Savi 8220 headsets**.
- Added serial port driver for **Exar UART PCIe card**.
- Added driver for **GSPCA based webcams**.

TC Setup (Java)

- Added Setup page **Sessions > Horizon Client > Horizon Client Global > Window**. Settings for "**Window size**" and "**Multimonitor full-screen mode**" can be set.
  These settings are repeated and originate in RDP Global but are now presented in a more obvious place for Horizon sessions.

IGEL Cloud Gateway

- Added support for **Secure Terminal over ICG**.
- **Changed default order of connecting to the IGEL Remote Management** - an available UMS Server is preferred now by default. The device establishes a configured ICG connection only if the UMS Server is not reachable. This behavior can be changed by the parameter:
  More...

Registry	`system.remotemanager.icg_try_ums_connect`
Value	<u>true</u> / false

Fabulatech

- Updated **FabulaTech Scanner for Remote Desktop** client to version **2.4.0.11**.
- Updated **FabulaTech plugins** to version **3.6.2**.
- Updated **Fabulatech USB for Remote Desktop plugins** to version **3.6.8**.

Jabra

- **Jabra Xpress** (JDU) is upgraded to the **7.2.0-509** version. List of the newly introduced parameters:
  More...

Registry	`jabra.xpress.show_jdu_gui`
Value	true / <u>false</u>
Registry	`jabra.xpress.device_dashboard.autopost`
Value	<u>true</u> / false

Resolved Issues 11.04.100

Citrix

- "**Green artifacts**" problem in Citrix sessions (most probably) fixed.
- Citrix **hardware video acceleration** supports the **latest Intel hardware**.

OSC Installer

- Fixed issue with **filesystems not** always get detected correctly in **initramfs OSC Installer** (needed for using iso file boot parameter).
- Fixed: **username and password in the error message** are not shown anymore when firmware file could not be downloaded.
- Get **URLs** with **username:password@** working.

RDP/IGEL RDP Client 2

- Fixed error when **renaming a non-empty shared folder**.

WVD

- Includes **WVD client with** fixed **RDcoreSDK** version.
- **Clipboard redirection** has potential privacy and security risks and is therefore **disabled by default**.
- **IGEL WVD Client** integrated

VMware Horizon

- Fixed missing **support for ThinPrint** and **Skype for Business** when starting **Horizon from Firefox browser**.

Firefox

- Fixed Firefox **block extension missing tabs** created via command line argument.
- Fixed **rtsp media stream** with enabled apparmor.
- **Show "blocked" page instead of closing tab** when blocked page is viewed in Firefox.
- Fixed functionality in the local setup to start the **certificate manager of the Firefox browser**.
- Fixed functionality in the local setup to **start the Firefox** browser **with the internal page to show the installed plugins**.
- Fixed **restart mechanism in the Firefox** browser where the browser could not be closed on suspend resulting in a superfluous browser window on resume.

Network

- Improved **Wi-Fi DHCP lease handling**: Leases are discarded when the network changes. The former behavior caused problems with certain iPhone IOS versions.
- **802.1X failures** now generally **result in falling back to a connection without authentication**, e.g. also in the case of 802.1X settings that don't make sense at all. This only **applies if the fallback is allowed** of course.
- **wpa_supplicant** now adds **timestamps to entries of its log file**.
- Use **e1000e driver** out of the kernel **as default** instead of the third-party driver.
- Added a registry key that determines whether **lldpd is in receive-only mode**.

More...

Parameter	Disable sending LLDP packets
Registry	`network.lldp.rxonly`
Value	<u>true</u>
Attention:	If the behavior since 10.06.100 shall be preserved, this key must be set to "false".

- Updated **scep** to version **0.7.0**.

Wi-Fi

- Fixed non-working **Marvell WLAN device 8997** (SDIO version).

NCP VPN

- Added fix for **NCP Secure Client**.

genucard VPN

- **genucard 3 is supported** now.

Imprivata

- **Control the visibility** of the **Horizon session control bar** via registry parameter:
  More...

Registry	`vmware.view.menu-bar`
Value	<u>enabled</u> / disabled

- Honor the Citrix Window Configuration in **Imprivata Appliance Mode**.
- Fixed **Lock key** and **Tap out** behavior.
- Fixed **MS RDSH** session.
- Simplified the configuration of **Imprivata FUS**.
- **Enable the following** if you use **Imprivata** versions **above 6.3**:
  More...

Registry	`imprivata.gain_permission`
Value	enabled / <u>disabled</u>

- Fixed **bug regarding Imprivata** and **On-Screen Keyboard**.
- **Restore the keyboard map** after Horizon sessions.

Smartcard

- Fixed not working **90meter in Firefox** when **apparmor is active**.
- Fixed problem in **smartcard resource manager PC/SC-Lite** which caused **disconnects of VMware Horizon sessions** when using smartcards with certain applications.
- Added **driver for** smartcard reader **Elatec TWN4 CCID** (USB 0x09D8:0x0425).
- Updated **cryptovision scInterface** to version **7.3.1**.
  The changes are:

More...

- Consolidated features of the last versions 7.2 and 7.1
- Malta eID Release
- Added Admin Card Gemalto V3
- Updated **PC/SC-Lite smartcard resource manager** to version **1.8.26**.

HID

- Fixed: **Switching touchpad to other driver** via IGEL registry key.

CUPS Printing

- Added new version **25.1.0.425** of **Printerlogic Printer Installer Client**.
- Added **new printer models** into IGEL OS from the current CUPS drivers.

Base System

- Fixed bug in **folder generation of the Application Launcher**.
- Fixed **TLS certificate verification** problem of **certificates signed by "USERTrust RSA CA"** or **"COMODO RSA CA"**. The problem could occur in clients like Citrix Workspace App and VMWare Horizon client.
- Fixed **password change with AD/Kerberos**. Before this fix, the password complexity rules were not enforced for users with the Reset Password permission for their account.
- You can now **connect to Bluetooth devices without pairing**. For this a new registry key is available.
  More...

Parameter	connect devices without pairing
Registry	`devices.bluetooth.connect_only`
Value	enabled / <u>disabled</u>

- **Some devices do not connect automatically after reboot**. To fix that, `bluetoothctl connect \<device-ID>` can be executed via script. If the **device is connected (0)** or **not (1)** can be seen in return value.
  Known devices that do not connect:
  - dialog semiconductor IoT Multi Sensor DK
- **SSHv1 support is now removed** due to newer openssh libraries.
- **Forcing** protocol **version 1** via **SSH Session > Options** is **no longer possible**.
- The `network.ssh_server.server_key_bits` registry key parameter is **removed** due to **deprecation of SSHv1**.
- Updates **systemd** to **Ubuntu Focal version**.
- Improved **stability of mounting network shares** when using a **static network configuration**.
- Fixed **apparmor cache** issue **after update with OSC installer**.
- Bug fix: **touchscreen calibration** on 1 or more normal screen with 1 touch screen environment.
- Fixed **syslog**, **kern.log**, **auth.log**, and **daemon.log** entries are **not shown in IGEL System Log Viewer**.
- Updated **Grub2** to current Debian SID/Bullseye version **2.04**.
- **Removed** deprecated registry keys `system.idlecommand`.
- New **Bluetooth pairing tool** and **Bluetooth tray icon** for Bionic.

- Updated **kernel** to mainline version **5.4.48**.
- If used as master image, the **image will expand itself to full size** (limited to 16 GiB) on flash. This is done only on first boot and never again.
- Possible **rollout of initial settings, certificates or licenses placed on first partition** for this you need to:
    a. Write image to your USB/Flash medium.
    b. Mount or simply access the **1. VFAT partition** which is present (should be empty).
    c. Copy your **setup.ini** and/or ****.lic files** to the 1st partition (no directories).
    d. Create a `ca-certs` directory and copy your certificates into it. They will be copied to the `/wfs/ca-certs` directory on first boot.
    e. You can now copy the USB/Flash medium several times if needed.
    f. On first boot, the device will reboot out of the splash screen (reread changed partition table)
    g. The settings, certificates and/or licenses will get rolled out and deleted from the 1st partition.
- Added initial support for **Thunderbolt devices** (only limited support here, may work but is not guaranteed).
- Updated IGEL **EULA**.
- Updated **AMD Microcode** to version **3.20191218.1**.
- Updated **Intel Microcode** to version **20200520** and a special update for **J1900 devices**.
- Updated **Intel Microcode** to **20200616** version.
- Added a **userspace oom killer** to the firmware.

Firmware Update

- An **ongoing firmware update can now be canceled by the use**r when the network online status could not be reached after 10 seconds (since start of the firmware update).

H264

- **Citrix hardware video acceleration** supports the latest Intel hardware.

Storage Devices

- Fixed mount issues with **Iphone XR/XE/11PRO**.
- **Mobile Device Access** feature respects USB Access Control now.
- Fixed unwanted **ownership change** of automounted Linux filesystem root directories.

X11 System

- Fixed **Display Switch not saving settings over reboot**.
    - **Default to settings from Setup** instead of mirror when no Display Switch profile is available.
- Prevent misconfiguration that **picks GPU without render capability as primary** (e.g. Displaylink).
- Improved **Nvidia** with **additional GPU handling**.
- Fixed error with s**ingle-gpu Nvidia card support**.

X server

- Fixed a **Xorg crash** due to a **NULL pointer dereference in the Intel drive**r.

Window Manager

- Fixed **random login** (greeter) **window focus** issues.

Shadowing/VNC

- Added the **"snapfb" option for the VNC server**.
  More...

Registry	`network.vncserver.snapfb`
Value	enabled / <u>disabled</u>
Info	This option should only be enabled with experienced delays in remote or shadowing session.

- Improved **security of the password authentication method** - the VNC server does not require anymore a file holding the password. **During client authentication**, the **server retrieves** now the **password from the IGEL Setup**.

VNC Viewer

- Fixed **occasional freeze of shadowing session** e.g. when resizing a window. Now **the session gets unlocked again after about 20 seconds**.
  More...

Parameter	Unlock X server in case of shadowing session freeze
Registry	`network.vncserver.grab_buster`
Type	bool
Value	<u>enabled</u> / disabled

VirtualBox

- Fixed **no automatic resolution changes** as **virtualbox guest** issue.

Audio

- Fixed **headset microphone using 3.5mm audio jack** in **Dell Wyse 3040**.
- Added possibility to **set** some **snd_hda_intel kernel module parameter** to overcome possible issues with sound devices.
  New registry keys:
  More...

Parameter	Enable Message Signaled Interrupt
Registry	`system.sound_driver.snd_hda_intel.enable_msi`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Force enable device
Registry	`system.sound_driver.snd_hda_intel.enable`

Type	bool
Value	enabled / <u>disabled</u>
Parameter	Position fix quirk
Registry	`system.sound_driver.snd_hda_intel.position_fix`
Range	[<u>Default</u>] [Auto (0)] [LPIB (1)] [POSBUF (2)] [VIACOMBO (3)] [COMBO (4)] [SKL+ (5)] [FIFO (6)]
Parameter	Change sound card order
Registry	`system.sound_driver.snd_hda_intel.index`
Type	integer
Value	<u>empty</u>
Parameter	Detection of DMIC devices
Registry	`system.sound_driver.snd_hda_intel.dmic_detect`
Range	[<u>Default</u>] [Disabled] [Enabled]
Parameter	Enable this if you encounter sound card problems
Registry	`system.sound_driver.snd_hda_intel.single_cmd`
Type	bool
Value	enabled / <u>disabled</u>
Parameter	Automatic power save timeout
Registry	`system.sound_driver.snd_hda_intel.power_save`
Type	integer
Value	<u>empty</u>
Parameter	Reset controller in power save mode
Registry	`system.sound_driver.snd_hda_intel.power_save_controller`
Type	bool
Value	<u>enabled</u> / disabled
Parameter	Choose sound model to use
Registry	`system.sound_driver.snd_hda_intel.model`
Type	string

Value	Auto
Parameter	If you encounter sound problems try to choose one of the alternative masks
Registry	`system.sound_driver.snd_hda_intel.probe_mask`
Range	[Auto] [1] [8]

- Old settings. **Command at startup removed**.

Jabra

- **Avoid deploying of the same Jabra Xpress package several times** on the same Jabra device.

Evidian

- Evidian now **triggers the regular Horizon session script**.

Hardware

- Fixed non-working **Prolific PL2303 USB-to-serial adapters**.

TC Setup (Java)

- **Removed "default" button** left of selection box IGEL Setup: **Sessions > Citrix > Citrix Global > Window > Multimonitor full-screen mode**.

Remote Management

- Fixed **repeated firmware registering over the ICG** which can occur after a new firmware was successfully registered in the UMS. The device invokes firmware registering again after every settings transfer from the device to the UMS. This behavior lasts until reboot.
- Fixed **syncing settings changed on the device if** the **UMS wasn't reachable**.
- Fixed handling of the **structure tag** if it was **configured in the system dialog "UMS Registering"**.

IGEL Cloud Gateway

- **Maximum waiting time for a response from the ICG server** can now be **configured by** the parameter **system.remotemanager.rmagent_timeout** (default: 90 seconds).

VNC

- **Shadowing notification** is **restricted to primary monitor** and **cannot be moved outside of the monitor's visible range**.
- Fixed **sporadic connection failure** in VNC server.
- Fixed **occasional freeze of shadowing session** e.g. when resizing a window. Now the session gets unlocked again after about 20 seconds.
  More...

Parameter	Unlock X server in case of shadowing session freeze
Registry	`network.vncserver.grab_buster`
Type	bool
Value	enabled / disabled

Notes for Release 11.03.500

Software:	Version	11.03.500
Release Date:	2020-04-01	
Release Notes:	Version	RN-1103500-1
Last update:	2020-04-01	

- IGEL OS 11
- IGEL OS Creator (OSC)

IGEL OS 11

Supported Devices 11.03.500

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.03.500

- **Clients**

Product	Version
Cisco JVDI Client	12.7.1
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Workspace App	18.10.0.11
Citrix Workspace App	19.10.0.15
Citrix Workspace App	19.12.0.19
deviceTRUST Citrix Channel	19.1.200.2
Crossmatch DP Citrix Channel	0515.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	12.5_x64_20190619_12.5.1.40008
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.6
FabulaTech USB for Remote Desktop	5.2.29
Firefox	68.6.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
IGEL WVD Client	1.0.5
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.7.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.44.0.11
Parallels Client (64 bit)	17.0.21474
Spice GTK (Red Hat Virtualization)	0.37-1igel62

Remote Viewer (Red Hat Virtualization)	8.0-1igel49
Usbredir (Red Hat Virtualization)	0.8.0-1+b1igel71
Teradici PCoIP Software Client	19.05.9-18.04
ThinLinc Client	4.10.1-6197
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.5-1igel1583919770
VNC Viewer	1.9.0+dfsg-3igel8
VMware Horizon Client	5.3.0-15208949
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech driver	12.8.5

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.3.2

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	7
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.7.77
PKCS#11 Library OpenSC	0.19.0-2igel35
PKCS#11 Library SecMaker NetID	6.8.1.31
PKCS#11 Library 90meter	20190522

Reader Driver ACS CCID	1.1.6-1igel2
Reader Driver Gemalto eToken	10.7.77
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.31-1igel10
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel11
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.2.5-1igel93
VAAPI ABI Version	0.40
VDPAU Library version	1.2-1igel911
Graphics Driver INTEL	2.99.917+git20191117-igel939
Graphics Driver ATI/RADEON	19.0.1-3igel936
Graphics Driver ATI/AMDGPU	19.0.1-5igel924
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	418.56-0ubuntu1
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel975

Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.7413
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.85 #mainline-lxos-r2875
Xorg X11 Server	1.20.5-1igel914
Xorg Xephyr	1.20.5-1igel914
CUPS printing daemon	2.1.3-4ubuntu0.10igel29
PrinterLogic	25.1.0.381
Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.1-1igel222
WebKit2Gtk	2.26.2-1igel27
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20191129.9f79242-1igel7
Mobile Device Access USB (gphoto)	2.5.23-2igel2
VPN OpenConnect	7.08-1
Scanner support	1.0.27-1
VirtualBox	6.0.14-dfsg-1igel33

General Information 11.03.500

> ⚠ Firmware downgrade to older versions (11.01 or 11.02) is not possible, due to the unsigned firmware update files.

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Security Fixes 11.03.500

Firefox

- Updated Mozilla Firefox to **68.6.0 ESR**.
- Fixes for **mfsa2020-09**, also known as:
  More...

  CVE-2020-6805, CVE-2020-6806, CVE-2020-6807, CVE-2020-6811,
  CVE-2019-20503, CVE-2020-6812, and CVE-2020-6814

- Fix for **mfsa2020-03**, also known as CVE-2019-17026.
- Fixes for **mfsa2020-02**, also known as:
  More...

  CVE-2019-17016, CVE-2019-17017,
  CVE-2019-17022, and CVE-2019-17024

- Fixes for **mfsa2019-37**, also known as:
  More...

  CVE-2019-17008, CVE-2019-11745, CVE-2019-17010,
  CVE-2019-17005, CVE-2019-17011, and CVE-2019-17012

Base system

- Fixed **libxml2** security issues CVE-2020-7595 and CVE-2019-19956.
- Fixed **nss** security issues CVE-2019-17007, CVE-2019-17006, and CVE-2019-11745.
- Fixed **libvncserver** security issue CVE-2019-15681.
- Fixed **libexif** security issues CVE-2019-9278, CVE-2017-7544, and CVE-2016-6328.
- Fixed **cyrus-sasl2** security issue CVE-2019-19906.
- Fixed **samba** security issues CVE-2019-14907, CVE-2019-14870, and CVE-2019-14861.
- Fixed **zulu** security issues:
  More...

  CVE-2020-2583, CVE-2020-2590, CVE-2020-2593,CVE-2020-2601,
  CVE-2020-2604, CVE-2020-2659, and CVE-2020-2654

Known Issues 11.03.500

Firmware Update

- On **devices with 2 GB of flash storage**, it could happen that there is **too little space for updating all features**. In this case, a corresponding error message occurs and **unused features** must be **disabled** in IGEL Setup **under System > Firmware Customization > Features** to perform the firmware update.

Firefox

- **Firefox IGEL extensions are not updated automatically** under some circumstances. After an update from 11.03.10x to 11.03.500, the IGEL extensions will stay on the old version.
  In this case, the following settings concerning **kiosk mode** cannot be executed:
    - Switch off Hotkey for new window/tab
    - Blocking of internal browser pages like preferences, file picker, specific local directories

  As a workaround:

- a **reset to defaults** should be performed
- or the **browser's mimetype template** can be switched **from "Standard" to "Minimal"** by registry key `browserglobal.app.mimetypes_template`. There, the browser profile is renewed as well.
  After the TC got the new setting, **reboot** and **set** the `mimetypes_template` registry key **back to "Standard"**.

Citrix

- With activated **DRI3** and an **AMD GPU Citrix H.264 acceleration plugin** could freeze. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H.264, MPEG1 and MPEG2**. GStreamer1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with activated **DRI3** and **hardware accelerated H.264 deep compression codec**.
- **Citrix StoreFront login** with **Gemalto smartcard** middleware does not detect smartcard correctly if the card is inserted after start of login.
  Workaround: Insert the smartcard before starting the StoreFront login.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264** acceleration plugin, the following registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`

Value	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

- Using **CWA 19.x** sometimes **freezes the session** while session logoff from a published desktop. Workaround: **Use CWA 18.10.0**.

VMware Horizon

- **Client drive mapping** and **USB redirection** for storage devices should not be enabled both at the same time.
    - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
    - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Enable local `Storage Hotplug` on setup page **Devices > Storage Devices > Storage Hotplug**.
- **External drives** mounted already before connection do not appear in the **remote desktop**. Workaround: map the directory /media as a drive. Then the external devices will show up inside the media drive.
- **After disconnect of an RDP based session**, the Horizon main **window** which contains the server or sessions overview **cannot be resized anymore**.
- **Seamless application windows in Horizon Client may not be displayed correctly**. When starting the first seamless app, a new iconified window appears in the taskbar, and only if you click on it, the application will show up.
  On some hardware (UD7-H850, UD2-M250, UD2-D220), however, the client aborts when this new window is de-iconified.

Imprivata

- On **devices with 2 GB of flash storage**, it could happen that there is too little space to enable the **Imprivata partition after the update to 11.03.500**. In this case, a corresponding error message occurs and **unused features must be disabled** (in IGEL Setup under **System > Firmware Customization > Features**). Imprivata has to be (re-)enabled after a reboot then.

Wi-Fi

- TP-Link Archer T2UH Wi-Fi adapters does not work after system suspend/resume. Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.

Smartcard

- In seldom cases, the **authentication** hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: **spice-xpi firefox plugin** is no longer supported. The **Console Invocation** has to allow 'Native' client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU driver**.

Hyper-V

- **Hyper-V** (Generation 2) needs **a lot of memory**. The machine needs a sufficient amount of memory allocated.

VirtualBox

- The current **VirtualBox Guest Tools/Drivers** will not work with **VirtualBox 5.2.x or older** hosts which leads to black screen and non-working graphic.
  Workaround: Install with 'Failsafe Installation + Recovery' and set the registry key `x.drivers.force_vesa` to true.
- When running in VirtualBox virtualization, **resizing the window will not automatically change desktop resolution** of IGEL OS guest.

Audio

- **Audio jack detection on Advantech POC-W243L doesn't work**. Sound output goes through the headset connection and the internal speakers.
- **IGEL UD2 (D220)** fails to restore the volume level of the speaker when the device used **firmware version 11.01.110** before.

Hardware

- **HP t730** could freeze when monitors with **different resolutions** are connected (1920x1200 + 2560x1440 + 3840x1600 for example). When this occurs, the registry key `x.drivers.kms.best_console_mode` has to be set to **disabled**.
- Some newer **Delock 62599 active DisplayPort to DVI (4k)** adapters only work with INTEL devices.

Remote Management

- **AIT feature with IGEL Starter License** is **supported** by the next **UMS version 6.05.100**.

New Features 11.03.500

Citrix

- Integrated **Citrix Workspace App 19.12**
- Available **Citrix Workspace Apps** in this release: **19.12** (default), **19.10**, and **18.10**
- New **registry keys**:
  - Added a registry key for enabling **full-screen banner "Citrix Desktop Viewer"** when starting a Desktop or Application session.
    More...

Parameter	Show Citrix Desktop Viewer screen
Registry	`ica.module.cdviewerscreen`
Value	<u>off</u> / on

  - Added a registry key to enable usage of **Chromium Embedded Framework (CEF) for Browser Content Redirection (BCR)** [Experimental].
    More...

Parameter	Use Chromium Embedded Framework (CEF)
Registry	`ica.allregions.usecefbrowser`
Value	<u>factory default is "*"</u> / false / true

  - "factory default" impact can be set by config file.
  - Changed default:
    More...

Parameter	VDTUI protocol
Registry	`ica.module.virtualdriver.vdtui.enable`
Value	off / <u>on</u>

WVD

- Integrated IGEL **WVD Client**.

VMware Horizon

- Updated **VMware Horizon Client** to version **5.3.0**.

ThinLinc

- Updated **ThinLinc Client** to version **4.11.0**.

Smartcard

- Updated **Gemalto / Safenet smartcard middleware** to version **10.7.7**.
- Added **support for** smartcard reader **HP Business Slim Smartcard CCID Keyboard**.

- Added **configuration parameter to disable PIN pad functionality of smartcard readers**, driven by Open Source CCID driver. This might work to solve problems with PIN pads, but lowers security level.
  More...

Parameter	Disable PIN pad
Registry	`scard.pcscd.ccid.disable_pinpad`
Value	<u>disabled</u> / enabled

- Added possibility to **add custom CCID smartcard readers to Open Source CCID driver**. Readers can be specified by USB Vendor, Product Id, and custom name:
  More...

Parameter	USB Vendor Id
Registry	`scard.pcscd.ccid.custom_reader<num>.vid`
Value	
Parameter	USB Product Id
Registry	`scard.pcscd.ccid.custom_reader<num>.pid`
Value	
Parameter	Reader name
Registry	`scard.pcscd.ccid.custom_reader<num>.name`
Value	

- Updated **Athena IDProtect library** to version **7**. This version **supports CRYPTAS TicTok V3 cards**. Known issue: The **detection of locked PIN does not work**.

CUPS Printing

- Added **CUPS Printer port "USB class printer"**. The USB printer is assigned, in this case, by **matching patterns of USB Manufacturer** and **Product name strings**. In this way, a single printer definition could work for a class of different USB printer models.
  More...

IGEL Setup	**Devices > Printer > CUPS > Printers**
Parameter	Printer port
Registry	`print.cups.printer<num>.backend`
Value	USB class printer
IGEL Setup	**Devices > Printer > CUPS > Printers**
Parameter	Pattern matching mode

Registry	`print.cups.printer<num>.usbclass_mode`
Value	pattern / pattern, case insensitive / regular expression
IGEL Setup	**Devices > Printer > CUPS > Printers**
Parameter	Manufacturer pattern
Registry	`print.cups.printer<num>.usbclass_manufacturer`
IGEL Setup	**Devices > Printer > CUPS > Printers**
Parameter	Product pattern
Registry	`print.cups.printer<num>.product`

- Updated **PrinterLogic Printer-Installer-Client** to version **25.1.0.381**. Fixed tray icon functionality.

Cisco JVDI Client

- Integrated **Cisco JVDI 12.7.1 client**. Cisco JVDI 12.7.0 has been removed.

Base system

- Added **Starter License functionality**.
  This license is now part of every new IGEL OS installation and is **valid for 30 days**. The license will be activated with the first boot after the initial installation. More and detailed information via https://kb.igel.com/licensing.
- Added '**Licensing**' tool to '**System**' in **local Start menu**. Disable the tool by key:
  More...

IGEL Setup	**Accessories > License Browser**
Parameter	Start Menu's System tab
Registry	`sessions.license_browser0.startmenu_system`
Value	<u>enabled</u> / disabled

If there is only the Starter License and no UMS connection, the **Licensing tool is shown on the desktop by default**.
- Added feature **Custom Partition** to **Workspace Edition license**.
- Updated **Fluendo multimedia codecs** to the following versions: **gst-fluendo-vadec - 30/01/2020 0.10.212**.
- **Kerberos Logon**:
  You can now **turn on/off numlock** and/or **capslock** for password input. Registry keys:
  More...

Parameter	Handling of numlock
Registry	`sessions.xlock0.options.numlock_approach`
Value	<u>don't change</u> / set on / set off

Note	"set on": force numlock on when password is entered "set off": force numlock off when password is entered
Parameter	Handling of capslock
Registry	`sessions.xlock0.options.capslock_approach`
Value	<u>don't change</u> / set on / set off
Note	"set on": force capslock on when password is entered "set off": force capslock off when password is entered

- Added configuration for special **thinkpad keyboard model**:
  More...

IGEL Setup	**User Interface > Input > Keyboard**
Parameter	Keyboard type
Registry	`userinterface.keyboard.type`
Range	[<u>Default</u>] [Standard PC Keyboard (105 Keys)] [IBM Keyboard (122 Keys)] [Trimodal Keyboard] [Sun Type 6 Keyboard] [Chromebook] [Macbook] [Macbook international] [Thinkpad]

Wi-Fi

- Added **driver for Realtek 8822ce** and **8822be** Wi-Fi hardware.
- Added driver for **Realtek 8821cu** Wi-Fi hardware.

Driver

- Updated **Crossmatch DP driver for fingerprint**. The new version allows the **fingerprint image** to be **sent via the Citrix channel**. With this change, customers will be able to develop their own SW using the Crossmatch DP SDK.

Misc

- Updated **Login PI 3.6** to the new **Login Enterprise 4.0**.

Resolved Issues 11.03.500

Citrix

- Fixed **video playback on BBC websites** redirected via Citrix Browser Content Redirection.
- Fixed **Multimedia redirection** and **HDX RealTime Media Engine** may used concurrently.

OSC Installer

- Fixed issue with **failed partitioning**.

RDP/IGEL RDP Client 2

- Added a new parameter to control **audio latency** (in milliseconds) which **defines the amount of buffered audio data in the RDP client**.
  More...

Registry	`rdp.winconnect.sound-latency`
Value	125 (msec)

WVD

- Improved overall sound quality.
- Fixed issue caused **audio redirection to fail randomly**.
- **Clipboard redirection has potential privacy and security risks** and is therefore disabled by default.
- Fixed **dead key support** (key composition).
- Fixed **sound getting choppy** after a while.
- Several **bugfixes** for all kind of **stability issues**.

VMware Horizon

- Fixed: **Save VMWare Horizon user from last login** when **in appliance mode**.
  Reduced the options for "**Preset login information**" to either "**from last login**" or "**from session setup**". The redundant option "from appliance mode" **is removed** because the appliance mode is also treated as a session.
  More...

IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Local Logon**
Parameter	Preset login information
Registry	`vmware.login.saveusertype`
Range	[Set user/domain from last login] [Set user/domain from session setup]

- Fixed **Skype for Business** integration.

Firefox

- Fixed **switching off** firmware feature **PrinterLogic removes browser policies file**.

- Fixed **hiding the URL input** results in **disappearing web content**.
- Fixed **browser startscript** which was waiting for a new window even when browser was not configured to open an extra one.

Network

- Use **e1000e driver out-of-the-kernel as default** instead of the third-party driver.

Wi-Fi

- Fixed **connection problems by updating the regulatory domain database**.
- Improved **persistence of Wi-Fi switch state** across reboots.
- Fixed problems with **Wi-Fi backports driver** and older **Wi-Fi adapters** or **adapters with external kernel drivers**.

Open VPN

- Fixed **timing in OpenVPN credential dialogs** to prevent **focus loss** when started too early at system boot.
- Fixed **session management** where **VPN connections could get stuck when wrong passwords** were entered with no possibility of retry.

Imprivata

- Hide the **Imprivata session templates on the desktop** as this is misleading.

Smartcard

- Fixed smartcard reader **VASCO/OneSpan Digipass 905**. **Disabled USB auto suspend** for all smart card readers.
- Added **parameter to control the used smartcard protocol** when connecting with raw and other protocols allowed. Enable to read smartcards using **NHS Identity Agent**.
  More...

Parameter	Avoid raw protocol
Registry	`scard.pcscd.avoid_raw_protocol`
Value	<u>false</u> / true

- Fixed use of **IDPrime smartcards inside sessions** with readers driven by **Open Source CCID** smartcard reader driver: implemented attribute `SCARD_ATTR_CHANNEL_ID`.
- Added parameter to **delay smartcard insertion events** (in milliseconds). This solves issues reading smartcards within the **Citrix Workspace App**. Issue occured when inserting the card after already started StoreFront login.
  More...

Parameter	Delay smart card insertion event time
Registry	`scard.pcscd.card_insert_event_delay`
Value	<u>0</u>

Base system

- Fixed **NTP sync problem** with some **Windows Timeservers**.
  New registry key:
  More...

Parameter	NTP max allowed distance
Tooltip	Set this to a larger value can help to synchronize with unreliable NTP servers
Registry	`system.time.ntp_max_distance`
Type	Integer
Value	<u>16 </u>(new default 16 seconds instead of 3 before)

- Added `_diag` **kernel modules** needed by **Stratusphere IPS**.
- Fixed **Next** button usage in **Setup Assistant** while r**egistering for an evaluation license**.
- Fixed issue with **mounting USB devices in** the **Licensing tool**.
- If used as a master image, the **image will expand itself to full size** (limited to 16 GiB) on flash. This is done only **on first boot** and never again.
- Possible **rollout of initial settings, certificates, or licenses placed on the first partition**. The necessary steps are:
  - Writing image to USB or Flash medium
  - Mount or simply access the 1. VFAT partition which is present (should be empty)
  - Copying the modified `setup.ini` and/or `**.lic` files to the 1st partition (no directories)
  - For copying certificates, a `ca-certs` directory must be created where the desired certificates can be inserted. These will be copied to the `/wfs/ca-certs` directory on first boot.
  - The USB/Flash medium can be copied several times as needed
  - With the initial boot, the device will reboot out of the splash screen (re-read changed partition table)
  - The settings, certificates and/or licenses will be deployed and also deleted from the 1st partition.

Firmware update

- Improve **download speed for SFTP update sources**.

Appliance Mode

- Fixed **RHEV/Spice appliance mode**.

X11 system

- Fixed **displays not being automatically set up on boot**.

Media Player (Parole)

- Fixed **handling of player latency** (stream buffering).

Hardware

- Fixed non-working **Prolific PL2303 USB-to-serial adapters**.
- Fixed non-working **keyboard and touchpad on Microsoft Surface 3 Laptop**.

IGEL Cloud Gateway

- Handle **UMS jobs** intended to be executed on the next boot. This feature requires **UMS 6.05.100 or later**.

IGEL OS Creator (OSC)

Supported Devices

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

- Component Versions 11.03.500(see page 465)
- New Features 11.03.500(see page 467)
- Resolved Issues 11.03.500(see page 468)

Component Versions 11.03.500

- **Clients**

Product	Version
Zulu JRE	8.44.0.11

- **Smartcard**

Reader Driver MUSCLE CCID	1.4.31-1igel10
Resource Manager PC/SC Lite	1.8.23-1igel11

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.2.5-1igel93
VDPAU Library version	1.2-1igel911
Graphics Driver INTEL	2.99.917+git20191117-igel939
Graphics Driver ATI/RADEON	19.0.1-3igel936
Graphics Driver ATI/AMDGPU	19.0.1-5igel924
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	418.56-0ubuntu1
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel975
Input Driver Elographics	1.4.1-1build5igel633
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.85 #mainline-lxos-r2875
Xorg X11 Server	1.20.5-1igel914

Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
WebKit2Gtk	2.24.2-0ubuntu0.19.04.1igel18
Python2	2.7.12
Python3	3.5.2

New Features 11.03.500

OSC Installer

- Added **Starter License** functionality.
  This license is now part of every new IGEL OS installation and is **valid for 30 days**. The license will be **activated with the first boot** after the initial installation. For more information, see https://kb.igel.com/licensing.

Resolved Issues 11.03.500

OSC Installer

- Fixed issue with **failed partitioning**.

Notes for Release 11.03.110

Software:	Version	11.03.110
Release Date:	2020-01-15	
Release Notes:	Version	RN-1103110-1
Last update:	2020-01-16	

- IGEL OS 11
- IGEL OS Creator (OSC)

IGEL OS 11

See here the list of contained CA certificates:

ca-certificates.txt

Supported Devices 11.03.110

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.03.110

- **Clients**

Product	Version
Cisco JVDI Client	12.7.0
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Workspace App	18.10.0.11
Citrix Workspace App	19.10.0.15
Citrix Workspace App	19.12.0.19
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	12.5_x64_20190619_12.5.1.40008
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.6
FabulaTech USB for Remote Desktop	5.2.29
Firefox	68.4.1
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64 Qualification in progress
deviceTRUST RDP Channel	19.1.200.2
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.7.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.42.0.23
Parallels Client (64 bit)	17.0.21474
Spice GTK (Red Hat Virtualization)	0.37-1igel62
Remote Viewer (Red Hat Virtualization)	8.0-1igel49
Usbredir (Red Hat Virtualization)	0.8.0-1+b1igel71

Teradici PCoIP Software Client	19.05.9-18.04
ThinLinc Client	4.10.1-6197
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VNC Viewer	1.9.0+dfsg-3igel8
VMware Horizon Client	5.2.0-14604769
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech driver	12.8.5

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.3.2

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library OpenSC	0.19.0-2igel35
PKCS#11 Library SecMaker NetID	6.8.1.31
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0

Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.31-1igel6
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel9
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.2.5-1igel93
VAAPI ABI Version	0.40
VDPAU Library version	1.2-1igel911
Graphics Driver INTEL	2.99.917+git20191117-igel939
Graphics Driver ATI/RADEON	19.0.1-3igel936
Graphics Driver ATI/AMDGPU	19.0.1-5igel924
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	418.56-0ubuntu1
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814

Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.85 #mainline-lxos-r2872
Xorg X11 Server	1.20.5-1igel914
Xorg Xephyr	1.20.5-1igel914
CUPS printing daemon	2.1.3-4ubuntu0.10igel29
PrinterLogic	25.1.0.303
Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.1-1igel222
WebKit2Gtk	2.26.2-1igel27
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20181030.92c5462-1igel5
Mobile Device Access USB (gphoto)	2.5.23-2igel2
VPN OpenConnect	7.08-1
Scanner support / Sane	1.0.27-1
VirtualBox	6.0.14-dfsg-1igel33

General Information 11.03.110

⚠️ Firmware downgrade to older versions (11.01 or 11.02) is not possible, due to the unsigned firmware update files.

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Known Issues 11.03.110

Firefox

- **Firefox IGEL extensions are not updated automatically** under some circumstances. After an update from 11.03.10x to 11.03.110, the IGEL extensions will stay on the old version.
  In this case, the following settings concerning **kiosk mode** cannot be executed:
    - Switch off Hotkey for new window/tab
    - Blocking of internal browser pages like preferences, file picker, specific local directories

As a workaround:

- a **reset to defaults** should be performed
- or the **browser's mimetype template** can be switched **from "Standard" to "Minimal"** by registry key `browserglobal.app.mimetypes_template` . There, the browser profile is renewed as well.
  After the TC got the new setting, **reboot** and **set** the `mimetypes_template` registry key **back to "Standard"**.

Citrix

- With activated **DRI3** and an **AMD GPU Citrix H.264 acceleration plugin** could freeze. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H.264, MPEG1 and MPEG2**. GStreamer1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with activated **DRI3** and **hardware accelerated H.264 deep compression codec**.
- **Citrix StoreFront login** with **Gemalto smartcard** middleware does not detect smartcard correctly if the card is inserted after start of login.
  Workaround: Insert the smartcard before starting the StoreFront login.
- **Citrix H.264 acceleration plugin** does not work if server policy **Optimize for 3D graphics workload** is enabled together with server policy **Use video codec compression > For the entire screen**.
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264** acceleration plugin a registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

- **Multimedia redirection** isn't working if "HDX RealTime Media Engine" is enabled at the same time.
  Workaround: Switch off **HDX RealTime Media Engine**.
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > HDX Multimedia**
	Sessions > Citrix > Citrix Global > Unified Communications > Skype for Business
Parameter	HDX RealTime Media Engine
Registry	`ica.module.virtualdriver.hdxrtme.enable`
Value	<u>enabled</u> / disabled

- With Citrix **Workspace App 19.10.0** or **19.8.0** the session sometimes freezes while session logoff from a published desktop:
Workaround: Use **CWA 18.10.0**.
More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Citrix Client Selection**
Parameter	Citrix client version
Registry	`ica.activeversion`
Range	<u>Default</u> (19.10.0) / 18.10.0 / 19.8.0 / 19.10.0

VMware Horizon

- **After disconnect of an RDP based session**, the Horizon main **window** which contains the server or sessions overview **cannot be resized anymore**.
- **Seamless application windows in Horizon Client may not be displayed correctly**. When starting the first seamless app a new iconified window appears in the taskbar and only if you click on it the application will show up.
- **Client drive mapping** and **USB redirection** for storage devices should not be enabled both at the same time.
    - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
    - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore Horizon Client relies on the OS to mount the storage devices itself. Enable local `Storage Hotplug` on setup page **Devices > Storage Devices > Storage Hotplug**.
- **External drives** mounted already before connection do not appear in the **remote desktop**. Workaround: map the directory /media as a drive. Then the external devices will show up inside the media drive.

Wi-Fi

- TP-Link Archer T2UH Wi-Fi adapters does not work after system suspend/resume. Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.

Smartcard

- In seldom cases the **authentication** hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: **spice-xpi firefox plugin** is no longer supported. The **Console Invocation** has to allow 'Native' client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU driver**.

Audio

- **Audio jack detection on Advantech POC-W243L doesn't work**. Sound output goes through the headset connection and the internal speakers.
- **IGEL UD2 (D220)** fails to restore the volume level of the speaker when the device used **firmware version 11.01.110** before.

VirtualBox

- The current **VirtualBox Guest Tools/Drivers** will not work with **VirtualBox 5.2.x or older** hosts which leads to black screen and non working graphic.
  Workaround: Install with 'Failsafe Installation + Recovery' and set registry key
  `x.drivers.force_vesa` to true.
- When running in VirtualBox virtualization, **resizing the window will not automatically change desktop resolution** of IGEL OS guest.

Hardware

- **HP t730** could freeze when monitors with **different resolutions** are connected (1920x1200 + 2560x1440 + 3840x1600 for example). When this occors, the registry `key x.drivers.kms.best_console_mode` has to be set to disabled.
- Some newer **Delock 62599 active DisplayPort to DVI (4k)** adapters only work with INTEL devices.

Security Fixes 11.03.110

Firefox

- Updated Mozilla Firefox to **68.4.1esr**.
- Fix for **mfsa2020-03**, also known as CVE-2019-17026.
- Fixes for **mfsa2020-02**, also known as: CVE-2019-17016, CVE-2019-17017, CVE-2019-17022, and CVE-2019-17024.
- Fixes for **mfsa2019-37**, also known as:
  More...

  CVE-2019-17008, CVE-2019-11745, CVE-2019-17010,
  CVE-2019-17005, CVE-2019-17011, and CVE-2019-17012.

New Features 11.03.110

Citrix

- Integrated **Citrix Workspace App 19.12**
- Available **Citrix Workspace Apps** in this release: **19.12** (default), **19.10**, and **18.10**
- New **registry keys**:
  - Added a registry key for enabling **full-screen banner "Citrix Desktop Viewer"** when starting a Desktop or Application session.
    More...

Parameter	Show Citrix Desktop Viewer screen
Registry	`ica.module.cdviewerscreen`
Value	<u>off</u> / on

  - Added a registry key to enable usage of **Chromium Embedded Framework (CEF) for Browser Content Redirection (BCR)** [Experimental].
    More...

Parameter	Use Chromium Embedded Framework (CEF)
Registry	`ica.allregions.usecefbrowser`
Value	<u>factory default</u> / false / true

  - "factory default" means that can be set by config file.
  - Changed default:
    More...

Parameter	VDTUI protocol
Registry	`ica.module.virtualdriver.vdtui.enable`
Value	off / <u>on</u>

Resolved Issues 11.03.110

OSC Installer

- Fixed deployment of IGEL OS with **IGEL Deployment Appliance**.

Firefox

- Fixed **possibility to remove the browser's navigation bar**. In 11.03.100, the whole browser content was invisible without the navigation bar.

Wi-Fi

- Fixed **support for** some **newer Wi-Fi chipsets**.
- Fixed **Wi-Fi backport driver** instability problems with updating them to **5.4-rc8-1**.

Imprivata

- Fixed **race condition** that may lead to unexpected behavior with RDP connections.
- Fixed **VMware Horizon session disconnect**.

Smartcard

- Fixed bug in **smartcard transaction locking**.

Cisco JVDI Client

- The **Cisco EULA** must be accepted together with the IGEL EULA before installing IGEL OS and also within IGEL Setup Assistant when requesting an IGEL OS demo license.

Base system

- Fixed potential **temporary settings loss when resuming from standby**.

RDP/IGEL RDP Client 2

- Fixed **Fabulatech Scanner Redirection** not working for **RDP Remote Apps**.

IGEL OS Creator (OSC)

Supported Devices

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

- Component Versions 11.03.110
- Resolved Issues 11.03.110

Component Versions 11.03.110

- **Clients**

Product	Version
Zulu JRE	8.42.0.23

- **Smartcard**

Reader Driver MUSCLE CCID	1.4.31-1igel6
Resource Manager PC/SC Lite	1.8.23-1igel9

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
Bluetooth Stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.2.5-1igel93
VDPAU Library version	1.2-1igel911
Graphics Driver INTEL	2.99.917+git20191117-igel939
Graphics Driver ATI/RADEON	19.0.1-3igel936
Graphics Driver ATI/AMDGPU	19.0.1-5igel924
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	418.56-0ubuntu1
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.85 #mainline-lxos-r2872

Xorg X11 Server	1.20.5-1igel914
Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
WebKit2Gtk	2.26.2-1igel27
Python2	2.7.12
Python3	3.5.2

Resolved Issues 11.03.110

OSC Installer

- Fixed deployment of **IGEL OS with IGEL Deployment Appliance**.

Notes for Release 11.03.100

Software:	Version	11.03.100
Release Date:	2019-12-10	
Release Notes:	Version	RN-1103100-1
Last update:	2019-12-06	

- IGEL OS 11
- IGEL OS Creator (OSC)

IGEL OS 11

See here the list of contained CA certificates:

ca-certificates.txt

Supported Devices 11.03.100

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.03.100

- **Clients**

Product	Version
Cisco JVDI Client	12.7.0
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Workspace App	18.10.0.11
Citrix Workspace App	19.10.0.15
Citrix Workspace App	19.8.0.20
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	12.5_x64_20190619_12.5.1.40008
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.6
FabulaTech USB for Remote Desktop	5.2.29
Firefox	68.2.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.7.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.42.0.23
Parallels Client (64 bit)	17.0.21474
Spice GTK (Red Hat Virtualization)	0.37-1igel62
Remote Viewer (Red Hat Virtualization)	8.0-1igel49
Usbredir (Red Hat Virtualization)	0.8.0-1igel49

Teradici PCoIP Software Client	19.05.9-18.04
ThinLinc Client	4.10.1-6197
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VNC Viewer	1.9.0+dfsg-3igel8
VMware Horizon Client	5.2.0-14604769
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech driver	12.8.5

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.3.2

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library OpenSC	0.19.0-2igel35
PKCS#11 Library SecMaker NetID	6.8.1.31
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0

Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.31-1igel6
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel8
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.2.5-1igel93
VAAPI ABI Version	0.40
VDPAU Library version	1.2-1igel911
Graphics Driver INTEL	2.99.917+git20191117-igel939
Graphics Driver ATI/RADEON	19.0.1-3igel936
Graphics Driver ATI/AMDGPU	19.0.1-5igel924
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	418.56-0ubuntu1
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814

Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.85 #mainline-lxos-r2872
Xorg X11 Server	1.20.5-1igel914
Xorg Xephyr	1.20.5-1igel914
CUPS printing daemon	2.1.3-4ubuntu0.10igel29
PrinterLogic	25.1.0.303
Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.1-1igel222
WebKit2Gtk	2.26.2-1igel27
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20181030.92c5462-1igel5
Mobile Device Access USB (gphoto)	2.5.23-2igel2
VPN OpenConnect	7.08-1
Scanner support / Sane	1.0.27-1
VirtualBox	6.0.14-dfsg-1igel33

General Information 11.03.100

> ⚠️ Firmware downgrade to older versions (11.01 or 11.02) is not possible, due to the unsigned firmware update files.

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Security Fixes 11.03.100

Firefox

- Updated Mozilla Firefox to **68.2.0esr**
  - Fixes for **mfsa2019-33**.
    More...

    CVE-2019-15903, CVE-2019-11757, CVE-2019-11758, CVE-2019-11759,

    CVE-2019-11760, CVE-2019-11761, CVE-2019-11762, CVE-2019-11763,

    CVE-2019-11764.

  - Fixes for **mfsa2019-26**.
    More...

    CVE-2019-11746, CVE-2019-11744, CVE-2019-11742, CVE-2019-11752,

    CVE-2019-9812, CVE-2019-11743, CVE-2019-11748, CVE-2019-11749,

    CVE-2019-11750, CVE-2019-11738, CVE-2019-11747, CVE-2019-11735,

    CVE-2019-11740.

Base system

- Added **cryptographic signatures** to OS 11 firmware files to prevent reading from corrupt images or disks.
  - Updates to firmwares without valid signatures are blocked.
  - When a signature error on the system partition is detected, the system is halted immediately. For system recovery a reinstallation via the OS Creator tool (OSC) is required. A signature error during early boot is signalized by a beep sequence.
  - When a signature error in another partition is detected the partition is removed and a firmware update is triggered to reinstall the corrupt partition.
  - Added user visible notification about partition signature errors.
- Fixed **admin logout from rescue shell** after suspend.
- Fixed security issue **CVE-2019-15902** in **4.19.x kernel**.
- Updated **Intel microcodes** to version **20191115** to fix various security issues (CVE-2019-11135, CVE-2019-0117 and CVE-2019-11139).
- Fixed **cups** security issues CVE-2019-8696, CVE-2019-8675 and CVE-2019-86.
- Fixed **openjpeg2** security issues CVE-2018-6616, CVE-2018-5785, CVE-2018-18088, CVE-2018-14423 and CVE-2017-17480.
- Fixed **xorg-server** security issue CVE-2018-14665.
- Fixed **expat** security issue CVE-2019-15903.
- Fixed **freetype** security issue CVE-2015-9383.
- Fixed **ghostscript** security issues.
  More...

  CVE-2019-14817, CVE-2019-14813, CVE-2019-14812,

  CVE-2019-14811, CVE-2019-10216 and CVE-2019-14869.

- Fixed **python2.7** security issues.

More...

CVE-2019-9948, CVE-2019-9947, CVE-2019-9740, CVE-2019-9636,

CVE-2019-5010, CVE-2019-10160 , CVE-2018-20852, CVE-2019-16935 and CVE-2019-16056.

- Fixed **python3.5** security issues.
  More...

  CVE-2019-9948, CVE-2019-9947, CVE-2019-9740, CVE-2019-9636,

  CVE-2019-5010, CVE-2019-10160, CVE-2018-20852, CVE-2018-20406, CVE-2019-16935 and CVE-2019-16056.

- Fixed **giflib** security issues CVE-2019-15133 and CVE-2018-11490.
- Fixed **libvirt** security issues.
  More...

  CVE-2019-3886, CVE-2019-11091, CVE-2019-10168, CVE-2019-10167,

  CVE-2019-10166, CVE-2019-10161, CVE-2019-10132, CVE-2018-6764,

  CVE-2018-5748, CVE-2018-12130, CVE-2018-12127, CVE-2018-12126,

  CVE-2018-1064, CVE-2017-2635, CVE-2017-1000256 and CVE-2016-5008.

- Fixed **e2fsprogs** security issue CVE-2019-5094.
- Fixed **rpcbind** security issues CVE-2017-8779 and CVE-2015-7236.
- Fixed **wpa** security issues CVE-2019-16275 and CVE-2019-13377.
- Fixed **tiff** security issues CVE-2019-17546 and CVE-2019-14973.
- Fixed **aspell** security issue CVE-2019-17544.
- Fixed **libsdl1.2** security issues.
  More...

  CVE-2019-7638, CVE-2019-7637, CVE-2019-7636,

  CVE-2019-7635, CVE-2019-7578, CVE-2019-7577,

  CVE-2019-7576, CVE-2019-7575, CVE-2019-7574,

  CVE-2019-7573, CVE-2019-7572 and CVE-2019-13616.

- Fixed **libsoup2.4** security issues CVE-2019-17266, CVE-2018-12910 and CVE-2017-2885.
- Fixed **rtlwifi driver** security issue CVE-2019-17666 .
- Fixed **libxslt** security issues CVE-2019-18197, CVE-2019-13118 and CVE-2019-13117.
- Fixed **opus** security issue CVE-2017-0381.
- Fixed **curl** security issues CVE-2019-5482 and CVE-2019-5481.
- Fixed **libidn2** security issues CVE-2019-18224 and CVE-2019-12290.
- Fixed **libarchive** security issue CVE-2019-18408.
- Fixed **samba** security issues CVE-2019-14847 and CVE-2019-10218.
- Fixed **file** security issue CVE-2019-18218.
- Fixed **imagemagick** security issues.
  More...

  CVE-2019-16713, CVE-2019-16711, CVE-2019-16710, CVE-2019-16709,

  CVE-2019-16708, CVE-2019-15140, CVE-2019-15139,

  CVE-2019-14981, CVE-2019-13454, CVE-2019-13391,

CVE-2019-13311, CVE-2019-13310, CVE-2019-13309, CVE-2019-13307,

CVE-2019-13306, CVE-2019-13305, CVE-2019-13304, CVE-2019-13301,

CVE-2019-13300, CVE-2019-13297, CVE-2019-13295, CVE-2019-13137,

CVE-2019-13135, CVE-2019-12979, CVE-2019-12978, CVE-2019-12977,

CVE-2019-12976, CVE-2019-12975 and CVE-2019-12974.

- Fixed **libjpeg-turbo** security issues CVE-2019-2201, CVE-2018-20330 and CVE-2018-19664.
- Fixed **python-ecdsa** security issues CVE-2019-14859, CVE-2019-14853 and CVE-2019-1485.
- Restricted access to **journalctl log** file for root only.
- Limit list of allowed **TLS ciphers** according to the Germany BSI recommendation (TR-0210202 Version 2019-01). The functionality is controlled by a parameter.
  More...

Registry	`system.security.remote_management.tls_policy`
Value	<u>Default</u> / BSI

The limited cipher list is applied on TLS (SSL) connections in:

- IGEL RM Agent
- Secure Shadowing
- Secure Terminal
- Firmware Update
- Custom Partition

Known Issues 11.03.100

Citrix

- With activated **DRI3** and an **AMD GPU Citrix H.264 acceleration plugin** could freeze. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H.264, MPEG1 and MPEG2**. GStreamer1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with activated **DRI3** and **hardware accelerated H.264 deep compression codec**.
- **Citrix StoreFront login** with **Gemalto smartcard** middleware does not detect smartcard correctly if the card is inserted after start of login.
  Workaround: Insert the smartcard before starting the StoreFront login.
- **Citrix H.264 acceleration plugin** does not work if server policy **Optimize for 3D graphics workload** is enabled together with server policy **Use video codec compression > For the entire screen**.
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264** acceleration plugin a registry key must be enabled.
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

- **Multimedia redirection** isn't working if "HDX RealTime Media Engine" is enabled at the same time.
  Workaround: Switch off **HDX RealTime Media Engine**.
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > HDX Multimedia**
	Sessions > Citrix > Citrix Global > Unified Communications > Skype for Business
Parameter	HDX RealTime Media Engine
Registry	`ica.module.virtualdriver.hdxrtme.enable`
Value	<u>enabled</u> / disabled

- With Citrix **Workspace App 19.10.0 or 19.8.0** the session sometimes freezes while session logoff from a published desktop. :
  Workaround: Use **CWA 18.10.0**.
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Citrix Client Selection**

Parameter	Citrix client version
Registry	`ica.activeversion`
Range	Default (19.10.0) / 18.10.0 / 19.8.0 / 19.10.0

VMware Horizon

- **After disconnect of an RDP based session**, the Horizon main **window** which contains the server or sessions overview **cannot be resized anymore**.
- **Seamless application windows in Horizon Client may not be displayed correctly**. When starting the first seamless app a new iconified window appears in the taskbar and only if you click on it the application will show up.
- **Client drive mapping** and **USB redirection** for storage devices should not be enabled both at the same time.
    - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
    - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore Horizon Client relies on the OS to mount the storage devices itself. Enable local `Storage Hotplug` on setup page **Devices > Storage Devices > Storage Hotplug**.
- **External drives** mounted already before connection do not appear in the **remote desktop**. Workaround: map the directory /media as a drive. Then the external devices will show up inside the media drive.

WiFi

- TP-Link Archer T2UH WiFi adapters does not work after system suspend/resume. Workaround: Disable system suspend at **IGEL Setup > System > Power Options > Shutdown**.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.

Smartcard

- In seldom cases the **authentication** hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: **spice-xpi firefox plugin** is no longer supported. The **Console Invocation** has to allow 'Native' client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU driver**.

Audio

- **Audio jack detection on Advantec POC-W243L doesn't work**. Sound output goes through the headset connection and the internal speakers.
- **IGEL UD2 (D220)** fails to restore the volume level of the speaker when the device used **firmware version 11.01.110** before.

VirtualBox

- The current **VirtualBox Guest Tools/Drivers** will not work with **VirtualBox 5.2.x or older** hosts which leads to black screen and non working graphic.
  Workaround: Install with 'Failsafe Installation + Recovery' and set registry key `x.drivers.force_vesa` to true.
- When running in VirtualBox virtualization, **resizing the window will not automatically change desktop resolution** of IGEL OS guest.

Hardware

- **HP t730** could freeze when monitors with **different resolutions** are connected (1920x1200 + 2560x1440 + 3840x1600 for example). When this occors, the registry `key x.drivers.kms.best_console_mode` has to be set to disabled.
- Some newer **Delock 62599 active DisplayPort to DVI (4k)** adapters only work with INTEL devices.

New Features 11.03.100

Citrix

- Integrated **Citrix Workspace app 19.10**
- Available Citrix Workspace apps in this release: 19.10 (default), 19.08 and 18.10
- Added a registry key to enable **Transparent User Interface [TUI] Virtual Channel [VC]** protocol. **More...**

Parameter	Enable VDTUI protocol
Registry	`ica.module.virtualdriver.vdtui.enable`
Value	enabled / <u>disabled</u>

- Updated **libwebkit2gtk-4.0-37** to version **2.26.2**. It is now possible to **enable debug output for Citrix Browser Content Redirection** by running the script `/config/bin/install-webkit-debug`. The debug output is written to `/var/log/user/webcontainer.debug`.

> ⬣ Only short sessions with enabled debug output can be tracked, due to the huge amount of debugging data which is written to the log file.

- Added support for **FabulaTech Scanner for Remote Desktop**. **More...**

IGEL Setup	**Sessions > Citrix > Citrix Global > Fabulatech Scanner Redirection**
Parameter	Fabulatech Scanner for Remote Desktop
Registry	`ica.module.virtualdriver.fabulatech_scanner.enable`
Value	enabled / <u>disabled</u>

RDP/IGEL RDP Client 2

- Added support for **FabulaTech Scanner for Remote Desktop**. **More...**

IGEL Setup	**Sessions > RDP > RDP Global > Fabulatech Scanner Redirection**
Parameter	Fabulatech Scanner for Remote Desktop
Registry	`rdp.fabulatech_scanner.enable`
Value	enabled / <u>disabled</u>

VMware Horizon

- Updated Horizon Client to version **5.2.0-14604769**.
- Added **local scanner redirection** for VMWare Horizon Client. **More...**

Parameter	Scanner Redirection

Registry	`vmware.view.enable-scanner-redir`
Value	enabled / <u>disabled</u>

- Added support for **FabulaTech Scanner for Remote Desktop**.
  More...

IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Fabulatech Scanner Redirection**
Parameter	Fabulatech Scanner for Remote Desktop
Registry	`vmware.view.usb.enable-fabulatech-scanner`
Value	enabled / <u>disabled</u>

ThinLinc

- Updated ThinLinc Client to version **4.10.1**.

Parallels Client

- Updated Parallels Client to Version **17.0.1** .
  For using the FIPS 140-2 compliance mode no special handling is needed anymore.

Teradici PCoIP Client

- Updated Teradici PCoIP client to **19.05.9**.

Imprivata

- Added: When **available flash** is **bigger than 2GB**, 500 MB will be used for the Imprivata data partition.

Cisco JVDI Client

- Integrated new **Cisco Jabber Softphone for VDI** (Cisco JVDI Client) version 12.7 in 64bit.
  More...

IGEL Setup	**Sessions > Citrix XenDesktop/XenApp > HDX/ICA Global > Unified Communications > Cisco Jabber**
Parameter	Cisco JVDI client
Registry	`ica.module.virtualdriver.vdcisco.enable`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Horizon Client > Horizon Global > Unified Communications > Cisco Jabber**
Parameter	Cisco JVDI client
Registry	`vmware.view.vdcisco.enable`
Value	enabled / <u>disabled</u>

> Registry path for Common JVDI options: `multimedia.ciscovxme.**`

Logging

- Added **Elastic FIlebeat 7.3.0**. This is a lightweight way to forward and centralize logs and files. There are new registry keys to enable and configure **Elastic FIlebeat**.
  More...

IGEL Setup	**System > Firmware Customization > Features**
Parameter	Elastic Filebeat
Registry	`services.elastic_filebeat.enabled`
Value	enabled / <u>disabled</u>
Parameter	Use custom configuration
Registry	`network.filebeat.custom.enabled`
Value	<u>enabled</u> / disabled
Parameter	Custom Configuration
Registry	`network.filebeat.custom.config`
Value	filebeat.inputs: ...

Base system

- Added support for **exFAT filesystem**.
- Updated **Kernel to version 4.19.85** with **WiFi backport drivers 5.3.6.1**.
- Updated **Intel microcodes to version 20191115** to fix various security issues (CVE-2019-11135, CVE-2019-0117 and CVE-2019-11139).
- Updated **Xorg Xserver** from version 1.19.6 to **1.20.5**.
- Updated **Mesa OpenGL stack** from version 19.0.8 to **19.2.5**.
- Updated the **X11 video** and **input drivers** to their most current available versions.
- Added functionality to **enable or disable touchpad with a hotkey**.
  More...

IGEL Setup	**User Interface > Input > Touchpad**
Parameter	Enable Touchpad
Registry	`userinterface.touchpad.general.touchpadenable`
Value	<u>enabled</u> / disabled
IGEL Setup	**User Interface > Input > Touchpad**
Parameter	Hotkey
Registry	`userinterface.touchpad.general.usehotkey`

Value	enabled / disabled
IGEL Setup	**User Interface > Input > Touchpad**
Parameter	Modifiers
Registry	`userinterface.touchpad.general.hotkeymodifier`
IGEL Setup	**User Interface > Input > Touchpad**
Parameter	Hotkey
Registry	`userinterface.touchpad.general.hotkey`

- Added feature to **log into different files** and to **store log files on a persistent encrypted partition**.
  More...

IGEL Setup	**System > Logging**
Parameter	Local logging
Registry	`system.syslog.enabled`
Value	enabled / disabled
IGEL Setup	**System > Logging**
Parameter	Use persistent log partition
Registry	`system.syslog.persistent`
Value	enabled / disabled
IGEL Setup	**System > Logging**
Parameter	Partition size in MB
Registry	`system.syslog.partsize`
Value	100

Create /var/log/auth.log:

Registry	`system.syslog.sinks.auth`
Value	enabled / disabled

Create /var/log/daemon.log:

Registry	`system.syslog.sinks.daemon`
Value	enabled / disabled

Create /var/log/kern.log:

Registry	`system.syslog.sinks.kern`
Value	<u>enabled</u> / disabled

Create /var/log/syslog:

Registry	`system.syslog.sinks.syslog`
Value	<u>enabled</u> / disabled

- Updated **Fluendo multimedia codecs** to the following versions:

    gst-fluendo-h264dec - 18/09/2019 0.10.54

    gst-fluendo-vadec - 16/10/2019 0.10.210

- Added **beep sequence** to signalize a **missing system partition** during early boot.

CUPS Printing

- Updated **Printer Installer** client to version **25.1.0.303**.
- Added missing **cups model names** for some printers.

Smartcard

- Updated **MUSCLE Open Source CCID** driver to version **1.4.31**. Added additional smartcard reader **Cherry SECURE BOARD**.
- Updated **SecMaker Net iD** smartcard library to version **6.8.1.31**. The changes are:
    - Support for **Gemalto IDPrime 940** and **3940**.
    - Support for new **VRK card** (IDEMIA IAS ECC, spec: FINEID S1 - FINEID S1 Electronic ID Application v4.0).
    - Support for **Aventra MyEID v4.0** (customer specific card profile with read support only).
    - Fixed problem with **detection of cards in Net iD Card Portal**.
    - Other fixes, see release notes at **SecMaker**[23].

WiFi

- Added **backports kernel drivers** with version **5.3.6-1** for better WiFi support.
- Disabled **backports drivers** for **Microsoft Surface** Laptop 3.
- Added new registry key to enable or disable the use of the **backport drivers** (reboot is needed). **More...**

Parameter	Use the newer backport drivers for WiFi
Registry	`network.drivers.use_backport_drivers`
Range	<u>Default</u> (normally use backport drivers) / False / True

- Added switch for more aggressively search of configured **hidden WiFi networks**. **More...**

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23 https://service.secmaker.com/releasenotes/

Parameter	Force connection to hidden network
Registry	`network.interfaces.wirelesslan.device0.mssid_force_hidden`
Value	never / once / continuously

The default value **never** preserves the old behaviour.

Changing can be useful in situations where the system cannot detect any configured WiFi in the environment. If **once** is selected, the system will blindly try to connect to all configured hidden networks once (until the network as a whole gets started again). In the case of **continuously**, it will continue trying to connect to hidden networks.

Remarks: An access point found in this way will be remembered next time and its reconnecting will be faster. Search for hidden networks in the Wireless Manager is not affected.

Driver

- Updated **Philips Speech Driver** to version **12.8.5**.
- Added login with **BioSec BS Login Hand Vein Recognition** software. The parameters have to be set in IGEL Setup Registry.
  More...

Parameter	Login with Biosec BS Login
Registry	`auth.login.biosec_bslogin`
Value	enabled / disabled
Parameter	URL of LifePassServer
Registry	`auth.biosec.lifepassserverurl`
Value	localhost:10100
IGEL Setup	**System > Firmware Customization > Features**
Parameter	Biosec BS Login
Registry	`services.biosec_bslogin.enabled`
Value	enabled / disabled

- Added **Broadcom Tigon3** network driver.

X11 system

- Added support for secure keyboard input with **Cherry SECURE BOARD 1.0**.
  In secure mode all keyboard input devices are suppressed except pre-personalized Cherry SECURE BOARD 1.0 devices. For the encrypted communication certificates and keys in directories `/wfs/cherry/ca-certs` and `/wfs/cherry/client-certs` are required.
  More...

IGEL Setup	**User Interface > Input > Keyboard**
Parameter	Secure keyboard input with Cherry SECURE BOARD

Registry	`devices.cherry_secureboard.enable`
Value	enabled / <u>disabled</u>
Parameter	Debug messages for Cherry SECURE BOARD
Registry	`devices.cherry_secureboard.debug`
Value	enabled / <u>disabled</u>

- Added the possibility to configure the **screen brightness** with registry keys.
  More...

Parameter	Brightness value

Registry	`x.xserver0.brightness`
	
	`x.xserver0.screen[1-7].brightness`

Range	0.1 - <u>1.0</u> (darker) <u>1.0</u> - 3.0 (brighter)

- Added new registry keys to be able to configure some **modesetting graphics driver options** if needed.
  More...

Parameter	Use DRI3 PageFlip feature
Registry	`x.drivers.modesetting.use_page_flip`
Range	<u>Default</u> (normally use page flip feature) / disabled / enabled
Parameter	Use shadow framebuffer layer
Registry	`x.drivers.modesetting.use_shadow_fb`
Range	<u>Default</u> (normally use shadow framebuffer) / disabled / enabled
Parameter	Use double shadow framebuffer to improve VNC performance
Registry	`x.drivers.modesetting.use_double_shadow`
Range	<u>disabled</u> / enabled
Parameter	Use software cursor for modesetting driver
Registry	`x.drivers.modesetting.use_sw_cursor`
Range	<u>Default</u> (normally disabled)
Parameter	Choose acceleration method
Registry	`x.drivers.modesetting.accel_method`
Range	<u>Default</u> (normally Glamor is used) / Glamor / None

Parameter	Force usage of DRI3 regardless of x.drivers.use_dri3 setting
Registry	`x.drivers.modesetting.force_dri3`
Range	<u>disabled</u> / enabled

Misc

- Added support for **Stratusphere UX** from Liquidware.
  More...

IGEL Setup	**Accessories > Connector ID Key Software**
Parameter	Enable Stratusphere UX CID Key
Registry	`stratusphere_ux.cid_key_software.enable`
IGEL Setup	**Accessories > Connector ID Key Software**
Parameter	Stratusphere hub
Registry	`stratusphere_ux.cid_key_software.hub`
IGEL Setup	**Accessories > Connector ID Key Software**
Parameter	Stratusphere machine group
Registry	`stratusphere_ux.cid_key_software.machine_group`
IGEL Setup	**Accessories > Connector ID Key Software**
Parameter	Stratusphere user group
Registry	`stratusphere_ux.cid_key_software.user_group`

- Added the launcher of Login VSI's monitoring tool **Login PI** to the IGEL OS which can be configured from setup via parameters and started from the UMS.
  Besides of specifying the parameters given below, a SSL certificate must be provided and deployed via the UMS. This has to be obtained from the Login PI server manually. Given the parameters and the certificate, **the launcher can be started via job from the UMS**.
  More...

IGEL Setup	**Accessories > Login PI**
Parameter	Server URL
Registry	`debug.tools.login_pi.server_url`
IGEL Setup	**Accessories > Login PI**
Parameter	Secret
Registry	`debug.tools.login_pi.crypt_password`

Hardware

- Added recognition for **IGEL UD2 M250C** with **8 GB eMMC** with product id **UD2-LX 51**.
- Added support for **IGEL UD3 M350C** with product id **UD3-LX 60**.
- **UD7** with active **AMD Secure Processor** feature uses new product id **UD7-LX 11**.
- Improved support for **ADS-Tec VMT9000** devices:
    - Enable **rs-232 additional power supply** without restart.
    - Enable **external wifi antenna** without restart.
    - Enable **shutdown by ignition off**.
    - Enable **watchdog service**.
- Added hardware support for **LG CL600N**.
- Added hardware support for **LG CL600W**.
- Added new registry keys to be able to configure some **new i915 parameter**.
  More...

Parameter	Disable the use of limited color range for DisplayPort 1
Registry	`x.drivers.intel.dp1_no_limited_color_range`
Range	Default / disabled / enabled
Info: Only for M250C the use of limited color range for DP1 is disabled.	

- Added support for newer Prolific PL2303 USB serial adapters (used in UD3-LX 60).

Resolved Issues 11.03.100

Citrix

- Fixed **video playback** with enabled **Citrix Browser Content Redirection**.

RDP/IGEL RDP Client 2

- Fixed **RDP graphics issues** with **Windows 2008(R2)** Server (when RemoteFX is not enabled).
- Fixed **RDP Web Access Domain Visibility** not working correctly.
- Fixed **sound glitch** while using **PulseAudio** system. PulseAudio is now the default sound driver.

VMware Horizon

- Fixed **sound issue** in **Horizon client 5.x using PCoIP protocol**.

Firefox

- Fixed: **Homepage** cannot be set
- Fixed: **RTSP media stream** with enabled apparmor.

Network

- Fixed issue with configuration of more then one **NTP server**.
- Fixed network interface device order for **Dell Wyse 5070 Thin Client** so that the onboard interface always is the first one.

> ❗ When endpoint is updated from a previous firmware version, network interface device order might change

- Changed **minimal allowed MSS size to 750** to avoid problems with some VPN solutions.
- Added new registry keys to be able to configure the **minimal allowed TCP MSS size**.
  More...

Parameter	Minimal TCP send MSS size
Registry	`system.sysctl.tcp_min_snd_mss`
Range	<u>750</u>

Smartcard

- Fixed not working **90meter** in **Firefox** when apparmor is enabled.
- Fixed handling of smartcards in **pcsc-lite**: Improved transaction locking. A new parameter was introduced to control the new behavior (enabled by default).
  More...

Parameter	Abort stalled transactions
Registry	`scard.pcscd.abort_stalled_transactions`
Range	<u>enabled</u> / disabled

- Fixed **bug in smartcard transaction locking**.
- Fixed **IGEL Smartcard** to be able to handle **VoIP client Ekiga** sessions.

- Fixed **smartcard usernames displayed on login screen**: non-ASCII characters were not shown correctly before.
- Fixed **error message on login screen**, shown when smart card PIN is locked.

Base system

- Fixed **license handling**: Add-on licenses can be used on top of Workspace Edition evaluation licenses now.
- Fixed **warnings when evaluation license is about to expire**. In detail, removed warning when **Enterprise Management Pack** is about to expire and WE is already licensed.
- Fixed **ActiveDirectory/Kerberos password** change with **Change Password** accessory for users which are member of many (~300+) AD groups.
- Fixed **IGEL License retrieval via FTP protocol** in **IGEL Setup Assistant** and **Licenses Browser tool**.
- Fixed **bug in reboot message** where not all available translations were used.
- Fixed problems with **missing library** if using **OpenConnect** feature.
- Changed: **Bluetooth is off by default again**. It wiil be temporary enabled for auto pairing before the initial Setup Assistant runs. Only if a device is paired during this phase, Bluetooth is enabled afterwards. To enable Bluetooth support by configuration use this parameter:
  More...

IGEL Setup	**Devices > Bluetooth**
Parameter	Bluetooth
Registry	`devices.bluetooth.enable`
Value	enabled / <u>disabled</u>

- Fixed **license information** of Add-On licenses in category evaluation.
- Re-fixed broken **custom bootsplash** when doing a reset to factory defaults via UMS.

Custom Partition

- Automatic constrain of minimum size for **custom partition to 5MB**.

Firmware update

- **Automatic firmware update** is now checked after retrieval of UMS settings.
- If there are some not executed changes in the network configuration, these **changes are applied automatically** before performing firmware update.

Storage Devices

- Fixed bug: **udiskd mounted storage devices** on behalf of user processes (e.g. parole) even if Storage Hotplug was disabled in the setup.

X11 system

- Fixed issue with **Wacom Signing Pads** not being recognized as displays.
- Solved issues with certain **monitors** on **UD2 LX50**.
- Fixed **Multi-GPU NVIDIA** setups with **Display Switch**.
- Prevent configuration of **Display Switch** utility on unlicensed device.
- Fixed an issue with **modesetting driver** and **DisplayLink USB graphic adapters**.

X server

- Fixed **Xorg freezes** when usage of **modesetting driver** and **video acceleration**.

Shared Workplace

- Fixed broken **Shared Workplace** authentication when ICG is used.

Hardware

- Fixed **EFI freeze** problem **after bootcode update** on devices like the HP t630 and probably others too.
- Added: **Bluetooth tool shows now a message when no device is connected**.
- Fixed issue with **limited colors** on the **DisplayPort 1 of UD2-LX50**.

Remote Management

- Fixed **automatic registering** in the UMS using DNS entry or DHCP tag during initial rollout.

IGEL Cloud Gateway

- Fixed search for an available **buddy update server** when devices are managed over **ICG**.

VNC

- Fixed **sporadic connection failure** in VNC server.

CA Certificates Contained in IGEL OS 11.03

IGEL OS 11.03 contains the following CA certificates:

Certificate name	Expiry date	File in /etc/ssl/certs
ACCVRAIZ1	Dec 31 09:37:37 2030 GMT	`ACCVRAIZ1.crt`
AC RAIZ FNMT-RCM	Jan 1 00:00:00 2030 GMT	`AC_RAIZ_FNMT-RCM.crt`
Actalis Authentication Root CA	Sep 22 11:22:02 2030 GMT	`Actalis_Authentication_Root_CA.crt`
AddTrust External CA Root	May 30 10:48:38 2020 GMT	`AddTrust_External_Root.crt`
AffirmTrust Commercial	Dec 31 14:06:06 2030 GMT	`AffirmTrust_Commercial.crt`
AffirmTrust Networking	Dec 31 14:08:24 2030 GMT	`AffirmTrust_Networking.crt`
AffirmTrust Premium	Dec 31 14:10:36 2040 GMT	`AffirmTrust_Premium.crt`
AffirmTrust Premium ECC	Dec 31 14:20:24 2040 GMT	`AffirmTrust_Premium_ECC.crt`
Amazon Root CA 1	Jan 17 00:00:00 2038 GMT	`Amazon_Root_CA_1.crt`
Amazon Root CA 2	May 26 00:00:00 2040 GMT	`Amazon_Root_CA_2.crt`
Amazon Root CA 3	May 26 00:00:00 2040 GMT	`Amazon_Root_CA_3.crt`
Amazon Root CA 4	May 26 00:00:00 2040 GMT	`Amazon_Root_CA_4.crt`
Atos TrustedRoot 2011	Dec 31 23:59:59 2030 GMT	`Atos_TrustedRoot_2011.crt`
Autoridad de Certificacion Firmaprofesional CIF A62634068	Dec 31 08:38:15 2030 GMT	`Autoridad_de_Certificacion_Firmaprofesional_CIF_A62634068.crt`
Baltimore CyberTrust Root	May 12 23:59:00 2025 GMT	`Baltimore_CyberTrust_Root.crt`

Certificate name	Expiry date	File in /etc/ssl/certs
Buypass Class 2 Root CA	Oct 26 08:38:03 2040 GMT	`Buypass_Class_2_Root_CA.crt`
Buypass Class 3 Root CA	Oct 26 08:28:58 2040 GMT	`Buypass_Class_3_Root_CA.crt`
CA Disig Root R2	Jul 19 09:15:30 2042 GMT	`CA_Disig_Root_R2.crt`
CFCA EV ROOT	Dec 31 03:07:01 2029 GMT	`CFCA_EV_ROOT.crt`
COMODO Certification Authority	Dec 31 23:59:59 2029 GMT	`COMODO_Certification_Authority.crt`
COMODO ECC Certification Authority	Jan 18 23:59:59 2038 GMT	`COMODO_ECC_Certification_Authority.crt`
COMODO RSA Certification Authority	Jan 18 23:59:59 2038 GMT	`COMODO_RSA_Certification_Authority.crt`
Certigna	Jun 29 15:13:05 2027 GMT	`Certigna.crt`
Certigna Root CA	Oct 1 08:32:27 2033 GMT	`Certigna_Root_CA.crt`
Certinomis - Root CA	Oct 21 09:17:18 2033 GMT	`Certinomis_-_Root_CA.crt`
Class 2 Primary CA	Jul 6 23:59:59 2019 GMT	`Certplus_Class_2_Primary_CA.crt`
Certum Trusted Network CA	Dec 31 12:07:37 2029 GMT	`Certum_Trusted_Network_CA.crt`
Certum Trusted Network CA 2	Oct 6 08:39:56 2046 GMT	`Certum_Trusted_Network_CA_2.crt`
Chambers of Commerce Root - 2008	Jul 31 12:29:50 2038 GMT	`Chambers_of_Commerce_Root_-_2008.crt`
AAA Certificate Services	Dec 31 23:59:59 2028 GMT	`Comodo_AAA_Services_root.crt`
Cybertrust Global Root	Dec 15 08:00:00 2021 GMT	`Cybertrust_Global_Root.crt`

Certificate name	Expiry date	File in /etc/ssl/certs
D-TRUST Root Class 3 CA 2 2009	Nov 5 08:35:58 2029 GMT	`D-TRUST_Root_Class_3_CA_2_2009.crt`
D-TRUST Root Class 3 CA 2 EV 2009	Nov 5 08:50:46 2029 GMT	`D-TRUST_Root_Class_3_CA_2_EV_2009.crt`
DST Root CA X3	Sep 30 14:01:15 2021 GMT	`DST_Root_CA_X3.crt`
Deutsche Telekom Root CA 2	Jul 9 23:59:00 2019 GMT	`Deutsche_Telekom_Root_CA_2.crt`
DigiCert Global Root CA	Nov 10 00:00:00 2031 GMT	`DigiCertGlobalRootCA.pem`
DigiCert Assured ID Root CA	Nov 10 00:00:00 2031 GMT	`DigiCert_Assured_ID_Root_CA.crt`
DigiCert Assured ID Root G2	Jan 15 12:00:00 2038 GMT	`DigiCert_Assured_ID_Root_G2.crt`
DigiCert Assured ID Root G3	Jan 15 12:00:00 2038 GMT	`DigiCert_Assured_ID_Root_G3.crt`
DigiCert Global Root CA	Nov 10 00:00:00 2031 GMT	`DigiCert_Global_Root_CA.crt`
DigiCert Global Root G2	Jan 15 12:00:00 2038 GMT	`DigiCert_Global_Root_G2.crt`
DigiCert Global Root G3	Jan 15 12:00:00 2038 GMT	`DigiCert_Global_Root_G3.crt`
DigiCert High Assurance EV Root CA	Nov 10 00:00:00 2031 GMT	`DigiCert_High_Assurance_EV_Root_CA.crt`
DigiCert Trusted Root G4	Jan 15 12:00:00 2038 GMT	`DigiCert_Trusted_Root_G4.crt`
E-Tugra Certification Authority	Mar 3 12:09:48 2023 GMT	`E-Tugra_Certification_Authority.crt`
EC-ACC	Jan 7 22:59:59 2031 GMT	`EC-ACC.crt`
EE Certification Centre Root CA	Dec 17 23:59:59 2030 GMT	`EE_Certification_Centre_Root_CA.crt`

Certificate name	Expiry date	File in /etc/ssl/certs
Entrust.net[24] Certification Authority (2048)	Jul 24 14:15:12 2029 GMT	`Entrust.net_Premium_2048_Secure_Server_CA.crt`
Entrust Root Certification Authority	Nov 27 20:53:42 2026 GMT	`Entrust_Root_Certification_Authority.crt`
Entrust Root Certification Authority - EC1	Dec 18 15:55:36 2037 GMT	`Entrust_Root_Certification_Authority_-_EC1.crt`
Entrust Root Certification Authority - G2	Dec 7 17:55:54 2030 GMT	`Entrust_Root_Certification_Authority_-_G2.crt`
GDCA TrustAUTH R5 ROOT	Dec 31 15:59:59 2040 GMT	`GDCA_TrustAUTH_R5_ROOT.crt`
GTS Root R1	Jun 22 00:00:00 2036 GMT	`GTS_Root_R1.crt`
GTS Root R2	Jun 22 00:00:00 2036 GMT	`GTS_Root_R2.crt`
GTS Root R3	Jun 22 00:00:00 2036 GMT	`GTS_Root_R3.crt`
GTS Root R4	Jun 22 00:00:00 2036 GMT	`GTS_Root_R4.crt`
GeoTrust Global CA	May 21 04:00:00 2022 GMT	`GeoTrust_Global_CA.crt`
GeoTrust Primary Certification Authority	Jul 16 23:59:59 2036 GMT	`GeoTrust_Primary_Certification_Authority.crt`
GeoTrust Primary Certification Authority - G2	Jan 18 23:59:59 2038 GMT	`GeoTrust_Primary_Certification_Authority_-_G2.crt`
GeoTrust Primary Certification Authority - G3	Dec 1 23:59:59 2037 GMT	`GeoTrust_Primary_Certification_Authority_-_G3.crt`
GeoTrust Universal CA	Mar 4 05:00:00 2029 GMT	`GeoTrust_Universal_CA.crt`
GeoTrust Universal CA 2	Mar 4 05:00:00 2029 GMT	`GeoTrust_Universal_CA_2.crt`
GlobalSign	Jan 19 03:14:07 2038 GMT	`GlobalSign_ECC_Root_CA_-_R4.crt`

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Certificate name	Expiry date	File in /etc/ssl/certs
GlobalSign	Jan 19 03:14:07 2038 GMT	`GlobalSign_ECC_Root_CA_-_R5.crt`
GlobalSign Root CA	Jan 28 12:00:00 2028 GMT	`GlobalSign_Root_CA.crt`
GlobalSign	Dec 15 08:00:00 2021 GMT	`GlobalSign_Root_CA_-_R2.crt`
GlobalSign	Mar 18 10:00:00 2029 GMT	`GlobalSign_Root_CA_-_R3.crt`
GlobalSign	Dec 10 00:00:00 2034 GMT	`GlobalSign_Root_CA_-_R6.crt`
Global Chambersign Root - 2008	Jul 31 12:31:40 2038 GMT	`Global_Chambersign_Root_-_2008.crt`
Go Daddy Class 2 Certification Authority	Jun 29 17:06:20 2034 GMT	`Go_Daddy_Class_2_CA.crt`
Go Daddy Root Certificate Authority - G2	Dec 31 23:59:59 2037 GMT	`Go_Daddy_Root_Certificate_Authority_-_G2.crt`
Hellenic Academic and Research Institutions ECC RootCA 2015	Jun 30 10:37:12 2040 GMT	`Hellenic_Academic_and_Research_Institutions_ECC_RootCA_2015.crt`
Hellenic Academic and Research Institutions RootCA 2011	Dec 1 13:49:52 2031 GMT	`Hellenic_Academic_and_Research_Institutions_RootCA_2011.crt`
Hellenic Academic and Research Institutions RootCA 2015	Jun 30 10:11:21 2040 GMT	`Hellenic_Academic_and_Research_Institutions_RootCA_2015.crt`
Hongkong Post Root CA 1	May 15 04:52:29 2023 GMT	`Hongkong_Post_Root_CA_1.crt`
ISRG Root X1	Jun 4 11:04:38 2035 GMT	`ISRG_Root_X1.crt`
IdenTrust Commercial Root CA 1	Jan 16 18:12:23 2034 GMT	`IdenTrust_Commercial_Root_CA_1.crt`
IdenTrust Public Sector Root CA 1	Jan 16 17:53:32 2034 GMT	`IdenTrust_Public_Sector_Root_CA_1.crt`
Imprivata Embedded Code Signing CA	Sep 7 16:20:00 2033 GMT	`Imprivata.crt`

Certificate name	Expiry date	File in /etc/ssl/certs
Izenpe.com[25]	Dec 13 08:27:25 2037 GMT	`Izenpe.com`[26]`.crt`
LuxTrust Global Root 2	Mar 5 13:21:57 2035 GMT	`LuxTrust_Global_Root_2.crt`
Microsec e-Szigno Root CA 2009	Dec 30 11:30:18 2029 GMT	`Microsec_e-Szigno_Root_CA_2009.crt`
NetLock Arany (Class Gold) FÅ'tanÃºsÃtvÃ¡ny	Dec 6 15:08:21 2028 GMT	`NetLock_Arany_=Class_Gold=_FÅ'tanÃºsÃ-tvÃ¡ny.crt`
Network Solutions Certificate Authority	Dec 31 23:59:59 2029 GMT	`Network_Solutions_Certificate_Authority.crt`
OISTE WISeKey Global Root GA CA	Dec 11 16:09:51 2037 GMT	`OISTE_WISeKey_Global_Root_GA_CA.crt`
OISTE WISeKey Global Root GB CA	Dec 1 15:10:31 2039 GMT	`OISTE_WISeKey_Global_Root_GB_CA.crt`
OISTE WISeKey Global Root GC CA	May 9 09:58:33 2042 GMT	`OISTE_WISeKey_Global_Root_GC_CA.crt`
QuoVadis Root Certification Authority	Mar 17 18:33:33 2021 GMT	`QuoVadis_Root_CA.crt`
QuoVadis Root CA 1 G3	Jan 12 17:27:44 2042 GMT	`QuoVadis_Root_CA_1_G3.crt`
QuoVadis Root CA 2	Nov 24 18:23:33 2031 GMT	`QuoVadis_Root_CA_2.crt`
QuoVadis Root CA 2 G3	Jan 12 18:59:32 2042 GMT	`QuoVadis_Root_CA_2_G3.crt`
QuoVadis Root CA 3	Nov 24 19:06:44 2031 GMT	`QuoVadis_Root_CA_3.crt`
QuoVadis Root CA 3 G3	Jan 12 20:26:32 2042 GMT	`QuoVadis_Root_CA_3_G3.crt`
SSL.com[27] EV Root Certification Authority ECC	Feb 12 18:15:23 2041 GMT	`SSL.com_EV_Root_Certification_Authority_ECC.crt`

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25 http://Izenpe.com
26 http://Izenpe.com
27 http://SSL.com

Certificate name	Expiry date	File in /etc/ssl/certs
SSL.com[28] EV Root Certification Authority RSA R2	May 30 18:14:37 2042 GMT	`SSL.com_EV_Root_Certification_Authority_RSA_R2.crt`
SSL.com[29] Root Certification Authority ECC	Feb 12 18:14:03 2041 GMT	`SSL.com_Root_Certification_Authority_ECC.crt`
SSL.com[30] Root Certification Authority RSA	Feb 12 17:39:39 2041 GMT	`SSL.com_Root_Certification_Authority_RSA.crt`
SZAFIR ROOT CA2	Oct 19 07:43:30 2035 GMT	`SZAFIR_ROOT_CA2.crt`
SecureSign RootCA11	Apr 8 04:56:47 2029 GMT	`SecureSign_RootCA11.crt`
SecureTrust CA	Dec 31 19:40:55 2029 GMT	`SecureTrust_CA.crt`
Secure Global CA	Dec 31 19:52:06 2029 GMT	`Secure_Global_CA.crt`
Security Communication RootCA2	May 29 05:00:39 2029 GMT	`Security_Communication_RootCA2.crt`
Security Communication RootCA1	Sep 30 04:20:49 2023 GMT	`Security_Communication_Root_CA.crt`
Sonera Class2 CA	Apr 6 07:29:40 2021 GMT	`Sonera_Class_2_Root_CA.crt`
Staat der Nederlanden EV Root CA	Dec 8 11:10:28 2022 GMT	`Staat_der_Nederlanden_EV_Root_CA.crt`
Staat der Nederlanden Root CA - G2	Mar 25 11:03:10 2020 GMT	`Staat_der_Nederlanden_Root_CA_-_G2.crt`
Staat der Nederlanden Root CA - G3	Nov 13 23:00:00 2028 GMT	`Staat_der_Nederlanden_Root_CA_-_G3.crt`
Starfield Class 2 Certification Authority	Jun 29 17:39:16 2034 GMT	`Starfield_Class_2_CA.crt`
Starfield Root Certificate Authority - G2	Dec 31 23:59:59 2037 GMT	`Starfield_Root_Certificate_Authority_-_G2.crt`

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28 http://SSL.com
29 http://SSL.com
30 http://SSL.com

Certificate name	Expiry date	File in /etc/ssl/certs
Starfield Services Root Certificate Authority - G2	Dec 31 23:59:59 2037 GMT	`Starfield_Services_Root_Certificate_Authority_-_G2.crt`
SwissSign Gold CA - G2	Oct 25 08:30:35 2036 GMT	`SwissSign_Gold_CA_-_G2.crt`
SwissSign Silver CA - G2	Oct 25 08:32:46 2036 GMT	`SwissSign_Silver_CA_-_G2.crt`
T-TeleSec GlobalRoot Class 2	Oct 1 23:59:59 2033 GMT	`T-TeleSec_GlobalRoot_Class_2.crt`
T-TeleSec GlobalRoot Class 3	Oct 1 23:59:59 2033 GMT	`T-TeleSec_GlobalRoot_Class_3.crt`
TUBITAK Kamu SM SSL Kok Sertifikasi - Surum 1	Oct 25 08:25:55 2043 GMT	`TUBITAK_Kamu_SM_SSL_Kok_Sertifikasi_-_Surum_1.crt`
TWCA Global Root CA	Dec 31 15:59:59 2030 GMT	`TWCA_Global_Root_CA.crt`
TWCA Root Certification Authority	Dec 31 15:59:59 2030 GMT	`TWCA_Root_Certification_Authority.crt`
Government Root Certification Authority	Dec 5 13:23:33 2032 GMT	`Taiwan_GRCA.crt`
TeliaSonera Root CA v1	Oct 18 12:00:50 2032 GMT	`TeliaSonera_Root_CA_v1.crt`
TrustCor ECA-1	Dec 31 17:28:07 2029 GMT	`TrustCor_ECA-1.crt`
TrustCor RootCert CA-1	Dec 31 17:23:16 2029 GMT	`TrustCor_RootCert_CA-1.crt`
TrustCor RootCert CA-2	Dec 31 17:26:39 2034 GMT	`TrustCor_RootCert_CA-2.crt`
Trustis FPS Root CA	Jan 21 11:36:54 2024 GMT	`Trustis_FPS_Root_CA.crt`
UCA Extended Validation Root	Dec 31 00:00:00 2038 GMT	`UCA_Extended_Validation_Root.crt`
UCA Global G2 Root	Dec 31 00:00:00 2040 GMT	`UCA_Global_G2_Root.crt`

Certificate name	Expiry date	File in /etc/ssl/certs
USERTrust ECC Certification Authority	Jan 18 23:59:59 2038 GMT	`USERTrust_ECC_Certification_Authority.crt`
USERTrust RSA Certification Authority	Jan 18 23:59:59 2038 GMT	`USERTrust_RSA_Certification_Authority.crt`
VeriSign Class 3 Public Primary Certification Authority - G4	Jan 18 23:59:59 2038 GMT	`VeriSign_Class_3_Public_Primary_Certification_Authority_-_G4.crt`
VeriSign Class 3 Public Primary Certification Authority - G5	Jul 16 23:59:59 2036 GMT	`VeriSign_Class_3_Public_Primary_Certification_Authority_-_G5.crt`
VeriSign Universal Root Certification Authority	Dec 1 23:59:59 2037 GMT	`VeriSign_Universal_Root_Certification_Authority.crt`
VeriSign Class 3 Public Primary Certification Authority - G3	Jul 16 23:59:59 2036 GMT	`Verisign_Class_3_Public_Primary_Certification_Authority_-_G3.crt`
XRamp Global Certification Authority	Jan 1 05:37:19 2035 GMT	`XRamp_Global_CA_Root.crt`
certSIGN ROOT CA	Jul 4 17:20:04 2031 GMT	`certSIGN_ROOT_CA.crt`
ePKI Root Certification Authority	Dec 20 02:31:27 2034 GMT	`ePKI_Root_Certification_Authority.crt`
thawte Primary Root CA	Jul 16 23:59:59 2036 GMT	`thawte_Primary_Root_CA.crt`
thawte Primary Root CA - G2	Jan 18 23:59:59 2038 GMT	`thawte_Primary_Root_CA_-_G2.crt`
thawte Primary Root CA - G3	Dec 1 23:59:59 2037 GMT	`thawte_Primary_Root_CA_-_G3.crt`

IGEL OS Creator (OSC)

Supported Devices

UD2-LX:	UD2-LX 51
	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 60
	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 11
	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

- Component Versions 11.03.100(see page 523)
- New Features 11.03.100(see page 525)

Component Versions 11.03.100

- **Clients**

Product	Version
Zulu JRE	8.42.0.23

- **Smartcard**

Reader Driver MUSCLE CCID	1.4.31-1igel6
Resource Manager PC/SC Lite	1.8.23-1igel8

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
Bluetooth Stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.2.5-1igel93
VDPAU Library version	1.2-1igel911
Graphics Driver INTEL	2.99.917+git20191117-igel939
Graphics Driver ATI/RADEON	19.0.1-3igel936
Graphics Driver ATI/AMDGPU	19.0.1-5igel924
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	418.56-0ubuntu1
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build2-igel925
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.85 #mainline-lxos-r2872

Xorg X11 Server	1.20.5-1igel914
Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
WebKit2Gtk	2.26.2-1igel27
Python2	2.7.12
Python3	3.5.2

New Features 11.03.100

Hardware

- Added hardware support for **LG CL600N**.
- Added hardware support for **LG CL600W**.

Notes for Release 11.02.150

Software:	Version	11.02.150
Release Date:	2019-09-09	
Release Notes:	Version	RN-1102150-1
Last update:	2019-09-09	

Supported Devices 11.02.150

IGEL devices:	
UD2-LX:	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

For supported IGEL OS 11 third-party devices, see Devices Supported by IGEL OS 11.

Component Versions 11.02.150

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	19.6.0.60
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	12.5_x64_20190619_12.5.1.40008
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.6
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.9.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.7.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.40.0.25
Parallels Client (64 bit)	17.0.21282
Spice GTK (Red Hat Virtualization)	0.36-1~git20190601igel61
Remote Viewer (Red Hat Virtualization)	8.0-1igel49
Usbredir (Red Hat Virtualization)	0.8.0-1igel49
Teradici PCoIP Software Client	19.05.5-18.04

ThinLinc Client	4.10.0-6068
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VNC Viewer	1.9.0+dfsg-3igel8
VMware Horizon Client	5.0.0-12557422
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech driver	12.7.11

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.3.2

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35

Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.30-1igel3
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.0.8-1igel73
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190724-igel907
Graphics Driver ATI/RADEON	19.0.1-2igel890
Graphics Driver ATI/AMDGPU	19.0.1-4igel894
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	418.56-0ubuntu1
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel635

Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.65 #mainline-lxos-r2782
Xorg X11 Server	1.19.7-1igel913
Xorg Xephyr	1.19.7-1igel913
CUPS printing daemon	2.1.3-4ubuntu0.9igel27
PrinterLogic	18.2.1.128
Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.0-1igel214
WebKit2Gtk	2.24.2-0ubuntu0.19.04.1igel18
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20181030.92c5462-1igel5
Mobile Device Access USB (gphoto)	2.5.22-3igel1
VPN OpenConnect	7.08-1
Scanner support / Sane	1.0.27-1
VirtualBox	6.0.10-dfsg-4igel31

- **Features with Limited Functionality**

Cisco JVDI Client	12.1.0

General Information 11.02.150

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Security Fixes 11.02.150

Firefox

- Updated **Firefox** browser to version **60.9.0 ESR**.
  Including Fixes from **Security Advisory 2019-27**:
  More...

  CVE-2019-11746, CVE-2019-11744, CVE-2019-11753, CVE-2019-11752,
  CVE-2019-9812, CVE-2019-11743, and CVE-2019-11740.

- Fixes for **mfsa2019-22**, also known as:
  More...

  CVE-2019-9811, CVE-2019-11711, CVE-2019-11712, CVE-2019-11713,
  CVE-2019-11729, CVE-2019-11715, CVE-2019-11717, CVE-2019-11719,
  CVE-2019-11730, and CVE-2019-11709.

- Fixes for **mfsa2019-19**, also known as: CVE-2019-11708.
- Fixes for **mfsa2019-18**, also known as: CVE-2019-11707.
- Fixes for **mfsa2019-08**, also known as:
  More...

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,
  CVE-2019-9795, CVE-2019-9796, CVE-2018-18506, and CVE-2019-9788.

- Fixes for **mfsa2019-05**, also known as: CVE-2018-18356, CVE-2019-5785.
- Fixes for **mfsa2019-02**, also known as: CVE-2018-18500, CVE-2018-18505, and CVE-2018-18501.
- Added allowance for Firefox to access **Yubikey (FIDO/U2F)** if apparmor is active.

Base system

- Fixed security issue **CVE-2019-15902** in **4.19.x kernel**.
- Set default **umask to 0077** for all non-root users.
- Remote users home is now **/home/ruser**.
- Fixed **policykit-1** security issue CVE-2019-6133.
- Fixed **tiff** security issues:
  More...

  CVE-2019-7663, CVE-2019-6128, CVE-2018-19210,
  CVE-2018-17000, CVE-2018-12900, and CVE-2018-10779.

- Fixed **lcms2** security issue CVE-2018-16435.
- Fixed **libpng1.6** security issues CVE-2019-7317 and CVE-2018-13785.
- Fixed **nss** security issues CVE-2018-18508, CVE-2019-11729, and CVE-2019-11719.
- Fixed **procps** security issues:
  More...

  CVE-2018-1126, CVE-2018-1125, CVE-2018-1124,
  CVE-2018-1123 and CVE-2018-1122.

- Fixed **evince** security issues CVE-2019-11459 and CVE-2019-1010006.
- Fixed **gdk-pixbuf** security issue CVE-2017-12447.

- Fixed **gst-plugins-base0.10** security issue CVE-2019-9928.
- Fixed **bind9** security issues CVE-2019-6465, CVE-2018-5745 and CVE-2018-5743.
- Fixed **libgd2** security issues CVE-2019-6978 and CVE-2019-6977.
- Fixed **ghostscript** security issues CVE-2019-3839, CVE-2019-3838 and CVE-2019-3835.
- Fixed **ldb** security issue CVE-2019-3824.
- Fixed **file** security issues CVE-2019-8907 and CVE-2019-8905.
- Fixed **poppler** security issues:
  More...

  CVE-2019-9200, CVE-2019-9903, CVE-2019-9631, CVE-2019-12293,
  CVE-2019-10872, CVE-2019-10023, CVE-2019-10021, CVE-2019-10019,
  CVE-2019-10018, CVE-2018-20662, CVE-2018-18897, and CVE-2017-9865.

- Fixed **samba** security issues CVE-2019-3880 and CVE-2018-16860.
- Fixed **openssl** security issue CVE-2019-1559.
- Fixed **libxslt** security issue CVE-2019-11068.
- Fixed **openssh** security issue CVE-2019-6111.
- Fixed **wget** security issue CVE-2019-5953.
- Fixed **wpa** security issues:
  More...

  CVE-2019-9495, CVE-2019-9497, CVE-2019-9498,
  CVE-2019-9499, and CVE-2019-11555.

- Fixed **gtk+2.0** security issue CVE-2013-7447.
- Fixed **heimdal** security issues CVE-2019-12098 and CVE-2018-16860.
- Fixed **webkit2gtk** security issues CVE-2019-8615, CVE-2019-8607, and CVE-2019-8595.
- Fixed **gimp** security issues:
  More...

  CVE-2017-17786, CVE-2017-17789, CVE-2017-17784,
  CVE-2017-17787, CVE-2017-17785, and CVE-2017-17788.

- Fixed **libtomcrypt** security issue CVE-2018-12437.
- Fixed **unzip** security issues CVE-2019-13232, CVE-2018-1000035, CVE-2016-9844, and CVE-2014-9913.
- Fixed **curl** security issues:
  More...

  CVE-2018-16840, CVE-2018-16839, CVE-2019-3823,
  CVE-2019-3822, CVE-2018-16890, and CVE-2019-5346.

- Fixed **gnutls28** security issues CVE-2018-10846, CVE-2018-10845, CVE-2018-10844, and CVE-2018-1084.
- Fixed **db5.3** security issue CVE-2019-8457.
- Fixed **qtbase-opensource-src** security issues CVE-2018-19873, CVE-2018-19870, and CVE-2018-15518.
- Fixed **libssh2** security issues:
  More...

CVE-2019-3863, CVE-2019-3862, CVE-2019-3861,
CVE-2019-3860, CVE-2019-3859, CVE-2019-3858,
CVE-2019-3857, CVE-2019-3856, and CVE-2019-3855.

- Fixed **network-manager** security issue CVE-2018-15688.
- Fixed **elfutils** security issues:
  More...

  CVE-2019-7665, CVE-2019-7150, CVE-2019-7149,
  CVE-2018-18521, CVE-2018-18520, CVE-2018-18310,
  CVE-2018-16403, CVE-2018-16402, and CVE-2018-16062.

- Fixed **libsndfile** security issues:
  More...

  CVE-2019-3832, CVE-2018-19758, CVE-2018-19662, CVE-2018-19661,
  CVE-2018-19432, CVE-2018-13139, CVE-2017-6892, CVE-2017-17457,
  CVE-2017-17456, CVE-2017-16942, CVE-2017-14634, CVE-2017-14246,
  and CVE-2017-14245.

- Fixed **dbus** security issue CVE-2019-12749.
- Fixed **vim** security issues CVE-2019-12735 and CVE-2017-5953.
- Fixed **glib2.0** security issue CVE-2019-12450.
- Fixed **openssl (1.1.x)** security issues:
  More...

  CVE-2019-1543, CVE-2018-0737, CVE-2018-0735,
  CVE-2018-0734, and CVE-2018-0732.

- Fixed **sqlite3** security issues:
  More...

  CVE-2019-9937, CVE-2019-9936, CVE-2019-8457, CVE-2018-20506,
  CVE-2018-20346, CVE-2017-2520, CVE-2017-2519, CVE-2017-2518,
  CVE-2017-13685, CVE-2017-10989, and CVE-2016-6153.

- Fixed **systemd** security issues:
  More...

  CVE-2019-6454, CVE-2019-6454, CVE-2018-1049,
  CVE-2018-15686, and CVE-2019-3842.

- Fixed **libseccomp** security issue CVE-2019-9893.
- Fixed **bzip2** security issues CVE-2019-12900 and CVE-2016-3189.
- Fixed **imagemagick** security issues:
  More...

  CVE-2019-9956, CVE-2019-7398, CVE-2019-7397, CVE-2019-7396,
  CVE-2019-7175, CVE-2019-11598, CVE-2019-11597, CVE-2019-11472,
  CVE-2019-11470, CVE-2019-10650, CVE-2019-10131, CVE-2018-20467,
  CVE-2018-18025, CVE-2018-18024, CVE-2018-18016, CVE-2018-17966,
  CVE-2018-17965, CVE-2018-16413, CVE-2018-16412, CVE-2017-12806,
  and CVE-2017-12805.

- Fixed **expat** security issue CVE-2018-20843.
- Fixed **glib2.0** security issue CVE-2019-13012.

- Fixed **libvirt** security issues CVE-2019-10167 and CVE-2019-10161.
- Fixed **gvfs** security issue CVE-2019-12795.
- Fixed **libmspack** security issue CVE-2019-1010305.
- Fixed **bash** security issue CVE-2019-9924.
- Fixed **openldap** security issues CVE-2019-13565 and CVE-2019-13057.
- Updated **libwebkit2gtk-4.0-37** to version **2.24.2**.
  Security fixes:
  More...

  CVE-2019-8595, CVE-2019-8607, CVE-2019-8615, CVE-2019-6251,
  CVE-2018-4373, CVE-2018-4375, CVE-2018-4376, CVE-2018-4378,
  CVE-2018-4382, CVE-2018-4392, CVE-2018-4416, CVE-2018-4345,
  CVE-2018-4386, and CVE-2018-4372.

- Fixed a vulnerability in the **custom environment variable framework**.
- Fixed possible malicious **owner change within TC setup configuration**.
- Fixed **kernel TCP** vulnerabilities CVE-2019-11477: **SACK Panic**, CVE-2019-11478: **SACK Slowness**, and CVE-2019-11479: **Excess resource consumption due to low MSS values**.
- Changed minimally allowed **MSS size** to **1000** to prevent possible Denial of Service attacks.
- Fixed a vulnerability in **Java configuration script**.

Known Issues 11.02.150

Citrix

- With activated DRI3 and AMD GPU, Citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. GStreamer 1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of Login.
  As a workaround, insert the smartcard before starting StoreFront login.
- Citrix **H.264 acceleration plugin** does not work with **enabled** server policy "Optimize for 3D graphics workload" in combination with server policy "Use video codec compressin" > "For the entire screen".
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264 acceleration plugin**, the following registry key must be enabled:
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

VMware Horizon

- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping** is switched off.
    In the IGEL Setup client, **drive mapping** can be found under **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable drive mapping**.
    It is also recommended to disable local **Storage Hotplug** under Setup **> Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, if you use **drive mapping** instead, it is recommended to either **switch off USB redirection entirely** or at least to **deny storage devices** by adding a filter to the USB class rules.
    Furthermore, Horizon Client relies on the OS to mount the storage devicesitself. Enable local **Storage Hotplug** under Setup **>Devices > Storage Devices > Storage Hotplug**.
- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory / media as a drive. Then the external devices will show up inside the media drive.

Wi-Fi

- **TP-Link Archer T2UH Wi-Fi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend under **IGEL Setup > System > Power Options > Shutdown**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** once with disabled FIPS support.

Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi firefox plugin is no longer supported. The "Console Invocation" has to allow 'Native' client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

Multimedia

- Multimedia **redirection with GStreamer** could fail with the **Nouveau GPU driver**.

Audio

- IGEL **UD2 (D220)** fails to restore the **volume level of the speaker** when the device used firmware version **11.01.110** before.

New Features 11.02.150

Hardware

- Improved support for **ADS-Tec VMT9000** devices:
    - Enable **rs-232 additional power supply** without restart.
    - Enable an **external Wi-Fi antenna** without restart.
    - Enable **shutdown by ignition off**.
- Added hardware support for **Dell WYSE 5020**.

Resolved Issues 11.02.150

DP/IGEL RDP Client 2

- Fixed **RDP graphics** issues with **Windows 2008(R2) Server** (when **RemoteFX** is not enabled).
- Fixed some smaller **graphical RDP issues** with **Windows 2012 R2** if using **Clearcodec**.

Network

- Changed **minimally allowed MSS size** to "**750**" to avoid problems with some VPN solutions.
- Added a new registry key to be able to configure the **minimally allowed TCP MSS size**.
  A new registry key:
  More...

Parameter	Minimal TCP send MSS size
Registry	`system.sysctl.tcp_min_snd_mss`
Type	Integer
Value	<u>750</u>
Tooltip	Minimal TCP send MSS size (configurable value in the area from 200 to 1450)

Hardware

- Fixed **EFI freeze** problem **after bootcode update on** devices like the **HP t630** and probably others too.
- Added support for newer **Prolific PL2303 USB serial adapters** (used in UD3 LX60).

Firefox

- Fixed: **Homepage cannot be set**.

X11 system

- Fixed **Multi-GPU NVIDIA** setups **with Display Switch**.
- Prevent configuration of **Display Switch** utility **on unlicensed devices**.
- Added **new registry keys** to be able **to configure some modesetting options** if needed.
  New registry keys:
  More...

Parameter	Use DRI3 PageFlip feature
Registry	`x.drivers.modesetting.use_page_flip`
Range	[<u>Default</u>] [False] [True]
Info	"Default" (normally use page flip feature)
Parameter	Use shadow framebuffer layer
Registry	`x.drivers.modesetting.use_shadow_fb`

Range	[Default] [False] [True]
Info	"Default" (normally use shadow framebuffer)
Parameter	Use double shadow framebuffer to improve VNC performance
Registry	`x.drivers.modesetting.use_double_shadow`
Range	[False] [True]
Parameter	Use software cursor for modesetting driver
Registry	`x.drivers.modesetting.use_sw_cursor`
Range	[Default] [False] [True]
Info	"Default" (normally false)
Parameter	Choose acceleration method
Registry	`x.drivers.modesetting.accel_method`
Range	[Default] [Glamor] [None]
Info	"Default" (normally Glamor is used)
Parameter	Force usage of DRI3 regardless of x.drivers.use_dri3 setting
Registry	`x.drivers.modesetting.force_dri3`
Type	Bool
Value	False

Notes for Release 11.02.130

Software:	Version	11.02.130
Release Date:	2019-08-23	
Release Notes:	Version	RN-1102130-1
Last update:	2019-08-23	

Supported Devices 11.02.130

IGEL devices:	
UD2-LX:	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

For supported IGEL OS 11 third-party devices, see Devices Supported by IGEL OS 11.

Component Versions 11.02.130

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	19.6.0.60
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	12.5_x64_20190619_12.5.1.40008
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.6
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.8.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.7.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.40.0.25
Parallels Client (64 bit)	17.0.21282
Spice GTK (Red Hat Virtualization)	0.36-1~git20190601igel61
Remote Viewer (Red Hat Virtualization)	8.0-1igel49
Usbredir (Red Hat Virtualization)	0.8.0-1igel49
Teradici PCoIP Software Client	19.05.5-18.04

ThinLinc Client	4.10.0-6068
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VNC Viewer	1.9.0+dfsg-3igel8
VMware Horizon Client	5.0.0-12557422
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech driver	12.7.11

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.3.2

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35

Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.30-1igel3
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.0.8-1igel73
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190724-igel907
Graphics Driver ATI/RADEON	19.0.1-2igel890
Graphics Driver ATI/AMDGPU	19.0.1-4igel894
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	418.56-0ubuntu1
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel635

Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.65 #mainline-lxos-r2782
Xorg X11 Server	1.19.6-1ubuntu4.3igel910
Xorg Xephyr	1.19.6-1ubuntu4.3igel910
CUPS printing daemon	2.1.3-4ubuntu0.9igel27
PrinterLogic	18.2.1.128
Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.0-1igel214
WebKit2Gtk	2.24.2-0ubuntu0.19.04.1igel18
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20181030.92c5462-1igel5
Mobile Device Access USB (gphoto)	2.5.22-3igel1
VPN OpenConnect	7.08-1
Scanner support / Sane	1.0.27-1
VirtualBox	6.0.10-dfsg-4igel31

- **Features with Limited Functionality**

Cisco JVDI Client	12.1.0

General Information 11.02.130

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver.

Security Fixes 11.02.130

Firefox

- Updated **Firefox** browser to version **60.8.0 ESR**.
- Fixes for **mfsa2019-22**, also known as:
  More...

  CVE-2019-9811, CVE-2019-11711, CVE-2019-11712, CVE-2019-11713,
  CVE-2019-11729, CVE-2019-11715, CVE-2019-11717, CVE-2019-11719,
  CVE-2019-11730, and CVE-2019-11709.

- Fixes for **mfsa2019-19**, also known as: CVE-2019-11708.
- Fixes for **mfsa2019-18**, also known as: CVE-2019-11707.
- Fixes for **mfsa2019-08**, also known as:
  More...

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,
  CVE-2019-9795, CVE-2019-9796, CVE-2018-18506, and CVE-2019-9788.

- Fixes for **mfsa2019-05**, also known as: CVE-2018-18356, CVE-2019-5785.
- Fixes for **mfsa2019-02**, also known as: CVE-2018-18500, CVE-2018-18505, and CVE-2018-18501.
- Added allowance for Firefox to access **Yubikey (FIDO/U2F)** if apparmor is active.

Base system

- Set default **umask to 0077** for all non-root users.
- Remote users home is now **/home/ruser**.
- Fixed **policykit-1** security issue CVE-2019-6133.
- Fixed **tiff** security issues:
  More...

  CVE-2019-7663, CVE-2019-6128, CVE-2018-19210,
  CVE-2018-17000, CVE-2018-12900, and CVE-2018-10779.

- Fixed **lcms2** security issue CVE-2018-16435.
- Fixed **libpng1.6** security issues CVE-2019-7317 and CVE-2018-13785.
- Fixed **nss** security issues CVE-2018-18508, CVE-2019-11729, and CVE-2019-11719.
- Fixed **procps** security issues:
  More...

  CVE-2018-1126, CVE-2018-1125, CVE-2018-1124,
  CVE-2018-1123 and CVE-2018-1122.

- Fixed **evince** security issues CVE-2019-11459 and CVE-2019-1010006.
- Fixed **gdk-pixbuf** security issue CVE-2017-12447.
- Fixed **gst-plugins-base0.10** security issue CVE-2019-9928.
- Fixed **bind9** security issues CVE-2019-6465, CVE-2018-5745 and CVE-2018-5743.
- Fixed **libgd2** security issues CVE-2019-6978 and CVE-2019-6977.
- Fixed **ghostscript** security issues CVE-2019-3839, CVE-2019-3838 and CVE-2019-3835.
- Fixed **ldb** security issue CVE-2019-3824.
- Fixed **file** security issues CVE-2019-8907 and CVE-2019-8905.

- Fixed **poppler** security issues:
  More...

  CVE-2019-9200, CVE-2019-9903, CVE-2019-9631, CVE-2019-12293,
  CVE-2019-10872, CVE-2019-10023, CVE-2019-10021, CVE-2019-10019,
  CVE-2019-10018, CVE-2018-20662, CVE-2018-18897, and CVE-2017-9865.

- Fixed **samba** security issues CVE-2019-3880 and CVE-2018-16860.
- Fixed **openssl** security issue CVE-2019-1559.
- Fixed **libxslt** security issue CVE-2019-11068.
- Fixed **openssh** security issue CVE-2019-6111.
- Fixed **wget** security issue CVE-2019-5953.
- Fixed **wpa** security issues:
  More...

  CVE-2019-9495, CVE-2019-9497, CVE-2019-9498,
  CVE-2019-9499, and CVE-2019-11555.

- Fixed **gtk+2.0** security issue CVE-2013-7447.
- Fixed **heimdal** security issues CVE-2019-12098 and CVE-2018-16860.
- Fixed **webkit2gtk** security issues CVE-2019-8615, CVE-2019-8607, and CVE-2019-8595.
- Fixed **gimp** security issues:
  More...

  CVE-2017-17786, CVE-2017-17789, CVE-2017-17784,
  CVE-2017-17787, CVE-2017-17785, and CVE-2017-17788.

- Fixed **libtomcrypt** security issue CVE-2018-12437.
- Fixed **unzip** security issues CVE-2019-13232, CVE-2018-1000035, CVE-2016-9844, and
  CVE-2014-9913.
- Fixed **curl** security issues:
  More...

  CVE-2018-16840, CVE-2018-16839, CVE-2019-3823,
  CVE-2019-3822, CVE-2018-16890, and CVE-2019-5346.

- Fixed **gnutls28** security issues CVE-2018-10846, CVE-2018-10845, CVE-2018-10844, and
  CVE-2018-1084.
- Fixed **db5.3** security issue CVE-2019-8457.
- Fixed **qtbase-opensource-src** security issues CVE-2018-19873, CVE-2018-19870, and
  CVE-2018-15518.
- Fixed **libssh2** security issues:
  More...

  CVE-2019-3863, CVE-2019-3862, CVE-2019-3861,
  CVE-2019-3860, CVE-2019-3859, CVE-2019-3858,
  CVE-2019-3857, CVE-2019-3856, and CVE-2019-3855.

- Fixed **network-manager** security issue CVE-2018-15688.
- Fixed **elfutils** security issues:
  More...

CVE-2019-7665, CVE-2019-7150, CVE-2019-7149, CVE-2018-18521, CVE-2018-18520, CVE-2018-18310, CVE-2018-16403, CVE-2018-16402, and CVE-2018-16062.

- Fixed **libsndfile** security issues:
  More...

  CVE-2019-3832, CVE-2018-19758, CVE-2018-19662, CVE-2018-19661, CVE-2018-19432, CVE-2018-13139, CVE-2017-6892, CVE-2017-17457, CVE-2017-17456, CVE-2017-16942, CVE-2017-14634, CVE-2017-14246, and CVE-2017-14245.

- Fixed **dbus** security issue CVE-2019-12749.
- Fixed **vim** security issues CVE-2019-12735 and CVE-2017-5953.
- Fixed **glib2.0** security issue CVE-2019-12450.
- Fixed **openssl (1.1.x)** security issues:
  More...

  CVE-2019-1543, CVE-2018-0737, CVE-2018-0735, CVE-2018-0734, and CVE-2018-0732.

- Fixed **sqlite3** security issues:
  More...

  CVE-2019-9937, CVE-2019-9936, CVE-2019-8457, CVE-2018-20506, CVE-2018-20346, CVE-2017-2520, CVE-2017-2519, CVE-2017-2518, CVE-2017-13685, CVE-2017-10989, and CVE-2016-6153.

- Fixed **systemd** security issues:
  More...

  CVE-2019-6454, CVE-2019-6454, CVE-2018-1049, CVE-2018-15686, and CVE-2019-3842.

- Fixed **libseccomp** security issue CVE-2019-9893.
- Fixed **bzip2** security issues CVE-2019-12900 and CVE-2016-3189.
- Fixed **imagemagick** security issues:
  More...

  CVE-2019-9956, CVE-2019-7398, CVE-2019-7397, CVE-2019-7396, CVE-2019-7175, CVE-2019-11598, CVE-2019-11597, CVE-2019-11472, CVE-2019-11470, CVE-2019-10650, CVE-2019-10131, CVE-2018-20467, CVE-2018-18025, CVE-2018-18024, CVE-2018-18016, CVE-2018-17966, CVE-2018-17965, CVE-2018-16413, CVE-2018-16412, CVE-2017-12806, and CVE-2017-12805.

- Fixed **expat** security issue CVE-2018-20843.
- Fixed **glib2.0** security issue CVE-2019-13012.
- Fixed **libvirt** security issues CVE-2019-10167 and CVE-2019-10161.
- Fixed **gvfs** security issue CVE-2019-12795.
- Fixed **libmspack** security issue CVE-2019-1010305.
- Fixed **bash** security issue CVE-2019-9924.
- Fixed **openldap** security issues CVE-2019-13565 and CVE-2019-13057.

- Updated **libwebkit2gtk-4.0-37** to version **2.24.2**.
  Security fixes:
  More...

  CVE-2019-8595, CVE-2019-8607, CVE-2019-8615, CVE-2019-6251,
  CVE-2018-4373, CVE-2018-4375, CVE-2018-4376, CVE-2018-4378,
  CVE-2018-4382, CVE-2018-4392, CVE-2018-4416, CVE-2018-4345,
  CVE-2018-4386, and CVE-2018-4372.

- Fixed a vulnerability in the **custom environment variable framework**.
- Fixed possible malicious **owner change within TC setup configuration**.
- Fixed **kernel TCP** vulnerabilities CVE-2019-11477: **SACK Panic**, CVE-2019-11478: **SACK Slowness**, and CVE-2019-11479: **Excess resource consumption due to low MSS values**.
- Changed minimally allowed **MSS size** to **1000** to prevent possible Denial of Service attacks.
- Fixed a vulnerability in **Java configuration script**.

Known Issues 11.02.130

Citrix

- With activated DRI3 and AMD GPU, Citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. GStreamer 1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of Login.
  As a workaround, insert the smartcard before starting StoreFront login.
- Citrix **H.264 acceleration plugin** does not work with **enabled** server policy "Optimize for 3D graphics workload" in combination with server policy "Use video codec compression" > "For the entire screen".
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264 acceleration plugin**, the following registry key must be enabled:
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

VMware Horizon

- **Sound redirection in PCoIP** is broken when the so-called lightweight-client is used, which has become the new default.
  Sound redirection can still be used by choosing the rollback-client instead. This can be done by setting the IGEL Registry key:
  More...

Parameter	Allow rollback to former client variant
Registry	`vmware.view.allow-client-rollback`
Value	enabled / <u>disabled</u>

- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping** is switched off.
    In the IGEL Setup client, **drive mapping** can be found under **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable drive mapping**.

It is also recommended to disable local **Storage Hotplug** under Setup **> Devices > Storage Devices > Storage Hotplug**.

- On the other hand, if you use **drive mapping** instead, it is recommended to either **switch off USB redirection entirely** or at least to **deny storage devices** by adding a filter to the USB class rules.
  Furthermore, Horizon Client relies on the OS to mount the storage device itself. Enable local **Storage Hotplug** under Setup **>Devices > Storage Devices > Storage Hotplug**.

- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory / media as a drive. Then the external devices will show up inside the media drive.

WiFi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend under **IGEL Setup > System > Power Options > Shutdown**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** once with disabled FIPS support.

Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi firefox plugin is no longer supported. The "Console Invocation" has to allow 'Native' client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

Multimedia

- Multimedia **redirection with GStreamer** could fail with the **Nouveau GPU driver**.

Audio

- IGEL **UD2 (D220)** fails to restore the **volume level of the speaker** when the device used firmware version **11.01.110** before.

Resolved Issues 11.02.130

Base system

- Fixed **ActiveDirectory/Kerberos password change** with "Change Password" accessory for users who are members of many (~300+) AD groups.
- Fixed **IGEL license retrieval** via FTP protocol in IGEL Setup Assistant and integrated license browser.

Remote Management

- Fixed **automatic registering in the UMS** using DNS entry or DHCP tag.

Notes for Release 11.02.100

Software:	Version	11.02.100
Release Date:	2019-08-14	
Release Notes:	Version	RN-1102100-1
Last update:	2019-08-14	

- IGEL OS 11(see page 557)
- IGEL OS Creator (OSC)(see page 612)

IGEL OS 11

Supported Devices 11.02.100

UD2-LX:	UD2-LX 40
	UD2-LX 50
UD3-LX:	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.02.100

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	19.6.0.60
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Ericom PowerTerm	12.5_x64_20190619_12.5.1.40008
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.6
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.8.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.7.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.40.0.25
Parallels Client (64 bit)	17.0.21282
Spice GTK (Red Hat Virtualization)	0.36-1~git20190601igel61
Remote Viewer (Red Hat Virtualization)	8.0-1igel49
Usbredir (Red Hat Virtualization)	0.8.0-1igel49
Teradici PCoIP Software Client	19.05.5-18.04

ThinLinc Client	4.10.0-6068
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VNC Viewer	1.9.0+dfsg-3igel8
VMware Horizon Client	5.0.0-12557422
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech driver	12.7.11

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.3.2

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35

Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.30-1igel3
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.0.8-1igel73
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190724-igel907
Graphics Driver ATI/RADEON	19.0.1-2igel890
Graphics Driver ATI/AMDGPU	19.0.1-4igel894
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	418.56-0ubuntu1
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel635

Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.65 #mainline-lxos-r2782
Xorg X11 Server	1.19.6-1ubuntu4.3igel910
Xorg Xephyr	1.19.6-1ubuntu4.3igel910
CUPS printing daemon	2.1.3-4ubuntu0.9igel27
PrinterLogic	18.2.1.128
Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.0-1igel214
WebKit2Gtk	2.24.2-0ubuntu0.19.04.1igel18
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20181030.92c5462-1igel5
Mobile Device Access USB (gphoto)	2.5.22-3igel1
VPN OpenConnect	7.08-1
Scanner support / Sane	1.0.27-1
VirtualBox	6.0.10-dfsg-4igel31

- **Features with Limited Functionality**

Cisco JVDI Client	12.1.0

General Information 11.02.100

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver.

Security Fixes 11.02.100

Firefox

- Updated **Firefox** browser to version **60.8.0 ESR**.
- Fixes for **mfsa2019-22**, also known as:
  More...

  CVE-2019-9811, CVE-2019-11711, CVE-2019-11712, CVE-2019-11713,
  CVE-2019-11729, CVE-2019-11715, CVE-2019-11717, CVE-2019-11719,
  CVE-2019-11730, and CVE-2019-11709.

- Fixes for **mfsa2019-19**, also known as: CVE-2019-11708.
- Fixes for **mfsa2019-18**, also known as: CVE-2019-11707.
- Fixes for **mfsa2019-08**, also known as:
  More...

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,
  CVE-2019-9795, CVE-2019-9796, CVE-2018-18506, and CVE-2019-9788.

- Fixes for **mfsa2019-05**, also known as: CVE-2018-18356, CVE-2019-5785.
- Fixes for **mfsa2019-02**, also known as: CVE-2018-18500, CVE-2018-18505, and CVE-2018-18501.
- Added allowance for Firefox to access **Yubikey (FIDO/U2F)** if apparmor is active.

Base system

- Set default **umask to 0077** for all non-root users.
- Remote users home is now **/home/ruser**.
- Fixed **policykit-1** security issue CVE-2019-6133.
- Fixed **tiff** security issues:
  More...

  CVE-2019-7663, CVE-2019-6128, CVE-2018-19210,
  CVE-2018-17000, CVE-2018-12900, and CVE-2018-10779.

- Fixed **lcms2** security issue CVE-2018-16435.
- Fixed **libpng1.6** security issues CVE-2019-7317 and CVE-2018-13785.
- Fixed **nss** security issues CVE-2018-18508, CVE-2019-11729, and CVE-2019-11719.
- Fixed **procps** security issues:
  More...

  CVE-2018-1126, CVE-2018-1125, CVE-2018-1124,
  CVE-2018-1123 and CVE-2018-1122.

- Fixed **evince** security issues CVE-2019-11459 and CVE-2019-1010006.
- Fixed **gdk-pixbuf** security issue CVE-2017-12447.
- Fixed **gst-plugins-base0.10** security issue CVE-2019-9928.
- Fixed **bind9** security issues CVE-2019-6465, CVE-2018-5745 and CVE-2018-5743.
- Fixed **libgd2** security issues CVE-2019-6978 and CVE-2019-6977.
- Fixed **ghostscript** security issues CVE-2019-3839, CVE-2019-3838 and CVE-2019-3835.
- Fixed **ldb** security issue CVE-2019-3824.
- Fixed **file** security issues CVE-2019-8907 and CVE-2019-8905.

- Fixed **poppler** security issues:
  More…

  CVE-2019-9200, CVE-2019-9903, CVE-2019-9631, CVE-2019-12293,
  CVE-2019-10872, CVE-2019-10023, CVE-2019-10021, CVE-2019-10019,
  CVE-2019-10018, CVE-2018-20662, CVE-2018-18897, and CVE-2017-9865.

- Fixed **samba** security issues CVE-2019-3880 and CVE-2018-16860.
- Fixed **openssl** security issue CVE-2019-1559.
- Fixed **libxslt** security issue CVE-2019-11068.
- Fixed **openssh** security issue CVE-2019-6111.
- Fixed **wget** security issue CVE-2019-5953.
- Fixed **wpa** security issues:
  More…

  CVE-2019-9495, CVE-2019-9497, CVE-2019-9498,
  CVE-2019-9499, and CVE-2019-11555.

- Fixed **gtk+2.0** security issue CVE-2013-7447.
- Fixed **heimdal** security issues CVE-2019-12098 and CVE-2018-16860.
- Fixed **webkit2gtk** security issues CVE-2019-8615, CVE-2019-8607, and CVE-2019-8595.
- Fixed **gimp** security issues:
  More…

  CVE-2017-17786, CVE-2017-17789, CVE-2017-17784,
  CVE-2017-17787, CVE-2017-17785, and CVE-2017-17788.

- Fixed **libtomcrypt** security issue CVE-2018-12437.
- Fixed **unzip** security issues CVE-2019-13232, CVE-2018-1000035, CVE-2016-9844, and CVE-2014-9913.
- Fixed **curl** security issues:
  More…

  CVE-2018-16840, CVE-2018-16839, CVE-2019-3823,
  CVE-2019-3822, CVE-2018-16890, and CVE-2019-5346.

- Fixed **gnutls28** security issues CVE-2018-10846, CVE-2018-10845, CVE-2018-10844, and CVE-2018-1084.
- Fixed **db5.3** security issue CVE-2019-8457.
- Fixed **qtbase-opensource-src** security issues CVE-2018-19873, CVE-2018-19870, and CVE-2018-15518.
- Fixed **libssh2** security issues:
  More…

  CVE-2019-3863, CVE-2019-3862, CVE-2019-3861,
  CVE-2019-3860, CVE-2019-3859, CVE-2019-3858,
  CVE-2019-3857, CVE-2019-3856, and CVE-2019-3855.

- Fixed **network-manager** security issue CVE-2018-15688.
- Fixed **elfutils** security issues:
  More…

CVE-2019-7665, CVE-2019-7150, CVE-2019-7149,
CVE-2018-18521, CVE-2018-18520, CVE-2018-18310,
CVE-2018-16403, CVE-2018-16402, and CVE-2018-16062.

- Fixed **libsndfile** security issues:
  More...

  CVE-2019-3832, CVE-2018-19758, CVE-2018-19662, CVE-2018-19661,
  CVE-2018-19432, CVE-2018-13139, CVE-2017-6892, CVE-2017-17457,
  CVE-2017-17456, CVE-2017-16942, CVE-2017-14634, CVE-2017-14246,
  and CVE-2017-14245.

- Fixed **dbus** security issue CVE-2019-12749.
- Fixed **vim** security issues CVE-2019-12735 and CVE-2017-5953.
- Fixed **glib2.0** security issue CVE-2019-12450.
- Fixed **openssl (1.1.x)** security issues:
  More...

  CVE-2019-1543, CVE-2018-0737, CVE-2018-0735,
  CVE-2018-0734, and CVE-2018-0732.

- Fixed **sqlite3** security issues:
  More...

  CVE-2019-9937, CVE-2019-9936, CVE-2019-8457, CVE-2018-20506,
  CVE-2018-20346, CVE-2017-2520, CVE-2017-2519, CVE-2017-2518,
  CVE-2017-13685, CVE-2017-10989, and CVE-2016-6153.

- Fixed **systemd** security issues:
  More...

  CVE-2019-6454, CVE-2019-6454, CVE-2018-1049,
  CVE-2018-15686, and CVE-2019-3842.

- Fixed **libseccomp** security issue CVE-2019-9893.
- Fixed **bzip2** security issues CVE-2019-12900 and CVE-2016-3189.
- Fixed **imagemagick** security issues:
  More...

  CVE-2019-9956, CVE-2019-7398, CVE-2019-7397, CVE-2019-7396,
  CVE-2019-7175, CVE-2019-11598, CVE-2019-11597, CVE-2019-11472,
  CVE-2019-11470, CVE-2019-10650, CVE-2019-10131, CVE-2018-20467,
  CVE-2018-18025, CVE-2018-18024, CVE-2018-18016, CVE-2018-17966,
  CVE-2018-17965, CVE-2018-16413, CVE-2018-16412, CVE-2017-12806,
  and CVE-2017-12805.

- Fixed **expat** security issue CVE-2018-20843.
- Fixed **glib2.0** security issue CVE-2019-13012.
- Fixed **libvirt** security issues CVE-2019-10167 and CVE-2019-10161.
- Fixed **gvfs** security issue CVE-2019-12795.
- Fixed **libmspack** security issue CVE-2019-1010305.
- Fixed **bash** security issue CVE-2019-9924.
- Fixed **openldap** security issues CVE-2019-13565 and CVE-2019-13057.

- Updated **libwebkit2gtk-4.0-37** to version **2.24.2**.
  Security fixes:
  More...

  CVE-2019-8595, CVE-2019-8607, CVE-2019-8615, CVE-2019-6251,
  CVE-2018-4373, CVE-2018-4375, CVE-2018-4376, CVE-2018-4378,
  CVE-2018-4382, CVE-2018-4392, CVE-2018-4416, CVE-2018-4345,
  CVE-2018-4386, and CVE-2018-4372.

- Fixed a vulnerability in the **custom environment variable framework**.
- Fixed possible malicious **owner change within TC setup configuration**.
- Fixed **kernel TCP** vulnerabilities CVE-2019-11477: **SACK Panic**, CVE-2019-11478: **SACK Slowness**, and CVE-2019-11479: **Excess resource consumption due to low MSS values**.
- Changed minimally allowed **MSS size** to **1000** to prevent possible Denial of Service attacks.
- Fixed a vulnerability in **Java configuration script**.

Known Issues 11.02.100

Citrix

- With activated DRI3 and AMD GPU, Citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. GStreamer 1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of Login.
  As a workaround, insert the smartcard before starting StoreFront login.
- Citrix **H.264 acceleration plugin** does not work with **enabled** server policy "Optimize for 3D graphics workload" in combination with server policy "Use video codec compression" > "For the entire screen".
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264 acceleration plugin**, the following registry key must be enabled:
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Range	enabled / <u>disabled</u>

  This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

VMware Horizon

- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping** is switched off.
    In the IGEL Setup client, **drive mapping** can be found under **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable drive mapping**.
    It is also recommended to disable local **Storage Hotplug** under Setup **> Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, if you use **drive mapping** instead, it is recommended to either **switch off USB redirection entirely** or at least to **deny storage devices** by adding a filter to the USB class rules.
    Furthermore, Horizon Client relies on the OS to mount the storage device itself. Enable local **Storage Hotplug** under Setup **>Devices > Storage Devices > Storage Hotplug**.
- **External drives** mounted already before connection **do not appear in the remote desktop**.
  Workaround: map the directory `/` media as a drive. Then the external devices will show up inside the media drive.

WiFi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend under **IGEL Setup > System > Power Options > Shutdown**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** once with disabled FIPS support.

Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi firefox plugin is no longer supported. The "Console Invocation" has to allow 'Native' client (auto is also possible) and should be started in fullscreen to prevent any opening windows.

Multimedia

- Multimedia **redirection with GStreamer** could fail with the **Nouveau GPU driver**.

Audio

- IGEL **UD2 (D220)** fails to restore the **volume level of the speaker** when the device used firmware version **11.01.110** before.

New Features 11.02.100

Citrix

- Integrated **Citrix Workspace app 19.06**.
  Available Citrix Workspace apps in this release: 19.06, 13.10 and 13.5.
- Added a new registry key to support **1536-bit RSA keys** for client authentication. Factory default for this release is "true".
  More...

Parameter	Enables RSA 1536 cipher suite
Registry	`ica.allregions.enable_rsa_1536`
Range	<u>factory default</u> / false / true

- Added a new **registry key** to enable **different cipher suites** for client authentication. Factory default for this release is "ALL".
  More...

Parameter	Enables different cipher suite
Registry	`ica.allregions.sslciphers`
Range	<u>factory default</u> / ALL / GOV / COM

> TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 – GOV/ALL
> TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 – GOV/ALL
> TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA – COM/ALL

- Added a new **registry key** to support **keyboard layout synchronization**.
  More...

Parameter	Keyboard layout synchronization
Registry	`ica.modules.virtualdriver.keyboardsync.enable`
Value	<u>false</u>/ true

- Updated **Citrix HDX RTME** used for optimization of Skype for Business to version **2.8.0-2235**.
- Added support for **Citrix Workspace Launcher** functionality as described at https://support.citrix.com/article/CTX237727.
- Added **Citrix Farm Selection**, a facility to manually select one of the configured services / farms for StoreFront login.
  More...

Parameter	Citrix store selection
Registry	`ica.pnlogin.farm_selection.enabled`
Value	<u>off</u> / on

> Info:
> Off: All servers are used in parallel. If switched on, a user has to select the store via a dialog box before entering the login data.

- **Timeout** for the selection dialog:
  More...

Parameter	Timeout
Registry	`ica.pnlogin.farm_selection.timeout`
Value	0 (no timeout) seconds

- **Width** of the dialog window:
  More...

Parameter	Selection box window width
Registry	`ica.pnlogin.farm_selection.win_width`
Value	400 pixel

- **Height** of the dialog window:
  More...

Parameter	Selection box window height
Registry	`ica.pnlogin.farm_selection.win_height`
Value	400 pixel

- **Changed the defaults** for following parameters:
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Window**
Parameter	Multimonitor full-screen mode
Registry	`ica.wfclient.usexdgfullscreen` `ica.wfclient.spanmonitorenable`
Range	[Restrict full-screen session to one monitor] [Expand full-screen session across all monitors] [Expand the session over a self-selected number of monitors]
IGEL Setup	**Sessions > Citrix > Citrix Global > HDX Multimedia**
Parameter	Multimedia redirection
Registry	`ica.module.virtualdriver.multimedia.enable`
Value	enabled / disabled
IGEL Setup	**Sessions > Citrix > Citrix Global > HDX Multimedia**

Sessions > Citrix > Citrix Global > Unified Communications > Skype for Business	
Parameter	HDX Realtime Media Engine
Registry	`ica.module.virtualdriver.hdxrtme.enable`
Value	<u>enabled</u> / disabled

- Updated the **Nuance virtual channel** for ICA to version **B301**.

RDP/IGEL RDP Client 2

- Added a field '**Collection**' to RDP session server page.
  More...

IGEL Setup > Sessions > RDP > RDP Sessions > RDP Session > Server	
IGEL Setup > Sessions > RDP > RDP Sessions > RDP Session > Options	
Parameter	Collection
Registry	`sessions.winconnect<NR>.option.load-balance-info`

VMware Horizon

- Added parameters to specify **webcam frame size** and **rate for RTAV**.
  More...

Parameter	Webcam frame width
Registry	`vmware.view.rtav-frame-width`
Value	<u><empty_string></u>
Parameter	Webcam frame height
Registry	`vmware.view.rtav-frame-height`
Value	<u><empty_string></u>
Parameter	Webcam frame rate
Registry	`vmware.view.rtav-frame-rate`
Value	<u><empty_string></u>

- Updated **Horizon Client** to version **5.0.0-12557422**.
- Added a possibility to easily evaluate **Horizon Blast decoder states**. By default, sessions are evaluated after usage, and the result is written into the journal log. This can also be used with GUI notifications at runtime.
- Added **new USB classes** to **Horizon USB Redirection** class configuration: **Audio (input)**, **Audio (Output)**, **Imaging**, **Video (Input)**.

Parallels Client

- Updated **Parallels Client** to version **17.0**.
- Added a possibility to set apps to **autostart on Parallels RAS**.

PowerTerm

- Added **Ericom PowerTerm** terminal emulation. This feature requires an **additional license**. The following **versions** are available:
  12.0.1.0.20170219.2-_dev_-34574
  12.5_x64_20190619_12.5.1.40008

IBM_525

- **Improved startup time** of IBM iAccess Client.
- **Improved configuration** of IBM iAccess Client **via IGEL Setup**.
  More...

Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Connection > Advanced
Parameter	Bypass signon
Registry	`sessions.iaccess<NR>.options.ssoenabled`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Font
Parameter	Antialiasing
Registry	`sessions.iaccess<NR>.options.textantialiasing`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Allow blinking cursor
Registry	`sessions.iaccess<NR>.options.blinkcursor`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Show blinking text with
Registry	`sessions.iaccess<NR>.options.blinkstate`
Value	[Blinking Text] [Host Color] [Mapped Color]
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor

Parameter	Blink Color
Registry	`sessions.iaccess<NR>.options.blinkcolor_fg`
Value	#ffc800
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Blink Color Background
Registry	`sessions.iaccess<NR>.options.blinkcolor_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Rule Line
Registry	`sessions.iaccess<NR>.options.ruleline`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Follow Cursor
Registry	`sessions.iaccess<NR>.options.rulelinefollows`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Style
Registry	`sessions.iaccess<NR>.options.rulelinestyle`
Value	[Crosshair] [Vertical] [Horizontal]
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Green
Registry	`sessions.iaccess<NR>.options.color_fgn_fg`
Value	#00ff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color

Parameter	Green Background
Registry	`sessions.iaccess<NR>.options.color_fgn_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	White
Registry	`sessions.iaccess<NR>.options.color_fwt_fg`
Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	White Background
Registry	`sessions.iaccess<NR>.options.color_fwt_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Red
Registry	`sessions.iaccess<NR>.options.color_frd_fg`
Value	#ff0000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Red Background
Registry	`sessions.iaccess<NR>.options.color_frd_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Turquoise
Registry	`sessions.iaccess<NR>.options.color_ftq_fg`
Value	#00ffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color

Parameter	Turquoise Background
Registry	`sessions.iaccess<NR>.options.color_ftq_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Yellow
Registry	`sessions.iaccess<NR>.options.color_fyw_fg`
Value	#ffff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Yellow Background
Registry	`sessions.iaccess<NR>.options.color_fyw_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Pink
Registry	`sessions.iaccess<NR>.options.color_fpk_fg`
Value	#ff00ff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Pink Background
Registry	`sessions.iaccess<NR>.options.color_fpk_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Blue
Registry	`sessions.iaccess<NR>.options.color_fbl_fg`
Value	#7890f0
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color

Parameter	Blue Background
Registry	`sessions.iaccess<NR>.options.color_fbl_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Status Indicators
Registry	`sessions.iaccess<NR>.options.color_osi`
Value	#7890f0
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Information Indicators
Registry	`sessions.iaccess<NR>.options.color_oii`
Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Attention Indicators
Registry	`sessions.iaccess<NR>.options.color_oai`
Value	#ffff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Error Indicators
Registry	`sessions.iaccess<NR>.options.color_oei`
Value	#ff0000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	OIA Background
Registry	`sessions.iaccess<NR>.options.color_oob`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color

Parameter	Screen Background
Registry	`sessions.iaccess<NR>.options.color_sbg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Highlight active field
Registry	`sessions.iaccess<NR>.options.actfieldhilite`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Active Field
Registry	`sessions.iaccess<NR>.options.color_actf_fg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Active Field Background
Registry	`sessions.iaccess<NR>.options.color_actf_bg`
Value	#ffff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Crosshair Ruler Color
Registry	`sessions.iaccess<NR>.options.color_crc`
Value	#00ff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Column Separator
Registry	`sessions.iaccess<NR>.options.color_ccs`
Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences

Parameter	Start window maximized
Registry	`sessions.iaccess<NR>.options.ismaximized`
Value	enabled / <u>disabled</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Keyboard
Parameter	Keyboard Remapping File
Registry	`sessions.iaccess<NR>.options.keyremapfile`
Value	<u>IBMi.kmp</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Popup Keypad
Parameter	Popup Keypad File
Registry	`sessions.iaccess<NR>.options.poppadfile`
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Toolbar
Parameter	Toolbar File
Registry	`sessions.iaccess<NR>.options.toolbarfile`
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Open new sessions in a new tab
Registry	`ibm.iaccess.acssm.opensessionintab`
Value	<u>enabled</u> / disabled
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Always display the tab bar
Registry	`ibm.iaccess.acssm.alwaysshowtabbar`
Value	enabled / <u>disabled</u>
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Switch to new tab when created
Registry	`ibm.iaccess.acssm.switchtonewtab`
Value	<u>enabled</u> / disabled
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup

Parameter	Send a warning when closing multiple tabs
Registry	`ibm.iaccess.acssm.closemultipletabwarning`
Value	<u>enabled</u> / disabled
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Do not start tabbed sessions until the tab is selected
Registry	`ibm.iaccess.acssm.tabdelayedstart`
Value	enabled / <u>disabled</u>
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	New Tab Action
Registry	`ibm.iaccess.acssm.newtabaction`
Value	[Disable and Hide] [<u>Run the Same</u>] [Run Other...]
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Tab Placement
Registry	`ibm.iaccess.acssm.tabplacement`
Value	[<u>Top</u>] [Bottom] [Left] [Right]

NX client

- Updated **NoMachine Client** to version **6.7.6**.

ThinLinc

- Updated **Cendio ThinLinc** to version **4.10**.
- Added support for all of **ThinLinc's login methods**: **password**, **public key**, **smartcard** and **Kerberos**. Additional parameters can be set when smartcard is chosen.
  More...

IGEL Setup	**Sessions > ThinLinc > ThinLinc Sessions > ThinLinc Session > Login**
Parameter	Method of authentication
Registry	`sessions.thinlinc%.login.authentication_method`
Value	<u>password</u> / publickey / scpublickey / kerberos
IGEL Setup	**Sessions > ThinLinc > ThinLinc Sessions > ThinLinc Session > Login**
Parameter	User
Registry	`sessions.thinlinc%.options.user`

Value	
IGEL Setup	**Sessions > ThinLinc > ThinLinc Sessions > ThinLinc Session > Login**
Parameter	Password
Registry	`sessions.thinlinc%.option.crypt_password`
Value	
IGEL Setup	**Sessions > ThinLinc > ThinLinc Sessions > ThinLinc Session > Login**
Parameter	Use certificate subject as name for login
Registry	`sessions.thinlinc%.login.smartcard_subject_as_name`
Value	<u>enabled</u> / disabled
IGEL Setup	**Sessions > ThinLinc > ThinLinc Sessions > ThinLinc Session > Login**
Parameter	Connect the client automatically when a smartcard is found
Registry	`sessions.thinlinc%.login.smartcard_autoconnect`
Value	<u>enabled</u> / disabled
IGEL Setup	**Sessions > ThinLinc > ThinLinc Sessions > ThinLinc Session > Login**
Parameter	Disconnect the client automatically when the smartcard is removed
Registry	`sessions.thinlinc%.login.smartcard_disconnect`
Value	<u>enabled</u> / disabled
IGEL Setup	**Sessions > ThinLinc > ThinLinc Sessions > ThinLinc Session > Login**
Parameter	Allow transmission of the smartcard's passphrase for logging in
Registry	`sessions.thinlinc%.login.smartcard_passphrase_sso`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > ThinLinc > ThinLinc Sessions > ThinLinc Session > Login**
Parameter	Smartcard filter
Registry	`sessions.thinlinc%.login.smartcard_filter_1`
Value	
IGEL Setup	**Sessions > ThinLinc > ThinLinc Sessions > ThinLinc Session > Login**
Parameter	Smartcard filter
Registry	`sessions.thinlinc%.login.smartcard_filter_2`

Value	
IGEL Setup	**Sessions > ThinLinc > ThinLinc Sessions > ThinLinc Session > Login**
Parameter	Smartcard filter
Registry	`sessions.thinlinc%.login.smartcard_filter_3`
Value	

Teradici PCoIP Client

- Added **Teradici PCoIP Client** version **19.05.5**. This feature requires an **additional license**. The following parameters are available:
  More...

IGEL Setup	**System > Firmware Customization > Features**
Parameter	Teradici PCoIP Client
Registry	`services.addition_teradici_pcoip_client.enabled`
Value	<u>enabled</u> / disabled
IGEL Setup	**Sessions > Teradici PCoIP Client > PCoIP Sessions > PCoIP Session > Connection settings**
Parameter	Use IGEL Setup for configuration
Registry	`sessions.pcoip<NR>.options.igel-connection`
Value	<u>disabled</u> / enabled
IGEL Setup	**Sessions > Teradici PCoIP Client > PCoIP Sessions > PCoIP Session > Connection settings**
Parameter	Server
Registry	`sessions.pcoip<NR>.options.address`
IGEL Setup	**Sessions > Teradici PCoIP Client > PCoIP Sessions > PCoIP Session > Connection settings**
Parameter	Server certificate verification mode
Registry	`sessions.pcoip<NR>.options.security-mode`
Range	[Not required] [<u>Warn but allow</u>] [Full verification]
IGEL Setup	**Sessions > Teradici PCoIP Client > PCoIP Sessions > PCoIP Session > Login**
Parameter	Authentication type

Registry	`sessions.pcoip<NR>.options.auth-type`
Range	[Password authentication] [Smartcard authentication]
IGEL Setup	**Sessions > Teradici PCoIP Client > PCoIP Sessions > PCoIP Session > Window**
Parameter	Window mode
Registry	`sessions.pcoip<NR>.options.window-mode`
Range	[User defined] [Fullscreen One Monitor] [Fullscreen All Monitors] [Window]
IGEL Setup	**Sessions > Teradici PCoIP Client > PCoIP Sessions > PCoIP Session > Window**
Parameter	User interface translation
Registry	`sessions.pcoip<NR>.options.language`
Range	[System setting] [English] [German] [French] [Spanish] [Portuguese (EU)] [Portuguese (Brazil)] [Italian] [Japanese] [Chinese(Simplified)] [Chinese(Traditional)]
Parameter	Log level
Registry	`sessions.pcoip<NR>.options.log-level`
Range	[Global setting] [Critical] [Error] [Info] [Debug]

- Added support for **global settings**:
  More...

Parameter	Log level
Registry	`pcoip.log-level`
Range	[Critical] [Error] [Info] [Debug]
Parameter	Show codec indicator
Registry	`pcoip.codec_indicator`
Value	disabled / enabled
Info: Added small dot in the bottom left corner during the session to indicate which codec is being used. Green indicates simple codec; blue indicates tic2 codec. This is only available as global setting.	

- UMS option "**Save device files for support**" now includes Teradici PCoIP client's data.

Firefox

- Added new parameters: **Allow a custom command before and after browser session**.
  More...

Parameter	init_action
Registry	`sessions.browser%.init_action`
Value	<u>\<empty_string\></u>
Parameter	final_action
Registry	`sessions.browser%.final_action`
Value	<u>\<empty_string\></u>

Network

- New feature regarding **lock** and **logon screen**: Network icons are shown on the panel and appear under the same conditions as during normal operation. None of them has a context menu though. Clicking on the Wi-Fi icon directly invokes the Wireless Manager when it is enabled.
  If blocking/unblocking Wi-Fi by the user is enabled, there is an additional button on the Wireless Manager for blocking and a preceding dialog for unblocking.
- **SCEP**: Added a registry key for specifiying **a suffix for CommonName/SubjectAltName** when the type is "**DNS Name (auto)**" or "**DNS Name as UPN (auto)**".
  More...

Parameter	CommonName/SubjectAltName Suffix
Registry	`network.scepclient.cert%.subjectaltnamesuffix`
Value	<u>\<empty\></u>
Info: Automatic replacements in the value: %D -> the system's DNS domain name at the time the CSR is created %% -> % Other %X are currently discarded.	

- Added a mechanism for **retrieving the SCEP challenge password with a custom script.** Setting the following registry key to "true" enables the use of the script. The registry key `network.scepclient.cert%.crypt_password` will be ignored. (The script may use it for its own purpose though.)
  More...

Parameter	Use Challenge Password Command
Registry	`network.scepclient.cert%.use_challenge_password_command`
Value	enabled / <u>disabled</u>

If the above key is enabled, the value of this key will be passed to bash for execution. It happens when the SCEP challenge password is needed for creating a certificate signing request. The script is supposed to output the challenge password on its standard output. For convenience, any Carriage-Return characters are stripped off the script before execution by bash.
More...

Parameter	Challenge Password Command
Registry	`network.scepclient.cert%.challenge_password_command`
Value	<u><empty_string></u>

- Added **NCP Secure Enterprise VPN Client** version **5.10_rev40552** (configurable under **IGEL Setup > Network > VPN > NCP VPN Client**).

Wi-Fi

- Added: **Wi-Fi adapters can be turned off** and **on** by the tray icon context menu when the following registry key is enabled:
  More...

Parameter	Enable Wi-Fi switch
Registry	`network.applet.wireless.enable_wifi_switch`
Value	<u>enabled</u> / disabled

- Added support for **Realtek 8821CE wireless cards**.

Imprivata

- **Imprivata Appliance 6.3** or higher is needed now.
  Please see the Imprivata Supported Components guide (http://documentation.imprivata.com/01RefArch/Content/Topics/OSSupportedComponents.htm#ProveID) for support and upgrade considerations.
- Added a new parameter to Imprivata.conf: "**Redirection of Smartcards**".
  More...

IGEL Setup > Sessions > Appliance Mode > Imprivata	
Parameter	Redirection of Smartcards
Registry	`imprivata.native_smartcard_redirection`
Value	enabled / <u>disabled</u>

- Added a new parameter: "**Path to Certificate**".
  More...

IGEL Setup > Sessions > Appliance Mode > Imprivata	

Parameter	Path to Certificate
Registry	`imprivata.path_to_certificate`

Smartcard

- Added **90meter** smartcard library. This feature requires an **additional license**.
  Use the following parameters to activate:
  More...

IGEL Setup	**System > Firmware Customization > Features**
Parameter	90meter Smart Card Support
Registry	`services.addition_smartcard_90meter.enabled`
Value	<u>enabled</u> / disabled
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by 90meter library
Registry	`vmware.view.pkcs11.use_90meter`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Browser > Browser Global > Smartcard Middleware**
Parameter	90meter Security Device
Registry	`browserglobal.security_device.90meter`
Value	enabled / <u>disabled</u>
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	90meter
Registry	`scard.pkcs11.use_90meter`
Value	enabled / <u>disabled</u>

- New **IGEL Smartcard** mode **without Locking Desktop** (reintroduced feature of Linux 5.x firmware).
  More...

IGEL Setup > Security > Logon > IGEL Smartcard	
Parameter	Enable IGEL Smartcard without Locking Desktop
Registry	`scard.scardd.enable_nolock`
Value	enabled / <u>disabled</u>
IGEL Setup > Security > Logon > IGEL Smartcard	

Parameter	On Smartcard Removal, terminate
Registry	`scard.scardd.session_termination`
Value	<u>all</u> / smartcard

- Updated **SecMaker NetID** to version **6.7.2.36**: now **YubiKey 5** is supported.
- Updated **CHERRY USB-LAN Proxy** to version **3.2.0.3**. This version provides enhanced configuration.
  More...

IGEL Setup > Security > Smartcard > Services	
Parameter	Bind IP
Registry	`devices.cherry.usblanproxy.bind-ip`
Value	<u>auto</u>

IGEL Setup > Security > Smartcard > Services	
Parameter	Https Server Port
Registry	`devices.cherry.usblanproxy.https-port`
Value	<u>443</u>

IGEL Setup > Security > Smartcard > Services	
Parameter	SICCT Announce IP
Registry	`devices.cherry.usblanproxy.sicct-announce-ip`
Value	<u>broadcast</u>

IGEL Setup > Security > Smartcard > Services	
Parameter	SICCT Announce Port
Registry	`devices.cherry.usblanproxy.sicct-announce-port`
Value	<u>4742</u>

IGEL Setup > Security > Smartcard > Services	
Parameter	SICCT Announce Interval
Registry	`devices.cherry.usblanproxy.sicct-announce-interval`
Value	<u>30</u>

IGEL Setup > Security > Smartcard > Services	
Parameter	USB Fast Mode
Registry	`devices.cherry.usblanproxy.usb-fast-mode`

Value	enabled /<u>disabled</u>
IGEL Setup > Security > Smartcard > Services	
Parameter	Alternate Initialization Method for G87-1505
Registry	`devices.cherry.usblanproxy.usb-1505-alt-setup`
Value	enabled /<u>disabled</u>

- Added a command line tool **pcsc_scan** for smartcard debugging.
- Added configuration parameters for some settings of **smartcard library OpenSC**.
  More...

Parameter	Debug level
Registry	`scard.pkcs11.opensc.default.debug`
Value	<u>0</u>
Parameter	Debug file
Registry	`scard.pkcs11.opensc.default.debug_file`
Value	<u>stderr</u>
Parameter	Max. send size
Registry	`scard.pkcs11.opensc.default.pcsc.max_send_size`
Value	<u>255</u>
Parameter	Max. receive size
Registry	`scard.pkcs11.opensc.default.pcsc.max_recv_size`
Value	<u>256</u>
Parameter	Connect exclusive
Registry	`scard.pkcs11.opensc.default.pcsc.connect_exclusive`
Value	enabled / <u>disabled</u>
Parameter	Disconnect action
Registry	`scard.pkcs11.opensc.default.pcsc.disconnect_action`
Value	<u>leave</u> / reset / unpower
Parameter	Transaction end action
Registry	`scard.pkcs11.opensc.default.pcsc.transaction_end_action`
Value	<u>leave</u> / reset / unpower

Parameter	Reconnect action
Registry	`scard.pkcs11.opensc.default.pcsc.reconnect_action`
Value	<u>leave</u> / reset / unpower
Parameter	Enable pinpad
Registry	`scard.pkcs11.opensc.default.pcsc.enable_pinpad`
Value	<u>enabled</u> / disabled
Parameter	Use PIN caching
Registry	`scard.pkcs11.opensc.default.pkcs15.use_pin_caching`
Value	<u>enabled</u> / disabled
Parameter	How many times to use a PIN from cache before re-authenticating it
Registry	`scard.pkcs11.opensc.default.pkcs15.pin_cache_counter`
Value	<u>10</u>
Parameter	PIN caching ignores user consent
Registry	`scard.pkcs11.opensc.default.pkcs15.pin_cache_ignore_user_consent`
Value	enabled / <u>disabled</u>

- Updated **cryptovision sc/interface PKCS#11** smartcard library to version **7.1.20**. Changes in this revision:
    - Fixed a possible **deadlock** in the PKCS#11 module on Linux, if **C_Finalize** is called during a PCSC event, for example C_WaitForSlotEvent.
    - **ROCA check** in the Smartcard Manager, based on the "ROCA detection tool", see https://github.com/crocs-muni/roca.
    - **Renaming** of the container label in Smartcard Manager **with F2** is now possible.

CUPS Printing

- Added **SMB Network Print** client function.
  More...

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	Printer Port
Registry	`print.cups.printer<NR>.backend`
Value	<u>smb</u>
IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	

Parameter	SMB Server
Registry	`print.cups.printer<NR>.smb_server`

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog

Parameter	SMB Workgroup
Registry	`print.cups.printer<NR>.smb_workgroup`

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog

Parameter	SMB Printer
Registry	`print.cups.printer<NR>.smb_printer`

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog

Parameter	SMB Port
Registry	`print.cups.printer<NR>.smb_port`

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog

Parameter	Use Kerberos Authentication
Registry	`print.cups.printer<NR>.smb_kerberos`
Value	enabled / <u>disabled</u>

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog

Parameter	Use Passthrough Authentication
Registry	`print.cups.printer<NR>.smb_passthrough`
Value	enabled / <u>disabled</u>

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog

Parameter	SMB User
Registry	`print.cups.printer<NR>.smb_user`

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog

Parameter	SMB Password
Registry	`print.cups.printer<NR>.crypt_password`

Base system

- Added a possibility to configure **scheduled commands**. Registry keys: `system.cron.**`
- **Buddy update** enhancements:
    - **Automatic load balancing**:
      A client collects up to eight server candidates from which one is selected randomly.

Collection stops when the number specified in the following registry key is reached. Otherwise collection stops after a timeout.

More...

Parameter	Buddy Update Server Candidates
Registry	`update.ftp.buddy_server_candidates`
Value	1

- **Grouping**:
  Buddy update servers and clients only interact with each other when they are in the same group determined by the following registry key (a non-negative integer number). This feature is mainly useful when different firmware versions shall be used in parallel.
  More...

Parameter	Buddy Group ID
Registry	`update.ftp.buddy_group_id`
Value	0

- Added: **Firmware update** scheduled **on shutdown** is now **invoked on reboot** too.
- Added package **ldap-utils** which can be used by custom scripts.
- Updated **Kernel** to mainline version **4.19.65**.
- Moved the **EULA** page in IGEL Setup Assistant into the **demo activation workflow**.
- **Updated EULA** displayed in OSC and IGEL Setup Assistant.
- Added: When IGEL Setup Assistant is used to download **a demo license via Wi-Fi**, the **local Wi-Fi manager** will be **enabled by default**.
- Updated **Fluendo multimedia codecs** to the following versions:
  More...

gst-fluendo-aacdec	21/03/2019	0.10.39
gst-fluendo-asfdemux	21/03/2019	0.10.89
gst-fluendo-h264dec	21/03/2019	0.10.53
gst-fluendo-mp3	21/03/2019	0.10.39
gst-fluendo-mpeg4video	21/03/2019	0.10.43
gst-fluendo-vadec	21/03/2019	0.10.208
gst-fluendo-wmadec	21/03/2019	0.10.68
gst-fluendo-wmvdec	20/03/2019	0.10.65

- Replaced **timesyncd** with **chrony NTP**. Added a new registry key:
  More...

Parameter	Use NTP Servers from DNS SRV record
Registry	`system.time.ntp_use_dnssrv_timeservers`

Value	enabled / disabled

- Updated **CA Certificates** to version **20190122** (Mozilla authority bundle version 2.30).
  The following authorities were added:
  More...

    - "Certigna Root CA"
    - "GTS Root R1"
    - "GTS Root R2"
    - "GTS Root R3"
    - "GTS Root R4"
    - "UCA Extended Validation Root"
    - "UCA Global G2 Root"
    - "GlobalSign Root CA - R6"
    - "OISTE WISeKey Global Root GC CA"
    - "GDCA TrustAUTH R5 ROOT"
    - "SSL.com EV Root Certification Authority ECC"
    - "SSL.com EV Root Certification Authority RSA R2"
    - "SSL.com Root Certification Authority ECC"
    - "SSL.com Root Certification Authority RSA"
    - "TrustCor ECA-1"
    - "TrustCor RootCert CA-1"
    - "TrustCor RootCert CA-2"

  The following authorities were removed:
  More...

    - "Certplus Root CA G1"
    - "Certplus Root CA G2"
    - "OpenTrust Root CA G1"
    - "OpenTrust Root CA G2"
    - "OpenTrust Root CA G3"
    - "TÜRKTRUST Elektronik Sertifika Hizmet Sağlayıcısı H5"
    - "Visa eCommerce Root"
    - "ACEDICOM Root"
    - "AddTrust Low-Value Services Root"
    - "AddTrust Public Services Root"
    - "AddTrust Qualified Certificates Root"
    - "CA Disig Root R1"
    - "CNNIC ROOT"
    - "Camerfirma Chambers of Commerce Root"
    - "Camerfirma Global Chambersign Root"
    - "Certinomis - Autorité Racine"
    - "Certum Root CA"
    - "China Internet Network Information Center EV Certificates Root"
    - "Comodo Secure Services root"
    - "Comodo Trusted Services root"
    - "DST ACES CA X6"

- "GeoTrust Global CA 2"
- "PSCProcert"
- "Security Communication EV RootCA1"
- "Swisscom Root CA 1"
- "Swisscom Root CA 2"
- "Swisscom Root EV CA 2"
- "TURKTRUST Certificate Services Provider Root 2007"
- "TUBITAK UEKAE Kok Sertifika Hizmet Saglayicisi - Surum 3"
- "UTN USERFirst Hardware Root CA"

Driver

- Added registry keys to modify the Intel graphic driver usage of **framebuffer compression** and **power management**.
  New registry keys:
  More...

Parameter	Power saving display C-States to use
Registry	`x.drivers.intel.dc_setting`
Range	[Default] [Disable] [Up to DC5] [Up to DC6]
Info: "Default" - driver default	

Parameter	Use framebuffer compression
Registry	`x.drivers.intel.fbc_setting`
Range	[Default] [Disable]
Info: "Default" - driver default	

- Updated **Philips Speech Driver** to version **12.7.11**.
- Updated **signotec Citrix Virtual Channel** driver to version **8.0.8**.
- Updated **StepOver TCP Client** to version **2.3.2**.
- Updated **deviceTRUST Client** to version **19.1.200**. These are the release notes:
  Welcome to the release of the deviceTRUST 19.1.200 IGEL client, providing the context of IGEL thin client and UD Pocket devices into your virtual sessions. This release includes support for logical disks attached to the IGEL endpoint, plus bug fixes and stability improvements over the previous 19.1.100 release.

  Logical Disks
  We've added support for real-time properties representing the LOGICAL DISKS attached to the IGEL endpoint. This includes:
  More...

  DEVICE_LOGICALDISK_X_TYPE – Either Fixed or Removable.
  DEVICE_LOGICALDISK_X_LABEL – The volume label.
  DEVICE_LOGICALDISK_X_FILESYSTEM – The type of file system.
  DEVICE_LOGICALDISK_X_PATHS – The paths that the disk is mounted.

DEVICE_LOGICALDISK_X_TOTALMB – The total space available on the disk. This property is only available for mounted disks.
DEVICE_LOGICALDISK_X_FREEMB – The free space available on the disk. This property is only available for mounted disks.
DEVICE_LOGICALDISK_X_NAME – The name of the underlying physical disk.
DEVICE_LOGICALDISK_X_VENDORID – The vendor identifier uniquely identifying the manufacturer. This property is only available for USB or PCI connected devices.
DEVICE_LOGICALDISK_X_PRODUCTID – The product identifier uniquely identifying the product. This property is only available for USB or PCI connected devices.
DEVICE_LOGICALDISK_X_SERIALNUMBER – The serial number of the physical disk.
DEVICE_LOGICALDISK_X_BUSTYPE – The storage bus type linked to the physical disk.
DEVICE_LOGICALDISK_COUNT – The number of logical disks.

X11 system

- Added a new parameter to allow configuration of '**Display Switch' confirmation dialog timeout**.
  More...

IGEL Setup	**Accessories > Display Switch > Options**
Parameter	Timeout for confirmation dialog
Registry	`sessions.user_display0.options.confirm_timeout`
Value	10

- Re-Enable 'Display Switch' session start script to cycle simple modes.
- Added new options for **lid handling**.
  More...

Parameter	Lid close action while plugged in
Registry	`system.actions.lid.ac`
Range	[Turn off display] [Suspend]
Parameter	Lid close action while not plugged in
Registry	`system.actions.lid.battery`
Range	[Turn off display] [Suspend]

- Added new registry keys to change the xorg input driver for an input device class.
  New registry keys:

  For keyboards:
  More...

Parameter	Xorg driver to use
Registry	`userinterface.keyboard.driver`
Range	[Evdev] [Libinput]

  For touchpads:

More...

Parameter	Xorg driver to use
Registry	`userinterface.touchpad.driver`
Range	[Evdev] [Synaptics] [Libinput]

For touchscreens:
More...

Parameter	Xorg driver to use
Registry	`userinterface.touchscreen.xorg_driver`
Range	[Evdev] [Libinput]

For mouse:
More...

Parameter	Xorg driver to use
Registry	`userinterface.mouse.driver`
Range	[Evdev] [Libinput]

- Added some registry keys to disable loading of **DRM kernel modules** (graphic).
  More...

Parameter	Disable the loading of the RADEON DRM driver
Registry	`x.drivers.ati.disable`
Value	0
Parameter	Disable the loading of the AMDGPU DRM driver
Registry	`x.drivers.amdgpu.disable`
Value	0
Parameter	Disable the loading of the i915 DRM driver
Registry	`x.drivers.intel.disable`
Value	0
Parameter	Disable the loading of the NVIDIA kernel driver
Registry	`x.drivers.nvidia.disable`
Value	0
Parameter	Disable the loading of the NOUVEAU DRM driver
Registry	`x.drivers.nouveau.disable`

Value	0
Parameter	Disable the loading of the QXL DRM driver
Registry	`x.drivers.qxl.disable`
Value	0
Parameter	Disable the loading of the VMGFX DRM driver
Registry	`x.drivers.vmware.disable`
Value	0
Parameter	Disable the loading of the VBOXVIDEO DRM driver
Registry	`x.drivers.vboxvideo.disable`
Value	0

- Updated **DisplayLink** driver to version **5.1.26** to solve some startup issues.

Evidian

- Updated **Evidian rsUserAuth** to version **1.5.7116**.

Hardware

- Added hardware support for **Rein Medical Silenio 122CT and 124CT**.
- Added hardware support for **Advantech POC-W213L** and **POC-W243L**.
- Added hardware support for **ADS-TEC VMT 9000 Serie**.
- Added hardware support for **Fujitsu Esprimo Q957**.
- Added hardware support for **ADS-TEC VMT 9000 Serie**.
- Added hardware support for **LG AiO Cloud Device 38"**

- Added hardware support for the following **headsets**:
  More...

  - Jabra Engage 50
  - Jabra Engage 65
  - Jabra Engage 75
  - Jabra Evolve 30 II (Ver. B)
  - Jabra Evolve 30 II (Ver. C)
  - Jabra Evolve 40 (Ver. B) - USB-C
  - Jabra Evolve 40 (Ver. D)
  - Jabra Evolve 65
  - Jabra Evolve 75
  - Plantronics Voyager 5200 UC
  - Plantronics Voyager 6200 UC
  - Plantronics Voyager 8200 UC
  - Plantronics ENCOREPRO 720 + DA70
  - Plantronics ENCOREPRO 720 + DA80
  - Plantronics ENCOREPRO 520D + DA90

- Sennheiser SC70
- Added hardware support for **HP t430**.
- Added hardware support for **HP t420**.

Java

- Replaced Oracle JRE by **AZUL's Zulu JRE**.
- Updated **Zulu JRE** to version **8.40.0.25**.

Remote Management

- **Connection order between UMS and ICG** can now be configured.
  More...

Registry	`system.remotemanager.icg_try_ums_connect`
Value	enabled / <u>disabled</u>

  When an ICG connection is configured and the parameter is enabled, the device tries to connect directly to UMS. If the connection was established successfully, the device is managed by UMS and not over ICG until new start of the device or network.

IGEL Cloud Gateway

- Added **VNC Shadowing** support **over ICG**. To use this feature, **UMS 6.02.110 or later** and **ICG 2.01.100 or later** are required.

Resolved Issues 11.02.100

Citrix

- Improved **USB handling of SpaceMouse**.
- Improved **USB redirection** handling with **Citrix Workspace App 19.06**.
- Fixed **stability issues** with **Citrix Browser Content Redirection**.

OSC Installer

- Fixed: OSC Installer does not disable **EFI** when **MSDOS partitioning** was chosen.

Citrix Receiver 13

- Added a **switch** to enable the possibility to **launch multiple desktop sessions with RTME and h.264 acceleration**. This switch should not be used when "**Enable Secure ICA**" is active for specific delivery group.
  More...

Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

RDP/IGEL RDP Client 2

- Added a registry key to use **rdpglobal window settings for remote apps**.
  More...

Parameter	Enable global windwos settings for remote app
Registry	`rdp.winconnect.enable-global-window-settings-for-remote-app`
Value	enabled / <u>disabled</u>

- Added negotiation: **Kerberos as fallback for disabled NTLM authentication**. This only works when **Active Directory/Kerberos Logon** is enabled.
- Fixed **RD Web Access** not working with special characters in name or password. This only works when **Active Directory/Kerberos Logon** is enabled.
- Fixed **smartcard redirection in RDP**: **SCardGetAttrib** was failing if **pbAttr** was NULL. The fix should help running Dutch Zorg-ID applications.

RD Web Access

- Fixed **not starting RDP Remote Applications**.

VMware Horizon

- Added **recognition** for **password change** and **password expired** dialog in Horizon local logon sessions or appliance mode.
- Fixed configuration choice for usage of **relative mouse feature**.
- Added possibility to use the **rollback variant of the Horizon Client**.
  More...

Parameter	Allow rollback to former client variant
Registry	`vmware.view.allow-client-rollback`
Value	enabled / <u>disabled</u>

- Fixed a problem with the client where connection to the **remote desktop using PCoIP protocol failed** occasionally.

Teradici PCoIP Client

- Fixed unwanted **restart of login window** after session logoff or disconnect.

Firefox

- Fixed Firefox **not accepting proxy credentials** from setup.
- Fixed **print hotkey** disable option not working with Firefox 60.
- Fixed **browserglobal.app.local_subdirs_whitelist** not working.

Network

- Fixed: **Failure to reach SCEP server** in the client certificate renewal phase resulted in loss of SCEP server and client certificates.
- Changed **e1000e driver** to out of tree version **3.4.2.3** directly from Intel.
- Changed **igb driver** to out of tree version **5.3.5.22** directly from Intel.
- Added possibility to **switch between third-party** and **kernel Intel IGB network driver**.
  New registry key:
  More...

Parameter	Use thirdparty igb kernel module
Registry	`network.drivers.igb.prefer_thirdparty`
Range	[<u>Auto</u>] [Yes] [No]
Info: "Auto" (use thirdparty in most cases)	

- Added possibility to **switch between third-party** and **kernel intel E1000E network driver**.
  New registry key:
  More...

Parameter	Use thirdparty e1000e kernel module
Registry	`network.drivers.e1000e.prefer_thirdparty`
Range	[<u>Auto</u>] [Yes] [No]
Info: "Auto" (use thirdparty in most cases)	

- Fixed **instability of netmounts** with static IP configuration.
- Added possibility to **switch between third-party r8168** and **kernel r8169 realtek network driver**.
  New registry key:
  More...

Parameter	Use thirdparty r8168 kernel module
Registry	`network.drivers.r8169.prefer_r8168`
Range	[Auto] [Yes] [No]

Info: "Auto" (use r8168 in most cases)

- Added a possibility to choose the **variant of the realtek r8168 driver**.
  A new registry key:
  More...

Parameter	Choose realtek r8168 variant (only if "prefer r8168" is chosen)
Registry	`network.drivers.r8169.r8168_variant`
Range	[Default] [No NAPI] [NAPI]

Info: "Dafault" (use NAPI in most cases)

- Fixed: **Second Ethernet** interface **did not get configured** when the first one was disabled.
- Fixed: **802.1X Ethernet** configuration **with user interaction** was broken.

Wi-Fi

- Fixed not working **TP Link Archer T2UH**.
- Fixed not working **Broadcom SDIO WLAN cards** as present in Advantech AIM8IAC device for example.

Smartcard

- Updated **cryptovision sc/interface PKCS#11 smartcard library** to version **7.1.20**.
- Fixed a possible **deadlock** in the **PKCS#11 module** on Linux if **C_Finalize** is called during a PCSC event, for example C_WaitForSlotEvent.
- Fixed **OpenSC** setting **max_send_size** for reader driver pcsc in **/etc/opensc/opensc.conf**.
- Fixed **Dell KB813 Smartcard Keyboard** in combination with certain smartcards driven by OpenSC PKCS#11 module. Before this fix, **authentication to Citrix StoreFront** and **VMWare Horizon failed**.

Base system

- Improved: Ensured that the **Unit ID for IGEL devices is the MAC address of the onboard network card**.
- Fixed **license expiry warning at boot**. Before this fix, in some cases the warning wrongly appeared at every boot.
- Fixed **unmounting storage devices** via **In-session control bar**.
- Fixed **server-dependent crash** when installing license via FTP.
- Fixed retrieving of **serial number of a connected screen**.
- Fixed random **90 seconds shutdown delay** (systemd).
- Fixed wrong behavior with **expired evaluation licenses** in some cases.
- Added message in **bootsplash** when a custom partition will get created.
- Fixed **bug in the screenlock countdown** that occurred, when display of remaining seconds was not desired.
- Fixed **shortcut configuration for shutdown**, **restart** and **icon** sort to be applied without reboot.

- Added **apparmor** rule to allow **tcpdump** to write to /debuglog.
- Fixed **hotkey** configuration **to be applied without reboot**.
- Fixed: **UD2** screen **goes black** with certain multimonitor configurations.
- Improved new **license detection** in **IGEL Setup Assistant**.
- Fixed **AD/Kerberos logon** in case parameter **auth.login.krb5_enterprise** is set to false.
- Fixed: **System logoff waits for Citrix logoff** now.
- Fixed **NTP synchronization** problems **when changing the NTP client** from **timesyncd** to **chrony**.
- Added **switch** to enable **DNS hostname lookup for SSH server**:
  More...

Parameter	Use DNS to resolve client hostnames
Registry	`network.ssh_server.use_dns`
Value	enabled / <u>disabled</u>

- Fixed **USB printer aliases**.
- Fixed **gtk-3 icon sizes** for **High DPI** configurations.
- Enhanced **bootloader** to allow the setting of some kernel command line parameters with registry keys.
  New registry keys:
  More...

Parameter	Disable use of APIC controller.
Registry	`system.kernel.bootparams.noapic`
Value	enabled / <u>disabled</u>
Parameter	Disable use of ACPI.
Registry	`system.kernel.bootparams.noacpi`
Value	enabled / <u>disabled</u>
Parameter	Use only one CPU core and disable all others.
Registry	`system.kernel.bootparams.nosmp`
Value	enabled / <u>disabled</u>
Parameter	Enable debug console on serial port 1.
Registry	`system.kernel.bootparams.serial_console_debug`
Value	enabled / <u>disabled</u>
Parameter	Limit CPU core usage (0 means no limit).
Registry	`system.kernel.bootparams.maxcpus`
Value	"0"
Parameter	Set maximum allowed cstate on intel cpus.

Registry	`system.kernel.bootparams.max_cstate`
Range	[No limit] [1] [2] [3] [4] [5] [6]
Info: do not limit intel cstate	
Parameter	IOMMU usage setting.
Registry	`system.kernel.bootparams.iommu`
Range	[On] [Off] [Passthrough] [Force]
Info: Use IOMMU passthrough possible	
Parameter	IOMMU usage setting for AMD systems.
Registry	`system.kernel.bootparams.amd_iommu`
Range	[On] [Off]
Info: Use IOMMU if possible	
Parameter	IOMMU usage setting for Intel systems.
Registry	`system.kernel.bootparams.intel_iommu`
Range	[On] [Off]
Info: Use IOMMU if possible	

- Added a new registry key to set **USB quirks:**
  More...

Parameter	Set XHCI USB quirks to fix some hardware issues
Registry	`system.kernel.bootparams.xhci-hcd_quirks`
Range	[No quirk] [Spurious Reboot quirk] [Spurious Wakeup quirk] [Spurious Reboot Wakeup quirk]

- Lenovo **ThinkCentre M73** needs the **system.kernel.bootparams.xhci-hcd_quirks** registry key set to `Spurious Reboot quirk` to fix reboot after shutdown problem.
- Added column "**Syslog style template**" to **Remote Syslog setup page**. This allows to change rsyslog output style e.g. to newer SyslogProtocol23Format which is supported by graylog.
- Disable **martian packet logging**.

Driver

- Updated **deviceTRUST Client** to version **19.1.200**.
  - Fixed an issue reading the D**EVICE_IGEL_ICG_SERVER** property.
  - Fixed an issue where the **NETWORK** and **LOCATION** property providers **could cause the client to freeze** if a disconnection occurred whilst these property providers were checking for changes.
  - Fixed an **open file handle leak** which led to the client process reaching its file handle limits when left running for a long period of time.

- Fixed not working **WACOM** device **DTU-1141B**.

Custom Partition

- Added **message in bootsplash** when **a custom partition** will get **created**.
- Fixed **ownership of extracted data**: don't preserve original owner while extracting data into custom partition.

Storage Devices

- Fixed **automounting of storage devices** inside of **Olympus DS-9500 Digital Voice Recorder**.

Appliance Mode

- Fixed: **In-session control bar** could not be deactivated in **Citrix SelfService appliance mode**.

X11 system

- There is now **a registry key to ignore a 3Dconnexion SpaceMouse** for IGEL graphical use (X11). If activated, the SpaceMouse is only passed through to the desktop session. If disabled, it acts like a standard mouse.
  More...

IGEL Setup	**System > Registry**
Parameter	Deactivates a 3Dconnexion SpaceMouse as a standard mouse
Registry	`userinterface.mouse.spacemouse.x11_ignore`
Value	enabled / disabled

- The following **SpaceMouse** products are included:
  More...

VID	PID	Vendor	Product
0x046D	0xC603	Logitech, Inc.	3Dconnexion SpaceMouse Plus XT
0x046D	0xC605	Logitech, Inc.	3Dconnexion CADman
0x046D	0xC606	Logitech, Inc.	3Dconnexion SpaceMouse Classic
0x046D	0xC621	Logitech, Inc.	3Dconnexion SpaceBall 5000
0x046D	0xC623	Logitech, Inc.	3Dconnexion SpaceTraveller 3D Mouse
0x046D	0xC625	Logitech, Inc.	3Dconnexion SpacePilot 3D Mouse
0x046D	0xC626	Logitech, Inc.	3Dconnexion SpaceNavigator 3D Mouse
0x046D	0xC627	Logitech, Inc.	3Dconnexion SpaceExplorer 3D Mouse
0x046D	0xC628	Logitech, Inc.	3Dconnexion SpaceNavigator for Notebooks
0x046D	0xC629	Logitech, Inc.	3Dconnexion SpacePilot Pro 3D Mouse
0x046D	0xC62B	Logitech, Inc.	3Dconnexion SpaceMouse Pro

VID	PID	Vendor	Product
0x256F	**	3Dconnexion	SpaceMouse

- **USB device reset** via USB powercycle is now available on **UD6/UD7**.
- Fixed: Problems with i**nternal graphic cards** and **Nvidia graphic cards**.
- **Display Switch** application will now use some settings from 'Advanced' dialog in 'Simple' mode.
- Fixed **display hotplug failing** on initial lock screen with Active Directory logon.
- Fixed **screen corruption** with DPMS and enabled composite manager.
- Fixed **screen flickering** in some cases when "**Force NumLock On**" (x.global.forcenumlock) is active.
- Fixed **Display Switch** utility not starting with some translations.
- Fixed an issue with the **noDDC mode** which was not always working as expected.
- Fixed **wrongly detected embedded DisplayPort** on **Dell Wyse 5070** Extended hardware.
- Added the possibility to change an **embedded DisplayPort** to a normal **DisplayPort**.
  More...

Parameter	Use embedded displayport as normal displayport (reboot required)
Registry	`x.drivers.intel.edp_is_dp`
Range	[default] [enable] [disable]

- Fixed some **multimonitor** (>4) issues with **Nvidia graphic cards**.
- Fixed **monitor screen ID** shown with **Nvidia nvs810 GPU**.
- Added consideration of **hardware limits for choosing automatic resolution** in **Xorg config** (currently only for IGEL hardware).
- Fixed problem with **modesetting driver** and **two 2160x1440 monitors** in extended configuration.
- Added a new registry key to enable use of **linear framebuffer for modesetting driver**.
  New registry key:
  More...

Parameter	Use linear instead of tiled framebuffer
Registry	`x.drivers.modesetting.use_linear_framebuffer`
Range	[Default] [False] [True]
Info:	
Use linear framebuffer only in special cases.	

- Fixed configuration where old **Display Switch** took precedence over configuration from new Display Switch and preventing changes.

X Server

- Fixed issue with **primary / secondary screens** were switched in some cases.

Audio

- Fixed **bad quality sound over DisplayPort** in a Citrix ICA session or other applications using ALSA API.

- Fixed **jack detection of the headphone port** in **Dell Wyse 3040**.
- Fixed **configuration of default audio output** and **input**.

Media Player (Parole)

- Fixed a problem where **parole media player** would **hang** instead of playing audio **while audio-visualization** is enabled.
- Fixed parole media player **not handling audio hotkeys in fullscreen mode**.

Misc

- **Monitoring Agent** uses now **only the half size of the debuglog partition**.
  When the setup option **log_max_size** with the option **log_rotation** creates an overall consumption that is bigger than 50% of the debuglog partition size, the size for each log automatically will be decreased to a value that allows a full rotation which occupies exactly 50% of the partition size.

Hardware

- Fixed not working **network** on **Beckhoff CB3163, CB6263** and **CB6363** systems.
- Fixed not working network on **Lex 3I380D**.
- Fixed **shutdown** issue of **Lenovo ThinkCentre M73** (rebooted 2 - 3 seconds after power off).
- Added a **possibility to change** some **DRM settings** and **limit the DisplayPort lane bandwidth** on Intel devices.
  Added new registry keys:
  More...

Parameter	Use best graphic mode for all screens on console.
Registry	`x.drivers.kms.best_console_mode`
Range	[Default] [Enabled] [Disabled]
Info: "Default" is enabled in most cases.	

Parameter	Limit the maximum console resolution width to this value.
Registry	`x.drivers.kms.max_console_width`
Type	Integer
Value	"0"
Info: "0" means default setting. Use the default setting.	

Parameter	Limit the maximum console resolution height to this value.
Registry	`x.drivers.kms.max_console_height`
Type	Integer
Value	"0"
Info: "0" means default setting. Use the default setting.	

Parameter	Set graphic kernel driver debug level.
Registry	`x.drivers.kms.debug_level`
Range	[<u>No debug</u>] [Basic] [Basic + core] [Basic + core + atomic] [Full]
Info: Warning log will grow very fast.	

Only for Intel i915 driver:

Parameter	Limit the maximum DisplayPort lane link rate.
Registry	`x.drivers.intel.max_dp_link_rate`
Range	[<u>default</u>] [1.62Gbps] [2.16Gbps] [2.7Gbps] [3.24Gbps] [4.32Gbps] [5.4Gbps] [6.48Gbps] [8.1Gbps]
Info: "Default" means hardware default limit.	

Parameter	Disable the DP audio support in the i915 DRM driver.
Registry	`x.drivers.intel.disable_dp_audio`
Range	[<u>Default</u>][No][Yes]
Info: "Default" - support is enabled.	

Parameter	Disable the HDMI audio support in the i915 DRM driver.
Registry	`x.drivers.intel.disable_hdmi_audio`
Range	[<u>Default</u>][No][Yes]
Info: "Default" - support is enabled.	

- Fixed **black screen** issue with some monitors and 2560x1440 resolution - occurred on **UD2 LX50** and **other Intel GPUs**.
- Fixed detection of **Dell Wyse 5070** for the non-extended version.
- Fixed issues with **not working Touchpad** and **Trackpoint** on Lenovo laptops.
- Fixed **vanishing mouse cursor on Ryzen 3** devices.
- Fixed problems with **2 or more monitors** on a **DisplayLink** adapter.
- Added possibility to use **AMDGPU PRO** driver instead of the kernel integrated driver.
- **Ryzen 3** devices (1200, 1300X, 2200G, 2200U and 2300U) **will use the AMDGPU PRO driver** if registry key x.drivers.amdgpu.use_amdgpu_pro is set to auto (default).
- A new registry key (settings to this key will only work after reboot):
  More...

Parameter	Use AMDGPU PRO driver
Registry	`x.drivers.amdgpu.use_amdgpu_pro`
Range	[<u>Auto</u>] [True] [False]

Remote Management

- When **TC is managed over ICG**, settings received in the connection stage does not apply immediately. The settings must be applied after user prompt dialog.
- Fixed **UMS synchronization** of configuration changes made in "Emergency mode". Fixed sporadically failures while sending data over ICG.
- Fixed **wallpaper configuration** if ICG protocol is used.
- Fixed **releasing from UMS** when the device was offline during removal from UMS.
- Added: The **endpoint can now report up to 8 monitors** in UMS information.
- Fixed **UMS jobs** have not been executed when delivered at the next system boot.

CA Certificates Contained in IGEL OS 11.02.100

Contained CA certificates:
- ACCVRAIZ1, expires Dec 31 09:37:37 2030 GMT (ACCVRAIZ1.crt)
- AC RAIZ FNMT-RCM, expires Jan 1 00:00:00 2030 GMT (AC_RAIZ_FNMT-RCM.crt)
- Actalis Authentication Root CA, expires Sep 22 11:22:02 2030 GMT (Actalis_Authentication_Root_CA.crt)
- AddTrust External CA Root, expires May 30 10:48:38 2020 GMT (AddTrust_External_Root.crt)
- AffirmTrust Commercial, expires Dec 31 14:06:06 2030 GMT (AffirmTrust_Commercial.crt)
- AffirmTrust Networking, expires Dec 31 14:08:24 2030 GMT (AffirmTrust_Networking.crt)
- AffirmTrust Premium, expires Dec 31 14:10:36 2040 GMT (AffirmTrust_Premium.crt)
- AffirmTrust Premium ECC, expires Dec 31 14:20:24 2040 GMT (AffirmTrust_Premium_ECC.crt)
- Amazon Root CA 1, expires Jan 17 00:00:00 2038 GMT (Amazon_Root_CA_1.crt)
- Amazon Root CA 2, expires May 26 00:00:00 2040 GMT (Amazon_Root_CA_2.crt)
- Amazon Root CA 3, expires May 26 00:00:00 2040 GMT (Amazon_Root_CA_3.crt)
- Amazon Root CA 4, expires May 26 00:00:00 2040 GMT (Amazon_Root_CA_4.crt)
- Atos TrustedRoot 2011, expires Dec 31 23:59:59 2030 GMT (Atos_TrustedRoot_2011.crt)
- Autoridad de Certificacion Firmaprofesional CIF A62634068, expires Dec 31 08:38:15 2030 GMT (Autoridad_de_Certificacion_Firmaprofesional_CIF_A62634068.crt)
- Baltimore CyberTrust Root, expires May 12 23:59:00 2025 GMT (Baltimore_CyberTrust_Root.crt)
- Buypass Class 2 Root CA, expires Oct 26 08:38:03 2040 GMT (Buypass_Class_2_Root_CA.crt)
- Buypass Class 3 Root CA, expires Oct 26 08:28:58 2040 GMT (Buypass_Class_3_Root_CA.crt)
- CA Disig Root R2, expires Jul 19 09:15:30 2042 GMT (CA_Disig_Root_R2.crt)
- CFCA EV ROOT, expires Dec 31 03:07:01 2029 GMT (CFCA_EV_ROOT.crt)
- COMODO Certification Authority, expires Dec 31 23:59:59 2029 GMT (COMODO_Certification_Authority.crt)
- COMODO ECC Certification Authority, expires Jan 18 23:59:59 2038 GMT (COMODO_ECC_Certification_Authority.crt)
- COMODO RSA Certification Authority, expires Jan 18 23:59:59 2038 GMT (COMODO_RSA_Certification_Authority.crt)
- Certigna, expires Jun 29 15:13:05 2027 GMT (Certigna.crt)
- Certigna Root CA, expires Oct 1 08:32:27 2033 GMT (Certigna_Root_CA.crt)
- Certinomis - Root CA, expires Oct 21 09:17:18 2033 GMT (Certinomis_-_Root_CA.crt)
- Class 2 Primary CA, expires Jul 6 23:59:59 2019 GMT (Certplus_Class_2_Primary_CA.crt)
- Certum Trusted Network CA, expires Dec 31 12:07:37 2029 GMT (Certum_Trusted_Network_CA.crt)
- Certum Trusted Network CA 2, expires Oct 6 08:39:56 2046 GMT (Certum_Trusted_Network_CA_2.crt)
- Chambers of Commerce Root - 2008, expires Jul 31 12:29:50 2038 GMT (Chambers_of_Commerce_Root_-_2008.crt)
- AAA Certificate Services, expires Dec 31 23:59:59 2028 GMT (Comodo_AAA_Services_root.crt)
- Cybertrust Global Root, expires Dec 15 08:00:00 2021 GMT (Cybertrust_Global_Root.crt)
- D-TRUST Root Class 3 CA 2 2009, expires Nov 5 08:35:58 2029 GMT (D-TRUST_Root_Class_3_CA_2_2009.crt)
- D-TRUST Root Class 3 CA 2 EV 2009, expires Nov 5 08:50:46 2029 GMT (D-TRUST_Root_Class_3_CA_2_EV_2009.crt)
- DST Root CA X3, expires Sep 30 14:01:15 2021 GMT (DST_Root_CA_X3.crt)
- Deutsche Telekom Root CA 2, expires Jul 9 23:59:00 2019 GMT (Deutsche_Telekom_Root_CA_2.crt)
- DigiCert Global Root CA, expires Nov 10 00:00:00 2031 GMT (DigiCertGlobalRootCA.pem)
- DigiCert Assured ID Root CA, expires Nov 10 00:00:00 2031 GMT (DigiCert_Assured_ID_Root_CA.crt)

- DigiCert Assured ID Root G2, expires Jan 15 12:00:00 2038 GMT (DigiCert_Assured_ID_Root_G2.crt)
- DigiCert Assured ID Root G3, expires Jan 15 12:00:00 2038 GMT (DigiCert_Assured_ID_Root_G3.crt)
- DigiCert Global Root CA, expires Nov 10 00:00:00 2031 GMT (DigiCert_Global_Root_CA.crt)
- DigiCert Global Root G2, expires Jan 15 12:00:00 2038 GMT (DigiCert_Global_Root_G2.crt)
- DigiCert Global Root G3, expires Jan 15 12:00:00 2038 GMT (DigiCert_Global_Root_G3.crt)
- DigiCert High Assurance EV Root CA, expires Nov 10 00:00:00 2031 GMT (DigiCert_High_Assurance_EV_Root_CA.crt)
- DigiCert Trusted Root G4, expires Jan 15 12:00:00 2038 GMT (DigiCert_Trusted_Root_G4.crt)
- E-Tugra Certification Authority, expires Mar 3 12:09:48 2023 GMT (E-Tugra_Certification_Authority.crt)
- EC-ACC, expires Jan 7 22:59:59 2031 GMT (EC-ACC.crt)
- EE Certification Centre Root CA, expires Dec 17 23:59:59 2030 GMT (EE_Certification_Centre_Root_CA.crt)
- Entrust.net[31] Certification Authority (2048), expires Jul 24 14:15:12 2029 GMT (Entrust.net_Premium_2048_Secure_Server_CA.crt)
- Entrust Root Certification Authority, expires Nov 27 20:53:42 2026 GMT (Entrust_Root_Certification_Authority.crt)
- Entrust Root Certification Authority - EC1, expires Dec 18 15:55:36 2037 GMT (Entrust_Root_Certification_Authority_-_EC1.crt)
- Entrust Root Certification Authority - G2, expires Dec 7 17:55:54 2030 GMT (Entrust_Root_Certification_Authority_-_G2.crt)
- GDCA TrustAUTH R5 ROOT, expires Dec 31 15:59:59 2040 GMT (GDCA_TrustAUTH_R5_ROOT.crt)
- GTS Root R1, expires Jun 22 00:00:00 2036 GMT (GTS_Root_R1.crt)
- GTS Root R2, expires Jun 22 00:00:00 2036 GMT (GTS_Root_R2.crt)
- GTS Root R3, expires Jun 22 00:00:00 2036 GMT (GTS_Root_R3.crt)
- GTS Root R4, expires Jun 22 00:00:00 2036 GMT (GTS_Root_R4.crt)
- GeoTrust Global CA, expires May 21 04:00:00 2022 GMT (GeoTrust_Global_CA.crt)
- GeoTrust Primary Certification Authority, expires Jul 16 23:59:59 2036 GMT (GeoTrust_Primary_Certification_Authority.crt)
- GeoTrust Primary Certification Authority - G2, expires Jan 18 23:59:59 2038 GMT (GeoTrust_Primary_Certification_Authority_-_G2.crt)
- GeoTrust Primary Certification Authority - G3, expires Dec 1 23:59:59 2037 GMT (GeoTrust_Primary_Certification_Authority_-_G3.crt)
- GeoTrust Universal CA, expires Mar 4 05:00:00 2029 GMT (GeoTrust_Universal_CA.crt)
- GeoTrust Universal CA 2, expires Mar 4 05:00:00 2029 GMT (GeoTrust_Universal_CA_2.crt)
- GlobalSign, expires Jan 19 03:14:07 2038 GMT (GlobalSign_ECC_Root_CA_-_R4.crt)
- GlobalSign, expires Jan 19 03:14:07 2038 GMT (GlobalSign_ECC_Root_CA_-_R5.crt)
- GlobalSign Root CA, expires Jan 28 12:00:00 2028 GMT (GlobalSign_Root_CA.crt)
- GlobalSign, expires Dec 15 08:00:00 2021 GMT (GlobalSign_Root_CA_-_R2.crt)
- GlobalSign, expires Mar 18 10:00:00 2029 GMT (GlobalSign_Root_CA_-_R3.crt)
- GlobalSign, expires Dec 10 00:00:00 2034 GMT (GlobalSign_Root_CA_-_R6.crt)
- Global Chambersign Root - 2008, expires Jul 31 12:31:40 2038 GMT (Global_Chambersign_Root_-_2008.crt)
- Go Daddy Class 2 Certification Authority, expires Jun 29 17:06:20 2034 GMT (Go_Daddy_Class_2_CA.crt)
- Go Daddy Root Certificate Authority - G2, expires Dec 31 23:59:59 2037 GMT (Go_Daddy_Root_Certificate_Authority_-_G2.crt)
- Hellenic Academic and Research Institutions ECC RootCA 2015, expires Jun 30 10:37:12 2040 GMT (Hellenic_Academic_and_Research_Institutions_ECC_RootCA_2015.crt)
- Hellenic Academic and Research Institutions RootCA 2011, expires Dec 1 13:49:52 2031 GMT

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31 http://Entrust.net

(Hellenic_Academic_and_Research_Institutions_RootCA_2011.crt)
- Hellenic Academic and Research Institutions RootCA 2015, expires Jun 30 10:11:21 2040 GMT
(Hellenic_Academic_and_Research_Institutions_RootCA_2015.crt)
- Hongkong Post Root CA 1, expires May 15 04:52:29 2023 GMT (Hongkong_Post_Root_CA_1.crt)
- ISRG Root X1, expires Jun 4 11:04:38 2035 GMT (ISRG_Root_X1.crt)
- IdenTrust Commercial Root CA 1, expires Jan 16 18:12:23 2034 GMT (IdenTrust_Commercial_Root_CA_1.crt)
- IdenTrust Public Sector Root CA 1, expires Jan 16 17:53:32 2034 GMT (IdenTrust_Public_Sector_Root_CA_1.crt)
- Imprivata Embedded Code Signing CA, expires Sep 7 16:20:00 2033 GMT (Imprivata.crt)
- Izenpe.com[32], expires Dec 13 08:27:25 2037 GMT (Izenpe.com[33].crt)
- LuxTrust Global Root 2, expires Mar 5 13:21:57 2035 GMT (LuxTrust_Global_Root_2.crt)
- Microsec e-Szigno Root CA 2009, expires Dec 30 11:30:18 2029 GMT (Microsec_e-Szigno_Root_CA_2009.crt)
- NetLock Arany (Class Gold) Főtanúsítvány, expires Dec 6 15:08:21 2028 GMT
(NetLock_Arany_=Class_Gold=_Főtanúsítvány.crt)
- Network Solutions Certificate Authority, expires Dec 31 23:59:59 2029 GMT
(Network_Solutions_Certificate_Authority.crt)
- OISTE WISeKey Global Root GA CA, expires Dec 11 16:09:51 2037 GMT (OISTE_WISeKey_Global_Root_GA_CA.crt)
- OISTE WISeKey Global Root GB CA, expires Dec 1 15:10:31 2039 GMT (OISTE_WISeKey_Global_Root_GB_CA.crt)
- OISTE WISeKey Global Root GC CA, expires May 9 09:58:33 2042 GMT (OISTE_WISeKey_Global_Root_GC_CA.crt)
- QuoVadis Root Certification Authority, expires Mar 17 18:33:33 2021 GMT (QuoVadis_Root_CA.crt)
- QuoVadis Root CA 1 G3, expires Jan 12 17:27:44 2042 GMT (QuoVadis_Root_CA_1_G3.crt)
- QuoVadis Root CA 2, expires Nov 24 18:23:33 2031 GMT (QuoVadis_Root_CA_2.crt)
- QuoVadis Root CA 2 G3, expires Jan 12 18:59:32 2042 GMT (QuoVadis_Root_CA_2_G3.crt)
- QuoVadis Root CA 3, expires Nov 24 19:06:44 2031 GMT (QuoVadis_Root_CA_3.crt)
- QuoVadis Root CA 3 G3, expires Jan 12 20:26:32 2042 GMT (QuoVadis_Root_CA_3_G3.crt)
- SSL.com[34] EV Root Certification Authority ECC, expires Feb 12 18:15:23 2041 GMT
(SSL.com_EV_Root_Certification_Authority_ECC.crt)
- SSL.com[35] EV Root Certification Authority RSA R2, expires May 30 18:14:37 2042 GMT
(SSL.com_EV_Root_Certification_Authority_RSA_R2.crt)
- SSL.com[36] Root Certification Authority ECC, expires Feb 12 18:14:03 2041 GMT
(SSL.com_Root_Certification_Authority_ECC.crt)
- SSL.com[37] Root Certification Authority RSA, expires Feb 12 17:39:39 2041 GMT
(SSL.com_Root_Certification_Authority_RSA.crt)
- SZAFIR ROOT CA2, expires Oct 19 07:43:30 2035 GMT (SZAFIR_ROOT_CA2.crt)
- SecureSign RootCA11, expires Apr 8 04:56:47 2029 GMT (SecureSign_RootCA11.crt)
- SecureTrust CA, expires Dec 31 19:40:55 2029 GMT (SecureTrust_CA.crt)
- Secure Global CA, expires Dec 31 19:52:06 2029 GMT (Secure_Global_CA.crt)
- Security Communication RootCA2, expires May 29 05:00:39 2029 GMT (Security_Communication_RootCA2.crt)
- Security Communication RootCA1, expires Sep 30 04:20:49 2023 GMT (Security_Communication_Root_CA.crt)
- Sonera Class2 CA, expires Apr 6 07:29:40 2021 GMT (Sonera_Class_2_Root_CA.crt)
- Staat der Nederlanden EV Root CA, expires Dec 8 11:10:28 2022 GMT (Staat_der_Nederlanden_EV_Root_CA.crt)
- Staat der Nederlanden Root CA - G2, expires Mar 25 11:03:10 2020 GMT (Staat_der_Nederlanden_Root_CA_-_G2.crt)
- Staat der Nederlanden Root CA - G3, expires Nov 13 23:00:00 2028 GMT (Staat_der_Nederlanden_Root_CA_-_G3.crt)
- Starfield Class 2 Certification Authority, expires Jun 29 17:39:16 2034 GMT (Starfield_Class_2_CA.crt)

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32 http://Izenpe.com
33 http://Izenpe.com
34 http://SSL.com
35 http://SSL.com
36 http://SSL.com
37 http://SSL.com

- Starfield Root Certificate Authority - G2, expires Dec 31 23:59:59 2037 GMT (Starfield_Root_Certificate_Authority_-_G2.crt)
- Starfield Services Root Certificate Authority - G2, expires Dec 31 23:59:59 2037 GMT (Starfield_Services_Root_Certificate_Authority_-_G2.crt)
- SwissSign Gold CA - G2, expires Oct 25 08:30:35 2036 GMT (SwissSign_Gold_CA_-_G2.crt)
- SwissSign Silver CA - G2, expires Oct 25 08:32:46 2036 GMT (SwissSign_Silver_CA_-_G2.crt)
- T-TeleSec GlobalRoot Class 2, expires Oct 1 23:59:59 2033 GMT (T-TeleSec_GlobalRoot_Class_2.crt)
- T-TeleSec GlobalRoot Class 3, expires Oct 1 23:59:59 2033 GMT (T-TeleSec_GlobalRoot_Class_3.crt)
- TUBITAK Kamu SM SSL Kok Sertifikasi - Surum 1, expires Oct 25 08:25:55 2043 GMT (TUBITAK_Kamu_SM_SSL_Kok_Sertifikasi_-_Surum_1.crt)
- TWCA Global Root CA, expires Dec 31 15:59:59 2030 GMT (TWCA_Global_Root_CA.crt)
- TWCA Root Certification Authority, expires Dec 31 15:59:59 2030 GMT (TWCA_Root_Certification_Authority.crt)
- Government Root Certification Authority, expires Dec 5 13:23:33 2032 GMT (Taiwan_GRCA.crt)
- TeliaSonera Root CA v1, expires Oct 18 12:00:50 2032 GMT (TeliaSonera_Root_CA_v1.crt)
- TrustCor ECA-1, expires Dec 31 17:28:07 2029 GMT (TrustCor_ECA-1.crt)
- TrustCor RootCert CA-1, expires Dec 31 17:23:16 2029 GMT (TrustCor_RootCert_CA-1.crt)
- TrustCor RootCert CA-2, expires Dec 31 17:26:39 2034 GMT (TrustCor_RootCert_CA-2.crt)
- Trustis FPS Root CA, expires Jan 21 11:36:54 2024 GMT (Trustis_FPS_Root_CA.crt)
- UCA Extended Validation Root, expires Dec 31 00:00:00 2038 GMT (UCA_Extended_Validation_Root.crt)
- UCA Global G2 Root, expires Dec 31 00:00:00 2040 GMT (UCA_Global_G2_Root.crt)
- USERTrust ECC Certification Authority, expires Jan 18 23:59:59 2038 GMT (USERTrust_ECC_Certification_Authority.crt)
- USERTrust RSA Certification Authority, expires Jan 18 23:59:59 2038 GMT (USERTrust_RSA_Certification_Authority.crt)
- VeriSign Class 3 Public Primary Certification Authority - G4, expires Jan 18 23:59:59 2038 GMT (VeriSign_Class_3_Public_Primary_Certification_Authority_-_G4.crt)
- VeriSign Class 3 Public Primary Certification Authority - G5, expires Jul 16 23:59:59 2036 GMT (VeriSign_Class_3_Public_Primary_Certification_Authority_-_G5.crt)
- VeriSign Universal Root Certification Authority, expires Dec 1 23:59:59 2037 GMT (VeriSign_Universal_Root_Certification_Authority.crt)
- VeriSign Class 3 Public Primary Certification Authority - G3, expires Jul 16 23:59:59 2036 GMT (Verisign_Class_3_Public_Primary_Certification_Authority_-_G3.crt)
- XRamp Global Certification Authority, expires Jan 1 05:37:19 2035 GMT (XRamp_Global_CA_Root.crt)
- certSIGN ROOT CA, expires Jul 4 17:20:04 2031 GMT (certSIGN_ROOT_CA.crt)
- ePKI Root Certification Authority, expires Dec 20 02:31:27 2034 GMT (ePKI_Root_Certification_Authority.crt)
- thawte Primary Root CA, expires Jul 16 23:59:59 2036 GMT (thawte_Primary_Root_CA.crt)
- thawte Primary Root CA - G2, expires Jan 18 23:59:59 2038 GMT (thawte_Primary_Root_CA_-_G2.crt)
- thawte Primary Root CA - G3, expires Dec 1 23:59:59 2037 GMT (thawte_Primary_Root_CA_-_G3.crt)

IGEL OS Creator (OSC)

Supported Devices

UD2-LX:	UD2-LX 40
	UD2-LX 50
UD3-LX:	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

- Component Versions 11.02.100
- New Features 11.02.100

Component Versions 11.02.100

- **Clients**

Product	Version
Zulu JRE	8.40.0.25

- **Smartcard**

Reader Driver MUSCLE CCID	1.4.30-1igel3
Resource Manager PC/SC Lite	1.8.23-1igel1

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.0.8-1igel73
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190724-igel907
Graphics Driver ATI/RADEON	19.0.1-2igel890
Graphics Driver ATI/AMDGPU	19.0.1-4igel894
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	418.56-0ubuntu1
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMMouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.65 #mainline-lxos-r2782

Xorg X11 Server	1.19.6-1ubuntu4.3igel910
Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
WebKit2Gtk	2.24.2-0ubuntu0.19.04.1igel18
Python2	2.7.12
Python3	3.5.2

New Features 11.02.100

Hardware

- Added hardware support for **Rein Medical Silenio 122CT** and **124CT**.
- Added hardware support for **Advantech POC-W213L** and **POC-W243L**.
- Added hardware support for **ADS-TEC VMT 9000 Serie**.
- Added hardware support for **Fujitsu Esprimo Q957**.
- Added hardware support for **ADS-TEC VMT 9000 Serie**.
- Added hardware support for **LG AiO Cloud Device 38"**.
- Added hardware support for **HP t430**.
- Added hardware support for **HP t420**.

Notes for Release 11.01.130

Software:	Version	11.01.130
Release Date:	2019-07-24	
Release Notes:	Version	RN-1101130-1
Last update:	2019-07-23	

Supported Devices 11.01.130

IGEL devices:	
UD2-LX:	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.01.130

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	19.3.0.5
deviceTRUST Citrix Channel	19.1.200.2
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.8.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
deviceTRUST RDP Channel	19.1.200.2
NCP Secure Enterprise Client	5.10_rev40552
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Zulu JRE	8.38.0.13
Parallels Client (64 bit)	16.5.2.20595
Remote Viewer (Red Hat Virtualization)	7.0-igel47
Spice GTK (Red Hat Virtualization)	0.35
Spice Protocol (Red Hat Virtualization)	0.12.14
Usbredir (Red Hat Virtualization)	0.8.0
Teradici PCoIP Software Client	19.05.4-18.04
ThinLinc Client	4.9.0-5775
ThinPrint Client	7.5.88

Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel16
VNC Viewer	1.8.0+git20180123-igel1
VMware Horizon Client	5.0.0-12557422
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20180621
Philips Speech Driver	12.6.36

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.9.620
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.0.23
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.30-1igel3

Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.0.0.6

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.14
OpenSSH Client	7.2p2-4ubuntu2.7
OpenSSH Server	7.2p2-4ubuntu2.7
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.3.3-1igel57
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190301-igel870
Graphics Driver ATI/RADEON	18.1.0-1igel854
Graphics Driver ATI/AMDGPU	18.1.0-1igel853
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2igel775
Graphics Driver Nvidia	410.93-0ubuntu1
Graphics Driver Vboxvideo	5.2.18-dfsg-2igel17
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver VMMouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.20 #mainline-udos-r2755
Xorg X11 Server	1.19.6-1ubuntu4.2igel842

Xorg Xephyr	1.19.6-1ubuntu4.2igel842
CUPS Printing Daemon	2.1.3-4ubuntu0.7igel23
PrinterLogic	18.2.1.128
Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.2igel58
ModemManager	1.6.8-2ubuntu1igel2
GStreamer 0.10	0.10.36-2ubuntu0.1
GStreamer 1.x	1.14.4-1ubuntu1igel203
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB
VPN OpenConnect
Scanner support
VirtualBox

- **Features with Limited Functionality**

Cisco JVDI Client

General Information 11.01.130

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- Ericom PowerTerm
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver.

Known Issues 11.01.130

Citrix

- With activated DRI3 and AMD GPU, Citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. GStreamer 1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of Login.
  As a workaround, insert the smartcard before starting StoreFront login.
- When using **Citrix Workspace App 19.03** in combination with **Philips Speech** driver, the session occasionally terminates improperly at logout and hangs.
  As a workaround, the usage of Citrix Receiver 13.10 is recommended when Philips Speech driver is needed.
- Citrix **H.264 acceleration plugin** does not work with **enabled** server policy "Optimize for 3D graphics workload" in combination with server policy "Use video codec compression" > "For the entire screen".
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264 acceleration plugin**, the following registry key must be enabled:
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Range	enabled / <u>disabled</u>

  This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

VMware Horizon

- **External drives** mounted already before connection **do not appear in the remote desktop**.
  Workaround: mapping the directory / media as a drive on desktop. The external devices will show up within the media drive then.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping** is switched off.
    In the IGEL Setup client, **drive mapping** can be found under **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable drive mapping**.
    It is also recommended to disable local **Storage Hotplug** under Setup **> Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, if you use **drive mapping** instead, it is recommended to either **switch off USB redirection entirely** or at least to **deny storage devices** by adding a filter to the

USB class rules.

Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Enable **Storage Hotplug** under Setup **>Devices > Storage Devices > Storage Hotplug**. The **Number of storage hotplug devices** has to be set to at least 1.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** once with disabled FIPS support.

Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign smartcards**.

Multimedia

- Multimedia **redirection with GStreamer** could fail with the **Nouveau GPU driver**.

Base system

- On **NVIDIA GPU drivers**, the reported **resolutions of a display** may contain unsupported resolutions. When any of those are configured, there are visual bugs (e.g. the desktop does not render properly).

Security Fixes 11.01.130

Firefox

- Updated **Firefox** browser to version **60.8.0 ESR**.
- Fixed **mfsa2019-22** security issues:
  More...

  CVE-2019-9811, CVE-2019-11711, CVE-2019-11712, CVE-2019-11713,
  CVE-2019-11729, CVE-2019-11715, CVE-2019-11717, CVE-2019-11719,
  CVE-2019-11730 and CVE-2019-11709.

- Fixed **mfsa2019-19** security issue CVE-2019-11708.
- Fixed **mfsa2019-18** security issue CVE-2019-11707.
- Fixed **mfsa2019-08** security issues:
  More...

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792,
  CVE-2019-9793, CVE-2019-9795, CVE-2019-9796,
  CVE-2018-18506 and CVE-2019-9788.

- Fixed **mfsa2019-05** security issues CVE-2018-18356 and CVE-2019-5785.
- Fixed **mfsa2019-02** security issues CVE-2018-18500, CVE-2018-18505 and CVE-2018-18501.

New Features 11.01.130

Citrix

- Added support for **Citrix Workspace Launcher** functionality as described at https://support.citrix.com/article/CTX237727.

Base system

- Replaced **timesyncd** with **chrony NTP**.
  A new registry key:
  More...

Parameter	Use NTP Servers from DNS SRV record
Registry	`system.time.ntp_use_dnssrv_timeservers`
Value	<u>enabled</u> / disabled

Evidian

- Integrated **Evidian AuthMgr** version **1.5.7116**.

Resolved Issues 11.01.130

VMware Horizon

- Added a possibility to use the **rollback variant of the Horizon Client**.
  More...

Parameter	Allow rollback to former client variant
Registry	`vmware.view.allow-client-rollback`
Value	enabled / <u>disabled</u>

Base system

- Fixed **NTP synchronization problems** with changing the NTP client from **timesyncd** to **chrony**.
- Fixed **USB printer aliases**.

X11 system

- Fixed **screen corruption with DPMS** and enabled **composite manager**.
- Added consideration of **hardware limits** for choosing **automatic resolution in Xorg config** (currently only for IGEL hardware).

Hardware

- Fixed **black screen** issue with some monitors and 2560x1440 resolution (occurred on **UD2 LX50** and **other Intel GPUs**).

Notes for Release 11.01.120

Software:	Version	11.01.120
Release Date:	2019-07-05	
Release Notes:	Version	RN-1101120-1
Last update:	2019-07-05	

Supported Devices 11.01.120

IGEL devices:	
UD2-LX:	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

See also Third-Party Devices Supported by IGEL OS 11.

Component Versions 11.01.120

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	19.3.0.5
deviceTRUST Citrix Channel	19.1.200.2
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.7.2
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
deviceTRUST RDP Channel	19.1.200.2
NCP Secure Enterprise Client	5.10_rev40552
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Zulu JRE	8.38.0.13
Parallels Client (64 bit)	16.5.2.20595
Remote Viewer (Red Hat Virtualization)	7.0-igel47
Spice GTK (Red Hat Virtualization)	0.35
Spice Protocol (Red Hat Virtualization)	0.12.14
Usbredir (Red Hat Virtualization)	0.8.0
Teradici PCoIP Software Client	19.05.4-18.04
ThinLinc Client	4.9.0-5775
ThinPrint Client	7.5.88

Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel16
VNC Viewer	1.8.0+git20180123-igel1
VMware Horizon Client	5.0.0-12557422
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20180621
Philips Speech Driver	12.6.36

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.9.620
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.0.23
PKCS#11 Library 90meter	20190522
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.30-1igel3

Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.0.0.6

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.14
OpenSSH Client	7.2p2-4ubuntu2.7
OpenSSH Server	7.2p2-4ubuntu2.7
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.3.3-1igel57
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190301-igel870
Graphics Driver ATI/RADEON	18.1.0-1igel854
Graphics Driver ATI/AMDGPU	18.1.0-1igel853
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2igel775
Graphics Driver Nvidia	410.93-0ubuntu1
Graphics Driver Vboxvideo	5.2.18-dfsg-2igel17
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver VMMouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.20 #mainline-udos-r2755
Xorg X11 Server	1.19.6-1ubuntu4.2igel842

Xorg Xephyr	1.19.6-1ubuntu4.2igel842
CUPS Printing Daemon	2.1.3-4ubuntu0.7igel23
PrinterLogic	18.2.1.128
Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.2igel58
ModemManager	1.6.8-2ubuntu1igel2
GStreamer 0.10	0.10.36-2ubuntu0.1
GStreamer 1.x	1.14.4-1ubuntu1igel203
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB
VPN OpenConnect
Scanner support
VirtualBox

- **Features with Limited Functionality**

Cisco JVDI Client	12.1

General Information 11.01.120

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- Ericom PowerTerm
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Security Fixes 11.01.120

Firefox

- Updated Firefox browser to version **60.7.2 ESR**.
- Fixed **mfsa2019-19** security issue CVE-2019-11708.
- Fixed **mfsa2019-18** security issue CVE-2019-11707.
- Fixed **mfsa2019-08** security issues.
  More...

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,
  CVE-2019-9795, CVE-2019-9796, CVE-2018-18506, CVE-2019-9788.

- Fixed **mfsa2019-05** security issues CVE-2018-18356 and CVE-2019-5785.
- Fixed **mfsa2019-02** security issues CVE-2018-18500, CVE-2018-18505 and CVE-2018-18501.

Base system

- Fixed kernel TCP vulnerabilities **CVE-2019-11477**: SACK Panic, **CVE-2019-11478**: SACK Slowness and **CVE-2019-11479**: Excess Resource Consumption Due to Low MSS Values.
- Changed **minimally allowed MSS size** to **'1000'** to prevent possible Denial-of-Service attacks.

New Features 11.01.120

Citrix

- Added support for **Citrix Workspace Launcher** functionality as described at https://support.citrix.com/article/CTX237727.

Teradici PCoIP Client

- Updated **Teradici PCoIP Client** to version **19.05.4**.

Resolved Issues 11.01.120

Citrix

- SpaceMouse: Improved **USB handling**.
- Citrix Workspace App 19.03: Improved **USB redirection handling**.

Network

- Fixed: The **second Ethernet interface** did not get configured when the first one was disabled.

Base system

- Fixed **license expiry warning** at boot. Before this fix, in some cases the warning wrongly appeared at every boot.
- Fixed: **System logout** waits for Citrix logout now.

Appliance Mode

- Fixed: **In-session control bar** could not be deactivated in **Citrix Self-Service appliance mode**.

X11 system

- Fixed: Problems with **internal graphic cards** and **Nvidia graphic cards**.

RD Web Access

- Fixed not starting **RDP Remote Applications**.

Hardware

- Fixed **not working network** on Beckhoff CB3163, CB6263 and CB6363 systems.
- Fixed **not working network** on Lex 3I380D.
- Fixed **black screen** issue with some monitors and 2560x1440 resolution (occurred on UD2 LX50).
- Added possibility to **change** some **DRM settings** and limit the **DisplayPort lane bandwidth** on Intel devices.
- Added **new registry keys**:
  More...

Parameter	Use best graphic mode for all screens on console.
Registry	`x.drivers.kms.best_console_mode`
Range	[Default] [Enabled] [Disabled]

Info: "Default" is enabled in most cases.

Parameter	Limit the maximum console resolution width to this value.
Registry	`x.drivers.kms.max_console_width`
Type	Integer
Value	"0"

Info: "0" means default setting. Use the default setting.

Parameter	Limit the maximum console resolution height to this value.
Registry	`x.drivers.kms.max_console_height`
Type	Integer
Value	"0"
Info: "0" means default setting. Use the default setting.	

Parameter	Set graphic kernel driver debug level.
Registry	`x.drivers.kms.debug_level`
Range	[No debug] [Basic] [Basic + core] [Basic + core + atomic] [Full]
Info: Warning log will grow very fast.	

Only for Intel i915 driver:

Parameter	Limit the maximum DisplayPort lane link rate.
Registry	`x.drivers.intel.max_dp_link_rate`
Range	[default] [1.62Gbps] [2.16Gbps] [2.7Gbps] [3.24Gbps] [4.32Gbps] [5.4Gbps] [6.48Gbps] [8.1Gbps]
Info: "Default" means hardware default limit.	

Notes for Release 11.01.110

Software:	Version	11.01.110
Release Date:	2019-06-06	
Release Notes:	Version	RN-1101110-1
Last update:	2019-06-06	

- Supported Devices 11.01.110(see page 639)
- Component Versions 11.01.110(see page 639)
- General Information 11.01.110(see page 639)
- Security Fixes 11.01.110(see page 646)
- Known Issues 11.01.110(see page 647)
- New Features 11.01.110(see page 649)
- Resolved Issues 11.01.110(see page 656)

Supported Devices 11.01.110

IGEL devices:	
UD2-LX:	UD2-LX 50
	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40

For supported IGEL OS 11 third-party devices, see Devices Supported by IGEL OS 11.

Component Versions 11.01.110

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	19.3.0.5
deviceTRUST Citrix Channel	19.1.200.2
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.7.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
deviceTRUST RDP Channel	19.1.200.2
NCP Secure Enterprise Client	5.10_rev40552
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Zulu JRE	8.36.0.1
Parallels Client (64 bit)	16.5.2.20595
Remote Viewer (Red Hat Virtualization)	7.0-igel47
Spice GTK (Red Hat Virtualization)	0.35
Spice Protocol (Red Hat Virtualization)	0.12.14
Usbredir (Red Hat Virtualization)	0.8.0
Teradici PCoIP Software Client	19.05.1-18.04
ThinLinc Client	4.9.0-5775
ThinPrint Client	7.5.88

Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel16
VNC Viewer	1.8.0+git20180123-igel1
VMware Horizon Client	5.0.0-12557422
Voip Client Ekiga	4.0.1

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Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.30-1igel3

Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.0.0.6

- **System Components**

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MESA OpenGL stack	18.3.3-1igel57
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190301-igel870
Graphics Driver ATI/RADEON	18.1.0-1igel854
Graphics Driver ATI/AMDGPU	18.1.0-1igel853
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2igel775
Graphics Driver Nvidia	410.93-0ubuntu1
Graphics Driver Vboxvideo	5.2.18-dfsg-2igel17
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver VMMouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.20 #mainline-udos-r2519
Xorg X11 Server	1.19.6-1ubuntu4.2igel842

Xorg Xephyr	1.19.6-1ubuntu4.2igel842
CUPS Printing Daemon	2.1.3-4ubuntu0.7igel23
PrinterLogic	18.2.1.128
Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.2igel58
ModemManager	1.6.8-2ubuntu1igel2
GStreamer 0.10	0.10.36-2ubuntu0.1
GStreamer 1.x	1.14.4-1ubuntu1igel203
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

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VPN OpenConnect
Scanner support
VirtualBox

- **Features with Limited Functionality**

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General Information 11.01.110

The following clients and features are not supported anymore

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
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- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- Ericom PowerTerm
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Security Fixes 11.01.110

Firefox

- Updated Mozilla Firefox to version **60.7.0esr**.
- Fixed **mfsa2019-08** security issues.
  More...

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,

  CVE-2019-9795, CVE-2019-9796, CVE-2018-18506, CVE-2019-9788.

- Fixed **mfsa2019-05** security issues CVE-2018-18356 and CVE-2019-5785.
- Fixed **mfsa2019-02** security issues CVE-2018-18500, CVE-2018-18505 and CVE-2018-18501.
- Firefox is now allowed to access **YubiKey** (FIDO/U2F) if **AppArmor** is active.

Base system

- Updated **libwebkit2gtk-4.0-37** to version **1.24.2**.
  More...

  CVE-2019-8595, CVE-2019-8607, CVE-2019-8615, CVE-2019-6251,

  CVE-2018-4373, CVE-2018-4375, CVE-2018-4376, CVE-2018-4378,

  CVE-2018-4382, CVE-2018-4392, CVE-2018-4416, CVE-2018-4345,

  CVE-2018-4386 and CVE-2018-4372.

Known Issues 11.01.110

Citrix

- With an **activated DRI3** and an **AMD GPU**, **Citrix H.264 acceleration plugin** could freeze. A selective H.264 mode (API v2) is not affected by this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection** of H.264, MPEG1 and MPEG2. GStreamer1.0 is used if **browser content redirection** is active.
- **Browser content redirection** does not work with **activated DRI3** and **hardware accelerated H.264 deep compression codec**.
- **Citrix StoreFront Login** with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is inserted after the start of Login.
  As a workaround, insert the smartcard before starting StoreFront Login.
- When using **Citrix Workspace App 18.10** in combination with **Philips Speech driver**, the session occasionally does not properly terminate at logoff and hangs.
  As a workaround, the usage of Citrix Receiver 13.10 is recommended when Philips Speech driver is needed.
- **Citrix H.264 acceleration plugin** does not work with the **enabled** server policy **Optimize for 3D graphics workload** in combination with the server policy **Use video codec compression > For the entire screen**.

VMware Horizon

- **External drives** are mounted already before connection, do not appear in the **remote desktop**. Workaround: Mapping the directory/media as a drive on desktop. The external devices will show up within the media drive then.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, when using **USB redirection for storage devices**: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, when using **drive mapping** instead, it is recommended either to switch off USB redirection entirely or at least to deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug** has to be enabled and the **Number of storage hotplug devices** has to be set to at least 1.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** once with **disabled FIPS support**.

Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign** smartcards.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the **Nouveau GPU driver**.

Base system

- On **NVIDIA GPU** drivers, the **reported resolutions** of a display may contain unsupported resolutions. When any of those are configured, there are visual bugs (e.g. the desktop does not render properly).

New Features 11.01.110

Citrix

- Integrated **Citrix Workspace app 19.03**.
  Added new registry key to support **1536-bit RSA** keys for client authentication.
  More...

Parameter	Enable RSA 1536 cipher suit
Registry	`ica.allregions.enabl_rsa_1536`
Range	<u>factory default</u> / false / true

- Added new registry key to enable **different cipher suites** for client authentication.
  More...

Parameter	Enables different cipher suites
Registry	`ica.allregions.sslciphers`
Range	<u>factory default</u> / ALL / GOV / COM

- TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 – GOV/ALL
  TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 – GOV/ALL
  TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA – COM/ALL
- Added new registry key to support **keyboard layout syncroniyation**.

More...

Parameter	Keyboard layout synchronization
Registry	`ica.modules.virtualdriver.keyboardsync.enable`
Value	enabled / <u>disabled</u>

- Updated **Citrix HDX RTME**, used for optimization of Skype for Business, to version **2.8.0-2235**

RDP/IGEL RDP Client 2

- Added **Field Collection to RDP** session server page

VMware Horizon

- Added parameters to **specify webcam frame size** and **rate for RTAV**.
  More...

Parameter	Webcam frame width
Registry	`vmware.view.rtav-frame-width`
Value	<empty_string>
Parameter	Webcam frame height

Registry	`vmware.view.rtav-frame-height`
Value	<empty_string>
Parameter	Webcam frame rate
Registry	`vmware.view.rtav-frame-rate`
Value	<empty_string>

- Updated **Horizon Client** to version **5.0.0-12557422**
- Added possibility to easily evaluate **Horizon Blast decoder states**. By default sessions are evaluated after usage and the result is written into the journal log.
  This can also be used with GUI notifications at runtime.

Teradici PCoIP Client

- Added **Teradici PCoIP** Client version **19.05.1**. This feature requires an additional license.
  More...

IGEL Setup	**System > Firmware Customization > Features**
Parameter	Teradici PCoIP Client
Registry	`services.addition_teradici_pcoip_client.enabled`
Value	<u>enabled</u> / disabled
IGEL Setup	**Sessions > Teradici PCoIP Client > PCoIP Sessions > PCoIP Session > Connection settings**
Parameter	Use IGEL Setup for configuration
Registry	`sessions.pcoip<NR>.options.igel-connection`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Teradici PCoIP Client > PCoIP Sessions > PCoIP Session > Connection settings**
Parameter	Server
Registry	`sessions.pcoip<NR>.options.address`
Value	<empty_string>
IGEL Setup	**Sessions > Teradici PCoIP Client > PCoIP Sessions > PCoIP Session > Connection settings**
Parameter	Server certificate verification mode
Registry	`sessions.pcoip<NR>.options.security-mode`
Range	[Not required][<u>Warn but allow</u>][Full verification]

IGEL Setup	**Sessions > Teradici PCoIP Client > PCoIP Sessions > PCoIP Session > Login**
Parameter	Authentication type
Registry	`sessions.pcoip<NR>.options.auth-type`
Range	[Password authentication][Smartcard authentication]

IGEL Setup	**Sessions > Teradici PCoIP Client > PCoIP Sessions > PCoIP Session > Window**
Parameter	Window mode
Registry	`sessions.pcoip<NR>.options.window-mode`
Range	[User defined][Fullscreen One Monitor][Fullscreen All Monitors] [Window]

IGEL Setup	**Sessions > Teradici PCoIP Client > PCoIP Sessions > PCoIP Session > Window**
Parameter	User interface translation
Registry	`sessions.pcoip<NR>.options.language`
Range	[System setting][English] [German] [French][Spanish] [Portuguese (EU)] [Portuguese (Brazil)] [Italian][Japanese] [Chinese(Simplified)] [Chinese(Traditional)]

IGEL Setup	**Sessions > Teradici PCoIP Client > PCoIP Sessions > PCoIP Session > Window**
Parameter	Log level
Registry	`sessions.pcoip<NR>.options.log-level`
Range	[Critical][Error][Info][Debug]

Network

- Added a mechanism for retrieving the **SCEP challenge password** with a **custom script**. Setting the following registry key to true enables the use of the script. The registry key `network.scepclient.cert%.crypt_password` will be ignored. (The script may use it for its own purpose though.)
  More...

Parameter	Use Challenge Password Command
Registry	`network.scepclient.cert%.use_challenge_password_command`
Value	enabled / disabled

- If the above key is **true**, the value of this key will be passed to **bash for execution**. It happens when the SCEP challenge password is needed for creating a **certificate signing request**. The script is supposed to output the challenge password on its standard output. For convenience any carriage return characters are stripped off the script before execution by bash.
  More...

Parameter	Challenge Password Command
Registry	`network.scepclient.cert%.challenge_password_command`
Value	<empty_string>

Wi-Fi

- Added support for **Realtek 8821CE wireless cards**.

Smartcard

- Added **90meter** smart card library. This feature requires an additional license.
  More...

IGEL Setup	**System > Firmware Customization > Features**
Parameter	90meter Smart Card Support
Registry	`services.addition_smartcard_90meter.enabled`
Value	<u>enabled</u> / disabled
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by 90meter library
Registry	`vmware.view.pkcs11.use_90meter`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Browser > Browser Global > Smartcard Middleware**
Parameter	90meter Security Device
Registry	`browserglobal.security_device.90meter`
Value	enabled / <u>disabled</u>
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	90meter
Registry	`scard.pkcs11.use_90meter`
Value	enabled / <u>disabled</u>

Base System

- Added package **ldap-utils** which can be used by **custom scripts**.

- Updated **libwebkit2gtk-4.0-37** to version **1.24.2**.
  More...

  CVE-2019-8595, CVE-2019-8607, CVE-2019-8615, CVE-2019-6251,

  CVE-2018-4373, CVE-2018-4375, CVE-2018-4376, CVE-2018-4378,

  CVE-2018-4382, CVE-2018-4392, CVE-2018-4416, CVE-2018-4345,

  CVE-2018-4386, CVE-2018-4372

- Updated **EULA** displayed in **OSC** and **IGEL Setup Assistant**.
- When the **IGEL Setup Assistant** is used to download a demo license via WiFi, the **local WiFi manager** will be enabled by default.
- Added possibility to **configure scheduled commands**. Registry keys: `system.cron.*`

Driver

- Updated **deviceTRUST** Client to version **19.1.200**. This release includes support for logical disks attached to the IGEL endpoint, plus bug fixes and stability improvements over the previous 19.1.100 release.
  Logical Disks
  Added support for real-time properties representing the LOGICAL DISKS attached to the IGEL endpoint.
  This includes...

    - DEVICE_LOGICALDISK_X_TYPE – Either Fixed or Removable.
    - DEVICE_LOGICALDISK_X_LABEL – The volume label.
    - DEVICE_LOGICALDISK_X_FILESYSTEM – The type of file system.
    - DEVICE_LOGICALDISK_X_PATHS – The paths that the disk is mounted.
    - DEVICE_LOGICALDISK_X_TOTALMB – The total space available on the disk. This property is only available for mounted disks.
    - DEVICE_LOGICALDISK_X_FREEMB – The free space available on the disk. This property is only available for mounted disks.
    - DEVICE_LOGICALDISK_X_NAME – The name of the underlying physical disk.
    - DEVICE_LOGICALDISK_X_VENDORID – The vendor identifier uniquely identifying the manufacturer. This property is only available for USB or PCI connected devices.
    - DEVICE_LOGICALDISK_X_PRODUCTID – The product identifier uniquely identifying the product. This property is only available for USB or PCI connected devices.
    - DEVICE_LOGICALDISK_X_SERIALNUMBER – The serial number of the physical disk.
    - DEVICE_LOGICALDISK_X_BUSTYPE – The storage bus type linked to the physical disk.
    - DEVICE_LOGICALDISK_COUNT – The number of logical disks.

- Added registry keys to **modify the intel graphic driver usage** of framebuffer compression and power management.
  More...

Parameter	Power saving display C-States to use.
Registry	`x.drivers.intel.dc_setting`
Range	[Default][Disable][Up to DC5][Up to DC6]

Parameter	Use framebuffer compression.
Registry	`x.drivers.intel.fbc_setting`
Range	[Default][Disable]

X11 System

- Added new registry keys to **change the xorg input driver** for a input device class. **More...**

  For keyboards:

Parameter	Xorg driver to use
Registry	`userinterface.keyboard.driver`
Range	[Evdev] [Libinput]

  For touchpads:

Parameter	Xorg driver to use
Registry	`userinterface.touchpad.driver`
Range	[Evdev] [Synaptics] [Libinput]

  For touchscreens:

Parameter	Xorg driver to use
Registry	`userinterface.touchscreen.xorg_driver`
Range	[Evdev][Libinput]

  For mouse:

Parameter	Xorg driver to use
Registry	`userinterface.mouse.driver`
Range	[Evdev][Libinput]

- Added some registry keys to **disable loading of DRM kernel modules** (graphic). **More...**

Parameter	Disable the loading of the RADEON DRM driver.
Registry	`x.drivers.ati.disable`
Value	enabled / disabled

Parameter	Disable the loading of the AMDGPU DRM driver.
Registry	`x.drivers.amdgpu.disable`
Value	enabled / disabled

Parameter	Disable the loading of the i915 DRM driver.
Registry	`x.drivers.intel.disable`
Value	enabled / <u>disabled</u>
Parameter	Disable the loading of the NVIDIA kernel driver.
Registry	`x.drivers.nvidia.disable`
Value	enabled / <u>disabled</u>
Parameter	Disable the loading of the NOUVEAU DRM driver.
Registry	`x.drivers.nouveau.disable`
Value	enabled / <u>disabled</u>
Parameter	Disable the loading of the QXL DRM driver.
Registry	`x.drivers.qxl.disable`
Value	enabled / <u>disabled</u>
Parameter	Disable the loading of the VMGFX DRM driver.
Registry	`x.drivers.vmware.disable`
Value	enabled / <u>disabled</u>
Parameter	Disable the loading of the VBOXVIDEO DRM driver.
Registry	`x.drivers.vboxvideo.disable`
Value	enabled / <u>disabled</u>

Java

- Replaced **Oracle JRE** by **AZUL's Zulu JRE** version **8.36.0.1**.

Resolved Issues 11.01.110

OSC Installer

- Fixed OSC Installer to **not disable EFI**, if MSDOS partitioning was choosen.

Citrix

- Fixed stability issues with **Citrix Browser Content Redirection**.
- Fixed crash when **H264 acceleration** and **RTME** will be used on two or more concurrent **VDI sessions**.

RDP/IGEL RDP Client 2

- Added registry key to use **rdpglobal window settings** for remote apps.
  More...

Parameter	Enable global windows settings for remote app
Registry	`rdp.winconnect.enable-global-window-settings-for-remote-app`
Value	enabled / disabled

VMware Horizon

- Added recognition for **password change** and **password expired dialog** in **Horizon local logon sessions** or **appliance mode**
- Fixed the configuration choice to use the **relative mouse feature**

Firefox

- Fixed firefox not accepting **proxy credentials** from setup.
- Fixed **print hotkey disable option** not working with Firefox 60.
- Fixed `browserglobal.app.local_subdirs_whitelist` not working.
- Updated **Firefox** browser to version **60.7.0esr**.
- Fixes for **mfsa2019-08**.
  More...

  - CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,
  - CVE-2019-9795, CVE-2019-9796, CVE-2018-18506, CVE-2019-9788.
- Fixes for **mfsa2019-05**, also known as: CVE-2018-18356, CVE-2019-5785.
- Fixes for **mfsa2019-02**, also known as: CVE-2018-18500, CVE-2018-18505, CVE-2018-18501.

Network

- Fixed: Failure to reach **SCEP server** in the client certificate renewal phase resulted in loss of SCEP server and client certificates.
- Changed **e1000e driver** to out of tree version **3.4.2.3** - directly from Intel.
- Changed **igb driver** to out of tree version **5.3.5.22** - directly from Intel.
- Added possibility to switch between **thirdparty** and **kernel intel IGB network driver**.
  More...

Parameter	Use thirdparty igb kernel module.

Registry	network.drivers.igb.prefer_thirdparty
Value	[Auto] [Yes] [No]
Info: "Auto" uses thirdparty in most cases	

- Added possibility to switch between **thirdparty** and **kernel intel E1000E network driver**.
  More...

Parameter	Use thirdparty e1000e kernel module.
Registry	network.drivers.e1000e.prefer_thirdparty
Value	[Auto] [Yes] [No]
Info: "Auto" uses thirdparty in most cases	

- Fixed instability with **netmounts with static ip configuration**.
- Added possibility to switch between **thirdparty r8168** and **kernel r8169 realtek network driver**.
  More...

Parameter	Use thirdparty r8168 kernel module.
Registry	network.drivers.r8169.prefer_r8168
Value	[Auto] [Yes] [No]
Info: "Auto" uses r8169 in most cases	

- Added possibility to choose the variant of the **realtek r8168 driver**.
  More...

Parameter	Choose realtek r8168 variant (only if prefer r8168 is chosen).
Registry	network.drivers.r8169.r8168_variant
Value	[Default][No NAPI][NAPI]
Info: "Auto" uses NAPI in most cases	

Wi-Fi

- Fixed non working **TP Link Archer T2UH**.

Imprivata

- Fixed **Fast User Switching** with **Citrix** connections.

Smartcard

- Fixed **OpenSC** setting `max_send_size` for reader driver pcsc in `/etc/opensc/opensc.conf`.
- Fixed **Dell KB813 smartcard keyboard** in combination with certain smartcards driven by **OpenSC PKCS#11** module. Before this fix authentication to **Citrix StoreFront** and **VMWare Horizon** failed.

Base system

- Fixed retrieving of **serial number** from display.

- Fixed **random 90 seconds shutdown delay** (systemd).
- Fixed wrong behavior with **expired evaluation licenses** in some cases.
- Fixed a bug in the **screenlock countdown** that occurred when display of remaining seconds was not desired.
- Added **apparmor rule** to allow tcpdump to write to `/debuglog` .
- Bugfix **hotkey setting need reboot**.
- Fixed **UD2 screen goes black** problem with certain multimonitor configurations.
- Fixed **gtk-3 icon sizes** for **High-DPI** configurations.
- Enhanced **bootloader** to allow the setting of some kernel commandline parameters with registry keys.
  More...

Parameter	Disable use of APIC controller.
Registry	`system.kernel.bootparams.noapic`
Value	enabled / <u>disabled</u>
Parameter	Disable use of ACPI.
Registry	`system.kernel.bootparams.noacpi`
Value	enabled / <u>disabled</u>
Parameter	Use only one CPU core and disable all others.
Registry	`system.kernel.bootparams.nosmp`
Value	enabled / <u>disabled</u>
Parameter	Enable debug console on serial port 1.
Registry	`system.kernel.bootparams.serial_console_debug`
Value	enabled / <u>disabled</u>
Parameter	Limit CPU core usage (0 means no limit).
Registry	`system.kernel.bootparams.maxcpus`
Value	"0"
Parameter	Set maximum allowed cstate on intel cpus.
Registry	`system.kernel.bootparams.max_cstate`
Range	[No limit] [1] [2] [3] [4] [5] [6]
Info: Do not limit intel cstate	
Parameter	IOMMU usage setting.
Registry	`system.kernel.bootparams.iommu`

Range	[On] [Off] [Passthrough] [Force]
Info: Use IOMMU if possible	
Parameter	IOMMU usage setting for AMD systems.
Registry	`system.kernel.bootparams.amd_iommu`
Range	[On] [Off]
Info: Use IOMMU if possible	
Parameter	IOMMU usage setting for Intel systems.
Registry	`system.kernel.bootparams.intel_iommu`
Range	[On] [Off]
Info: Use IOMMU if possible	

- Moved the **EULA** page in **IGEL Setup Assistant** into the **demo activation workflow**.
- Added new registry key to set **USB quirks**.
  More...

Parameter	Set XHCI USB quirks to fix some hardware issues.
Registry	`system.kernel.bootparams.xhci-hcd_quirks`
Range	[No quirk] [Spurious Reboot quirk] [Spurious Wakeup quirk][Spurious Reboot Wakeup quirk]

- Lenovo **ThinkCentre M73** needs the `system.kernel.bootparams.xhci-hcd_quirks` registry key set to **Spurious Reboot quirk** to fix reboot after shutdown problem.

Driver

- Updated **deviceTRUST** Client to version **19.1.200**.
  Bug Fixes:
  - Fixed an issue reading the **DEVICE_IGEL_ICG_SERVER** property.
  - Fixed an issue where the **NETWORK** and **LOCATION** property providers could cause the client to freeze if a disconnection occurred whilst these property providers were checking for changes.
  - Fixed an **open file handle leak** which lead to the client process reaching its file handle limits when left running for a long period of time.
  - Fixed non working **WACOM device DTU-1141B**.

Custom Partition

- Fixed **ownership of extracted data**: don't preserve original owner while extracting data into custom partition.

Storage Devices

- Fixed **auto mounting** of storage devices inside of **Olympus DS-9500 Digital Voice Recorder**.

X11 system

- There is now a registry key to ignore a **3Dconnexion SpaceMouse** for IGEL graphical use (X11). If activated, the **SpaceMouse** is only passed through to the desktop session. If false, it acts also as the standard mouse.
  More...

Parameter	Deactivates a 3Dconnexion SpaceMouse as a standard mouse.
Registry	`userinterface.mouse.spacemouse.x11_ignore`
Value	enabled / <u>disabled</u>

- The following SpaceMouse products are included (VID, PID, Vendor, Product).
  More...

  0x046D; 0xC603; Logitech, Inc.; 3Dconnexion Spacemouse Plus XT

  0x046D; 0xC605; Logitech, Inc.; 3Dconnexion CADman

  0x046D; 0xC606; Logitech, Inc.; 3Dconnexion Spacemouse Classic

  0x046D; 0xC621; Logitech, Inc.; 3Dconnexion Spaceball 5000

  0x046D; 0xC623; Logitech, Inc.; 3Dconnexion Space Traveller 3D Mouse

  0x046D; 0xC625; Logitech, Inc.; 3Dconnexion Space Pilot 3D Mouse

  0x046D; 0xC626; Logitech, Inc.; 3Dconnexion Space Navigator 3D Mouse

  0x046D; 0xC627; Logitech, Inc.; 3Dconnexion Space Explorer 3D Mouse

  0x046D; 0xC628; Logitech, Inc.; 3Dconnexion Space Navigator for Notebooks

  0x046D; 0xC629; Logitech, Inc.; 3Dconnexion SpacePilot Pro 3D Mouse

  0x046D; 0xC62B; Logitech, Inc.; 3Dconnexion Space Mouse Pro

  0x256F; **; 3Dconnexion; SpaceMouse

- USB device reset via USB powercycle on UD6/UD7 available.
- Fixed screen flicker in some cases if "Force NumLock On" (x.global.forcenumlock) is active.
- Fixed Display Switch utility not starting with some translations.
- Fixed an issue with the noDDC mode not always working as expected.
- Fixed wrongly detected embedded DisplayPort on Dell Wyse 5070 Extended hardware.
- Added the possibility to change an embedded DisplayPort to a normal DisplayPort.
  More...

Parameter	Use embedded displayport as normal displayport (reboot required).
Registry	`x.drivers.intel.edp_is_dp`
Range	[<u>default</u>][enable][disable]

- Fixed some multimonitor (>4) issues with Nvidia graphic cards.
- Updated DisplayLink driver to version 5.1.26 to solve some startup issues.
- Fixed configuration from the old Display Switch taking precedence over
- configuration from new Display Switch and preventing changes.

Audio

- Fixed bad quality sound over DisplayPort in a Citrix ICA session or other applications using ALSA API.
- Fixed jack detection of the headphone port in Dell Wyse 3040.
- Fixed configuration of default audio output and input.

Media Player (Parole)

- Fixed a problem where parole media player would hang instead of playing audio while audio-visualization is enabled.

Hardware

- Fixed vanishing mouse cursor on Ryzen 3 devices.
- Fixed issues with non working Touchpad and Trackpoint on Lenovo laptops.
- Hardware detect HP t430.
- Added possibility to use AMDGPU PRO driver instead of the kernel integrated driver.
  Ryzen 3 devices (1200, 1300X, 2200G, 2200U and 2300U) will use the AMDGPU PRO driver if registry key x.drivers.amdgpu.use_amdgpu_pro is set to auto (default).
  New registry key (settings to this key will only work after reboot):
  More...

Parameter	Use AMDGPU PRO driver.
Registry	`x.drivers.amdgpu.use_amdgpu_pro`
Range	[Auto] [True] [False]

Remote Management

- If TC is managed over ICG, then settings do not apply immediately when received in connection stage. The settings must be applied after user prompt dialog.

Notes for Release 11.01.100

Software:	Version 11.01.100
Release Date:	2019-02-15
Release Notes:	RN-1101100-1
Last update:	2019-02-15

- IGEL OS 11
- IGEL OS Creator (OSC)

IGEL OS 11

Supported Devices

IGEL devices:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 51 UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41 UD9-LX 40

For supported IGEL OS 11 third-party devices, see Devices Supported by IGEL OS 11.

- Component Versions 11.01.100(see page 663)
- General Information 11.01.100(see page 663)
- Known Issues 11.01.100(see page 663)
- New Features 11.01.100(see page 671)
- CA Certificates Contained in IGEL OS 11.01.100(see page 676)

Component Versions 11.01.100

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.7.0-2113
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	18.10.0.11
deviceTRUST Citrix Channel	19.1.100.0
deviceTRUST RDP Channel	19.1.100.0
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.4.0
IBM iAccess Client Solutions	1.1.8.0
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_202
Parallels Client (32 bit)	16.5.2.20595
Parole Media Player	1.0.1-0ubuntu1igel16
Remote Viewer (RedHat Virtualization)	7.0-igel47
Spice GTK (Red Hat Virtualization)	0.35
Spice Protocol (Red Hat Virtualization)	0.12.14
Usbredir (Red Hat Virtualization)	0.8.0
Thinlinc Client	4.9.0-5775
ThinPrint Client	7.5.88
Totem Media Player	2.30.2

VMware Horizon Client	4.10.0-11053294
VNC Viewer	1.8.0+git20180123-igel1
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20180621
Philips Speech Driver	12.6.36

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.9.620
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.0.23
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.30-1igel3
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1

Cherry USB2LAN Proxy	3.0.0.6

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.14
OpenSSH Client	7.2p2-4ubuntu2.7
OpenSSH Server	7.2p2-4ubuntu2.7
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.3.3-1igel57
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20181113-igel856
Graphics Driver ATI/RADEON	18.1.0-1igel854
Graphics Driver ATI/AMDGPU	18.1.0-1igel853
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2igel775
Graphics Driver Nvidia	410.93-0ubuntu1
Graphics Driver Vboxvideo	5.2.18-dfsg-2igel17
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver Vmmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.20 #mainline-udos-r2517
Xorg X11 Server	1.19.6-1ubuntu4.2igel842
Xorg Xephyr	1.19.6-1ubuntu4.2igel842
CUPS printing daemon	2.1.3-4ubuntu0.7igel23

PrinterLogic	18.2.1.128
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.2igel58
ModemManager	1.6.8-2ubuntu1igel2
GStreamer 0.10	0.10.36-2ubuntu0.1
GStreamer 1.x	1.14.4-1ubuntu1igel203
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB
VPN OpenConnect
Scanner support
VirtualBox

- **Features with Limited Functionality**

Cisco JVDI Client	12.1

General Information 11.01.100

The following clients and features are not supported anymore:

- Caradigm
- Citrix Legacy Sessions
- Citrix Web Interface
- Citrix StoreFront Legacy
- Citrix HDX Flash Redirection
- Citrix XenDesktop Appliance Mode
- Flash Player Download
- Ericom PowerTerm
- JAVA Web Start
- Leostream Java Connect
- Systancia AppliDis
- VIA graphics driver

Known Issues 11.01.100

Citrix

- With **activated DRI3** and an **AMD GPU Citrix H.264 acceleration plugin** could freeze. Selective H.264 mode (API v2) is not affected from this issue.

- Citrix has known issues with **GStreamer1.0** which describe problems with multimedia redirection of H.264, MPEG1 and MPEG2. GStreamer1.0 is used if **browser content redirection** is active.
- **Browser content redirection** does not work with activated **DRI3** and **hardware accelerated H.264 deep compression codec**.
- **Citrix StoreFront Login** with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is inserted after start of Login.
As a workaround, insert the smartcard before starting StoreFront Login.
- When using **Citrix Workspace App 18.10** in combination with **Philips Speech driver**, the session occasionally does not properly terminate at logoff and hangs.
As a workaround, usage of Citrix Receiver 13.10 is recommended when Philips Speech driver is needed.
- **Citrix H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression > For the entire screen**.

VMware Horizon

- **External drives** are mounted already before connection, do not appear in the **remote desktop**. Workaround: Mapping the directory/media as a drive on desktop. The external devices will show up within the media drive then.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
    - On the one hand, when using **USB redirection for storage devices**: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
    - On the other hand, when using **drive mapping** instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug** has to be enabled and the **Number of storage hotplug devices** has to set to at least 1.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** once with **disabled FIPS support**.

Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign** smartcards.

Multimedia

- Multimedia redirection with **GStreamer** could fail with the Nouveau GPU driver.

Base system

- On **NVIDIA GPU** drivers, the **reported resolutions** of a display may contain unsupported resolutions. When any of those are configured, there are visual bugs (e.g. the desktop does not render properly).

New Features 11.01.100

Base system

- Support for **IGEL OS 11 license deployment** with **IGEL UMS 6** (via 'Automatic License Deployment')
- Support for **manual license deployment** in IGEL Setup Assistant
- Support for **demo license registration** in IGEL Setup Assistant
- Unified **IGEL OS 11 firmware** for IGEL and third-party hardware (New update file prefix: lxos)
- **Writable partitions are encrypted now**
- Use **IGEL OS Creator** for IGEL OS 11 installation and recovery (Download file: OSC_11.01.100.zip)

X11 system

- Reworked **user interface**
- **New wallpapers** have been added with **transparent background** so that the custom desktop color shows through. Selection of one of the new **Desktop Color** wallpapers in combination with an adjustment of desktop colors will provide this individual effect. The 2nd desktop color and the gradients also work with that.
- The new **Display Switch** tool can use **multiple different profiles**, automatically chosen at runtime depending on the currently connected monitors. A profile is created, when the current monitor layout/resolution is configured via the Display Switch utility. The profile will be associated with the currently connected displays automatically (manufacturer, model and used connector are used for allocation) and if applicable, the state of the laptop lid. The setup will be restored by hot-(un)plugging known displays, means the system will automatically switch to the already configured profile. The Display Switch utility itself got a new interface. All base functionality can be configured via Drag&Drop.
  An example workflow:
  - Connect the hardware and close/open lid
  - Open the Display Switch Utility

    - A quick (simple) setting can be selected directly.

    - Should the desired use case be different from the provided choices, the **Advanced** button opens a drag and drop interface for further settings.

  - In this interface, the **displays can be dragged and dropped** for the intended configuration. The display will snap adjacent to others.
  - If a display should not be used, it can be dragged to the **Disabled** area on the top right - the screen will be reactivated when it is dragged back to the active area.
  - To show the same content on multiple displays, one display should be dragged onto another active screen. The interface will show **Mirror**. The mirroring monitor will be displayed on the lower right.
  - With the **Apply** button the current state will be set, with 'Yes' on the "Keep configuration" dialog the current settings will be saved to persistent storage and associated with the profile.
  - **Advanced functionality** (panning/scaling/resolutions) can be configured in drop-down boxes, hidden in a **drawer on the right side**. The drawer can be expanded by clicking the '<' button on the right edge.

- For the **Display Switch** functionality the following parameters should be enabled for proper usage.
  More...

IGEL Setup	**Accessories > Display Switch > Options**
Parameter	Preserve settings over reboot
Registry	`sessions.user_display0.options.preserve_settings`
Value	enabled / <u>disabled</u>

IGEL Setup	**Accessories > Display Switch > Options**
Parameter	Smart display configuration
Registry	`x.auto_associate`
Value	enabled / <u>disabled</u>

- The **IGEL Display Switch** utility is now used for **NVIDIA graphics** devices as well.
- **Automatic DPI detection** has been added by the following parameter.
  More...

IGEL Setup	**User Interface > Display > Options**
Parameter	Monitor DPI Detection
Registry	`x.xserver0.auto_dpi`
Value	Off / <u>Smart</u> / Pixel-Precise

With the **Smart** automatic DPI detection the user interface is now usable out of the box on 4k displays.

Smart: Auto detect the DPI but only use a few values whichever is closest to the calculated DPI value. Used DPI values: 96, 125, 150, 175, 200, 225, 250, 275, 300.

Off: No auto DPI detection, fixed Monitor DPI value is used.

Pixel-Precise: Auto detect the DPI value and use it when it is within 65-300 DPI. Otherwise, 96 DPI is used.

- Improved **High DPI** support for various applications.
- Added **xprintidle** tool to firmware.
- Added a parameter to **delay DisplayPort handling** by a certain number of seconds to mitigate disabled outputs causing a reconfiguration.
  More...

Parameter	Delay DisplayPort disconnect events by N seconds to prevent reconfiguration with weird monitors
Registry	`sessions.user_display0.options.delay_dp_hotplug`
Value	<u>2</u>

Firefox

- The Firefox configuration is now only done by global parameters found at setup pages: **IGEL Setup > Sessions > Browser > Browser Global**
- Session specific parameters are: **startup page**, **start monitor** and **autostart**

Audio

- Added support for deployment of **Jabra Xpress** packages with **IGEL UMS 6**.
More...

IGEL Setup	**Devices > Unified Communications > Jabra > Jabra Xpress**
Parameter	Device Dashboard URL
Registry	`jabra.xpress.device_dashboard.server_url`
IGEL Setup	**Devices > Unified Communications > Jabra > Jabra Xpress**
Parameter	Package
Registry	`jabra.xpress.package_name`
IGEL Setup	**Devices > Unified Communications > Jabra > Jabra Xpress**
Parameter	Source URL
Registry	`jabra.xpress.package_url`
IGEL Setup	**Devices > Unified Communications > Jabra > Jabra Xpress**
Parameter	Check SSL certificate
Registry	`jabra.xpress.package_url_ssl_cert_check`
Value	<u>enabled</u> / disabled
IGEL Setup	**Devices > Unified Communications > Jabra > Jabra Xpress**
Parameter	Password
Registry	`jabra.xpress.package_url_crypt_password`

- Added support of **automatic suspend for wireless Jabra USB audio devices**. A device will be suspended after idle time over 5 seconds and automatically resumed again, when an application wants to playback or record audio data over the device.
More...

IGEL Setup	**Devices > Unified Communications > Jabra > Options**
Parameter	Suspend on idle
Registry	`devices.jabra.suspend_on_idle`
Value	<u>enabled</u> / disabled

TC Setup (Java)

- **Local TC setup theme** can be configured now.
  More...

Parameter	Color Theme
Registry	`userinterface.setup.theme`
Value	<u>Auto</u> / Dark / Dark & Light / Light / Ocean

- Added **High DPI scaling**

On-screen keyboard

- Added new parameters to **auto show and hide the on-screen keyboard**. To use this feature, the on-screen keyboard should be set to **autostart** and **restart**. The on-screen keyboard will start in a hidden state and automatically appears when a text field is selected. Confirmed to work within Firefox and on lockscreen.
  More...

IGEL Setup	**Accessories > On-Screen Keyboard > Application Integration**
Parameter	Automatically show On-Screen Keyboard when text field is selected
Registry	`userinterface.softkeyboard.autoshow`
Value	enabled / <u>disabled</u>
Parameter	Automatically hide On-Screen Keyboard when text field is deselected
Registry	`userinterface.softkeyboard.autohide`
Value	enabled / <u>disabled</u>

Appliance Mode

- Streamlined the **on-screen keyboard** settings for appliance mode.
- Add new parameter to enable the on-screen keyboard in appliance mode. With **enabled Appliance Mode Access** the on-screen keyboard should set to auto start.
  More...

IGEL Setup	**Accessories > On-Screen Keyboard**
Parameter	Appliance Mode Access
Registry	`sessions.gtkeyboard0.appliance_mode_access`
Value	enabled / <u>disabled</u>

- Alternatively, the button to **show/hide** the on-screen keyboard can be displayed in **appliance mode**, to provide a quick method to turn the keyboard on or off.
  More...

IGEL Setup	**Accessories > On-Screen Keyboard > Application Integration > On-Screen Keyboard Toggle Button**

Parameter	Show button
Registry	`userinterface.touchscreen.keyboard.touchkey.enable`
Value	enabled / <u>disabled</u>

- **Removed the old options** to individually enable/disable and position the on-screen keyboard for various appliance mode settings.

Hardware

- Added hardware support for **HP t530**.

CA Certificates Contained in IGEL OS 11.01.100

Contained CA certificates:
- ACCVRAIZ1, expires Dec 31 09:37:37 2030 GMT (ACCVRAIZ1.crt)
- ACEDICOM Root, expires Apr 13 16:24:22 2028 GMT (ACEDICOM_Root.crt)
- AC RAIZ FNMT-RCM, expires Jan 1 00:00:00 2030 GMT (AC_RAIZ_FNMT-RCM.crt)
- Actalis Authentication Root CA, expires Sep 22 11:22:02 2030 GMT (Actalis_Authentication_Root_CA.crt)
- AddTrust External CA Root, expires May 30 10:48:38 2020 GMT (AddTrust_External_Root.crt)
- AddTrust Class 1 CA Root, expires May 30 10:38:31 2020 GMT (AddTrust_Low-Value_Services_Root.crt)
- AddTrust Public CA Root, expires May 30 10:41:50 2020 GMT (AddTrust_Public_Services_Root.crt)
- AddTrust Qualified CA Root, expires May 30 10:44:50 2020 GMT (AddTrust_Qualified_Certificates_Root.crt)
- AffirmTrust Commercial, expires Dec 31 14:06:06 2030 GMT (AffirmTrust_Commercial.crt)
- AffirmTrust Networking, expires Dec 31 14:08:24 2030 GMT (AffirmTrust_Networking.crt)
- AffirmTrust Premium, expires Dec 31 14:10:36 2040 GMT (AffirmTrust_Premium.crt)
- AffirmTrust Premium ECC, expires Dec 31 14:20:24 2040 GMT (AffirmTrust_Premium_ECC.crt)
- Amazon Root CA 1, expires Jan 17 00:00:00 2038 GMT (Amazon_Root_CA_1.crt)
- Amazon Root CA 2, expires May 26 00:00:00 2040 GMT (Amazon_Root_CA_2.crt)
- Amazon Root CA 3, expires May 26 00:00:00 2040 GMT (Amazon_Root_CA_3.crt)
- Amazon Root CA 4, expires May 26 00:00:00 2040 GMT (Amazon_Root_CA_4.crt)
- Atos TrustedRoot 2011, expires Dec 31 23:59:59 2030 GMT (Atos_TrustedRoot_2011.crt)
- Autoridad de Certificacion Firmaprofesional CIF A62634068, expires Dec 31 08:38:15 2030 GMT (Autoridad_de_Certificacion_Firmaprofesional_CIF_A62634068.crt)
- Baltimore CyberTrust Root, expires May 12 23:59:00 2025 GMT (Baltimore_CyberTrust_Root.crt)
- Buypass Class 2 Root CA, expires Oct 26 08:38:03 2040 GMT (Buypass_Class_2_Root_CA.crt)
- Buypass Class 3 Root CA, expires Oct 26 08:28:58 2040 GMT (Buypass_Class_3_Root_CA.crt)
- CA Disig Root R1, expires Jul 19 09:06:56 2042 GMT (CA_Disig_Root_R1.crt)
- CA Disig Root R2, expires Jul 19 09:15:30 2042 GMT (CA_Disig_Root_R2.crt)
- CFCA EV ROOT, expires Dec 31 03:07:01 2029 GMT (CFCA_EV_ROOT.crt)
- CNNIC ROOT, expires Apr 16 07:09:14 2027 GMT (CNNIC_ROOT.crt)
- COMODO Certification Authority, expires Dec 31 23:59:59 2029 GMT (COMODO_Certification_Authority.crt)
- COMODO ECC Certification Authority, expires Jan 18 23:59:59 2038 GMT (COMODO_ECC_Certification_Authority.crt)
- COMODO RSA Certification Authority, expires Jan 18 23:59:59 2038 GMT (COMODO_RSA_Certification_Authority.crt)
- Chambers of Commerce Root, expires Sep 30 16:13:44 2037 GMT (Camerfirma_Chambers_of_Commerce_Root.crt)
- Global Chambersign Root, expires Sep 30 16:14:18 2037 GMT (Camerfirma_Global_Chambersign_Root.crt)
- Certigna, expires Jun 29 15:13:05 2027 GMT (Certigna.crt)
- Certinomis - Autorité Racine, expires Sep 17 08:28:59 2028 GMT (Certinomis_-_Autorité_Racine.crt)
- Certinomis - Root CA, expires Oct 21 09:17:18 2033 GMT (Certinomis_-_Root_CA.crt)
- Class 2 Primary CA, expires Jul 6 23:59:59 2019 GMT (Certplus_Class_2_Primary_CA.crt)
- Certplus Root CA G1, expires Jan 15 00:00:00 2038 GMT (Certplus_Root_CA_G1.crt)
- Certplus Root CA G2, expires Jan 15 00:00:00 2038 GMT (Certplus_Root_CA_G2.crt)
- Certum CA, expires Jun 11 10:46:39 2027 GMT (Certum_Root_CA.crt)
- Certum Trusted Network CA, expires Dec 31 12:07:37 2029 GMT (Certum_Trusted_Network_CA.crt)
- Certum Trusted Network CA 2, expires Oct 6 08:39:56 2046 GMT (Certum_Trusted_Network_CA_2.crt)
- Chambers of Commerce Root - 2008, expires Jul 31 12:29:50 2038 GMT (Chambers_of_Commerce_Root_-_2008.crt)

- China Internet Network Information Center EV Certificates Root, expires Aug 31 07:11:25 2030 GMT (China_Internet_Network_Information_Center_EV_Certificates_Root.crt)
- AAA Certificate Services, expires Dec 31 23:59:59 2028 GMT (Comodo_AAA_Services_root.crt)
- Secure Certificate Services, expires Dec 31 23:59:59 2028 GMT (Comodo_Secure_Services_root.crt)
- Trusted Certificate Services, expires Dec 31 23:59:59 2028 GMT (Comodo_Trusted_Services_root.crt)
- Cybertrust Global Root, expires Dec 15 08:00:00 2021 GMT (Cybertrust_Global_Root.crt)
- D-TRUST Root Class 3 CA 2 2009, expires Nov 5 08:35:58 2029 GMT (D-TRUST_Root_Class_3_CA_2_2009.crt)
- D-TRUST Root Class 3 CA 2 EV 2009, expires Nov 5 08:50:46 2029 GMT (D-TRUST_Root_Class_3_CA_2_EV_2009.crt)
- DST ACES CA X6, expires Nov 20 21:19:58 2017 GMT (DST_ACES_CA_X6.crt)
- DST Root CA X3, expires Sep 30 14:01:15 2021 GMT (DST_Root_CA_X3.crt)
- Deutsche Telekom Root CA 2, expires Jul 9 23:59:00 2019 GMT (Deutsche_Telekom_Root_CA_2.crt)
- DigiCert Assured ID Root CA, expires Nov 10 00:00:00 2031 GMT (DigiCert_Assured_ID_Root_CA.crt)
- DigiCert Assured ID Root G2, expires Jan 15 12:00:00 2038 GMT (DigiCert_Assured_ID_Root_G2.crt)
- DigiCert Assured ID Root G3, expires Jan 15 12:00:00 2038 GMT (DigiCert_Assured_ID_Root_G3.crt)
- DigiCert Global Root CA, expires Nov 10 00:00:00 2031 GMT (DigiCert_Global_Root_CA.crt)
- DigiCert Global Root G2, expires Jan 15 12:00:00 2038 GMT (DigiCert_Global_Root_G2.crt)
- DigiCert Global Root G3, expires Jan 15 12:00:00 2038 GMT (DigiCert_Global_Root_G3.crt)
- DigiCert High Assurance EV Root CA, expires Nov 10 00:00:00 2031 GMT (DigiCert_High_Assurance_EV_Root_CA.crt)
- DigiCert Trusted Root G4, expires Jan 15 12:00:00 2038 GMT (DigiCert_Trusted_Root_G4.crt)
- E-Tugra Certification Authority, expires Mar 3 12:09:48 2023 GMT (E-Tugra_Certification_Authority.crt)
- EC-ACC, expires Jan 7 22:59:59 2031 GMT (EC-ACC.crt)
- EE Certification Centre Root CA, expires Dec 17 23:59:59 2030 GMT (EE_Certification_Centre_Root_CA.crt)
- Entrust.net[38] Certification Authority (2048), expires Jul 24 14:15:12 2029 GMT (Entrust.net_Premium_2048_Secure_Server_CA.crt)
- Entrust Root Certification Authority, expires Nov 27 20:53:42 2026 GMT (Entrust_Root_Certification_Authority.crt)
- Entrust Root Certification Authority - EC1, expires Dec 18 15:55:36 2037 GMT (Entrust_Root_Certification_Authority_-_EC1.crt)
- Entrust Root Certification Authority - G2, expires Dec 7 17:55:54 2030 GMT (Entrust_Root_Certification_Authority_-_G2.crt)
- GeoTrust Global CA, expires May 21 04:00:00 2022 GMT (GeoTrust_Global_CA.crt)
- GeoTrust Global CA 2, expires Mar 4 05:00:00 2019 GMT (GeoTrust_Global_CA_2.crt)
- GeoTrust Primary Certification Authority, expires Jul 16 23:59:59 2036 GMT (GeoTrust_Primary_Certification_Authority.crt)
- GeoTrust Primary Certification Authority - G2, expires Jan 18 23:59:59 2038 GMT (GeoTrust_Primary_Certification_Authority_-_G2.crt)
- GeoTrust Primary Certification Authority - G3, expires Dec 1 23:59:59 2037 GMT (GeoTrust_Primary_Certification_Authority_-_G3.crt)
- GeoTrust Universal CA, expires Mar 4 05:00:00 2029 GMT (GeoTrust_Universal_CA.crt)
- GeoTrust Universal CA 2, expires Mar 4 05:00:00 2029 GMT (GeoTrust_Universal_CA_2.crt)
- GlobalSign, expires Jan 19 03:14:07 2038 GMT (GlobalSign_ECC_Root_CA_-_R4.crt)
- GlobalSign, expires Jan 19 03:14:07 2038 GMT (GlobalSign_ECC_Root_CA_-_R5.crt)
- GlobalSign Root CA, expires Jan 28 12:00:00 2028 GMT (GlobalSign_Root_CA.crt)
- GlobalSign, expires Dec 15 08:00:00 2021 GMT (GlobalSign_Root_CA_-_R2.crt)
- GlobalSign, expires Mar 18 10:00:00 2029 GMT (GlobalSign_Root_CA_-_R3.crt)
- Global Chambersign Root - 2008, expires Jul 31 12:31:40 2038 GMT (Global_Chambersign_Root_-_2008.crt)
- Go Daddy Class 2 Certification Authority, expires Jun 29 17:06:20 2034 GMT (Go_Daddy_Class_2_CA.crt)
- Go Daddy Root Certificate Authority - G2, expires Dec 31 23:59:59 2037 GMT

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(Go_Daddy_Root_Certificate_Authority_-_G2.crt)
- Hellenic Academic and Research Institutions ECC RootCA 2015, expires Jun 30 10:37:12 2040 GMT
(Hellenic_Academic_and_Research_Institutions_ECC_RootCA_2015.crt)
- Hellenic Academic and Research Institutions RootCA 2011, expires Dec 1 13:49:52 2031 GMT
(Hellenic_Academic_and_Research_Institutions_RootCA_2011.crt)
- Hellenic Academic and Research Institutions RootCA 2015, expires Jun 30 10:11:21 2040 GMT
(Hellenic_Academic_and_Research_Institutions_RootCA_2015.crt)
- Hongkong Post Root CA 1, expires May 15 04:52:29 2023 GMT (Hongkong_Post_Root_CA_1.crt)
- ISRG Root X1, expires Jun 4 11:04:38 2035 GMT (ISRG_Root_X1.crt)
- IdenTrust Commercial Root CA 1, expires Jan 16 18:12:23 2034 GMT (IdenTrust_Commercial_Root_CA_1.crt)
- IdenTrust Public Sector Root CA 1, expires Jan 16 17:53:32 2034 GMT (IdenTrust_Public_Sector_Root_CA_1.crt)
- Imprivata Embedded Code Signing CA, expires Sep 7 16:20:00 2033 GMT (Imprivata.crt)
- Izenpe.com[39], expires Dec 13 08:27:25 2037 GMT (Izenpe.com[40].crt)
- LuxTrust Global Root 2, expires Mar 5 13:21:57 2035 GMT (LuxTrust_Global_Root_2.crt)
- Microsec e-Szigno Root CA 2009, expires Dec 30 11:30:18 2029 GMT (Microsec_e-Szigno_Root_CA_2009.crt)
- NetLock Arany (Class Gold) Főtanúsítvány, expires Dec 6 15:08:21 2028 GMT
(NetLock_Arany_=Class_Gold=_Főtanúsítvány.crt)
- Network Solutions Certificate Authority, expires Dec 31 23:59:59 2029 GMT
(Network_Solutions_Certificate_Authority.crt)
- OISTE WISeKey Global Root GA CA, expires Dec 11 16:09:51 2037 GMT (OISTE_WISeKey_Global_Root_GA_CA.crt)
- OISTE WISeKey Global Root GB CA, expires Dec 1 15:10:31 2039 GMT (OISTE_WISeKey_Global_Root_GB_CA.crt)
- OpenTrust Root CA G1, expires Jan 15 00:00:00 2038 GMT (OpenTrust_Root_CA_G1.crt)
- OpenTrust Root CA G2, expires Jan 15 00:00:00 2038 GMT (OpenTrust_Root_CA_G2.crt)
- OpenTrust Root CA G3, expires Jan 15 00:00:00 2038 GMT (OpenTrust_Root_CA_G3.crt)
- Autoridad de Certificacion Raiz del Estado Venezolano, expires Dec 25 23:59:59 2020 GMT (PSCProcert.crt)
- QuoVadis Root Certification Authority, expires Mar 17 18:33:33 2021 GMT (QuoVadis_Root_CA.crt)
- QuoVadis Root CA 1 G3, expires Jan 12 17:27:44 2042 GMT (QuoVadis_Root_CA_1_G3.crt)
- QuoVadis Root CA 2, expires Nov 24 18:23:33 2031 GMT (QuoVadis_Root_CA_2.crt)
- QuoVadis Root CA 2 G3, expires Jan 12 18:59:32 2042 GMT (QuoVadis_Root_CA_2_G3.crt)
- QuoVadis Root CA 3, expires Nov 24 19:06:44 2031 GMT (QuoVadis_Root_CA_3.crt)
- QuoVadis Root CA 3 G3, expires Jan 12 20:26:32 2042 GMT (QuoVadis_Root_CA_3_G3.crt)
- SZAFIR ROOT CA2, expires Oct 19 07:43:30 2035 GMT (SZAFIR_ROOT_CA2.crt)
- SecureSign RootCA11, expires Apr 8 04:56:47 2029 GMT (SecureSign_RootCA11.crt)
- SecureTrust CA, expires Dec 31 19:40:55 2029 GMT (SecureTrust_CA.crt)
- Secure Global CA, expires Dec 31 19:52:06 2029 GMT (Secure_Global_CA.crt)
- Security Communication EV RootCA1, expires Jun 6 02:12:32 2037 GMT
(Security_Communication_EV_RootCA1.crt)
- Security Communication RootCA2, expires May 29 05:00:39 2029 GMT (Security_Communication_RootCA2.crt)
- Security Communication RootCA1, expires Sep 30 04:20:49 2023 GMT (Security_Communication_Root_CA.crt)
- Sonera Class2 CA, expires Apr 6 07:29:40 2021 GMT (Sonera_Class_2_Root_CA.crt)
- Staat der Nederlanden EV Root CA, expires Dec 8 11:10:28 2022 GMT (Staat_der_Nederlanden_EV_Root_CA.crt)
- Staat der Nederlanden Root CA - G2, expires Mar 25 11:03:10 2020 GMT (Staat_der_Nederlanden_Root_CA_-
_G2.crt)
- Staat der Nederlanden Root CA - G3, expires Nov 13 23:00:00 2028 GMT (Staat_der_Nederlanden_Root_CA_-
_G3.crt)
- Starfield Class 2 Certification Authority, expires Jun 29 17:39:16 2034 GMT (Starfield_Class_2_CA.crt)
- Starfield Root Certificate Authority - G2, expires Dec 31 23:59:59 2037 GMT (Starfield_Root_Certificate_Authority_-
_G2.crt)

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39 http://Izenpe.com
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- Starfield Services Root Certificate Authority - G2, expires Dec 31 23:59:59 2037 GMT
(Starfield_Services_Root_Certificate_Authority_-_G2.crt)
- SwissSign Gold CA - G2, expires Oct 25 08:30:35 2036 GMT (SwissSign_Gold_CA_-_G2.crt)
- SwissSign Silver CA - G2, expires Oct 25 08:32:46 2036 GMT (SwissSign_Silver_CA_-_G2.crt)
- Swisscom Root CA 1, expires Aug 18 22:06:20 2025 GMT (Swisscom_Root_CA_1.crt)
- Swisscom Root CA 2, expires Jun 25 07:38:14 2031 GMT (Swisscom_Root_CA_2.crt)
- Swisscom Root EV CA 2, expires Jun 25 08:45:08 2031 GMT (Swisscom_Root_EV_CA_2.crt)
- T-TeleSec GlobalRoot Class 2, expires Oct 1 23:59:59 2033 GMT (T-TeleSec_GlobalRoot_Class_2.crt)
- T-TeleSec GlobalRoot Class 3, expires Oct 1 23:59:59 2033 GMT (T-TeleSec_GlobalRoot_Class_3.crt)
- TUBITAK Kamu SM SSL Kok Sertifikasi - Surum 1, expires Oct 25 08:25:55 2043 GMT
(TUBITAK_Kamu_SM_SSL_Kok_Sertifikasi_-_Surum_1.crt)
- TÜRKTRUST Elektronik Sertifika Hizmet Sağlayıcısı, expires Dec 22 18:37:19 2017 GMT
(TURKTRUST_Certificate_Services_Provider_Root_2007.crt)
- TWCA Global Root CA, expires Dec 31 15:59:59 2030 GMT (TWCA_Global_Root_CA.crt)
- TWCA Root Certification Authority, expires Dec 31 15:59:59 2030 GMT (TWCA_Root_Certification_Authority.crt)
- Government Root Certification Authority, expires Dec 5 13:23:33 2032 GMT (Taiwan_GRCA.crt)
- TeliaSonera Root CA v1, expires Oct 18 12:00:50 2032 GMT (TeliaSonera_Root_CA_v1.crt)
- Trustis FPS Root CA, expires Jan 21 11:36:54 2024 GMT (Trustis_FPS_Root_CA.crt)
- TÜBİTAK UEKAE Kök Sertifika Hizmet Sağlayıcısı - Sürüm 3, expires Aug 21 11:37:07 2017 GMT
(TÜBİTAK_UEKAE_Kök_Sertifika_Hizmet_Sağlayıcısı_-_Sürüm_3.crt)
- TÜRKTRUST Elektronik Sertifika Hizmet Sağlayıcısı H5, expires Apr 28 08:07:01 2023 GMT
(TÜRKTRUST_Elektronik_Sertifika_Hizmet_Sağlayıcısı_H5.crt)
- USERTrust ECC Certification Authority, expires Jan 18 23:59:59 2038 GMT
(USERTrust_ECC_Certification_Authority.crt)
- USERTrust RSA Certification Authority, expires Jan 18 23:59:59 2038 GMT
(USERTrust_RSA_Certification_Authority.crt)
- UTN-USERFirst-Hardware, expires Jul 9 18:19:22 2019 GMT (UTN_USERFirst_Hardware_Root_CA.crt)
- VeriSign Class 3 Public Primary Certification Authority - G4, expires Jan 18 23:59:59 2038 GMT
(VeriSign_Class_3_Public_Primary_Certification_Authority_-_G4.crt)
- VeriSign Class 3 Public Primary Certification Authority - G5, expires Jul 16 23:59:59 2036 GMT
(VeriSign_Class_3_Public_Primary_Certification_Authority_-_G5.crt)
- VeriSign Universal Root Certification Authority, expires Dec 1 23:59:59 2037 GMT
(VeriSign_Universal_Root_Certification_Authority.crt)
- VeriSign Class 3 Public Primary Certification Authority - G3, expires Jul 16 23:59:59 2036 GMT
(Verisign_Class_3_Public_Primary_Certification_Authority_-_G3.crt)
- Visa eCommerce Root, expires Jun 24 00:16:12 2022 GMT (Visa_eCommerce_Root.crt)
- XRamp Global Certification Authority, expires Jan 1 05:37:19 2035 GMT (XRamp_Global_CA_Root.crt)
- certSIGN ROOT CA, expires Jul 4 17:20:04 2031 GMT (certSIGN_ROOT_CA.crt)
- ePKI Root Certification Authority, expires Dec 20 02:31:27 2034 GMT (ePKI_Root_Certification_Authority.crt)
- thawte Primary Root CA, expires Jul 16 23:59:59 2036 GMT (thawte_Primary_Root_CA.crt)
- thawte Primary Root CA - G2, expires Jan 18 23:59:59 2038 GMT (thawte_Primary_Root_CA_-_G2.crt)
- thawte Primary Root CA - G3, expires Dec 1 23:59:59 2037 GMT (thawte_Primary_Root_CA_-_G3.crt)

IGEL OS Creator (OSC)

Supported Devices

IGEL devices:
UD2-LX 40
UD3-LX 51
UD3-LX 50
UD5-LX 50
UD6-LX 51
UD7-LX 10
UD9-LX Touch 41
UD9-LX 40

For supported devices, see Third-Party Devices Supported by IGEL OS 11.

- General Information 11.01.100
- Component Versions 11.01.100

General Information 11.01.100

- **IGEL OS Creator** is used for **IGEL OS 11** installation and recovery on:
    - Supported IGEL hardware
    - IGEL UD Pocket
    - Supported x86 hardware
- Find details in the IGEL OS Creator manual at https://kb.igel.com/osc-manual

Component Versions 11.01.100

- **Clients**

Product	Version
Oracle JRE	1.8.0_202

- **Smartcard**

Product	Version
Reader Driver MUSCLE CCID	1.4.30-1igel3
Resource Manager PC/SC Lite	1.8.23-1igel1

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.14
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.3.3-1igel57
VDPAU Library Version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20181113-igel856
Graphics Driver ATI/RADEON	18.1.0-1igel854
Graphics Driver ATI/AMDGPU	18.1.0-1igel853
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2igel775
Graphics Driver Vboxvideo	5.2.18-dfsg-2igel17
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver Vmmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.20 #mainline-udos-r2517
Xorg X11 Server	1.19.6-1ubuntu4.2igel842

Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2igel675
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
Python2	2.7.12
Python3	3.5.2

Notes for Release 10.06.190

Currently, the Release Notes for IGEL OS 10.06.190 are available only in plain text format, see lx_10.06.190.txt[41].

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[41] https://www.igel.com/wp-content/uploads/2020/06/lx_10.06.190.txt

Notes for Release 10.06.170

Software:	Version	10.06.170
Release Date:	2020-01-24	
Release Notes:	Version	RN-106170-1
Last update:	2020-01-23	

- IGEL Linux Universal Desktop
- IGEL Universal Desktop OS 3

IGEL Linux Universal Desktop

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10
IGEL Zero:	
IZ2-RFX	
IZ2-HDX	
IZ2-HORIZON	
IZ3-RFX	
IZ3-HDX	
IZ3-HORIZON	

Component Versions 10.06.170

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Workspace App	18.10.0.11
Citrix Workspace App	19.10.0.15
Citrix Workspace App	19.12.0.19
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.5
FabulaTech USB for Remote Desktop	5.2.29
Firefox	68.4.1
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64 Qualification in progress
deviceTRUST RDP Channel	19.1.200.2
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.5.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.38.0.13
Parallels Client (64 bit)	16.5.3.20735
Remote Viewer (RedHat Virtualization)	8.0-1igel49
Spice GTK (Red Hat Virtualization)	0.36-1~git20190601igel61
Usbredir (Red Hat Virtualization)	0.8.0-1igel49
Systancia AppliDis	4.0.0.17

ThinLinc Client	4.10.0-6068
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VMware Horizon Client	5.0.0-12557422
VNC Viewer	1.9.0+dfsg-3igel8
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech Driver	12.8.5

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.3.2

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.8.1.31
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.4.30-1igel3
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel8
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.0.8-1igel73
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20191117-igel939
Graphics Driver ATI/RADEON	19.0.1-2igel890
Graphics Driver ATI/AMDGPU	19.0.1-4igel894
Graphics Driver VIA	5.76.52.92-opensource-009-005f78-20150730igel871
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.65 #mainline-ud-r2788
Xorg X11 Server	1.20.5-1igel914
Xorg Xephyr	1.20.5-1igel914
CUPS printing daemon	2.1.3-4ubuntu0.9igel27
PrinterLogic	25.1.0.303

Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel656
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.0-1igel214
WebKit2Gtk	2.26.1-3igel25
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20181030.92c5462-1igel5
Mobile Device Access USB (gphoto)	2.5.22-3igel1
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VirtualBox	6.0.8-dfsg-4igel25

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- IGEL Upgrade License Tool with IGEL Smartcard Token;
- Remote Management by setup.ini file transfer (TFTP);
- Remote Access via RSH;
- Legacy Philips Speech Driver;
- T-Systems TCOS Smartcard Support;
- DUS Series touchscreens;
- Elo serial touchscreens;
- Video hardware acceleration support is discontinued on UD10-LX Touch 10 and UD10-LX 10;
- H.264 hardware acceleration support is discontinued on UD10-LX Touch 10 and UD10-LX 10;
- Java WebStart;
- Storage hotplug devices are not automatically removed anymore, instead they must always be ejected manually:
    - by a panel tray icon;
    - by an icon in the **In-Session Control Bar** (configurable under **IGEL Setup > User Interface > Desktop**);
    - by a **Safely Remove Hardware** session (configurable under **IGEL Setup > Accessories**).

The following clients and features are not available in this release:

- Cherry eGK Channel;
- Open VPN Smartcard Support;
- Asian Input Methods;
- Composite Manager.

Security Fixes 10.06.170

Firefox

- Updated Mozilla **Firefox** to **68.4.1esr**.
- Fix for **mfsa2020-03**, also known as CVE-2019-17026.
- Fixes for **mfsa2020-02**, also known as: CVE-2019-17016, CVE-2019-17017, CVE-2019-17022, and CVE-2019-17024.
- Fixes for **mfsa2019-37**, also known as:
  More...

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  CVE-2019-17005, CVE-2019-17011, and CVE-2019-17012.

- Fixes for **mfsa2019-33**, also known as:
  More...

  CVE-2019-15903, CVE-2019-11757, CVE-2019-11758,
  CVE-2019-11759, CVE-2019-11760, CVE-2019-11761,
  CVE-2019-11762, CVE-2019-11763, and CVE-2019-11764.

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- As the behavior of Firefox has changed, following **settings for "Start in full-screen mode"** and **"Disable Hotkeys for open new window/tab" can be configured in first browser session only** – these are handled like a usual global setting, means the configuration within another browser session does not has an effect for these two parameters.

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  As a workaround, insert the smartcard before starting StoreFront login.
- Citrix **H.264 acceleration plugin** does not work with **enabled** server policy "Optimize for 3D graphics workload" in combination with server policy "Use video codec compression" > "For the entire screen".
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264 acceleration plugin**, the following registry key must be enabled:
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / disabled

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

VMware Horizon

- **External drives** mounted already before connection **do not appear in the remote desktop**.
  Workaround: map the directory `/` media as a drive. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping** is switched off.
    In the IGEL Setup client, **drive mapping** can be found under **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable drive mapping**.
    It is also recommended to disable local **Storage Hotplug** under Setup **> Devices > Storage Devices > Storage Hotplug**.

- On the other hand, if you use **drive mapping** instead, it is recommended to either **switch off USB redirection entirely** or at least to **deny storage devices** by adding a filter to the USB class rules.
  Furthermore, Horizon Client relies on the OS to mount the storage device itself. Enable local **Storage Hotplug** under Setup **>Devices > Storage Devices > Storage Hotplug**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** one time with FIPS support disabled.

Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: **spice-xpi** Firefox plugin **is no longer supported**. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

Wi-Fi

- **TP-Link Archer T2UH Wi-Fi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend under **IGEL Setup > System > Power Options > Shutdown**.

Base system

- Due to the removal of the Oracle JRE, **Java WebStart** is **not supported** anymore.

Hardware

- **Suspend** on **UD10** is disabled.

New Features 10.06.170

Citrix

- Integrated **Citrix Workspace App 19.12**
- Available **Citrix Workspace Apps** in this release: **19.12** (default), **19.10**, and **18.10**
- New **registry keys**:
  - Added a registry key for enabling **full-screen banner "Citrix Desktop Viewer"** when starting a Desktop or Application session.
    More...

Parameter	Show Citrix Desktop Viewer screen
Registry	`ica.module.cdviewerscreen`
Value	<u>off</u> / on

  - Added a registry key to enable usage of **Chromium Embedded Framework (CEF) for Browser Content Redirection (BCR)** [Experimental].
    More...

Parameter	Use Chromium Embedded Framework (CEF)
Registry	`ica.allregions.usecefbrowser`
Value	<u>factory default</u> / false / true

    "Factory default" means that can be set by config file.
  - Added a registry key to enable/disable **Transparent User Interface [TUI] Virtual Channel [VC] protocol.** The VDTUI protocol is enabled by default.
    More...

Parameter	Enable VDTUI protocol
Registry	`ica.module.virtualdriver.vdtui.enable`
Value	off / <u>on</u>

  - Updated **libwebkit2gtk-4.0-37** to version **2.26.1**. It is now possible to enable **debug output for Citrix Browser Content Redirection** by running the script `/config/bin/install-webkit-debug` . The debug output is written to `/var/log/user/webcontainer.debug` . **CAUTION**: **You can run only short sessions with enabled debug output** because a lot of debugging data is written to the log file.

Firefox

- Updated **Fluendo multimedia codecs** to the following versions:
  gst-fluendo-h264dec - 18/09/2019 0.10.54
  gst-fluendo-vadec - 16/10/2019 0.10.210

Imprivata

- **Usage of 500 MB for the Imprivata data partition** when **flash** is **bigger than 2 GB**.

OS 11 Upgrade

- Add parameter to **skip battery checking in OS 11 Upgrade**.
  More...

Parameter	Use at your own risk! Turns Battery safety check into warning only. Any unbootable systems are on you.
Registry	`update.battery_is_only_warning`
Value	enabled / <u>disabled</u>

IGEL Cloud Gateway

- Added **support for shadowing via ICG**.

Resolved Issues 10.06.170

Imprivata

- Fixed **race condition** that may lead to **unexpected behavior with RDP** connections.
- Fixed **VMware Horizon** session **disconnect**.
- Fixed **Lock-key** and **Tap-out behavior**.
- Fixed **MS RDSH** session.

VMware Horizon

- Fixed **sound in Horizon client 5.x** using **PCoIP** protocol.

Caradigm

- **Caradigm restart loops** fixed.

Base system

- Fixed potential temporary **settings loss** when **resuming from standby**.
- **Automatic firmware update** is **now checked after retrieval of UMS settings**.
- When there are any **non-applied changes in the network configuration**, the **network** will be **reconfigured before the firmware update** starts.
- Re-fixed broken **custom bootsplash** when doing a **reset to factory defaults via UMS**.

Smartcard

- Updated **SecMaker Net iD smartcard library** to version **6.8.1.31**. The changes are:
  More...

  - Support for **Gemalto IDPrime 940** and **3940**.
  - Support for new **VRK card** (IDEMIA IAS ECC, spec: FINEID S1 - FINEID S1 Electronic ID Application v4.0).
  - Support for **Aventra MyEID v4.0** (customer specific card profile with read support only).
  - Fixed problem with **detection of cards in Net iD Card Portal**.
  - Other fixes, see release notes at SecMaker.
- Fixed **smartcard user names displayed on login screen**: non-ASCII characters were not shown correctly before.
- Fixed **error message on login screen** shown when **smartcard PIN** is locked.
- Fixed handling of smartcards in **pcsc-lite: improved transaction locking**.
  A new parameter was introduced to control the new behavior (enabled by default):
  More...

Parameter	Abort stalled transactions
Registry	`scard.pcscd.abort_stalled_transactions`
Value	enabled / disabled

- Fixed IGEL Smartcard to be able to handle **VoIP client Ekiga sessions**.

Driver

- Updated **Philips Speech Driver** to version **12.8.5**.

- Updated **StepOver TCP Client** to version **2.3.2**.

CUPS Printing

- Updated **Printer Installer client** to version **25.1.0.303**.
- **Added** missing **CUPS model names** for some CUPS printers.

X11 system

- Fixed an issue with **modesetting driver** and **DisplayLink USB graphic adapters**.
- **Removed** registry key `x.drivers.glamor.use_dri3` as it is of no real use.
- **Updated Intel Xorg driver** to work fix issues with **DisplayLink USB adapters**.
- Fixed issue with **Wacom Signing Pads not being recognized as displays**.

X server

- Fix **HP Elitebook Display** issue **with HP Ultraslim Docking Station**.

Network

- Fixed issue when configuring **more then one NTP server**.
- Fixed **missing library with openconnect** feature.

OS 11 Upgrade

- Add special **warning when not connected to power line in upgrade boot**.

RDP/IGEL RDP Client 2

- Fixed **RDP Web Access Domain Visibility** not working correctly.

Remote Management

- Fixed broken **logon into Shared Workplace** on devices that are managed over **ICG**.
- Fixed **responding to requests searching** an available **buddy update server**.

VNC

- Fixed **sporadic connection failure in the VNC server**.

IGEL Universal Desktop OS 3

Supported Hardware

https://kb.igel.com/udc3-supported-devices

- Component Versions 10.06.170
- General Information 10.06.170
- Security Fixes 10.06.170
- Known Issues 10.06.170
- New Features 10.06.170
- Resolved Issues 10.06.170

Component Versions 10.06.170

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Workspace App	18.10.0.11
Citrix Workspace App	19.10.0.15
Citrix Workspace App	19.12.0.19
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.5
FabulaTech USB for Remote Desktop	5.2.29
Firefox	68.4.1
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64 Qualification in progress
deviceTRUST RDP Channel	19.1.200.2
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.5.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.38.0.13
Parallels Client (64 bit)	16.5.3.20735
Remote Viewer (RedHat Virtualization)	8.0-1igel49
Spice GTK (Red Hat Virtualization)	0.36-1~git20190601igel61
Usbredir (Red Hat Virtualization)	0.8.0-1igel49
Systancia AppliDis	4.0.0.17

ThinLinc Client	4.10.0-6068
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VMware Horizon Client	5.0.0-12557422
VNC Viewer	1.9.0+dfsg-3igel8
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech Driver	12.8.5

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.3.2

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
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Registry	`ica.module.virtualdriver.vdtui.enable`
Value	off / <u>on</u>

    - Updated **libwebkit2gtk-4.0-37** to version **2.26.1**. It is now possible to enable **debug output for Citrix Browser Content Redirection** by running the script `/config/bin/install-webkit-debug`. The debug output is written to `/var/log/user/webcontainer.debug`. **CAUTION**: **You can run only short sessions with enabled debug output** because a lot of debugging data is written to the log file.

Firefox

- Updated **Fluendo multimedia codecs** to the following versions:
  gst-fluendo-h264dec - 18/09/2019 0.10.54
  gst-fluendo-vadec - 16/10/2019 0.10.210

Imprivata

- **Usage of 500 MB for the Imprivata data partition** when **flash** is **bigger than 2 GB**.

OS 11 Upgrade

- Add parameter to **skip battery checking in OS 11 Upgrade**.
  More...

Parameter	Use at your own risk! Turns Battery safety check into warning only. Any unbootable systems are on you.
Registry	`update.battery_is_only_warning`
Value	enabled / <u>disabled</u>

IGEL Cloud Gateway

- Added **support for shadowing via ICG**.

Resolved Issues 10.06.170

Imprivata

- Fixed **race condition** that may lead to **unexpected behavior with RDP** connections.
- Fixed **VMware Horizon** session **disconnect**.
- Fixed **Lock-key** and **Tap-out behavior**.
- Fixed **MS RDSH** session.

VMware Horizon

- Fixed **sound in Horizon client 5.x** using **PCoIP** protocol.

Caradigm

- **Caradigm restart loops** fixed.

Base system

- Fixed potential temporary **settings loss** when **resuming from standby**.
- **Automatic firmware update** is **now checked after retrieval of UMS settings**.
- When there are any **non-applied changes in the network configuration**, the **network** will be **reconfigured before the firmware update** starts.
- Re-fixed broken **custom bootsplash** when doing a **reset to factory defaults via UMS**.

Smartcard

- Updated **SecMaker Net iD smartcard library** to version **6.8.1.31**. The changes are:
  More...

  - Support for **Gemalto IDPrime 940** and **3940**.
  - Support for new **VRK card** (IDEMIA IAS ECC, spec: FINEID S1 - FINEID S1 Electronic ID Application v4.0).
  - Support for **Aventra MyEID v4.0** (customer specific card profile with read support only).
  - Fixed problem with **detection of cards in Net iD Card Portal**.
  - Other fixes, see release notes at SecMaker.
- Fixed **smartcard user names displayed on login screen**: non-ASCII characters were not shown correctly before.
- Fixed **error message on login screen** shown when **smartcard PIN** is locked.
- Fixed handling of smartcards in **pcsc-lite: improved transaction locking**.
  A new parameter was introduced to control the new behavior (enabled by default):
  More...

Parameter	Abort stalled transactions
Registry	`scard.pcscd.abort_stalled_transactions`
Value	enabled / disabled

- Fixed IGEL Smartcard to be able to handle **VoIP client Ekiga sessions**.

Driver

- Updated **Philips Speech Driver** to version **12.8.5**.

- Updated **StepOver TCP Client** to version **2.3.2**.

CUPS Printing

- Updated **Printer Installer client** to version **25.1.0.303**.
- **Added** missing **CUPS model names** for some CUPS printers.

X11 system

- Fixed an issue with **modesetting driver** and **DisplayLink USB graphic adapters**.
- **Removed** registry key `x.drivers.glamor.use_dri3` as it is of no real use.
- **Updated Intel Xorg driver** to work fix issues with **DisplayLink USB adapters**.
- Fixed issue with **Wacom Signing Pads not being recognized as displays**.

X server

- Fix **HP Elitebook Display** issue **with HP Ultraslim Docking Station**.

Network

- Fixed issue when configuring **more then one NTP server**.
- Fixed **missing library with openconnect** feature.

OS 11 Upgrade

- Add special **warning when not connected to power line in upgrade boot**.

RDP/IGEL RDP Client 2

- Fixed **RDP Web Access Domain Visibility** not working correctly.

Remote Management

- Fixed broken **logon into Shared Workplace** on devices that are managed over **ICG**.
- Fixed **responding to requests searching** an available **buddy update server**.

VNC

- Fixed **sporadic connection failure in the VNC server**.

Notes for Release 10.06.130

Software:	Version	10.06.130
Release Date:	2019-09-09	
Release Notes:	Version	RN-106130-1
Last update:	2019-09-09	

- IGEL Linux Universal Desktop(see page 712)
- IGEL Universal Desktop OS 3(see page 725)

IGEL Linux Universal Desktop

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10
IGEL Zero:	
IZ2-RFX	
IZ2-HDX	
IZ2-HORIZON	
IZ3-RFX	
IZ3-HDX	
IZ3-HORIZON	

- Component Versions 10.06.130
- General Information 10.06.130
- Security Fixes 10.06.130
- Known Issues 10.06.130
- Resolved Issues 10.06.130

Component Versions 10.06.130

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Workspace App	19.3.0.5
Citrix Workspace App	19.6.0.60
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.5
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.9.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.5.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.38.0.13
Parallels Client (64 bit)	16.5.3.20735
Remote Viewer (RedHat Virtualization)	8.0-1igel49
Spice GTK (Red Hat Virtualization)	0.36-1~git20190601igel61
Usbredir (Red Hat Virtualization)	0.8.0-1igel49
Systancia AppliDis	4.0.0.17

ThinLinc Client	4.10.0-6068
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VMware Horizon Client	5.0.0-12557422
VNC Viewer	1.9.0+dfsg-3igel8
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech Driver	12.7.11

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.4.30-1igel3
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.0.8-1igel73
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190301-igel870
Graphics Driver ATI/RADEON	19.0.1-2igel890
Graphics Driver ATI/AMDGPU	19.0.1-4igel894
Graphics Driver VIA	5.76.52.92-opensource-009-005f78-20150730igel871
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.65 #mainline-ud-r2788
Xorg X11 Server	1.20.5-1igel914
Xorg Xephyr	1.20.5-1igel914
CUPS printing daemon	2.1.3-4ubuntu0.9igel27
PrinterLogic	18.2.1.128

Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel656
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.0-1igel214
WebKit2Gtk	2.24.2-0ubuntu0.19.04.1igel18
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20181030.92c5462-1igel5
Mobile Device Access USB (gphoto)	2.5.22-3igel1
VPN OpenConnect	7.08-1
Scanner support / SANE	1.0.27-1
VirtualBox	6.0.8-dfsg-4igel25

- **Features with Limited Functionality**

Cisco JVDI Client	12.1.0

General Information 10.06.130

The following clients and features are not supported anymore:

- Citrix Receiver 12.1 and 13.1 - 13.4;
- Citrix Access Gateway Standard Plug-in;
- Dell vWorkspace Connector for Linux;
- Ericom PowerTerm Emulation 9 and 11;
- Ericom Webconnect;
- IGEL Legacy RDP Client (rdesktop);
- Virtual Bridges VERDE Client;
- PPTP VPN Support;
- IGEL Upgrade License Tool with IGEL Smartcard Token;
- Remote Management by setup.ini file transfer (TFTP);
- Remote Access via RSH;
- Legacy Philips Speech Driver;
- T-Systems TCOS Smartcard Support;
- DUS Series touchscreens;
- Elo serial touchscreens;
- Video hardware acceleration support is discontinued on UD10-LX Touch 10 and UD10-LX 10;
- H.264 hardware acceleration support is discontinued on UD10-LX Touch 10 and UD10-LX 10;
- Java WebStart;
- Storage hotplug devices are not automatically removed anymore, instead they must always be ejected manually:
    - by a panel tray icon;
    - by an icon in the **In-Session Control Bar** (configurable under **IGEL Setup > User Interface > Desktop**);
    - by a **Safely Remove Hardware** session (configurable under **IGEL Setup > Accessories**).

The following clients and features are not available in this release:

- Cherry eGK Channel;
- Open VPN Smartcard Support;
- Asian Input Methods;
- Composite Manager.

Security Fixes 10.06.130

Firefox

- Updated **Mozilla Firefox** to version **60.9.0 ESR**.
  Including fixes from **Security Advisory 2019-27**:
  More...

  CVE-2019-11746, CVE-2019-11744, CVE-2019-11753, CVE-2019-11752, CVE-2019-9812, CVE-2019-11743, and CVE-2019-11740.

Known Issues 10.06.130

Citrix

- With activated DRI3 and AMD GPU, Citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. GStreamer 1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of Login.
  As a workaround, insert the smartcard before starting StoreFront login.
- Citrix **H.264 acceleration plugin** does not work with **enabled** server policy "Optimize for 3D graphics workload" in combination with server policy "Use video codec compression" > "For the entire screen".
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264 acceleration plugin**, the following registry key must be enabled:
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

VMware Horizon

- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory `/` media as a drive. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping** is switched off.
    In the IGEL Setup client, **drive mapping** can be found under **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable drive mapping**.
    It is also recommended to disable local **Storage Hotplug** under Setup **> Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, if you use **drive mapping** instead, it is recommended to either **switch off USB redirection entirely** or at least to **deny storage devices** by adding a filter to the USB class rules.
    Furthermore, Horizon Client relies on the OS to mount the storage device itself. Enable local **Storage Hotplug** under Setup **>Devices > Storage Devices > Storage Hotplug**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** one time with FIPS support disabled.

Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: **spice-xpi** Firefox plugin **is no longer supported**. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

Wi-Fi

- **TP-Link Archer T2UH Wi-Fi adapters** do not work after system suspend/resume. Workaround: Disable system suspend under **IGEL Setup > System > Power Options > Shutdown**.

Base system

- Due to the removal of the Oracle JRE, **Java WebStart** is **not supported** anymore.

Hardware

- **Suspend** on **UD10** is disabled.

Resolved Issues 10.06.130

RDP/IGEL RDP Client 2

- Fixed **RDP graphics** issues **with Windows 2008(R2) Server** (when **RemoteFX** is not enabled).
- Fixed some smaller **graphical RDP** issues **with Windows 2012 R2** if using **Clearcodec**.

Network

- Changed **minimally allowed MSS size** to '**750**' to avoid problems with some VPN solutions.
- Added a new registry key to be able to configure the **minimally allowed TCP MSS size**.
  A new registry key:
  More...

Parameter	Minimal TCP send MSS size
Registry	`system.sysctl.tcp_min_snd_mss`
Type	Integer
Value	<u>750</u>
Tooltip	Minimal TCP send MSS size (configurable value in the area from 200 to 1450)

OS 11 Upgrade

- Fixed **OS11 Upgrade failing** when IGEL Setup Assistant is auto started.

Base system

- Removed deprecated registry keys `system.idlecommand...` .

X11 system

- Fixed problem with **modesetting driver** and **2 x 2160x1440 monitors** in extended configuration.
- Added **a new registry key** to enable the **use of linear framebuffer for modesetting driver**.
  A new registry key:

Parameter	Use linear instead of tiled framebuffer
Registry	`x.drivers.modesetting.use_linear_framebuffer`
Range	[<u>Default</u>] [False] [True]
Value	"Default" (use linear framebuffer only in special cases)

- Added a new registry key to disable/enable the use of DRI3 with GLAMOR acceleration.
  A new registry key:

Parameter	Disable/Enable usage of DRI3 in GLAMOR acceleration
Registry	`x.drivers.glamor.use_dri3`
Range	[<u>Auto</u>] [False] [True]

Value	"Auto" (use no DRI3 functions for modesetting driver with only DRI2 active)

- Added **new registry keys** to be able **to configure some modesetting options** if needed. New registry keys:
  More...

Parameter	Use DRI3 PageFlip feature
Registry	`x.drivers.modesetting.use_page_flip`
Range	[Default] [False] [True]
Info	"Default" (normally use page flip feature)
Parameter	Use shadow framebuffer layer
Registry	`x.drivers.modesetting.use_shadow_fb`
Range	[Default] [False] [True]
Info	"Default" (normally use shadow framebuffer)
Parameter	Use double shadow framebuffer to improve VNC performance
Registry	`x.drivers.modesetting.use_double_shadow`
Range	[False] [True]
Parameter	Use software cursor for modesetting driver
Registry	`x.drivers.modesetting.use_sw_cursor`
Range	[Default] [False] [True]
Info	"Default" (normally false)
Parameter	Choose acceleration method
Registry	`x.drivers.modesetting.accel_method`
Range	[Default] [Glamor] [None]
Info	"Default" (normally Glamor is used)
Parameter	Force usage of DRI3 regardless of x.drivers.use_dri3 setting
Registry	`x.drivers.modesetting.force_dri3`
Type	Bool
Value	False

X server

- Fixed **Xorg freezes** if using **modesetting driver** and **video acceleration**.

Hardware

- Fixed **EFI freeze** problem **after bootcode update on** devices like the **HP t630** and probably others too.
- Added support for newer **Prolific PL2303 USB serial adapters**.

IGEL Universal Desktop OS 3

Supported Hardware:

https://kb.igel.com/udc3-supported-devices

- Component Versions 10.06.130
- General Information 10.06.130
- Security Fixes 10.06.130
- Known Issues 10.06.130
- New Features 10.06.130
- Resolved Issues 10.06.130

Component Versions 10.06.130

- **Clients**

Product	Version
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Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.5
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.9.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.5.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.38.0.13
Parallels Client (64 bit)	16.5.3.20735
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Usbredir (Red Hat Virtualization)	0.8.0-1igel49
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ThinPrint Client	7.5.88
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Parole Media Player	1.0.1-0ubuntu1igel18
VMware Horizon Client	5.0.0-12557422
VNC Viewer	1.9.0+dfsg-3igel8
Voip Client Ekiga	4.0.1

- **Dictation**

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PKCS#11 Library Gemalto SafeNet	10.0.37-0
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Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.4.30-1igel3
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.0.8-1igel73
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190301-igel870
Graphics Driver ATI/RADEON	19.0.1-2igel890
Graphics Driver ATI/AMDGPU	19.0.1-4igel894
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	390.116-0ubuntu0.18.10.1
Graphics Driver VIA	5.76.52.92-opensource-009-005f78-20150730igel871
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.1-1ubuntu1igel866
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Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.65 #mainline-udos-r2788
Xorg X11 Server	1.20.5-1igel914
Xorg Xephyr	1.20.5-1igel914
CUPS Printing Daemon	2.1.3-4ubuntu0.9igel27
PrinterLogic	18.2.1.128
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel656
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.0-1igel214
WebKit2Gtk	2.24.2-0ubuntu0.19.04.1igel18
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20181030.92c5462-1igel5
Mobile Device Access USB (gphoto)	2.5.22-3igel1
VPN OpenConnect	7.08-1
Scanner support / SANE	1.0.27-1
VirtualBox	6.0.8-dfsg-4igel25

- **Features with Limited Functionality**

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    - by a **Safely Remove Hardware** session (configurable under **IGEL Setup > Accessories**).

The following clients and features are not available in this release:

- Cherry eGK Channel;
- Open VPN Smartcard Support;
- Asian Input Methods;
- Composite Manager.

Security Fixes 10.06.130

Firefox

- Updated **Mozilla Firefox** to version **60.9.0 ESR**.
  Including fixes from **Security Advisory 2019-27**:
  More...

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  CVE-2019-9812, CVE-2019-11743, and CVE-2019-11740.

Known Issues 10.06.130

Citrix

- With activated DRI3 and AMD GPU, Citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. GStreamer 1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of Login.
  As a workaround, insert the smartcard before starting StoreFront login.
- Citrix **H.264 acceleration plugin** does not work with **enabled** server policy "Optimize for 3D graphics workload" in combination with server policy "Use video codec compression" > "For the entire screen".
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264 acceleration plugin**, the following registry key must be enabled:
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

VMware Horizon

- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory `/` media as a drive. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping** is switched off.
    In the IGEL Setup client, **drive mapping** can be found under **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable drive mapping**.
    It is also recommended to disable local **Storage Hotplug** under Setup **> Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, if you use **drive mapping** instead, it is recommended to either **switch off USB redirection entirely** or at least to **deny storage devices** by adding a filter to the USB class rules.
    Furthermore, Horizon Client relies on the OS to mount the storage device itself. Enable local **Storage Hotplug** under Setup **>Devices > Storage Devices > Storage Hotplug**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** one time with FIPS support disabled.

Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: **spice-xpi** Firefox plugin **is no longer supported**. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

Multimedia

- **Multimedia redirection with GStreamer** could fail with the **Nouveau GPU** driver.

Wi-Fi

- **TP-Link Archer T2UH Wi-Fi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend under **IGEL Setup > System > Power Options > Shutdown**.

Base system

- Due to the removal of the Oracle JRE, **Java WebStart** is **not supported** anymore.

New Features 10.06.130

Hardware

- Added basic support for **HP t510** devices.
- Re-added **VIA driver for HP t510** to OS firmware (only limited support; provided "as is", without the guarantee of correct functionality).

Resolved Issues 10.06.130

RDP/IGEL RDP Client 2

- Fixed **RDP graphics** issues **with Windows 2008(R2) Server** (when **RemoteFX** is not enabled).
- Fixed some smaller **graphical RDP** issues **with Windows 2012 R2** if using **Clearcodec**.

Network

- Changed **minimally allowed MSS size** to '**750**' to avoid problems with some VPN solutions.
- Added a new registry key to be able to configure the **minimally allowed TCP MSS size**.
  A new registry key:
  More...

Parameter	Minimal TCP send MSS size
Registry	`system.sysctl.tcp_min_snd_mss`
Type	Integer
Value	<u>750</u>
Tooltip	Minimal TCP send MSS size (configurable value in the area from 200 to 1450)

OS 11 Upgrade

- Fixed **OS11 Upgrade failing** when IGEL Setup Assistant is auto started.

Base system

- Removed deprecated registry keys `system.idlecommand...` .

X11 system

- Fixed problem with **modesetting driver** and **2 x 2160x1440 monitors** in extended configuration.
- Added **a new registry key** to enable the **use of linear framebuffer for modesetting driver**.
  A new registry key:

Parameter	Use linear instead of tiled framebuffer
Registry	`x.drivers.modesetting.use_linear_framebuffer`
Range	[<u>Default</u>] [False] [True]
Value	"Default" (use linear framebuffer only in special cases)

- Added a new registry key to disable/enable the use of DRI3 with GLAMOR acceleration.
  A new registry key:

Parameter	Disable/Enable usage of DRI3 in GLAMOR acceleration
Registry	`x.drivers.glamor.use_dri3`
Range	[<u>Auto</u>] [False] [True]

Value	"Auto" (use no DRI3 functions for modesetting driver with only DRI2 active)

- Added **new registry keys** to be able **to configure some modesetting options** if needed.
New registry keys:
More...

Parameter	Use DRI3 PageFlip feature
Registry	`x.drivers.modesetting.use_page_flip`
Range	[Default] [False] [True]
Info	"Default" (normally use page flip feature)
Parameter	Use shadow framebuffer layer
Registry	`x.drivers.modesetting.use_shadow_fb`
Range	[Default] [False] [True]
Info	"Default" (normally use shadow framebuffer)
Parameter	Use double shadow framebuffer to improve VNC performance
Registry	`x.drivers.modesetting.use_double_shadow`
Range	[False] [True]
Parameter	Use software cursor for modesetting driver
Registry	`x.drivers.modesetting.use_sw_cursor`
Range	[Default] [False] [True]
Info	"Default" (normally false)
Parameter	Choose acceleration method
Registry	`x.drivers.modesetting.accel_method`
Range	[Default] [Glamor] [None]
Info	"Default" (normally Glamor is used)
Parameter	Force usage of DRI3 regardless of x.drivers.use_dri3 setting
Registry	`x.drivers.modesetting.force_dri3`
Type	Bool
Value	False

X server

- Fixed **Xorg freezes** if using **modesetting driver** and **video acceleration**.

Hardware

- Fixed **EFI freeze** problem **after bootcode update on** devices like the **HP t630** and probably others too.
- Added support for newer **Prolific PL2303 USB serial adapters**.

Notes for Release 10.06.120

Software:	Version	10.06.120
Release Date:	2019-08-23	
Release Notes:	Version	RN-106120-1
Last update:	2019-08-23	

- IGEL Linux Universal Desktop(see page 738)
- IGEL Universal Desktop OS 3(see page 738)

IGEL Linux Universal Desktop

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10
IGEL Zero:	
IZ2-RFX	
IZ2-HDX	
IZ2-HORIZON	
IZ3-RFX	
IZ3-HDX	
IZ3-HORIZON	

Component Versions 10.06.120

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Workspace App	19.3.0.5
Citrix Workspace App	19.6.0.60
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.5
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.8.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.5.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.38.0.13
Parallels Client (64 bit)	16.5.3.20735
Remote Viewer (RedHat Virtualization)	8.0-1igel49
Spice GTK (Red Hat Virtualization)	0.36-1~git20190601igel61
Usbredir (Red Hat Virtualization)	0.8.0-1igel49
Systancia AppliDis	4.0.0.17

ThinLinc Client	4.10.0-6068
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VMware Horizon Client	5.0.0-12557422
VNC Viewer	1.9.0+dfsg-3igel8
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech Driver	12.7.11

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.4.30-1igel3
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.0.8-1igel73
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190301-igel870
Graphics Driver ATI/RADEON	19.0.1-2igel890
Graphics Driver ATI/AMDGPU	19.0.1-4igel894
Graphics Driver VIA	5.76.52.92-opensource-009-005f78-20150730igel871
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.65 #mainline-ud-r2782
Xorg X11 Server	1.20.5-1igel891
Xorg Xephyr	1.20.5-1igel891
CUPS printing daemon	2.1.3-4ubuntu0.9igel27
PrinterLogic	18.2.1.128

Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel656
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.0-1igel214
WebKit2Gtk	2.24.2-0ubuntu0.19.04.1igel18
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20181030.92c5462-1igel5
Mobile Device Access USB (gphoto)	2.5.22-3igel1
VPN OpenConnect	7.08-1
Scanner support / SANE	1.0.27-1
VirtualBox	6.0.8-dfsg-4igel25

- **Features with Limited Functionality**

Cisco JVDI Client	12.1.0

General Information 10.06.120

The following clients and features are not supported anymore:

- Citrix Receiver 12.1 and 13.1 - 13.4;
- Citrix Access Gateway Standard Plug-in;
- Dell vWorkspace Connector for Linux;
- Ericom PowerTerm Emulation 9 and 11;
- Ericom Webconnect;
- IGEL Legacy RDP Client (rdesktop);
- Virtual Bridges VERDE Client;
- PPTP VPN Support;
- IGEL Upgrade License Tool with IGEL Smartcard Token;
- Remote Management by setup.ini file transfer (TFTP);
- Remote Access via RSH;
- Legacy Philips Speech Driver;
- T-Systems TCOS Smartcard Support;
- DUS Series touch screens;
- Elo serial touchscreens;
- Video hardware acceleration support is discontinued on UD10-LX Touch 10 and UD10-LX 10;
- H.264 hardware acceleration support is discontinued on UD10-LX Touch 10 and UD10-LX 10;
- Java WebStart;
- Storage hotplug devices are not automatically removed anymore, instead they must always be ejected manually:
    - by panel tray icon;
    - by an icon in the **In-Session Control Bar** (configurable under **IGEL Setup > User Interface > Desktop**);
    - by a **Safely Remove Hardware** session (configurable under **IGEL Setup > Accessories**).

The following clients and features are not available in this release:

- Cherry eGK Channel;
- Open VPN Smartcard Support;
- Asian Input Methods;
- Composite Manager.

Security Fixes 10.06.120

Firefox

- Updated **Firefox** browser to version **60.8.0 ESR**.
- Fixed **mfsa2019-22** security issues:
  More...

  CVE-2019-9811, CVE-2019-11711, CVE-2019-11712, CVE-2019-11713,
  CVE-2019-11729, CVE-2019-11715, CVE-2019-11717, CVE-2019-11719,
  CVE-2019-11730 and CVE-2019-11709.

- Fixed **mfsa2019-19** security issue CVE-2019-11708.
- Fixed **mfsa2019-18** security issue CVE-2019-11707.
- Fixed **mfsa2019-08** security issues:
  More...

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,
  CVE-2019-9795, CVE-2019-9796, CVE-2018-18506 and CVE-2019-9788.

- Fixed **mfsa2019-05** security issues CVE-2018-18356 and CVE-2019-5785.
- Fixed **mfsa2019-02** security issues CVE-2018-18500, CVE-2018-18505 and CVE-2018-18501.

Shared Workplace

- Fixed **login in Shared Workplace** which accepts any user credentials in the 10.06.100 release. However, no user settings were applied to the device.

Base system

- Updated **kernel** to version **4.19.65**.
- Fixed security issue CVE-2019-1125 **aka Spectre SWAPGS gadget vulnerability**.
- Fixed a vulnerability in **Java configuration script**.
- Fixed possibly malicious **owner change** with TC setup configuration.
- Fixed **policykit-1** security issues CVE-2018-19788 and CVE-2019-6133.
- Fixed **NSS** security issues CVE-2018-18508, CVE-2018-12404, CVE-2018-12384 and CVE-2018-0495.
- Fixed **PPP** security issue CVE-2018-11574.
- Fixed **imagemagick** security issues.
  More...

  CVE-2018-16750, CVE-2018-16749, CVE-2018-16645, CVE-2018-16644,
  CVE-2018-16643, CVE-2018-16642, CVE-2018-16640, CVE-2018-16323,
  CVE-2018-14437, CVE-2018-14436, CVE-2018-14435, CVE-2018-14434,
  CVE-2017-13144, CVE-2017-12430, CVE-2019-9956, CVE-2019-7398,
  CVE-2019-7397, CVE-2019-7396, CVE-2019-7175, CVE-2019-11598,
  CVE-2019-11597, CVE-2019-11472, CVE-2019-11470, CVE-2019-10650,
  CVE-2019-10131, CVE-2018-20467, CVE-2018-18025, CVE-2018-18024,
  CVE-2018-18016, CVE-2018-17966, CVE-2018-17965, CVE-2018-16413,
  CVE-2018-16412, CVE-2017-12806, and CVE-2017-12805.

- Fixed **systemd** security issues.
  More...

CVE-2018-16866, CVE-2018-16865, CVE-2018-16864, CVE-2018-15688, CVE-2019-6454, CVE-2018-1049, CVE-2018-15686 and CVE-2019-3842.

- Fixed **CUPS** security issue CVE-2018-4700.
- Fixed **libarchive** security issues.
  More...

  CVE-2019-1000020, CVE-2019-1000019, CVE-2018-1000878, CVE-2018-1000877, and CVE-2017-14502.

- Fixed **avahi** security issues CVE-2018-1000845 and CVE-2017-6519.
- Fixed **bind9** security issues CVE-2019-6465, CVE-2018-5745, and CVE-2018-5743.
- Fixed **libcaca** security issues.
  More...

  CVE-2018-20549, CVE-2018-20548, CVE-2018-20547, CVE-2018-20546, CVE-2018-20545, and CVE-2018-20544.

- Fixed **libgd2** security issues CVE-2019-6978 and CVE-2019-6977.
- Fixed **ghostscript** security issues.
  More...

  CVE-2019-6116, CVE-2018-19477, CVE-2018-19476, CVE-2018-19475, CVE-2018-19409, CVE-2018-18284, CVE-2018-18073, CVE-2018-17961, CVE-2019-3838, and CVE-2019-3835.

- Fixed **krb5** security issues.
  More...

  CVE-2018-5730, CVE-2018-5729, CVE-2017-11462, CVE-2017-11368, CVE-2016-3120, and CVE-2016-3119.

- Fixed **texlive-bin** security issue CVE-2018-17407.
- Fixed **LDB** security issue CVE-2019-3824.
- Fixed **libmspack** security issues CVE-2018-18585 and CVE-2018-18584.
- Fixed **Perl** security issues CVE-2018-18314, CVE-2018-18313, CVE-2018-18312 and CVE-2018-18311.
- Fixed **poppler** security issues.
  More...

  CVE-2019-7310, CVE-2018-20650, CVE-2018-20551, CVE-2018-20481, CVE-2018-19149, CVE-2018-19060, CVE-2018-19059, CVE-2018-19058, CVE-2018-16646, and CVE-2019-9200.

- Fixed **Python 3.5** security issues CVE-2018-14647, CVE-2018-1061, CVE-2018-1060 and CVE-2018-106.
- Fixed **Net-SNMP** security issue CVE-2018-18065.
- Fixed **OpenSSL** security issues CVE-2019-1559, CVE-2018-5407 and CVE-2018-0734.
- Fixed **TIFF** security issues.
  More...

  CVE-2018-8905, CVE-2018-7456, CVE-2018-18661, CVE-2018-18557, CVE-2018-17101, CVE-2018-17100, CVE-2018-1710, CVE-2018-10963, CVE-2019-7663, CVE-2019-6128, CVE-2018-19210, CVE-2018-17000, CVE-2018-12900, and CVE-2018-10779.

- Fixed **libvncserver** security issues.
  More...

  CVE-2018-6307, CVE-2018-20750, CVE-2018-20749, CVE-2018-20748, CVE-2018-20024, CVE-2018-20023, CVE-2018-20022, CVE-2018-20021, CVE-2018-20020, CVE-2018-20019, CVE-2018-15127, and CVE-2018-15126.

- Fixed **WavPack** security issue CVE-2018-19840.
- Fixed **Samba** security issues.
  More...

  CVE-2018-16851, CVE-2018-16841, CVE-2018-14629, CVE-2019-3880, and CVE-2018-16860.

- Fixed **libxkbcommon** security issues.
  More...

  CVE-2018-15864, CVE-2018-15863, CVE-2018-15862, CVE-2018-15861, CVE-2018-15859, CVE-2018-15858, CVE-2018-15857, CVE-2018-15856, CVE-2018-15855, CVE-2018-15854, and CVE-2018-15853.

- Fixed **OpenSSH** security issues.
  More...

  CVE-2019-6111, CVE-2019-6109, CVE-2018-20685, CVE-2018-15473, and CVE-2016-10708.

- Fixed **Python 2.7** security issues.
  More...

  CVE-2018-14647, CVE-2018-1061, CVE-2018-1060, CVE-2018-106, CVE-2018-1000802, and CVE-2018-1000030.

- Fixed **lxml** security issue CVE-2018-19787.
- Fixed **gdk-pixbuf** security issues.
  More...

  CVE-2017-6314, CVE-2017-6313, CVE-2017-6312, CVE-2017-6311, CVE-2017-2870, CVE-2017-2862, CVE-2017-1000422, CVE-2016-6352, and CVE-2017-12447.

- Fixed **file** security issues CVE-2019-8907 and CVE-2019-8905.
- Fixed **wget** security issue CVE-2019-5953.
- Fixed **libxslt** security issue CVE-2019-11068.
- Fixed **Evince** security issue CVE-2019-11459.
- Fixed **webkit2gtk** security issues.
  More...

  CVE-2019-8595, CVE-2019-8607, CVE-2019-8615, CVE-2019-6251, CVE-2018-4373, CVE-2018-4375, CVE-2018-4376, CVE-2018-4378, CVE-2018-4382, CVE-2018-4392, CVE-2018-4416, CVE-2018-4345, CVE-2018-4386, and CVE-2018-4372.

- Fixed **gst-plugins-base0.10** security issue CVE-2019-9928.
- Fixed **WPA** security issues.
  More...

CVE-2019-9495, CVE-2019-9497, CVE-2019-9498,
CVE-2019-9499, and CVE-2019-11555.

- Fixed **Heimdal** security issues CVE-2019-12098 and CVE-2018-16860.
- Fixed **libimobiledevice** security issue CVE-2016-5104.
- Fixed **libpng1.6** security issues CVE-2019-7317 and CVE-2018-13785.
- Fixed **GIMP** security issues.
  More...

  CVE-2017-17786, CVE-2017-17789, CVE-2017-17784,
  CVE-2017-17787, CVE-2017-17785, and CVE-2017-17788

- Fixed **libtomcrypt** security issue CVE-2018-12437.
- Fixed **curl** security issues.
  More...

  CVE-2018-16840, CVE-2018-16839, CVE-2019-3823,
  CVE-2019-3822, CVE-2018-16890, CVE-2019-5346.

- Fixed **gnutls28** security issues CVE-2018-10846, CVE-2018-10845, CVE-2018-10844 and
  CVE-2018-1084.
- Fixed **qtbase-opensource-src** security issues CVE-2018-19873, CVE-2018-19870 and
  CVE-2018-15518.
- Fixed **db5.3** security issue CVE-2019-8457.
- Fixed **libssh2** security issues.
  More...

  CVE-2019-3863, CVE-2019-3862, CVE-2019-3861,
  CVE-2019-3860, CVE-2019-3859, CVE-2019-3858,
  CVE-2019-3857, CVE-2019-3856, and CVE-2019-3855.

- Fixed **network-manager** security issue CVE-2018-15688.
- Fixed **elfutils** security issues.
  More...

  CVE-2019-7665, CVE-2019-7150, CVE-2019-7149,
  CVE-2018-18521, CVE-2018-18520, CVE-2018-18310,
  CVE-2018-16403, CVE-2018-16402, and CVE-2018-16062.

- Fixed **libsndfile** security issues.
  More...

  CVE-2019-3832, CVE-2018-19758, CVE-2018-19662, CVE-2018-19661, CVE-2018-19432,
  CVE-2018-13139, CVE-2017-6892, CVE-2017-17457, CVE-2017-17456, CVE-2017-16942,
  CVE-2017-14634, CVE-2017-14246, and CVE-2017-14245.

- Fixed **dbus** security issue CVE-2019-12749.
- Fixed **Vim** security issues CVE-2019-12735 and CVE-2017-5953.
  Fixed **sqlite3** security issues.
  More...

  CVE-2019-9937, CVE-2019-9936, CVE-2019-8457, CVE-2018-20506,
  CVE-2018-20346, CVE-2017-2520, CVE-2017-2519, CVE-2017-2518,
  CVE-2017-13685, CVE-2017-10989, and CVE-2016-6153.

- Fixed **libseccomp** security issue CVE-2019-9893.
- Fixed **bzip2** security issues CVE-2019-12900 and CVE-2016-3189.
- Fixed **Expat** security issue CVE-2018-20843.
- Fixed **unzip** security issues CVE-2019-13232, CVE-2018-1000035, CVE-2016-9844 and CVE-2014-9913.
- **Mount partitions** with "**nodev**" flag option.
- The home directory of the remote users is now **/home/ruser**.
- Default **umask** is set to **0077** for all non-root users.
- Fixed a vulnerability in the **custom environment variable framework**.
- Fixed kernel **TCP** vulnerabilities CVE-2019-11477: **SACK Panic**, CVE-2019-11478: **SACK Slowness** and CVE-2019-11479: **Excess Resource Consumption Due to Low MSS Values**.
- Changed **minimally allowed MSS size** to "**1000**" to prevent possible denial-of-service attacks.

Known Issues 10.06.120

Citrix

- With activated DRI3 and AMD GPU, Citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. GStreamer 1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of Login.
  As a workaround, insert the smartcard before starting StoreFront login.
- Citrix **H.264 acceleration plugin** does not work with **enabled** server policy "Optimize for 3D graphics workload" in combination with server policy "Use video codec compression" > "For the entire screen".
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264 acceleration plugin**, the following registry key must be enabled:
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

VMware Horizon

- **Sound redirection in PCoIP** is broken when the so-called lightweight-client is used, which has become the new default.
  But Sound redirection can still be used by choosing the rollback-client instead. This can be done by setting the IGEL Registry key:
  More...

Parameter	Allow rollback to former client variant
Registry	`vmware.view.allow-client-rollback`
Value	enabled / <u>disabled</u>

- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory `/` media as a drive. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.

- On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping** is switched off. In the IGEL Setup client, **drive mapping** can be found under **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable drive mapping**. It is also recommended to disable local **Storage Hotplug** under Setup **> Devices > Storage Devices > Storage Hotplug**.
- On the other hand, if you use **drive mapping** instead, it is recommended to either **switch off USB redirection entirely** or at least to **deny storage devices** by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage device itself. Enable local **Storage Hotplug** under Setup **>Devices > Storage Devices > Storage Hotplug**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** one time with FIPS support disabled.

Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi Firefox plugin is no longer supported. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

Wi-Fi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume. Workaround: Disable system suspend under **IGEL Setup > System > Power Options > Shutdown**.

Base system

- Due to the removal of the Oracle JRE, **Java WebStart** is **not supported** anymore.

Hardware

- **Suspend** on **UD10** is disabled.

New Features 10.06.120

Citrix

- Integrated **Citrix Workspace** app **19.06**.
  Available Citrix Workspace apps in this release: 19.06, 19.03 and 13.10.

Resolved Issues 10.06.120

VMware Horizon

- Fixed: **Client connection** to the remote desktop **using PCoIP protocol** failed occasionally.

OS 11 Upgrade

- Fixed major **upgrade** problem **with Intel network drivers**.
- Make OS 11 Upgrade **VPN detection more lenient** to allow blocked upgrade on some devices with integrated mobile broadband modem.

Base system

- Fixed **ActiveDirectory/Kerberos password change** with "Change Password" accessory for users who are members of many (~300+) AD groups.

Bluetooth

- Fixed not working **bluetooth for** some **Intel Wi-Fi cards**.

Remote Management

- Fixed: **UMS jobs** have not been executed when delivered at the next system boot.
- Fixed **automatic registering in the UMS** using DNS entry or DHCP tag.

Caradigm

- Updated firmware **7.3.3 of RFIDeas pcProx readers**.

IGEL Universal Desktop OS 3

Supported Hardware:

https://kb.igel.com/igelos/en/devices-supported-by-udc3-and-ud-pocket-3117174.html

Component Versions 10.06.120

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Workspace App	19.3.0.5
Citrix Workspace App	19.6.0.60
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.5
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.8.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.5.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.38.0.13
Parallels Client (64 bit)	16.5.3.20735
Remote Viewer (RedHat Virtualization)	8.0-1igel49
Spice GTK (Red Hat Virtualization)	0.36-1~git20190601igel61
Usbredir (Red Hat Virtualization)	0.8.0-1igel49
Systancia AppliDis	4.0.0.17

ThinLinc Client	4.10.0-6068
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VMware Horizon Client	5.0.0-12557422
VNC Viewer	1.9.0+dfsg-3igel8
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech Driver	12.7.11

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.4.30-1igel3
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.0.8-1igel73
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190301-igel870
Graphics Driver ATI/RADEON	19.0.1-2igel890
Graphics Driver ATI/AMDGPU	19.0.1-4igel894
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	390.116-0ubuntu0.18.10.1
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.65 #mainline-udos-r2782

Xorg X11 Server	1.20.5-1igel891
Xorg Xephyr	1.20.5-1igel891
CUPS printing daemon	2.1.3-4ubuntu0.9igel27
PrinterLogic	18.2.1.128
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel656
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.0-1igel214
WebKit2Gtk	2.24.2-0ubuntu0.19.04.1igel18
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20181030.92c5462-1igel5
Mobile Device Access USB (gphoto)	2.5.22-3igel1
VPN OpenConnect	7.08-1
Scanner support / SANE	1.0.27-1
VirtualBox	6.0.8-dfsg-4igel25

- **Features with Limited Functionality**

Cisco JVDI Client	12.1.0

General Information 10.06.120

The following clients and features are not supported anymore:

- Citrix Receiver 12.1 and 13.1 - 13.4;
- Citrix Access Gateway Standard Plug-in;
- Dell vWorkspace Connector for Linux;
- Ericom PowerTerm Emulation 9 and 11;
- Ericom Webconnect;
- IGEL Legacy RDP Client (rdesktop);
- Virtual Bridges VERDE Client;
- PPTP VPN Support;
- IGEL Upgrade License Tool with IGEL Smartcard Token;
- Remote Management by `setup.ini` file transfer (TFTP);
- Remote Access via RSH;
- Legacy Philips Speech Driver;
- T-Systems TCOS Smartcard Support;
- DUS Series touch screens;
- Elo serial touchscreens;
- VIA Graphics support;
- Java WebStart;
- Storage hotplug devices are not automatically removed anymore, instead they must be always ejected manually:
    - by panel tray icon;
    - by an icon in the **In-Session Control Bar** (configurable under **IGEL Setup > User Interface > Desktop**);
    - by a **Safely Remove Hardware** session (configurable under **IGEL Setup > Accessories**).

The following clients and features are not available in this release:

- Cherry eGK Channel;
- Open VPN Smartcard Support;
- Asian Input Methods;
- Composite Manager.

Security Fixes 10.06.120

Firefox

- Updated **Firefox** browser to version **60.8.0 ESR**.
- Fixed **mfsa2019-22** security issues:
  More...

  CVE-2019-9811, CVE-2019-11711, CVE-2019-11712, CVE-2019-11713,
  CVE-2019-11729, CVE-2019-11715, CVE-2019-11717, CVE-2019-11719,
  CVE-2019-11730 and CVE-2019-11709.

- Fixed **mfsa2019-19** security issue CVE-2019-11708.
- Fixed **mfsa2019-18** security issue CVE-2019-11707.
- Fixed **mfsa2019-08** security issues:
  More...

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,
  CVE-2019-9795, CVE-2019-9796, CVE-2018-18506 and CVE-2019-9788.

- Fixed **mfsa2019-05** security issues CVE-2018-18356 and CVE-2019-5785.
- Fixed **mfsa2019-02** security issues CVE-2018-18500, CVE-2018-18505 and CVE-2018-18501.

Shared Workplace

- Fixed **login in Shared Workplace** which accepts any user credentials in the 10.06.100 release.
  However, no user settings were applied to the device.

Base system

- Updated **kernel** to version **4.19.65**.
- Fixed security issue CVE-2019-1125 **aka Spectre SWAPGS gadget vulnerability**.
- Fixed a vulnerability in **Java configuration script**.
- Fixed possibly malicious **owner change** with TC setup configuration.
- Fixed **policykit-1** security issues CVE-2018-19788 and CVE-2019-6133.
- Fixed **NSS** security issues CVE-2018-18508, CVE-2018-12404, CVE-2018-12384 and CVE-2018-0495.
- Fixed **PPP** security issue CVE-2018-11574.
- Fixed **imagemagick** security issues.
  More...

  CVE-2018-16750, CVE-2018-16749, CVE-2018-16645, CVE-2018-16644,
  CVE-2018-16643, CVE-2018-16642, CVE-2018-16640, CVE-2018-16323,
  CVE-2018-14437, CVE-2018-14436, CVE-2018-14435, CVE-2018-14434,
  CVE-2017-13144, CVE-2017-12430, CVE-2019-9956, CVE-2019-7398,
  CVE-2019-7397, CVE-2019-7396, CVE-2019-7175, CVE-2019-11598,
  CVE-2019-11597, CVE-2019-11472, CVE-2019-11470, CVE-2019-10650,
  CVE-2019-10131, CVE-2018-20467, CVE-2018-18025, CVE-2018-18024,
  CVE-2018-18016, CVE-2018-17966, CVE-2018-17965, CVE-2018-16413,
  CVE-2018-16412, CVE-2017-12806, and CVE-2017-12805.

- Fixed **systemd** security issues.
  More...

CVE-2018-16866, CVE-2018-16865, CVE-2018-16864, CVE-2018-15688, CVE-2019-6454, CVE-2018-1049, CVE-2018-15686 and CVE-2019-3842.

- Fixed **CUPS** security issue CVE-2018-4700.
- Fixed **libarchive** security issues.
  More...

  CVE-2019-1000020, CVE-2019-1000019, CVE-2018-1000878, CVE-2018-1000877, and CVE-2017-14502.

- Fixed **avahi** security issues CVE-2018-1000845 and CVE-2017-6519.
- Fixed **bind9** security issues CVE-2019-6465, CVE-2018-5745, and CVE-2018-5743.
- Fixed **libcaca** security issues.
  More...

  CVE-2018-20549, CVE-2018-20548, CVE-2018-20547, CVE-2018-20546, CVE-2018-20545, and CVE-2018-20544.

- Fixed **libgd2** security issues CVE-2019-6978 and CVE-2019-6977.
- Fixed **ghostscript** security issues.
  More...

  CVE-2019-6116, CVE-2018-19477, CVE-2018-19476, CVE-2018-19475, CVE-2018-19409, CVE-2018-18284, CVE-2018-18073, CVE-2018-17961, CVE-2019-3838, and CVE-2019-3835.

- Fixed **krb5** security issues.
  More...

  CVE-2018-5730, CVE-2018-5729, CVE-2017-11462, CVE-2017-11368, CVE-2016-3120, and CVE-2016-3119.

- Fixed **texlive-bin** security issue CVE-2018-17407.
- Fixed **LDB** security issue CVE-2019-3824.
- Fixed **libmspack** security issues CVE-2018-18585 and CVE-2018-18584.
- Fixed **Perl** security issues CVE-2018-18314, CVE-2018-18313, CVE-2018-18312 and CVE-2018-18311.
- Fixed **poppler** security issues.
  More...

  CVE-2019-7310, CVE-2018-20650, CVE-2018-20551, CVE-2018-20481, CVE-2018-19149, CVE-2018-19060, CVE-2018-19059, CVE-2018-19058, CVE-2018-16646, and CVE-2019-9200.

- Fixed **Python 3.5** security issues CVE-2018-14647, CVE-2018-1061, CVE-2018-1060 and CVE-2018-106.
- Fixed **Net-SNMP** security issue CVE-2018-18065.
- Fixed **OpenSSL** security issues CVE-2019-1559, CVE-2018-5407 and CVE-2018-0734.
- Fixed **TIFF** security issues.
  More...

  CVE-2018-8905, CVE-2018-7456, CVE-2018-18661, CVE-2018-18557, CVE-2018-17101, CVE-2018-17100, CVE-2018-1710, CVE-2018-10963, CVE-2019-7663, CVE-2019-6128, CVE-2018-19210, CVE-2018-17000, CVE-2018-12900, and CVE-2018-10779.

- Fixed **libvncserver** security issues.
  More...

  CVE-2018-6307, CVE-2018-20750, CVE-2018-20749, CVE-2018-20748,
  CVE-2018-20024, CVE-2018-20023, CVE-2018-20022, CVE-2018-20021,
  CVE-2018-20020, CVE-2018-20019, CVE-2018-15127, and CVE-2018-15126.

- Fixed **WavPack** security issue CVE-2018-19840.
- Fixed **Samba** security issues.
  More...

  CVE-2018-16851, CVE-2018-16841, CVE-2018-14629,
  CVE-2019-3880, and CVE-2018-16860.

- Fixed **libxkbcommon** security issues.
  More...

  CVE-2018-15864, CVE-2018-15863, CVE-2018-15862, CVE-2018-15861,
  CVE-2018-15859, CVE-2018-15858, CVE-2018-15857, CVE-2018-15856,
  CVE-2018-15855, CVE-2018-15854, and CVE-2018-15853.

- Fixed **OpenSSH** security issues.
  More...

  CVE-2019-6111, CVE-2019-6109, CVE-2018-20685,
  CVE-2018-15473, and CVE-2016-10708.

- Fixed **Python 2.7** security issues.
  More...

  CVE-2018-14647, CVE-2018-1061, CVE-2018-1060,
  CVE-2018-106, CVE-2018-1000802, and CVE-2018-1000030.

- Fixed **lxml** security issue CVE-2018-19787.
- Fixed **gdk-pixbuf** security issues.
  More...

  CVE-2017-6314, CVE-2017-6313, CVE-2017-6312,
  CVE-2017-6311, CVE-2017-2870, CVE-2017-2862,
  CVE-2017-1000422, CVE-2016-6352, and CVE-2017-12447.

- Fixed **file** security issues CVE-2019-8907 and CVE-2019-8905.
- Fixed **wget** security issue CVE-2019-5953.
- Fixed **nvidia-graphic-drivers-390** security issue CVE-2018-6260.
- Fixed **libxslt** security issue CVE-2019-11068.
- Fixed **Evince** security issue CVE-2019-11459.
- Fixed **webkit2gtk** security issues.
  More...

  CVE-2019-8595, CVE-2019-8607, CVE-2019-8615, CVE-2019-6251,
  CVE-2018-4373, CVE-2018-4375, CVE-2018-4376, CVE-2018-4378,
  CVE-2018-4382, CVE-2018-4392, CVE-2018-4416, CVE-2018-4345,
  CVE-2018-4386, and CVE-2018-4372.

- Fixed **gst-plugins-base0.10** security issue CVE-2019-9928.
- Fixed **WPA** security issues.

More...

CVE-2019-9495, CVE-2019-9497, CVE-2019-9498,
CVE-2019-9499, and CVE-2019-11555.

- Fixed **Heimdal** security issues CVE-2019-12098 and CVE-2018-16860.
- Fixed **libimobiledevice** security issue CVE-2016-5104.
- Fixed **libpng1.6** security issues CVE-2019-7317 and CVE-2018-13785.
- Fixed **GIMP** security issues.
  More...

  CVE-2017-17786, CVE-2017-17789, CVE-2017-17784,
  CVE-2017-17787, CVE-2017-17785, and CVE-2017-17788

- Fixed **libtomcrypt** security issue CVE-2018-12437.
- Fixed **curl** security issues.
  More...

  CVE-2018-16840, CVE-2018-16839, CVE-2019-3823,
  CVE-2019-3822, CVE-2018-16890, CVE-2019-5346.

- Fixed **gnutls28** security issues CVE-2018-10846, CVE-2018-10845, CVE-2018-10844 and
  CVE-2018-1084.
- Fixed **qtbase-opensource-src** security issues CVE-2018-19873, CVE-2018-19870 and
  CVE-2018-15518.
- Fixed **db5.3** security issue CVE-2019-8457.
- Fixed **libssh2** security issues.
  More...

  CVE-2019-3863, CVE-2019-3862, CVE-2019-3861,
  CVE-2019-3860, CVE-2019-3859, CVE-2019-3858,
  CVE-2019-3857, CVE-2019-3856, and CVE-2019-3855.

- Fixed **network-manager** security issue CVE-2018-15688.
- Fixed **elfutils** security issues.
  More...

  CVE-2019-7665, CVE-2019-7150, CVE-2019-7149,
  CVE-2018-18521, CVE-2018-18520, CVE-2018-18310,
  CVE-2018-16403, CVE-2018-16402, and CVE-2018-16062.

- Fixed **libsndfile** security issues.
  More...

  CVE-2019-3832, CVE-2018-19758, CVE-2018-19662, CVE-2018-19661, CVE-2018-19432,
  CVE-2018-13139, CVE-2017-6892, CVE-2017-17457, CVE-2017-17456, CVE-2017-16942,
  CVE-2017-14634, CVE-2017-14246, and CVE-2017-14245.

- Fixed **dbus** security issue CVE-2019-12749.
- Fixed **Vim** security issues CVE-2019-12735 and CVE-2017-5953.
  Fixed **sqlite3** security issues.
  More...

CVE-2019-9937, CVE-2019-9936, CVE-2019-8457, CVE-2018-20506, CVE-2018-20346, CVE-2017-2520, CVE-2017-2519, CVE-2017-2518, CVE-2017-13685, CVE-2017-10989, and CVE-2016-6153.

- Fixed **libseccomp** security issue CVE-2019-9893.
- Fixed **bzip2** security issues CVE-2019-12900 and CVE-2016-3189.
- Fixed **Expat** security issue CVE-2018-20843.
- Fixed **unzip** security issues CVE-2019-13232, CVE-2018-1000035, CVE-2016-9844 and CVE-2014-9913.
- **Mount partitions** with "**nodev**" flag option.
- The home directory of the remote users is now **/home/ruser**.
- Default **umask** is set to **0077** for all non-root users.
- Fixed a vulnerability in the **custom environment variable framework**.
- Fixed kernel **TCP** vulnerabilities CVE-2019-11477: **SACK Panic**, CVE-2019-11478: **SACK Slowness** and CVE-2019-11479: **Excess Resource Consumption Due to Low MSS Values**.
- Changed **minimally allowed MSS size** to "**1000**" to prevent possible denial-of-service attacks.

Known Issues 10.06.120

Citrix

- With activated DRI3 and AMD GPU, Citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. GStreamer 1.0 is used if browser content redirection is active.
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Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi Firefox plugin is no longer supported. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

Multimedia

- **Multimedia redirection with GStreamer** could fail with the Nouveau GPU driver.

Wi-Fi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend under **IGEL Setup > System > Power Options > Shutdown**.

Base system

- Due to the removal of the Oracle JRE, **Java WebStart** is **not supported** anymore.

New Features 10.06.120

Citrix

- Integrated **Citrix Workspace** app **19.06**.
Available Citrix Workspace apps in this release: 19.06, 19.03, and 13.10.

Resolved Issues 10.06.120

VMware Horizon

- Fixed: **Client connection** to the remote desktop **using PCoIP protocol** failed occasionally.

OS 11 Upgrade

- Fixed **UD Pocket upgrade proces**s with Wi-Fi connection.
- Fixed major **upgrade** problem **with Intel network drivers**.
- Make OS 11 Upgrade **VPN detection more lenient** to allow blocked upgrade on some devices with integrated mobile broadband modem.

Base system

- Fixed **ActiveDirectory/Kerberos password change** with "Change Password" accessory for users who are members of many (~300+) AD groups.

Bluetooth

- Fixed not working **bluetooth for** some **Intel Wi-Fi cards**.

Remote Management

- Fixed: **UMS jobs** have not been executed when delivered at next system boot.
- Fixed **automatic registering in the UMS** using DNS entry or DHCP tag.

Caradigm

- Updated firmware **7.3.3 of RFIDeas pcProx readers**.

Notes for Release 10.06.110

Software:	Version	10.06.110
Release Date:	2019-07-24	
Release Notes:	Version	RN-106110-1
Last update:	2019-07-24	

- IGEL Linux Universal Desktop(see page 769)
- IGEL Universal Desktop OS 3(see page 769)

IGEL Linux Universal Desktop

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10
IGEL Zero:	
IZ2-RFX	
IZ2-HDX	
IZ2-HORIZON	
IZ3-RFX	
IZ3-HDX	
IZ3-HORIZON	

Component Versions 10.06.110

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	19.3.0.5
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.5
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.8.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.5.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.38.0.13
Parallels Client (64 bit)	16.5.3.20735
Remote Viewer (RedHat Virtualization)	8.0-1igel49
Spice GTK (Red Hat Virtualization)	0.36-1~git20190601igel61
Usbredir (Red Hat Virtualization)	0.8.0-1igel49
Systancia AppliDis	4.0.0.17

ThinLinc Client	4.10.0-6068
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VMware Horizon Client	5.0.0-12557422
VNC Viewer	1.9.0+dfsg-3igel8
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech Driver	12.7.11

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.4.30-1igel3
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.0.8-1igel73
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190301-igel870
Graphics Driver ATI/RADEON	19.0.1-2igel890
Graphics Driver ATI/AMDGPU	19.0.1-4igel894
Graphics Driver VIA	5.76.52.92-opensource-009-005f78-20150730igel871
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.57 #mainline-ud-r2762
Xorg X11 Server	1.20.5-1igel891
Xorg Xephyr	1.20.5-1igel891
CUPS printing daemon	2.1.3-4ubuntu0.9igel27
PrinterLogic	18.2.1.128

Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel656
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.0-1igel214
WebKit2Gtk	2.24.2-0ubuntu0.19.04.1igel18
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20181030.92c5462-1igel5
Mobile Device Access USB (gphoto)	2.5.22-3igel1
VPN OpenConnect	7.08-1
Scanner support / SANE	1.0.27-1
VirtualBox	6.0.8-dfsg-4igel25

- **Features with Limited Functionality**

Cisco JVDI Client	12.1.0

General Information 10.06.110

The following clients and features are not supported anymore:

- Citrix Receiver 12.1 and 13.1 - 13.4;
- Citrix Access Gateway Standard Plug-in;
- Dell vWorkspace Connector for Linux;
- Ericom PowerTerm Emulation 9 and 11;
- Ericom Webconnect;
- IGEL Legacy RDP Client (rdesktop);
- Virtual Bridges VERDE Client;
- PPTP VPN Support;
- IGEL Upgrade License Tool with IGEL Smartcard Token;
- Remote Management by setup.ini file transfer (TFTP);
- Remote Access via RSH;
- Legacy Philips Speech Driver;
- T-Systems TCOS Smartcard Support;
- DUS Series touch screens;
- Elo serial touchscreens;
- Video hardware acceleration support is discontinued on UD10-LX Touch 10 and UD10-LX 10;
- H.264 hardware acceleration support is discontinued on UD10-LX Touch 10 and UD10-LX 10;
- Java WebStart;
- Storage hotplug devices are not automatically removed anymore, instead they must be always ejected manually:
    - by panel tray icon;
    - by an icon in the **In-Session Control Bar** (configurable under **IGEL Setup > User Interface > Desktop**);
    - by a **Safely Remove Hardware** session (configurable under **IGEL Setup > Accessories**).

The following clients and features are not available in this release:

- Cherry eGK Channel;
- Open VPN Smartcard Support;
- Asian Input Methods;
- Composite Manager.

Known Issues 10.06.110

Citrix

- With activated DRI3 and AMD GPU, Citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. GStreamer 1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of Login.
  As a workaround, insert the smartcard before starting StoreFront login.
- Citrix **H.264 acceleration plugin** does not work with **enabled** server policy "Optimize for 3D graphics workload" in combination with server policy "Use video codec compression" > "For the entire screen".
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264 acceleration plugin**, the following registry key must be enabled:
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Range	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

VMware Horizon

- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory `/` media as a drive. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping** is switched off.
    In the IGEL Setup client, **drive mapping** can be found under **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable drive mapping**.
    It is also recommended to disable local **Storage Hotplug** under Setup **> Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, if you use **drive mapping** instead, it is recommended to either **switch off USB redirection entirely** or at least to **deny storage devices** by adding a filter to the USB class rules.
    Furthermore, Horizon Client relies on the OS to mount the storage device itself. Enable local **Storage Hotplug** under Setup **>Devices > Storage Devices > Storage Hotplug**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** one time with FIPS support disabled.

Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi Firefox plugin is no longer supported. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

WiFi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend under **IGEL Setup > System > Power Options > Shutdown**.

Base system

- Due to the removal of the Oracle JRE, **Java WebStart** is **not supported** anymore.

Hardware

- **Suspend** on **UD10** is disabled.

Security Fixes 10.06.110

Firefox

- Updated **Firefox** browser to version **60.8.0 ESR**.
- Fixed **mfsa2019-22** security issues:
  More…

  CVE-2019-9811, CVE-2019-11711, CVE-2019-11712, CVE-2019-11713,
  CVE-2019-11729, CVE-2019-11715, CVE-2019-11717, CVE-2019-11719,
  CVE-2019-11730 and CVE-2019-11709.

- Fixed **mfsa2019-19** security issue CVE-2019-11708.
- Fixed **mfsa2019-18** security issue CVE-2019-11707.
- Fixed **mfsa2019-08** security issues:
  More…

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,
  CVE-2019-9795, CVE-2019-9796, CVE-2018-18506 and CVE-2019-9788.

- Fixed **mfsa2019-05** security issues CVE-2018-18356 and CVE-2019-5785.
- Fixed **mfsa2019-02** security issues CVE-2018-18500, CVE-2018-18505 and CVE-2018-18501.

Shared Workplace

- Fixed **login in Shared Workplace** which accepts any user credentials in the 10.06.100 release.
  However, no user settings were applied to the device.

New Features 10.06.110

Base system

- Replaced **timesyncd** with **chrony NTP**.
  A new registry key:
  More...

Parameter	Use NTP Servers from DNS SRV record
Registry	`system.time.ntp_use_dnssrv_timeservers`
Value	enabled / disabled

Evidian

- Integrated **Evidian AuthMgr** version **1.5.7116**.

Hardware

- Hardware support for **HP EliteBook 840 G3**.

Resolved Issues 10.06.110

Base system

- Fixed **NTP synchronization** problems with changing the NTP client from **timesyncd** to **chrony**.
- Fixed **USB printer aliases**.

X11 system

- Fixed **screen corruption with DPMS** and enabled **composite manager**.
- Added consideration of **hardware limits** for choosing **automatic resolution in Xorg config** (currently only for IGEL hardware).

Hardware

- Fixed **black screen** issue with some monitors and 2560x1440 resolution (occurred on **UD2 LX50**).

Caradigm

- Updated **RF IDeas** reader tool for the usage with Caradigm.

IGEL Universal Desktop OS 3

Supported Hardware:

https://kb.igel.com/igelos/en/devices-supported-by-udc3-and-ud-pocket-3117174.html

Component Versions 10.06.110

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
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Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.7116
Evince PDF Viewer	3.18.2-1ubuntu4.5
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.8.0
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.5.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.38.0.13
Parallels Client (64 bit)	16.5.3.20735
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Systancia AppliDis	4.0.0.17

ThinLinc Client	4.10.0-6068
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VMware Horizon Client	5.0.0-12557422
VNC Viewer	1.9.0+dfsg-3igel8
Voip Client Ekiga	4.0.1

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PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.4.30-1igel3
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.0.8-1igel73
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VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190301-igel870
Graphics Driver ATI/RADEON	19.0.1-2igel890
Graphics Driver ATI/AMDGPU	19.0.1-4igel894
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	390.116-0ubuntu0.18.10.1
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
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Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
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CUPS printing daemon	2.1.3-4ubuntu0.9igel27
PrinterLogic	18.2.1.128
Lightdm graphical login manager	1.18.3-0ubuntu1.1
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ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.0-1igel214
WebKit2Gtk	2.24.2-0ubuntu0.19.04.1igel18
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

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    Furthermore, Horizon Client relies on the OS to mount the storage device itself. Enable local **Storage Hotplug** under Setup **>Devices > Storage Devices > Storage Hotplug**.

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- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** one time with FIPS support disabled.

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- In seldom cases, the authentication hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi Firefox plugin is no longer supported. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

Multimedia

- **Multimedia redirection with GStreamer** could fail with the Nouveau GPU driver.

WiFi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume. Workaround: Disable system suspend under **IGEL Setup > System > Power Options > Shutdown**.

Base system

- Due to the removal of the Oracle JRE, **Java WebStart** is **not supported** anymore.

Security Fixes 10.06.110

Firefox

- Updated **Firefox** browser to version **60.8.0 ESR**.
- Fixed **mfsa2019-22** security issues:
  More...

  CVE-2019-9811, CVE-2019-11711, CVE-2019-11712, CVE-2019-11713,
  CVE-2019-11729, CVE-2019-11715, CVE-2019-11717, CVE-2019-11719,
  CVE-2019-11730 and CVE-2019-11709.

- Fixed **mfsa2019-19** security issue CVE-2019-11708.
- Fixed **mfsa2019-18** security issue CVE-2019-11707.
- Fixed **mfsa2019-08** security issues:
  More...

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,
  CVE-2019-9795, CVE-2019-9796, CVE-2018-18506 and CVE-2019-9788.

- Fixed **mfsa2019-05** security issues CVE-2018-18356 and CVE-2019-5785.
- Fixed **mfsa2019-02** security issues CVE-2018-18500, CVE-2018-18505 and CVE-2018-18501.

Shared Workplace

- Fixed **login in Shared Workplace** which accepts any user credentials in the 10.06.100 release.
  However, no user settings were applied to the device.

New Features 10.06.110

Base system

- Replaced **timesyncd** with **chrony NTP**.
  A new registry key:
  More...

Parameter	Use NTP Servers from DNS SRV record
Registry	`system.time.ntp_use_dnssrv_timeservers`
Value	<u>enabled</u> / disabled

Evidian

- Integrated **Evidian AuthMgr** version **1.5.7116**.

Hardware

- Hardware support for **HP EliteBook 840 G3**.

Resolved Issues 10.06.110

Base system

- Fixed **NTP synchronization** problems with changing the NTP client from **timesyncd** to **chrony**.
- Fixed **USB printer aliases**.

X11 system

- Fixed **screen corruption with DPMS** and enabled **composite manager**.

Hardware

- Fixed **black screen** issue with some monitors and 2560x1440 resolution on Intel GPUs.

Caradigm

- Updated **RF IDeas** reader tool for the usage with Caradigm.

Notes for Release 10.06.100

Software:	Version	10.06.100
Release Date:	2019-07-16	
Release Notes:	Version	RN-106100-1
Last update:	2019-07-16	

- IGEL Linux Universal Desktop
- IGEL Universal Desktop OS 3

IGEL Linux Universal Desktop

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10
IGEL Zero:	
IZ2-RFX	
IZ2-HDX	
IZ2-HORIZON	
IZ3-RFX	
IZ3-HDX	
IZ3-HORIZON	

Component Versions 10.06.100

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	19.3.0.5
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	2.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.5
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.7.2
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.5.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.38.0.13
Parallels Client (64 bit)	16.5.3.20735
Remote Viewer (RedHat Virtualization)	8.0-1igel49
Spice GTK (Red Hat Virtualization)	0.36-1~git20190601igel61
Usbredir (Red Hat Virtualization)	0.8.0-1igel49
Systancia AppliDis	4.0.0.17

ThinLinc Client	4.10.0-6068
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VMware Horizon Client	5.0.0-12557422
VNC Viewer	1.9.0+dfsg-3igel8
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech Driver	12.7.11

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.4.30-1igel3
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.0.8-1igel73
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190301-igel870
Graphics Driver ATI/RADEON	19.0.1-2igel890
Graphics Driver ATI/AMDGPU	19.0.1-4igel894
Graphics Driver VIA	5.76.52.92-opensource-009-005f78-20150730igel871
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.57 #mainline-ud-r2762
Xorg X11 Server	1.20.5-1igel891
Xorg Xephyr	1.20.5-1igel891
CUPS printing daemon	2.1.3-4ubuntu0.9igel27

PrinterLogic	18.2.1.128
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel656
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.0-1igel214
WebKit2Gtk	2.24.2-0ubuntu0.19.04.1igel18
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20181030.92c5462-1igel5
Mobile Device Access USB (gphoto)	2.5.22-3igel1
VPN OpenConnect	7.08-1
Scanner support / SANE	1.0.27-1
VirtualBox	6.0.8-dfsg-4igel25

- **Features with Limited Functionality**

Cisco JVDI Client	12.1.0

General Information 10.06.100

The following clients and features are not supported anymore:

- Citrix Receiver 12.1 and 13.1 - 13.4;
- Citrix Access Gateway Standard Plug-in;
- Dell vWorkspace Connector for Linux;
- Ericom PowerTerm Emulation 9 and 11;
- Ericom Webconnect;
- IGEL Legacy RDP Client (rdesktop);
- Virtual Bridges VERDE Client;
- PPTP VPN Support;
- IGEL Upgrade License Tool with IGEL Smartcard Token;
- Remote Management by setup.ini file transfer (TFTP);
- Remote Access via RSH;
- Legacy Philips Speech Driver;
- T-Systems TCOS Smartcard Support;
- DUS Series touch screens;
- Elo serial touchscreens;
- Video hardware acceleration support is discontinued on UD10-LX Touch 10 and UD10-LX 10;
- H.264 hardware acceleration support is discontinued on UD10-LX Touch 10 and UD10-LX 10;
- Java WebStart;
- Storage hotplug devices are not automatically removed anymore, instead they must be always ejected manually:
    - by panel tray icon;
    - by an icon in the **In-Session Control Bar** (configurable under **IGEL Setup > User Interface > Desktop**);
    - by a **Safely Remove Hardware** session (configurable under **IGEL Setup > Accessories**).

The following clients and features are not available in this release:

- Cherry eGK Channel;
- Open VPN Smartcard Support;
- Asian Input Methods;
- Composite Manager.

Security Fixes 10.06.100

Firefox

- Updated Mozilla **Firefox** to version **60.7.2 ESR**.
- Fixed **mfsa2019-19** security issue CVE-2019-11708.
- Fixed **mfsa2019-18** security issue CVE-2019-11707.
- Fixed **mfsa2019-10** security issues CVE-2019-9810 and CVE-2019-9813.
- Fixed **mfsa2019-08** security issues.
  More...

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,
  CVE-2019-9795, CVE-2019-9796, CVE-2018-18506, CVE-2019-9788.

- Fixed **mfsa2019-05** security issues CVE-2018-18356 and CVE-2019-5785.
- Fixed **mfsa2019-02** security issues CVE-2018-18500, CVE-2018-18505 and CVE-2018-18501.
- Fixed **mfsa2018-30** security issues.
  More...

  CVE-2018-17466, CVE-2018-18492, CVE-2018-18493,
  CVE-2018-18494, CVE-2018-18498, CVE-2018-12405.

- Allow Firefox to access YubiKey (FIDO/U2F) when AppArmor is active.

Base system

- Fixed a vulnerability in **Java configuration script**.
- Fixed possibly malicious **owner change** with TC setup configuration.
- Fixed **policykit-1** security issues CVE-2018-19788 and CVE-2019-6133.
- Fixed **NSS** security issues CVE-2018-18508, CVE-2018-12404, CVE-2018-12384 and CVE-2018-0495.
- Fixed **PPP** security issue CVE-2018-11574.
- Fixed **imagemagick** security issues.
  More...

  CVE-2018-16750, CVE-2018-16749, CVE-2018-16645, CVE-2018-16644,
  CVE-2018-16643, CVE-2018-16642, CVE-2018-16640, CVE-2018-16323,
  CVE-2018-14437, CVE-2018-14436, CVE-2018-14435, CVE-2018-14434,
  CVE-2017-13144, CVE-2017-12430, CVE-2019-9956, CVE-2019-7398,
  CVE-2019-7397, CVE-2019-7396, CVE-2019-7175, CVE-2019-11598,
  CVE-2019-11597, CVE-2019-11472, CVE-2019-11470, CVE-2019-10650,
  CVE-2019-10131, CVE-2018-20467, CVE-2018-18025, CVE-2018-18024,
  CVE-2018-18016, CVE-2018-17966, CVE-2018-17965, CVE-2018-16413,
  CVE-2018-16412, CVE-2017-12806, and CVE-2017-12805.

- Fixed **systemd** security issues.
  More...

  CVE-2018-16866, CVE-2018-16865, CVE-2018-16864, CVE-2018-15688,
  CVE-2019-6454, CVE-2018-1049, CVE-2018-15686 and CVE-2019-3842.

- Fixed **CUPS** security issue CVE-2018-4700.
- Fixed **libarchive** security issues.
  More...

CVE-2019-1000020, CVE-2019-1000019, CVE-2018-1000878,
CVE-2018-1000877, and CVE-2017-14502.

- Fixed **Avahi** security issues CVE-2018-1000845 and CVE-2017-6519.
- Fixed **bind9** security issues CVE-2019-6465, CVE-2018-5745, and CVE-2018-5743.
- Fixed **libcaca** security issues.
  More...

  CVE-2018-20549, CVE-2018-20548, CVE-2018-20547,
  CVE-2018-20546, CVE-2018-20545, and CVE-2018-20544.

- Fixed **libgd2** security issues CVE-2019-6978 and CVE-2019-6977.
- Fixed **ghostscript** security issues.
  More...

  CVE-2019-6116, CVE-2018-19477, CVE-2018-19476, CVE-2018-19475,
  CVE-2018-19409, CVE-2018-18284, CVE-2018-18073, CVE-2018-17961,
  CVE-2019-3838, and CVE-2019-3835.

- Fixed **krb5** security issues.
  More...

  CVE-2018-5730, CVE-2018-5729, CVE-2017-11462,
  CVE-2017-11368, CVE-2016-3120, and CVE-2016-3119.

- Fixed **texlive-bin** security issue CVE-2018-17407.
- Fixed **LDB** security issue CVE-2019-3824.
- Fixed **libmspack** security issues CVE-2018-18585 and CVE-2018-18584.
- Fixed **Perl** security issues CVE-2018-18314, CVE-2018-18313, CVE-2018-18312 and CVE-2018-18311.
- Fixed **poppler** security issues.
  More...

  CVE-2019-7310, CVE-2018-20650, CVE-2018-20551, CVE-2018-20481,
  CVE-2018-19149, CVE-2018-19060, CVE-2018-19059, CVE-2018-19058,
  CVE-2018-16646, and CVE-2019-9200.

- Fixed **Python 3.5** security issues CVE-2018-14647, CVE-2018-1061, CVE-2018-1060 and
  CVE-2018-106.
- Fixed **Net-SNMP** security issue CVE-2018-18065.
- Fixed **OpenSSL** security issues CVE-2019-1559, CVE-2018-5407 and CVE-2018-0734.
- Fixed **TIFF** security issues.
  More...

  CVE-2018-8905, CVE-2018-7456, CVE-2018-18661, CVE-2018-18557,
  CVE-2018-17101, CVE-2018-17100, CVE-2018-1710, CVE-2018-10963,
  CVE-2019-7663, CVE-2019-6128, CVE-2018-19210, CVE-2018-17000,
  CVE-2018-12900, and CVE-2018-10779.

- Fixed **libvncserver** security issues.
  More...

  CVE-2018-6307, CVE-2018-20750, CVE-2018-20749, CVE-2018-20748,
  CVE-2018-20024, CVE-2018-20023, CVE-2018-20022, CVE-2018-20021,
  CVE-2018-20020, CVE-2018-20019, CVE-2018-15127, and CVE-2018-15126.

- Fixed **WavPack** security issue CVE-2018-19840.
- Fixed **Samba** security issues.
  More...

  CVE-2018-16851, CVE-2018-16841, CVE-2018-14629,
  CVE-2019-3880, and CVE-2018-16860.

- Fixed **libxkbcommon** security issues.
  More...

  CVE-2018-15864, CVE-2018-15863, CVE-2018-15862, CVE-2018-15861,
  CVE-2018-15859, CVE-2018-15858, CVE-2018-15857, CVE-2018-15856,
  CVE-2018-15855, CVE-2018-15854, and CVE-2018-15853.

- Fixed **OpenSSH** security issues.
  More...

  CVE-2019-6111, CVE-2019-6109, CVE-2018-20685,
  CVE-2018-15473, and CVE-2016-10708.

- Fixed **Python 2.7** security issues.
  More...

  CVE-2018-14647, CVE-2018-1061, CVE-2018-1060,
  CVE-2018-106, CVE-2018-1000802, and CVE-2018-1000030.

- Fixed **lxml** security issue CVE-2018-19787.
- Fixed **gdk-pixbuf** security issues.
  More...

  CVE-2017-6314, CVE-2017-6313, CVE-2017-6312,
  CVE-2017-6311, CVE-2017-2870, CVE-2017-2862,
  CVE-2017-1000422, CVE-2016-6352, and CVE-2017-12447.

- Fixed **file** security issues CVE-2019-8907 and CVE-2019-8905.
- Fixed **wget** security issue CVE-2019-5953.
- Fixed **libxslt** security issue CVE-2019-11068.
- Fixed **Evince** security issue CVE-2019-11459.
- Fixed **webkit2gtk** security issues.
  More...

  CVE-2019-8595, CVE-2019-8607, CVE-2019-8615, CVE-2019-6251,
  CVE-2018-4373, CVE-2018-4375, CVE-2018-4376, CVE-2018-4378,
  CVE-2018-4382, CVE-2018-4392, CVE-2018-4416, CVE-2018-4345,
  CVE-2018-4386, and CVE-2018-4372.

- Fixed **gst-plugins-base0.10** security issue CVE-2019-9928.
- Fixed **WPA** security issues.
  More...

  CVE-2019-9495, CVE-2019-9497, CVE-2019-9498,
  CVE-2019-9499, and CVE-2019-11555.

- Fixed **Heimdal** security issues CVE-2019-12098 and CVE-2018-16860.
- Fixed **libimobiledevice** security issue CVE-2016-5104.
- Fixed **libpng1.6** security issues CVE-2019-7317 and CVE-2018-13785.

- Fixed **GIMP** security issues.
  More...

  CVE-2017-17786, CVE-2017-17789, CVE-2017-17784,
  CVE-2017-17787, CVE-2017-17785, and CVE-2017-17788

- Fixed **libtomcrypt** security issue CVE-2018-12437.
- Fixed **curl** security issues.
  More...

  CVE-2018-16840, CVE-2018-16839, CVE-2019-3823,
  CVE-2019-3822, CVE-2018-16890, CVE-2019-5346.

- Fixed **gnutls28** security issues CVE-2018-10846, CVE-2018-10845, CVE-2018-10844 and
  CVE-2018-1084.
- Fixed **qtbase-opensource-src** security issues CVE-2018-19873, CVE-2018-19870 and
  CVE-2018-15518.
- Fixed **db5.3** security issue CVE-2019-8457.
- Fixed **libssh2** security issues.
  More...

  CVE-2019-3863, CVE-2019-3862, CVE-2019-3861,
  CVE-2019-3860, CVE-2019-3859, CVE-2019-3858,
  CVE-2019-3857, CVE-2019-3856, and CVE-2019-3855.

- Fixed **network-manager** security issue CVE-2018-15688.
- Fixed **elfutils** security issues.
  More...

  CVE-2019-7665, CVE-2019-7150, CVE-2019-7149,
  CVE-2018-18521, CVE-2018-18520, CVE-2018-18310,
  CVE-2018-16403, CVE-2018-16402, and CVE-2018-16062.

- Fixed **libsndfile** security issues.
  More...

  CVE-2019-3832, CVE-2018-19758, CVE-2018-19662, CVE-2018-19661, CVE-2018-19432,
  CVE-2018-13139, CVE-2017-6892, CVE-2017-17457, CVE-2017-17456, CVE-2017-16942,
  CVE-2017-14634, CVE-2017-14246, and CVE-2017-14245.

- Fixed **dbus** security issue CVE-2019-12749.
- Fixed **Vim** security issues CVE-2019-12735 and CVE-2017-5953.
  Fixed **sqlite3** security issues.
  More...

  CVE-2019-9937, CVE-2019-9936, CVE-2019-8457, CVE-2018-20506,
  CVE-2018-20346, CVE-2017-2520, CVE-2017-2519, CVE-2017-2518,
  CVE-2017-13685, CVE-2017-10989, and CVE-2016-6153.

- Fixed **libseccomp** security issue CVE-2019-9893.
- Fixed **bzip2** security issues CVE-2019-12900 and CVE-2016-3189.
- Fixed **Expat** security issue CVE-2018-20843.
- Fixed **unzip** security issues CVE-2019-13232, CVE-2018-1000035, CVE-2016-9844 and
  CVE-2014-9913.
- **Mount partitions** with "**nodev**" flag option.

- The home directory of the remote users is now **/home/ruser**.
- Default **umask** is set to **0077** for all non-root users.
- Fixed a vulnerability in the **custom environment variable framework**.
- Fixed kernel **TCP** vulnerabilities CVE-2019-11477: **SACK Panic**, CVE-2019-11478: **SACK Slowness** and CVE-2019-11479: **Excess Resource Consumption Due to Low MSS Values**.
- Changed **minimally allowed MSS size** to "**1000**" to prevent possible denial-of-service attacks.

Known Issues 10.06.100

Citrix

- With activated DRI3 and AMD GPU, Citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. GStreamer 1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of Login.
  As a workaround, insert the smartcard before starting StoreFront login.
- Citrix **H.264 acceleration plugin** does not work with **enabled** server policy "Optimize for 3D graphics workload" in combination with server policy "Use video codec compression" > "For the entire screen".
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264 acceleration plugin**, the following registry key must be enabled:
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Range	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

VMware Horizon

- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory `/` media as a drive. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping** is switched off.
    In the IGEL Setup client, **drive mapping** can be found under **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable drive mapping**.
    It is also recommended to disable local **Storage Hotplug** under Setup **> Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, if you use **drive mapping** instead, it is recommended to either **switch off USB redirection entirely** or at least to **deny storage devices** by adding a filter to the USB class rules.
    Furthermore, Horizon Client relies on the OS to mount the storage device itself. Enable local **Storage Hotplug** under Setup **>Devices > Storage Devices > Storage Hotplug**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode** it is necessary to connect to the **Parallels RAS** one time with FIPS support disabled.

Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi Firefox plugin is no longer supported. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

WiFi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume. Workaround: Disable system suspend under **IGEL Setup > System > Power Options > Shutdown**.

Base system

- Due to the removal of the Oracle JRE, **Java WebStart** is **not supported** anymore.

Hardware

- **Suspend** on **UD10** is disabled.

New Features 10.06.100

OS 11 Upgrade

- It is now possible to **upgrade to IGEL OS 11**. For more information, see the how-to Upgrading IGEL Devices from IGEL OS 10 to IGEL OS 11.
  The **parameters for the upgrade**:
  More...

IGEL Setup > System > Update > OS 11 Upgrade	
Parameter	Upgrade to OS 11
Registry	`update.firmware_migrate_to_11`
Value	enabled / <u>disabled</u>
Parameter	Upgrade to OS 11 even if a previous upgrade attempt failed
Registry	`update.force_firmware_migrate_to_11`
Value	enabled / <u>disabled</u>
Parameter	Upgrade to OS 11 even if PowerTerm is enabled
Registry	`update.migrate_to_11_with_powerterm`
Value	enabled / <u>disabled</u>
Parameter	Require an Enterprise Management Pack license to upgrade to OS 11
Registry	`update.migrate_to_11_enterprise_required`
Range	[<u>Smart</u>] [Always] [Never]
Parameter	Timeout waiting for OS 11 license to start automatic upgrade
Registry	`update.migrate_to_11_license_timeout`
Range	[Disabled] [<u>10 Minutes</u>] [15 Minutes] [30 Minutes] [60 Minutes]

The parameters for configuring the **desktop integration** of the **IGEL OS 11 Upgrade tool** are:
More...

IGEL Setup > Accessories > OS 11 Upgrade	
Registry	`sessions.os11_migration0.startmenu`
Value	enabled / <u>disabled</u>
Registry	`sessions.os11_migration0.applaunch`
Value	enabled / <u>disabled</u>

Registry	`sessions.os11_migration0.startmenu_system`
Value	<u>enabled</u> / disabled
Registry	`sessions.os11_migration0.applaunch_system`
Value	<u>enabled</u> / disabled
Registry	`sessions.os11_migration0.menu_path`
Registry	`sessions.os11_migration0.desktop_path`
Registry	`sessions.os11_migration0.applaunch_path`
Registry	`sessions.os11_migration0.quick_start`
Value	enabled / <u>disabled</u>
Registry	`sessions.os11_migration0.pwprotected`
Range	[<u>None</u>] [Administrator] [User] [Setup user]
Registry	`sessions.os11_migration0.desktop`
Value	enabled / <u>disabled</u>
Registry	`sessions.os11_migration0.pulldown`
Value	enabled / <u>disabled</u>

Citrix

- Integrated **Citrix Workspace app 19.03**.
- Added a new registry key to support **1536-bit RSA keys for client authentication**. Factory default for this release is "true".
  More...

Parameter	Enables RSA 1536 cipher suite
Registry	`ica.allregions.enable_rsa_1536`
Range	<u>factory default</u> / false / true

- Added a new **registry key** to enable **different cipher suites**. Factory default for this release is "ALL".
  More...

Parameter	Enables different cipher suite
Registry	`ica.allregions.sslciphers`
Range	<u>factory default</u> / ALL / GOV / COM

> TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 – GOV/ALL
> TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 – GOV/ALL
> TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA – COM/ALL

- Added a new **registry key** to support **keyboard layout synchronization**.
  More...

Parameter	Keyboard layout synchronization
Registry	`ica.modules.virtualdriver.keyboardsync.enable`
Value	<u>disabled</u> / enabled

- Updated **Citrix HDX RTME** used for optimization of Skype for Business to version **2.8.0-2235**.
- Added support for **Citrix Workspace Launcher** functionality as described at https://support.citrix.com/article/CTX237727.
- Added a Citrix plugin for **hardware accelerated VDPAU based H.264 decoding** on AMD graphics chipsets:
  More...

Parameter	Enable HW accelerated H264 vdpau codec (experimental)
Registry	`ica.hw-accelerated-h264-vdpau-codec`
Value	enabled/ <u>disabled</u>

RDP/IGEL RDP Client 2

- Added a field '**Collection**' to RDP session server page.
  More...

IGEL Setup > Sessions > RDP > RDP Sessions > RDP Session > Server	
IGEL Setup > Sessions > RDP > RDP Sessions > RDP Session > Options	
Parameter	Collection
Registry	`sessions.winconnect<NR>.option.load-balance-info`

VMware Horizon

- Updated **Horizon Client** to version **5.0.0-12557422**.
- Added parameters to specify **webcam frame size** and **rate for RTAV**.
  More...

Parameter	Webcam frame width
Registry	`vmware.view.rtav-frame-width`
Value	<u><empty_string></u>
Parameter	Webcam frame height
Registry	`vmware.view.rtav-frame-height`

Value	<u><empty_string></u>
Parameter	Webcam frame rate
Registry	`vmware.view.rtav-frame-rate`
Value	<u><empty_string></u>

- Added a possibility to easily evaluate **Horizon Blast decoder states**. By default, sessions are evaluated after use and the result is written to the journal log.
- Added **continuous run mode** for USB-Arbitrator.
  More...

Parameter	USB-Arbitrator continuous run mode
Registry	`vmware.view.usb.arbitrator-continuous-runmode`
Value	<u>enabled</u> / disabled

- Added **recognition for password change** and **password expired dialog** in Horizon local logon sessions or appliance mode.
- Added **switch for Blast H.264 decoding** for VMware Horizon Client.
  More...

Parameter	Blast H.264 decoding
Registry	`vmware.view.blast-h264`
Value	<u>enabled</u> / disabled

- Added **switch to use systemwide proxy** in VMware Horizon appliance mode.
  More...

Parameter	Use the systemwide proxy
Registry	`vmwarevdmapp.use_proxy`
Value	<u>enabled</u> / disabled

Parallels Client

- Updated **Parallels Client** to version **16.5.3 (64-Bit)**.
- Added a possibility to set apps to **autostart on Parallels RAS**.

ThinLinc

- Updated **Cendio ThinLinc** to version **4.10**.

RedHat Enterprise Virtualization Client.

- Updated **Remote Viewer** (RedHat Virtualization) to version **8.0**.
- Updated **Spice GTK** (RedHat Virtualization) to version **0.36**.

IBM_5250

- Updated **IBM iAccess Client** Solutions to version **1.1.8.1**.
- **Improved startup time** of IBM iAccess Client.

- **Improved configuration** of IBM iAccess Client **via IGEL Setup**.
  More…

Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Connection > Advanced
Parameter	Bypass signon
Registry	`sessions.iaccess<NR>.options.ssoenabled`
Value	enabled / <u>disabled</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Font
Parameter	Antialiasing
Registry	`sessions.iaccess<NR>.options.textantialiasing`
Value	enabled / <u>disabled</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Allow blinking cursor
Registry	`sessions.iaccess<NR>.options.blinkcursor`
Value	enabled / <u>disabled</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Show blinking text with
Registry	`sessions.iaccess<NR>.options.blinkstate`
Value	[Blinking Text] [<u>Host Color</u>] [Mapped Color]
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Blink Color
Registry	`sessions.iaccess<NR>.options.blinkcolor_fg`
Value	<u>#ffc800</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Blink Color Background
Registry	`sessions.iaccess<NR>.options.blinkcolor_bg`

Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Rule Line
Registry	`sessions.iaccess<NR>.options.ruleline`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Follow Cursor
Registry	`sessions.iaccess<NR>.options.rulelinefollows`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Style
Registry	`sessions.iaccess<NR>.options.rulelinestyle`
Value	[Crosshair] [Vertical] [Horizontal]
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Green
Registry	`sessions.iaccess<NR>.options.color_fgn_fg`
Value	#00ff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Green Background
Registry	`sessions.iaccess<NR>.options.color_fgn_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	White
Registry	`sessions.iaccess<NR>.options.color_fwt_fg`

Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	White Background
Registry	sessions.iaccess<NR>.options.color_fwt_bg
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Red
Registry	sessions.iaccess<NR>.options.color_frd_fg
Value	#ff0000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Red Background
Registry	sessions.iaccess<NR>.options.color_frd_bg
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Turquoise
Registry	sessions.iaccess<NR>.options.color_ftq_fg
Value	#00ffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Turquoise Background
Registry	sessions.iaccess<NR>.options.color_ftq_bg
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Yellow
Registry	sessions.iaccess<NR>.options.color_fyw_fg

Value	#ffff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Yellow Background
Registry	sessions.iaccess<NR>.options.color_fyw_bg
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Pink
Registry	sessions.iaccess<NR>.options.color_fpk_fg
Value	#ff00ff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Pink Background
Registry	sessions.iaccess<NR>.options.color_fpk_bg
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Blue
Registry	sessions.iaccess<NR>.options.color_fbl_fg
Value	#7890f0
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Blue Background
Registry	sessions.iaccess<NR>.options.color_fbl_bg
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Status Indicators
Registry	sessions.iaccess<NR>.options.color_osi

Value	#7890f0
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Information Indicators
Registry	`sessions.iaccess<NR>.options.color_oii`
Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Attention Indicators
Registry	`sessions.iaccess<NR>.options.color_oai`
Value	#ffff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Error Indicators
Registry	`sessions.iaccess<NR>.options.color_oei`
Value	#ff0000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	OIA Background
Registry	`sessions.iaccess<NR>.options.color_oob`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Screen Background
Registry	`sessions.iaccess<NR>.options.color_sbg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Highlight active field
Registry	`sessions.iaccess<NR>.options.actfieldhilite`

Value	enabled / <u>disabled</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Active Field
Registry	`sessions.iaccess<NR>.options.color_actf_fg`
Value	<u>#000000</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Active Field Background
Registry	`sessions.iaccess<NR>.options.color_actf_bg`
Value	<u>#ffff00</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Crosshair Ruler Color
Registry	`sessions.iaccess<NR>.options.color_crc`
Value	<u>#00ff00</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Column Separator
Registry	`sessions.iaccess<NR>.options.color_ccs`
Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences
Parameter	Start window maximized
Registry	`sessions.iaccess<NR>.options.ismaximized`
Value	enabled / <u>disabled</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Keyboard
Parameter	Keyboard Remapping File
Registry	`sessions.iaccess<NR>.options.keyremapfile`

Value	IBMi.kmp
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Popup Keypad
Parameter	Popup Keypad File
Registry	`sessions.iaccess<NR>.options.poppadfile`
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Toolbar
Parameter	Toolbar File
Registry	`sessions.iaccess<NR>.options.toolbarfile`
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Open new sessions in a new tab
Registry	`ibm.iaccess.acssm.opensessionintab`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Always display the tab bar
Registry	`ibm.iaccess.acssm.alwaysshowtabbar`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Switch to new tab when created
Registry	`ibm.iaccess.acssm.switchtonewtab`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Send a warning when closing multiple tabs
Registry	`ibm.iaccess.acssm.closemultipletabwarning`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Do not start tabbed sessions until the tab is selected
Registry	`ibm.iaccess.acssm.tabdelayedstart`
Value	enabled / disabled

Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	New Tab Action
Registry	`ibm.iaccess.acssm.newtabaction`
Value	[Disable and Hide] [Run the Same] [Run Other...]
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Tab Placement
Registry	`ibm.iaccess.acssm.tabplacement`
Value	[Top] [Bottom] [Left] [Right]

Firefox

- Updated **Mozilla Firefox** to version **60.7.2 ESR**.
- Added new keys to **auto show and hide the on-screen software keyboard**. To use this feature, the keyboard should be set to autostart. After a restart is is activated, the keyboard will appear automatically when an input box is selected. Confirmed to work in Firefox and on lockscreen. **More...**

Parameter	Automatically hide software keyboard depending on focused widget
Registry	`userinterface.softkeyboard.autohide`
Value	enabled / disabled
Parameter	Automatically show software keyboard depending on focused widget
Registry	`userinterface.softkeyboard.autoshow`
Value	enabled / disabled

- Added new parameters: **Allow a custom command before and after browser session**. **More...**

Parameter	init_action
Registry	`sessions.browser%.init_action`
Value	<empty_string>
Parameter	final_action
Registry	`sessions.browser%.final_action`
Value	<empty_string>

- Added options to customize Firefox overflow menu and hide navigation buttons. **More...**

Parameter	Hide Navigation buttons
Registry	`sessions.browser<NR>.app.navigation_buttons_hidden`
Value	enabled / <u>disabled</u>
Parameter	Overflow Menu
Registry	`sessions.browser<NR>.app.custom_toolbar.overflow-menu`
Value	<u>open-file-button,feed-button,characterencoding-button</u>

Imprivata

- **Imprivata Appliance 6.3** or higher is needed now.
- Added a new parameter to Imprivata.conf: "**Redirection of Smartcards**".
  More...

IGEL Setup > Sessions > Appliance Mode > Imprivata	
Parameter	Redirection of Smartcards
Registry	`imprivata.native_smartcard_redirection`
Value	enabled / <u>disabled</u>

- Added a new parameter: "**Path to Certificate**".
  More...

IGEL Setup > Sessions > Appliance Mode > Imprivata	
Parameter	Path to Certificate
Registry	`imprivata.path_to_certificate`

Network

- Added **NCP Secure Enterprise VPN Client** version **5.10_rev40552** (configurable under **IGEL Setup > Network > VPN > NCP VPN Client**).
- Added a new feature: **Network status icons** are **shown on the lock and logon screens**.
- Added a mechanism for **retrieving the SCEP challenge password with a custom script.** Setting the following registry key to "true" enables the use of the script. The registry key `network.scepclient.cert%.crypt_password` will be ignored. (The script may use it for its own purpose though.)
  More...

Parameter	Use Challenge Password Command
Registry	`network.scepclient.cert%.use_challenge_password_command`
Value	enabled / <u>disabled</u>

If the above key is enabled, the value of this key will be passed to bash for execution. It happens when the SCEP challenge password is needed for creating a certificate signing request. The script

is supposed to output the challenge password on its standard output. For convenience, any Carriage-Return characters are stripped off the script before execution by bash.
More...

Parameter	Challenge Password Command
Registry	`network.scepclient.cert%.challenge_password_command`
Value	<u><empty_string></u>

Wi-Fi

- Added support for **Realtek 8821CE wireless cards**.
- Added switch to determine **the source of WiFi scan results for Wireless Manager**. Selecting default is currently identical with the old mechanism (using the iwlist command). This may change in the future. When iwlist fails, NetworkManager is automatically used as a fallback.
  More...

Parameter	WiFi Scanner
Registry	`network.interfaces.wirelesslan.device0.mssid_scanner`
Range	[<u>default</u>][iwlist][NetworkManager]

Smartcard

- New **IGEL Smartcard** mode **without Locking Desktop** (reintroduced feature of Linux 5.x firmware).
  More...

IGEL Setup > Security > Logon > IGEL Smartcard	
Parameter	Enable IGEL Smartcard without Locking Desktop
Registry	`scard.scardd.enable_nolock`
Value	enabled / <u>disabled</u>
IGEL Setup > Security > Logon > IGEL Smartcard	
Parameter	On Smartcard Removal, terminate
Registry	`scard.scardd.session_termination`
Value	<u>all</u> / smartcard

- Updated **MUSCLE CCID** smartcard reader driver to version **1.4.30**.
- Updated **ACS CCID** smartcard driver to version **1.1.6**.
- Updated **REINER SCT** smartcard reader driver to version **3.99.5final.sp13**.
- Updated **SecMaker NetID** to version **6.7.2.36**: now **YubiKey 5** is supported.
- Updated **cryptovision sc/interface PKCS#11** smartcard library to version **7.1.20**.
- Added configuration parameters for some settings of **smartcard library OpenSC**.
  More...

Parameter	Debug level
Registry	`scard.pkcs11.opensc.default.debug`
Value	<u>0</u>
Parameter	Debug file
Registry	`scard.pkcs11.opensc.default.debug_file`
Value	<u>stderr</u>
Parameter	Max. send size
Registry	`scard.pkcs11.opensc.default.pcsc.max_send_size`
Value	<u>255</u>
Parameter	Max. receive size
Registry	`scard.pkcs11.opensc.default.pcsc.max_recv_size`
Value	<u>256</u>
Parameter	Connect exclusive
Registry	`scard.pkcs11.opensc.default.pcsc.connect_exclusive`
Value	enabled / <u>disabled</u>
Parameter	Disconnect action
Registry	`scard.pkcs11.opensc.default.pcsc.disconnect_action`
Value	<u>leave</u> / reset / unpower
Parameter	Transaction end action
Registry	`scard.pkcs11.opensc.default.pcsc.transaction_end_action`
Value	<u>leave</u> / reset / unpower
Parameter	Reconnect action
Registry	`scard.pkcs11.opensc.default.pcsc.reconnect_action`
Value	<u>leave</u> / reset / unpower
Parameter	Enable pinpad
Registry	`scard.pkcs11.opensc.default.pcsc.enable_pinpad`
Value	<u>enabled</u> / disabled
Parameter	Use PIN caching

Registry	`scard.pkcs11.opensc.default.pkcs15.use_pin_caching`
Value	<u>enabled</u> / disabled
Parameter	How many times to use a PIN from cache before re-authenticating it
Registry	`scard.pkcs11.opensc.default.pkcs15.pin_cache_counter`
Value	<u>10</u>

Parameter	PIN caching ignores user consent
Registry	`scard.pkcs11.opensc.default.pkcs15.pin_cache_ignore_user_consent`
Value	enabled / <u>disabled</u>

- Updated **CHERRY USB-LAN Proxy** to version **3.2.0.3**. This version provides enhanced configuration.
  More...

IGEL Setup > Security > Smartcard > Services	
Parameter	Bind IP
Registry	`devices.cherry.usblanproxy.bind-ip`
Value	<u>auto</u>

IGEL Setup > Security > Smartcard > Services	
Parameter	Https Server Port
Registry	`devices.cherry.usblanproxy.https-port`
Value	<u>443</u>

IGEL Setup > Security > Smartcard > Services	
Parameter	SICCT Announce IP
Registry	`devices.cherry.usblanproxy.sicct-announce-ip`
Value	<u>broadcast</u>

IGEL Setup > Security > Smartcard > Services	
Parameter	SICCT Announce Port
Registry	`devices.cherry.usblanproxy.sicct-announce-port`
Value	<u>4742</u>

IGEL Setup > Security > Smartcard > Services	
Parameter	SICCT Announce Interval

Registry	`devices.cherry.usblanproxy.sicct-announce-interval`
Value	30
IGEL Setup > Security > Smartcard > Services	
Parameter	USB Fast Mode
Registry	`devices.cherry.usblanproxy.usb-fast-mode`
Value	enabled /disabled
IGEL Setup > Security > Smartcard > Services	
Parameter	Alternate Initialization Method for G87-1505
Registry	`devices.cherry.usblanproxy.usb-1505-alt-setup`
Value	enabled /disabled

CUPS Printing

- Added **SMB Network Print** client function.
  More...

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	Printer Port
Registry	`print.cups.printer<NR>.backend`
Value	smb
IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	SMB Server
Registry	`print.cups.printer<NR>.smb_server`
IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	SMB Workgroup
Registry	`print.cups.printer<NR>.smb_workgroup`
IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	SMB Printer
Registry	`print.cups.printer<NR>.smb_printer`
IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	SMB Port
Registry	`print.cups.printer<NR>.smb_port`

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	Use Kerberos Authentication
Registry	`print.cups.printer<NR>.smb_kerberos`
Value	enabled / <u>disabled</u>

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	Use Passthrough Authentication
Registry	`print.cups.printer<NR>.smb_passthrough`
Value	enabled / <u>disabled</u>

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	SMB User
Registry	`print.cups.printer<NR>.smb_user`

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	SMB Password
Registry	`print.cups.printer<NR>.crypt_password`

Base system

- Updated **kernel** from 4.18.20 **to 4.19.57** version.
- Enhanced **bootloader** to allow the set of some kernel commandline parameters with registry keys: **More...**

Parameter	Disable use of APIC controller
Registry	`system.kernel.bootparams.noapic`
Value	enabled / <u>disabled</u>
Parameter	Disable use of ACPI
Registry	`system.kernel.bootparams.noacpi`
Value	enabled / <u>disabled</u>
Parameter	Use only one CPU core and disable all others
Registry	`system.kernel.bootparams.nosmp`
Value	enabled / <u>disabled</u>
Parameter	Enable debug console on serial port 1
Registry	`system.kernel.bootparams.serial_console_debug`

Value	enabled /<u>disabled</u>
Parameter	Limit CPU core usage (0 means no limit)
Registry	`system.kernel.bootparams.maxcpus`
Type	Integer
Value	<u>0</u>

Parameter	Set maximum allowed cstate on intel cpus
Registry	`system.kernel.bootparams.max_cstate`
Range	[<u>No limit</u>] [1] [2] [3] [4] [5] [6]
Info: Do not limit Intel cstate.	

Parameter	IOMMU usage setting
Registry	`system.kernel.bootparams.iommu`
Range	[<u>On</u>] [Off] [Passthrough] [Force]
Info: Use IOMMU if possible.	

Parameter	IOMMU usage setting for AMD systems
Registry	`system.kernel.bootparams.amd_iommu`
Range	[<u>On</u>] [Off]
Info: Use IOMMU if possible.	

Parameter	IOMMU usage setting for Intel systems
Registry	`system.kernel.bootparams.intel_iommu`
Range	[<u>On</u>] [Off]
Info: Use IOMMU if possible.	

- Added a possibility to configure **scheduled commands**. Registry keys: `system.cron.**`
- **Buddy update** enhancements:
  - **Automatic load balancing**:
    A client collects up to eight server candidates from which one is selected randomly. Collection stops when the number specified in the following registry key is reached. Otherwise collection stops after a timeout.
    More...

Parameter	Buddy Update Server Candidates
Registry	`update.ftp.buddy_server_candidates`
Value	<u>1</u>

- **Grouping**:
  Buddy update servers and clients only interact with each other when they are in the same group determined by the following registry key (a non-negative integer number). This feature is mainly useful when different firmware versions shall be used in parallel.
  More...

Parameter	Buddy Group ID
Registry	`update.ftp.buddy_group_id`
Value	0̲

- Updated **libwebkit2gtk-4.0-37** to version **1.24.2**.
  Security fixes:
  More...

  CVE-2019-8595, CVE-2019-8607, CVE-2019-8615, CVE-2019-6251, CVE-2018-4373, CVE-2018-4375, CVE-2018-4376, CVE-2018-4378, CVE-2018-4382, CVE-2018-4392, CVE-2018-4416, CVE-2018-4345, CVE-2018-4386, CVE-2018-4372

- Updated **Fluendo multimedia codecs** to the following versions:
  More...

gst-fluendo-aacdec	21/03/2019	0.10.39
gst-fluendo-asfdemux	21/03/2019	0.10.89
gst-fluendo-h264dec	21/03/2019	0.10.53
gst-fluendo-mp3	21/03/2019	0.10.39
gst-fluendo-mpeg4video	21/03/2019	0.10.43
gst-fluendo-vadec	21/03/2019	0.10.208
gst-fluendo-wmadec	21/03/2019	0.10.68
gst-fluendo-wmvdec	20/03/2019	0.10.65

- Added a package **ldap-utils** which can be used by custom scripts.

Driver

- Updated **DisplayLink driver** to version **5.1.26**.
- Updated **Philips Speech Driver** to version **12.7.11** - added **support for Philips AirBridge**.
- Added registry keys to modify the Intel graphic driver usage of **framebuffer compression** and **power management**.
  New registry keys:
  More...

Parameter	Power saving display C-States to use

Registry	`x.drivers.intel.dc_setting`
Range	[Default] [Disable] [Up to DC5] [Up to DC6]
Info: "Default" - driver default	
Parameter	Use framebuffer compression
Registry	`x.drivers.intel.fbc_setting`
Range	[Default] [Disable]
Info: "Default" - driver default	

- Updated **signotec Citrix Virtual Channel** driver to version **8.0.8**.
- Updated **deviceTRUST Client** to version **19.1.200**. These are the release notes:
  Welcome to the release of the deviceTRUST 19.1.200 IGEL client, providing the context of IGEL thin client and UD Pocket devices into your virtual sessions. This release includes support for logical disks attached to the IGEL endpoint, plus bug fixes and stability improvements over the previous 19.1.100 release.

  Logical Disks
  We've added support for real-time properties representing the LOGICAL DISKS attached to the IGEL endpoint. This includes:
  More...

  DEVICE_LOGICALDISK_X_TYPE – Either Fixed or Removable.
  DEVICE_LOGICALDISK_X_LABEL – The volume label.
  DEVICE_LOGICALDISK_X_FILESYSTEM – The type of file system.
  DEVICE_LOGICALDISK_X_PATHS – The paths that the disk is mounted.
  DEVICE_LOGICALDISK_X_TOTALMB – The total space available on the disk. This property is only available for mounted disks.
  DEVICE_LOGICALDISK_X_FREEMB – The free space available on the disk. This property is only available for mounted disks.
  DEVICE_LOGICALDISK_X_NAME – The name of the underlying physical disk.
  DEVICE_LOGICALDISK_X_VENDORID – The vendor identifier uniquely identifying the manufacturer. This property is only available for USB or PCI connected devices.
  DEVICE_LOGICALDISK_X_PRODUCTID – The product identifier uniquely identifying the product. This property is only available for USB or PCI connected devices.
  DEVICE_LOGICALDISK_X_SERIALNUMBER – The serial number of the physical disk.
  DEVICE_LOGICALDISK_X_BUSTYPE – The storage bus type linked to the physical disk.
  DEVICE_LOGICALDISK_COUNT – The number of logical disks.

X11 system

- Updated Xorg server from 1.19.6 to **1.20.5** version.
- Updated **Virtualbox** from 5.2.18 to **6.0.8** version.
- Updated **Mesa** from 18.2.1 to **19.0.8** version.
- Updated **Xorg video and input driver** to current upstream versions.
- Added new options for **laptop lid handling** dependent on power supply:
  More...

Parameter	Lid close action while plugged in
Registry	`system.actions.lid.ac`
Range	[Turn off display] [Suspend]
Parameter	Lid close action while not plugged in
Registry	`system.actions.lid.battery`
Range	[Turn off display] [Suspend]

- The new **Display Switch tool** can use multiple different profiles, automatically chosen at runtime depending on the currently connected monitors.
  A profile is created, when the current monitor layout/resolution is configured via the Display Switch utility. The profile will be associated with the current connected displays automatically (manufacturer, model and used connector are used for allocation) and if applicable, the state of the laptop lid. The setup will be restored by hot-(un)plugging known displays, means the system will automatically switch to the already configured profile.
  The Display Switch utility itself got a new interface. All base functionalitycan be configured via Drag&Drop.
  An example workflow:
  - Connect the hardware and close/open the lid.
  - Open the Display Switch Utility:
    - A quick (simple) setting can be selected directly.
    - Should the desired use case be different from the provided choices, the `Advanced´ button opens a drag&drop interface for further settings.
  - In this interface the displays can be dragged and dropped for the intended configuration. The display will snap adjacent to others.
  - If a display should not be used, it can be dragged to the `Disabled´ area on the top right - the screen will be reactivated when it is dragged back to the active area.
  - To show the same content on multiple displays, one display should be dragged onto another active screen. The interface will show "Mirror". The mirroring monitor will be displayed on the lower right.
    With the 'Apply' button the current state will be set, with `Yes´ on the "Keep configuration" dialog the current settings will be saved to persistent storage and associated with the profile.
  - Advanced functionality (panning/scaling/resolutions) can be configured in drop-down boxes, hidden in a drawer on the right side. The drawer can be expanded by clicking the '<' button on the right edge.
  - For the Display Switch functionality the following parameters should be enabled for proper usage:
    More...

IGEL Setup > Accessories > Display Switch > Options	
Parameter	Preserve settings over reboot
Registry	`sessions.user_display0.options.preserve_settings`

Value	enabled / <u>disabled</u>
IGEL Setup > Accessories > Display Switch > Options	
Parameter	Smart display configuration
Registry	`x.auto_associate`
Value	enabled / <u>disabled</u>

- Added a new parameter to optionally start with opened **'Advanced' drawer in Display Switch**. **More...**

IGEL Setup > Accessories > Display Switch > Options	
Parameter	Preserve settings over reboot
Registry	`sessions.user_display0.options.preserve_settings`
Value	enabled / <u>disabled</u>
IGEL Setup > Accessories > Display Switch > Options	
Parameter	Start with the advanced drawer opened
Registry	`sessions.user_display0.options.start_open`
Value	enabled / <u>disabled</u>

- Added **xprintidle tool** to firmware.
- Added some registry keys to disable loading of **DRM kernel modules** (graphic). **More...**

Parameter	Disable the loading of the RADEON DRM driver
Registry	`x.drivers.ati.disable`
Value	<u>0</u>
Parameter	Disable the loading of the AMDGPU DRM driver
Registry	`x.drivers.amdgpu.disable`
Value	<u>0</u>
Parameter	Disable the loading of the i915 DRM driver
Registry	`x.drivers.intel.disable`
Value	<u>0</u>

- Added the possibility to **change an embedded DisplayPort to a normal** DisplayPort. **More...**

Parameter	Use embedded displayport as normal displayport

Registry	`x.drivers.intel.edp_is_dp`
Range	[default][enable][disable]
Info: Reboot required	

Java

- Replaced Oracle JRE by **AZUL's Zulu JRE**.
- **Removed** deprecated **Java WebStart** since it is not supported with non-Oracle JRE's.

X server

- Updated **Xephyr x session** to version **1.20.5**.

Hardware

- Added hardware support for the following headsets:
  More...

  Jabra Engage 50;
  Jabra Engage 65;
  Jabra Engage 75;
  Jabra Evolve 30 II (Ver. B);
  Jabra Evolve 30 II (Ver. C);
  Jabra Evolve 40 (Ver. B) - USB-C;
  Jabra Evolve 40 (Ver. D);
  Jabra Evolve 65;
  Jabra Evolve 75;
  Plantronics Voyager 5200 UC;
  Plantronics Voyager 6200 UC;
  Plantronics Voyager 8200 UC;
  Sennheiser SC70.

Remote Management / IGEL Cloud Gateway

- **Connection order between UMS and ICG** can now be configured.
  More...

Parameter	Prefer UMS over ICG
Registry	`system.remotemanager.icg_try_ums_connect`
Value	enabled / disabled

When an ICG connection is configured and the parameter is enabled, the device tries to connect directly to UMS. If the connection was established successfully, the device is managed by UMS and not over ICG until new start of the device or networking.

- **Firmware update scheduled on shutdown** is now invoked **on reboot** as well.
- Added some adaptations in **UMS Agent** concerning **migration to IGEL OS11**.

Resolved Issues 10.06.100

Citrix

- Now ica.pnlogin.syncpasswordwithxscrnsvr is removed, **ica.pnlogin.syncpasswordwithxlock** should be used, this provides the same functionality.
- Fixed **online meeting in VDI**: An enabled webcam will not cut the audio streaming anymore.
- Citrix **Workspace App 19.03**: Improved USB redirection handling.
- **Custom icons** now are visible **after StoreFront logon** using Citrix authentication method.
- **Appropriate icons** arise with IGEL and Citrix authentication.
- Fixed **stability issues** with Citrix Browser Content Redirection.
- Updated the **Nuance virtual channel** for ICA up to version **B301**.

RDP/IGEL RDP Client 2

- Added **Negotiate:Kerberos as fallback** if NTLM is disabled. This only works if Active Directory/ Kerberos Logon is enabled.
- Added registry key to use **rdpglobal window settings for remote apps**.
  More...

Parameter	Enable global windwos settings for remote app
Registry	`rdp.winconnect.enable-global-window-settings-for-remote-app`
Value	enabled / disabled

- Fixed **empty warning window** being shown when closing RDP Web Applications started from browser.
- Fixed **smartcard redirection in RDP**: SCardGetAttrib was failing if pbAttr was NULL. The fix should help running Dutch Zorg-ID applications.

RD Web Access

- Fixed **RD Web Access** not woking with **special characters in name or password**. This only works if Active Directory/Kerberos Logon is enabled.
- Fixed **empty warning dialogs** appearing when opening RD Web Application in the browser.
- Fixed **not starting RDP Remote Applications**.

VMware Horizon

- Fixed **Optimization for Skype for Business**.
- Fixed the configuration choice to use **the relative mouse feature**.

Parallels Client

- Updated **Parallels Client** to version **16.5.3** (64-Bit).
- Fixed: **Maximized windows** for published applications can be displayed incorrectly.
- Fixed: **Incorrect user credentials** can be picked up during connection if the same farm is registered in the client multiple times and with different user credentials.
- Fixed: Client **did not accept universal printing policies** set from the server.
- Fixed: **Module** opened in the background and **blocked the launche**r in some cases.

- Fixed: **Redirected smartcard** did not work **in a remote session**.
- Fixed: **Printers would not redirect to a remote session** when redirection is enforced via policies.

PowerTerm

- Fixed **editing** of parameter **sessions.powerterm\<INST>.logindialog.loginscript** in Setup Registry: now multiple lines are possible.
- PowerTerm Terminal Emulation: remove **obsolete SSH type SSH1** and **obsolete SSH cipher DES** from parameter ranges.

Firefox

- Fixed an issue where **Firefox does not accept proxy credentials** from setup.
- Fixed the **print hotkey disable option** with Firefox 60+.
- Fixed **browserglobal.app.local_subdirs_whitelist** not working.
- Fixed **Adobe Flash Player download** possibility.

Network

- Improved **SCEP client robustness**:
  - The **cert_agent script** doesn't terminate anymore when a problem occurs (e.g. the SCEP server is unreachable) but tries again after the expiry check interval.
  - When the client certificate has expired, there is still one attempt at renewing it. However, when that fails, a new one is requested. That obviously will fail if the client presents a challenge password that is not valid anymore.
- Restoring **WLAN/WWAN Modem state** after wakeup from standby or reboot.
- Improved **expire time of Ethernet no-link notification**.
- Added all **Ethernet network drivers from OS to LX** version.
- Changed **e1000e driver** to out of tree version **3.4.2.3** directly from Intel.
- Changed **igb driver** to out of tree version **5.3.5.22** directly from Intel.
- Fixed bug: **Failure to reach SCEP server** in the client certificate renewal phase resulted in loss of SCEP server and client certificates.
- SCEP: **A change of the CA fingerprint** setting **does not result in discarding all SCEP data anymore** if the fingerprint matches that of the current CA certificate. Firmware versions before 10.05.100 allowed an empty fingerprint. So, this is meant for users who must belatedly configure the fingerprint in order for client certificate renewal to work.
  A change of the **CAIdentifier** setting is not detected immediately and does not result in discarding all current data anymore. The new CAIdentifier will, however, be used in future SCEP operations.
- Fixed **instability with netmounts** with static ip configuration.
- Fixed problems with **windows share mounts**.
- Fixed **MBB router** configuration (broken since 10.05.500).
- Added a possibility to **switch between third-party** and **kernel Intel IGB network driver**.
  A new registry key:
  More...

Parameter	Use thirdparty igb kernel module
Registry	`network.drivers.igb.prefer_thirdparty`
Range	[Auto] [Yes] [No]

Info: "Auto" (use thirdparty in most cases)

- Added a possibility to **switch between thirdparty** and k**ernel Intel E1000E network driver**.
  A new registry key:
  More...

Parameter	Use thirdparty e1000e kernel module
Registry	`network.drivers.e1000e.prefer_thirdparty`
Range	[Auto] [Yes] [No]
Info: "Auto" (use thirdparty in most cases)	

- Added a possibility to **switch between thirdparty r8168** and **kernel r8169 realtek network driver**.
  A new registry key:
  More...

Parameter	Use thirdparty r8168 kernel module
Registry	`network.drivers.r8169.prefer_r8168`
Range	[Auto] [Yes] [No]
Info: "Auto" (use r8168 in most cases)	

- Added a possibilty to choose the **variant of the realtek r8168 driver**.
  A new registry key:
  More...

Parameter	Choose realtek r8168 variant (only if "prefer r8168" is choosen)
Registry	`network.drivers.r8169.r8168_variant`
Range	[Default] [No NAPI] [NAPI]
Info: "Dafault" (use NAPI in most cases)	

- Fixed bug: **Second Ethernet interface** did not get configured when the first one was disabled.
- Fixed **802.1X Ethernet configuration with user interaction**.

WiFi

- Fixed bug: **WiFi connection to hidden SSID** did not work anymore after reediting with the Wireless Manager.
- Fixed not working **Broadcom SDIO WLAN cards** as present in Advantech AIM8IAC device for example.

Smartcard

- Fixed **Dell KB813 Smartcard Keyboard** in combination with certain smart cards driven by OpenSC PKCS#11 module. Before this fix, authentication to Citrix StoreFront and VMWare Horizon failed.
- Improved **handling of PIV/CAC smart cards** in OpenSC.

- Updated **cryptovision sc/interface PKCS#11 smart card library** to version **7.1.20**.
  Changes in this revision:
  - Fixed **a possible deadlock in the PKCS#11 module** on Linux if C_Finalize is called during a PCSC event, for example C_WaitForSlotEvent.
  - **ROCA check in the Smartcard Manager**, based on the "ROCA detection tool", see https://github.com/crocs-muni/roca.
  - **Renaming container label** in Smartcard Manager with F2 now possible.
- Fixed **OpenSC setting max_send_size** for reader driver pcsc in **/etc/opensc/opensc.conf**.

Application Launcher

- Fixed **confusion in nameserver list** caused by comments in /etc/resolv.conf.

Base system

- Fixed issues with **gen4/5 Intel graphic driver** in kernel 4.18.20.
- Fixed **Screensaver and Screenlock timeouts** to be independent. This means, if both timeouts are set, the start of Screenlock will not reset the Screensaver timeout any more.
- Fixed **retrieving of serial number of a display**.
- Fixed **playback of AAC coded audio streams** on IGEL Zero products.
- Added possibility to set **intel_idle.max_cstate kernel cmdline parameter** with registry keys **to work against Intel CPU freezes**.
- Ensure that the **Unit ID** for IGEL devices is the MAC address of the onboard network card.
- **Enhanced handling of Unit ID**. On IGEL hardware the Unit ID isn't stored persistently any more by default. The persistent Unit ID can be removed with command `get_unit_id -r` . The persistent Unit ID storage can be forced with `get_unit_id -i -f -p` or with `get_unit_id -m` to manually choose a Unit ID from several network interfaces found on the device. Handle with extreme care since the Unit ID is the key for handling the endpoint in UMS.
- Replaced MIT Kerberos clients by **Heimdal Kerberos clients**.
- Improved the buddy update server performance for multiple simultaneous update clients.
- Fixed handling of an **"update on shutdown" during suspend/resume**.
- Fixed **shutdown** while IGEL Setup Assistant is shown.
- Fixed **delay in logon** as local user when logon with IGEL Smartcard is also active.
- Fixed **sporadic bootsplash issue**.
- Fixed **suspend/resume hangs** when logged into Citrix sessions.
- Fixed **CPU scaler** and **volume control applet suspend/resume** issue.
- Added **AppArmor** rule to allow tcpdump to write to **/debuglog**.
- Fixed random 90 seconds **shutdown delay** (systemd).
- Fixed **Custom Bootsplash installation**.
- Bugfix: **Create shortcuts** for terminal shutdown, terminal restart and icon sort **directly after reconfiguration**. A reboot is not needed anymore.
- Fixed: **System logoff waits for Citrix logoff** now.
- Fixed **broken custom bootsplash** when doing a reset to factory defaults via UMS.
- Bugfix: **hotkey** setting **needs restart**.
- **IGEL Setup Assistant** will persistently **activate WiFi** when a connection is enabled instead of after finishing it, to preserve settings when UMS sends license and stops it.
- Fixed **AD/Kerberos logon** in case parameter **auth.login.krb5_enterprise** is **set to 'false'**.
- Added a new registry key to set **USB quirks**:

More...

Parameter	Set XHCI USB quirks to fix some hardware issues
Registry	`system.kernel.bootparams.xhci-hcd_quirks`
Range	[No quirk] [Spurious Reboot quirk] [Spurious Wakeup quirk] [Spurious Reboot Wakeup quirk]

- Fixed: **Migration tool** did not start with **Spanish** language setting.
- Disabled **martian packet logging**.

Driver

- Updated **deviceTRUST** Client to version **19.1.200.**
  Bug Fixes:
    - Fixed an issue **reading the DEVICE_IGEL_ICG_SERVER** property.
    - Fixed an issue where the **NETWORK** and **LOCATION** property providers could **cause the client to freeze** if a disconnection occurred while these property providers were checking for changes.
    - Fixed an **open file handle leak** which lead to the client process reaching its file handle limits when left running for a long period of time.
- Fixed not working **WACOM** device **DTU-1141B**.

Custom Partition

- Fixed **ownership of extracted data**: Do not preserve owner information while extracting data into custom partition.

Storage Devices

- Fixed **auto mounting of storage devices** inside of Olympus DS-9500 Digital Voice Recorder.

Appliance Mode

- Fixed bug: **In-session control bar** could not be deactivated **in Citrix SelfService appliance mode**.

X11 system

- Fixed **Microsoft Surface Pro 4 screen resolution** issue.
- Fixed the **missing volume control** in the panel when the panel is configured to disappear while the login/lock screen is shown.
- There is now **a registry key to ignore a 3Dconnexion SpaceMouse** for IGEL graphical use (X11). If activated, the SpaceMouse is only passed through to the desktop session. If false, it acts also as the standard mouse.
  More...

Parameter	Deactivates a 3Dconnexion SpaceMouse as a standard mouse
Registry	`userinterface.mouse.spacemouse.x11_ignore`
Value	enabled / disabled

- The following **SpaceMouse** products are included:
  More...

VID	PID	Vendor	Product
0x046D	0xC603	Logitech, Inc.	3Dconnexion SpaceMouse Plus XT
0x046D	0xC605	Logitech, Inc.	3Dconnexion CADman
0x046D	0xC606	Logitech, Inc.	3Dconnexion SpaceMouse Classic
0x046D	0xC621	Logitech, Inc.	3Dconnexion SpaceBall 5000
0x046D	0xC623	Logitech, Inc.	3Dconnexion SpaceTraveller 3D Mouse
0x046D	0xC625	Logitech, Inc.	3Dconnexion SpacePilot 3D Mouse
0x046D	0xC626	Logitech, Inc.	3Dconnexion SpaceNavigator 3D Mouse
0x046D	0xC627	Logitech, Inc.	3Dconnexion SpaceExplorer 3D Mouse
0x046D	0xC628	Logitech, Inc.	3Dconnexion SpaceNavigator for Notebooks
0x046D	0xC629	Logitech, Inc.	3Dconnexion SpacePilot Pro 3D Mouse
0x046D	0xC62B	Logitech, Inc.	3Dconnexion SpaceMouse Pro
0x256F	**	3Dconnexion	SpaceMouse

- **USB device reset** via USB powercycle is now available on **UD6/UD7**.
- Fixed **screen flicker** in some cases if **Force NumLock On** (x.global.forcenumlock) is active.
- Fixed not working **x.xserver0.screen1.flipscreens** registry key.
- Use **Index** and **Mode** from Advanced mode in Simple Mode **for Display Switch**.
- Fixed **display hotplug failing** on initial lock screen with Active Directory logon.
- The **in-session control bar** now **scales with the current DPI** setting.
- Fixed **Display Switch** utility **not starting with some translations**.
- Fixed an issue with the **noDDC mode** not always working as expected.
- Fixed a bug with thin clients **reporting the wrong monitor serial number**.

Window manager

- Fixed the option to **disable the local window manager**.

Audio

- Fixed **bad quality sound over DisplayPort** in a Citrix ICA session or other applications using ALSA API.
- Fixed **configuration of default audio output** and **input**.

Media Player (Parole)

- Fixed a problem where **parole media player** would **hang** instead of playing audio **while audio-visualization** is enabled.
- Fixed parole media player **not handling audio hotkeys in fullscreen mode**.

Multimedia

- Updated **multimedia codecs to fix freeze** when audio visualization is used.

Misc

- **Monitoring Agent** uses now **only the half size of the debuglog partition**.
  When the setup option **log_max_size** with the option **log_rotation** creates an overall consumption that is bigger than 50% of the debuglog partition size, the size for each log automatically will be decreased to a value that allows a full rotation which occupies exactly 50% of the partition size.

Hardware

- Fixed problems with **mouse cursor on Intel cherryview devices**.
- Added a **possibility to change** some **DRM settings** and **limit the DisplayPort lane bandwidth** on Intel devices.
  Added new registry keys:
  More...

Parameter	Use best graphic mode for all screens on console.
Registry	`x.drivers.kms.best_console_mode`
Range	[Default] [Enabled] [Disabled]
Info: "Default" is enabled in most cases.	

Parameter	Limit the maximum console resolution width to this value.
Registry	`x.drivers.kms.max_console_width`
Type	Integer
Value	"0"
Info: "0" means default setting. Use the default setting.	

Parameter	Limit the maximum console resolution height to this value.
Registry	`x.drivers.kms.max_console_height`
Type	Integer
Value	"0"
Info: "0" means default setting. Use the default setting.	

Parameter	Set graphic kernel driver debug level.
Registry	`x.drivers.kms.debug_level`
Range	[No debug] [Basic] [Basic + core] [Basic + core + atomic] [Full]
Info: Warning log will grow very fast.	

Only for Intel i915 driver:

Parameter	Limit the maximum DisplayPort lane link rate.

Registry	`x.drivers.intel.max_dp_link_rate`
Range	[default] [1.62Gbps] [2.16Gbps] [2.7Gbps] [3.24Gbps] [4.32Gbps] [5.4Gbps] [6.48Gbps] [8.1Gbps]
Info: "Default" means hardware default limit.	

Remote Management / IGEL Cloud Gateway

- Fixed **wallpaper configuration** when ICG protocol is used.
- Fixed **UMS synchronization of configuration** when changes were made in "Emergency mode".
- Fixed sporadic **failures while sending data over ICG**.
- Fixed **removal from UMS** when the device was offline.
- Added: IGEL UMS agent sends **monitor information for maximum eight monitors** now.

Caradigm

- Fixed **Horizon session crash**.

IGEL Linux 10 Recovery

- Fixed **problem with forced no EFI installation**.

IGEL Universal Desktop OS 3

Supported Hardware:

https://kb.igel.com/igelos/en/devices-supported-by-udc3-and-ud-pocket-3117174.html

Component Versions 10.06.100

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	19.3.0.5
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	2.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.5
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.7.2
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	onesign-bootstrap-loader_1.0.523630_amd64
deviceTRUST RDP Channel	19.1.200.2
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	6.5.6
Open VPN	2.3.10-1ubuntu2.2
Zulu JRE	8.38.0.13
Parallels Client (64 bit)	16.5.3.20735
Remote Viewer (RedHat Virtualization)	8.0-1igel49
Spice GTK (Red Hat Virtualization)	0.36-1~git20190601igel61
Usbredir (Red Hat Virtualization)	0.8.0-1igel49
Systancia AppliDis	4.0.0.17

ThinLinc Client	4.10.0-6068
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel18
VMware Horizon Client	5.0.0-12557422
VNC Viewer	1.9.0+dfsg-3igel8
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B301
Olympus driver for dictation	20180621
Philips Speech Driver	12.7.11

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.8
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.20
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
Reader Driver ACS CCID	1.1.6-1igel1
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.4.30-1igel3
Reader Driver REINER SCT cyberJack	3.99.5final.sp13igel15
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.2.0.3

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.15
OpenSSH Client	7.2p2-4ubuntu2.8
OpenSSH Server	7.2p2-4ubuntu2.8
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	19.0.8-1igel73
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20190301-igel870
Graphics Driver ATI/RADEON	19.0.1-2igel890
Graphics Driver ATI/AMDGPU	19.0.1-4igel894
Graphics Driver Nouveau (Nvidia Legacy)	1.0.16-1igel867
Graphics Driver Nvidia	390.116-0ubuntu0.18.10.1
Graphics Driver Vboxvideo	1.0.0-igel798
Graphics Driver VMware	13.3.0-2igel857
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.4.0-1igel855
Input Driver Evdev	2.10.6-1igel888
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.1-1ubuntu1igel866
Input Driver VMmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu2igel888
Kernel	4.19.57 #mainline-udos-r2762

Xorg X11 Server	1.20.5-1igel891
Xorg Xephyr	1.20.5-1igel891
CUPS printing daemon	2.1.3-4ubuntu0.9igel27
PrinterLogic	18.2.1.128
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel656
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.3igel74
ModemManager	1.10.0-1~ubuntu18.04.2igel3
GStreamer 0.10	0.10.36-2ubuntu0.2
GStreamer 1.x	1.16.0-1igel214
WebKit2Gtk	2.24.2-0ubuntu0.19.04.1igel18
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB (MTP)	1.1.16-2igel1
Mobile Device Access USB (imobile)	1.2.1~git20181030.92c5462-1igel5
Mobile Device Access USB (gphoto)	2.5.22-3igel1
VPN OpenConnect	7.08-1
Scanner support / SANE	1.0.27-1
VirtualBox	6.0.8-dfsg-4igel25

- **Features with Limited Functionality**

Cisco JVDI Client	12.1.0

General Information 10.06.100

The following clients and features are not supported anymore:

- Citrix Receiver 12.1 and 13.1 - 13.4;
- Citrix Access Gateway Standard Plug-in;
- Dell vWorkspace Connector for Linux;
- Ericom PowerTerm Emulation 9 and 11;
- Ericom Webconnect;
- IGEL Legacy RDP Client (rdesktop);
- Virtual Bridges VERDE Client;
- PPTP VPN Support;
- IGEL Upgrade License Tool with IGEL Smartcard Token;
- Remote Management by setup.ini file transfer (TFTP);
- Remote Access via RSH;
- Legacy Philips Speech Driver;
- T-Systems TCOS Smartcard Support;
- DUS Series touch screens;
- Elo serial touchscreens;
- VIA graphics support;
- Java WebStart;
- Storage hotplug devices are not automatically removed anymore, instead they must be always ejected manually:
    - by panel tray icon;
    - by an icon in the **In-Session Control Bar** (configurable under **IGEL Setup > User Interface > Desktop**);
    - by a **Safely Remove Hardware** session (configurable under **IGEL Setup > Accessories**).

The following clients and features are not available in this release:

- Cherry eGK Channel;
- Open VPN Smartcard Support;
- Asian Input Methods;
- Composite Manager.

Security Fixes 10.06.100

Firefox

- Updated Mozilla **Firefox** to version **60.7.2 ESR**.
- Fixed **mfsa2019-19** security issue CVE-2019-11708.
- Fixed **mfsa2019-18** security issue CVE-2019-11707.
- Fixed **mfsa2019-10** security issues CVE-2019-9810 and CVE-2019-9813.
- Fixed **mfsa2019-08** security issues.
  More...

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,
  CVE-2019-9795, CVE-2019-9796, CVE-2018-18506, CVE-2019-9788.

- Fixed **mfsa2019-05** security issues CVE-2018-18356 and CVE-2019-5785.
- Fixed **mfsa2019-02** security issues CVE-2018-18500, CVE-2018-18505 and CVE-2018-18501.
- Fixed **mfsa2018-30** security issues.
  More...

  CVE-2018-17466, CVE-2018-18492, CVE-2018-18493,
  CVE-2018-18494, CVE-2018-18498, CVE-2018-12405.

- Allow Firefox to access YubiKey (FIDO/U2F) when AppArmor is active.

Base system

- Fixed a vulnerability in **Java configuration script**.
- Fixed possibly malicious **owner change** with TC setup configuration.
- Fixed **policykit-1** security issues CVE-2018-19788 and CVE-2019-6133.
- Fixed **NSS** security issues CVE-2018-18508, CVE-2018-12404, CVE-2018-12384 and CVE-2018-0495.
- Fixed **PPP** security issue CVE-2018-11574.
- Fixed **imagemagick** security issues.
  More...

  CVE-2018-16750, CVE-2018-16749, CVE-2018-16645, CVE-2018-16644,
  CVE-2018-16643, CVE-2018-16642, CVE-2018-16640, CVE-2018-16323,
  CVE-2018-14437, CVE-2018-14436, CVE-2018-14435, CVE-2018-14434,
  CVE-2017-13144, CVE-2017-12430, CVE-2019-9956, CVE-2019-7398,
  CVE-2019-7397, CVE-2019-7396, CVE-2019-7175, CVE-2019-11598,
  CVE-2019-11597, CVE-2019-11472, CVE-2019-11470, CVE-2019-10650,
  CVE-2019-10131, CVE-2018-20467, CVE-2018-18025, CVE-2018-18024,
  CVE-2018-18016, CVE-2018-17966, CVE-2018-17965, CVE-2018-16413,
  CVE-2018-16412, CVE-2017-12806, and CVE-2017-12805.

- Fixed **systemd** security issues.
  More...

  CVE-2018-16866, CVE-2018-16865, CVE-2018-16864, CVE-2018-15688,
  CVE-2019-6454, CVE-2018-1049, CVE-2018-15686 and CVE-2019-3842.

- Fixed **CUPS** security issue CVE-2018-4700.
- Fixed **libarchive** security issues.
  More...

CVE-2019-1000020, CVE-2019-1000019, CVE-2018-1000878,
CVE-2018-1000877, and CVE-2017-14502.

- Fixed **Avahi** security issues CVE-2018-1000845 and CVE-2017-6519.
- Fixed **bind9** security issues CVE-2019-6465, CVE-2018-5745, and CVE-2018-5743.
- Fixed **libcaca** security issues.
  More...

  CVE-2018-20549, CVE-2018-20548, CVE-2018-20547,
  CVE-2018-20546, CVE-2018-20545, and CVE-2018-20544.

- Fixed **libgd2** security issues CVE-2019-6978 and CVE-2019-6977.
- Fixed **ghostscript** security issues.
  More...

  CVE-2019-6116, CVE-2018-19477, CVE-2018-19476, CVE-2018-19475,
  CVE-2018-19409, CVE-2018-18284, CVE-2018-18073, CVE-2018-17961,
  CVE-2019-3838, and CVE-2019-3835.

- Fixed **krb5** security issues.
  More...

  CVE-2018-5730, CVE-2018-5729, CVE-2017-11462,
  CVE-2017-11368, CVE-2016-3120, and CVE-2016-3119.

- Fixed **texlive-bin** security issue CVE-2018-17407.
- Fixed **LDB** security issue CVE-2019-3824.
- Fixed **libmspack** security issues CVE-2018-18585 and CVE-2018-18584.
- Fixed **Perl** security issues CVE-2018-18314, CVE-2018-18313, CVE-2018-18312 and CVE-2018-18311.
- Fixed **poppler** security issues.
  More...

  CVE-2019-7310, CVE-2018-20650, CVE-2018-20551, CVE-2018-20481,
  CVE-2018-19149, CVE-2018-19060, CVE-2018-19059, CVE-2018-19058,
  CVE-2018-16646, and CVE-2019-9200.

- Fixed **Python 3.5** security issues CVE-2018-14647, CVE-2018-1061, CVE-2018-1060 and
  CVE-2018-106.
- Fixed **Net-SNMP** security issue CVE-2018-18065.
- Fixed **OpenSSL** security issues CVE-2019-1559, CVE-2018-5407 and CVE-2018-0734.
- Fixed **TIFF** security issues.
  More...

  CVE-2018-8905, CVE-2018-7456, CVE-2018-18661, CVE-2018-18557,
  CVE-2018-17101, CVE-2018-17100, CVE-2018-1710, CVE-2018-10963,
  CVE-2019-7663, CVE-2019-6128, CVE-2018-19210, CVE-2018-17000,
  CVE-2018-12900, and CVE-2018-10779.

- Fixed **libvncserver** security issues.
  More...

  CVE-2018-6307, CVE-2018-20750, CVE-2018-20749, CVE-2018-20748,
  CVE-2018-20024, CVE-2018-20023, CVE-2018-20022, CVE-2018-20021,
  CVE-2018-20020, CVE-2018-20019, CVE-2018-15127, and CVE-2018-15126.

- Fixed **WavPack** security issue CVE-2018-19840.
- Fixed **Samba** security issues.
  More...

  CVE-2018-16851, CVE-2018-16841, CVE-2018-14629,
  CVE-2019-3880, and CVE-2018-16860.

- Fixed **libxkbcommon** security issues.
  More...

  CVE-2018-15864, CVE-2018-15863, CVE-2018-15862, CVE-2018-15861,
  CVE-2018-15859, CVE-2018-15858, CVE-2018-15857, CVE-2018-15856,
  CVE-2018-15855, CVE-2018-15854, and CVE-2018-15853.

- Fixed **OpenSSH** security issues.
  More...

  CVE-2019-6111, CVE-2019-6109, CVE-2018-20685,
  CVE-2018-15473, and CVE-2016-10708.

- Fixed **Python 2.7** security issues.
  More...

  CVE-2018-14647, CVE-2018-1061, CVE-2018-1060,
  CVE-2018-106, CVE-2018-1000802, and CVE-2018-1000030.

- Fixed **lxml** security issue CVE-2018-19787.
- Fixed **gdk-pixbuf** security issues.
  More...

  CVE-2017-6314, CVE-2017-6313, CVE-2017-6312,
  CVE-2017-6311, CVE-2017-2870, CVE-2017-2862,
  CVE-2017-1000422, CVE-2016-6352, and CVE-2017-12447.

- Fixed **file** security issues CVE-2019-8907 and CVE-2019-8905.
- Fixed **wget** security issue CVE-2019-5953.
- Fixed **nvidia-graphic-drivers-390** security issue CVE-2018-6260.
- Fixed **libxslt** security issue CVE-2019-11068.
- Fixed **Evince** security issue CVE-2019-11459.
- Fixed **webkit2gtk** security issues.
  More...

  CVE-2019-8595, CVE-2019-8607, CVE-2019-8615, CVE-2019-6251,
  CVE-2018-4373, CVE-2018-4375, CVE-2018-4376, CVE-2018-4378,
  CVE-2018-4382, CVE-2018-4392, CVE-2018-4416, CVE-2018-4345,
  CVE-2018-4386, and CVE-2018-4372.

- Fixed **gst-plugins-base0.10** security issue CVE-2019-9928.
- Fixed **WPA** security issues.
  More...

  CVE-2019-9495, CVE-2019-9497, CVE-2019-9498,
  CVE-2019-9499, and CVE-2019-11555.

- Fixed **Heimdal** security issues CVE-2019-12098 and CVE-2018-16860.
- Fixed **libimobiledevice** security issue CVE-2016-5104.

- Fixed **libpng1.6** security issues CVE-2019-7317 and CVE-2018-13785.
- Fixed **GIMP** security issues.
  More...

  CVE-2017-17786, CVE-2017-17789, CVE-2017-17784,
  CVE-2017-17787, CVE-2017-17785, and CVE-2017-17788

- Fixed **libtomcrypt** security issue CVE-2018-12437.
- Fixed **curl** security issues.
  More...

  CVE-2018-16840, CVE-2018-16839, CVE-2019-3823,
  CVE-2019-3822, CVE-2018-16890, CVE-2019-5346.

- Fixed **gnutls28** security issues CVE-2018-10846, CVE-2018-10845, CVE-2018-10844 and
  CVE-2018-1084.
- Fixed **qtbase-opensource-src** security issues CVE-2018-19873, CVE-2018-19870 and
  CVE-2018-15518.
- Fixed **db5.3** security issue CVE-2019-8457.
- Fixed **libssh2** security issues.
  More...

  CVE-2019-3863, CVE-2019-3862, CVE-2019-3861,
  CVE-2019-3860, CVE-2019-3859, CVE-2019-3858,
  CVE-2019-3857, CVE-2019-3856, and CVE-2019-3855.

- Fixed **network-manager** security issue CVE-2018-15688.
- Fixed **elfutils** security issues.
  More...

  CVE-2019-7665, CVE-2019-7150, CVE-2019-7149,
  CVE-2018-18521, CVE-2018-18520, CVE-2018-18310,
  CVE-2018-16403, CVE-2018-16402, and CVE-2018-16062.

- Fixed **libsndfile** security issues.
  More...

  CVE-2019-3832, CVE-2018-19758, CVE-2018-19662, CVE-2018-19661, CVE-2018-19432,
  CVE-2018-13139, CVE-2017-6892, CVE-2017-17457, CVE-2017-17456, CVE-2017-16942,
  CVE-2017-14634, CVE-2017-14246, and CVE-2017-14245.

- Fixed **dbus** security issue CVE-2019-12749.
- Fixed **Vim** security issues CVE-2019-12735 and CVE-2017-5953.
  Fixed **sqlite3** security issues.
  More...

  CVE-2019-9937, CVE-2019-9936, CVE-2019-8457, CVE-2018-20506,
  CVE-2018-20346, CVE-2017-2520, CVE-2017-2519, CVE-2017-2518,
  CVE-2017-13685, CVE-2017-10989, and CVE-2016-6153.

- Fixed **libseccomp** security issue CVE-2019-9893.
- Fixed **bzip2** security issues CVE-2019-12900 and CVE-2016-3189.
- Fixed **Expat** security issue CVE-2018-20843.
- Fixed **unzip** security issues CVE-2019-13232, CVE-2018-1000035, CVE-2016-9844 and
  CVE-2014-9913.

- **Mount partitions** with "**nodev**" flag option.
- The home directory of the remote users is now **/home/ruser**.
- Default **umask** is set to **0077** for all non-root users.
- Fixed a vulnerability in the **custom environment variable framework**.
- Fixed kernel **TCP** vulnerabilities CVE-2019-11477: **SACK Panic**, CVE-2019-11478: **SACK Slowness** and CVE-2019-11479: **Excess Resource Consumption Due to Low MSS Values**.
- Changed **minimally allowed MSS size** to "**1000**" to prevent possible denial-of-service attacks.

Known Issues 10.06.100

Citrix

- With activated DRI3 and AMD GPU, Citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (API v2) is not affected by this issue.
- Citrix has known issues with **GStreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. GStreamer 1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of Login.
  As a workaround, insert the smartcard before starting StoreFront login.
- Citrix **H.264 acceleration plugin** does not work with **enabled** server policy "Optimize for 3D graphics workload" in combination with server policy "Use video codec compression" > "For the entire screen".
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264 acceleration plugin**, the following registry key must be enabled:
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Range	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

VMware Horizon

- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory `/` media as a drive. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping** is switched off.
    In the IGEL Setup client, **drive mapping** can be found under **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable drive mapping**.
    It is also recommended to disable local **Storage Hotplug** under Setup **> Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, if you use **drive mapping** instead, it is recommended to either **switch off USB redirection entirely** or at least to **deny storage devices** by adding a filter to the USB class rules.
    Furthermore, Horizon Client relies on the OS to mount the storage device itself. Enable local **Storage Hotplug** under Setup **>Devices > Storage Devices > Storage Hotplug**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode** it is necessary to connect to the **Parallels RAS** one time with FIPS support disabled.

Smartcard

- In seldom cases, the authentication hung when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi Firefox plugin is no longer supported. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

Multimedia

- **Multimedia redirection with GStreamer** could **fail with the Nouveau GPU** driver.

WiFi

- **TP-Link Archer T2UH WiFi adapters** do not work after system suspend/resume.
  Workaround: Disable system suspend under **IGEL Setup > System > Power Options > Shutdown**.

Base system

- Due to the removal of the Oracle JRE, **Java WebStart** is **not supported** anymore.

New Features 10.06.100

OS 11 Upgrade

- It is now possible to **upgrade to IGEL OS 11**. For more information, see the how-to Upgrading IGEL Devices from IGEL OS 10 to IGEL OS 11.
  The **parameters for the upgrade**:
  More...

IGEL Setup > System > Update > OS 11 Upgrade	
Parameter	Upgrade to OS 11
Registry	`update.firmware_migrate_to_11`
Value	enabled / <u>disabled</u>
Parameter	Upgrade to OS 11 even if a previous upgrade attempt failed
Registry	`update.force_firmware_migrate_to_11`
Value	enabled / <u>disabled</u>
Parameter	Upgrade to OS 11 even if PowerTerm is enabled
Registry	`update.migrate_to_11_with_powerterm`
Value	enabled / <u>disabled</u>
Parameter	Require an Enterprise Management Pack license to upgrade to OS 11
Registry	`update.migrate_to_11_enterprise_required`
Range	[<u>Smart</u>] [Always] [Never]
Parameter	Timeout waiting for OS 11 license to start automatic upgrade
Registry	`update.migrate_to_11_license_timeout`
Range	[Disabled] [<u>10 Minutes</u>] [15 Minutes] [30 Minutes] [60 Minutes]

The parameters for configuring the **desktop integration** of the **IGEL OS 11 Upgrade tool** are:
More...

IGEL Setup > Accessories > OS 11 Upgrade	
Registry	`sessions.os11_migration0.startmenu`
Value	enabled / <u>disabled</u>
Registry	`sessions.os11_migration0.applaunch`
Value	enabled / <u>disabled</u>

Registry	`sessions.os11_migration0.startmenu_system`
Value	<u>enabled</u> / disabled
Registry	`sessions.os11_migration0.applaunch_system`
Value	<u>enabled</u> / disabled
Registry	`sessions.os11_migration0.menu_path`
Registry	`sessions.os11_migration0.desktop_path`
Registry	`sessions.os11_migration0.applaunch_path`
Registry	`sessions.os11_migration0.quick_start`
Value	enabled / <u>disabled</u>
Registry	`sessions.os11_migration0.pwprotected`
Range	[<u>None</u>] [Administrator] [User] [Setup user]
Registry	`sessions.os11_migration0.desktop`
Value	enabled / <u>disabled</u>
Registry	`sessions.os11_migration0.pulldown`
Value	enabled / <u>disabled</u>

Citrix

- Integrated **Citrix Workspace app 19.03**.
- Added a new registry key to support **1536-bit RSA keys for client authentication**. Factory default for this release is "true".
  More...

Parameter	Enables RSA 1536 cipher suite
Registry	`ica.allregions.enable_rsa_1536`
Range	<u>factory default</u> / false / true

- Added a new **registry key** to enable **different cipher suites**. Factory default for this release is "ALL".
  More...

Parameter	Enables different cipher suite
Registry	`ica.allregions.sslciphers`
Range	<u>factory default</u> / ALL / GOV / COM

> TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 – GOV/ALL
> TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 – GOV/ALL
> TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA – COM/ALL

- Added a new **registry key** to support **keyboard layout synchronization**.
  More...

Parameter	Keyboard layout synchronization
Registry	`ica.modules.virtualdriver.keyboardsync.enable`
Value	<u>disabled</u> / enabled

- Updated **Citrix HDX RTME** used for optimization of Skype for Business to version **2.8.0-2235**.
- Added support for **Citrix Workspace Launcher** functionality as described at https://support.citrix.com/article/CTX237727.
- Added a Citrix plugin for **hardware accelerated VDPAU based H.264 decoding** on AMD graphics chipsets:
  More...

Parameter	Enable HW accelerated H264 vdpau codec (experimental)
Registry	`ica.hw-accelerated-h264-vdpau-codec`
Value	enabled/ <u>disabled</u>

RDP/IGEL RDP Client 2

- Added a field '**Collection**' to RDP session server page.
  More...

IGEL Setup > Sessions > RDP > RDP Sessions > RDP Session > Server	
IGEL Setup > Sessions > RDP > RDP Sessions > RDP Session > Options	
Parameter	Collection
Registry	`sessions.winconnect<NR>.option.load-balance-info`

VMware Horizon

- Updated **Horizon Client** to version **5.0.0-12557422**.
- Added parameters to specify **webcam frame size** and **rate for RTAV**.
  More...

Parameter	Webcam frame width
Registry	`vmware.view.rtav-frame-width`
Value	<u><empty_string></u>
Parameter	Webcam frame height
Registry	`vmware.view.rtav-frame-height`

Value	<u>\<empty_string\></u>
Parameter	Webcam frame rate
Registry	`vmware.view.rtav-frame-rate`
Value	<u>\<empty_string\></u>

- Added a possibility to easily evaluate **Horizon Blast decoder states**. By default, sessions are evaluated after use and the result is written to the journal log.
- Added **continuous run mode** for USB-Arbitrator.
  More...

Parameter	USB-Arbitrator continuous run mode
Registry	`vmware.view.usb.arbitrator-continuous-runmode`
Value	<u>enabled</u> / disabled

- Added **recognition for password change** and **password expired dialog** in Horizon local logon sessions or appliance mode.
- Added **switch for Blast H.264 decoding** for VMware Horizon Client.
  More...

Parameter	Blast H.264 decoding
Registry	`vmware.view.blast-h264`
Value	<u>enabled</u> / disabled

- Added **switch to use systemwide proxy** in VMware Horizon appliance mode.
  More...

Parameter	Use the systemwide proxy
Registry	`vmwarevdmapp.use_proxy`
Value	<u>enabled</u> / disabled

Parallels Client

- Updated **Parallels Client** to version **16.5.3 (64-Bit)**.
- Added a possibility to set apps to **autostart on Parallels RAS**.

ThinLinc

- Updated **Cendio ThinLinc** to version **4.10**.

RedHat Enterprise Virtualization Client.

- Updated **Remote Viewer** (RedHat Virtualization) to version **8.0**.
- Updated **Spice GTK** (RedHat Virtualization) to version **0.36**.

IBM_5250

- Updated **IBM iAccess Client** Solutions to version **1.1.8.1**.
- **Improved startup time** of IBM iAccess Client.

- **Improved configuration** of IBM iAccess Client **via IGEL Setup**.
  More...

Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Connection > Advanced
Parameter	Bypass signon
Registry	`sessions.iaccess<NR>.options.ssoenabled`
Value	enabled / <u>disabled</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Font
Parameter	Antialiasing
Registry	`sessions.iaccess<NR>.options.textantialiasing`
Value	enabled / <u>disabled</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Allow blinking cursor
Registry	`sessions.iaccess<NR>.options.blinkcursor`
Value	enabled / <u>disabled</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Show blinking text with
Registry	`sessions.iaccess<NR>.options.blinkstate`
Value	[Blinking Text] [<u>Host Color</u>] [Mapped Color]
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Blink Color
Registry	`sessions.iaccess<NR>.options.blinkcolor_fg`
Value	<u>#ffc800</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Blink Color Background
Registry	`sessions.iaccess<NR>.options.blinkcolor_bg`

Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Rule Line
Registry	sessions.iaccess<NR>.options.ruleline
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Follow Cursor
Registry	sessions.iaccess<NR>.options.rulelinefollows
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Style
Registry	sessions.iaccess<NR>.options.rulelinestyle
Value	[Crosshair] [Vertical] [Horizontal]
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Green
Registry	sessions.iaccess<NR>.options.color_fgn_fg
Value	#00ff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Green Background
Registry	sessions.iaccess<NR>.options.color_fgn_bg
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	White
Registry	sessions.iaccess<NR>.options.color_fwt_fg

Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	White Background
Registry	sessions.iaccess<NR>.options.color_fwt_bg
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Red
Registry	sessions.iaccess<NR>.options.color_frd_fg
Value	#ff0000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Red Background
Registry	sessions.iaccess<NR>.options.color_frd_bg
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Turquoise
Registry	sessions.iaccess<NR>.options.color_ftq_fg
Value	#00ffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Turquoise Background
Registry	sessions.iaccess<NR>.options.color_ftq_bg
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Yellow
Registry	sessions.iaccess<NR>.options.color_fyw_fg

Value	#ffff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Yellow Background
Registry	`sessions.iaccess<NR>.options.color_fyw_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Pink
Registry	`sessions.iaccess<NR>.options.color_fpk_fg`
Value	#ff00ff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Pink Background
Registry	`sessions.iaccess<NR>.options.color_fpk_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Blue
Registry	`sessions.iaccess<NR>.options.color_fbl_fg`
Value	#7890f0
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Blue Background
Registry	`sessions.iaccess<NR>.options.color_fbl_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Status Indicators
Registry	`sessions.iaccess<NR>.options.color_osi`

Value	#7890f0
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Information Indicators
Registry	`sessions.iaccess<NR>.options.color_oii`
Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Attention Indicators
Registry	`sessions.iaccess<NR>.options.color_oai`
Value	#ffff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Error Indicators
Registry	`sessions.iaccess<NR>.options.color_oei`
Value	#ff0000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	OIA Background
Registry	`sessions.iaccess<NR>.options.color_oob`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Screen Background
Registry	`sessions.iaccess<NR>.options.color_sbg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Highlight active field
Registry	`sessions.iaccess<NR>.options.actfieldhilite`

Value	enabled / <u>disabled</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Active Field
Registry	`sessions.iaccess<NR>.options.color_actf_fg`
Value	<u>#000000</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Active Field Background
Registry	`sessions.iaccess<NR>.options.color_actf_bg`
Value	<u>#ffff00</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Crosshair Ruler Color
Registry	`sessions.iaccess<NR>.options.color_crc`
Value	<u>#00ff00</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Column Separator
Registry	`sessions.iaccess<NR>.options.color_ccs`
Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences
Parameter	Start window maximized
Registry	`sessions.iaccess<NR>.options.ismaximized`
Value	enabled / <u>disabled</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Keyboard
Parameter	Keyboard Remapping File
Registry	`sessions.iaccess<NR>.options.keyremapfile`

Value	IBMi.kmp
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Popup Keypad
Parameter	Popup Keypad File
Registry	`sessions.iaccess<NR>.options.poppadfile`
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Toolbar
Parameter	Toolbar File
Registry	`sessions.iaccess<NR>.options.toolbarfile`
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Open new sessions in a new tab
Registry	`ibm.iaccess.acssm.opensessionintab`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Always display the tab bar
Registry	`ibm.iaccess.acssm.alwaysshowtabbar`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Switch to new tab when created
Registry	`ibm.iaccess.acssm.switchtonewtab`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Send a warning when closing multiple tabs
Registry	`ibm.iaccess.acssm.closemultipletabwarning`
Value	enabled / disabled
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Do not start tabbed sessions until the tab is selected
Registry	`ibm.iaccess.acssm.tabdelayedstart`
Value	enabled / disabled

Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	New Tab Action
Registry	`ibm.iaccess.acssm.newtabaction`
Value	[Disable and Hide] [Run the Same] [Run Other...]
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Tab Placement
Registry	`ibm.iaccess.acssm.tabplacement`
Value	[Top] [Bottom] [Left] [Right]

Firefox

- Updated **Mozilla Firefox** to version **60.7.2 ESR**.
- Added new keys to **auto show and hide the on-screen software keyboard**. To use this feature, the keyboard should be set to autostart. After a restart is is activated, the keyboard will appear automatically when an input box is selected. Confirmed to work in Firefox and on lockscreen. **More...**

Parameter	Automatically hide software keyboard depending on focused widget
Registry	`userinterface.softkeyboard.autohide`
Value	enabled / disabled
Parameter	Automatically show software keyboard depending on focused widget
Registry	`userinterface.softkeyboard.autoshow`
Value	enabled / disabled

- Added new parameters: **Allow a custom command before and after browser session**. **More...**

Parameter	init_action
Registry	`sessions.browser%.init_action`
Value	<empty_string>
Parameter	final_action
Registry	`sessions.browser%.final_action`
Value	<empty_string>

- Added options to customize Firefox overflow menu and hide navigation buttons. **More...**

Parameter	Hide Navigation buttons
Registry	`sessions.browser<NR>.app.navigation_buttons_hidden`
Value	enabled / <u>disabled</u>
Parameter	Overflow Menu
Registry	`sessions.browser<NR>.app.custom_toolbar.overflow-menu`
Value	<u>open-file-button,feed-button,characterencoding-button</u>

Imprivata

- **Imprivata Appliance 6.3** or higher is needed now.
- Added a new parameter to Imprivata.conf: "**Redirection of Smartcards**".
  More...

IGEL Setup > Sessions > Appliance Mode > Imprivata	
Parameter	Redirection of Smartcards
Registry	`imprivata.native_smartcard_redirection`
Value	enabled / <u>disabled</u>

- Added a new parameter: "**Path to Certificate**".
  More...

IGEL Setup > Sessions > Appliance Mode > Imprivata	
Parameter	Path to Certificate
Registry	`imprivata.path_to_certificate`

Network

- Added **NCP Secure Enterprise VPN Client** version **5.10_rev40552** (configurable under **IGEL Setup > Network > VPN > NCP VPN Client**).
- Added a new feature: **Network status icons** are **shown on the lock and logon screens**.
- Added a mechanism for **retrieving the SCEP challenge password with a custom script.** Setting the following registry key to "true" enables the use of the script. The registry key `network.scepclient.cert%.crypt_password` will be ignored. (The script may use it for its own purpose though.)
  More...

Parameter	Use Challenge Password Command
Registry	`network.scepclient.cert%.use_challenge_password_command`
Value	enabled / <u>disabled</u>

If the above key is enabled, the value of this key will be passed to bash for execution. It happens when the SCEP challenge password is needed for creating a certificate signing request. The script

is supposed to output the challenge password on its standard output. For convenience, any Carriage-Return characters are stripped off the script before execution by bash.
More...

Parameter	Challenge Password Command
Registry	`network.scepclient.cert%.challenge_password_command`
Value	<u>\<empty_string\></u>

WiFi

- Added support for **Realtek 8821CE wireless cards**.
- Added switch to determine **the source of WiFi scan results for Wireless Manager**. Selecting default is currently identical with the old mechanism (using the iwlist command). This may change in the future. When iwlist fails, NetworkManager is automatically used as a fallback.
  More...

Parameter	WiFi Scanner
Registry	`network.interfaces.wirelesslan.device0.mssid_scanner`
Range	[<u>default</u>][iwlist][NetworkManager]

Smartcard

- New **IGEL Smartcard** mode **without Locking Desktop** (reintroduced feature of Linux 5.x firmware).
  More...

IGEL Setup > Security > Logon > IGEL Smartcard	
Parameter	Enable IGEL Smartcard without Locking Desktop
Registry	`scard.scardd.enable_nolock`
Value	enabled / <u>disabled</u>
IGEL Setup > Security > Logon > IGEL Smartcard	
Parameter	On Smartcard Removal, terminate
Registry	`scard.scardd.session_termination`
Value	<u>all</u> / smartcard

- Updated **MUSCLE CCID** smartcard reader driver to version **1.4.30**.
- Updated **ACS CCID** smartcard driver to version **1.1.6**.
- Updated **REINER SCT** smartcard reader driver to version **3.99.5final.sp13**.
- Updated **SecMaker NetID** to version **6.7.2.36**: now **YubiKey 5** is supported.
- Updated **cryptovision sc/interface PKCS#11** smartcard library to version **7.1.20**.
- Added configuration parameters for some settings of **smartcard library OpenSC**.
  More...

Parameter	Debug level
Registry	`scard.pkcs11.opensc.default.debug`
Value	<u>0</u>
Parameter	Debug file
Registry	`scard.pkcs11.opensc.default.debug_file`
Value	<u>stderr</u>
Parameter	Max. send size
Registry	`scard.pkcs11.opensc.default.pcsc.max_send_size`
Value	<u>255</u>
Parameter	Max. receive size
Registry	`scard.pkcs11.opensc.default.pcsc.max_recv_size`
Value	<u>256</u>
Parameter	Connect exclusive
Registry	`scard.pkcs11.opensc.default.pcsc.connect_exclusive`
Value	enabled / <u>disabled</u>
Parameter	Disconnect action
Registry	`scard.pkcs11.opensc.default.pcsc.disconnect_action`
Value	<u>leave</u> / reset / unpower
Parameter	Transaction end action
Registry	`scard.pkcs11.opensc.default.pcsc.transaction_end_action`
Value	<u>leave</u> / reset / unpower
Parameter	Reconnect action
Registry	`scard.pkcs11.opensc.default.pcsc.reconnect_action`
Value	<u>leave</u> / reset / unpower
Parameter	Enable pinpad
Registry	`scard.pkcs11.opensc.default.pcsc.enable_pinpad`
Value	<u>enabled</u> / disabled
Parameter	Use PIN caching

Registry	`scard.pkcs11.opensc.default.pkcs15.use_pin_caching`
Value	<u>enabled</u> / disabled
Parameter	How many times to use a PIN from cache before re-authenticating it
Registry	`scard.pkcs11.opensc.default.pkcs15.pin_cache_counter`
Value	<u>10</u>

Parameter	PIN caching ignores user consent
Registry	`scard.pkcs11.opensc.default.pkcs15.pin_cache_ignore_user_consent`
Value	enabled / <u>disabled</u>

- Updated **CHERRY USB-LAN Proxy** to version **3.2.0.3**. This version provides enhanced configuration.
  More...

IGEL Setup > Security > Smartcard > Services	
Parameter	Bind IP
Registry	`devices.cherry.usblanproxy.bind-ip`
Value	<u>auto</u>

IGEL Setup > Security > Smartcard > Services	
Parameter	Https Server Port
Registry	`devices.cherry.usblanproxy.https-port`
Value	<u>443</u>

IGEL Setup > Security > Smartcard > Services	
Parameter	SICCT Announce IP
Registry	`devices.cherry.usblanproxy.sicct-announce-ip`
Value	<u>broadcast</u>

IGEL Setup > Security > Smartcard > Services	
Parameter	SICCT Announce Port
Registry	`devices.cherry.usblanproxy.sicct-announce-port`
Value	<u>4742</u>

IGEL Setup > Security > Smartcard > Services	
Parameter	SICCT Announce Interval

Registry	devices.cherry.usblanproxy.sicct-announce-interval
Value	30

IGEL Setup > Security > Smartcard > Services	
Parameter	USB Fast Mode
Registry	devices.cherry.usblanproxy.usb-fast-mode
Value	enabled /disabled

IGEL Setup > Security > Smartcard > Services	
Parameter	Alternate Initialization Method for G87-1505
Registry	devices.cherry.usblanproxy.usb-1505-alt-setup
Value	enabled /disabled

CUPS Printing

- Added **SMB Network Print** client function.
  More...

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	Printer Port
Registry	print.cups.printer<NR>.backend
Value	smb

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	SMB Server
Registry	print.cups.printer<NR>.smb_server

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	SMB Workgroup
Registry	print.cups.printer<NR>.smb_workgroup

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	SMB Printer
Registry	print.cups.printer<NR>.smb_printer

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	SMB Port
Registry	print.cups.printer<NR>.smb_port

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	Use Kerberos Authentication
Registry	`print.cups.printer<NR>.smb_kerberos`
Value	enabled / <u>disabled</u>

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	Use Passthrough Authentication
Registry	`print.cups.printer<NR>.smb_passthrough`
Value	enabled /<u>disabled</u>

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	SMB User
Registry	`print.cups.printer<NR>.smb_user`

IGEL Setup > Devices > Printer > CUPS > Printers > Dialog	
Parameter	SMB Password
Registry	`print.cups.printer<NR>.crypt_password`

Base system

- Updated **kernel** from 4.18.20 **to 4.19.57** version.
- Enhanced **bootloader** to allow the set of some kernel commandline parameters with registry keys: **More...**

Parameter	Disable use of APIC controller
Registry	`system.kernel.bootparams.noapic`
Value	enabled /<u>disabled</u>
Parameter	Disable use of ACPI
Registry	`system.kernel.bootparams.noacpi`
Value	enabled /<u>disabled</u>
Parameter	Use only one CPU core and disable all others
Registry	`system.kernel.bootparams.nosmp`
Value	enabled /<u>disabled</u>
Parameter	Enable debug console on serial port 1
Registry	`system.kernel.bootparams.serial_console_debug`

Value	enabled /<u>disabled</u>
Parameter	Limit CPU core usage (0 means no limit)
Registry	`system.kernel.bootparams.maxcpus`
Type	Integer
Value	<u>0</u>
Parameter	Set maximum allowed cstate on intel cpus
Registry	`system.kernel.bootparams.max_cstate`
Range	[<u>No limit</u>] [1] [2] [3] [4] [5] [6]
Info: Do not limit Intel cstate.	
Parameter	IOMMU usage setting
Registry	`system.kernel.bootparams.iommu`
Range	[<u>On</u>] [Off] [Passthrough] [Force]
Info: Use IOMMU if possible.	
Parameter	IOMMU usage setting for AMD systems
Registry	`system.kernel.bootparams.amd_iommu`
Range	[<u>On</u>] [Off]
Info: Use IOMMU if possible.	
Parameter	IOMMU usage setting for Intel systems
Registry	`system.kernel.bootparams.intel_iommu`
Range	[<u>On</u>] [Off]
Info: Use IOMMU if possible.	

- Added a possibility to configure **scheduled commands**. Registry keys: `system.cron.**`
- **Buddy update** enhancements:
    - **Automatic load balancing**:
      A client collects up to eight server candidates from which one is selected randomly. Collection stops when the number specified in the following registry key is reached. Otherwise collection stops after a timeout.
      More...

Parameter	Buddy Update Server Candidates
Registry	`update.ftp.buddy_server_candidates`
Value	<u>1</u>

- **Grouping**:
  Buddy update servers and clients only interact with each other when they are in the same group determined by the following registry key (a non-negative integer number). This feature is mainly useful when different firmware versions shall be used in parallel.
  More...

Parameter	Buddy Group ID
Registry	`update.ftp.buddy_group_id`
Value	0

- Updated **libwebkit2gtk-4.0-37** to version **1.24.2**.
  Security fixes:
  More...

  CVE-2019-8595, CVE-2019-8607, CVE-2019-8615, CVE-2019-6251, CVE-2018-4373, CVE-2018-4375, CVE-2018-4376, CVE-2018-4378, CVE-2018-4382, CVE-2018-4392, CVE-2018-4416, CVE-2018-4345, CVE-2018-4386, CVE-2018-4372

- Updated **Fluendo multimedia codecs** to the following versions:
  More...

gst-fluendo-aacdec	21/03/2019	0.10.39
gst-fluendo-asfdemux	21/03/2019	0.10.89
gst-fluendo-h264dec	21/03/2019	0.10.53
gst-fluendo-mp3	21/03/2019	0.10.39
gst-fluendo-mpeg4video	21/03/2019	0.10.43
gst-fluendo-vadec	21/03/2019	0.10.208
gst-fluendo-wmadec	21/03/2019	0.10.68
gst-fluendo-wmvdec	20/03/2019	0.10.65

- Added a package **ldap-utils** which can be used by custom scripts.

Driver

- Updated **DisplayLink driver** to version **5.1.26**.
- Updated **Philips Speech Driver** to version **12.7.11** - added **support for Philips AirBridge**.
- Added registry keys to modify the Intel graphic driver usage of **framebuffer compression** and **power management**.
  New registry keys:
  More...

Parameter	Power saving display C-States to use

Registry	`x.drivers.intel.dc_setting`
Range	[Default] [Disable] [Up to DC5] [Up to DC6]
Info: "Default" - driver default	
Parameter	Use framebuffer compression
Registry	`x.drivers.intel.fbc_setting`
Range	[Default] [Disable]
Info: "Default" - driver default	

- Updated **signotec Citrix Virtual Channel** driver to version **8.0.8**.
- Updated **deviceTRUST Client** to version **19.1.200**. These are the release notes:
  Welcome to the release of the deviceTRUST 19.1.200 IGEL client, providing the context of IGEL thin client and UD Pocket devices into your virtual sessions. This release includes support for logical disks attached to the IGEL endpoint, plus bug fixes and stability improvements over the previous 19.1.100 release.

  Logical Disks
  We've added support for real-time properties representing the LOGICAL DISKS attached to the IGEL endpoint. This includes:
  More…

  DEVICE_LOGICALDISK_X_TYPE – Either Fixed or Removable.
  DEVICE_LOGICALDISK_X_LABEL – The volume label.
  DEVICE_LOGICALDISK_X_FILESYSTEM – The type of file system.
  DEVICE_LOGICALDISK_X_PATHS – The paths that the disk is mounted.
  DEVICE_LOGICALDISK_X_TOTALMB – The total space available on the disk. This property is only available for mounted disks.
  DEVICE_LOGICALDISK_X_FREEMB – The free space available on the disk. This property is only available for mounted disks.
  DEVICE_LOGICALDISK_X_NAME – The name of the underlying physical disk.
  DEVICE_LOGICALDISK_X_VENDORID – The vendor identifier uniquely identifying the manufacturer. This property is only available for USB or PCI connected devices.
  DEVICE_LOGICALDISK_X_PRODUCTID – The product identifier uniquely identifying the product. This property is only available for USB or PCI connected devices.
  DEVICE_LOGICALDISK_X_SERIALNUMBER – The serial number of the physical disk.
  DEVICE_LOGICALDISK_X_BUSTYPE – The storage bus type linked to the physical disk.
  DEVICE_LOGICALDISK_COUNT – The number of logical disks.

X11 system

- Updated Xorg server from 1.19.6 to **1.20.5** version.
- Updated **Virtualbox** from 5.2.18 to **6.0.8** version.
- Updated **Mesa** from 18.2.1 to **19.0.8** version.
- Updated **Nvidia driver** from 410.93 to **418.56** version.
- Updated **Xorg video and input driver** to current upstream versions.

- Added new options for **laptop lid handling** dependent on power supply:
  More...

Parameter	Lid close action while plugged in
Registry	`system.actions.lid.ac`[42]
Range	[Turn off display] [Suspend]
Parameter	Lid close action while not plugged in
Registry	`system.actions.lid.battery`
Range	[Turn off display] [Suspend]

- The new **Display Switch tool** can use multiple different profiles, automatically chosen at runtime depending on the currently connected monitors.
  A profile is created, when the current monitor layout/resolution is configured via the Display Switch utility. The profile will be associated with the current connected displays automatically (manufacturer, model and used connector are used for allocation) and if applicable, the state of the laptop lid. The setup will be restored by hot-(un)plugging known displays, means the system will automatically switch to the already configured profile.
  The Display Switch utility itself got a new interface. All base functionalitycan be configured via Drag&Drop.
  An example workflow:
  - Connect the hardware and close/open the lid.
  - Open the Display Switch Utility:
    - A quick (simple) setting can be selected directly.
    - Should the desired use case be different from the provided choices, the `Advanced´ button opens a drag&drop interface for further settings.
  - In this interface the displays can be dragged and dropped for the intended configuration. The display will snap adjacent to others.
  - If a display should not be used, it can be dragged to the `Disabled´ area on the top right - the screen will be reactivated when it is dragged back to the active area.
  - To show the same content on multiple displays, one display should be dragged onto another active screen. The interface will show "Mirror". The mirroring monitor will be displayed on the lower right.
    With the 'Apply' button the current state will be set, with `Yes´ on the "Keep configuration" dialog the current settings will be saved to persistent storage and associated with the profile.
  - Advanced functionality (panning/scaling/resolutions) can be configured in drop-down boxes, hidden in a drawer on the right side. The drawer can be expanded by clicking the '<' button on the right edge.
  - For the Display Switch functionality the following parameters should be enabled for proper usage:
    More...

---

[42] http://system.actions.lid.ac

IGEL Setup > Accessories > Display Switch > Options	
Parameter	Preserve settings over reboot
Registry	`sessions.user_display0.options.preserve_settings`
Value	enabled / disabled

IGEL Setup > Accessories > Display Switch > Options	
Parameter	Smart display configuration
Registry	`x.auto_associate`
Value	enabled / disabled

- The **IGEL Display Switch** utility is **now usable for NVIDIA graphics devices** as well.
- Added a new parameter to optionally start with opened **'Advanced' drawer in Display Switch**.
  More...

IGEL Setup > Accessories > Display Switch > Options	
Parameter	Preserve settings over reboot
Registry	`sessions.user_display0.options.preserve_settings`
Value	enabled / disabled

IGEL Setup > Accessories > Display Switch > Options	
Parameter	Start with the advanced drawer opened
Registry	`sessions.user_display0.options.start_open`
Value	enabled / disabled

- Added **xprintidle tool** to firmware.
- Added some registry keys to disable loading of **DRM kernel modules** (graphic).
  More...

Parameter	Disable the loading of the RADEON DRM driver.
Registry	`x.drivers.ati.disable`
Value	"0"
Parameter	Disable the loading of the AMDGPU DRM driver.
Registry	`x.drivers.amdgpu.disable`
Value	"0"
Parameter	Disable the loading of the i915 DRM driver.
Registry	`x.drivers.intel.disable`

Value	"0"
Parameter	Disable the loading of the NVIDIA kernel driver.
Registry	`x.drivers.nvidia.disable`
Value	"0"
Parameter	Disable the loading of the NOUVEAU DRM driver.
Registry	`x.drivers.nouveau.disable`
Value	"0"
Parameter	Disable the loading of the QXL DRM driver.
Registry	`x.drivers.qxl.disable`
Value	"0"
Parameter	Disable the loading of the VMGFX DRM driver.
Registry	`x.drivers.vmware.disable`
Value	"0"
Parameter	Disable the loading of the VBOXVIDEO DRM driver.
Registry	`x.drivers.vboxvideo.disable`
Value	"0"

- Added the possibility to **change an embedded DisplayPort to a normal** DisplayPort. **More...**

Parameter	Use embedded displayport as normal displayport
Registry	`x.drivers.intel.edp_is_dp`
Range	[default][enable][disable]
Info: Reboot required	

Java

- Replaced Oracle JRE by **AZUL's Zulu JRE**.
- **Removed** deprecated **Java WebStart** since it is not supported with non-Oracle JRE's.

X server

- Updated **Xephyr x session** to version **1.20.5**.

Hardware

- Added hardware support for **HP t530**.
- Added hardware support for **HP Compaq Elite 8300**.
- Added hardware support for **HP EliteDesk 800 G3 mini**.

- Added hardware support for **HP EliteDesk 800 G3 SFF**.
- Added hardware support for **HP EliteDesk 800 G1 SFF**.
- Added hardware support for **Fujitsu Esprimo Q957**.
- Added hardware support for **Dell OptiPlex 9020**.
- Added hardware support for **Dell Latitude E6440**.
- Added hardware support for the following headsets:
  More...

  Jabra Engage 50;
  Jabra Engage 65;
  Jabra Engage 75;
  Jabra Evolve 30 II (Ver. B);
  Jabra Evolve 30 II (Ver. C);
  Jabra Evolve 40 (Ver. B) - USB-C;
  Jabra Evolve 40 (Ver. D);
  Jabra Evolve 65;
  Jabra Evolve 75;
  Plantronics Voyager 5200 UC;
  Plantronics Voyager 6200 UC;
  Plantronics Voyager 8200 UC;
  Sennheiser SC70.

Remote Management / IGEL Cloud Gateway

- **Connection order between UMS and ICG** can now be configured.
  More...

Parameter	Prefer UMS over ICG
Registry	`system.remotemanager.icg_try_ums_connect`
Value	enabled / <u>disabled</u>

  When an ICG connection is configured and the parameter is enabled, the device tries to connect directly to UMS. If the connection was established successfully, the device is managed by UMS and not over ICG until new start of the device or networking.

- **Firmware update scheduled on shutdown** is now invoked **on reboot** as well.
- Added some adaptations in **UMS Agent** concerning **migration to IGEL OS11**.

Resolved Issues 10.06.100

Citrix

- Now ica.pnlogin.syncpasswordwithxscrnsvr is removed, **ica.pnlogin.syncpasswordwithxlock** should be used, this provides the same functionality.
- Fixed **online meeting in VDI**: An enabled webcam will not cut the audio streaming anymore.
- Citrix **Workspace App 19.03**: Improved USB redirection handling.
- **Custom icons** now are visible **after StoreFront logon** using Citrix authentication method.
- **Appropriate icons** arise with IGEL and Citrix authentication.
- Fixed **stability issues** with Citrix Browser Content Redirection.
- Updated the **Nuance virtual channel** for ICA up to version **B301**.

RDP/IGEL RDP Client 2

- Added **Negotiate:Kerberos as fallback** if NTLM is disabled. This only works if Active Directory/Kerberos Logon is enabled.
- Added registry key to use **rdpglobal window settings for remote apps**.
  More...

Parameter	Enable global window settings for remote app
Registry	`rdp.winconnect.enable-global-window-settings-for-remote-app`
Value	enabled / <u>disabled</u>

- Fixed **empty warning window** being shown when closing RDP Web Applications started from browser.
- Fixed **smartcard redirection in RDP**: SCardGetAttrib was failing if pbAttr was NULL. The fix should help running Dutch Zorg-ID applications.

RD Web Access

- Fixed **RD Web Access** not working with **special characters in name or password**. This only works if Active Directory/Kerberos Logon is enabled.
- Fixed **empty warning dialogs** appearing when opening RD Web Application in the browser.
- Fixed **not starting RDP Remote Applications**.

VMware Horizon

- Fixed **Optimization for Skype for Business**.
- Fixed the configuration choice to use **the relative mouse feature**.

Parallels Client

- Updated **Parallels Client** to version **16.5.3** (64-Bit).
- Fixed: **Maximized windows** for published applications can be displayed incorrectly.
- Fixed: **Incorrect user credentials** can be picked up during connection if the same farm is registered in the client multiple times and with different user credentials.
- Fixed: Client **did not accept universal printing policies** set from the server.
- Fixed: **Module** opened in the background and **blocked the launche**r in some cases.
- Fixed: **Redirected smartcard** did not work **in a remote session**.

- Fixed: **Printers would not redirect to a remote session** when redirection is enforced via policies.

PowerTerm

- Fixed **editing** of parameter **sessions.powerterm\<INST>.logindialog.loginscript** in Setup Registry: now multiple lines are possible.
- PowerTerm Terminal Emulation: remove **obsolete SSH type SSH1** and **obsolete SSH cipher DES** from parameter ranges.

Firefox

- Fixed an issue where **Firefox does not accept proxy credentials** from setup.
- Fixed the **print hotkey disable option** with Firefox 60+.
- Fixed **browserglobal.app.local_subdirs_whitelist** not working.
- Fixed **Adobe Flash Player download** possibility.

Network

- Improved **SCEP client robustness**:
  - The **cert_agent script** doesn't terminate anymore when a problem occurs (e.g. the SCEP server is unreachable) but tries again after the expiry check interval.
  - When the client certificate has expired, there is still one attempt at renewing it. However, when that fails, a new one is requested. That obviously will fail if the client presents a challenge password that is not valid anymore.
- Restoring **WLAN/WWAN Modem state** after wakeup from standby or reboot.
- Improved **expire time of Ethernet no-link notification**.
- Added all **Ethernet network drivers from OS to LX** version.
- Changed **e1000e driver** to out of tree version **3.4.2.3** directly from Intel.
- Changed **igb driver** to out of tree version **5.3.5.22** directly from Intel.
- Fixed bug: **Failure to reach SCEP server** in the client certificate renewal phase resulted in loss of SCEP server and client certificates.
- SCEP: **A change of the CA fingerprint** setting **does not result in discarding all SCEP data anymore** if the fingerprint matches that of the current CA certificate. Firmware versions before 10.05.100 allowed an empty fingerprint. So, this is meant for users who must belatedly configure the fingerprint in order for client certificate renewal to work.
  A change of the **CAIdentifier** setting is not detected immediately and does not result in discarding all current data anymore. The new CAIdentifier will, however, be used in future SCEP operations.
- Fixed **instability with netmounts** with static ip configuration.
- Fixed problems with **windows share mounts**.
- Fixed **MBB router** configuration (broken since 10.05.500).
- Added a possibility to **switch between third-party** and **kernel Intel IGB network driver**.
  A new registry key:
  More...

Parameter	Use thirdparty igb kernel module
Registry	`network.drivers.igb.prefer_thirdparty`
Range	[Auto] [Yes] [No]
Info: "Auto" (use thirdparty in most cases)	

- Added a possibility to **switch between thirdparty** and k**ernel Intel E1000E network driver**.
  A new registry key:
  More...

Parameter	Use thirdparty e1000e kernel module
Registry	`network.drivers.e1000e.prefer_thirdparty`
Range	[Auto] [Yes] [No]
Info: "Auto" (use thirdparty in most cases)	

- Added a possibility to **switch between thirdparty r8168** and **kernel r8169 realtek network driver**.
  A new registry key:
  More...

Parameter	Use thirdparty r8168 kernel module
Registry	`network.drivers.r8169.prefer_r8168`
Range	[Auto] [Yes] [No]
Info: "Auto" (use r8168 in most cases)	

- Added a possibility to choose the **variant of the realtek r8168 driver**.
  A new registry key:
  More...

Parameter	Choose realtek r8168 variant (only if "prefer r8168" is chosen)
Registry	`network.drivers.r8169.r8168_variant`
Range	[Default] [No NAPI] [NAPI]
Info: "Dafault" (use NAPI in most cases)	

- Fixed bug: **Second Ethernet interface** did not get configured when the first one was disabled.
- Fixed **802.1X Ethernet configuration with user interaction**.

WiFi

- Fixed bug: **WiFi connection to hidden SSID** did not work anymore after re-editing with the Wireless Manager.
- Fixed not working **Broadcom SDIO WLAN cards** as present in Advantech AIM8IAC device for example.

Smartcard

- Fixed **Dell KB813 Smartcard Keyboard** in combination with certain smart cards driven by OpenSC PKCS#11 module. Before this fix, authentication to Citrix StoreFront and VMWare Horizon failed.
- Improved **handling of PIV/CAC smart cards** in OpenSC.
- Updated **cryptovision sc/interface PKCS#11 smart card library** to version **7.1.20**.
  Changes in this revision:
  - Fixed **a possible deadlock in the PKCS#11 module** on Linux if C_Finalize is called during a PCSC

event, for example, C_WaitForSlotEvent.
- **ROCA check in the Smartcard Manager**, based on the "ROCA detection tool", see https://github.com/crocs-muni/roca.
- **Renaming container label** in Smartcard Manager with F2 now possible.
- Fixed **OpenSC setting max_send_size** for reader driver pcsc in **/etc/opensc/opensc.conf**.

Application Launcher

- Fixed **confusion in nameserver list** caused by comments in /etc/resolv.conf.

Base system

- Fixed: **Zotac Zbox will not shutdown**.
- Fixed issues with **gen4/5 Intel graphic driver** in kernel 4.18.20.
- Fixed **Screensaver and Screenlock timeouts** to be independent. This means, if both timeouts are set, the start of Screenlock will not reset the Screensaver timeout any more.
- Fixed **retrieving of serial number of a display**.
- Fixed **playback of AAC coded audio streams** on IGEL Zero products.
- Do not auto-start **UD-Pocket license browser** when the device has a proper license.
- Added possibility to set **intel_idle.max_cstate kernel cmdline parameter** with registry keys **to work against Intel CPU freezes**.
- **Enhanced handling of Unit ID**. The persistent Unit ID can be removed with command `get_unit_id -r` . The persistent Unit ID storage can be forced with `get_unit_id -i -f -p` or with `get_unit_id -m` to manually choose a Unit ID from several network interfaces found on the device. Handle with extreme care since the Unit ID is the key for handling the endpoint in UMS.
- Replaced MIT Kerberos clients by **Heimdal Kerberos clients**.
- Improved the buddy update server performance for multiple simultaneous update clients.
- Fixed handling of an **"update on shutdown" during suspend/resume**.
- Fixed **NVIDIA** driver **kernel warning messages**.
- Allow to **configure NVIDIA graphics cards** (rotation/resolution) **via Setup** again.
- Fixed **shutdown** while IGEL Setup Assistant is shown.
- Fixed **delay in logon** as local user when logon with IGEL Smartcard is also active.
- Fixed **sporadic bootsplash issue**.
- Fixed **suspend/resume hangs** when logged into Citrix sessions.
- Fixed **CPU scaler** and **volume control applet suspend/resume** issue.
- Added **AppArmor** rule to allow tcpdump to write to **/debuglog**.
- Fixed random 90 seconds **shutdown delay** (systemd).
- Fixed **Custom Bootsplash installation**.
- Bugfix: **Create shortcuts** for terminal shutdown, terminal restart and icon sort **directly after reconfiguration**. A reboot is not needed anymore.
- Fixed: **System logoff waits for Citrix logoff** now.
- Fixed **broken custom bootsplash** when doing a reset to factory defaults via UMS.
- Bugfix: **hotkey** setting **needs restart**.
- **IGEL Setup Assistant** will persistently **activate WiFi** when a connection is enabled instead of after finishing it, to preserve settings when UMS sends license and stops it.
- Fixed **AD/Kerberos logon** in case parameter **auth.login.krb5_enterprise** is **set to 'false'**.
- Added a new registry key to set **USB quirks**:
  More...

Parameter	Set XHCI USB quirks to fix some hardware issues
Registry	`system.kernel.bootparams.xhci-hcd_quirks`
Range	[No quirk] [Spurious Reboot quirk] [Spurious Wakeup quirk] [Spurious Reboot Wakeup quirk]

- **Lenovo ThinkCentre M73** needs the `system.kernel.bootparams.xhci-hcd_quirks` registry key set to **"Spurious Reboot quirk"** to fix reboot after shutdown problem.
- Fixed: **Migration tool** did not start with **Spanish** language setting.
- Disabled **martian packet logging**.

Driver

- Updated **deviceTRUST** Client to version **19.1.200.**
  Bug Fixes:
  - Fixed an issue **reading the DEVICE_IGEL_ICG_SERVER** property.
  - Fixed an issue where the **NETWORK** and **LOCATION** property providers could **cause the client to freeze** if a disconnection occurred while these property providers were checking for changes.
  - Fixed an **open file handle leak** which lead to the client process reaching its file handle limits when left running for a long period of time.
- Fixed not working **WACOM** device **DTU-1141B**.

Custom Partition

- Fixed **ownership of extracted data**: Do not preserve owner information while extracting data into custom partition.

Storage Devices

- Fixed **auto mounting of storage devices** inside of Olympus DS-9500 Digital Voice Recorder.

Appliance Mode

- Fixed bug: **In-session control bar** could not be deactivated **in Citrix SelfService appliance mode**.

X11 system

- Fixed **Microsoft Surface Pro 4 screen resolution** issue.
- Fixed the **missing volume control** in the panel when the panel is configured to disappear while the login/lock screen is shown.
- There is now **a registry key to ignore a 3Dconnexion SpaceMouse** for IGEL graphical use (X11). If activated, the SpaceMouse is only passed through to the desktop session. If false, it acts also as the standard mouse.
  More...

Parameter	Deactivates a 3Dconnexion SpaceMouse as a standard mouse
Registry	`userinterface.mouse.spacemouse.x11_ignore`
Value	enabled / disabled

- The following **SpaceMouse** products are included:

More...

VID	PID	Vendor	Product
0x046D	0xC603	Logitech, Inc.	3Dconnexion SpaceMouse Plus XT
0x046D	0xC605	Logitech, Inc.	3Dconnexion CADman
0x046D	0xC606	Logitech, Inc.	3Dconnexion SpaceMouse Classic
0x046D	0xC621	Logitech, Inc.	3Dconnexion SpaceBall 5000
0x046D	0xC623	Logitech, Inc.	3Dconnexion SpaceTraveller 3D Mouse
0x046D	0xC625	Logitech, Inc.	3Dconnexion SpacePilot 3D Mouse
0x046D	0xC626	Logitech, Inc.	3Dconnexion SpaceNavigator 3D Mouse
0x046D	0xC627	Logitech, Inc.	3Dconnexion SpaceExplorer 3D Mouse
0x046D	0xC628	Logitech, Inc.	3Dconnexion SpaceNavigator for Notebooks
0x046D	0xC629	Logitech, Inc.	3Dconnexion SpacePilot Pro 3D Mouse
0x046D	0xC62B	Logitech, Inc.	3Dconnexion SpaceMouse Pro
0x256F	**	3Dconnexion	SpaceMouse

- Fixed **screen flicker** in some cases if **Force NumLock On** (x.global.forcenumlock) is active.
- Fixed not working **x.xserver0.screen1.flipscreens** registry key.
- Fixed **problems with internal graphic cards** and **NVIDIA graphic cards**.
- Use **Index** and **Mode** from Advanced mode in Simple Mode **for Display Switch**.
- Fixed **display hotplug failing** on initial lock screen with Active Directory logon.
- The **in-session control bar** now **scales with the current DPI** setting.
- Fixed **Display Switch** utility **not starting with some translations**.
- Fixed an issue with the **noDDC mode** not always working as expected.
- Fixed some **multimonitor (>4) issues with NVIDIA graphic cards**.
- Fixed **monitor screen ID** shown **with NVIDIA NV810 GPU**.
- Fixed a bug with thin clients **reporting the wrong monitor serial number**.

Window manager

- Fixed the option to **disable the local window manager**.

Audio

- Fixed **bad quality sound over DisplayPort** in a Citrix ICA session or other applications using ALSA API.
- Fixed **jack detection** of the headphone port **in Dell Wyse 3040**.
- Fixed **configuration of default audio output** and **input**.

Media Player (Parole)

- Fixed a problem where **parole media player** would **hang** instead of playing audio **while audio-visualization** is enabled.
- Fixed parole media player **not handling audio hotkeys in fullscreen mode**.

Multimedia

- Updated **multimedia codecs to fix freeze** when audio visualization is used.

Misc

- **Monitoring Agent** uses now **only the half size of the debuglog partition**.
  When the setup option **log_max_size** with the option **log_rotation** creates an overall consumption that is bigger than 50% of the debuglog partition size, the size for each log automatically will be decreased to a value that allows a full rotation which occupies exactly 50% of the partition size.

Hardware

- Fixed wrongly detected **embedded DisplayPort on Dell Wyse 5070 Extended hardware**.
- Fixed **wakeup from suspend for Lenovo Ideapad 320-15IAP**.
- Fixed not working **network on Beckhoff CB3163, CB6263** and **CB6363** systems.
- Fixed not working **network on Lex 3I380D**.
- Fixed **shutdown** issue **of Lenovo ThinkCentre M73** (rebooted 2 - 3 seconds after power off).
- Fixed problems with **mouse cursor on Intel cherryview devices**.
- Fixed **detection of Dell Wyse 5070** for the non-extended version.
- Fixed not working **Laptop Display for Dell Latitude E5510**.
- Added a **possibility to change** some **DRM settings** and **limit the DisplayPort lane bandwidth** on Intel devices.
  Added new registry keys:
  More...

Parameter	Use best graphic mode for all screens on console.
Registry	`x.drivers.kms.best_console_mode`
Range	[Default] [Enabled] [Disabled]
Info: "Default" is enabled in most cases.	

Parameter	Limit the maximum console resolution width to this value.
Registry	`x.drivers.kms.max_console_width`
Type	Integer
Value	"0"
Info: "0" means default setting. Use the default setting.	

Parameter	Limit the maximum console resolution height to this value.
Registry	`x.drivers.kms.max_console_height`
Type	Integer

Value	"0"
Info: "0" means default setting. Use the default setting.	
Parameter	Set graphic kernel driver debug level.
Registry	`x.drivers.kms.debug_level`
Range	[No debug] [Basic] [Basic + core] [Basic + core + atomic] [Full]
Info: Warning log will grow very fast.	

Only for Intel i915 driver:

Parameter	Limit the maximum DisplayPort lane link rate.
Registry	`x.drivers.intel.max_dp_link_rate`
Range	[default] [1.62Gbps] [2.16Gbps] [2.7Gbps] [3.24Gbps] [4.32Gbps] [5.4Gbps] [6.48Gbps] [8.1Gbps]
Info: "Default" means hardware default limit.	

Remote Management / IGEL Cloud Gateway

- Fixed **wallpaper configuration** when ICG protocol is used.
- Fixed **UMS synchronization of configuration** when changes were made in "Emergency mode".
- Fixed sporadic **failures while sending data over ICG**.
- Fixed **removal from UMS** when the device was offline.
- Added: IGEL UMS agent sends **monitor information for maximum eight monitors** now.

Caradigm

- Fixed **Horizon session crash**.

Notes for Release 10.05.830

Software:	Version	10.05.830
Release Date:	2019-07-05	
Release Notes:	Version	RN-105830-1
Last update:	2019-07-05	

- IGEL Linux Universal Desktop
- IGEL Universal Desktop OS 3

IGEL Linux Universal Desktop

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
	UD3-LX 42
	UD3-LX 41
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10
IGEL Zero:	
IZ2-RFX	
IZ2-HDX	
IZ2-HORIZON	
IZ3-RFX	
IZ3-HDX	
IZ3-HORIZON	

Component Versions 10.05.830

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	19.3.0.5
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.7.2
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
deviceTRUST RDP Channel	19.1.200.2
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_202
Parallels Client (64 bit)	16.5.2.20595
Remote Viewer (RedHat Virtualization)	7.0-igel47
Spice GTK (Red Hat Virtualization)	0.35
Spice Protocol (Red Hat Virtualization)	0.12.14
Usbredir (Red Hat Virtualization)	0.8.0
Systancia AppliDis	4.0.0.17

Thinlinc Client	4.9.0-5775
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel16
VMware Horizon Client	4.10.0-11053294
VNC Viewer	1.8.0+git20180123-igel1
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20180621
Philips Speech Driver	12.6.36

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.9.620
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
Reader Driver ACS CCID	1.1.5
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5

Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.28
Reader Driver REINER SCT cyberJack	3.99.5final.SP11
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.0.0.6

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.13
OpenSSH Client	7.2p2-4ubuntu2.4
OpenSSH Server	7.2p2-4ubuntu2.4
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.2.1-1igel51
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20181113-igel846
Graphics Driver ATI/RADEON	18.0.1-1igel831
Graphics Driver ATI/AMDGPU	18.0.1-1igel831
Graphics Driver VIA	5.76.52.92-009-005f78-20150730
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.3.4-1build2igel639
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver VMmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.20 #mainline-ud-r2755
Xorg X11 Server	1.19.6-1ubuntu4igel838
Xorg Xephyr	1.19.6-1ubuntu4igel832
CUPS printing daemon	2.1.3-4ubuntu0.7igel23

PrinterLogic	18.2.1.128
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2igel653
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.2igel58
ModemManager	1.6.8-2igel1
GStreamer 0.10	0.10.36-2ubuntu0.1
GStreamer 1.x	1.14.2-1ubuntu1igel192
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB
VPN OpenConnect
Scanner support
VirtualBox

- **Features with Limited Functionality**

Cisco JVDI Client	12.1

General Information 10.05.830

The following clients and features are not supported anymore:

- Citrix Receiver 12.1 and 13.1 - 13.4;
- Citrix Access Gateway Standard Plug-in;
- Dell vWorkspace Connector for Linux;
- Ericom PowerTerm Emulation 9 and 11;
- Ericom Webconnect;
- IGEL Legacy RDP Client (rdesktop);
- Virtual Bridges VERDE Client;
- PPTP VPN Support;
- IGEL Upgrade License Tool with IGEL Smartcard Token;
- Remote Management by setup.ini file transfer (TFTP);
- Remote Access via RSH;
- Legacy Philips Speech Driver;
- t-Systems TCOS Smartcard Support;
- DUS Series touchscreens;
- Elo serial touchscreens;
- IGEL smartcard without locking desktop;
- Video Hardware Acceleration Support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10;
- H.264 Hardware Acceleration Support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10;
- Storage Hotplug devices are not automatically removed anymore, instead they must be always ejected manually:
    - by panel tray icon;
    - by an icon in the 'In-Session Control Bar' (configurable at I**GEL Setup > User Interface > Desktop**);
    - by a 'Safely Remove Hardware' session (configurable at **IGEL Setup > Accessories**).

The following clients and features are not available in this release:

- Cherry eGK Channel;
- Open VPN Smartcard Support;
- Asian Input Methods;
- Composite Manager.

Known Issues 10.05.830

Citrix

- With activated DRI3 and an AMD GPU, Citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **gstreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. GStreamer 1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of Login.
  As a workaround, insert the smartcard before starting StoreFront login.
- When using **Citrix Workspace App 18.10** in combination with **Philips Speech** driver, the session occasionally terminates improperly at logout and hangs.
  As a workaround, the usage of **Citrix Receiver 13.10** is recommended when Philips Speech driver is needed.
- Citrix **H.264 acceleration plugin** does not work with **enabled** server policy "Optimize for 3D graphics workload" in combination with server policy "Use video codec compression" > "For the entire screen".
- When **Expand the session over a self-selected number of monitors** (for **Multimonitor full-screen mode**) is used and Setup is restarted, **Restrict full-screen session to one monitor** is indicated and the monitor selection is greyed out. The functionality is available, only the notification in setup is broken.
- To launch **multiple desktop sessions** with **Citrix HDX RTME** and **Citrix H.264 acceleration plugin**, the following registry key must be enabled:
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Range	enabled / <u>disabled</u>

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

VMware Horizon

- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory `/` media as a drive. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping** is switched off.
    In the IGEL Setup client, **drive mapping** can be found under **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable drive mapping**.

It is also recommended to disable local **Storage Hotplug** under Setup **> Devices > Storage Devices > Storage Hotplug**.

- On the other hand, if you use **drive mapping** instead, it is recommended to either **switch off USB redirection entirely** or at least to **deny storage devices** by adding a filter to the USB class rules.
  Furthermore, Horizon Client relies on the OS to mount the storage device itself. Enable local **Storage Hotplug** under Setup **>Devices > Storage Devices > Storage Hotplug**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode** it is necessary to connect to the **Parallels RAS** one time with FIPS support disabled.

Smartcard

- In some cases, there are instabilities when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi Firefox plugin is no longer supported. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

Hardware

- Suspend on **UD10** is disabled.

New Features 10.05.830

Citrix

- Added support for **Citrix Workspace Launcher** functionality as described at https://support.citrix.com/article/CTX237727.
- Updated **Citrix HDX RTME** used for optimization of Skype for Business to version **2.8.0-2235**.
- Integrated **Citrix Workspace App 19.03**.
- Added: new registry key supports **1536-bit RSA keys for client authentication**.
  More...

Parameter	Enable RSA 1536 cipher suite
Registry	`ica.allregions.enabl_rsa_1536`
Range	<u>factory default</u> / false / true

- Added: new registry key to enable different **cipher suites client authentication**.
  More...

Parameter	Enables different cipher suites
Registry	`ica.allregions.sslciphers`
Range	<u>factory default</u> / ALL / GOV / COM
Info: TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 – GOV/ALL TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 – GOV/ALL TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA – COM/ALL	

VMware Horizon

- Added possibility to easily evaluate **Horizon Blast decoder states**. By default, sessions are evaluated after the use and the result is put to the journal log. But it can also be used with GUI notifications at runtime.

Driver

- Added registry keys to modify the Intel graphic driver usage of **framebuffer compression** and **power management**.
  New registry keys:
  More...

Parameter	Power saving display C-States to use.
Registry	`x.drivers.intel.dc_setting`
Range	<u>[Default]</u> [Disable] [Up to DC5] [Up to DC6]
Info: "Default" - driver default	

Parameter	Use framebuffer compression.
Registry	`x.drivers.intel.fbc_setting`
Range	[Default] [Disable]
Info: "Default" - driver default	

X11 system

- Added some registry keys to disable loading of **DRM kernel modules** (graphic).
  New registry keys:
  More...

Parameter	Disable the loading of the RADEON DRM driver.
Registry	`x.drivers.ati.disable`
Value	"0"
Parameter	Disable the loading of the AMDGPU DRM driver.
Registry	`x.drivers.amdgpu.disable`
Value	"0"
Parameter	Disable the loading of the i915 DRM driver.
Registry	`x.drivers.intel.disable`
Value	"0"
Parameter	Disable the loading of the NVIDIA kernel driver.
Registry	`x.drivers.nvidia.disable`
Value	"0"
Parameter	Disable the loading of the NOUVEAU DRM driver.
Registry	`x.drivers.nouveau.disable`
Value	"0"
Parameter	Disable the loading of the QXL DRM driver.
Registry	`x.drivers.qxl.disable`
Value	"0"
Parameter	Disable the loading of the VMGFX DRM driver.
Registry	`x.drivers.vmware.disable`
Value	"0"

Parameter	Disable the loading of the VBOXVIDEO DRM driver.
Registry	`x.drivers.vboxvideo.disable`
Value	"0"

IBM_5250

- Improved **startup time** of IBM iAccess Client.
- Improved **configuration** of IBM iAccess Client **via IGEL Setup**.
  More...

Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Connection > Advanced
Parameter	Bypass signon
Registry	`sessions.iaccess<NR>.options.ssoenabled`
Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Font
Parameter	Antialiasing
Registry	`sessions.iaccess<NR>.options.textantialiasing`
Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Allow blinking cursor
Registry	`sessions.iaccess<NR>.options.blinkcursor`
Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Show blinking text with
Registry	`sessions.iaccess<NR>.options.blinkstate`
Value	[Blinking Text] [Host Color] [Mapped Color]
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Blink Color
Registry	`sessions.iaccess<NR>.options.blinkcolor_fg`

Value	#ffc800
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Blink Color Background
Registry	`sessions.iaccess<NR>.options.blinkcolor_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Rule Line
Registry	`sessions.iaccess<NR>.options.ruleline`
Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Follow Cursor
Registry	`sessions.iaccess<NR>.options.rulelinefollows`
Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Style
Registry	`sessions.iaccess<NR>.options.rulelinestyle`
Value	[Crosshair] [Vertical] [Horizontal]
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Green
Registry	`sessions.iaccess<NR>.options.color_fgn_fg`
Value	#00ff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Green Background
Registry	`sessions.iaccess<NR>.options.color_fgn_bg`

Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	White
Registry	sessions.iaccess<NR>.options.color_fwt_fg
Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	White Background
Registry	sessions.iaccess<NR>.options.color_fwt_bg
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Red
Registry	sessions.iaccess<NR>.options.color_frd_fg
Value	#ff0000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Red Background
Registry	sessions.iaccess<NR>.options.color_frd_bg
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Turquoise
Registry	sessions.iaccess<NR>.options.color_ftq_fg
Value	#00ffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Turquoise Background
Registry	sessions.iaccess<NR>.options.color_ftq_bg

Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Yellow
Registry	`sessions.iaccess<NR>.options.color_fyw_fg`
Value	#ffff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Yellow Background
Registry	`sessions.iaccess<NR>.options.color_fyw_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Pink
Registry	`sessions.iaccess<NR>.options.color_fpk_fg`
Value	#ff00ff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Pink Background
Registry	`sessions.iaccess<NR>.options.color_fpk_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Blue
Registry	`sessions.iaccess<NR>.options.color_fbl_fg`
Value	#7890f0
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Blue Background
Registry	`sessions.iaccess<NR>.options.color_fbl_bg`

Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Status Indicators
Registry	`sessions.iaccess<NR>.options.color_osi`
Value	#7890f0
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Information Indicators
Registry	`sessions.iaccess<NR>.options.color_oii`
Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Attention Indicators
Registry	`sessions.iaccess<NR>.options.color_oai`
Value	#ffff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Error Indicators
Registry	`sessions.iaccess<NR>.options.color_oei`
Value	#ff0000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	OIA Background
Registry	`sessions.iaccess<NR>.options.color_oob`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Screen Background
Registry	`sessions.iaccess<NR>.options.color_sbg`

Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Highlight active field
Registry	`sessions.iaccess<NR>.options.actfieldhilite`
Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Active Field
Registry	`sessions.iaccess<NR>.options.color_actf_fg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Active Field Background
Registry	`sessions.iaccess<NR>.options.color_actf_bg`
Value	#ffff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Crosshair Ruler Color
Registry	`sessions.iaccess<NR>.options.color_crc`
Value	#00ff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Column Separator
Registry	`sessions.iaccess<NR>.options.color_ccs`
Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences
Parameter	Start window maximized
Registry	`sessions.iaccess<NR>.options.ismaximized`

Value	true/ <u>false</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Keyboard
Parameter	Keyboard Remapping File
Registry	`sessions.iaccess<NR>.options.keyremapfile`
Value	<u>IBMi.kmp</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Popup Keypad
Parameter	Popup Keypad File
Registry	`sessions.iaccess<NR>.options.poppadfile`
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Toolbar
Parameter	Toolbar File
Registry	`sessions.iaccess<NR>.options.toolbarfile`
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Open new sessions in a new tab
Registry	`ibm.iaccess.acssm.opensessionintab`
Value	<u>true</u>/ false
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Always display the tab bar
Registry	`ibm.iaccess.acssm.alwaysshowtabbar`
Value	true/ <u>false</u>
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Switch to new tab when created
Registry	`ibm.iaccess.acssm.switchtonewtab`
Value	<u>true</u>/ false
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Send a warning when closing multiple tabs
Registry	`ibm.iaccess.acssm.closemultipletabwarning`

Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Do not start tabbed sessions until the tab is selected
Registry	`ibm.iaccess.acssm.tabdelayedstart`
Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	New Tab Action
Registry	`ibm.iaccess.acssm.newtabaction`
Value	[Disable and Hide] [Run the Same] [Run Other...]
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Tab Placement
Registry	`ibm.iaccess.acssm.tabplacement`
Value	[Top] [Bottom] [Left] [Right]

Resolved Issues 10.05.830

Firefox

- Fixed not working **browserglobal.app.local_subdirs_whitelist**.
- Fixed **print hotkey disable** option with Firefox 60+.

RDP/IGEL RDP Client 2

- Fixed **smart card redirection in RDP: SCardGetAttrib** was failing if **pbAttr** was NULL. The fix should help running Dutch Zorg-ID applications.

VMware Horizon

- Fixed: the configuration choice to **use the relative mouse feature**.

Citrix

- Citrix Workspace App 19.03: Improved **USB redirection handling**.
- Issue solved: **Online meeting in VDI:** "enable webcam will cut the audio streaming".
- Fixed **stability issues** with Citrix Browser Content Redirection.

Citrix Receiver 13

- Added a switch to enable the **possibility** to **launch multiple desktop sessions** with **RTME** and **H264 acceleration**. This switch should not be used when "Enable Secure ICA" is active for the specific delivery group.
  More...

Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

Network

- Fixed: The **second Ethernet interface** did not get configured when the first one was disabled.
- Added a possibility to switch between the third party **r8168** and **kernel r8169 realtek network driver**.
  New registry key:
  More...

Parameter	Use thirdparty r8168 kernel module.
Registry	`network.drivers.r8169.prefer_r8168`
Range	[<u>Auto</u>] [Yes] [No]
Info: "Auto" (use r8169 in most cases)	

- Added a possibilty to **choose** the **variant of the realtek r8168 driver**.
  New registry key:
  More...

Parameter	Choose realtek r8168 variant (only if **prefer r8168** is choosen).

Registry	`network.drivers.r8169.r8168_variant`
Range	[Default] [No NAPI] [NAPI]
Info: "Default" (use NAPI in most cases)	

Base system

- Fixed: **System logout** waits for Citrix logout now.
- Fixed: **Migration tool** did not start with the **Spanish** language setting.
- Added new registry key to set **USB quirks**.
  More...

Parameter	Set XHCI USB quirks to fix some hardware issues.
Registry	system.kernel.bootparams.xhci-hcd_quirks
Range	[No quirk] [Spurious Reboot quirk] [Spurious Wakeup quirk] [Spurious Reboot Wakeup quirk]

- **Lenovo ThinkCentre M73** needs the system.kernel.bootparams.xhci-hcd_quirks registry key set to "Spurious Reboot quirk" to fix reboot after shutdown problem.

X11 system

- There is now a **registry key to ignore a 3Dconnexion SpaceMouse** for IGEL graphical use (X11). If activated, the SpaceMouse is only passed through to the desktop session. If disabled, it acts also as the standard mouse.
  More...

Parameter	Deactivates a 3Dconnexion SpaceMouse as a standard mouse.
Registry	`userinterface.mouse.spacemouse.x11_ignore`
Value	enabled / disabled

- The following **SpaceMouse** products are included:
  More...

VID	PID	Vendor	Product
0x046D	0xC603	Logitech, Inc.	3Dconnexion SpaceMouse Plus XT
0x046D	0xC605	Logitech, Inc.	3Dconnexion CADman
0x046D	0xC606	Logitech, Inc.	3Dconnexion SpaceMouse Classic
0x046D	0xC621	Logitech, Inc.	3Dconnexion SpaceBall 5000
0x046D	0xC623	Logitech, Inc.	3Dconnexion SpaceTraveller 3D Mouse
0x046D	0xC625	Logitech, Inc.	3Dconnexion SpacePilot 3D Mouse
0x046D	0xC626	Logitech, Inc.	3Dconnexion SpaceNavigator 3D Mouse

VID	PID	Vendor	Product
0x046D	0xC627	Logitech, Inc.	3Dconnexion SpaceExplorer 3D Mouse
0x046D	0xC628	Logitech, Inc.	3Dconnexion SpaceNavigator for Notebooks
0x046D	0xC629	Logitech, Inc.	3Dconnexion SpacePilot Pro 3D Mouse
0x046D	0xC62B	Logitech, Inc.	3Dconnexion SpaceMouse Pro
0x256F	**	3Dconnexion	SpaceMouse

- **USB device reset** via USB powercycle is now available on **UD6/UD7**.
- Fixed problems with **internal graphic cards** and **NVIDIA graphic cards**.
- Fixed **Display Switch** utility not starting with some translations.
- Fixed an issue with the **noDDC mode** not always working as expected.
- Fixed some **multimonitor** (>4) issues with **Nvidia** graphic cards.
- Updated **DisplayLink driver** to version **5.1.26** to solve some startup issues.

Driver

- Fixed not working **WACOM** device **DTU-1141B**.

Hardware

- Fixed **not working network** on Beckhoff CB3163, CB6263 and CB6363 systems.
- Fixed **not working network** on Lex 3I380D.
- Fixed **black screen issue** with some monitors and 2560x1440 resolution (occurred on UD2 LX50).
- Added possibility to **change** some **DRM settings** and limit the **DisplayPort lane bandwidth** on Intel devices.
- Added new registry keys:
  More...

Parameter	Use best graphic mode for all screens on console.
Registry	`x.drivers.kms.best_console_mode`
Range	[Default] [Enabled] [Disabled]
Info: "Default" is enabled in most cases.	

Parameter	Limit the maximum console resolution width to this value.
Registry	`x.drivers.kms.max_console_width`
Type	Integer
Value	"0"
Info: "0" means default setting. Use the default setting.	

Parameter	Limit the maximum console resolution height to this value.
Registry	`x.drivers.kms.max_console_height`

Type	Integer
Value	"0"
Info: "0" means default setting. Use the default setting.	
Parameter	Set graphic kernel driver debug level.
Registry	`x.drivers.kms.debug_level`
Range	[No debug] [Basic] [Basic + core] [Basic + core + atomic] [Full]
Info: Warning log will grow very fast.	

Only for Intel i915 driver:

Parameter	Limit the maximum DisplayPort lane link rate.
Registry	`x.drivers.intel.max_dp_link_rate`
Range	[default] [1.62Gbps] [2.16Gbps] [2.7Gbps] [3.24Gbps] [4.32Gbps] [5.4Gbps] [6.48Gbps] [8.1Gbps]
Info: "Default" means hardware default limit.	

Security Fixes 10.05.830

Firefox

- Updated Mozilla **Firefox** to version **60.7.2 ESR**.
- Fixed **mfsa2019-19** security issue CVE-2019-11708.
- Fixed **mfsa2019-18** security issue CVE-2019-11707.
- Fixed **mfsa2019-10** security issues CVE-2019-9810 and CVE-2019-9813.
- Fixed **mfsa2019-08** security issues.
  More...

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,
  CVE-2019-9795, CVE-2019-9796, CVE-2018-18506, CVE-2019-9788.

- Fixed **mfsa2019-05** security issues CVE-2018-18356 and CVE-2019-5785.
- Fixed **mfsa2019-02** security issues CVE-2018-18500, CVE-2018-18505 and CVE-2018-18501.
- Fixed **mfsa2018-30** security issues.
  More...

  CVE-2018-17466, CVE-2018-18492, CVE-2018-18493,
  CVE-2018-18494, CVE-2018-18498, CVE-2018-12405.

Base system

- Fixed kernel TCP vulnerabilities **CVE-2019-11477**: SACK Panic, **CVE-2019-11478**: SACK Slowness and **CVE-2019-11479**: Excess Resource Consumption Due to Low MSS Values.
- Changed **minimally allowed MSS size** to '1000' to prevent possible Denial-of-Service attacks.
- Updated **libwebkit2gtk-4.0-37** to version **1.24.2**.
  More...

  CVE-2019-8595, CVE-2019-8607, CVE-2019-8615, CVE-2019-6251,
  CVE-2018-4373, CVE-2018-4375, CVE-2018-4376, CVE-2018-4378,
  CVE-2018-4382, CVE-2018-4392, CVE-2018-4416, CVE-2018-4345,
  CVE-2018-4386, CVE-2018-4372

IGEL Universal Desktop OS 3

Supported Hardware:

https://kb.igel.com/igelos/en/devices-supported-by-udc3-and-ud-pocket-3117174.html

Component Versions 10.05.830

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.8.0-2235
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	19.3.0.5
deviceTRUST Citrix Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.7.2
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
deviceTRUST RDP Channel	19.1.200.2
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_202
Parallels Client (64 bit)	16.5.2.20595
Remote Viewer (RedHat Virtualization)	7.0-igel47
Spice GTK (Red Hat Virtualization)	0.35
Spice Protocol (Red Hat Virtualization)	0.12.14
Usbredir (Red Hat Virtualization)	0.8.0
Systancia AppliDis	4.0.0.17

ThinLinc Client	4.9.0-5775
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel16
VNC Viewer	1.8.0+git20180123-igel1
VMware Horizon Client	4.10.0-11053294
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Grundig Business Systems dictation driver	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20180621
Philips Speech Driver	12.6.36

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.9.620
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
Reader Driver ACS CCID	1.1.5
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5

Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.28
Reader Driver REINER SCT cyberJack	3.99.5final.sp11
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.0.0.6

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.13
OpenSSH Client	7.2p2-4ubuntu2.4
OpenSSH Server	7.2p2-4ubuntu2.4
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.2.1-1igel51
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20181113-igel846
Graphics Driver ATI/RADEON	18.0.1-1igel831
Graphics Driver ATI/AMDGPU	18.0.1-1igel83
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2igel775
Graphics Driver Nvidia	390.87-0ubuntu1
Graphics Driver Vboxvideo	5.2.18-dfsg-2igel17
Graphics Driver VMware	13.3.0-2igel812
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.3.4-1build2igel639
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver VMMouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813

Kernel	4.18.20 #mainline-udos-r2755
Xorg X11 Server	1.19.6-1ubuntu4igel838
Xorg Xephyr	1.19.6-1ubuntu4igel832
CUPS Printing Daemon	2.1.3-4ubuntu0.7igel23
PrinterLogic	18.2.1.128
Lightdm Graphical Login Manager	1.18.3-0ubuntu1.1
XFCE4 Window Manager	4.12.3-1ubuntu2igel653
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.2igel58
ModemManager	1.6.8-2igel1
GStreamer 0.10	0.10.36-2ubuntu0.1
GStreamer 1.x	1.14.2-1ubuntu1igel192
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB
VPN OpenConnect
Scanner support
VirtualBox

- **Features with Limited Functionality**

Cisco JVDI Client	12.1

General Information 10.05.830

The following clients and features are not supported anymore:

- Citrix Receiver 12.1 and 13.1-13.4
- Citrix Access Gateway Standard Plug-in
- Dell vWorkspace Connector for Linux
- Ericom PowerTerm Emulation 9 and 11
- Ericom Webconnect
- IGEL Legacy RDP Client (rdesktop)
- Virtual Bridges VERDE Client
- PPTP VPN Support
- IGEL Upgrade License Tool with IGEL Smartcard Token
- Remote Management by `setup.ini` file transfer (TFTP)
- Remote Access via RSH
- Legacy Philips Speech Driver
- t-Systems TCOS Smartcard Support
- DUS Series touchscreens
- Elo serial touchscreens
- IGEL smartcard without locking desktop
- VIA Graphics Support
- Storage Hotplug devices are not automatically removed anymore, instead they must be always ejected manually:
  - by panel tray icon;
  - by an icon in the 'In-Session Control Bar' (configurable at **IGEL Setup > User Interface > Desktop**);
  - by a 'Safely Remove Hardware' session (configurable at **IGEL Setup > Accessories**).

The following clients and features are not available in this release:

- Cherry eGK Channel
- Open VPN Smartcard Support
- Asian Input Methods
- Composite Manager

Known Issues 10.05.830

Citrix

- With activated **DRI3** and an AMD GPU Citrix **H264 acceleration plugin** could **freeze**. Selective H.264 mode (API v2) is not affected from this issue.
- Citrix has known issues with **GStreamer 1.0** which describe problems with **multimedia redirectio**n of H264, MPEG1 and MPEG2. GStreamer 1.0 is used if browser content redirection is active.
- Browser content redirection does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront Login** with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is inserted after start of login.
  As a workaround, insert the smartcard before starting StoreFront Login.
- When using **Citrix Workspace App 18.10** in combination with **Philips Speech driver**, the **session** occasionally **terminates improperly at logout** and hangs.
  As a workaround, the usage of Citrix Receiver 13.10 is recommended when Philips Speech driver is needed.
- **Citrix H264 acceleration plugin** does not work with **enabled** server policy "Optimize for 3D graphics workload" in combination with server policy "Use video codec compression" > "For the entire screen".
- When "Expand the session over a self-selected number of monitors" (for "Multimonitor full-screen mode") is used and Setup is restarted, "Restrict full-screen session to one monitor" is indicated and the **monitor selection** is **greyed out**. The functionality is available, only the notification in Setup is broken.
- To launch **multiple desktop sessions** with Citrix HDX RTME and Citrix H.264 acceleration plugin, the following **registry key** must be enabled:
  More...

Parameter	Activate workaround for dual RTME sessions and H264 acceleration
Registry	`ica.workaround-dual-rtme`
Range	enabled / disabled

This workaround is not applicable when "Enable Secure ICA" is active for the specific delivery group.

VMware Horizon

- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory /media as a drive. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices, you should note that the **USB on-insertion feature** is only working if the **client drive mapping** is switched off.
    In the **IGEL Setup** client drive mapping can be found under **Sessions > Horizon Client >**

Horizon Client Global > Drive Mapping > Enable Drive Mapping.
It is also recommended to **disable** local **Storage Hotplug** under Setup > **Devices > Storage Devices > Storage Hotplug**.

- On the other hand, if you use **drive mapping** instead, it is recommended to either **switch off USB redirection** entirely or at least to **deny storage devices** by adding a filter to the USB class rules. Furthermore, since Horizon Client relies on the OS to mount the storage devices itself, go to Setup > **Devices > Storage Devices > Storage Hotplug**, enable **dynamic drive mapping** and put **number of storage hotplug devices** to at least **1**.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** one time with FIPS support disabled.

Smartcard

- In some cases, there are instabilities when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi firefox plugin is no longer supported. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

Base system

- **Display resolution and rotation** could not be changed with NVIDIA GPU driver via tcsetup.

Multimedia

- **Multimedia redirection** with **GStreamer** could fail with Nouveau GPU driver.

New Features 10.05.830

Citrix

- Added support for **Citrix Workspace Launcher** functionality as described at https://support.citrix.com/article/CTX237727.
- Updated **Citrix HDX RTME** used for optimization of Skype for Business to version **2.8.0-2235**.
- Integrated **Citrix Workspace App 19.03**.
- Added: new registry key supports **1536-bit RSA keys for client authentication**.
  More...

Parameter	Enable RSA 1536 cipher suite
Registry	`ica.allregions.enabl_rsa_1536`
Range	<u>factory default</u> / false / true

- Added: new registry key to enable different **cipher suites client authentication**.
  More...

Parameter	Enables different cipher suites
Registry	`ica.allregions.sslciphers`
Range	<u>factory default</u> / ALL / GOV / COM
Info: TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 – GOV/ALL TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 – GOV/ALL TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA – COM/ALL	

VMware Horizon

- Added possibility to easily evaluate **Horizon Blast decoder states**. By default, sessions are evaluated after the use and the result is put to the journal log. But it can also be used with GUI notifications at runtime.

Driver

- Added registry keys to modify the Intel graphic driver usage of **framebuffer compression** and **power management**.
  New registry keys:
  More...

Parameter	Power saving display C-States to use.
Registry	`x.drivers.intel.dc_setting`
Range	<u>[Default]</u> [Disable] [Up to DC5] [Up to DC6]
Info: "Default" - driver default	

Parameter	Use framebuffer compression.
Registry	`x.drivers.intel.fbc_setting`
Range	[Default] [Disable]
Info: "Default" - driver default	

X11 system

- Added some registry keys to disable loading of **DRM kernel modules** (graphic).
  New registry keys:
  More...

Parameter	Disable the loading of the RADEON DRM driver.
Registry	`x.drivers.ati.disable`
Value	"0"
Parameter	Disable the loading of the AMDGPU DRM driver.
Registry	`x.drivers.amdgpu.disable`
Value	"0"
Parameter	Disable the loading of the i915 DRM driver.
Registry	`x.drivers.intel.disable`
Value	"0"
Parameter	Disable the loading of the NVIDIA kernel driver.
Registry	`x.drivers.nvidia.disable`
Value	"0"
Parameter	Disable the loading of the NOUVEAU DRM driver.
Registry	`x.drivers.nouveau.disable`
Value	"0"
Parameter	Disable the loading of the QXL DRM driver.
Registry	`x.drivers.qxl.disable`
Value	"0"
Parameter	Disable the loading of the VMGFX DRM driver.
Registry	`x.drivers.vmware.disable`
Value	"0"

Parameter	Disable the loading of the VBOXVIDEO DRM driver.
Registry	`x.drivers.vboxvideo.disable`
Value	"0"

IBM_5250

- Improved **startup time** of IBM iAccess Client.
- Improved **configuration** of IBM iAccess Client **via IGEL Setup**.
  More...

Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Connection > Advanced
Parameter	Bypass signon
Registry	`sessions.iaccess<NR>.options.ssoenabled`
Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Font
Parameter	Antialiasing
Registry	`sessions.iaccess<NR>.options.textantialiasing`
Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Allow blinking cursor
Registry	`sessions.iaccess<NR>.options.blinkcursor`
Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Show blinking text with
Registry	`sessions.iaccess<NR>.options.blinkstate`
Value	[Blinking Text] [Host Color] [Mapped Color]
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Blink Color
Registry	`sessions.iaccess<NR>.options.blinkcolor_fg`

Value	#ffc800
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Cursor
Parameter	Blink Color Background
Registry	`sessions.iaccess<NR>.options.blinkcolor_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Rule Line
Registry	`sessions.iaccess<NR>.options.ruleline`
Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Follow Cursor
Registry	`sessions.iaccess<NR>.options.rulelinefollows`
Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Rule Line
Parameter	Style
Registry	`sessions.iaccess<NR>.options.rulelinestyle`
Value	[Crosshair] [Vertical] [Horizontal]
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Green
Registry	`sessions.iaccess<NR>.options.color_fgn_fg`
Value	#00ff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Green Background
Registry	`sessions.iaccess<NR>.options.color_fgn_bg`

Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	White
Registry	`sessions.iaccess<NR>.options.color_fwt_fg`
Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	White Background
Registry	`sessions.iaccess<NR>.options.color_fwt_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Red
Registry	`sessions.iaccess<NR>.options.color_frd_fg`
Value	#ff0000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Red Background
Registry	`sessions.iaccess<NR>.options.color_frd_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Turquoise
Registry	`sessions.iaccess<NR>.options.color_ftq_fg`
Value	#00ffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Turquoise Background
Registry	`sessions.iaccess<NR>.options.color_ftq_bg`

Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Yellow
Registry	`sessions.iaccess<NR>.options.color_fyw_fg`
Value	#ffff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Yellow Background
Registry	`sessions.iaccess<NR>.options.color_fyw_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Pink
Registry	`sessions.iaccess<NR>.options.color_fpk_fg`
Value	#ff00ff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Pink Background
Registry	`sessions.iaccess<NR>.options.color_fpk_bg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Blue
Registry	`sessions.iaccess<NR>.options.color_fbl_fg`
Value	#7890f0
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Blue Background
Registry	`sessions.iaccess<NR>.options.color_fbl_bg`

Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Status Indicators
Registry	`sessions.iaccess<NR>.options.color_osi`
Value	#7890f0
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Information Indicators
Registry	`sessions.iaccess<NR>.options.color_oii`
Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Attention Indicators
Registry	`sessions.iaccess<NR>.options.color_oai`
Value	#ffff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Error Indicators
Registry	`sessions.iaccess<NR>.options.color_oei`
Value	#ff0000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	OIA Background
Registry	`sessions.iaccess<NR>.options.color_oob`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Screen Background
Registry	`sessions.iaccess<NR>.options.color_sbg`

Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Highlight active field
Registry	`sessions.iaccess<NR>.options.actfieldhilite`
Value	true/ false
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Active Field
Registry	`sessions.iaccess<NR>.options.color_actf_fg`
Value	#000000
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Active Field Background
Registry	`sessions.iaccess<NR>.options.color_actf_bg`
Value	#ffff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Crosshair Ruler Color
Registry	`sessions.iaccess<NR>.options.color_crc`
Value	#00ff00
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Screen > Color
Parameter	Column Separator
Registry	`sessions.iaccess<NR>.options.color_ccs`
Value	#ffffff
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences
Parameter	Start window maximized
Registry	`sessions.iaccess<NR>.options.ismaximized`

Value	true/ <u>false</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Keyboard
Parameter	Keyboard Remapping File
Registry	`sessions.iaccess<NR>.options.keyremapfile`
Value	<u>IBMi.kmp</u>
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Popup Keypad
Parameter	Popup Keypad File
Registry	`sessions.iaccess<NR>.options.poppadfile`
Setup	Sessions > IBM iAccess Client > iAccess Sessions > Session Name > Preferences > Toolbar
Parameter	Toolbar File
Registry	`sessions.iaccess<NR>.options.toolbarfile`
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Open new sessions in a new tab
Registry	`ibm.iaccess.acssm.opensessionintab`
Value	<u>true</u>/ false
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Always display the tab bar
Registry	`ibm.iaccess.acssm.alwaysshowtabbar`
Value	true/ <u>false</u>
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Switch to new tab when created
Registry	`ibm.iaccess.acssm.switchtonewtab`
Value	<u>true</u>/ false
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Send a warning when closing multiple tabs
Registry	`ibm.iaccess.acssm.closemultipletabwarning`

Value	<u>true</u>/ false
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Do not start tabbed sessions until the tab is selected
Registry	`ibm.iaccess.acssm.tabdelayedstart`
Value	true/ <u>false</u>
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	New Tab Action
Registry	`ibm.iaccess.acssm.newtabaction`
Value	[Disable and Hide] [<u>Run the Same</u>] [Run Other…]
Setup	Sessions > IBM iAccess Client > iAccess Global > Tab Setup
Parameter	Tab Placement
Registry	`ibm.iaccess.acssm.tabplacement`
Value	[<u>Top</u>] [Bottom] [Left] [Right]

Resolved Issues 10.05.830

Firefox

- Fixed not working **browserglobal.app.local_subdirs_whitelist**.
- Fixed **print hotkey disable** option with Firefox 60+.

RDP/IGEL RDP Client 2

- Fixed **smart card redirection in RDP: SCardGetAttrib** was failing if **pbAttr** was NULL. The fix should help running Dutch Zorg-ID applications.

VMware Horizon

- Fixed: the configuration choice to **use the relative mouse feature**.

Citrix

- Citrix Workspace App 19.03: Improved **USB redirection handling**.
- Issue solved: **Online meeting in VDI:** "enable webcam will cut the audio streaming".
- Fixed **stability issues** with Citrix Browser Content Redirection.

Citrix Receiver 13

- Added a switch to enable the **possibility** to **launch multiple desktop sessions** with **RTME** and **H264 acceleration**. This switch should not be used when "Enable Secure ICA" is active for the specific delivery group.
  More...

Registry	`ica.workaround-dual-rtme`
Value	enabled / <u>disabled</u>

Network

- Fixed: The **second Ethernet interface** did not get configured when the first one was disabled.
- Added a possibility to switch between the third party **r8168** and **kernel r8169 realtek network driver**.
  New registry key:
  More...

Parameter	Use thirdparty r8168 kernel module.
Registry	`network.drivers.r8169.prefer_r8168`
Range	[<u>Auto</u>] [Yes] [No]
Info: "Auto" (use r8169 in most cases)	

- Added a possibilty to **choose** the **variant of the realtek r8168 driver**.
  New registry key:
  More...

Parameter	Choose realtek r8168 variant (only if **prefer r8168** is choosen).

Registry	`network.drivers.r8169.r8168_variant`
Range	[<u>Default</u>] [No NAPI] [NAPI]
Info: "Default" (use NAPI in most cases)	

Base system

- Fixed: **System logout** waits for Citrix logout now.
- Fixed: **Migration tool** did not start with the **Spanish** language setting.
- Added new registry key to set **USB quirks**.
  More...

Parameter	Set XHCI USB quirks to fix some hardware issues.
Registry	system.kernel.bootparams.xhci-hcd_quirks
Range	[<u>No quirk</u>] [Spurious Reboot quirk] [Spurious Wakeup quirk] [Spurious Reboot Wakeup quirk]

- **Lenovo ThinkCentre M73** needs the system.kernel.bootparams.xhci-hcd_quirks registry key set to "Spurious Reboot quirk" to fix reboot after shutdown problem.

X11 system

- There is now a **registry key to ignore a 3Dconnexion SpaceMouse** for IGEL graphical use (X11). If activated, the SpaceMouse is only passed through to the desktop session. If disabled, it acts also as the standard mouse.
  More...

Parameter	Deactivates a 3Dconnexion SpaceMouse as a standard mouse.
Registry	`userinterface.mouse.spacemouse.x11_ignore`
Value	<u>enabled</u> / disabled

- The following **SpaceMouse** products are included:
  More...

VID	PID	Vendor	Product
0x046D	0xC603	Logitech, Inc.	3Dconnexion SpaceMouse Plus XT
0x046D	0xC605	Logitech, Inc.	3Dconnexion CADman
0x046D	0xC606	Logitech, Inc.	3Dconnexion SpaceMouse Classic
0x046D	0xC621	Logitech, Inc.	3Dconnexion SpaceBall 5000
0x046D	0xC623	Logitech, Inc.	3Dconnexion SpaceTraveller 3D Mouse
0x046D	0xC625	Logitech, Inc.	3Dconnexion SpacePilot 3D Mouse
0x046D	0xC626	Logitech, Inc.	3Dconnexion SpaceNavigator 3D Mouse

VID	PID	Vendor	Product
0x046D	0xC627	Logitech, Inc.	3Dconnexion SpaceExplorer 3D Mouse
0x046D	0xC628	Logitech, Inc.	3Dconnexion SpaceNavigator for Notebooks
0x046D	0xC629	Logitech, Inc.	3Dconnexion SpacePilot Pro 3D Mouse
0x046D	0xC62B	Logitech, Inc.	3Dconnexion SpaceMouse Pro
0x256F	**	3Dconnexion	SpaceMouse

- **USB device reset** via USB powercycle is now available on **UD6/UD7**.
- Fixed problems with **internal graphic cards** and **NVIDIA graphic cards**.
- Fixed **Display Switch** utility not starting with some translations.
- Fixed an issue with the **noDDC mode** not always working as expected.
- Fixed some **multimonitor** (>4) issues with **Nvidia** graphic cards.
- Updated **DisplayLink driver** to version **5.1.26** to solve some startup issues.

Driver

- Fixed not working **WACOM** device **DTU-1141B**.

Hardware

- Fixed **not working network** on Beckhoff CB3163, CB6263 and CB6363 systems.
- Fixed **not working network** on Lex 3I380D.
- Fixed **black screen issue** with some monitors and 2560x1440 resolution (occured on UD2 LX50).
- Added possibility to **change** some **DRM settings** and limit the **DisplayPort lane bandwidth** on Intel devices.
- Added new registry keys:
  More...

Parameter	Use best graphic mode for all screens on console.
Registry	`x.drivers.kms.best_console_mode`
Range	[Default] [Enabled] [Disabled]
Info: "Default" is enabled in most cases.	

Parameter	Limit the maximum console resolution width to this value.
Registry	`x.drivers.kms.max_console_width`
Type	Integer
Value	"0"
Info: "0" means default setting. Use the default setting.	

Parameter	Limit the maximum console resolution height to this value.
Registry	`x.drivers.kms.max_console_height`

Type	Integer
Value	"0"
Info: "0" means default setting. Use the default setting.	
Parameter	Set graphic kernel driver debug level.
Registry	`x.drivers.kms.debug_level`
Range	[No debug] [Basic] [Basic + core] [Basic + core + atomic] [Full]
Info: Warning log will grow very fast.	

Only for Intel i915 driver:

Parameter	Limit the maximum DisplayPort lane link rate.
Registry	`x.drivers.intel.max_dp_link_rate`
Range	[default] [1.62Gbps] [2.16Gbps] [2.7Gbps] [3.24Gbps] [4.32Gbps] [5.4Gbps] [6.48Gbps] [8.1Gbps]
Info: "Default" means hardware default limit.	

Security Fixes 10.05.830

Firefox

- Updated Mozilla **Firefox** to version **60.7.2 ESR**.
- Fixed **mfsa2019-19** security issue CVE-2019-11708.
- Fixed **mfsa2019-18** security issue CVE-2019-11707.
- Fixed **mfsa2019-10** security issues CVE-2019-9810 and CVE-2019-9813.
- Fixed **mfsa2019-08** security issues.
  More...

  CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793,
  CVE-2019-9795, CVE-2019-9796, CVE-2018-18506, CVE-2019-9788.

- Fixed **mfsa2019-05** security issues CVE-2018-18356 and CVE-2019-5785.
- Fixed **mfsa2019-02** security issues CVE-2018-18500, CVE-2018-18505 and CVE-2018-18501.
- Fixed **mfsa2018-30** security issues.
  More...

  CVE-2018-17466, CVE-2018-18492, CVE-2018-18493,
  CVE-2018-18494, CVE-2018-18498, CVE-2018-12405.

Base system

- Fixed kernel TCP vulnerabilities CVE-2019-11477: **SACK Panic**, CVE-2019-11478: **SACK Slowness** and CVE-2019-11479: **Excess Resource Consumption Due to Low MSS Values**.
- Changed **minimally allowed MSS size** to '1000' to prevent possible denial-of-service attacks.
- Updated **libwebkit2gtk-4.0-37** to version **1.24.2**.
  More...

  CVE-2019-8595, CVE-2019-8607, CVE-2019-8615, CVE-2019-6251,
  CVE-2018-4373, CVE-2018-4375, CVE-2018-4376, CVE-2018-4378,
  CVE-2018-4382, CVE-2018-4392, CVE-2018-4416, CVE-2018-4345,
  CVE-2018-4386, CVE-2018-4372

Notes for Release 10.05.800

Software:	Version	10.05.800
Release Date:	2019-05-08	
Release Notes:	Version	RN-105800-1
Last update:	2019-05-08	

- IGEL Linux Universal Desktop
- IGEL Universal Desktop OS 3

IGEL Linux Universal Desktop

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
	UD3-LX 42
	UD3-LX 41
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10

IGEL Zero:
IZ2-RFX
IZ2-HDX
IZ2-HORIZON
IZ3-RFX
IZ3-HDX
IZ3-HORIZON

Component Versions 10.05.800

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.7.0-2113
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	18.10.0.11
deviceTRUST Citrix Channel	19.1.200.2
deviceTRUST RDP Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.6.2
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_202
Parallels Client (64 bit)	16.5.2.20595
Remote Viewer (RedHat Virtualization)	7.0-igel47
Spice GTK (Red Hat Virtualization)	0.35
Spice Protocol (Red Hat Virtualization)	0.12.14
Usbredir (Red Hat Virtualization)	0.8.0
Systancia AppliDis	4.0.0.17

Thinlinc Client	4.9.0-5775
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel16
VMware Horizon Client	4.10.0-11053294
VNC Viewer	1.8.0+git20180123-igel1
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20180621
Philips Speech Driver	12.6.36

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.9.620
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
Reader Driver ACS CCID	1.1.5
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5

Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.28
Reader Driver REINER SCT cyberJack	3.99.5final.SP11
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.0.0.6

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.13
OpenSSH Client	7.2p2-4ubuntu2.4
OpenSSH Server	7.2p2-4ubuntu2.4
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.2.1-1igel51
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20181113-igel846
Graphics Driver ATI/RADEON	18.0.1-1igel831
Graphics Driver ATI/AMDGPU	18.0.1-1igel831
Graphics Driver VIA	5.76.52.92-009-005f78-20150730
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.3.4-1build2igel639
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver Vmmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.20 #mainline-ud-r2531
Xorg X11 Server	1.19.6-1ubuntu4igel838
Xorg Xephyr	1.19.6-1ubuntu4igel832
CUPS printing daemon	2.1.3-4ubuntu0.5igel20

PrinterLogic	18.2.1.128
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2igel653
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.2igel58
ModemManager	1.6.8-2igel1
GStreamer 0.10	0.10.36-2ubuntu0.1
GStreamer 1.x	1.14.2-1ubuntu1igel192
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB
VPN OpenConnect
Scanner support
VirtualBox

- **Features with Limited Functionality**

Cisco JVDI Client	12.1

General Information 10.05.800

The following clients and features are not supported anymore

- Citrix Receiver 12.1 and 13.1 - 13.4
- Citrix Access Gateway Standard Plug-in
- Dell vWorkspace Connector for Linux
- Ericom PowerTerm Emulation 9 and 11
- Ericom Webconnect
- IGEL Legacy RDP Client (rdesktop)
- Virtual Bridges VERDE Client
- PPTP VPN Support
- IGEL Upgrade License Tool with IGEL Smartcard Token
- Remote Management by setup.ini file transfer (TFTP)
- Remote Access via RSH
- Legacy Philips Speech Driver
- t-Systems TCOS Smartcard Support
- DUS Series touch screens
- Elo serial touch screens
- IGEL Smartcard without locking desktop
- Video Hardware Acceleration Support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10
- H.264 Hardware Acceleration Support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10
- Storage Hotplug devices are not automatically removed anymore, instead they must be always ejected manually:
  - by panel tray icon
  - by an icon in the 'In-Session Control Bar' (configurable at **IGEL Setup > User Interface > Desktop**)
  - by a 'Safely Remove Hardware' session (configurable at **IGEL Setup > Accessories**)

The following clients and features are not available in this release

- Cherry eGK Channel
- Open VPN Smartcard Support
- Asian Input Methods
- Composite Manager

Known Issues 10.05.800

Citrix

- With **activated DRI3** and an **amd gpu** citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (api v2) is not affected from this issue.
- Citrix has known issues with **gstreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. Gstreamer1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of Login.
  As a workaround, insert the smartcard before starting StoreFront login.
- When using **Citrix Workspace App 18.10** in combination with **Philips Speech** driver, the session occasionally **does not proper terminate** at logoff and hangs.
  As a workaround, usage of **Citrix Receiver 13.10** is recommended when Philips Speech driver is needed.
- Citrix **H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression** > *"For the entire screen"**.
- When **Expand the session over a self-selected number of monitors** (for **Multi-monitor full screen mode**) is used and setup is restarted, **Restrict full screen session to one monitor** is indicated and the **monitor selection is greyed out**. The functionality is available, only the notification in setup is broken.

VMware Horizon

- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory `/media` as a drive in your desktop. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping is switched off**.
    In the **IGEL Setup** client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**.
    It is also recommended to **disable local Storage Hotplug**: On page **Devices > Storage Devices > Storage Hotplug**, put **number** of storage hotplug devices to **0**.
  - On the other hand, if you use **drive mapping** instead, it is recommended that you should either **switch off USB redirection entirely** or at least **deny storage devices** by adding a filter to the USB class rules. And because Horizon Client relies on the OS to mount the storage devices itself, please go to setup page: **Devices > Storage Devices > Storage Hotplug** and switch on **Enable dynamic drive mapping** and put **Number of storage hotplug devices** to at least **1**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.

- For using the new **FIPS 140-2 compliance mode** it is necessary to connect to the **Parallels RAS** one time with FIPS support disabled.

Smartcard

- In some cases there are instabilities when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi firefox plugin is no longer supported. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

Hardware

- Suspend on **UD10** is disabled.

New Features 10.05.800

OS 11 Upgrade

- It is now possible to **upgrade to IGEL OS 11**. For more information, please see Upgrading IGEL Devices from IGEL OS 10 to IGEL OS 11. The parameters for the upgrade:
  More...

IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Upgrade to OS 11
Registry	`update.firmware_migrate_to_11`
Value	enabled / <u>disabled</u>
IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Upgrade to OS 11 even if a previous upgrade attempt failed
Registry	`update.force_firmware_migrate_to_11`
Value	enabled / <u>disabled</u>
IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Upgrade to OS 11 even if PowerTerm is enabled
Registry	`update.migrate_to_11_with_powerterm`
Value	enabled / <u>disabled</u>
IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Require an Enterprise Management Pack license to upgrade to OS 11
Registry	`update.migrate_to_11_enterprise_required`
Value	[<u>Smart</u>] [Always] [Never]
IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Timeout waiting for OS 11 license to start automatic upgrade
Registry	`update.migrate_to_11_license_timeout`
Value	[Disabled] [<u>10 Minutes</u>] [15 Minutes] [30 Minutes] [60 Minutes]

- The parameters for configuring the desktop integration of the **IGEL OS 11 Upgrade tool** are:

More...

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Start menu
Registry	`sessions.os11_migration0.startmenu`
Value	enabled / <u>disabled</u>

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Application Launcher
Registry	`sessions.os11_migration0.applaunch`
Value	enabled / <u>disabled</u>

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	System tab of start menu
Registry	`sessions.os11_migration0.startmenu_system`
Value	<u>enabled</u> / disabled

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	System tab of Application Launcher
Registry	`sessions.os11_migration0.applaunch_system`
Value	<u>enabled</u> / disabled

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Menu folder
Registry	`sessions.os11_migration0.menu_path`
Value	enabled / <u>disabled</u>

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Desktop folder
Registry	`sessions.os11_migration0.desktop_path`
Value	enabled / <u>disabled</u>

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Application Launcher folder
Registry	`sessions.os11_migration0.applaunch_path`

Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Quick start panel
Registry	`sessions.os11_migration0.quick_start`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Password protection
Registry	`sessions.os11_migration0.pwprotected`
Value	[<u>None</u>] [Administrator] [User] [Setup user]
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Desktop
Registry	`sessions.os11_migration0.desktop`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Desktop context menu
Registry	`sessions.os11_migration0.pulldown`
Value	enabled / <u>disabled</u>

Firefox

- Updated **Mozilla Firefox to version 60.6.2ESR**: Repaired certificate chain to re-enable web extensions that had been disabled.

Network

- Added **NCP Secure Enterprise** VPN Client version **5.10_rev40552**: Configurable at IGEL Setup > Network > VPN > NCP VPN Client

Driver

- Updated **deviceTRUST Client to version 19.1.200**. These are the release notes:
  Welcome to the release of the deviceTRUST 19.1.200 IGEL client, providing the context of IGEL thin client and UD Pocket devices into your virtual sessions. This release includes support for logical disks attached to the IGEL endpoint, plus bug fixes and stability improvements over the previous 19.1.100 release.

  Logical Disks
  Added support for real-time properties representing the LOGICAL DISKS attached to the IGEL endpoint.

This includes...

- DEVICE_LOGICALDISK_X_TYPE – Either Fixed or Removable.
- DEVICE_LOGICALDISK_X_LABEL – The volume label.
- DEVICE_LOGICALDISK_X_FILESYSTEM – The type of file system.
- DEVICE_LOGICALDISK_X_PATHS – The paths that the disk is mounted.
- DEVICE_LOGICALDISK_X_TOTALMB – The total space available on the disk. This property is only available for mounted disks.
- DEVICE_LOGICALDISK_X_FREEMB – The free space available on the disk. This property is only available for mounted disks.
- DEVICE_LOGICALDISK_X_NAME – The name of the underlying physical disk.
- DEVICE_LOGICALDISK_X_VENDORID – The vendor identifier uniquely identifying the manufacturer. This property is only available for USB or PCI connected devices.
- DEVICE_LOGICALDISK_X_PRODUCTID – The product identifier uniquely identifying the product. This property is only available for USB or PCI connected devices.
- DEVICE_LOGICALDISK_X_SERIALNUMBER – The serial number of the physical disk.
- DEVICE_LOGICALDISK_X_BUSTYPE – The storage bus type linked to the physical disk.
- DEVICE_LOGICALDISK_COUNT – The number of logical disks.

Resolved Issues 10.05.800

Network

- Added possibility to **switch between thirdparty r8168 and kernel r8169 realtek network driver**. **More...**

Parameter	Use thirdparty r8168 kernel module.
Registry	`network.drivers.r8169.prefer_r8168`
Range	[Auto] [Yes] [No] |
Info: "Auto" uses r8169 in most cases	

WiFi

- Fixed non working **TP Link Archer T2UH**.

Base system

- Added possibility to set `intel_idle.max_cstate` kernel cmdline parameter with registry keys to work against **Intel CPU freezes**.
- Enhanced **bootloader** to allow the setting of some kernel commandline parameters with registry keys.
  More...

Parameter	Disable use of APIC controller.
Registry	`system.kernel.bootparams.noapic`
Value	enabled / disabled
Parameter	Disable use of ACPI.
Registry	`system.kernel.bootparams.noacpi`
Value	enabled / disabled
Parameter	Use only one CPU core and disable all others.
Registry	`system.kernel.bootparams.nosmp`
Value	enabled / disabled
Parameter	Enable debug console on serial port 1.
Registry	`system.kernel.bootparams.serial_console_debug`
Value	enabled / disabled
Parameter	Limit CPU core usage (0 means no limit).
Registry	`system.kernel.bootparams.maxcpus`

Value	"0"
Parameter	Set maximum allowed cstate on intel cpus.
Registry	`system.kernel.bootparams.max_cstate`
Range	[No limit] [1] [2] [3] [4] [5] [6]
Info: do not limit intel cstate	
Parameter	IOMMU usage setting.
Registry	`system.kernel.bootparams.iommu`
Range	[On] [Off] [Passthrough] [Force]
Info: Use IOMMU if possible	
Parameter	IOMMU usage setting for AMD systems.
Registry	`system.kernel.bootparams.amd_iommu`
Range	[On] [Off]
Info: Use IOMMU if possible	
Parameter	IOMMU usage setting for Intel systems.
Registry	`system.kernel.bootparams.intel_iommu`
Range	[On] [Off]
Info: Use IOMMU if possible	

Driver

- Updated **deviceTRUST** Client to version **19.1.200**. Bug Fixes:
  - Fixed an issue reading the **DEVICE_IGEL_ICG_SERVER** property.
  - Fixed an issue where the **NETWORK** and **LOCATION** property providers could cause the client to freeze if a disconnection occurred whilst these property providers were checking for changes.
  - Fixed an **open file handle leak** which lead to the client process reaching its file handle limits when left running for a long period of time.

X11 system

- Fixed a bug with thinclients **reporting the wrong monitor serial number**.

Hardware

- Updated **AMDGPU Pro driver to 19.10** version. The new version fixes a disappearing mouse cursor issue. Enable AMDGPU Pro driver instead of kernel integrated driver by registry key (settings to this key will only work after reboot):
  More...

Parameter	Use AMDGPU PRO driver.
Registry	`x.drivers.amdgpu.use_amdgpu_pro`
Range	[Auto] [Yes] [No]	

IGEL Universal Desktop OS 3

Supported Hardware:

https://kb.igel.com/igelos/en/devices-supported-by-udc3-and-ud-pocket-3117174.html

Component Versions 10.05.800

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.7.0-2113
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	18.10.0.11
deviceTRUST Citrix Channel	19.1.200.2
deviceTRUST RDP Channel	19.1.200.2
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.6.2
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
deviceTRUST RDP Channel	19.1.200.2
Leostream Java Connect	3.3.7.0
NCP Secure Enterprise Client	5.10_rev40552
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_202
Parallels Client (64 bit)	16.5.2.20595
Parole Media Player	1.0.1-0ubuntu1igel16
Remote Viewer (RedHat Virtualization)	7.0-igel47
Spice GTK (Red Hat Virtualization)	0.35
Spice Protocol (Red Hat Virtualization)	0.12.14

Usbredir (Red Hat Virtualization)	0.8.0
Systancia AppliDis	4.0.0.17
Thinlinc Client	4.9.0-5775
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel16
VMware Horizon Client	4.10.0-11053294
VNC Viewer	1.8.0+git20180123-igel1
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20180621
Philips Speech Driver	12.6.36

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.9.620
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
Reader Driver ACS CCID	1.1.5
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3

Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.28
Reader Driver REINER SCT cyberJack	3.99.5final.SP11
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.0.0.6

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.13
OpenSSH Client	7.2p2-4ubuntu2.4
OpenSSH Server	7.2p2-4ubuntu2.4
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.2.1-1igel51
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20181113-igel846
Graphics Driver ATI/RADEON	18.0.1-1igel831
Graphics Driver ATI/AMDGPU	18.0.1-1igel831
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2igel775
Graphics Driver Nvidia	390.87-0ubuntu1
Graphics Driver Vboxvideo	5.2.18-dfsg-2igel17
Graphics Driver VMware	13.3.0-2igel812
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.3.4-1build2igel639
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748

Input Driver Vmmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.20 #mainline-udos-r2531
Xorg X11 Server	1.19.6-1ubuntu4igel838
Xorg Xephyr	1.19.6-1ubuntu4igel832
CUPS printing daemon	2.1.3-4ubuntu0.5igel20
PrinterLogic	18.2.1.128
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2igel653
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.2igel58
ModemManager	1.6.8-2igel1
GStreamer 0.10	0.10.36-2ubuntu0.1
GStreamer 1.x	1.14.2-1ubuntu1igel192
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB
VPN OpenConnect
Scanner support
VirtualBox

- **Features with Limited Functionality**

Cisco JVDI Client	12.1

General Information 10.05.800

The following clients and features are not supported anymore:

- Citrix Receiver 12.1 and 13.1 - 13.4
- Citrix Access Gateway Standard Plug-in
- Dell vWorkspace Connector for Linux
- Ericom PowerTerm Emulation 9 and 11
- Ericom Webconnect
- IGEL Legacy RDP Client (rdesktop)
- Virtual Bridges VERDE Client
- PPTP VPN Support
- IGEL Upgrade License Tool with IGEL Smartcard Token
- Remote Management by setup.ini file transfer (TFTP)
- Remote Access via RSH
- Legacy Philips Speech Driver
- t-Systems TCOS Smartcard Support
- DUS Series touch screens
- Elo serial touch screens
- IGEL Smartcard without locking desktop
- VIA Graphics Support
- Storage Hotplug devices are not automatically removed anymore, instead they must be always ejected manually:
    - by panel tray icon
    - by an icon in the 'In-Session Control Bar' (configurable at **IGEL Setup > User Interface > Desktop**)
    - by a 'Safely Remove Hardware' session (configurable at **IGEL Setup > Accessories**)

The following clients and features are not available in this release:

- Cherry eGK Channel
- Open VPN Smartcard Support
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- Citrix has known issues with **GStreamer 1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. GStreamer 1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of login.
  As a workaround, insert the smartcard before starting StoreFront login.
- When using **Citrix Workspace App 18.10** in combination with **Philips Speech** driver, the **session** occasionally **terminates improperly** at logout and hangs.
  As a workaround, usage of **Citrix Receiver 13.10** is recommended when Philips Speech driver is needed.
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- When "Expand the session over a self-selected number of monitors" (for "Multimonitor full-screen mode") is used and Setup is restarted, "Restrict full screen session to one monitor" is indicated and the **monitor selection is greyed out**. The functionality is available, only the notification in Setup is broken.

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- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory `/media` as a drive in your desktop. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping is switched off**. In the **IGEL Setup** client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**.
    It is also recommended to **disable local Storage Hotplug**: On page **Devices > Storage Devices > Storage Hotplug**, put **number** of storage hotplug devices to **0**.
  - On the other hand, if you use **drive mapping** instead, it is recommended that you should either **switch off USB redirection entirely** or at least **deny storage devices** by adding a filter to the USB class rules. And because Horizon Client relies on the OS to mount the storage devices itself, please go to setup page: **Devices > Storage Devices > Storage Hotplug** and switch on **Enable dynamic drive mapping** and put **Number of storage hotplug devices** to at least **1**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.
- For using the new **FIPS 140-2 compliance mode**, it is necessary to connect to the **Parallels RAS** one time with FIPS support disabled.

Smartcard

- In some cases, there are instabilities when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi firefox plugin is no longer supported. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

Base system

- **Display resolution and rotation** could not be changed with NVIDIA GPU driver via tcsetup.

Multimedia

- **Multimedia redirection** with **GStreamer** could fail with Nouveau GPU driver.

New Features 10.05.800

RDP/IGEL RDP Client 2

- Add **field collection** to RDP session **server** page.
  More...

IGEL Setup	**Sessions > RDP > RDP Sessions > RDP Session > Server**
	Sessions > RDP > RDP Sessions > RDP Session > Options
Parameter	Collection
Registry	`sessions.winconnect<NR>.option.load-balance-info`

VMware Horizon

- Added parameters to **specify webcam frame size** and **rate for RTAV**.
  More...

Parameter	Webcam frame width
Registry	`vmware.view.rtav-frame-width`
Value	<empty_string>
Parameter	Webcam frame height
Registry	`vmware.view.rtav-frame-height`
Value	<empty_string>
Parameter	Webcam frame rate
Registry	`vmware.view.rtav-frame-rate`
Value	<empty_string>

Firefox

- Updated **Mozilla Firefox** to version **60.6.2ESR**:
  Repaired certificate chain to re-enable web extensions that had been disabled.
- Fixes for **mfsa2019-10**, also known as: CVE-2019-9810, CVE-2019-9813.
- Fixes for **mfsa2019-08**, also known as: CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793, CVE-2019-9795, CVE-2019-9796, CVE-2018-18506, CVE-2019-9788.
- Fixes for **mfsa2019-05**, also known as: CVE-2018-18356, CVE-2019-5785.
- Fixes for **mfsa2019-02**, also known as: CVE-2018-18500, CVE-2018-18505, CVE-2018-18501.
- Fixes for **mfsa2018-30**, also known as: CVE-2018-17466, CVE-2018-18492, CVE-2018-18493, CVE-2018-18494, CVE-2018-18498, CVE-2018-12405.

- Added new parameters: Allow a **custom command** before and after browser session.
  More...

Parameter	Initial Action
Registry	`sessions.browser%.init_action`
Value	<empty_string>
Parameter	Final Action
Registry	`sessions.browser%.final_action`
Value	<empty_string>

OS 11 Upgrade

- It is now possible to **upgrade to IGEL OS 11**. For more information, please see Upgrading IGEL Devices from IGEL OS 10 to IGEL OS 11. The parameters for the upgrade:
  More...

IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Upgrade to OS 11
Registry	`update.firmware_migrate_to_11`
Value	enabled / disabled
IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Upgrade to OS 11 even if a previous upgrade attempt failed
Registry	`update.force_firmware_migrate_to_11`
Value	enabled / disabled
IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Upgrade to OS 11 even if PowerTerm is enabled
Registry	`update.migrate_to_11_with_powerterm`
Value	enabled / disabled
IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Require an Enterprise Management Pack license to upgrade to OS 11
Registry	`update.migrate_to_11_enterprise_required`
Value	[Smart] [Always] [Never]

IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Timeout waiting for OS 11 license to start automatic upgrade
Registry	`update.migrate_to_11_license_timeout`
Value	[Disabled] [<u>10 Minutes</u>] [15 Minutes] [30 Minutes] [60 Minutes]

- The parameters for configuring the desktop integration of the **IGEL OS 11 Upgrade tool** are: **More...**

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Start menu
Registry	`sessions.os11_migration0.startmenu`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Application Launcher
Registry	`sessions.os11_migration0.applaunch`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	System tab of start menu
Registry	`sessions.os11_migration0.startmenu_system`
Value	<u>enabled</u> / disabled
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	System tab of Application Launcher
Registry	`sessions.os11_migration0.applaunch_system`
Value	<u>enabled</u> / disabled
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Menu folder
Registry	`sessions.os11_migration0.menu_path`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > OS 11 Upgrade**

Parameter	Desktop folder
Registry	`sessions.os11_migration0.desktop_path`
Value	enabled / disabled
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Application Launcher folder
Registry	`sessions.os11_migration0.applaunch_path`
Value	enabled / disabled
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Quick start panel
Registry	`sessions.os11_migration0.quick_start`
Value	enabled / disabled
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Password protection
Registry	`sessions.os11_migration0.pwprotected`
Value	[None] [Administrator] [User] [Setup user]
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Desktop
Registry	`sessions.os11_migration0.desktop`
Value	enabled / disabled
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Desktop context menu
Registry	`sessions.os11_migration0.pulldown`
Value	enabled / disabled

Citrix

- Updated **Citrix HDX RTME** used for optimization of **Skype for Business** to version **2.7.0-2113**.

Parallels Client

- Updated Parallels Client to **version 16.5.2 (64-Bit)**

CUPS Printing

- Added **SMB Network Print Client** function. The printer could be created on page **Devices > Printer > CUPS > Printers > Dialog**, **SMB Network Printer** as **Printer Port**. The settings for the SMB printer must be done in Setup Registry:
  More...

IGEL Setup	**Devices > Printer > CUPS > Printers > Dialog**
Parameter	Printer Port
Registry	`print.cups.printer<NR>.backend`
Value	[Parallel Port Printer] [Serial Port Printer] [USB Printer] [LPD Network Printer] [TCP Network Printer] [IPP Network Printer] [SMB Network Printer]
Parameter	SMB Server
Registry	`print.cups.printer<NR>.smb_server`
Parameter	SMB Workgroup
Registry	`print.cups.printer<NR>.smb_workgroup`
Parameter	SMB Port
Registry	`print.cups.printer<NR>.smb_port`
Value	0
Parameter	SMB Printer
Registry	`print.cups.printer<NR>.smb_printer`
Parameter	SMB User
Registry	`print.cups.printer<NR>.smb_user`
Parameter	SMB Password
Registry	`print.cups.printer<NR>.crypt_password`

IBM_5250

- Updated **IBM iAccess Client Solutions** to version **1.1.8.1**.

WiFi

- Added support for **Realtek 8821CE wireless cards**.
- Added switch to determine the **source of WiFi scan results** within the **Wireless Manager**. Selecting default is currently identical with the old mechanism (using the `iwlist` command). This may change in the future. When `iwlist` fails, **NetworkManager** is automatically used as a fallback.
  More...

Parameter	WiFi Scanner
Registry	`network.interfaces.wirelesslan.device0.mssid_scanner`
Range	<u>default</u> / iwlist / NetworkManager
Info: "default" is currently equal to "iwlist"	

X11 System

- Added **xprintidle** tool to firmware.
- The new **Display Switch** tool can use **multiple different profiles**, automatically chosen **at runtime** depending on the currently connected monitors. A profile is created, when the current monitor layout/resolution is configured via the **Display Switch** utility. The profile will be associated with the **current connected displays** automatically (manufacturer, model and used connector are used for allocation) and if applicable, the state of the **laptop lid**. The setup will be restored by hot-(un)plugging known displays, means the system will automatically switch to the already configured profile. The **Display Switch** utility itself got a new interface. All base functionality can be configured via drag & drop.
  An example workflow:
  - Connect the hardware and **close/open lid**
  - Open the **Display Switch** Utility
    - A quick (simple) setting can be selected directly.
    - Should the desired application deviate from the possibilities provided, the **Advanced** button opens a drag & drop interface for further settings.
- In this interface the displays can be **dragged and dropped** for the intended configuration. The **display will snap adjacent** to others.
- If a **display should not be used**, it can be dragged to the **Disabled** area on the top right - the screen will be reactivated when it is dragged back to the active area.
- To show the **same content on multiple displays**, one display should be dragged onto an other active screen. The interface will show **Mirror**. The mirroring monitor will be displayed on the lower right.
- With the **Apply** button the current state will be set, with **Yes** on the **Keep configuration** dialog the current settings will be saved to persistent storage and associated with the profile.
- **Advanced functionality** (panning/scaling/resolutions) can be configured in drop-down boxes, hidden in a **drawer** on the right side. The drawer can be expanded by clicking the **<** button on the right edge.
- For the **Display Switch** functionality the following parameters should be enabled for proper usage:
  More...

IGEL Setup	**Accessories > Display Switch > Options**
Parameter	Preserve settings over reboot
Registry	`sessions.user_display0.options.preserve_settings`

Value	enabled / _disabled_
IGEL Setup	**Accessories > Display Switch > Options**
Parameter	Smart display configuration
Registry	`x.auto_associate`
Value	enabled / _disabled_

- The **IGEL Display Switch** utility is now used for **NVIDIA graphics** devices as well.

Network

- Added **NCP Secure Enterprise** VPN Client version 5.10_rev40552: Configurable at **IGEL Setup > Network > VPN > NCP VPN Client**

Driver

- Updated **deviceTRUST** Client to version **19.1.200**. These are the release notes:
  Welcome to the release of the deviceTRUST 19.1.200 IGEL client, providing the context of IGEL thin client and UD Pocket devices into your virtual sessions. This release includes support for logical disks attached to the IGEL endpoint, plus bug fixes and stability improvements over the previous 19.1.100 release.

  Logical Disks
  We've added support for real-time properties representing the LOGICAL DISKS attached to the IGEL endpoint.
  This includes...

  - DEVICE_LOGICALDISK_X_TYPE – Either Fixed or Removable.
  - DEVICE_LOGICALDISK_X_LABEL – The volume label.
  - DEVICE_LOGICALDISK_X_FILESYSTEM – The type of file system.
  - DEVICE_LOGICALDISK_X_PATHS – The paths that the disk is mounted.
  - DEVICE_LOGICALDISK_X_TOTALMB – The total space available on the disk. This property is only available for mounted disks.
  - DEVICE_LOGICALDISK_X_FREEMB – The free space available on the disk. This property is only available for mounted disks.
  - DEVICE_LOGICALDISK_X_NAME – The name of the underlying physical disk.
  - DEVICE_LOGICALDISK_X_VENDORID – The vendor identifier uniquely identifying the manufacturer. This property is only available for USB or PCI connected devices.
  - DEVICE_LOGICALDISK_X_PRODUCTID – The product identifier uniquely identifying the product. This property is only available for USB or PCI connected devices.
  - DEVICE_LOGICALDISK_X_SERIALNUMBER – The serial number of the physical disk.
  - DEVICE_LOGICALDISK_X_BUSTYPE – The storage bus type linked to the physical disk.
  - DEVICE_LOGICALDISK_COUNT – The number of logical disks.

Resolved Issues 10.05.800

Citrix Receiver 13

- Fixed crash when **H.264 acceleration** and **RTME** will be used on two or more concurrent VDI sessions.

VMware Horizon

- Fixed optimization for **Skype for Business**.
- Added switch to use **system-wide proxy** in VMware Horizon appliance mode.
  More…

Parameter	Use the systemwide proxy.
Registry	`vmwarevdmapp.use_proxy`
Range	<u>enabled</u> / disabled

PowerTerm

- Fixed editing of parameter `sessions.powerterm\<INST>.logindialog.loginscript` in Setup Registry: **now multiple lines are possible**.

Network

- Changed **e1000e** driver to **3.4.2.3** - directly from Intel.
- Changed **igb** driver to **5.3.5.22** - also directly from Intel.
- Added possibility to switch between thirdparty r8168 and kernel r8169 realtek network driver.
  More…

Parameter	Use thirdparty r8168 kernel module.
Registry	`network.drivers.r8169.prefer_r8168`
Range	[<u>Auto</u>] [Yes] [No]
Info: use r8169 in most cases	

Base system

- Added package **ldap-utils** which could be used via **custom scripts**.
- Fixed **delay in logon as local user**, when logon with **IGEL Smartcard** is also active.
- Fixed **random 90 seconds shutdown delay** (systemd).
- Fixed **custom bootsplash** installation.
- Added possibility to set `intel_idle.max_cstate` kernel cmdline parameter with registry keys to work against **Intel CPU freezes**.
- Enhanced **bootloader** to allow the setting of some kernel commandline parameters with registry keys.
  More…

Parameter	Disable use of APIC controller.

Registry	`system.kernel.bootparams.noapic`
Value	enabled / <u>disabled</u>
Parameter	Disable use of ACPI.
Registry	`system.kernel.bootparams.noacpi`
Value	enabled / <u>disabled</u>
Parameter	Use only one CPU core and disable all others.
Registry	`system.kernel.bootparams.nosmp`
Value	enabled / <u>disabled</u>
Parameter	Enable debug console on serial port 1.
Registry	`system.kernel.bootparams.serial_console_debug`
Value	enabled / <u>disabled</u>
Parameter	Limit CPU core usage (0 means no limit).
Registry	`system.kernel.bootparams.maxcpus`
Value	"0"
Parameter	Set maximum allowed cstate on intel cpus.
Registry	`system.kernel.bootparams.max_cstate`
Range	[<u>No limit</u>] [1] [2] [3] [4] [5] [6]
Info: do not limit intel cstate	
Parameter	IOMMU usage setting.
Registry	`system.kernel.bootparams.iommu`
Range	[<u>On</u>] [Off] [Passthrough] [Force]
Info: Use IOMMU if possible	
Parameter	IOMMU usage setting for AMD systems.
Registry	`system.kernel.bootparams.amd_iommu`
Range	[<u>On</u>] [Off]
Info: Use IOMMU if possible	
Parameter	IOMMU usage setting for Intel systems.
Registry	`system.kernel.bootparams.intel_iommu`

Range	[On] [Off]
Info: Use IOMMU if possible	

Storage Devices

- Fixed **auto mounting of storage devices** inside of **Olympus DS-9500 Digital Voice Recorder.**

WiFi

- Fixed non working TP Link Archer T2UH.

Driver

- Updated deviceTRUST Client to version 19.1.200. Bug Fixes:
    - Fixed an issue reading the DEVICE_IGEL_ICG_SERVER property.
    - Fixed an issue where the NETWORK and LOCATION property providers could cause the client to freeze if a disconnection occurred whilst these property providers were checking for changes.
    - Fixed an open file handle leak which lead to the client process reaching its file handle limits when left running for a long period of time.

X11 system

- Fixed a bug with thinclients reporting the **wrong monitor serial number**.
- There is now a registry key to **ignore a 3Dconnexion SpaceMouse** for IGEL graphical use (X11). If activated, the **SpaceMouse** is only passed thru to the desktop session. If false, it acts like the standard mouse.
- The following **SpaceMouse** products are included (VID, PID, Vendor, Product).
  More...

  0x046D; 0xC603; Logitech, Inc.; 3Dconnexion Spacemouse Plus XT

  0x046D; 0xC605; Logitech, Inc.; 3Dconnexion CADman

  0x046D; 0xC606; Logitech, Inc.; 3Dconnexion Spacemouse Classic

  0x046D; 0xC621; Logitech, Inc.; 3Dconnexion Spaceball 5000

  0x046D; 0xC623; Logitech, Inc.; 3Dconnexion Space Traveller 3D Mouse

  0x046D; 0xC625; Logitech, Inc.; 3Dconnexion Space Pilot 3D Mouse

  0x046D; 0xC626; Logitech, Inc.; 3Dconnexion Space Navigator 3D Mouse

  0x046D; 0xC627; Logitech, Inc.; 3Dconnexion Space Explorer 3D Mouse

  0x046D; 0xC628; Logitech, Inc.; 3Dconnexion Space Navigator for Notebooks

  0x046D; 0xC629; Logitech, Inc.; 3Dconnexion SpacePilot Pro 3D Mouse

  0x046D; 0xC62B; Logitech, Inc.; 3Dconnexion Space Mouse Pro

  0x256F; **; 3Dconnexion; SpaceMouse

- **USB device reset** via **USB powercycle** on **UD6 / UD7** available.
- Fixed **screen flicker** in some cases if **Force NumLock On** (`x.global.forcenumlock`) is active.

Window manager

- Fixed option to **disable the local window manager**.

Hardware

- Fixed non working **Laptop Display** for **Dell Latitude E5510**
- **Ryzen 3 devices** (1200, 1300X, 2200G, 2200U and 2300U) will use the **AMDGPU PRO** driver if registry key x.drivers.amdgpu.use_amdgpu_pro is set to auto (default).
- Added **AMDGPU Pro driver 19.10** version. The new version fixes a disappearing mouse cursor issue. Enable AMDGPU Pro driver instead of kernel integrated driver by registry key (settings to this key will only work after reboot).
  More...

Parameter	Use AMDGPU PRO driver
Registry	`x.drivers.amdgpu.use_amdgpu_pro`
Value	[Auto] [True] [False]
Info: Settings to this key will only work after reboot.	

IGEL Cloud Gateway

- Fixed support for **UMS file transfer status** in **ICG protocol**.
- When TC is managed over ICG, settings received in connection stage will not be applied immediately. **The settings must be applied after user prompt dialog**.

Notes for Release 10.05.700

Software:	Version	10.05.700
Release Date:	2019-04-12	
Release Notes:	Version	RN-105700-1
Last update:	2019-04-12	

- IGEL Linux Universal Desktop

IGEL Linux Universal Desktop

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
	UD3-LX 42
	UD3-LX 41
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10

IGEL Zero:
IZ2-RFX
IZ2-HDX
IZ2-HORIZON
IZ3-RFX
IZ3-HDX
IZ3-HORIZON

Component Versions 10.05.700

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.7.0-2113
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	18.10.0.11
deviceTRUST Citrix Channel	19.1.100.0
deviceTRUST RDP Channel	19.1.100.0
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.6.1
IBM iAccess Client Solutions	1.1.8.1
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
deviceTRUST RDP Channel	19.1.100.0
Leostream Java Connect	3.3.7.0
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_202
Parallels Client (64 bit)	16.5.2.20595
Parole Media Player	1.0.1-0ubuntu1igel16
Remote Viewer (RedHat Virtualization)	7.0-igel47
Spice GTK (Red Hat Virtualization)	0.35
Spice Protocol (Red Hat Virtualization)	0.12.14
Usbredir (Red Hat Virtualization)	0.8.0

Systancia AppliDis	4.0.0.17
Thinlinc Client	4.9.0-5775
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
Parole Media Player	1.0.1-0ubuntu1igel16
VMware Horizon Client	4.10.0-11053294
VNC Viewer	1.8.0+git20180123-igel1
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20180621
Philips Speech Driver	12.6.36

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.9.620
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.2.36
Reader Driver ACS CCID	1.1.5
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35

Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.28
Reader Driver REINER SCT cyberJack	3.99.5final.SP11
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.0.0.6

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.13
OpenSSH Client	7.2p2-4ubuntu2.4
OpenSSH Server	7.2p2-4ubuntu2.4
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.2.1-1igel51
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20181113-igel846
Graphics Driver ATI/RADEON	18.0.1-1igel831
Graphics Driver ATI/AMDGPU	18.0.1-1igel831
Graphics Driver VIA	5.76.52.92-009-005f78-20150730
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.3.4-1build2igel639
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver Vmmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.20 #mainline-ud-r2531
Xorg X11 Server	1.19.6-1ubuntu4igel838
Xorg Xephyr	1.19.6-1ubuntu4igel832

CUPS printing daemon	2.1.3-4ubuntu0.5igel20
PrinterLogic	18.2.1.128
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2igel653
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.2igel58
ModemManager	1.6.8-2igel1
GStreamer 0.10	0.10.36-2ubuntu0.1
GStreamer 1.x	1.14.2-1ubuntu1igel192
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB
VPN OpenConnect
Scanner support
VirtualBox

- **Features with Limited Functionality**

Cisco JVDI Client	12.1

General Information 10.05.700

The following clients and features are **not supported** anymore:

- Citrix Receiver 12.1 and 13.1 - 13.4
- Citrix Access Gateway Standard Plug-in
- Dell vWorkspace Connector for Linux
- Ericom PowerTerm Emulation 9 and 11
- Ericom Webconnect
- IGEL Legacy RDP Client (rdesktop)
- Virtual Bridges VERDE Client
- PPTP VPN Support
- IGEL Upgrade License Tool with IGEL Smartcard Token
- Remote Management by setup.ini file transfer (TFTP)
- Remote Access via RSH
- Legacy Philips Speech Driver
- t-Systems TCOS Smartcard Support
- DUS Series touch screens
- Elo serial touch screens
- IGEL Smartcard without locking desktop
- **Video Hardware Acceleration** support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10
- **H.264 Hardware Acceleration** support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10
- **Storage Hotplug devices are not automatically removed anymore**, instead they must be always ejected manually:
  - by panel tray icon
  - by an icon in the 'In-Session Control Bar' (configurable at `IGEL Setup > User Interface > Desktop`)
  - by a 'Safely Remove Hardware' session (configurable at `IGEL Setup > Accessories`)

The following clients and features are **not available** in this release:

- Cherry eGK Channel
- Open VPN Smartcard Support
- NCP Secure Client
- Asian Input Methods
- Composite Manager

Known Issues 10.05.700

Citrix

- With **activated DRI3** and an **amd gpu** citrix **H.264 acceleration** plugin could **freeze**. Selective H.264 mode (api v2) is not affected from this issue.
- Citrix has known issues with **gstreamer1.0** which describe problems with **multimedia redirection of H264**, **MPEG1** and **MPEG2**. Gstreamer1.0 is used if browser content redirection is active.
- **Browser content redirection** does not work with **activated DRI3** and hardware accelerated **H.264 deep compression codec**.
- Citrix **StoreFront** login with **Gemalto smartcard middleware** does not detect smartcard correctly if the card is **inserted after start** of Login.
  As a workaround, insert the smartcard before starting StoreFront login.
- When using **Citrix Workspace App 18.10** in combination with **Philips Speech** driver, the session occasionally **does not proper terminate** at logoff and hangs.
  As a workaround, usage of **Citrix Receiver 13.10** is recommended when Philips Speech driver is needed.

Citrix **H.264 acceleration plugin** does not work with **enabled** server policy **Optimize for 3D graphics workload** in combination with server policy **Use video codec compression** > *"For the entire screen"**.

- When **Expand the session over a self-selected number of monitors** (for **Multi-monitor full screen mode**) is used and setup is restarted, **Restrict full screen session to one monitor** is indicated and the **monitor selection is greyed out**. The functionality is available, only the notification in setup is broken.

VMware Horizon

- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory `/media` as a drive in your desktop. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, if you want to use **USB redirection** for your storage devices: Note that the **USB on-insertion feature** is only working if the **client drive mapping is switched off**.
    In the **IGEL Setup** client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**.
    It is also recommended to **disable local Storage Hotplug**: On page **Devices > Storage Devices > Storage Hotplug**, put **number** of storage hotplug devices to **0**.
  - On the other hand, if you use **drive mapping** instead, it is recommended that you should either **switch off USB redirection entirely** or at least **deny storage devices** by adding a filter to the USB class rules. And because Horizon Client relies on the OS to mount the storage devices itself, please go to setup page: **Devices > Storage Devices > Storage Hotplug** and switch on **Enable dynamic drive mapping** and put **Number of storage hotplug devices** to at least **1**.

Parallels Client

- **Native USB redirection does not work** with Parallels Client.

- For using the new **FIPS 140-2 compliance mode** it is necessary to connect to the **Parallels RAS** one time with FIPS support disabled.

Smartcard

- In some cases there are instabilities when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- Appliance mode **RHEV/Spice**: spice-xpi firefox plugin is no longer supported. The **Console Invocation** has to allow **Native client** (auto is also possible) and it should start in fullscreen to prevent opening windows.

Hardware

- Suspend on **UD10** is disabled.

New Features 10.05.700

RDP/IGEL RDP Client 2

- Add **field collection** to RDP session **server** page.
  More...

IGEL Setup	**Sessions > RDP > RDP Sessions > RDP Session > Server**
	Sessions > RDP > RDP Sessions > RDP Session > Options
Parameter	Collection
Registry	`sessions.winconnect<NR>.option.load-balance-info`

VMware Horizon

- Added parameters to **specify webcam frame size** and **rate for RTAV**.
  More...

Parameter	Webcam frame width
Registry	`vmware.view.rtav-frame-width`
Value	<empty_string>
Parameter	Webcam frame height
Registry	`vmware.view.rtav-frame-height`
Value	<empty_string>
Parameter	Webcam frame rate
Registry	`vmware.view.rtav-frame-rate`
Value	<empty_string>

Firefox

- Updated **Mozilla Firefox** to version **60.6.1ESR**.
- Fixes for **mfsa2019-10**, also known as: CVE-2019-9810, CVE-2019-9813.
- Fixes for **mfsa2019-08**, also known as: CVE-2019-9790, CVE-2019-9791, CVE-2019-9792, CVE-2019-9793, CVE-2019-9795, CVE-2019-9796, CVE-2018-18506, CVE-2019-9788.
- Fixes for **mfsa2019-05**, also known as: CVE-2018-18356, CVE-2019-5785.
- Fixes for **mfsa2019-02**, also known as: CVE-2018-18500, CVE-2018-18505, CVE-2018-18501.
- Fixes for **mfsa2018-30**, also known as: CVE-2018-17466, CVE-2018-18492, CVE-2018-18493, CVE-2018-18494, CVE-2018-18498, CVE-2018-12405.
- Added new parameters: Allow a **custom command** before and after browser session.

More...

Parameter	Initial Action
Registry	`sessions.browser%.init_action`
Value	<empty_string>
Parameter	Final Action
Registry	`sessions.browser%.final_action`
Value	<empty_string>

OS 11 Upgrade

- It is now possible to **upgrade to IGEL OS 11**. For more information, please see the particular section in kb.igel.com. The parameters for the upgrade:
  More...

IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Upgrade to OS 11
Registry	`update.firmware_migrate_to_11`
Value	enabled / <u>disabled</u>
IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Upgrade to OS 11 even if a previous upgrade attempt failed
Registry	`update.force_firmware_migrate_to_11`
Value	enabled / <u>disabled</u>
IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Upgrade to OS 11 even if PowerTerm is enabled
Registry	`update.migrate_to_11_with_powerterm`
Value	enabled / <u>disabled</u>
IGEL Setup	**System > Update > OS 11 Upgrade**
Parameter	Require an Enterprise Management Pack license to upgrade to OS 11
Registry	`update.migrate_to_11_enterprise_required`
Value	[<u>Smart</u>] [Always] [Never]
IGEL Setup	**System > Update > OS 11 Upgrade**

Parameter	Timeout waiting for OS 11 license to start automatic upgrade
Registry	`update.migrate_to_11_license_timeout`
Value	[Disabled] [10 Minutes] [15 Minutes] [30 Minutes] [60 Minutes]

- The parameters for configuring the desktop integration of the **IGEL OS 11 Upgrade tool** are: **More...**

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Start menu
Registry	`sessions.os11_migration0.startmenu`
Value	enabled / disabled

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Application Launcher
Registry	`sessions.os11_migration0.applaunch`
Value	enabled / disabled

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	System tab of start menu
Registry	`sessions.os11_migration0.startmenu_system`
Value	enabled / disabled

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	System tab of Application Launcher
Registry	`sessions.os11_migration0.applaunch_system`
Value	enabled / disabled

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Menu folder
Registry	`sessions.os11_migration0.menu_path`
Value	enabled / disabled

IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Desktop folder

Registry	`sessions.os11_migration0.desktop_path`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Application Launcher folder
Registry	`sessions.os11_migration0.applaunch_path`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Quick start panel
Registry	`sessions.os11_migration0.quick_start`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Password protection
Registry	`sessions.os11_migration0.pwprotected`
Value	[<u>None</u>] [Administrator] [User] [Setup user]
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Desktop
Registry	`sessions.os11_migration0.desktop`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > OS 11 Upgrade**
Parameter	Desktop context menu
Registry	`sessions.os11_migration0.pulldown`
Value	enabled / <u>disabled</u>

Citrix

- Updated **Citrix HDX RTME** used for optimization of **Skype for Business** to version **2.7.0-2113**.

Parallels Client

- Updated Parallels Client to **version 16.5.2 (64-Bit)**

CUPS Printing

- Added **SMB Network Print Client** function. The printer could be created on page **Devices > Printer > CUPS > Printers > Dialog**, **SMB Network Printer** as **Printer Port**. The settings for the SMB printer must be done in Setup Registry:

More...

IGEL Setup	**Devices > Printer > CUPS > Printers > Dialog**	
Parameter	Printer Port	
Registry	`print.cups.printer<NR>.backend`	
Value	[Parallel Port Printer] [Serial Port Printer] [USB Printer] [LPD Network Printer] [TCP Network Printer] [IPP Network Printer] [SMB Network Printer]	
	Parameter	SMB Server
	Registry	`print.cups.printer<NR>.smb_server`
	Parameter	SMB Workgroup
	Registry	`print.cups.printer<NR>.smb_workgroup`
	Parameter	SMB Port
	Registry	`print.cups.printer<NR>.smb_port`
	Value	0
	Parameter	SMB Printer
	Registry	`print.cups.printer<NR>.smb_printer`
	Parameter	SMB User
	Registry	`print.cups.printer<NR>.smb_user`
	Parameter	SMB Password
	Registry	`print.cups.printer<NR>.crypt_password`

IBM_5250

- Updated **IBM iAccess Client Solutions** to version **1.1.8.1**.

WiFi

- Added support for **Realtek 8821CE wireless cards**.
- Added switch to determine the **source of WiFi scan results** within the **Wireless Manager**. Selecting default is currently identical with the old mechanism (using the `iwlist` command). This may change in the future. When `iwlist` fails, **NetworkManager** is automatically used as a fallback.
  More...

Parameter	WiFi Scanner
Registry	`network.interfaces.wirelesslan.device0.mssid_sca` `nner`

Range	<u>default</u> / iwlist / NetworkManager
Info: "default" is currently equal to "iwlist"	

X11 System

- Added **xprintidle** tool to firmware.
- The new **Display Switch** tool can use **multiple different profiles**, automatically chosen **at runtime** depending on the currently connected monitors. A profile is created, when the current monitor layout/resolution is configured via the **Display Switch** utility. The profile will be associated with the **current connected displays** automatically (manufacturer, model and used connector are used for allocation) and if applicable, the state of the **laptop lid**. The setup will be restored by hot-(un)plugging known displays, means the system will automatically switch to the already configured profile. The **Display Switch** utility itself got a new interface. All base functionality can be configured via drag & drop.
  An example workflow:
  - Connect the hardware and **close/open lid**
  - Open the **Display Switch** Utility
    - A quick (simple) setting can be selected directly.
    - Should the desired application deviate from the possibilities provided, the **Advanced** button opens a drag & drop interface for further settings.
- In this interface the displays can be **dragged and dropped** for the intended configuration. The **display will snap adjacent** to others.
- If a **display should not be used**, it can be dragged to the **Disabled** area on the top right - the screen will be reactivated when it is dragged back to the active area.
- To show the **same content on multiple displays**, one display should be dragged onto an other active screen. The interface will show **Mirror**. The mirroring monitor will be displayed on the lower right.
- With the **Apply** button the current state will be set, with **Yes** on the **Keep configuration** dialog the current settings will be saved to persistent storage and associated with the profile.
- **Advanced functionality** (panning/scaling/resolutions) can be configured in drop-down boxes, hidden in a **drawer** on the right side. The drawer can be expanded by clicking the **<** button on the right edge.
- For the **Display Switch** functionality the following parameters should be enabled for proper usage:
  More...

IGEL Setup	**Accessories > Display Switch > Options**
Parameter	Preserve settings over reboot
Registry	`sessions.user_display0.options.preserve_settings`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > Display Switch > Options**
Parameter	Smart display configuration

Registry	`x.auto_associate`
Value	enabled / <u>disabled</u>

- The **IGEL Display Switch** utility is now used for **NVIDIA graphics** devices as well.

Smartcard

- Updated **SecMaker NetiD** to version **6.7.2.36**: now **Yubikey 5** is supported.

Resolved Issues 10.05.700

Citrix

- **Appropriate icons** arise with IGEL and Citrix authentication
- Fixed crash when **H.264 acceleration** and **RTME** will be used on two or more concurrent VDI sessions.

VMware Horizon

- Added recognition for **password-change-dialog** in Horizon **local-logon** sessions or appliance mode.
- Fixed optimization for **Skype for Business**.
- Added switch to use **system-wide proxy** in VMware Horizon appliance mode.
  More...

Parameter	Use the systemwide proxy
Registry	`vmwarevdmapp.use_proxy`
Value	enabled/ disabled

Parallels Client

- Fixed: **Maximized windows** for published applications can be displayed incorrectly.
- Fixed: Incorrect **user credentials** can be picked up during connection, when same farm is registered multiple times with different user credentials
- Fixed: **Linux** client not consider **universal printing policies**, set from the server

PowerTerm

- Fixed editing of parameter `sessions.powerterm\<INST>.logindialog.loginscript` in Setup Registry: **now multiple lines are possible**.

Firefox

- Fixed an occasional issue with Firefox **not being in fullscreen** after a suspend.

Network

- Improved **SCEP** client robustness
  - The **cert_agent script** does not terminate anymore, when a problem occurs (e.g. the SCEP server is unreachable) but tries again after the expiry check interval.
  - When the **client certificate has expired**, there is still one attempt for a renewal. However, when that fails, a new one is requested. That obviously will fail, if the client presents a challenge password that is not valid anymore.
- Improved expiration time of **ethernet no-link notification**
- Fixed **MBB router configuration** (broken since 10.05.500)
- Added all **Ethernet network drivers** from OS to LX version.
- Changed **e1000e** driver to **3.4.2.3** - directly from Intel.
- Changed **igb** driver to **5.3.5.22** - also directly from Intel.

Smartcard

- Fixed **OpenSC** setting **max_send_size** for reader driver **pcsc** in `/etc/opensc/opensc.conf` .
- Fixed **Dell KB813 Smartcard Keyboard** in combination with certain smartcards, driven by **OpenSC PKCS#11 module**. Before this fix, authentication to Citrix StoreFront and VMWare Horizon failed.

Application Launcher

- Fixed confusion in **nameserver list** caused by comments in `/etc/resolv.conf`

Base system

- Fixed sporadic **bootsplash** issue.
- Fixed **Screensaver** and **Screenlock timeouts** to be independent. When both timeouts are set, the start of screenlock will not reset the screensaver timeout anymore.
- Added package **ldap-utils** which could be used via **custom scripts**.
- Fixed playback of **AAC coded audio streams** on **IGEL Zero** products.
- Fixed **delay in logon as local user**, when logon with **IGEL Smartcard** is also active.
- Fixed **random 90 seconds shutdown delay** (systemd).
- Fixed **custom bootsplash** installation.

Appliance Mode

- Fixed a **regression in 10.05.570** that prevents appliance mode from restarting after a suspend.

Storage Devices

- Fixed **auto mounting of storage devices** inside of **Olympus DS-9500 Digital Voice Recorder.**

Base System

- Fixed issues with **gen4/5 intel graphic driver** in kernel **4.18.20**.
- Fixed **suspend/resume hangs** when logged into **Citrix sessions**.
- Fixed **CPU scaler and volume control** applet suspend/resume issue.

X11 system

- Fixed the **missing volume control** in the panel, when the panel is configured to disappear while the login/lock screen is shown.
- The **In-Session Control Bar** now scales with the current DPI setting.
- There is now a registry key to **ignore a 3Dconnexion SpaceMouse** for IGEL graphical use (X11). If activated, the **SpaceMouse** is only passed thru to the desktop session. If false, it acts like the standard mouse.
  More...

Parameter	Deactivates a 3Dconnexion SpaceMouse as a standard mouse
Registry	`userinterface.mouse.spacemouse.x11_ignore`
Value	<u>enabled</u>/ disabled

- The following **SpaceMouse** products are included (VID, PID, Vendor, Product).
  More...

  0x046D; 0xC603; Logitech, Inc.; 3Dconnexion Spacemouse Plus XT

0x046D; 0xC605; Logitech, Inc.; 3Dconnexion CADman

0x046D; 0xC606; Logitech, Inc.; 3Dconnexion Spacemouse Classic

0x046D; 0xC621; Logitech, Inc.; 3Dconnexion Spaceball 5000

0x046D; 0xC623; Logitech, Inc.; 3Dconnexion Space Traveller 3D Mouse

0x046D; 0xC625; Logitech, Inc.; 3Dconnexion Space Pilot 3D Mouse

0x046D; 0xC626; Logitech, Inc.; 3Dconnexion Space Navigator 3D Mouse

0x046D; 0xC627; Logitech, Inc.; 3Dconnexion Space Explorer 3D Mouse

0x046D; 0xC628; Logitech, Inc.; 3Dconnexion Space Navigator for Notebooks

0x046D; 0xC629; Logitech, Inc.; 3Dconnexion SpacePilot Pro 3D Mouse

0x046D; 0xC62B; Logitech, Inc.; 3Dconnexion Space Mouse Pro

0x256F; **; 3Dconnexion; SpaceMouse

- **USB device reset** via **USB powercycle** on **UD6 / UD7** available.
- Fixed **screen flicker** in some cases if **Force NumLock On** (`x.global.forcenumlock`) is active.

Caradigm

- Fixed **Horizon session** teardown.

Window manager

- Fixed option to **disable the local window manager**.

Audio

- Fixed bad quality sound over **DisplayPort** in a **Citrix ICA session** or other applications using **ALSA API**.
- Fixed configuration of **default audio** output and input.

Hardware

- Added possibility to use **AMDGPU PRO** driver instead of the kernel integrated driver.
  More...

Parameter	Use AMDGPU PRO driver
Registry	`x.drivers.amdgpu.use_amdgpu_pro`
Value	[<u>Auto</u>] [True] [False]
Info: Settings to this key will only work after reboot.	

IGEL Cloud Gateway

- Fixed support for **UMS file transfer status** in **ICG protocol**.
- When TC is managed over ICG, settings received in connection stage will not be applied immediately. **The settings must be applied after user prompt dialog**.

Notes for Release 10.05.500

Software:	Version	10.05.500
Release Date:	2018-12-20	
Release Notes:	Version	RN-105500-1
Last update:	2018-12-20	

- IGEL Linux Universal Desktop(see page 985)
- IGEL Universal Desktop OS3/IGEL UD Pocket(see page 985)
- IGEL Universal Desktop Converter (UDC3)(see page 985)

IGEL Linux Universal Desktop

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
	UD3-LX 42
	UD3-LX 41
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10

IGEL Zero:
IZ2-RFX
IZ2-HDX
IZ2-HORIZON
IZ3-RFX
IZ3-HDX
IZ3-HORIZON

- Component Versions 10.05.500
- General Information 10.05.500
- Known Issues 10.05.500
- New Features 10.05.500
- Resolved Issues 10.05.500

Component Versions 10.05.500

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.6.0-2030
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	18.10.0.11
deviceTRUST Citrix Channel	19.1.100.0
deviceTRUST RDP Channel	19.1.100.0
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.3.0
IBM iAccess Client Solutions	1.1.5.0
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
Leostream Java Connect	3.3.7.0
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_192
Parallels Client (32 bit)	16.5.2.20588
Parole Media Player	1.0.1-0ubuntu1igel16
Remote Viewer (RedHat Virtualization)	7.0-igel47
Spice GTK (Red Hat Virtualization)	0.35
Spice Protocol (Red Hat Virtualization)	0.12.14
Usbredir (Red Hat Virtualization)	0.8.0
Systancia AppliDis	4.0.0.17

Thinlinc Client	4.9.0-5775
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
VMware Horizon Client	4.10.0-11053294
VNC Viewer	1.8.0+git20180123-igel1
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20180621
Philips Speech Driver	12.6.36

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.9.620
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.0.23
Reader Driver ACS CCID	1.1.5
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.4.28
Reader Driver REINER SCT cyberJack	3.99.5final.SP11
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.0.0.6

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.13
OpenSSH Client	7.2p2-4ubuntu2.4
OpenSSH Server	7.2p2-4ubuntu2.4
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.2.1-1igel51
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20181113-igel846
Graphics Driver ATI/RADEON	18.0.1-1igel831
Graphics Driver ATI/AMDGPU	18.0.1-1igel831
Graphics Driver VIA	5.76.52.92-009-005f78-20150730
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.3.4-1build2igel639
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver Vmmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.20 #mainline-ud-r2481
Xorg X11 Server	1.19.6-1ubuntu4igel838
Xorg Xephyr	1.19.6-1ubuntu4igel832
CUPS printing daemon	2.1.3-4ubuntu0.5igel20
PrinterLogic	18.2.1.128

Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2igel653
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.2igel58
ModemManager	1.6.8-2igel1
GStreamer 0.10	0.10.36-2ubuntu0.1
GStreamer 1.x	1.14.2-1ubuntu1igel192
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB
VPN OpenConnect
Scanner support
VirtualBox

- **Features with Limited Functionality**

Cisco JVDI Client	12.1

General Information 10.05.500

The following clients and features are **not supported** anymore:

- **Citrix Receiver 12.1** and **13.1 - 13.4**
- **Citrix Access Gateway** Standard Plug-in
- **Dell vWorkspace Connector** for Linux
- **Ericom PowerTerm Emulation 9** and **11**
- **Ericom Webconnect**
- **IGEL Legacy RDP Client** (rdesktop)
- Virtual Bridges **VERDE Client**
- **PPTP VPN** Support
- **IGEL Upgrade License Tool** with **IGEL Smartcard Token**
- Remote Management by **setup.ini file transfer** (TFTP)
- Remote Access via **RSH**
- Legacy **Philips Speech Driver**
- t-Systems **TCOS Smartcard Support**
- **DUS Series** touch screens
- **Elo serial** touch screens
- **IGEL Smartcard without locking desktop**
- **Video Hardware Acceleration Support is discontinued** on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10
- **H.264 Hardware Acceleration Support is discontinued** on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10
- **Storage Hotplug devices are not automatically removed anymore**, instead they must be always ejected manually:
    - by panel tray icon
    - by an icon in the **In-Session Control Bar** (configurable at **IGEL Setup > User Interface > Desktop**)
    - by a **Safely Remove Hardware** session (configurable at **IGEL Setup > Accessories**)

The following clients and features are **not available** in this release:

- **Cherry eGK** Channel
- **Open VPN Smartcard Support**
- **NCP** Secure Client
- **Asian Input Methods**
- **Composite Manager**

Known Issues 10.05.500

Citrix

- **With activated DRI3 and an amd gpu citrix h264 acceleration plugin could freeze**. Selective H.264 mode (api v2) is not affected from this issue.
- Citrix has known issues with **gstreamer1.0** which describe problems with multimedia redirection of H264, MPEG1 and PEG2. Gstreamer1.0 is used if browser content redirection is active.
- **Browser content redirection does not work with** activated DRI3 and hardware accelerated H.264 deep compression codec.
- **Citrix StoreFront Login with Gemalto smartcard middleware does not detect smartcard correctly** if the card is inserted after start of Login. As a workaround, insert the smartcard before starting StoreFront Login.
- When using **Citrix Workspace App 18.10 in combination with Philips Speech driver**, the session occasionally does not properly terminate at logoff and hangs. As a workaround, usage of **Citrix Receiver 13.10** is recommended when Philips Speech driver is needed.
- **Citrix H264** acceleration plugin does not work with ****enabled** server policy "Optimize for 3D graphics workload"** in combination with server policy **Use video codec compression > For the entire screen**.
- When **Expand the session over a self-selected number of monitors** (for "Multi-Monitor full screen mode") is used and setup is restarted, **Restrict full screen session to one monitor** is indicated and the monitor selection is greyed out. **The functionality is available, only the notification in setup is broken**.

VMware Horizon

- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory /media as a drive in your desktop. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should **not** be enabled both at the same time.
  - On the one hand, if you want to use USB redirection for your storage devices.

    > ⓘ Note that the USB on-insertion feature is only working if the **Client Drive Mapping** is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**.
    > It is also recommended to disable local **Storage Hotplug**: On page **Devices > Storage Devices > Storage Hotplug**, put number of storage hotplug devices to 0.

  - On the other hand, if you use drive mapping instead, it is recommended that you should either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. And because Horizon Client relies on the OS to mount the storage devices itself, please go to setup page: **Devices > Storage Devices > Storage Hotplug** and switch on **Enable dynamic drive mapping** and put **Number of storage hotplug devices** to at least 1.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.
- For using the new **FIPS 140-2 compliance mode** it is necessary to connect to the Parallels RAS one time with FIPS support disabled.

Smartcard

- In some cases, there are instabilities when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- **Appliance mode RHEV/Spice**: spice-xpi firefox plugin is no longer supported. The "Console Invocation" has to allow Native client (auto is also possible) and it should start in fullscreen to prevent opening windows.

Hardware

- **Suspend on UD10 is disabled**.

IGEL Cloud Gateway

- **No support for UMS file transfer status** in ICG protocol.

New Features 10.05.500

Citrix

- Integrated **Citrix Workspace app 18.10**.
    - There is now a registry key to enable **Citrix Workspace App selfservice web UI mode**.
      More...

Parameter	Enable Citrix Workspace app self-service web UI mode
Registry	`ica.authman.cwacapableenabled`
Value	enabled / disabled

    - There is now a registry key to make a **Bloomberg v4 keyboard** available across multiple sessions. Additionally USB redirection has to enabled at least for this device: vid=1188 pid=9545.
      More...

Parameter	Bloomberg v4 keyboard
Registry	`ica.allregions.bloombergredirection`
Value	default / true / false

    - Removed parameter for **Citrix Cloud**. This parameter is not needed anymore.
      More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Options**
Parameter	Connect to cloud
Registry	`ica.cloudconnect`

- Citrix client version 13.9.1 was removed.
  Available Citrix client versions: **13.5.0, 13.10, 18.10** (default)
- It is now possible to **span a Citrix session over a self-defined number of consecutive monitors**. For this, the parameter `ica.wfclient.usexdgfullscreen` must be deactivated and `ica.pnlogin.spanmonitorenable` activated. The selection must be defined in the parameter `ica.pnlogin.spanmonitor` .
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Window**
Parameter	Expand the session over a self-selected number of monitors
Registry	`ica.pnlogin.spanmonitorenable`
Value	enabled / disabled

IGEL Setup	**Sessions > Citrix > Citrix Global > Window**
Parameter	Monitor selection

Registry	`ica.pnlogin.spanmonitor`
Value	" "
Sample: When using four monitors and expansion of session across monitor 2, 3 and 4 is wanted, insertion should be 2,3,4 or 2,4.	

- **Setup renaming**
  More...

Old Name	New Name
Citrix XenDesktop / XenApp	Citrix
Citrix Receiver Selection	Citrix Workspace Client Selection
Citrix Receiver version	Citrix Client version
HDX / ICA Global	Citrix Global
Legacy ICA Sessions	Citrix Legacy ICA Sessions
Citrix Storefront/Webinterface	Citrix Storefront
XenApp	Citrix Virtual Apps
XenDesktop	Citrix Virtual Desktops
XenApp / XenDesktop	Citrix Virtual Apps / Desktops
Server Location: XenApp 6.x or older	Server Location: Web Interface
Server Location: XenApp/XenDesktop 7.x Store	Server Location: Storefront
Server Location: XenApp/XenDesktop 7.x Legacy Mode	Server Location: StoreFront Legacy Mode

- Updated **deviceTrust** client to version **19.1.100**.

IGEL Linux Recovery

- Enhanced **IGEL Linux Recovery installer** by a new option to force a legacy installation if booted in EFI mode.
- Updated **preparestick** tool to version 3.3.0.0 with the following fixes:
    - WMI NullReferenceException
    - dd.exe Processbar asynchronous
        - diskpart->clean failed with access denied

RDP/IGEL RDP Client 2

- Updated **deviceTrust** client to version 19.1.100.

VMware Horizon

- Updated **Horizon Client** for Linux to **version 4.10.0-11053294**. Added support for the new features:
  - **H.264 High Color Accuracy**
    More...

IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Server Options**
Parameter	High Color Accuracy mode
Registry	`vmware.view.high-color-accuracy-mode`
Value	enabled / <u>disabled</u>

  - **Serial port redirection support**
    More...

IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Serial Port Redirection**
Parameter	Serial Port Redirection
Registry	`vmware.view.high-color-accuracy-mode`
Value	enabled / <u>disabled</u>

  - **High resolution display scaling** and **DPI synchronisation**
    More...

Parameter	Display Scaling
Registry	`vmware.view.use-display-scaling`
Value	<u>enabled</u> / disabled

  - **Relative mouse support**
    More...

Parameter	Relative Mouse Feature for a Remote Desktop
Registry	`vmware.view.enable-relative-mouse`
Value	enabled / <u>disabled</u>

  - **Automatically hide toolbar**
    More...

Parameter	Auto-hide menu bar (tool bar)
Registry	`vmware.view.menu-bar-auto-hide`
Value	enabled / <u>disabled</u>

Parallels Client

- Updated Parallels Client to **version 16.5.2**

- Fixed: Remote session closes triggered by audio playback

IBM_5250

- Enhanced configuration of **IBM iAccess Client**. The following parameters were added:
More...

Parameter	Open new sessions in a new tab
Registry	`ibm.iaccess.acssm.opensessionintab`
Value	<u>enabled</u> / disabled

Parameter	Always display the tab bar
Registry	`ibm.iaccess.acssm.alwaysshowtabbar`
Value	enabled / <u>disabled</u>

Parameter	Switch to new tab when created
Registry	`ibm.iaccess.acssm.switchtonewtab`
Value	<u>enabled</u> / disabled

Parameter	Send a warning when closing multiple tabs
Registry	`ibm.iaccess.acssm.closemultipletabwarning`
Value	<u>enabled</u> / disabled

Parameter	Do not start tabbed sessions until the tab is selected
Registry	`ibm.iaccess.acssm.tabdelayedstart`
Value	enabled / <u>disabled</u>

Parameter	New Tab Action
Registry	`ibm.iaccess.acssm.newtabaction`
Range	[Disable and Hide] [<u>Run the Same</u>] [Run Other...]

Parameter	Tab Placement
Registry	`ibm.iaccess.acssm.tabplacement`
Range	[<u>Top</u>][Bottom] [Left] [Right]

Parameter	List of visible menu entries
Registry	`ibm.sessions.iaccess%.options.deletemenus`
Value	list of visible menu entries

Firefox

- Updated Mozilla Firefox to **version 60.3.0ESR**
  Fixes for **mfsa2018-27**, also known as: CVE-2018-12392, CVE-2018-12393, CVE-2018-12395, CVE-2018-12396, CVE-2018-12397, CVE-2018-12389, CVE-2018-12390.

Cisco JVDI Client

- Updated Cisco JVDI client to **version 12.1**

Base system

- Updated **French** and **Dutch** user interface translation.

Driver

- **Philips Speech Drivers** for Citrix and RDP version 12.6.36
  Support of the new Philips dictation devices **SpeechOne 6000** and **SpeechAir 2000**

Audio

- Added support for **Jabra Xpress** mechanism to deploy firmware updates and settings on **Jabra USB headsets**.
  More...

Parameter	File name of Xpress package
Registry	`jabra.xpress.package_name`

Parameter	URL hosting Xpress packages
Registry	`jabra.xpress.package_url`

Parameter	Login name for access to Xpress package URL
Registry	`jabra.xpress.package_url_login`

Parameter	Password for access to Xpress package URL
Registry	`jabra.xpress.package_url_crypt_password`

Parameter	Check SSL certificate
Registry	`jabra.xpress.package_url_ssl_cert_check`
Value	<u>enabled</u> / disabled

Parameter	URL of the Audio Device Dashboard server
Registry	`jabra.xpress.device_dashboard.server_url`

- Added suspend on idle for **Jabra wireless headsets**. The headsets are set to offline state after 5 seconds of idle time.
  More...

Parameter	Suspend on idle
Registry	`devices.jabra.suspend_on_idle`

Value	enabled / disabled

- Added parameters to configure the **deferred volume synchronization** in **Pulseaudio**. **More...**

Parameter	Enable deferred volume
Registry	`multimedia.pulseaudio.daemon.enable-deferred-volume`
Value	enabled / disabled
Parameter	Safety margin
Registry	`multimedia.pulseaudio.daemon.deferred-volume-safety-margin-usec`
Value	8000
Parameter	Extra delay
Registry	`multimedia.pulseaudio.daemon.deferred-volume-extra-delay-usec`
Value	0

- Added a parameter to force **configured volumes** for in- and output devices in **Pulseaudio**. **More...**

Parameter	Force Volume Settings
Registry	`userinterface.sound.force`
Value	enabled / disabled

Java

- Updated Oracle Java Runtime Environment to **version 1.8.0 U192**.

IGEL Cloud Gateway

- Added support for ICG High Availability and ICG load balancing to the **IGEL remote management service**.

Resolved Issues 10.05.500

Citrix

- Fixed tool **icacontrol**
- Added: clear error message is returned when a **published desktop is occupied by another user**.
- Added: clear error message is returned when **misconfiguration inhibits start of an application**.

RDP/IGEL RDP Client 2

- Fixed login error message being displayed in **English** only.
- **Allow server side per user scaling for multimonitor configurations** as well (RDP sessions desktop scaling factor must be set to 100% for this to work):
  - Global setting
    More...

IGEL Setup	**Sessions > RDP > RDP Global > Window**
Parameter	Desktop scale factor
Registry	`rdp.winconnect.desktop-scale-factor`
Value	<u>auto</u> / 100% / 125% / 150%

  - Session setting
    More...

IGEL Setup	**Sessions > RDP > RDP Sessions > **RDP Session** > Window**
Parameter	Desktop scale factor
Registry	`sessions.winconnect%.option.desktop-scale-factor`
Value	Global setting / auto / 100% / 125% / 150%

Evidian

- Fixed **NLA support** in Evidian AuthMgr RDP session type

Network

- Fixed handling of the following registry keys:
  - `network.interfaces.wirelesslan.device0.driver.disable_ht`
  - `network.interfaces.wirelesslan.device0.driver.chain_num`
  - `network.interfaces.wirelesslan.device0.driver.cfg80211.cfg80211_disable_40mhz_24ghz`
  The first and the second parameters only affect the driver **rt2800ub** (used e.g.for Ralink RT3372 and RT5572)
- Fixed **iptables IPv6 support** by adding IPv6 netfilter kernel modules.

WiFi

- Fixed connection to **hidden WiFi networks**

Cisco JVDI Client

- Fixed: Applications are now startable via **desktop**, start menu and **application launcher**.
- Fixed Webcam support with **32Bit Citrix Receiver** for JVDI.

Open VPN

- Fixed **desktop folder support** for OpenVPN session.

Smartcard

- Improved **waiting for smartcard events**.

Base system

- **IGEL Setup Assistant will no longer start multiple times**, the existing instance will be raised instead.
- Fixed **automatic firmware update** on shutdown.

Storage Devices

- Fixed potential **hangs on suspend/shutdown** when a **USB memory stick** was in use at that time.

X11 system

- Fixed **huge icons** in GTK applications when DPI setting was below 96.
- Fixed problems with **Avaya VDI Communicator** and webcams.
- **Disabled SNA sprite X video support as default** because it is unstable and could crash X server.
  - New registry key:
    More...

Parameter	Use SNA sprite video feature (could be unstable)
Registry	`x.drivers.intel.sprite_video`
Value	enabled / <u>disabled</u>

Window manager

- Fixed the **custom UI colors for the window manager decoration** that was broken in 10.05.100. The custom UI colors are now applied to the window borders again.

Audio

- Applied workarounds concerning **USB control requests on Plantronics C510 and 520**.
- Fixed **initialization of sound card** in **Dell Wyse 3040**.
- Fixed blocking mode in compatibility **Pulseaudio PCM plugin for ALSA**. The blocking mode is used by Parallels client to playback sound.

Media Player (Parole)

- Parole media player now displays a **looping animation** while initiating the connection for **rtmp streams**.
- **Extended integration** of Parole media player configuration in the setup. The following configuration keys are now respected.

More...

IGEL Setup	**Sessions > Media Player > Media Player Global > Window**
Parameter	Automatically resize the player window when a new video is loaded
Registry	`multimedia.mediaplayer.auto_resize`
Value	enabled / disabled
IGEL Setup	**Sessions > Media Player > Media Player Global > Window**
Parameter	Main window should stay on top
Registry	`multimedia.mediaplayer.window_on_top`
Value	enabled / disabled
IGEL Setup	**Sessions > Media Player > Media Player Global > Options**
Parameter	Network connection speed
Registry	`multimedia.mediaplayer.connection_speed`
Range	[56 kbps Modem/ISDN] [112 kbps Dual ISDN/DSL] [256 kbps DSL/Cable] [384 kbps DSL/Cable] [512 kbps DSL/Cable] [1.5 mbps T1/Intranet/LAN] [Intranet/LAN]
Parameter	Enable debug
Registry	`multimedia.mediaplayer.debug`
Value	enabled / disabled

Evidian

- Added support to **log out Citrix session type** on tap event.
  More...

Parameter	Logout behavior
Registry	`evidian.sessiontype.ctx.pnlogout`
Value	[Default] [Force disconnect] [Force logoff]

Hardware

- Fixed problems with **mouse cursor on intel cherryview devices**.

IGEL Universal Desktop OS3/IGEL UD Pocket

Supported Hardware:

https://kb.igel.com/igelos/en/devices-supported-by-udc3-and-ud-pocket-3117174.html

Component Versions 10.05.500

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.6.0-2030
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Workspace App	18.10.0.11
deviceTRUST Citrix Channel	19.1.100.0
deviceTRUST RDP Channel	19.1.100.0
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.3.0
IBM iAccess Client Solutions	1.1.5.0
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
Leostream Java Connect	3.3.7.0
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_192
Parallels Client (32 bit)	16.5.2.20588
Parole Media Player	1.0.1-0ubuntu1igel16
Remote Viewer (RedHat Virtualization)	7.0-igel47
Spice GTK (Red Hat Virtualization)	0.35
Spice Protocol (Red Hat Virtualization)	0.12.14
Usbredir (Red Hat Virtualization)	0.8.0
Systancia AppliDis	4.0.0.17

Thinlinc Client	4.9.0-5775
ThinPrint Client	7.5.88
Totem Media Player	2.30.2
VMware Horizon Client	4.10.0-11053294
VNC Viewer	1.8.0+git20180123-igel1
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20180621
Philips Speech Driver	12.6.36

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.9.620
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.0.23
Reader Driver ACS CCID	1.1.5
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.4.28
Reader Driver REINER SCT cyberJack	3.99.5final.SP11
Resource Manager PC/SC Lite	1.8.23-1igel1
Cherry USB2LAN Proxy	3.0.0.6

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.13
OpenSSH Client	7.2p2-4ubuntu2.4
OpenSSH Server	7.2p2-4ubuntu2.4
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.2.1-1igel51
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20181113-igel846
Graphics Driver ATI/RADEON	18.0.1-1igel831
Graphics Driver ATI/AMDGPU	18.0.1-1igel831
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2igel775
Graphics Driver Nvidia	390.87-0ubuntu1
Graphics Driver Vboxvideo	5.2.18-dfsg-2igel17
Graphics Driver VMware	13.3.0-2igel812
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.3.4-1build2igel639
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver Vmmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.20 #mainline-udos-r2481

Xorg X11 Server	1.19.6-1ubuntu4igel838
Xorg Xephyr	1.19.6-1ubuntu4igel832
CUPS printing daemon	2.1.3-4ubuntu0.5igel20
PrinterLogic	18.2.1.128
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2igel653
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
NetworkManager	1.2.6-0ubuntu0.16.04.2igel58
ModemManager	1.6.8-2igel1
GStreamer 0.10	0.10.36-2ubuntu0.1
GStreamer 1.x	1.14.2-1ubuntu1igel192
Python2	2.7.12
Python3	3.5.2

- **Features with Limited IGEL Support**

Mobile Device Access USB
VPN OpenConnect
Scanner support
VirtualBox

- **Features with Limited Functionality**

Cisco JVDI Client	12.1

General Information 10.05.500

The following clients and features are **not supported** anymore:

- **Citrix Receiver 12.1** and **13.1 - 13.4**
- **Citrix Access Gateway** Standard Plug-in
- **Dell vWorkspace Connector** for Linux
- **Ericom PowerTerm Emulation 9** and **11**
- **Ericom Webconnect**
- **IGEL Legacy RDP Client** (rdesktop)
- Virtual Bridges **VERDE Client**
- **PPTP VPN** Support
- **IGEL Upgrade License Tool** with **IGEL Smartcard Token**
- Remote Management by **setup.ini file transfer** (TFTP)
- Remote Access via **RSH**
- Legacy **Philips Speech Driver**
- t-Systems **TCOS Smartcard Support**
- **DUS Series** touch screens
- **Elo serial** touch screens
- **IGEL Smartcard without locking desktop**
- **VIA Graphics Support**
- **Storage Hotplug devices are not automatically removed anymore**, instead they must be always ejected manually:
    - by panel tray icon
    - by an icon in the **In-Session Control Bar** (configurable at **IGEL Setup > User Interface > Desktop**)
    - by a **Safely Remove Hardware** session (configurable at **IGEL Setup > Accessories**)

The following clients and features are **not available** in this release:

- **Cherry eGK** Channel
- **Open VPN Smartcard Support**
- **NCP** Secure Client
- **Asian Input Methods**
- **Composite Manager**

Known Issues 10.05.500

Citrix

- **With activated DRI3 and an amd gpu citrix h264 acceleration plugin could freeze**. Selective H.264 mode (api v2) is not affected from this issue.
- Citrix has known issues with **gstreamer1.0** which describe problems with multimedia redirection of H264, MPEG1 and PEG2. Gstreamer1.0 is used if browser content redirection is active.
- **Browser content redirection does not work with** activated DRI3 and hardware accelerated H.264 deep compression codec.
- **Citrix StoreFront Login with Gemalto smartcard middleware does not detect smartcard correctly** if the card is inserted after start of Login. As a workaround, insert the smartcard before starting StoreFront Login.
- When using **Citrix Workspace App 18.10 in combination with Philips Speech driver**, the session occasionally does not properly terminate at logoff and hangs. As a workaround, usage of **Citrix Receiver 13.10** is recommended when Philips Speech driver is needed.
- **Citrix H264** acceleration plugin does not work with ****enabled** server policy "Optimize for 3D graphics workload"** in combination with server policy **Use video codec compression > For the entire screen**.
- When **Expand the session over a self-selected number of monitors** (for "Multi-Monitor full screen mode") is used and setup is restarted, **Restrict full screen session to one monitor** is indicated and the monitor selection is greyed out. **The functionality is available, only the notification in setup is broken**.

VMware Horizon

- **External drives** mounted already before connection **do not appear in the remote desktop**. Workaround: map the directory /media as a drive in your desktop. Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should **not** be enabled both at the same time.
  - On the one hand, if you want to use USB redirection for your storage devices.

    > ⓘ Note that the USB on-insertion feature is only working if the **Client Drive Mapping** is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**.
    > It is also recommended to disable local **Storage Hotplug**: On page **Devices > Storage Devices > Storage Hotplug**, put number of storage hotplug devices to 0.

  - On the other hand, if you use drive mapping instead, it is recommended that you should either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. And because Horizon Client relies on the OS to mount the storage devices itself, please go to setup page: **Devices > Storage Devices > Storage Hotplug** and switch on **Enable dynamic drive mapping** and put **Number of storage hotplug devices** to at least 1.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.
- For using the new **FIPS 140-2 compliance mode** it is necessary to connect to the Parallels RAS one time with FIPS support disabled.

Base system

- **Display resolution and rotation** could not be changed with nvidia gpu driver via tcsetup.

Multimedia

- Multimedia redirection with **gstreamer** could fail with **nouveau gpu driver**.

Smartcard

- In some cases, there are instabilities when using **A.E.T. SafeSign smartcards**.

Appliance Mode

- **Appliance mode RHEV/Spice**: spice-xpi firefox plugin is no longer supported. The "Console Invocation" has to allow Native client (auto is also possible) and it should start in fullscreen to prevent opening windows.

Hardware

- **Suspend on UD10 is disabled**.

IGEL Cloud Gateway

- **No support for UMS file transfer status** in ICG protocol.

New Features 10.05.500

Citrix

- Integrated **Citrix Workspace app 18.10**.
    - There is now a registry key to enable **Citrix Workspace App selfservice web UI mode**.
      More...

Parameter	Enable Citrix Workspace app self-service web UI mode
Registry	`ica.authman.cwacapableenabled`
Value	<u>enabled</u> / disabled

    - There is now a registry key to make a **Bloomberg v4 keyboard** available across multiple sessions. Additionally USB redirection has to enabled at least for this device: vid=1188 pid=9545.
      More...

Parameter	Bloomberg v4 keyboard
Registry	`ica.allregions.bloombergredirection`
Value	<u>default</u> / true / false

    - Removed parameter for **Citrix Cloud**. This parameter is not needed anymore.
      More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Options**
Parameter	Connect to cloud
Registry	`ica.cloudconnect`

- Citrix client version 13.9.1 was removed.
  Available Citrix client versions: **13.5.0, 13.10, 18.10** (default)
- It is now possible to **span a citrix session over a self-defined number of consecutive monitors**. For this, the parameter `ica.wfclient.usexdgfullscreen` must be deactivated and `ica.pnlogin.spanmonitorenable` activated. The selection must be defined in the parameter `ica.pnlogin.spanmonitor`.
  More...

IGEL Setup	**Sessions > Citrix > Citrix Global > Window**
Parameter	Expand the session over a self-selected number of monitors
Registry	`ica.pnlogin.spanmonitorenable`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Citrix > Citrix Global > Window**
Parameter	Monitor selection

Registry	`ica.pnlogin.spanmonitor`
Value	" "
Sample: When using four monitors and expansion of session across monitor 2, 3 and 4 is wanted, insertion should be 2,3,4 or 2,4.	

- **Setup renaming**
  More...

Old Name	New Name
Citrix XenDesktop / XenApp	Citrix
Citrix Receiver Selection	Citrix Workspace Client Selection
Citrix Receiver version	Citrix Client version
HDX / ICA Global	Citrix Global
Legacy ICA Sessions	Citrix Legacy ICA Sessions
Citrix Storefront/Webinterface	Citrix Storefront
XenApp	Citrix Virtual Apps
XenDesktop	Citrix Virtual Desktops
XenApp / XenDesktop	Citrix Virtual Apps / Desktops
Server Location: XenApp 6.x or older	Server Location: Web Interface
Server Location: XenApp/XenDesktop 7.x Store	Server Location: Storefront
Server Location: XenApp/XenDesktop 7.x Legacy Mode	Server Location: StoreFront Legacy Mode

- Updated **deviceTrust** client to version **19.1.100**.

UDC3 Installer

- Added **UEFI support in UDC Deployment Appliance 5.0**, downloadable via download section on www.igel.com[43]
- Enhanced **UDC3 Converter** by a new option to force **MS-DOS partitioning for EFI installations**.
- Updated "preparestick" tool to version 3.3.0.0 with the following fixes:
  - WMI NullReferenceException
  - dd.exe Processbar asynchronous
    - diskpart->clean failed with access denied

- RDP/IGEL RDP Client 2
  - Updated **deviceTrust** client to version 19.1.100.
  VMware Horizon

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43 http://www.igel.com

- Updated **Horizon Client** for Linux to **version 4.10.0-11053294**. Added support for the new features:
  - **H.264 High Color Accuracy**
    More...

IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Server Options**
Parameter	High Color Accuracy mode
Registry	`vmware.view.high-color-accuracy-mode`
Value	enabled / <u>disabled</u>

  - **Serial port redirection support**
    More...

IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Serial Port Redirection**
Parameter	Serial Port Redirection
Registry	`vmware.view.high-color-accuracy-mode`
Value	enabled / <u>disabled</u>

  - **High resolution display scaling** and **DPI synchronisation**
    More...

Parameter	Display Scaling
Registry	`vmware.view.use-display-scaling`
Value	<u>enabled</u> / disabled

  - **Relative mouse support**
    More...

Parameter	Relative Mouse Feature for a Remote Desktop
Registry	`vmware.view.enable-relative-mouse`
Value	enabled / <u>disabled</u>

  - **Automatically hide toolbar**
    More...

Parameter	Auto-hide menu bar (tool bar)
Registry	`vmware.view.menu-bar-auto-hide`
Value	enabled / <u>disabled</u>

Parallels Client

- Updated Parallels Client to **version 16.5.2**
  - Fixed: Remote session closes triggered by audio playback

IBM_5250

- Enhanced configuration of **IBM iAccess Client**. The following parameters were added: **More...**

Parameter	Open new sessions in a new tab
Registry	`ibm.iaccess.acssm.opensessionintab`
Value	<u>enabled</u> / disabled

Parameter	Always display the tab bar
Registry	`ibm.iaccess.acssm.alwaysshowtabbar`
Value	enabled / <u>disabled</u>

Parameter	Switch to new tab when created
Registry	`ibm.iaccess.acssm.switchtonewtab`
Value	<u>enabled</u> / disabled

Parameter	Send a warning when closing multiple tabs
Registry	`ibm.iaccess.acssm.closemultipletabwarning`
Value	<u>enabled</u> / disabled

Parameter	Do not start tabbed sessions until the tab is selected
Registry	`ibm.iaccess.acssm.tabdelayedstart`
Value	enabled / <u>disabled</u>

Parameter	New Tab Action
Registry	`ibm.iaccess.acssm.newtabaction`
Range	[Disable and Hide] [<u>Run the Same</u>] [Run Other...]

Parameter	Tab Placement
Registry	`ibm.iaccess.acssm.tabplacement`
Range	[<u>Top</u>][Bottom] [Left] [Right]

Parameter	List of visible menu entries
Registry	`ibm.sessions.iaccess%.options.deletemenus`
Value	list of visible menu entries

Firefox

- Updated Mozilla Firefox to **version 60.3.0ESR**
  Fixes for **mfsa2018-27**, also known as: CVE-2018-12392, CVE-2018-12393, CVE-2018-12395, CVE-2018-12396, CVE-2018-12397, CVE-2018-12389, CVE-2018-12390.

Cisco JVDI Client

- Updated Cisco JVDI client to **version 12.1**

Base system

- Updated **French** and **Dutch** user interface translation.

Driver

- **Philips Speech Drivers** for Citrix and RDP version 12.6.36
  Support of the new Philips dictation devices **SpeechOne 6000** and **SpeechAir 2000**

Audio

- Added support for **Jabra Xpress** mechanism to deploy firmware updates and settings on **Jabra USB headsets**.
  More...

Parameter	File name of Xpress package
Registry	`jabra.xpress.package_name`
Parameter	URL hosting Xpress packages
Registry	`jabra.xpress.package_url`
Parameter	Login name for access to Xpress package URL
Registry	`jabra.xpress.package_url_login`
Parameter	Password for access to Xpress package URL
Registry	`jabra.xpress.package_url_crypt_password`
Parameter	Check SSL certificate
Registry	`jabra.xpress.package_url_ssl_cert_check`
Value	<u>enabled</u> / disabled
Parameter	URL of the Audio Device Dashboard server
Registry	`jabra.xpress.device_dashboard.server_url`

- Added suspend on idle for **Jabra wireless headsets**. The headsets are set to offline state after 5 seconds of idle time.
  More...

Parameter	Suspend on idle
Registry	`devices.jabra.suspend_on_idle`
Value	<u>enabled</u> / disabled

- Added parameters to configure the **deferred volume synchronization** in **Pulseaudio**.
  More...

Parameter	Enable deferred volume
Registry	`multimedia.pulseaudio.daemon.enable-deferred-volume`
Value	<u>enabled</u> / disabled
Parameter	Safety margin
Registry	`multimedia.pulseaudio.daemon.deferred-volume-safety-margin-usec`
Value	<u>8000</u>
Parameter	Extra delay
Registry	`multimedia.pulseaudio.daemon.deferred-volume-extra-delay-usec`
Value	<u>0</u>

- Added a parameter to force **configured volumes** for in- and output devices in **Pulseaudio**. **More...**

Parameter	Force Volume Settings
Registry	`userinterface.sound.force`
Value	enabled / <u>disabled</u>

Hardware

- Added **LG CK 500** to supported hardware.
- Added **Dell Wyse 5070** to supported hardware.
  Known issues:
  - Headset connectors sometimes not recognises a plugged device.
  - USB3.0 ports on back panel sporaradic not recognises USB3.0 devices correctly.
  - USB-C front displayport usage is not recommended, connection problems could occur.
  - Wake-up after standby could lead to delay when using multimonitor setup
  - Screen rotation does not work reliable
- Added **ONYX VENUS 223** to supported hardware.
- Added support for following **Plantronics** devices:
  - Blackwire 5210
  - Voyager Focus UC B825
  - Voyager 8200 UC

Java

- Updated Oracle Java Runtime Environment to **version 1.8.0 U192**.

IGEL Cloud Gateway

- Added support for ICG High Availability and ICG load balancing to the **IGEL remote management service**.

Resolved Issues 10.05.500

Citrix

- Fixed tool **icacontrol**
- Added: clear error message is returned when a **published desktop is occupied by another user**.
- Added: clear error message is returned when **misconfiguration inhibits start of an application**.

RDP/IGEL RDP Client 2

- Fixed login error message being displayed in **English** only.
- **Allow server side per user scaling for multimonitor configurations** as well (RDP sessions desktop scaling factor must be set to 100% for this to work):
  - Global setting
    More...

IGEL Setup	**Sessions > RDP > RDP Global > Window**
Parameter	Desktop scale factor
Registry	`rdp.winconnect.desktop-scale-factor`
Value	<u>auto</u> / 100% / 125% / 150%

  - Session setting
    More...

IGEL Setup	**Sessions > RDP > RDP Sessions > **RDP Session** > Window**
Parameter	Desktop scale factor
Registry	`sessions.winconnect%.option.desktop-scale-factor`
Value	Global setting / auto / 100% / 125% / 150%

Evidian

- Fixed **NLA support** in Evidian AuthMgr RDP session type

Network

- Fixed handling of the following registry keys:
  - `network.interfaces.wirelesslan.device0.driver.disable_ht`
  - `network.interfaces.wirelesslan.device0.driver.chain_num`
  - `network.interfaces.wirelesslan.device0.driver.cfg80211.cfg80211_disable_40mhz_24ghz`

  The first and the second parameters only affect the driver **rt2800ub** (used e.g.for Ralink RT3372 and RT5572)
- Fixed **iptables IPv6 support** by adding IPv6 netfilter kernel modules.

WiFi

- Fixed connection to **hidden WiFi networks**

Cisco JVDI Client

- Fixed: Applications are now startable via **desktop**, start menu and **application launcher**.
- Fixed Webcam support with **32Bit Citrix Receiver** for JVDI.

Open VPN

- Fixed **desktop folder support** for OpenVPN session.

Smartcard

- Improved **waiting for smartcard events**.

Base system

- **IGEL Setup Assistant will no longer start multiple times**, the existing instance will be raised instead.
- Fixed **automatic firmware update** on shutdown.

Storage Devices

- Fixed potential **hangs on suspend/shutdown** when a **USB memory stick** was in use at that time.

X11 system

- Fixed **huge icons** in GTK applications when DPI setting was below 96.
- Fixed problems with **Avaya VDI Communicator** and webcams.
- **Disabled SNA sprite X video support as default** because it is unstable and could crash X server.
  - New registry key:
    More...

Parameter	Use SNA sprite video feature (could be unstable)
Registry	`x.drivers.intel.sprite_video`
Value	enabled / <u>disabled</u>

Window manager

- Fixed the **custom UI colors for the window manager decoration** that was broken in 10.05.100. The custom UI colors are now applied to the window borders again.

Audio

- Applied workarounds concerning **USB control requests on Plantronics C510 and 520**.
- Fixed **initialization of sound card** in **Dell Wyse 3040**.
- Fixed blocking mode in compatibility **Pulseaudio PCM plugin for ALSA**. The blocking mode is used by Parallels client to playback sound.

Media Player (Parole)

- Parole media player now displays a **looping animation** while initiating the connection for **rtmp streams**.
- **Extended integration** of Parole media player configuration in the setup. The following configuration keys are now respected.

More...

IGEL Setup	Sessions > Media Player > Media Player Global > Window
Parameter	Automatically resize the player window when a new video is loaded
Registry	`multimedia.mediaplayer.auto_resize`
Value	enabled / disabled
IGEL Setup	Sessions > Media Player > Media Player Global > Window
Parameter	Main window should stay on top
Registry	`multimedia.mediaplayer.window_on_top`
Value	enabled / disabled
IGEL Setup	Sessions > Media Player > Media Player Global > Options
Parameter	Network connection speed
Registry	`multimedia.mediaplayer.connection_speed`
Range	[56 kbps Modem/ISDN] [112 kbps Dual ISDN/DSL] [256 kbps DSL/Cable] [384 kbps DSL/Cable] [512 kbps DSL/Cable] [1.5 mbps T1/Intranet/LAN] [Intranet/LAN]
Parameter	Enable debug
Registry	`multimedia.mediaplayer.debug`
Value	enabled / disabled

Evidian

- Added support to **log out Citrix session type** on tap event.
  More...

Parameter	Logout behavior
Registry	`evidian.sessiontype.ctx.pnlogout`
Value	[Default] [Force disconnect] [Force logoff]

Hardware

- Fixed problems with **mouse cursor on intel cherryview devices**.

IGEL Universal Desktop Converter (UDC3)

Supported Hardware:

https://kb.igel.com/igelos/en/devices-supported-by-udc3-and-ud-pocket-3117174.html

- Component Versions 10.05.500
- New Features 10.05.500

Component Versions 10.05.500

- **Clients**

Product	Version
Oracle JRE	1.8.0_192

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.13
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.2.1-1igel51
Graphics Driver INTEL	2.99.917+git20181113-igel846
Graphics Driver ATI/RADEON	18.0.1-1igel831
Graphics Driver ATI/AMDGPU	18.0.1-1igel831
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2igel775
Graphics Driver Vboxvideo	5.2.18-dfsg-2igel17
Graphics Driver VMware	13.3.0-2igel812
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.3.4-1build2igel639
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver Vmmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.20 #mainline-udos-r2481
Xorg X11 Server	1.19.6-1ubuntu4igel838
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2igel653
ISC DHCP Client	4.3.3-5ubuntu12.10igel7
Python2	2.7.12

Python3	3.5.2

New Features 10.05.500

UDC3 Installer

- Added **UEFI support in UDC Deployment Appliance 5.0**, downloadable via download section on www.igel.com[44]
- **Enhanced UDC3 Converter** by a new option to force MS-DOS partitioning for EFI installations.
- Updated "preparestick" tool to version 3.3.0.0 with the following fixes:
  - WMI NullReferenceException
  - dd.exe Processbar asynchronous
  - diskpart->clean failed with access denied

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[44] http://www.igel.com

Notes for Release 10.05.100

Software:	Version	10.05.100
Release Date:	2018-10-25	
Release Notes:	Version	RN-105100-1
Last update:	2018-10-25	

The following formatting is used in this document:

format type	example	use
bold and underlined	<u>enable</u>/disable	the default setting of a value
bold and arrow	**menu > path**	menu path in the IGEL setup
bold	**GUI** **[keyboard]**	elements of the graphical user interface or commands that are entered using the keyboard

- IGEL Linux Universal Desktop_(see page 1026)
- IGEL Universal Desktop OS3/IGEL UD Pocket_(see page 1026)
- IGEL Universal Desktop Converter (UDC3)_(see page 1117)

IGEL Linux Universal Desktop

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
	UD3-LX 42
	UD3-LX 41
UD5-LX:	UD5-LX 50
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10

IGEL Zero:
IZ2-RFX
IZ2-HDX
IZ2-HORIZON
IZ3-RFX
IZ3-HDX
IZ3-HORIZON

- Component Versions 10.05.100
- General Information 10.05.100
- Security Fixes 10.05.100
- Known Issues 10.05.100
- New Features 10.05.100
- Resolved Issues 10.05.100

Component Versions 10.05.100

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.6.0-2030
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Receiver	13.9.1.6
deviceTRUST Citrix Channel	17.2.100.0
deviceTRUST RDP Channel	17.2.100.0
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.2.2
IBM iAccess Client Solutions	1.1.5.0
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
Leostream Java Connect	3.3.7.0
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_181
Parallels Client (32 bit)	16.5.1.20446
Parole Media Player	1.0.1-0ubuntu1igel11
Remote Viewer (RedHat Virtualization)	7.0-igel47
Spice GTK (Red Hat Virtualization)	0.35
Spice Protocol (Red Hat Virtualization)	0.12.14
Usbredir (Red Hat Virtualization)	0.8.0
Systancia AppliDis	4.0.0.17

Thinlinc Client	4.9.0-5775
ThinPrint Client	7.5.86
Totem Media Player	2.30.2
VMware Horizon Client	4.8.0-8518891
VNC Viewer	1.8.0+git20180123-igel1
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20180621
Philips Speech Driver	12.5.4

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.9.620
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.0.23
Reader Driver ACS CCID	1.1.5
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24

Reader Driver MUSCLE CCID	1.4.28
Reader Driver REINER SCT cyberJack	3.99.5final.SP11
Resource Manager PC/SC Lite	1.8.22
Cherry USB2LAN Proxy	3.0.0.6

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.13
OpenSSH Client	7.2p2-4ubuntu2.4
OpenSSH Server	7.2p2-4ubuntu2.4
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.2.1-1igel51
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20180214-igel1830
Graphics Driver ATI/RADEON	18.0.1-1igel831
Graphics Driver ATI/AMDGPU	18.0.1-1igel831
Graphics Driver VIA	5.76.52.92-009-005f78-20150730
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.3.4-1build2igel639
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver Vmmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.11 #mainline-ud-r2463
Xorg X11 Server	1.19.6-1ubuntu4igel838
Xorg Xephyr	1.19.6-1ubuntu4igel832
CUPS printing daemon	2.1.3-4ubuntu0.5igel20
PrinterLogic	18.2.1.128

Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2igel653
ISC DHCP Client	4.3.3-5ubuntu12.10igel6
NetworkManager	1.6.8-2igel1
ModemManager	1.6.4-1
GStreamer 0.10	0.10.36-2ubuntu0.1
GStreamer 1.x	1.14.2-1ubuntu1igel192

- **Features with Limited IGEL Support**

Mobile Device Access USB
VPN OpenConnect
Scanner support
VirtualBox

- **Features with Limited Functionality**

Cisco JVDI Client	12.0

General Information 10.05.100

The following clients and features are not supported anymore:

- Citrix Receiver 12.1 and 13.1 - 13.4
- Citrix Access Gateway Standard Plug-in
- Dell vWorkspace Connector for Linux
- Ericom PowerTerm Emulation 9 and 11
- Ericom Webconnect
- IGEL Legacy RDP Client (rdesktop)
- Virtual Bridges VERDE Client
- PPTP VPN Support
- IGEL Upgrade License Tool with IGEL Smartcard Token
- Remote Management by setup.ini file transfer (TFTP)
- Remote Access via RSH
- Legacy Philips Speech Driver
- t-Systems TCOS Smartcard Support
- DUS Series touch screens
- Elo serial touch screens
- IGEL Smartcard without locking desktop
- Video Hardware Acceleration Support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10
- H.264 Hardware Acceleration Support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10
- Storage Hotplug devices are not automatically removed anymore, instead they must be always ejected manually:

  - by panel tray icon

  - by an icon in the **In-Session Control Bar** (configurable at **IGEL Setup > User Interface > Desktop**)

  - by a **Safely Remove Hardware** session (configurable at **IGEL Setup > Accessories**)

The following clients and features are not available in this release:

- Cherry eGK Channel
- Open VPN Smartcard Support
- NCP Secure Client
- Asian Input Methods
- Composite Manager

Security Fixes 10.05.100

Firefox

- Updated Mozilla Firefox to version **60.2.2esr**.
  More...

  mfsa2018-24: CVE-2018-12386, CVE-2018-12387

  mfsa2018-23: CVE-2018-12385, CVE-2018-12383

  mfsa2018-21: CVE-2018-12377, CVE-2018-12378, CVE-2018-12376

  mfsa2018-16: CVE-2018-12359, CVE-2018-12360, CVE-2018-12361, CVE-2018-12362,

  CVE-2018-5156, CVE-2018-12363, CVE-2018-12364, CVE-2018-12365,

  CVE-2018-12371, CVE-2018-12366, CVE-2018-12367, CVE-2018-12369,

  CVE-2018-5187, CVE-2018-5188

  mfsa2018-14: CVE-2018-6126

  mfsa2018-11: CVE-2018-5154, CVE-2018-5155, CVE-2018-5157, CVE-2018-5158,

  CVE-2018-5159, CVE-2018-5160, CVE-2018-5152, CVE-2018-5153,

  CVE-2018-5163, CVE-2018-5164, CVE-2018-5166, CVE-2018-5167,

  CVE-2018-5168, CVE-2018-5169, CVE-2018-5172, CVE-2018-5173,

  CVE-2018-5175, CVE-2018-5176, CVE-2018-5177, CVE-2018-5165,

  CVE-2018-5180, CVE-2018-5181, CVE-2018-5182, CVE-2018-5151,

  CVE-2018-5150.

  mfsa2018-10: CVE-2018-5148

- Firefox profile partition is now **mounted at /userhome/.mozilla instead of /.ffpro**.
- Firefox could only be started as **user**.
- For security reasons **Java processes could not be started from a browser session now**.
- Added a registry parameter `java.browser.access` to **control java access for all browser sessions**.
  More...

IGEL Setup	**Registry > java > browser > access**
Parameter	Allow browser to use java
Registry	`java.browser.access`
Value	enabled / <u>disabled</u>

Network

- **Disabled ICMP redirects**.
- Changed default **LoginGraceTime** from 120 to 30 sec.

- Added new registry keys for a **secure sshd configuration**.
  More...

Parameter	Permit X11 forwarding
Registry	`network.ssh_server.x11_forwarding`
Value	enabled / <u>disabled</u>
Parameter	Show banner
Registry	`network.ssh_server.show_banner`
Value	enabled / <u>disabled</u>
Parameter	Permit tcp tunnel forwarding
Registry	`network.ssh_server.permit_tcp_forwarding`
Value	enabled / <u>disabled</u>

- Fixed **SCEP client certificate request file access rights**.

Base system

- Added **apparmor** as an additional security layer for components like Firefox, evince, dhcpclient and cups.
  More...

Parameter	Enable apparmor profiles
Registry	`system.security.apparmor`
Value	<u>enabled</u> / disabled

- For security reasons **graphical terminal sessions** could now only be started by an administrator when an **admin password** is set. Administrator must authenticate before a terminal session is started. This does also affect graphical terminal sessions spawned by applications.
- To **allow users to start a terminal session again** a registry key is defined.
  More...

Parameter	User shell terminal
Registry	`system.security.usershell`
Value	enabled / <u>disabled</u>

- Fixed **open-vm-tools** security issue CVE-2015-5191.
- Fixed **procps** security issues CVE-2018-1126, CVE-2018-1125, CVE-2018-1124, CVE-2018-1123 and CVE-2018-1122.
- Fixed **imagemagick** security issues.
  More...

  CVE-2018-9133, CVE-2018-8960, CVE-2018-8804

CVE-2018-7443, CVE-2018-5248, CVE-2018-11251, CVE-2018-10177, CVE-2017-18273,

CVE-2017-18271, CVE-2017-18252, CVE-2017-18211, CVE-2017-18209,

CVE-2017-17914, CVE-2017-17879, CVE-2017-17682, CVE-2017-17681,

CVE-2017-17504, CVE-2017-16546, CVE-2017-15281, CVE-2017-15277,

CVE-2017-15017, CVE-2017-15016, CVE-2017-15015, CVE-2017-14989,

CVE-2017-14741, CVE-2017-14739, CVE-2017-14682, CVE-2017-14626,

CVE-2017-14625, CVE-2017-14624, CVE-2017-14607, CVE-2017-14532,

CVE-2017-14531, CVE-2017-14505, CVE-2017-14400, CVE-2017-14343,

CVE-2017-14342, CVE-2017-14341, CVE-2017-14325, CVE-2017-14249,

CVE-2017-14224, CVE-2017-14175, CVE-2017-14174, CVE-2017-14173,

CVE-2017-14172, CVE-2017-14060, CVE-2017-13769, CVE-2017-13768,

CVE-2017-13758, CVE-2017-13145, CVE-2017-13144, CVE-2017-13143,

CVE-2017-13142, CVE-2017-13139, CVE-2017-13134, CVE-2017-12983,

CVE-2017-12877, CVE-2017-12875, CVE-2017-12693, CVE-2017-12692,

CVE-2017-12691, CVE-2017-12674, CVE-2017-12670, CVE-2017-12643,

CVE-2017-12640, CVE-2017-12587, CVE-2017-12563, CVE-2017-12435,

CVE-2017-12432, CVE-2017-12431, CVE-2017-12430, CVE-2017-12429,

CVE-2017-12140, CVE-2017-11640, CVE-2017-11639, CVE-2017-11537,

CVE-2017-11535, CVE-2017-11533, CVE-2017-11352, CVE-2017-10995,

CVE-2017-1000476, CVE-2017-1000445, CVE-2018-13153, CVE-2018-12600 and

CVE-2018-12599.

- Fixed **elfutils** security issues CVE-2017-7613, CVE-2017-7612, CVE-2017-7611, CVE-2017-7610, CVE-2017-7609, CVE-2017-7608, CVE-2017-7607, CVE-2016-10255 and CVE-2016-10254.
- Fixed **ghostscript** security issues CVE-2018-10194, CVE-2016-10317, CVE-2018-16802, CVE-2018-16585, CVE-2018-16543, CVE-2018-16542, CVE-2018-16541, CVE-2018-16540, CVE-2018-16539, CVE-2018-16513, CVE-2018-16511, CVE-2018-16509, CVE-2018-15911, CVE-2018-15910, CVE-2018-15909, CVE-2018-15908, CVE-2018-11645, CVE-2018-1, CVE-2018-17183 and CVE-2018-16510.
- Fixed **icu** security issue CVE-2017-15422.
- Fixed **webkit2gtk** security issues.
  More...

CVE-2018-4200, CVE-2018-4165, CVE-2018-4163,

CVE-2018-4162, CVE-2018-4161, CVE-2018-4146, CVE-2018-4133, CVE-2018-4129,

CVE-2018-4128, CVE-2018-4127, CVE-2018-4125, CVE-2018-4122, CVE-2018-4120,

CVE-2018-4119, CVE-2018-4118, CVE-2018-4117, CVE-2018-4114, CVE-2018-4113,

CVE-2018-4101, CVE-2018-4233, CVE-2018-4232, CVE-2018-4222, CVE-2018-4218,

CVE-2018-4199, CVE-2018-4190, CVE-2018-12293, CVE-2018-4284, CVE-2018-4278,

CVE-2018-4273, CVE-2018-4272, CVE-2018-4270, CVE-2018-4267, CVE-2018-4266,

CVE-2018-4265, CVE-2018-4264, CVE-2018-4263, CVE-2018-4262, CVE-2018-4261,

CVE-2018-4246 and CVE-2018-12911.

- Fixed **perl** security issues CVE-2018-6913, CVE-2018-6798, CVE-2018-6797, CVE-2017-6512, CVE-2016-6185 and CVE-2018-12015.
- Fixed **poppler** security issues CVE-2017-18267 and CVE-2018-13988.
- Fixed **openssl** security issues CVE-2018-0739, CVE-2018-0737, CVE-2018-0737, CVE-2018-0732 and CVE-2018-0495.
- Fixed **tiff** security issues.
  More…

  CVE-2018-5784, CVE-2017-9936, CVE-2017-9935,

  CVE-2017-9815, CVE-2017-9404, CVE-2017-9403, CVE-2017-9147, CVE-2017-9117,

  CVE-2017-7602, CVE-2017-7601, CVE-2017-7600, CVE-2017-7599, CVE-2017-7598,

  CVE-2017-7597, CVE-2017-7596, CVE-2017-7595, CVE-2017-7594, CVE-2017-7593,

  CVE-2017-7592, CVE-2017-5563, CVE-2017-18013, CVE-2017-17095, CVE-2017-13727,

  CVE-2017-13726, CVE-2017-12944, CVE-2017-11613, CVE-2017-11335,

  CVE-2017-10688, CVE-2016-5318, CVE-2016-5102, CVE-2016-3186, CVE-2016-10371,

  CVE-2016-10269, CVE-2016-10268, CVE-2016-10267 and CVE-2016-10266.

- Fixed **libvncserver** security issue CVE-2018-7225.
- Fixed **libvorbis** security issue CVE-2018-5146.
- Fixed **samba** security issues CVE-2018-1057, CVE-2018-1050, CVE-2018-10919 and CVE-2018-10858.
- Fixed **wget** security issue CVE-2018-0494.
- Fixed **bluez** security issue CVE-2017-1000250.
- Fixed **libgcrypt20** security issue CVE-2018-0495.
- Fixed **file** security issue CVE-2018-10360.
- Fixed **gnupg2** security issue CVE-2018-12020.
- Fixed **isc-dhcp** security issues CVE-2018-5733, CVE-2018-5732, CVE-2018-573, CVE-2017-3144 and CVE-2016-2774.
- Fixed **curl** security issues CVE-2018-1000303, CVE-2018-1000301, CVE-2018-1000300, CVE-2018-1000122, CVE-2018-1000121, CVE-2018-1000120, CVE-2017-8818, CVE-2018-14618 and CVE-2018-0500.
- Fixed **python3.5** security issues CVE-2017-1000158, CVE-2016-5636, CVE-2016-1000110 and CVE-2016-0772.
- Fixed **zlib** security issues CVE-2016-9843, CVE-2016-9842, CVE-2016-9841 and CVE-2016-9840.
- Fixed **libsoup2.4** security issue CVE-2018-12910.
- Fixed **libjpeg-turbo** security issue CVE-2018-1152.
- Fixed **ntp** security issues CVE-2018-7185 and CVE-2018-7183.
- Fixed **libpng1.6** security issue CVE-2018-13785.
- Fixed **cups** security issues CVE-2018-6553, CVE-2018-4181, CVE-2018-4180, CVE-2018-418 and CVE-2017-18248.

- Fixed **libpng** security issue CVE-2016-10087.
- Fixed **policykit-1** security issue CVE-2018-1116.
- Fixed **jansson** security issue CVE-2016-4425.
- Fixed **libmspack** security issues CVE-2018-14682, CVE-2018-14681, CVE-2018-14680 and CVE-2018-14679.
- Fixed **libonig** security issues CVE-2017-9229, CVE-2017-9228, CVE-2017-9227, CVE-2017-9226 and CVE-2017-9224.
- Fixed **libxcursor** security issue CVE-2015-9262.
- Fixed **heimdal** security issue CVE-2017-17439.
- Fixed **libarchive** security issues CVE-2017-14503, CVE-2017-14501, CVE-2017-14166, CVE-2016-10350, CVE-2016-10349 and CVE-2016-10209.
- Fixed **libxml2** security issues CVE-2018-14567, CVE-2018-14404, CVE-2017-18258 and CVE-2016-9318.
- Fixed **confuse** security issue CVE-2018-14447.
- Fixed **libgd2** security issues CVE-2018-5711 and CVE-2018-1000222.
- Fixed **libx11** security issues CVE-2018-14600, CVE-2018-14599, CVE-2018-14598, CVE-2016-7943 and CVE-2016-7942.
- Fixed **mpg123** security issues CVE-2017-10683 and CVE-2016-1000247.
- Fixed **libtirpc** security issues CVE-2018-14622, CVE-2017-8779 and CVE-2016-4429.
- Fixed **jq** security issue CVE-2015-8863.
- Fixed **bind9** security issue CVE-2018-5740.
- Fixed **lcms2** security issue CVE-2018-16435.
- Fixed **xdg-utils** security issue CVE-2017-18266.
- **Restricted access to command su to root and user**.
- Root home is now **/root**.
- **Removed system group (GID 0)** which shadowed root group (GID 0).
- **Stricter folder and file permissions**.

X11 system

- Restricted desktop icon creation to administrator only. Therefore, **"/userhome/Desktop" is owned by root now**.

Known Issues 10.05.100

Citrix Receiver 13

- On devices with **AMD/Radeon graphics chipsets** and **activated DRI3 X driver option** the **hardware accelerated Citrix H.264 decoder plugin can hang**. To solve this issue deactivation of DRI3 option is necessary (default setting). Selective H.264 mode (api v2) is not affected from this issue.
- **Citrix StoreFront login with Gemalto smartcard middleware** does not detect smartcard correctly when the card is inserted after start of login. As a workaround, insert the smartcard before starting StoreFront login.
- The Citrix Receiver has known issues with **GStreamer1.x**. This causes **problems with multimedia redirection of H264, MPEG1 and MPEG2**. GStreamer1.x is used if browser content redirection is active.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.
- Due to a bug in the Parallels-Client, for using the new **FIPS 140-2 compliance mode** it is necessary to connect to the Parallels RAS one time with FIPS support disabled.

VMware Horizon

- VMware Horizon Client for **Linux 4.8.0 supports FIPS Mode on only VMware Horizon server installations up to version 7.5** .
- **External drives are mounted already before connection, do not appear in the remote desktop**. Workaround: mapping the directory `/media` as a drive on desktop. The external devices will show up within the media drive then.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
  - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Enable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.

OpenConnect VPN

- VPNs which requires the **OpenConnect client** cannot be used for firmware updates.

Appliance Mode

- Appliance mode **RHEV/Spice**: **spice-xpi Firefox plugin is no longer supported**. The **Console Invocation** has to allow native client (auto is also possible) and it should start in fullscreen to prevent opening windows.

Hardware

- Sometimes the **DVI Port on a UD6 is not recognized by the Linux system after booting up**. The only available way to solve the issue is to shut down and disconnect the thin client from power (1-2 minutes) and connect and power up it again.
- `Suspend` is not working on **UD10** so the support for `suspend` is disabled.

Smartcard

- In seldom cases the authentication hung when using A.E.T. SafeSign smartcards.

IGEL Cloud Gateway

- **No support for UMS file transfer status** in ICG protocol.

New Features 10.05.100

Citrix Receiver 13

- Integrated **Citrix Receiver 13.10**. Citrix Receiver version 13.7.0 was removed. Citrix Receiver version 13.8.0 was removed. Available Citrix Receiver versions: 13.5.0, 13.9.1, 13.10 (default)

  - Enable **Browser content redirection for rendering of whitelisted webpages** on the IGEL Thin Client.
    More...

IGEL Setup	**Sessions > Citrix XenDesktop > HDX / ICA Global > HDX Multimedia**
Parameter	Browser content redirection
Registry	`ica.module.virtualdriver.webpageredirection`
Value	enabled / disabled

  - Enhanced **Citrix retail logging**.
    More...

Parameter	Citrix Logging
Registry	`ica.module.syslogthreshold`
Value	0 / 3 / 7

    > 0 = Disabled

    > 3 = Log only errors

    > 7 = Log all levels

  - Enable **Port forwarding**.
    More...

Parameter	Portforward
Registry	`ica.module.virtualdriver.portforward`
Value	enabled / disabled

  - **Workspace configuration parameter** for **Citrix Cloud** is now available on setup page.
    More...

IGEL Setup	**Sessions > Citrix XenDesktop > HDX / ICA Global > Options**
Parameter	Connect to cloud
Registry	`ica.cloudconnect`
Value	enabled / disabled

- Added a registry key to **control the visibility of the Citrix connection bar** for desktop sessions. If activated, the In-Session Control Bar should be disabled at `userinterface.igel_toolbar.enable` and `userinterface.igel_toolbar.show_always`.
  This enables the control of the new **Multi-monitor layout persistence** feature.
  More...

Parameter	Citrix Connection Bar
Registry	`ica.allregions.connectionbar`
Value	factory default / off / on / server determined

- Added a registry key to control the availability of deprecated cipher suites:
  TLS_RSA_AES256_GCM_SHA384, TLS_RSA_AES128_GCM_SHA256, TLS_RSA_AES256_CBC_SHA256, TLS_RSA_AES256_CBC_SHA, TLS_RSA_AES128_CBC_SHA, TLS_RSA_3DES_CBC_EDE_SHA.
  More...

Parameter	TLS RSA cipher suites
Registry	`ica.allregions.enable_tls_rsa`
Value	factory default / false / true
Factory default: true/enabled. Citrix explicitly remarks: **Important:** Set the flag `enable_tls_rsa` to true to use the other two cipher suites **Enable_RC4-MD5** and **Enable_RC4_128_SHA**.	

- Added a registry key to control the availability of the deprecated cipher suite: **RC4-MD5**.
  More...

Parameter	RC4-MD5 cipher suite
Registry	`ica.allregions.enable_rc4_md5`
Value	factory default / false / true
Factory default: false/disabled.	

- Added a registry key to control the availability of the deprecated cipher suite: **RC4_128_SHA**.
  More...

Parameter	RC4_128_SHA cipher suite
Registry	`ica.allregions.enable_rc4_128_sha`
Value	factory default / false / true
Factory default: false/disabled.	

- Added **Selective H.264** (API v2) to the hardware accelerated Citrix deep compression codec. XenDesktop/XenApp server policy: **Use video codec for compression -> For actively changing regions**
- Added **DRI3 acceleration support** to the hardware accelerated Citrix deep compression codec (for INTEL and AMD graphics adapters).

- Enable **debugging to log file** `/var/log/user/ctxh264.log`.
  More...

Parameter	Enable H264 codec debug output
Registry	`ica.hw-accelerated-h264-codec-debug`
Value	enabled / <u>disabled</u>

- Added **Kerberos Passthrough (domain passthrough) authentication to StoreFront**. Configurable at **Sessions > Citrix XenDesktop / XenApp > HDX / ICA Global > StoreFront Logon > Authentication Type**.
- Updated **Citrix HDX RTME** used for optimization of **Skype for Business to 2.6.0-2030**. This new version adds the support for hardware accelerated H.264 en- and decoding on AMD platforms. See https://support.citrix.com/article/CTX236304 section **Capability Checker for Linux platforms** how to enable hardware decoding with Citrix VDA registry keys `DisableLinuxAMDH264HardwareDecoding` and `SupportedAMDHWAVideoCardList`. The capability check program **RTOP-CapabilityChk-x64** is already installed at path `/services/ica/hdx_rtme/RTOP-CapabilityChk-x64`. The check program must be run with user permissions.
- Added display of **logged on Citrix username in screen lock**, when screen lock password is synchronized with Citrix password.
- Added checkbox to **activate autostart of a single published application/desktop session**.
  More...

IGEL Setup	**Sessions > Citrix XenDesktop / XenApp > Citrix StoreFront/Web Interface > Login**
Parameter	Start a single published application automatically
Registry	`ica.pnlogin.autostart_single_application`
Value	enabled / <u>disabled</u>

- Added **Lakeside SysTrack virtual channel in Citrix, RDP and Horizon sessions**. Activation via parameters in Setup.
  More...

IGEL Setup	**Sessions > Citrix XenDesktop/XenApp > HDX/ICA Global > Mapping > Device Support**
Parameter	Lakeside Systrack channel
Registry	`ica.module.virtualdriver.lakeside.enable`
Value	enabled / <u>disabled</u>

IGEL Setup	**Sessions > RDP > RDP Global > Mapping > Device Support**
Parameter	Lakeside Systrack channel
Registry	`rdp.winconnect.plugins.lakeside.use`
Value	enabled / disabled
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Performance**
Parameter	Lakeside Systrack
Registry	`vmware.view.lakeside_systrack`
Value	enabled / disabled

- Updated **Olympus dictation channel for Citrix to version 20180621**.
  More...

IGEL Setup	**Sessions > Citrix XenDesktop / XenApp > HDX / ICA Global > Mapping > Device Support**
Parameter	Olympus channel for dictation
Registry	`ica.module.virtualdriver.olycom.enable`
Value	enabled / disabled

- Added **CrossMatch / DigitalPersona channel for Citrix version 0515**.
  More...

IGEL Setup	**Sessions > Citrix XenDesktop /XenApp > HDX / ICA Global > Mapping > Device Support**
Parameter	Crossmatch DigitalPersona fingerprint channel
Registry	`ica.module.virtualdriver.dpicacnt.enable`
Value	enabled / disabled

RDP/IGEL RDP Client 2

- Support for new **RDP 10 codec AVC444 (H.264)**, which reduces network bandwidth with Server 2016 and Windows 10 hosts. AMD Radeon graphics is required on the client side. Other graphics hardware (e.g. Intel) as well as other RDP 10 codecs (AVC420 and AVC444V2) will be supported in the future.
  More...

IGEL Setup	**Sessions > RDP > RDP Global > Performance**
Parameter	Hardware accelerated codecs AVC420/AVC444 (H.264)

Registry	`rdp.winconnect.enable-h264`
Value	<u>auto</u> / on / off
IGEL Setup	**Sessions > RDP > RDP Sessions > Session Name > Performance**
Parameter	Hardware accelerated codecs AVC420/AVC444 (H.264)
Registry	`sessions.winconnect%.option.enable-h264`
Value	<u>Global setting</u> / auto / on / off

The value "auto" enables supported codecs on supported hardware.

The value "on" enables supported codecs on all hardware.

The value "off" disables H.264 codecs.

- Added new parameter **ignore_errors** to RDP Session config to **suppress RDP error messages**.
  More...

Registry	`sessions.winconnect%.ignore_errors`
Value	enabled / <u>disabled</u>

- Added **Olympus dictation channel for RDP version 20180621**.
  More...

IGEL Setup	**Sessions > RDP > RDP Global > Mapping > Device Support**
Parameter	Olympus channel for dictation
Registry	`rdp.winconnect.plugins.olyvc.use`
Value	enabled / <u>disabled</u>

Parallels Client

- Updated **Parallels client to version 16.5.1.20446 (32-Bit)**
- Added support for **FIPS 140-2 compliance**.
  More...

IGEL Setup	**System > Registry**
Parameter	Enable support for FIPS 140-2 compliance
Registry	`sessions.twox%.connection.fips_compliance`
Value	enabled / <u>disabled</u>

VMware Horizon

- Updated **Horizon client to version 4.8.0-8518891**.

ThinLinc

- Updated **ThinLinc client to version 4.9.0**.
  - Shadowing notification is now more reliable and interactive, allowing end users more control of their sessions.
  - More than 80 minor enhancements and fixes. See https://www.cendio.com/thinlinc/docs/relnotes/4.9.0.

RedHat Enterprise Virtualization client

- **Updated spice components** (virt-viewer 7.0, spice-gtk 0.35).
- **Removed support for spice-xpi plugin**.

X session (Xephyr)

- Added support for X sessions configurable at `IGEL Setup > Sessions > X Sessions`. The available XDMCP connection types: indirect via localhost, indirect, direct and broadcast. With the additional connection type "local display", a command can be specified that will be displayed inside the X session window.
  More...

IGEL Setup	**Sessions > X Sessions > X Session > Server**
Parameter	Connection type
Registry	`sessions.xnest<NR>.server.connectiontype`
Range	[Indirect via localhost] [Indirect] [Direct] [Broadcast] [Local display]

IGEL Setup	**Sessions > X Sessions > X Session > Server**
Parameter	Command to be displayed
Registry	`sessions.xnest<NR>.server.runcommand`

Firefox

- Updated Mozilla Firefox to **version 60.2.2 ESR**.
- The **initial page** displayed by firefox with default settings is now **https://kb.igel.com** instead of the older **https://edocs.igel.com**.
- Updated **Adobe Flash Player** download URL to **version 31.0.0.122**.
- **Removed the webapp specific options**, this feature was removed from Firefox and is not relevant anymore.
- Moved **Browser Certificate** configuration to page **Sessions > Browser > Browser Global > Certificates**.
- Moved **Browser Security Device** configuration to page **Sessions > Browser > Browser Global > Smartcard Middleware**.
- Added **Fluendo FFmpeg GStreamer** proxy: Provides ffmpeg-libavcodec-compatible library, which is needed for H.264 playback in firefox. Instead decoding by standard ffmpeg libraries, the video stream is redirected to GStreamer framework.

Network

- **SCEP**: Added subject alternative name type **DNS Name as UPN (auto)**. This is similar to **DNS Name (auto)**. In the CSR the result is a Microsoft User Principal Name (UPN) that consists of the hostname.
- **NetworkManager** updated to version **1.2.6**.

Cisco JVDI Client

- Integrated new **Cisco Jabber Softphone for VDI** (Cisco JVDI client) **version 12.0.0** as feature with limited functionality. See product documentation for details -> https://kb.igel.com/cisco-jvdi/en. Activation of this feature at: **System > Firmware Customization > Features > Cisco JVDI client**. Only Citrix Receiver 13.9.1 is supported.
  More...

Parameter	Log Level
Registry	`multimedia.ciscovxme.log_level`
Range	[Info] [Warning] [Error] [Fatal] [<u>Debug</u>] [Trace]

IGEL Setup	**Sessions > Citrix XenDesktop/XenApp > HDX/ICA Global > Unified Communications > Cisco JVDI Client**
Parameter	Cisco JVDI Client
Registry	`ica.module.virtualdriver.vdcisco.enable`
Value	enabled / <u>disabled</u>
Registry path for Common JVDI options: `multimedia.ciscovxme.**` The Cisco JVDI Client configuration is only displayed if the Multimedia Codec Pack (MMC) is present.	

Java

- Updated **Oracle Java Runtime Environment to version 1.8.0 U181**.

Smartcard

- Updated **SecMaker Net iD to version 6.7.0.23**.
- Updated **HID Global Omnikey smartcard reader driver to version 4.3.3**.
- Updated **cryptovision sc/interface to version 7.1.9**. Changelog since version 7.0.5:
  - Fixed **an error during certificate registration** using the MS Minidriver for MS VSC. Compatible with sc/interface cache version 1.2 or higher.
  - Fixed an error where **writing a certificate using the Minidriver for MS VSC corrupted the Container-ID**. As a result, the key could not be used using CNG/CAPI.
  - Fixed an error during **certificate registration using the Minidriver for MS VSC where some Container-ID's could not be used by CNG/CAPI**.
  - General Bug Fixes.
  - Fixed **error during profile creation on JCOP3 with ePasslet-Suite 3.0**
  - Added support for **additional BWI card profiles based on CardOS-5.x**. Versions **1.7, 1.8, 1.9, 4.2, 4.3** and **4.4**. Support **4k RSA for 1.9 and 4.4**.
  - Fixed support for **remote logon in sc/interface cache**.
  - Fixed **Free after use** in ReadOnly Minidriver.

- PKCS#11 Fixed **MS VSC (GIDSv2) support**.
- PKCS#11 Fixed **CardOS-4.x "non sc/interface card profile" support**.
- **MS VSC (GIDSv2)** Support for PKCS#11 - Maximum CKA_ID length reduced to 25 bytes!
- Support for **JCOP3 and Infineon JTOP - DolphinV2**.
- Support for c**ryptovision's ePasslet-Suite-3.0**.
- New **ePKIApplet-2.129 for JCOP3, SCE7 and JTOP (DolphinV2)** with up to 4096 bits RSA and 512 bits
- **EC** support, **PACE** optional.
- **RegisterTool plugins now available in Setup**. Removed from "support\RegisterTool_Plugins".
- **New sc/interface Minidriver support for MS VSC** (instead of the MS Minidriver) to allow extended PIN cache configuration.
- Added support for **sc/interface cache version 1.0** for Minidriver/ReadOnly Minidriver and PKCS#11.
- **Cross-application PIN cache for Windows 8.1** and later.
- **WARNING: No longer compatible with Credential Cache (CSP)**. When there are any questions, support@cryptovision.com[45] should be contacted.
- Added **macOS CTK Token Driver for 10.12 and later**. Unfortunately, after the installation, a shell script must be executed to enable the full functionality.
- **Removed macOS tokend support** beginning with version 10.12, installation of 10.10 can be used if needed.
- **WARNING: macOS tokend support will discontinue, usage of new CTK Token Driver is necessary.**
- Re-Added **cvSimpleCardProv for Windows** (based on 6.4.2) to enabled the default login selection, see "support\CredentialProvider".
- Updated **OpenSC library to version 0.19.0**. Improved handling of PIV and CAC ALT token.

Base system

- Updated to **kernel version 4.18.11**.
- Added new **GStreamer 1.x support version 1.14.2**.
  There will only ever be GStreamer in version 1.0 or version 0.10. By default, clients run with the version they have best support for. The provided registry key can be used to override the automatic detection/setting and pin a single version if required.
  More…

Parameter	Fluendo GStreamer Codec Version
Registry	`multimedia.gstreamer.version`
Value	[1.x] [0.10] [automatic]

- With **GStreamer 1.x the new Parole player is used** for media player sessions. When there occur problems with the new player, a switch back to totem/GStreamer 0.10 media player is possible by **Fluendo GStreamer Codec Version** parameter.
- Added **optional logoff button in taskbar** when the screenlock is active.
  More…

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45 mailto:support@cryptovision.com

IGEL Setup	**Security > Logon > Taskbar**
Parameter	Show logoff button
Registry	`userinterface.screenlock_taskbar_logged_in.logoff_button`
Value	enabled / <u>disabled</u>

- **Mobile broadband configuration dialog now provides a simple mode**, that displays 3 dropdown boxes to select country, provider and access point (plan). The former version is available via an **Expert Mode** button.
- **IGEL Setup Assistant enhancements**:
  - displaying page for **mobile broadband configuration** when any mobile broadband modem is detected.
  - displaying page to **show broken network connectivity**
  - **desktop icon** will now be displayed **when the assistant was not yet finished**.
  - **the assistant is now always started on devices without IGEL license**, that are not registered at UMS
  - new **icon design**
- Added support for **Chinese**, **Japanese**, **Korean** and **Thai** fonts.
- **KVM kernel modules added**.
- Added **USB power off on shutdown in IGEL UD7 (H850C) and IGEL UD3 (M340C)**. The feature can be configured by the parameter: (default: deactivated).
  More...

Parameter	Power off on shutdown
Registry	`devices.usb.poweroff_shutdown`
Value	enabled / <u>disabled</u>

- Added **policiykit-1-gnome session agent** to get a GUI interface for actions which requires root authentification.
- Added **remote (network attached) logging via rsyslog**.
  More...

IGEL Setup	**System -> Remote Syslog**
Parameter	Remote mode
Registry	`system.syslog.remote_mode`
Range	[Server] [Client] [<u>Off</u>]
Parameter	Custom client config entries
Registry	`system.syslog.client_custom`

  - **Server mode** is possible, though limited and intended for short-term debugging.
    More...

IGEL Setup	**System -> Remote Syslog**

Parameter	Template for log file storage
Registry	`system.syslog.template`
Value	/var/log/%HOSTNAME%/messages
Parameter	Local port
Registry	`system.syslog.input%.port`
Value	<u>514</u>
Parameter	Transport protocol
Registry	`system.syslog.input%.transport`
Value	[<u>TCP</u>] [UDP]
Parameter	Local Address
Registry	`system.syslog.input%.local_address`
Parameter	Name
Registry	`system.syslog.input%.name`

- **Client mode** allows to filter and send commands to multiple remotes.
  More...

IGEL Setup	**System -> Remote Syslog**	
Parameter	Remote port	
Registry	`system.syslog.output%.port`	
Value	<u>514</u>	
Parameter	Transport protocol	
Registry	`system.syslog.output%.transport`	
Value	[<u>TCP</u>] [UDP]	
Parameter	Remote address	
Registry	`system.syslog.output%.address`	
Parameter	Syslog facility	
Registry	`system.syslog.output%.facility`	
Range	[<u>Any</u>] [AUTH] [CRON] [DAEMON] [FTP] [KERN] [LPR] [MAIL] [NEWS] [USER] UUCP]	
Parameter	Syslog level	

Registry	`system.syslog.output%.level`
Range	[Any] [EMERG] [ALERT] [CRIT] [ERR] [WARNING] [NOTICE] [INFO] [DEBUG]

- **Shutdown or suspend by inactivity**.
  More...

IGEL Setup	**System > Power Options > System**
Parameter	System action on inactivity
Registry	`system.power_management.system_standby.ac_action`
Value	Suspend / Shutdown

- Enhanced **Change Password** utility to be able changing the following items of the logged on user:
  - **Password of local user** (screen lock password).
  - **PIN of IGEL smartcard**.
  - **PIN of PKCS#11 smartcard**.

CUPS Printing

- Added **PrinterLogic support, Version 18.2.1.128**.
  More...

IGEL Setup	**Devices > Printer > PrinterLogic**
Parameter	Manage printers by Printer Installer Client
Registry	`printerlogic.active`
Value	enabled / disabled
Parameter	HomeURL Protocol
Registry	`printerlogic.homeurl.protocol`
Value	http:// / https://
Parameter	HomeURL Hostname
Registry	`printerlogic.homeurl.hostname`
Value	.printercloud.com
Parameter	Authorization Code
Registry	`printerlogic.auth.crypt_password`
Parameter	(Mapping in sessions) ICA Sessions
Registry	`printerlogic.map_ica`

Value	enabled / disabled
Parameter	(Mapping in sessions) RDP Sessions
Registry	`printerlogic.map_rdp`
Value	enabled / disabled
Parameter	(Mapping in sessions) NX Sessions
Registry	`printerlogic.map_nxclient`
Value	enabled / disabled
Parameter	(Mapping in sessions) Parallels Client Sessions
Registry	`printerlogic.map_twox`
Value	enabled / disabled

Driver

- Added **Kofax virtual channel for signature pads in Citrix sessions**.
  More...

IGEL Setup	**Sessions > Citrix XenDesktop/XenApp > HDX/ICA Global > Mapping > Device Support**
Parameter	Kofax SPVC Signature Pad Channel
Registry	`ica.module.virtualdriver.spvc.enable`
Value	enabled / disabled

- Added configuration to change the **dynamic power management settings for ATI graphics driver**.
  More...

Parameter	ATI dynamic power management
Registry	`x.drivers.ati.dpm`
Value	default / enabled / disabled

- Added the possibility to change the **dynamic power management settings for graphics AMDGPU driver**.
  More...

Parameter	AMDGPU dynamic power management
Registry	`x.drivers.amdgpu.dpm`
Value	default / enabled / disabled

- Added possibility to use **generic modesetting graphics driver** instead of the hardware specific one.

More...

Parameter	Use generic modesetting driver for ATI hardware.
Registry	`x.drivers.ati.use_modesetting`
Value	enabled / <u>disabled</u>

Parameter	Use generic modesetting driver for AMDGPU hardware.
Registry	`x.drivers.amdgpu.use_modesetting`
Value	enabled / <u>disabled</u>

Parameter	Use generic modesetting driver for NVIDIA hardware.
Registry	`x.drivers.nouveau.use_modesetting`
Value	enabled / <u>disabled</u>

Parameter	Use generic modesetting driver for VIA hardware.
Registry	`x.drivers.via.use_modesetting`
Value	enabled / <u>disabled</u>

Bluetooth

- Added new **Bluetooth Autopairing Wizard** for IGEL OS installations without keyboard or mouse available, but with unpaired bluetooth keyboard/mouse. The **Autopairing Wizard** is started together with **IGEL Setup Assistant**.

Appliance Mode

- **The wireless manager can now be invoked from the In-Session control bar**. Furthermore, it will be automatically started when no network connection can be established.
  Prerequisites: A WiFi device is available and the following registry keys are set to true.
  More...

Parameter	Activate Wireless Interface
Registry	`network.interfaces.wirelesslan.device0.active`
Value	enabled / <u>disabled</u>

Parameter	Enable wireless manager
Registry	`network.applet.wireless.enable_connection_editor`
Value	enabled / <u>disabled</u>

- It is possible to use **Accessories**, **VPN connections** and **other session types** in **Appliance Mode** now. The access to those session types must be explicitly enabled by a new parameter **Appliance Mode Access**. Possible starting methods:
  - **XDMCP Appliance mode**: Hotkey

- **All other Appliance modes**: Desktop icon, Desktop Context Menu, Application Launcher (+ System tab), Hotkey, Autostart.
More…

IGEL Setup	**Accessories > ICA Connection Center**
Parameter	Application Mode Access
Registry	`sessions.icaconncenter0.appliance_mode_access`
Value	enabled / disabled

IGEL Setup	**Accessories > Task Manager**
Parameter	Application Mode Access
Registry	`sessions.taskmanager0.appliance_mode_access`
Value	enabled / disabled

IGEL Setup	**Accessories > Application Launcher**
Parameter	Application Mode Access
Registry	`sessions.launcher0.appliance_mode_access`
Value	enabled / disabled

IGEL Setup	**Accessories > Firmware Update**
Parameter	Application Mode Access
Registry	`sessions.firmware_update0.appliance_mode_access`
Value	enabled / disabled

IGEL Setup	**Accessories > Quick Settings**
Parameter	Application Mode Access
Registry	`sessions.usersetup0.appliance_mode_access`
Value	enabled / disabled

IGEL Setup	**Accessories > Sound Preferences**
Parameter	Application Mode Access
Registry	`sessions.mixer0.appliance_mode_access`
Value	enabled / disabled

IGEL Setup	**Accessories > Disk Removal**
Parameter	Application Mode Access

Registry	`sessions.storage_dcdm0.appliance_mode_access`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > Disk Utility**
Parameter	Application Mode Access
Registry	`sessions.storage_info0.appliance_mode_access`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > Commands User Interface > Hotkeys > Commands**
Parameter	Application Mode Access

Registry	`sessions.commands<NR>.appliance_mode_access`
	
	 `sessions.wmcommands<NR>.appliance_mode_access`

Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > Webcam Information**
Parameter	Application Mode Access
Registry	`sessions.webcaminfo0.appliance_mode_access`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > Touchscreen Calibration**
Parameter	Application Mode Access
Registry	`sessions.touchcalib0.appliance_mode_access`
Value	enabled / <u>disabled</u>
IGEL Setup	**User Interface > Screenlock / Screensaver**
Parameter	Application Mode Access
Registry	`sessions.xlock0.appliance_mode_access`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > Monitor Calibration**
Parameter	Application Mode Access
Registry	`sessions.xpattern0.appliance_mode_access`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > Network Tools**

Parameter	Application Mode Access
Registry	`sessions.gnome-nettool0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Screenshot Tool**
Parameter	Application Mode Access
Registry	`sessions.screenshooter0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > System Information**
Parameter	Application Mode Access
Registry	`sessions.device_manager0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Bluetooth Tool**
Parameter	Application Mode Access
Registry	`sessions.bluetooth0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Display Switch**
Parameter	Application Mode Access
Registry	`sessions.user_display.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Identify Monitors**
Parameter	Application Mode Access
Registry	`sessions.screenid0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > System Log Viewer (> Options)**
Parameter	Application Mode Access
Registry	`sessions.systemviewer0.appliance_mode_access`
Value	enabled / disabled
Registry	`sessions.setup.displaynames.add_layout.appliance_mode_access`

Value	enabled / disabled
IGEL Setup	**Accessories > Terminals > Local Terminal**
Parameter	Application Mode Access
Registry	`sessions.xterm<NR>.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Sessions > SSH > SSH Session**
Parameter	Application Mode Access
Registry	`sessions.ssh<NR>.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**System > Firmware Customization -> Custom Application -> Custom Application**
Parameter	Application Mode Access
Registry	`sessions.custom_application<NR>.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Mobile Device Access**
Parameter	Application Mode Access
Registry	`sessions.mtp-devices0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Network > VPN > OpenConnect VPN (> OpenVPN Connection (> Desktop Integration))**
Parameter	Application Mode Access
Registry	`sessions.openvpn<NR>.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Network > VPN > OpenConnect VPN (> VPN OpenConnection (> Desktop Integration))**
Parameter	Application Mode Access
Registry	`sessions.openconnect<NR>.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Network > VPN > genucard (> Desktop Integration)**

Parameter	Application Mode Access
Registry	`sessions.genucard_vpn_connection0.appliance_mode_access`
Value	enabled / <u>disabled</u>

X11 system

- Set of **User Interface > Display > Options > Monitor DPI** now automatically affects the size of the **mouse cursor**, the **panel height**, the **desktop icons**, the **application launcher**, the **size of the start menu** and the **window manager decorations**.

VirtualBox

- Added VirtualBox as **feature with limited support**. Activation of the feature at: **System > Firmware Customization > Features > VirtualBox**. Added new registry keys under `virtualbox` and `sessions.virtualbox<NR>`.

Audio

- Updated **Pulseaudio to version 12.0-1**.
- The resample method in Pulseaudio can now be configured by the newly introduced parameter **resample-method**.
  More...

Parameter	Resample method
Registry	`multimedia.pulseaudio.daemon.resample-method`
Range	[soxr-vhq] [soxr-hq] [soxr-mq] [speex-float-10] [speex-float-5] [speex-float-3] [<u>speex-float-1</u>]

Media Player (Parole/Totem)

- Added new **Parole Media Player 1.0.1-0ubuntu1**. It is used for media player sessions **by default** now. When there occur problems with the new player, switch back to totem/GStreamer 0.10 media player is possible by setting **Fluendo GStreamer Codec Version** parameter to 0.10.
  More...

Parameter	Fluendo GStreamer Codec Version
Registry	`multimedia.gstreamer.version`
Range	[1.x] [0.10] [<u>automatic</u>]

- Added **RTSP/RTMP** support to parole media player / gstreamer 1.x.
- The following parameters are only functional with **Totem media player/GStreamer 0.10** and not for Parole media player.
  More...

IGEL Setup	**Sessions > Media Player > Media Player Global > Window**
Parameter	Automatically resize the player window when a new video is loaded

Registry	`multimedia.mediaplayer.auto_resize`
Value	enabled / disabled

IGEL Setup	**Sessions > Media Player > Media Player Global > Window**
Parameter	Main window should stay on top
Registry	`multimedia.mediaplayer.window_on_top`
Value	enabled / disabled

IGEL Setup	**Sessions > Media Player > Media Player Global > Playback**
Parameter	Visualization size
Registry	`multimedia.mediaplayer.visual_quality`
Range	[Small] [Normal] [Large] [Extra Large]

IGEL Setup	**Sessions > Media Player > Media Player Global > Options**
Parameter	Network connection speed
Registry	`multimedia.mediaplayer.connection_speed`
Range	[56 kbps Modem/ISDN] [112 kbps Dual ISDN/DSL] [256 kbps DSL/Cable] [384 kbps DSL/Cable] [512 kbps DSL/Cable] [1.5 mbps T1/Intranet/LAN] [Intranet/LAN]
Parameter	Enable deinterlacing
Registry	`multimedia.mediaplayer.deinterlace`
Value	enabled / disabled
Parameter	Enable debug
Registry	`multimedia.mediaplayer.debug`
Value	enabled / disabled
Parameter	Network buffering threshold
Registry	`multimedia.mediaplayer.network_buffer_threshold`
Value	2

- As the **Media Player Browser Plugin** is not supported with **Firefox 60 ESR**, the following parameters are not available anymore.
  More...

IGEL Setup	**Sessions > Media Player > Media Player Global > Browser Plugin**
Parameter	Video output

Registry	`multimedia.mediaplayer.browser_plugin.video_sink`
Range	[<u>Default</u>] [Auto] [Hardware Accelerated] [X Video Extension] [X Window System]

IGEL Setup	**Sessions > Media Player > Media Player Global > Browser Plugin**
Parameter	Aspect ratio
Registry	`multimedia.mediaplayer.browser_plugin.aspect_ratio`
Range	[<u>Default</u>] [Auto] [Square] [4:3 (TV)] [16:9 (Widescreen)] [2.11:1 (DVB)]

Evidian

- Integrated **Evidian AuthMgr version 1.5.6840**.
    - Evidian AuthMgr sessions can be configured at **IGEL Setup > Sessions > Evidian AuthMgr > Evidian AuthMgr Sessions** (registry keys: `sessions.rsuserauth%`).
    - Evidian AuthMgr global settings can be configured at **IGEL Setup > Sessions > Evidian AuthMgr > Evidian AuthMgr Global** (registry keys: `evidian`).
- Added support for **Custom catalog of messages**.
  More...

IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Sessions > Evidian AuthMgr Session > Options**
Parameter	Language selection
Registry	`sessions.rsuserauth<NR>.parameters.message_catalog`
Range	[<u>Automatic</u>] [English (UK)] [English (US)] [German] [French] [Custom]
IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Global > Options**
Parameter	Language selection
Registry	`evidian.message_catalog`
Range	[<u>Global setting</u>] [English (UK)] [English (US)] [German] [French] [Custom]
IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Global > Options**
Parameter	Custom catalog of messages
Registry	`evidian.custom_message_catalog`
Value	/services/evidian/share/locale/en/rsUserAuth.cat

- Added support for **Evidian Data Partition**.
  More...

IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Global > Options**
Parameter	Evidian AuthMgr Data Partition

Registry	`evidian.datapart.enabled`
Value	enabled / disabled
IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Global > Options**
Parameter	Size
Registry	`evidian.datapart.size`
Value	10

- Added support for **Password Authentication**.
  More...

IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Sessions > Evidian AuthMgr Session > Options**
Parameter	Allow password authentication
Registry	sessions.rsuserauth<NR>.parameters.password_authentication
Value	enabled / disabled
IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Sessions > Evidian AuthMgr Session > Options**
Parameter	Allow password forgotten
Registry	sessions.rsuserauth<NR>.parameters.password_forgotten
Value	enabled / disabled
IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Sessions > Evidian AuthMgr Session > Options**
Parameter	Default domain name for password authentication
Registry	`sessions.rsuserauth<NR>.parameters.password_default_domain`
Value	

Misc

- Added support for **local scanning as feature with limited support**. Activate the feature at:
  System > Firmware Customization > Features > Scanner support. This has been tested with a
  Canon LiDE 120 scanner.
  More...

Parameter	Scanner support

Registry	`product.partitions41.enabled`
Value	enabled / <u>disabled</u>
This must be enabled for the feature to become active and the remaining keys to be valid.	

Parameter	Enable scanner daemon
Registry	`devices.scanner.daemon`
Range	[none] [scanbd] [saned]
The key determines the daemon to be started. scanbd is necessary for handling buttons on the scanner. It runs saned when necessary (and the scanner is available). saned alone provides scanning functionality to local and remote applications (xsane, scanimage, ..). If none is selected the system can still be used as a client for remote scanner servers (using xsane or scanimage).	

Parameter	Allowed remote clients
Registry	`devices.scanner.allowed_clients`
The key may contain a space-separated list of hosts and networks (CIDR > notation) that are allowed to connect to a local server.	

Parameter	Remote scanners
Registry	`devices.scannerclient.remote`
This may contain a space-separated list of remote scanner servers to be used by local applications (xsane, scanimage). It is only relevant if no local server is configured.	

- **The remaining keys influence scanner button handling**. For each button there is an instance of the `devices.scanner.scanbd.action%` template.
- In order to keep scanner button handling flexible **the default handling may be replaced by custom scripts**. Details of the default handling are listed at the end of this section.
  More...

Parameter	Scanner button name
Registry	`devices.scanner.scanbd.action%.button`
This contains the (symbolic) name of the button. There are currently four predefined instances of the template where the value is 'file', 'scan', 'copy', and 'email' respectively. (These refer to the buttons on a Canon LiDE 120 from left to right where 'file' may be labeled 'PDF')	

Parameter	Allow while nobody is logged in
Registry	`devices.scanner.scanbd.action%.allow_lockpanel_logged_out`
Value	enabled / <u>disabled</u>

If this is set to false, the button is ignored when nobody is logged in (only > relevant when local logon is configured)

Parameter	Allow while screen is locked
Registry	`devices.scanner.scanbd.action%.allow_lockpanel_logged_in`
Value	enabled / disabled

When this is set to false, the button is ignored while the screen is locked.

Parameter	scanbd custom action
Registry	`devices.scanner.scanbd.action%.custom_cmd`

This may contain a custom button handling command. The value is empty by default. If it is not, the value will be passed to "bash -c .." and the default button handling will not be effective. The consequence is that entering some space characters results in disabling the button.

Parameter	Directory
Registry	`devices.scanner.scanbd.action%.directory`
Value	/tmp

Set the target directory for scan results.

Parameter	Format
Registry	`devices.scanner.scanbd.action%.format`
Range	[pnm] [tiff] [png] [jpeg]

Determines the image format (passed as argument to scanimage).

Parameter	Color mode
Registry	`devices.scanner.scanbd.action%.mode`
Value	[Color] [Gray] [Lineart]

Determines the color mode (passed as argument to scanimage).

Parameter	Resolution in dpi
Registry	`devices.scanner.scanbd.action%.resolution`
Range	[75] [100] [150] [300] [600] [1200] [2400] [4800]

Determines the resolution (passed as argument to scanimage).

Parameter	Brightness
Registry	`devices.scanner.scanbd.action%.brightness`

Value	<u>0</u>
Determines the brightness (passed as argument to scanimage).	

- **Default button handling script**: There is a default button handling script `/etc/scanbd/scripts/action` . It might be used as a potential starting point for custom button handling. The script handles the four buttons of a **Canon LiDE 120** in the following ways:
    - **file** results in a PDF document that contains a series of pages where each page contains a scan result acquired with scanimage according to the settings. This needs user interaction on the local machine's desktop.
    - **scan** results in an image file that is silently created and stored according to the settings.
    - **copy** makes the script use scanimage according to the settings, convert the resulting image to PDF and send it to the default printer. This obviously requires that a printer is configured.
    - **email** just results in xsane being started. The following settings are not respected in this case:
        - `devices.scanner.scanbd.action%.directory`
        - `devices.scanner.scanbd.action%.format`
        - `devices.scanner.scanbd.action%.mode`
        - `devices.scanner.scanbd.action%.resolution`
        - `devices.scanner.scanbd.action%.brightness`

TC Setup (Java)

- Updated **TC Setup to version 5.9.11**.
- Added an **additional local administrator access** to IGEL setup. The local administrator password is configurable at **Security > Password** setup page. The page permissions are configurable at **Accessories > Setup > Setup Administrator Permissions** setup page.
- Reworked **Accessories > Commands** and **User Interface > Hotkeys > Commands** setup pages.
- Reworked **Storage Hotplug** setup page.

Remote Management

- Added support for **UMS File Transfer Status**.
- Added a new configuration to **prevent a user from canceling UMS actions like firmware update, reboot, shutdown, etc.** through the UMS notification dialog.
More...

Parameter	Allow user to cancel UMS actions
Registry	`userinterface.rmagent.cancel_usermessage`
Value	<u>enabled</u> / disabled

Fabulatech

- **FabulaTech USB for Remote Desktop** updated to **versions 5.2.29**; **FabulaTech FTPlugin** updated to **version 3.4.0**.
- Support for some specific devices has been improved.

Resolved Issues 10.05.100

Citrix Receiver 13

- Fixed: Now **applications may be displayed in application launcher** independently from startmenu.
- Fixed **Citrix Azure Cloud** login window.
- Added a **new window manager tweak** to automatically unmap unwanted Citrix fragment windows when seamless apps are used.
  More...

Parameter	Auto-close unwanted Wfica windows
Registry	`windowmanager.tweaks.suppress_wfica_window_in_seamless_session`
Value	<u>enabled</u> / disabled

- Fixed **native USB redirection with Citrix receiver 13.10**.
- Fixed **black rectangle around 32-bit mouse icons**.
- Fixed **sound playback over Nuance channel**.
- Fixed stopping of the **Pulseaudio PCM I/O plugin** which is used by Citrix Receiver for sound output and recording.
- When using the **Citrix login method the system language is used now**.
- Fixed a problem with the parameter `ica.pnlogin.suppressconnectiondialog`, **connection messages are suppressed** as desired.

RDP/IGEL RDP Client 2

- Fixed **locking in smartcard transactions**.
- Fixed **audio recording in RDP sessions**.
- Fixed **$HOSTNAME** to work for RDP login when variable substitution is enabled.
  More...

IGEL Setup	**System > Firmware Customization > Environment Variables**
Parameter	Enable variable substitution in session
Registry	`system.environment_variables.enable_application_variables`
Value	<u>enabled</u> / disabled
IGEL Setup	**Sessions > RDP > RDP Global > Local Logon**
Parameter	Type
Registry	`rdp.login.saveusertype`

Value	Set user/domain from session setup / Set user/domain from last login

- Added **Arabic (101) keyboard layout** to RDP client.
- Added **MultiPointServer 2016** to supported servers for **RDP MultiPoint Server** appliance.

RD Web Access

- Fixed **wrong RDP Remote Application icon** when opening a application twice.
- Fixed unexpected behavior when maximizing/minimizing **RDP Remote Applications**.

VMware Horizon

- Added possibility to **make certificate verification mandatory**.
  More...

Parameter	Allow change of certificate verification mode
Registry	`vmware.view.ssl-verify-mode-change-allow`
Value	enabled / disabled

- Fixed **H.264 hardware decoding** for Horizon.

PowerTerm

- Fixed **printing to CUPS printers in PowerTerm**.
- Added **TLS-1.2 in list of SSL Versions for PowerTerm** on page **Sessions > PowerTerm Terminal Emulation > PowerTerm Sessions > session name > Connection**.

Parallels Client

- Fixed: **Authentication fails with Gemalto smartcards**.
- Fixed: Sometimes **remote session windows remain on screen after one was logged off from the remote session**.
- Fixed: **Remote session closes unexpectedly**.
- Fixed: Combination of **CTRL-C** doesn't work in remote session.
- Improved: **Use of multiple monitors**.
- Fixed: **Client might hang while watching YouTube videos**.
- Fixed: **Multiple USB drives might not be auto-mapped to a remote session**.
- Fixed: **Logoff from a remote session blocks Linux desktop with a black screen**.

Firefox

- Fixed **occasional loss of trusted certificates** in Firefox. Certificates transmitted via UMS filetransfer were not reinstalled when Firefox profile was rebuilt.
- Fixed **PDF Plugin** in Firefox browser.
- Removed the browser plugin option from **RHEV/Spice** as it is no longer supported.
- Removed the browser plugin option from **SecMaker** as it is no longer supported.

Network

- Fixed **failing Wake-on-LAN configuration after update on shutdown**. Particularly UD2-LX40 devices were affected.

- Fixed bug in the **GetCA operation for SCEP**: An intermediate certificate in addition to the root certificate and any RA certificates resulted in confusion.
- **sscep version is now 0.6.1**
- **CA certificate fingerprint is now mandatory for SCEP**. So far it could be left empty for debugging purposes.
- Added **parameter to specify whether a slash (/) is appended to SCEP URL**. The slash is needed e.g. with Microsoft servers, but not with Nexus servers.
  More...

Parameter	Append slash (/) to SCEP server URL
Registry	`network.scepclient.cert0.scepurlappendslash`
Value	<u>enabled</u> / disabled

- Fixed **generating certificate request** if challenge password or other fields include **special characters like $, #, quotes or spaces** in SCEP.
- Reaction to **Ethernet 802.1X reauthentication failure** is now configurable.
  More...

Parameter	Restart on reauthentication failure
Registry	`network.interfaces.ethernet.device%.ieee8021x.res` `tart_on_reauth_failure`
Value	enabled / <u>disabled</u>
The default value preserves the traditional behaviour. If the registry key is set to enabled the network connection will get restarted when a reauthentication failure occurs. This way the system might switch to a guest VLAN where authentication is not required.	

- Added **support for SFTP protocol** (enabled as default) configurable with new registry key.
  More...

Parameter	Enable SFTP server
Registry	`network.ssh_server.enable_sftp_server`
Value	<u>enabled</u> / disabled

- Improved **general security** in regards of SCEP

WiFi

- Fixed non working **Mediatek MT7630e WiFi driver**.
- Added several **WiFi drivers** (Realtek 8188eu, 8822be, 8150, 8187, 8192ce, 8192de, 8192ee, 8723ae, 8821ae....) to the firmware.
- Re-enforce configuration after **IGEL Setup Assistant** exits to ensure consistent state between configuration and system.
- Added drivers for **Realtek rtl8723de** and **rtl8822be WiFi** devices.
- Added support for **StarTech USB300WN2X2C Wireless-N WiFi adapter**.

Smartcard

- Updated **OpenSC library to version 0.19.0**. Improved handling of PIV and CAC ALT token and other improvements.
- Fixed problem with **ActivClient smartcards in VMware Horizon sessions**. Before this fix, smartcard access inside the session was blocked.
  More...

Parameter	Smartcard SCardConnect in non-blocking mode
Registry	`vmware.view.pcsc-connect-nonblocking`
Value	<u>enabled</u> / disabled

- Improved **PC/SC lite daemon** to handle attributes SCARD_ATTR_DEVICE_FRIENDLY_NAME_W and SCARD_ATTR_DEVICE_SYSTEM_NAME_W.
- Updated **Cherry USB2LAN Proxy to version 3.0.0.6**.
  - Fixed an issue where the **SICCT listener was not restarted** when a SICCT connection has been closed by the EGK device (ORS-880).
  - Fixed **TLS errors** resulting from re-using channels before the EGK device confirmed the disconnection of the previous connection (ORS-735).
  - **Increase connection handshake timeout from 1 second to 20 seconds**. This is necessary as the EGK device (G87-1505, firmware 2.108.3) does not process the handshake immediately in all situations. (ORS-735).
  - Added **timestamp** to log output.
- Fixed **AD/Kerberos log on with smartcard** and **Smartcard Removal Action: Lock Thin Client**.
- Fixed custom **PKCS#11 module for VMware Horizon logon**. Before this fix, the parameters did not get effective.
  More...

Parameter	Horizon logon with custom PKCS#11 module
Registry	`vmware.view.pkcs11.use_custom`
Value	enabled / <u>disabled</u>
Parameter	Path to the library
Registry	`vmware.view.pkcs11.custom_path`
Value	

- Fixed **error in IGEL Smartcard which prevented login with personalized cards** when certain card holder names contained **non-ASCII characters**.

HID

- Added support for **Wacom HID 483C touchscreens** (HP Pro x2 612 g2).
- Fixed non working **Lenovo KBRFBU71 wireless keyboard**.
- Fixed **mouse button mapping**.

CUPS Printing

- Fixed **HPLIP related printer drivers**.

- Added missing **LaserJet 200 color MFP M276 Postscript** to **Printer Names** for manufacturer HP in the TC Setup under **Devices > Printer > CUPS > Printers**.

Application Launcher

- Fixed **display order** of DNS servers in **Application Launcher** and **About** dialog.

OpenVPN

- Fixed **no retry** in case the client **key passphrase** was entered incorrectly.

Base system

- **IGEL Setup Assistant** fixes:
  - Fixed **startup on first boot**.
  - **Retain network configuration** if exited via cancel.
  - Fixed **graphical glitches**
  - Fixed **WiFi configuration**
  - **Prevent startup if an administrator passphrase is set** (e.g. from a IGEL System 5 migration).
- Fixed **System suspend on inactivity** showing the suspend dialog directly after system resume.
- Fixed the **custom bootsplashscaling when multiple monitors are configured**. Necessary to force a re-installation of the custom bootsplash for this fix to take effect. To force a re-installation:
  - Trigger the **Update desktop customization** command via UMS or
  - Press the **Bootsplash update** button at **IGEL Setup > System > Firmware Customization > Corporate Design > Custom Bootsplash**.
- Fixed sporadic problems with **custom bootsplash and wallpaper installation**.
- Fixed the **buddy update server** so that UD Pocket devices can also update from buddy update servers.
- Fixed handling of **custom environment variables**. If values contained white spaces the variables could not be set.
- Fixed **reboot/shutdown** when triggered from the lock screen panel.
- Improved **support for IGEL UD7 with additional graphic card**.
- Removed **maximize button from on-screen keyboard window**.
- Fixed **deletion of debuglog partition content** when booted in emergency boot.
- Fixed **handling of optional partitions which are not active as default** while booting in emergency mode.
- Fixed instability in **authentication module pam_igelsession.so** in some special cases.
- Fixed **ECDSA/ECDH support in HEIMDAL libraries**.
- Fixed **black screen issues** if hostname contains other characters as 'A-Z a-z 0-9 . _ - ' .
- Improved **debuglog partition based login**.
- **Restricted access to command **su** to root and user**.
- **Root home** is now **/root**.
- Removed **system** group (GID 0) which shadowed **root** group (GID 0).
- **Stricter folder and file permissions**.
- Prevent **flickering problems on 4k 60Hz screens**.

Storage Devices

- Fixed **mount issue of PTP devices** (Mobile Device Access USB feature must be enabled).
- Fixed **double detection of MTP and PTP**. MTP is preferred over PTP now (Mobile Device Access USB feature must be enabled).

Appliance Mode

- Fixed **configuration of post session commands via UMS profile**: There is no second reboot required anymore to apply the settings properly in Appliance Mode.

X11 system

- Fixed **automatic order selection of screens for IGEL UD7**.
- Fixed **order of desktop wallpapers for IGEL UD7** when the additional graphics card is installed.
- Fixed **screen stays black problem on UD3-LX**.
- Fixed **non loading DRM/KMS driver on Spectra Nise 106**.
- Added possibility to **change the framebuffer compression for AMDGPU driver**.
  More...

Parameter	AMDGPU framebuffer compression.
Registry	`x.drivers.amdgpu.use_fbc`
Range	[default][enable][disable]

- Fixed `sessions.user_display0.options.lid_events` work for **eDP** also.
- Fixed **VESA only boot with UEFI system**.
- **AMDGPU stability** fixes applied.
- Fixed issue with **screen configuration for certain cases**.
- Fixed **screen configuration** getting in **endless loop** with multi monitor setups.
- Fixed **memleak in** `igel_drm_daemon`.
- Fixed **DRI2 memleak with AMDGPU driver**.
- Changed `x.xserver0.force_reconfig registry key` (former bool now range).
  More...

Parameter	Force a display reconfiguration
Registry	`x.xserver0.force_reconfig`
Range	[default][only on Xorg start/restart][always][never]

- Usage of o**nly on Xorg start/restart** as new default for **AMDGPU based devices**.
- Removed `x.xserver0.composite` registry key to prevent problems with **AMD/ATI devices**.
- Fixed **screen remains black** when **Monitor Probing (DDC)** option is "Off", configurable at setup page **User Interface > Display > Options**.
- Added possibility to configure **graphic displays only if DPMS state is not OFF**.
  More...

Parameter	Do not reconfigure if monitors are in DPMS off state
Registry	`x.xserver0.config_on_dpms_on`
Value	enabled / disabled

Window Manager

- **On-Screen Keyboard will keep aspect ratio** when resized via double click on edge.

Shadowing/VNC

- Fixed instability of **Secure Shadowing** connector.

Audio

- Added a workaround for **button handling of Sennheiser USB headsets**.
- Fixed saving and restoring of **volume controls in Pulseaudio and ALSA**.
- Improved consistency while **storing of changed volume values**.
- Fixed **missing audio output over DVI to HDMI/DP in IGEL UD2 (D220)**.
- Fixed configuration of the **default sound output or input on hardware** when presence detection in jack connector is missing.

Hardware

- Fixed non working **StarTech.com USB2DVIPRO2 DisplayLink** graphics adapter.
- Fixed freezes of **Intel Baytrail** devices.
- Fixed non working **DisplayLink USB** graphics adapter after reboot.

Remote Management

- Fixed **zero touch deployment** by adding a timeout to the Setup Assistant abort message.
- Fixed **computation of Unit ID**. The Unit ID is the identification key of the thin client in UMS, and also thin client licenses will be bound to the Unid ID. Now the Unit ID is computed once and persistently saved. It consists of the serial number of UD Pocket or the MAC address of a network interface. When multiple network interfaces are present, the interface is selected taking following attributes into account:
  If a license bound to the interface exists, how it is connected (PCI, SDIO, USB or other) and if it is wireless or wired.
  It is best practice not to connect external network interfaces when a freshly installed thin client device is booted for the first time, so that the Unit ID will consist of a MAC address of a network interface which cannot be removed from the thin client device.
- Fixed **monitor serial numbers** not shown in UMS.
- Fixed **Bluetooth Asset Inventory** zombie when bluetooth dongle is removed.
- Fixed **UMS filetransfer** - now filetransfer action is triggered also if only the file classification was changed.
- Fixed **Update on shutdown** UMS job which could be stucked if update is failed once for some reasons.

IGEL Universal Desktop OS3/IGEL UD Pocket

Supported Hardware:

https://kb.igel.com/igelos/en/devices-supported-by-udc3-and-ud-pocket-3117174.html

Versions 10.05.100

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.6.0-2030
Citrix Receiver	13.10.0.20
Citrix Receiver	13.5.0.10185126
Citrix Receiver	13.9.1.6
deviceTRUST Citrix Channel	17.2.100.0
deviceTRUST RDP Channel	17.2.100.0
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.6840
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.29
Firefox	60.2.2
IBM iAccess Client Solutions	1.1.5.0
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
Leostream Java Connect	3.3.7.0
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_181
Parallels Client (32 bit)	16.5.1.20446
Parole Media Player	1.0.1-0ubuntu1igel11
Remote Viewer (RedHat Virtualization)	7.0-igel47
Spice GTK (Red Hat Virtualization)	0.35
Spice Protocol (Red Hat Virtualization)	0.12.14
Usbredir (Red Hat Virtualization)	0.8.0
Systancia AppliDis	4.0.0.17

Thinlinc Client	4.9.0-5775
ThinPrint Client	7.5.86
Totem Media Player	2.30.2
VMware Horizon Client	4.8.0-8518891
VNC Viewer	1.8.0+git20180123-igel1
Voip Client Ekiga	4.0.1

Permalink:https://kb.igel.com/display/ENLITEOS/Versions+OS3+10.05

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20180621
Philips Speech Driver	12.5.4

- **Signature**

Kofax SPVC Citrix Channel	3.1.41.0
signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.1.9.620
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.7.0.23
Reader Driver ACS CCID	1.1.5
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.3.3
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5

Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.28
Reader Driver REINER SCT cyberJack	3.99.5final.SP11
Resource Manager PC/SC Lite	1.8.22
Cherry USB2LAN Proxy	3.0.0.6

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.13
OpenSSH Client	7.2p2-4ubuntu2.4
OpenSSH Server	7.2p2-4ubuntu2.4
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.2.1-1igel51
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20180214-igel1830
Graphics Driver ATI/RADEON	18.0.1-1igel831
Graphics Driver ATI/AMDGPU	18.0.1-1igel831
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2igel775
Graphics Driver Nvidia	390.87-0ubuntu1
Graphics Driver Vboxvideo	5.2.18-dfsg-2igel17
Graphics Driver VMware	13.3.0-2igel812
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.3.4-1build2igel639
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver Vmmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813

Kernel	4.18.11 #mainline-udos-r2463
Xorg X11 Server	1.19.6-1ubuntu4igel838
Xorg Xephyr	1.19.6-1ubuntu4igel832
CUPS printing daemon	2.1.3-4ubuntu0.5igel20
PrinterLogic	18.2.1.128
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2igel653
ISC DHCP Client	4.3.3-5ubuntu12.10igel6
NetworkManager	1.2.6-0ubuntu0.16.04.2igel58
ModemManager	1.6.8-2igel1
GStreamer 0.10	0.10.36-2ubuntu0.1
GStreamer 1.x	1.14.2-1ubuntu1igel192

- **Features with Limited IGEL Support**

Mobile Device Access USB
VPN OpenConnect
Scanner support / SANE
VirtualBox

- **Features with Limited Functionality**

Cisco JVDI Client	12.0

General Information 10.05.100

The following clients and features are not supported anymore:

- Citrix Receiver 12.1 and 13.1 - 13.4
- Citrix Access Gateway Standard Plug-in
- Dell vWorkspace Connector for Linux
- Ericom PowerTerm Emulation 9 and 11
- Ericom Webconnect
- IGEL Legacy RDP Client (rdesktop)
- Virtual Bridges VERDE Client
- PPTP VPN Support
- IGEL Upgrade License Tool with IGEL Smartcard Token
- Remote Management by setup.ini file transfer (TFTP)
- Remote Access via RSH
- Legacy Philips Speech Driver
- t-Systems TCOS Smartcard Support
- DUS Series touch screens
- Elo serial touch screens
- IGEL Smartcard without locking desktop
- VIA Graphic Support
- Storage Hotplug devices are not automatically removed anymore, instead they must be always ejected manually:

    - by panel tray icon

    - by an icon in the **In-Session Control Bar** (configurable at **IGEL Setup > User Interface > Desktop**)

    - by a **Safely Remove Hardware** session (configurable at **IGEL Setup > Accessories**)

The following clients and features are not available in this release:

- Cherry eGK Channel
- Open VPN Smartcard Support
- NCP Secure Client
- Asian Input Methods
- Composite Manager

Security Fixes 10.05.100

Firefox

- Updated Mozilla Firefox to version **60.2.2esr**.
  More...

    mfsa2018-24: CVE-2018-12386, CVE-2018-12387

    mfsa2018-23: CVE-2018-12385, CVE-2018-12383

    mfsa2018-21: CVE-2018-12377, CVE-2018-12378, CVE-2018-12376

    mfsa2018-16: CVE-2018-12359, CVE-2018-12360, CVE-2018-12361, CVE-2018-12362,

    CVE-2018-5156, CVE-2018-12363, CVE-2018-12364, CVE-2018-12365,

    CVE-2018-12371, CVE-2018-12366, CVE-2018-12367, CVE-2018-12369,

    CVE-2018-5187, CVE-2018-5188

    mfsa2018-14: CVE-2018-6126

    mfsa2018-11: CVE-2018-5154, CVE-2018-5155, CVE-2018-5157, CVE-2018-5158,

    CVE-2018-5159, CVE-2018-5160, CVE-2018-5152, CVE-2018-5153,

    CVE-2018-5163, CVE-2018-5164, CVE-2018-5166, CVE-2018-5167,

    CVE-2018-5168, CVE-2018-5169, CVE-2018-5172, CVE-2018-5173,

    CVE-2018-5175, CVE-2018-5176, CVE-2018-5177, CVE-2018-5165,

    CVE-2018-5180, CVE-2018-5181, CVE-2018-5182, CVE-2018-5151,

    CVE-2018-5150.

    mfsa2018-10: CVE-2018-5148

- Firefox profile partition is now **mounted at /userhome/.mozilla instead of /.ffpro**.
- Firefox could only be started as **user**.
- For security reasons **Java processes could not be started from a browser session now**.
- Added a registry parameter `java.browser.access` to **control java access for all browser sessions**.
  More...

Parameter	Allow browser to use java
Registry	`java.browser.access`
Value	enabled / disabled

Network

- **Disabled ICMP redirects**.
- Changed default **LoginGraceTime** from 120 to 30 sec.
- Added new registry keys for a **secure sshd configuration**.
  More...

Parameter	Permit X11 forwarding
Registry	`network.ssh_server.x11_forwarding`
Value	enabled / <u>disabled</u>
Parameter	Show banner
Registry	`network.ssh_server.show_banner`
Value	enabled / <u>disabled</u>
Parameter	Permit tcp tunnel forwarding
Registry	`network.ssh_server.permit_tcp_forwarding`
Value	enabled / <u>disabled</u>

- Fixed **SCEP client certificate request file access rights**.

Base system

- Added **apparmor** as an additional security layer for components like Firefox, evince, dhcpclient and cups.
  More...

Parameter	Enable apparmor profiles
Registry	`system.security.apparmor`
Value	<u>enabled</u> / disabled

- For security reasons **graphical terminal sessions** could now only be started by an administrator when an **admin password** is set. Administrator must authenticate before a terminal session is started. This does also affect graphical terminal sessions spawned by applications.
- To **allow users to start a terminal session again** a registry key is defined.
  More...

Parameter	User shell terminal
Registry	`system.security.usershell`
Value	enabled / <u>disabled</u>

- Fixed **open-vm-tools** security issue CVE-2015-5191.
- Fixed **procps** security issues CVE-2018-1126, CVE-2018-1125, CVE-2018-1124, CVE-2018-1123 and CVE-2018-1122.
- Fixed **imagemagick** security issues.
  More...

  CVE-2018-9133, CVE-2018-8960, CVE-2018-8804

  CVE-2018-7443, CVE-2018-5248, CVE-2018-11251, CVE-2018-10177, CVE-2017-18273,

CVE-2017-18271, CVE-2017-18252, CVE-2017-18211, CVE-2017-18209,

CVE-2017-17914, CVE-2017-17879, CVE-2017-17682, CVE-2017-17681,

CVE-2017-17504, CVE-2017-16546, CVE-2017-15281, CVE-2017-15277,

CVE-2017-15017, CVE-2017-15016, CVE-2017-15015, CVE-2017-14989,

CVE-2017-14741, CVE-2017-14739, CVE-2017-14682, CVE-2017-14626,

CVE-2017-14625, CVE-2017-14624, CVE-2017-14607, CVE-2017-14532,

CVE-2017-14531, CVE-2017-14505, CVE-2017-14400, CVE-2017-14343,

CVE-2017-14342, CVE-2017-14341, CVE-2017-14325, CVE-2017-14249,

CVE-2017-14224, CVE-2017-14175, CVE-2017-14174, CVE-2017-14173,

CVE-2017-14172, CVE-2017-14060, CVE-2017-13769, CVE-2017-13768,

CVE-2017-13758, CVE-2017-13145, CVE-2017-13144, CVE-2017-13143,

CVE-2017-13142, CVE-2017-13139, CVE-2017-13134, CVE-2017-12983,

CVE-2017-12877, CVE-2017-12875, CVE-2017-12693, CVE-2017-12692,

CVE-2017-12691, CVE-2017-12674, CVE-2017-12670, CVE-2017-12643,

CVE-2017-12640, CVE-2017-12587, CVE-2017-12563, CVE-2017-12435,

CVE-2017-12432, CVE-2017-12431, CVE-2017-12430, CVE-2017-12429,

CVE-2017-12140, CVE-2017-11640, CVE-2017-11639, CVE-2017-11537,

CVE-2017-11535, CVE-2017-11533, CVE-2017-11352, CVE-2017-10995,

CVE-2017-1000476, CVE-2017-1000445, CVE-2018-13153, CVE-2018-12600 and

CVE-2018-12599.

- Fixed **elfutils** security issues CVE-2017-7613, CVE-2017-7612, CVE-2017-7611, CVE-2017-7610, CVE-2017-7609, CVE-2017-7608, CVE-2017-7607, CVE-2016-10255 and CVE-2016-10254.
- Fixed **ghostscript** security issues CVE-2018-10194, CVE-2016-10317, CVE-2018-16802, CVE-2018-16585, CVE-2018-16543, CVE-2018-16542, CVE-2018-16541, CVE-2018-16540, CVE-2018-16539, CVE-2018-16513, CVE-2018-16511, CVE-2018-16509, CVE-2018-15911, CVE-2018-15910, CVE-2018-15909, CVE-2018-15908, CVE-2018-11645, CVE-2018-1, CVE-2018-17183 and CVE-2018-16510.
- Fixed **icu** security issue CVE-2017-15422.
- Fixed **webkit2gtk** security issues.
  More...

  CVE-2018-4200, CVE-2018-4165, CVE-2018-4163,

  CVE-2018-4162, CVE-2018-4161, CVE-2018-4146, CVE-2018-4133, CVE-2018-4129,

  CVE-2018-4128, CVE-2018-4127, CVE-2018-4125, CVE-2018-4122, CVE-2018-4120,

  CVE-2018-4119, CVE-2018-4118, CVE-2018-4117, CVE-2018-4114, CVE-2018-4113,

  CVE-2018-4101, CVE-2018-4233, CVE-2018-4232, CVE-2018-4222, CVE-2018-4218,

  CVE-2018-4199, CVE-2018-4190, CVE-2018-12293, CVE-2018-4284, CVE-2018-4278,

CVE-2018-4273, CVE-2018-4272, CVE-2018-4270, CVE-2018-4267, CVE-2018-4266,

CVE-2018-4265, CVE-2018-4264, CVE-2018-4263, CVE-2018-4262, CVE-2018-4261,

CVE-2018-4246 and CVE-2018-12911.

- Fixed **perl** security issues CVE-2018-6913, CVE-2018-6798, CVE-2018-6797, CVE-2017-6512, CVE-2016-6185 and CVE-2018-12015.
- Fixed **poppler** security issues CVE-2017-18267 and CVE-2018-13988.
- Fixed **openssl** security issues CVE-2018-0739, CVE-2018-0737, CVE-2018-0737, CVE-2018-0732 and CVE-2018-0495.
- Fixed **tiff** security issues.
  More...

  CVE-2018-5784, CVE-2017-9936, CVE-2017-9935,

  CVE-2017-9815, CVE-2017-9404, CVE-2017-9403, CVE-2017-9147, CVE-2017-9117,

  CVE-2017-7602, CVE-2017-7601, CVE-2017-7600, CVE-2017-7599, CVE-2017-7598,

  CVE-2017-7597, CVE-2017-7596, CVE-2017-7595, CVE-2017-7594, CVE-2017-7593,

  CVE-2017-7592, CVE-2017-5563, CVE-2017-18013, CVE-2017-17095, CVE-2017-13727,

  CVE-2017-13726, CVE-2017-12944, CVE-2017-11613, CVE-2017-11335,

  CVE-2017-10688, CVE-2016-5318, CVE-2016-5102, CVE-2016-3186, CVE-2016-10371,

  CVE-2016-10269, CVE-2016-10268, CVE-2016-10267 and CVE-2016-10266.

- Fixed **libvncserver** security issue CVE-2018-7225.
- Fixed **libvorbis** security issue CVE-2018-5146.
- Fixed **samba** security issues CVE-2018-1057, CVE-2018-1050, CVE-2018-10919 and CVE-2018-10858.
- Fixed **wget** security issue CVE-2018-0494.
- Fixed **bluez** security issue CVE-2017-1000250.
- Fixed **libgcrypt20** security issue CVE-2018-0495.
- Fixed **file** security issue CVE-2018-10360.
- Fixed **gnupg2** security issue CVE-2018-12020.
- Fixed **isc-dhcp** security issues CVE-2018-5733, CVE-2018-5732, CVE-2018-573, CVE-2017-3144 and CVE-2016-2774.
- Fixed **curl** security issues CVE-2018-1000303, CVE-2018-1000301, CVE-2018-1000300, CVE-2018-1000122, CVE-2018-1000121, CVE-2018-1000120, CVE-2017-8818, CVE-2018-14618 and CVE-2018-0500.
- Fixed **python3.5** security issues CVE-2017-1000158, CVE-2016-5636, CVE-2016-1000110 and CVE-2016-0772.
- Fixed **zlib** security issues CVE-2016-9843, CVE-2016-9842, CVE-2016-9841 and CVE-2016-9840.
- Fixed **libsoup2.4** security issue CVE-2018-12910.
- Fixed **libjpeg-turbo** security issue CVE-2018-1152.
- Fixed **ntp** security issues CVE-2018-7185 and CVE-2018-7183.
- Fixed **libpng1.6** security issue CVE-2018-13785.
- Fixed **cups** security issues CVE-2018-6553, CVE-2018-4181, CVE-2018-4180, CVE-2018-418 and CVE-2017-18248.
- Fixed **libpng** security issue CVE-2016-10087.
- Fixed **policykit-1** security issue CVE-2018-1116.

- Fixed **jansson** security issue CVE-2016-4425.
- Fixed **libmspack** security issues CVE-2018-14682, CVE-2018-14681, CVE-2018-14680 and CVE-2018-14679.
- Fixed **libonig** security issues CVE-2017-9229, CVE-2017-9228, CVE-2017-9227, CVE-2017-9226 and CVE-2017-9224.
- Fixed **libxcursor** security issue CVE-2015-9262.
- Fixed **heimdal** security issue CVE-2017-17439.
- Fixed **libarchive** security issues CVE-2017-14503, CVE-2017-14501, CVE-2017-14166, CVE-2016-10350, CVE-2016-10349 and CVE-2016-10209.
- Fixed **libxml2** security issues CVE-2018-14567, CVE-2018-14404, CVE-2017-18258 and CVE-2016-9318.
- Fixed **confuse** security issue CVE-2018-14447.
- Fixed **libgd2** security issues CVE-2018-5711 and CVE-2018-1000222.
- Fixed **libx11** security issues CVE-2018-14600, CVE-2018-14599, CVE-2018-14598, CVE-2016-7943 and CVE-2016-7942.
- Fixed **mpg123** security issues CVE-2017-10683 and CVE-2016-1000247.
- Fixed **libtirpc** security issues CVE-2018-14622, CVE-2017-8779 and CVE-2016-4429.
- Fixed **jq** security issue CVE-2015-8863.
- Fixed **bind9** security issue CVE-2018-5740.
- Fixed **lcms2** security issue CVE-2018-16435.
- Fixed **xdg-utils** security issue CVE-2017-18266.
- Root home is now **/root**.
- **Removed system group (GID 0)** which shadowed root group (GID 0).
- **Stricter folder and file permissions**.

X11 system

- Restricted desktop icon creation to administrator only. Therefore, **"/userhome/Desktop" is owned by root now**.

Known Issues 10.05.100

Citrix Receiver 13

- On devices with **AMD/Radeon graphics chipsets** and **activated DRI3 X driver option** the **hardware accelerated Citrix H.264 decoder plugin can hang**. To solve this issue deactivation of DRI3 option is necessary (default setting). Selective H.264 mode (api v2) is not affected from this issue.
- **Citrix StoreFront login with Gemalto smartcard middleware** does not detect smartcard correctly when the card is inserted after start of login. As a workaround, insert the smartcard before starting StoreFront login.
- The Citrix Receiver has known issues with **GStreamer1.x**. This causes **problems with multimedia redirection of H264, MPEG1 and MPEG2**. GStreamer1.x is used if browser content redirection is active.

Parallels Client

- **Native USB redirection** does not work with Parallels Client.
- Due to a bug in the Parallels-Client, for using the new **FIPS 140-2 compliance mode** it is necessary to connect to the Parallels RAS one time with FIPS support disabled.

VMware Horizon

- VMware Horizon Client for **Linux 4.8.0 supports FIPS Mode on only VMware Horizon server installations up to version 7.5** .
- **External drives are mounted already before connection, do not appear in the remote desktop**. Workaround: mapping the directory `/media` as a drive on desktop. The external devices will show up within the media drive then.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
    - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.
    - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Enable local **Storage Hotplug** on setup page **Devices > Storage Devices > Storage Hotplug**.

OpenConnect VPN

- VPNs that require the **OpenConnect client** cannot be used for firmware updates.

Appliance Mode

- Appliance mode **RHEV/Spice**: **spice-xpi Firefox plugin is no longer supported**. The **Console Invocation** has to allow native client (auto is also possible) and it should start in fullscreen to prevent opening windows.

Smartcard

- In seldom cases, the authentication hung when using A.E.T. SafeSign smartcards.

IGEL Cloud Gateway

- **No support for UMS file transfer status** in ICG protocol.

New Features 10.05.100

Citrix Receiver 13

- Integrated **Citrix Receiver 13.10**. Citrix Receiver version 13.7.0 was removed. Citrix Receiver version 13.8.0 was removed. Available Citrix Receiver versions: 13.5.0, 13.9.1, 13.10 (default)

  - Enable **Browser content redirection for rendering of whitelisted webpages** on the IGEL Thin Client.
    More...

IGEL Setup	**Sessions > Citrix XenDesktop > HDX / ICA Global > HDX Multimedia**
Parameter	Browser content redirection
Registry	`ica.module.virtualdriver.webpageredirection`
Value	enabled / disabled

  - Enhanced **Citrix retail logging**.
    More...

Parameter	Citrix Logging
Registry	`ica.module.syslogthreshold`
Value	0 / 3 / 7

    > 0 = Disabled; > 3 = Log only errors; > 7 = Log all levels

  - Enable **Port forwarding**.
    More...

Parameter	Portforward
Registry	`ica.module.virtualdriver.portforward`
Value	enabled / disabled

  - **Workspace configuration parameter** for **Citrix Cloud** is now available on setup page.
    More...

IGEL Setup	**Sessions > Citrix XenDesktop > HDX / ICA Global > Options**
Parameter	Connect to cloud
Registry	`ica.cloudconnect`
Value	enabled / disabled

  - Added a registry key to **control the visibility of the Citrix connection bar** for desktop sessions. If activated, the In-Session Control Bar should be disabled at `userinterface.igel_toolbar.enable` and `userinterface.igel_toolbar.show_always`.
    This enables the control of the new **Multi-monitor layout persistence** feature.

More...

Parameter	Citrix Connection Bar
Registry	`ica.allregions.connectionbar`
Value	<u>factory default</u> / off / on / server determined

- Added a registry key to control the availability of deprecated cipher suites:
  **TLS_RSA_AES256_GCM_SHA384, TLS_RSA_AES128_GCM_SHA256,
  TLS_RSA_AES256_CBC_SHA256, TLS_RSA_AES256_CBC_SHA,
  TLS_RSA_AES128_CBC_SHA,
  TLS_RSA_3DES_CBC_EDE_SHA**.
  More...

Parameter	TLS RSA cipher suites
Registry	`ica.allregions.enable_tls_rsa`
Value	<u>factory default</u> / false / true
Factory default: true/enabled. Citrix explicitly remarks: **Important:** Set the flag `enable_tls_rsa` to true to use the other two cipher suites **Enable_RC4-MD5** and **Enable_RC4_128_SHA**.	

- Added a registry key to control the availability of the deprecated cipher suite: **RC4-MD5**.
  More...

Parameter	RC4-MD5 cipher suite
Registry	`ica.allregions.enable_rc4_md5`
Value	<u>factory default</u> / false / true
Factory default: false/disabled.	

- Added a registry key to control the availability of the deprecated cipher suite: **RC4_128_SHA**.
  More...

Parameter	RC4_128_SHA cipher suite
Registry	`ica.allregions.enable_rc4_128_sha`
Value	<u>factory default</u> / false / true
Factory default: false/disabled.	

- Added **Selective H.264** (API v2) to the hardware accelerated Citrix deep compression codec. XenDesktop/XenApp server policy: **Use video codec for compression -> For actively changing regions**
- Added **DRI3 acceleration support** to the hardware accelerated Citrix deep compression codec (for INTEL and AMD graphics adapters).

- Enable **debugging to log file** `/var/log/user/ctxh264.log` .
  More...

Parameter	Enable H264 codec debug output
Registry	`ica.hw-accelerated-h264-codec-debug`
Value	enabled / <u>disabled</u>

- Added **Kerberos Passthrough (domain passthrough) authentication to StoreFront**. Configurable at **Sessions > Citrix XenDesktop / XenApp > HDX / ICA Global > StoreFront Logon > Authentication Type**.
- Updated **Citrix HDX RTME** used for optimization of **Skype for Business to 2.6.0-2030**. This new version adds the support for hardware accelerated H.264 en- and decoding on AMD platforms. See https://support.citrix.com/article/CTX236304 section **Capability Checker for Linux platforms** how to enable hardware decoding with Citrix VDA registry keys `DisableLinuxAMDH264HardwareDecoding` and `SupportedAMDHWAVideoCardList` . The capability check program **RTOP-CapabilityChk-x64** is already installed at path `/services/ica/hdx_rtme/RTOP-CapabilityChk-x64` . The check program must be run with user permissions.
- Added display of **logged on Citrix username in screen lock**, when screen lock password is synchronized with Citrix password.
- Added checkbox to **activate autostart of a single published application/desktop session**.
  More...

IGEL Setup	**Sessions > Citrix XenDesktop / XenApp > Citrix StoreFront/Web Interface > Login**
Parameter	Start a single published application automatically
Registry	`ica.pnlogin.autostart_single_application`
Value	enabled / <u>disabled</u>

- Added **Lakeside SysTrack virtual channel in Citrix, RDP and Horizon sessions**. Activation via parameters in Setup.
  More...

IGEL Setup	**Sessions > Citrix XenDesktop/XenApp > HDX/ICA Global > Mapping > Device Support**
Parameter	Lakeside Systrack channel
Registry	`ica.module.virtualdriver.lakeside.enable`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > RDP > RDP Global > Mapping > Device Support**
Parameter	Lakeside Systrack channel

Registry	`rdp.winconnect.plugins.lakeside.use`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Performance**
Parameter	Lakeside Systrack
Registry	`vmware.view.lakeside_systrack`
Value	enabled / <u>disabled</u>

- Updated **Olympus dictation channel for Citrix to version 20180621**.
  More...

IGEL Setup	**Sessions > Citrix XenDesktop / XenApp > HDX / ICA Global > Mapping > Device Support**
Parameter	Olympus channel for dictation
Registry	`ica.module.virtualdriver.olycom.enable`
Value	enabled / <u>disabled</u>

- Added **CrossMatch / DigitalPersona channel for Citrix version 0515**.
  More...

IGEL Setup	**Sessions > Citrix XenDesktop /XenApp > HDX / ICA Global > Mapping > Device Support**
Parameter	Crossmatch DigitalPersona fingerprint channel
Registry	`ica.module.virtualdriver.dpicacnt.enable`
Value	enabled / <u>disabled</u>

RDP/IGEL RDP Client 2

- Support for new **RDP 10 codec AVC444 (H.264)**, which reduces network bandwidth with Server 2016 and Windows 10 hosts. AMD Radeon graphics is required on the client side. Other graphics hardware (e.g. Intel) as well as other RDP 10 codecs (AVC420 and AVC444V2) will be supported in the future.
  More...

IGEL Setup	**Sessions > RDP > RDP Global > Performance**
Parameter	Hardware accelerated codecs AVC420/AVC444 (H.264)
Registry	`rdp.winconnect.enable-h264`
Value	<u>auto</u> / on / off

IGEL Setup	**Sessions > RDP > RDP Sessions > Session Name > Performance**
Parameter	Hardware accelerated codecs AVC420/AVC444 (H.264)
Registry	`sessions.winconnect%.option.enable-h264`
Value	Global setting / auto / on / off

The value "auto" enables supported codecs on supported hardware.

The value "on" enables supported codecs on all hardware.

The value "off" disables H.264 codecs.

- Added new parameter **ignore_errors** to RDP Session config to **suppress RDP error messages**. **More…**

Registry	`sessions.winconnect%.ignore_errors`
Value	enabled / disabled

- Added **Olympus dictation channel for RDP version 20180621**. **More…**

IGEL Setup	**Sessions > RDP > RDP Global > Mapping > Device Support**
Parameter	Olympus channel for dictation
Registry	`rdp.winconnect.plugins.olyvc.use`
Value	enabled / disabled

UD Pocket

- **UD Pocket demo license registration dialog** will now show an option to **set up proxy servers when IGEL servers cannot be reached**.
- Updated the page displayed for the **UD Pocket demo registration**. It can be choosen now whether a partner or the customer is setting up the device, before displaying the form asking for customer information.

Parallels Client

- Updated **Parallels client to version 16.5.1.20446 (32-Bit)**
- Added support for **FIPS 140-2 compliance**. **More…**

IGEL Setup	**System > Registry**
Parameter	Enable support for FIPS 140-2 compliance
Registry	`sessions.twox%.connection.fips_compliance`
Value	enabled / disabled

VMware Horizon

- Updated **Horizon client to version 4.8.0-8518891**.

ThinLinc

- Updated **ThinLinc client to version 4.9.0**.
    - Shadowing notification is now more reliable and interactive, allowing end users more control of their sessions.
    - More than 80 minor enhancements and fixes. See https://www.cendio.com/thinlinc/docs/relnotes/4.9.0.

RedHat Enterprise Virtualization client

- **Updated spice components** (virt-viewer 7.0, spice-gtk 0.35).
- **Removed support for spice-xpi plugin**.

X session (Xephyr)

- Added support for X sessions configurable at `IGEL Setup > Sessions > X Sessions`. The available XDMCP connection types: indirect via localhost, indirect, direct and broadcast. With the additional connection type "local display" a command can be specified, that will be displayed inside the X session window.
    More...

IGEL Setup	**Sessions > X Sessions > X Session > Server**
Parameter	Connection type
Registry	`sessions.xnest<NR>.server.connectiontype`
Range	[Indirect via localhost] [Indirect] [Direct] [Broadcast] [Local display]

IGEL Setup	**Sessions > X Sessions > X Session > Server**
Parameter	Command to be displayed
Registry	`sessions.xnest<NR>.server.runcommand`

Firefox

- Updated Mozilla Firefox to **version 60.2.2 ESR**.
- The **initial page** displayed by firefox with default settings is now **https://kb.igel.com/** instead of the older **https://edocs.igel.com/**.
- Updated **Adobe Flash Player** download URL to **version 31.0.0.122**.
- **Removed the webapp specific options**, this feature was removed from Firefox and is not relevant anymore.
- Moved **Browser Certificate** configuration to page **Sessions > Browser > Browser Global > Certificates**.
- Moved **Browser Security Device** configuration to page **Sessions > Browser > Browser Global > Smartcard Middleware**.
- Added **Fluendo FFmpeg GStreamer** proxy: Provides ffmpeg-libavcodec-compatible library, which is needed for H.264 playback in firefox. Instead decoding by standard ffmpeg libraries, the video stream is redirected to GStreamer framework.

Network

- **SCEP**: Added subject alternative name type **DNS Name as UPN (auto)**. This is similar to **DNS Name (auto)**. In the CSR the result is a Microsoft User Principal Name (UPN) that consists of the hostname.
- **NetworkManager** updated to version **1.2.6**.

Cisco JVDI Client

- Integrated new **Cisco Jabber Softphone for VDI** (Cisco JVDI client) **version 12.0.0** as feature with limited functionality. See product documentation for details -> https://kb.igel.com/cisco-jvdi/en. Activation of this feature at: **System > Firmware Customization > Features > Cisco JVDI client**. Only Citrix Receiver 13.9.1 is supported.
  More...

Parameter	Log Level
Registry	`multimedia.ciscovxme.log_level`
Range	[Info] [Warning] [Error] [Fatal] [Debug] [Trace]

IGEL Setup	**Sessions > Citrix XenDesktop/XenApp > HDX/ICA Global > Unified Communications > Cisco JVDI Client**
Parameter	Cisco JVDI Client
Registry	`ica.module.virtualdriver.vdcisco.enable`
Value	enabled / disabled
Registry path for Common JVDI options: `multimedia.ciscovxme.**` The Cisco JVDI Client configuration is only displayed if the Multimedia Codec Pack (MMC) is present.	

Java

- Updated **Oracle Java Runtime Environment to version 1.8.0 U181**.

Smartcard

- Updated **SecMaker Net iD to version 6.7.0.23**.
- Updated **HID Global Omnikey smartcard reader driver to version 4.3.3**.
- Updated **cryptovision sc/interface to version 7.1.9**. Changelog since version 7.0.5:
  - Fixed **an error during certificate registration** using the MS Minidriver for MS VSC. Compatible with sc/interface cache version 1.2 or higher.
  - Fixed an error where **writing a certificate using the Minidriver for MS VSC corrupted the Container-ID**. As a result the key could not be used using CNG/CAPI.
  - Fixed an error during **certificate registration using the Minidriver for MS VSC where some Container-ID's could not be used by CNG/CAPI**.
  - General Bug Fixes.
  - Fixed **error during profile creation on JCOP3 with ePasslet-Suite 3.0**
  - Added support for **additional BWI card profiles based on CardOS-5.x**. Versions **1.7, 1.8, 1.9, 4.2, 4.3** and **4.4.** Support **4k RSA for 1.9 and 4.4**.
  - Fixed support for **remote logon in sc/interface cache**.

- Fixed **Free after use** in ReadOnly Minidriver.
- PKCS#11 Fixed **MS VSC (GIDSv2) support**.
- PKCS#11 Fixed **CardOS-4.x "non sc/interface card profile" support**.
- **MS VSC (GIDSv2)** Support for PKCS#11 - Maximum CKA_ID length reduced to 25 bytes!
- Support for **JCOP3 and Infineon JTOP - DolphinV2**.
- Support for c**ryptovision's ePasslet-Suite-3.0**.
- New **ePKIApplet-2.129 for JCOP3, SCE7 and JTOP (DolphinV2)** with up to 4096 bits RSA and 512 bits
- **EC** support, **PACE** optional.
- **RegisterTool plugins now available in Setup**. Removed from "support\RegisterTool_Plugins".
- **New sc/interface Minidriver support for MS VSC** (instead of the MS Minidriver) to allow extended PIN cache configuration.
- Added support for **sc/interface cache version 1.0** for Minidriver/ReadOnly Minidriver and PKCS#11.
- **Cross-application PIN cache for Windows 8.1** and later.
- **WARNING: No longer compatible with Credential Cache (CSP)**. When there are any questions, support@cryptovision.com[46] should be contacted.
- Added **macOS CTK Token Driver for 10.12 and later**. Unfortunately, after the installation, a shell script must be executed to enable the full functionality.
- **Removed macOS tokend support** beginning with version 10.12, installation of 10.10 can be used if needed.
- **WARNING: macOS tokend support will discontinue, usage of new CTK Token Driver is necessary.**
- Re-Added **cvSimpleCardProv for Windows** (based on 6.4.2) to enabled the default login selection, see "support\CredentialProvider".
- Updated **OpenSC library to version 0.19.0**. Improved handling of PIV and CAC ALT token.

Base system

- Updated to **kernel version 4.18.11**.
- Added new **GStreamer 1.x support version 1.14.2**.
  There will only ever be GStreamer in version 1.0 or version 0.10. By default, clients run with the version they have best support for. The provided registry key can be used to override the automatic detection/setting and pin a single version if required.
  More...

Parameter	Fluendo GStreamer Codec Version
Registry	`multimedia.gstreamer.version`
Value	[1.x] [0.10] [automatic]

- With **GStreamer 1.x the new Parole player is used** for media player sessions. When there occur problems with the new player, a switch back to totem/GStreamer 0.10 media player is possible by **Fluendo GStreamer Codec Version** parameter.
- Added **optional logoff button in taskbar** when the screenlock is active.

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More...

IGEL Setup	**Security > Logon > Taskbar**
Parameter	Show logoff button
Registry	`userinterface.screenlock_taskbar_logged_in.logoff_button`
Value	enabled / <u>disabled</u>

- **Mobile broadband configuration dialog now provides a simple mode**, that displays 3 dropdown boxes to select country, provider and access point (plan). The former version is available via an **Expert Mode** button.
- **IGEL Setup Assistant enhancements**:
    - displaying page for **mobile broadband configuration** when any mobile broadband modem is detected.
    - displaying page to **show broken network connectivity**
    - **desktop icon** will now be displayed **when the assistant was not yet finished**.
    - **the assistant is now always started on devices without IGEL license**, that are not registered at UMS
    - new **icon design**
- Added support for **chinese**, **japanese**, **korean** and **thai** fonts.
- **KVM kernel modules added**.
- Added **policiykit-1-gnome session agent** to get a gui interface for actions which requires root authentification.
- Added **remote (network attached) logging via rsyslog**.
  More...

IGEL Setup	**System -> Remote Syslog**
Parameter	Remote mode
Registry	`system.syslog.remote_mode`
Range	[Server] [Client] [<u>Off</u>]
Parameter	Custom client config entries
Registry	`system.syslog.client_custom`

- **Server mode** is possible, though limited and intended for short-term debugging.
  More...

IGEL Setup	**System -> Remote Syslog**
Parameter	Template for log file storage
Registry	`system.syslog.template`
Value	/var/log/%HOSTNAME%/messages
Parameter	Local port

Registry	`system.syslog.input%.port`
Value	<u>514</u>
Parameter	Transport protocol
Registry	`system.syslog.input%.transport`
Value	[<u>TCP</u>] [UDP]
Parameter	Local Address
Registry	`system.syslog.input%.local_address`
Parameter	Name
Registry	`system.syslog.input%.name`

- **Client mode** allows to filter and send commands to multiple remotes.
  More...

IGEL Setup	**System -> Remote Syslog**
Parameter	Remote port
Registry	`system.syslog.output%.port`
Value	<u>514</u>
Parameter	Transport protocol
Registry	`system.syslog.output%.transport`
Value	[<u>TCP</u>] [UDP]
Parameter	Remote address
Registry	`system.syslog.output%.address`
Parameter	Syslog facility
Registry	`system.syslog.output%.facility`
Range	[<u>Any</u>] [AUTH] [CRON] [DAEMON] [FTP] [KERN] [LPR] [MAIL] [NEWS] [USER] UUCP]
Parameter	Syslog level
Registry	`system.syslog.output%.level`
Range	[<u>Any</u>] [EMERG] [ALERT] [CRIT] [ERR] [WARNING] [NOTICE] [INFO] [DEBUG]

- **Shutdown or suspend by inactivity**.

More...

IGEL Setup	**System > Power Options > System**
Parameter	System action on inactivity
Registry	`system.power_management.system_standby.ac_action`
Value	<u>Suspend</u> / Shutdown

- Enhanced **Change Password** utility to be able changing the following items of the logged on user:
  - **Password of local user** (screen lock password).
  - **PIN of IGEL smartcard**.
  - **PIN of PKCS#11 smartcard**.

CUPS Printing

- Added **PrinterLogic support, Version 18.2.1.128**.
  More...

IGEL Setup	**Devices > Printer > PrinterLogic**
Parameter	Manage printers by Printer Installer Client
Registry	`printerlogic.active`
Value	enabled / <u>disabled</u>
Parameter	HomeURL Protocol
Registry	`printerlogic.homeurl.protocol`
Value	http:// / <u>https://</u>
Parameter	HomeURL Hostname
Registry	`printerlogic.homeurl.hostname`
Value	<u>.printercloud.com</u>[47]
Parameter	Authorization Code
Registry	`printerlogic.auth.crypt_password`
Parameter	(Mapping in sessions) ICA Sessions
Registry	`printerlogic.map_ica`
Value	<u>enabled</u> / disabled
Parameter	(Mapping in sessions) RDP Sessions
Registry	`printerlogic.map_rdp`

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Value	enabled / disabled
Parameter	(Mapping in sessions) NX Sessions
Registry	`printerlogic.map_nxclient`
Value	enabled / disabled
Parameter	(Mapping in sessions) Parallels Client Sessions
Registry	`printerlogic.map_twox`
Value	enabled / disabled

Driver

- Added **Kofax virtual channel for signature pads in Citrix sessions**.
  More...

IGEL Setup	**Sessions > Citrix XenDesktop/XenApp > HDX/ICA Global > Mapping > Device Support**
Parameter	Kofax SPVC Signature Pad Channel
Registry	`ica.module.virtualdriver.spvc.enable`
Value	enabled / disabled

- Improved support for **FIBOCOM L830-EB LTE module in Lenovo Thinpad L480**.
- Added configuration to change the **dynamic power management settings for ATI graphics driver**.
  More...

Parameter	ATI dynamic power management
Registry	`x.drivers.ati.dpm`
Value	default / enabled / disabled

- Added the possibility to change the **dynamic power management settings for graphics AMDGPU driver**.
  More...

Parameter	AMDGPU dynamic power management
Registry	`x.drivers.amdgpu.dpm`
Value	default / enabled / disabled

- Added possibility to use **generic modesetting graphics driver** instead of the hardware specific one.
  More...

Parameter	Use generic modesetting driver for ATI hardware.
Registry	`x.drivers.ati.use_modesetting`
Value	enabled / <u>disabled</u>

Parameter	Use generic modesetting driver for AMDGPU hardware.
Registry	`x.drivers.amdgpu.use_modesetting`
Value	enabled / <u>disabled</u>

Parameter	Use generic modesetting driver for NVIDIA hardware.
Registry	`x.drivers.nouveau.use_modesetting`
Value	enabled / <u>disabled</u>

Bluetooth

- Added new **Bluetooth Autopairing Wizard** for IGEL OS installations without keyboard or mouse available, but with unpaired bluetooth keyboard/mouse. The **Autopairing Wizard** is started together with **IGEL Setup Assistant**.

Appliance Mode

- **The wireless manager can now be invoked from the In-Session control bar**. Furthermore, it will be automatically started when no network connection can be established.
Prerequisites: A WiFi device is availabe and the following registry keys are set to true.
More...

Parameter	Activate Wireless Interface
Registry	`network.interfaces.wirelesslan.device0.active`
Value	enabled / <u>disabled</u>

Parameter	Enable wireless manager
Registry	`network.applet.wireless.enable_connection_editor`
Value	enabled / <u>disabled</u>

- It is possible to use **Accessories**, **VPN connections** and **other session types** in **Appliance Mode** now. The access to those session types must be explicitly enabled by a new parameter **Appliance Mode Access**. The possible starting methods:
  - **XDMCP Appliance mode**: Hotkey
  - **All other Appliance modes**: Desktop icon, Desktop Context Menu,Application Launcher (+ System tab), Hotkey, Autostart.
More...

IGEL Setup	**Accessories > ICA Connection Center**
Parameter	Application Mode Access

Registry	`sessions.icaconncenter0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Task Manager**
Parameter	Application Mode Access
Registry	`sessions.taskmanager0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Application Launcher**
Parameter	Application Mode Access
Registry	`sessions.launcher0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Firmware Update**
Parameter	Application Mode Access
Registry	`sessions.firmware_update0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Quick Settings**
Parameter	Application Mode Access
Registry	`sessions.usersetup0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Sound Preferences**
Parameter	Application Mode Access
Registry	`sessions.mixer0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Disk Removal**
Parameter	Application Mode Access
Registry	`sessions.storage_dcdm0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Disk Utility**
Parameter	Application Mode Access

Registry	`sessions.storage_info0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Commands User Interface > Hotkeys > Commands**
Parameter	Application Mode Access
Registry	`sessions.commands<NR>.appliance_mode_access`
	`sessions.wmcommands<NR>.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Webcam Information**
Parameter	Application Mode Access
Registry	`sessions.webcaminfo0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Touchscreen Calibration**
Parameter	Application Mode Access
Registry	`sessions.touchcalib0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**User Interface > Screenlock / Screensaver**
Parameter	Application Mode Access
Registry	`sessions.xlock0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Monitor Calibration**
Parameter	Application Mode Access
Registry	`sessions.xpattern0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Network Tools**
Parameter	Application Mode Access
Registry	`sessions.gnome-nettool0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Screenshot Tool**

Parameter	Application Mode Access
Registry	`sessions.screenshooter0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > System Information**
Parameter	Application Mode Access
Registry	`sessions.device_manager0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Bluetooth Tool**
Parameter	Application Mode Access
Registry	`sessions.bluetooth0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Display Switch**
Parameter	Application Mode Access
Registry	`sessions.user_display.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Identify Monitors**
Parameter	Application Mode Access
Registry	`sessions.screenid0.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > System Log Viewer (> Options)**
Parameter	Application Mode Access
Registry	`sessions.systemviewer0.appliance_mode_access`
Value	enabled / disabled
Registry	`sessions.setup.displaynames.add_layout.appliance_mode_access`
Value	enabled / disabled
IGEL Setup	**Accessories > Terminals > Local Terminal**
Parameter	Application Mode Access
Registry	`sessions.xterm<NR>.appliance_mode_access`

Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > SSH > SSH Session**
Parameter	Application Mode Access
Registry	`sessions.ssh<NR>.appliance_mode_access`
Value	enabled / <u>disabled</u>
IGEL Setup	**System > Firmware Customization -> Custom Application -> Custom Application**
Parameter	Application Mode Access
Registry	`sessions.custom_application<NR>.appliance_mode_access`
Value	enabled / <u>disabled</u>
IGEL Setup	**Accessories > Mobile Device Access**
Parameter	Application Mode Access
Registry	`sessions.mtp-devices0.appliance_mode_access`
Value	enabled / <u>disabled</u>
IGEL Setup	**Network > VPN > OpenConnect VPN (> OpenVPN Connection (> Desktop Integration))**
Parameter	Application Mode Access
Registry	`sessions.openvpn<NR>.appliance_mode_access`
Value	enabled / <u>disabled</u>
IGEL Setup	**Network > VPN > OpenConnect VPN (> VPN OpenConnection (> Desktop Integration))**
Parameter	Application Mode Access
Registry	`sessions.openconnect<NR>.appliance_mode_access`
Value	enabled / <u>disabled</u>
IGEL Setup	**Network > VPN > genucard (> Desktop Integration)**
Parameter	Application Mode Access
Registry	`sessions.genucard_vpn_connection0.appliance_mode_access`

Value	enabled / <u>disabled</u>

X11 system

- Set of **User Interface > Display > Options > Monitor DPI** now automatically affects the size of the **mouse cursor**, the **panel height**, the **desktop icons**, the **application launcher**, the **size of the start menu** and the **window manager decorations**.

VirtualBox

- Added VirtualBox as **feature with limited support**. Activation of the feature at: **System > Firmware Customization > Features > VirtualBox**. Added new registry keys under `virtualbox` and `sessions.virtualbox<NR>`.

Audio

- Updated **Pulseaudio to version 12.0-1**.
- The resample method in Pulseaudio can now be configured by the newly introduced parameter **resample-method**.
  More...

Parameter	Resample method
Registry	`multimedia.pulseaudio.daemon.resample-method`
Range	[soxr-vhq] [soxr-hq] [soxr-mq] [speex-float-10] [speex-float-5] [speex-float-3] [<u>speex-float-1</u>]

Media Player (Parole/Totem)

- Added new **Parole Media Player 1.0.1-0ubuntu1**. It is used for media player sessions **by default** now. When there occur problems with the new player, switch back to totem/GStreamer 0.10 media player is possible by setting **Fluendo GStreamer Codec Version** parameter to 0.10.
  More...

Parameter	Fluendo GStreamer Codec Version
Registry	`multimedia.gstreamer.version`
Range	[1.x] [0.10] [<u>automatic</u>]

- Added **RTSP/RTMP** support to parole media player / gstreamer 1.x.
- The following parameters are only functional with **Totem media player/GStreamer 0.10** and not for Parole media player.
  More...

IGEL Setup	**Sessions > Media Player > Media Player Global > Window**
Parameter	Automatically resize the player window when a new video is loaded
Registry	`multimedia.mediaplayer.auto_resize`
Value	enabled / <u>disabled</u>

IGEL Setup	**Sessions > Media Player > Media Player Global > Window**
Parameter	Main window should stay on top
Registry	`multimedia.mediaplayer.window_on_top`
Value	enabled / disabled

IGEL Setup	**Sessions > Media Player > Media Player Global > Playback**
Parameter	Visualization size
Registry	`multimedia.mediaplayer.visual_quality`
Range	[Small] [Normal] [Large] [Extra Large]

IGEL Setup	**Sessions > Media Player > Media Player Global > Options**
Parameter	Network connection speed
Registry	`multimedia.mediaplayer.connection_speed`
Range	[56 kbps Modem/ISDN] [112 kbps Dual ISDN/DSL] [256 kbps DSL/Cable] [384 kbps DSL/Cable] [512 kbps DSL/Cable] [1.5 mbps T1/Intranet/LAN] [Intranet/LAN]
Parameter	Enable deinterlacing
Registry	`multimedia.mediaplayer.deinterlace`
Value	enabled / disabled
Parameter	Enable debug
Registry	`multimedia.mediaplayer.debug`
Value	enabled / disabled
Parameter	Network buffering threshold
Registry	`multimedia.mediaplayer.network_buffer_threshold`
Value	2

- As the **Media Player Browser Plugin** is not supported with **Firefox 60 ESR**, the following parameters are not available anymore.
  More...

IGEL Setup	**Sessions > Media Player > Media Player Global > Browser Plugin**
Parameter	Video output

Registry	`multimedia.mediaplayer.browser_plugin.video_sink`
Range	[Default] [Auto] [Hardware Accelerated] [X Video Extension] [X Window System]

IGEL Setup	**Sessions > Media Player > Media Player Global > Browser Plugin**
Parameter	Aspect ratio
Registry	`multimedia.mediaplayer.browser_plugin.aspect_ratio`
Range	[Default] [Auto] [Square] [4:3 (TV)] [16:9 (Widescreen)] [2.11:1 (DVB)]

Evidian

- Integrated **Evidian AuthMgr version 1.5.6840**.
    - Evidian AuthMgr sessions can be configured at **IGEL Setup > Sessions > Evidian AuthMgr > Evidian AuthMgr Sessions** (registry keys: `sessions.rsuserauth%`).
    - Evidian AuthMgr global settings can be configured at **IGEL Setup > Sessions > Evidian AuthMgr > Evidian AuthMgr Global** (registry keys: `evidian`).
- Added support for **Custom catalog of messages**.
  More...

IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Sessions > Evidian AuthMgr Session > Options**
Parameter	Language selection
Registry	`sessions.rsuserauth<NR>.parameters.message_catalog`
Range	[Automatic] [English (UK)] [English (US)] [German] [French] [Custom]

IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Global > Options**
Parameter	Language selection
Registry	`evidian.message_catalog`
Range	[Global setting] [English (UK)] [English (US)] [German] [French] [Custom]

IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Global > Options**
Parameter	Custom catalog of messages
Registry	`evidian.custom_message_catalog`
Value	/services/evidian/share/locale/en/rsUserAuth.cat

- Added support for **Evidian Data Partition**.
  More...

IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Global > Options**
Parameter	Evidian AuthMgr Data Partition

Registry	`evidian.datapart.enabled`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Global > Options**
Parameter	Size
Registry	`evidian.datapart.size`
Value	<u>10</u>

- Added support for **Password Authentication**.
  More...

IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Sessions > Evidian AuthMgr Session > Options**
Parameter	Allow password authentication
Registry	sessions.rsuserauth<NR>.parameters.password_authentication
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Sessions > Evidian AuthMgr Session > Options**
Parameter	Allow password forgotten
Registry	sessions.rsuserauth<NR>.parameters.password_forgotten
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Evidian AuthMgr > Evidian AuthMgr Sessions > Evidian AuthMgr Session > Options**
Parameter	Default domain name for password authentication
Registry	`sessions.rsuserauth<NR>.parameters.password_default_domain`
Value	

Misc

- Added support for **local scanning as feature with limited support**. Activate the feature at: **System > Firmware Customization > Features > Scanner support**. This has been tested with a Canon LiDE 120 scanner.
  More...

Parameter	Scanner support

Registry	`product.partitions41.enabled`
Value	enabled / <u>disabled</u>
This must be enabled for the feature to become active and the remaining keys to be valid.	

Parameter	Enable scanner daemon
Registry	`devices.scanner.daemon`
Range	[none] [scanbd] [saned]
The key determines the daemon to be started. scanbd is necessary for handling buttons on the scanner. It runs saned when necessary (and the scanner is available). saned alone provides scanning functionality to local and remote applications (xsane, scanimage, ..). If none is selected the system can still be used as a client for remote scanner servers (using xsane or scanimage).	

Parameter	Allowed remote clients
Registry	`devices.scanner.allowed_clients`
The key may contain a space-separated list of hosts and networks (CIDR > notation) that are allowed to connect to a local server.	

Parameter	Remote scanners
Registry	`devices.scannerclient.remote`
This may contain a space-separated list of remote scanner servers to be used by local applications (xsane, scanimage). It is only relevant if no local server is configured.	

- **The remaining keys influence scanner button handling**. For each button there is an instance of the `devices.scanner.scanbd.action%` template.
- In order to keep scanner button handling flexible **the default handling may be replaced by custom scripts**. Details of the default handling are listed at the end of this section.
  More...

Parameter	Scanner button name
Registry	`devices.scanner.scanbd.action%.button`
This contains the (symbolic) name of the button. There are currently four predefined instances of the template where the value is 'file', 'scan', 'copy', and 'email' respectively. (These refer to the buttons on a Canon LiDE 120 from left to right where 'file' may be labeled 'PDF')	

Parameter	Allow while nobody is logged in
Registry	`devices.scanner.scanbd.action%.allow_lockpanel_logged_out`
Value	enabled / <u>disabled</u>

If this is set to false, the button is ignored when nobody is logged in (only > relevant when local logon is configured)

Parameter	Allow while screen is locked
Registry	`devices.scanner.scanbd.action%.allow_lockpanel_logged_in`
Value	enabled / disabled

When this is set to false, the button is ignored while the screen is locked.

Parameter	scanbd custom action
Registry	`devices.scanner.scanbd.action%.custom_cmd`

This may contain a custom button handling command. The value is empty by default. If it is not, the value will be passed to "bash -c .." and the default button handling will not be effective. The consequence is that entering some space characters results in disabling the button.

Parameter	Directory
Registry	`devices.scanner.scanbd.action%.directory`
Value	/tmp

Set the target directory for scan results.

Parameter	Format
Registry	`devices.scanner.scanbd.action%.format`
Range	[pnm] [tiff] [png] [jpeg]

Determines the image format (passed as argument to scanimage).

Parameter	Color mode
Registry	`devices.scanner.scanbd.action%.mode`
Value	[Color] [Gray] [Lineart]

Determines the color mode (passed as argument to scanimage).

Parameter	Resolution in dpi
Registry	`devices.scanner.scanbd.action%.resolution`
Range	[75] [100] [150] [300] [600] [1200] [2400] [4800]

Determines the resolution (passed as argument to scanimage).

Parameter	Brightness
Registry	`devices.scanner.scanbd.action%.brightness`

Value	<u>0</u>
Determines the brightness (passed as argument to scanimage).	

- **Default button handling script**: There is a default button handling script `/etc/scanbd/scripts/action` . It might be used as a potential starting point for custom button handling. The script handles the four buttons of a **Canon LiDE 120** in the following ways:
  - **file** results in a PDF document that contains a series of pages where each page contains a scan result acquired with scanimage according to the settings. This needs user interaction on the local machine's desktop.
  - **scan** results in an image file that is silently created and stored according to the settings.
  - **copy** makes the script use scanimage according to the settings, convert the resulting image to PDF and send it to the default printer. This obviously requires that a printer is configured.
  - **email** just results in xsane being started. The following settings are not respected in this case:
    - `devices.scanner.scanbd.action%.directory`
    - `devices.scanner.scanbd.action%.format`
    - `devices.scanner.scanbd.action%.mode`
    - `devices.scanner.scanbd.action%.resolution`
    - `devices.scanner.scanbd.action%.brightness`

Hardware

- Added official support for **HP T630**.
- Added official support for **Intel NUC 6CAYH and 5i5MYHE**.
- Added official support for **Dell/Wyse 3040**.
- Added official support for **Toshiba Tecra C50-B1503**.
- Added official support for **Toshiba R50**.
- Added official support for **Dell/Wyse AIO 5212**.
- Added official support for **LG 24CK550W AiO Thin Client**.

TC Setup (Java)

- Updated **TC Setup to version 5.9.11**.
- Added an **additional local administrator access** to IGEL setup. The local administrator password is configurable at **Security > Password** setup page. The page permissions are configurable at **Accessories > Setup > Setup Administrator Permissions** setup page.
- Reworked **Accessories > Commands** and **User Interface > Hotkeys > Commands** setup pages.
- Reworked **Storage Hotplug** setup page.

Remote Management

- Added support for **UMS File Transfer Status**.
- Added a new configuration to **prevent a user from canceling UMS actions like firmware update, reboot, shutdown, etc.** through the UMS notification dialog.
  More...

Parameter	Allow user to cancel UMS actions
Registry	`userinterface.rmagent.cancel_usermessage`

Value	enabled / disabled

Fabulatech

- **FabulaTech USB for Remote Desktop** updated to **versions 5.2.29**; **FabulaTech FTPlugin** updated to **version 3.4.0**.
- Support for some specific devices has been improved.

Resolved Issues 10.05.100

Citrix Receiver 13

- Fixed: Now **applications may be displayed in application launcher** independently from startmenu.
- Fixed **Citrix Azure Cloud** login window.
- Added a **new window manager tweak** to automatically unmap unwanted Citrix fragment windows when seamless apps are used.
  More...

Parameter	Auto-close unwanted Wfica windows
Registry	`windowmanager.tweaks.suppress_wfica_window_in_seamless_session`
Value	<u>enabled</u> / disabled

- Fixed **native USB redirection with Citrix receiver 13.10**.
- Fixed **black rectangle around 32-bit mouse icons**.
- Fixed **sound playback over Nuance channel**.
- Fixed stopping of the **Pulseaudio PCM I/O plugin** which is used by Citrix Receiver for sound output and recording.
- When using the **Citrix login method the system language is used now**.
- Fixed a problem with the parameter `ica.pnlogin.suppressconnectiondialog`, **connection messages are suppressed** as desired.

RDP/IGEL RDP Client 2

- Fixed **locking in smartcard transactions**.
- Fixed **audio recording in RDP sessions**.
- Fixed **$HOSTNAME** to work for RDP login when variable substitution is enabled.
  More...

IGEL Setup	**System > Firmware Customization > Environment Variables**
Parameter	Enable variable substitution in session
Registry	`system.environment_variables.enable_application_variables`
Value	<u>enabled</u> / disabled
IGEL Setup	**Sessions > RDP > RDP Global > Local Logon**
Parameter	Type
Registry	`rdp.login.saveusertype`

Value	Set user/domain from session setup / <u>Set user/domain from last login</u>

- Added **Arabic (101) keyboard layout** to RDP client.
- Added **MultiPointServer 2016** to supported servers for **RDP MultiPoint Server** appliance.

RD Web Access

- Fixed **wrong RDP Remote Application icon** when opening a application twice.
- Fixed unexpected behavior when maximizing/minimizing **RDP Remote Applications**.

UD Pocket

- Fixes for **UD Pocket demo license registration** dialog:
  - Fixed **german translation**.
  - The **toolbar context menu** is not available anymore (it could hide the toolbar without a way to restore it).
  - The javascript confirm **popup from igel.com is hidden now**.

VMware Horizon

- Added possibility to **make certificate verification mandatory**.
  More...

Parameter	Allow change of certificate verification mode
Registry	`vmware.view.ssl-verify-mode-change-allow`
Value	<u>enabled</u> / disabled

- Fixed **H.264 hardware decoding** for Horizon.

PowerTerm

- Fixed **printing to CUPS printers in PowerTerm**.
- Added **TLS-1.2 in list of SSL Versions for PowerTerm** on page **Sessions > PowerTerm Terminal Emulation > PowerTerm Sessions > session name > Connection**.

Parallels Client

- Fixed: **Authentication fails with Gemalto smartcards**.
- Fixed: Sometimes **remote session windows remain on screen after one was logged off from the remote session**.
- Fixed: **Remote session closes unexpectedly**.
- Fixed: Combination of **CTRL-C** doesn't work in remote session.
- Improved: **Use of multiple monitors**.
- Fixed: **Client might hang while watching YouTube videos**.
- Fixed: **Multiple USB drives might not be auto-mapped to a remote session**.
- Fixed: **Logoff from a remote session blocks Linux desktop with a black screen**.

Firefox

- Fixed **occasional loss of trusted certificates** in Firefox. Certificates transmitted via UMS filetransfer were not reinstalled when Firefox profile was rebuilt.
- Fixed **PDF Plugin** in Firefox browser.

- Removed the browser plugin option from **RHEV/Spice** as it is no longer supported.
- Removed the browser plugin option from **SecMaker** as it is no longer supported.

Network

- Fixed **failing Wake-on-LAN configuration after update on shutdown**. Particularly UD2-LX40 devices were affected.
- Fixed bug in the **GetCA operation for SCEP**: An intermediate certificate in addition to the root certificate and any RA certificates resulted in confusion.
- **sscep version is now 0.6.1**
- **CA certificate fingerprint is now mandatory for SCEP**. So far it could be left empty for debugging purposes.
- Added **parameter to specify whether a slash (/) is appended to SCEP URL**. The slash is needed e.g. with Microsoft servers, but not with Nexus servers.
  More...

Parameter	Append slash (/) to SCEP server URL
Registry	`network.scepclient.cert0.scepurlappendslash`
Value	<u>enabled</u> / disabled

- Fixed **generating certificate request** if challenge password or other fields include **special characters like $, #, quotes or spaces** in SCEP.
- Reaction to **Ethernet 802.1X reauthentication failure** is now configurable.
  More...

Parameter	Restart on reauthentication failure
Registry	`network.interfaces.ethernet.device%.ieee8021x.restart_on_reauth_failure`
Value	enabled / <u>disabled</u>
The default value preserves the traditional behaviour. If the registry key is set to enabled the network connection will get restarted when a reauthentication failure occurs. This way the system might switch to a guest VLAN where authentication is not required.	

- Added **support for SFTP protocol** (enabled as default) configurable with new registry key.
  More...

Parameter	Enable SFTP server
Registry	`network.ssh_server.enable_sftp_server`
Value	<u>enabled</u> / disabled

- Improved **general security** in regards of SCEP

WiFi

- Fixed non working **Mediatek MT7630e WiFi driver**.

- Added several **WiFi drivers** (Realtek 8188eu, 8822be, 8150, 8187, 8192ce, 8192de, 8192ee, 8723ae, 8821ae....) to the firmware.
- Re-enforce configuration after **IGEL Setup Assistant** exits to ensure consistent state between configuration and system.
- Added drivers for **Realtek rtl8723de** and **rtl8822be WiFi** devices.
- Added support for **StarTech USB300WN2X2C Wireless-N WiFi adapter**.

Smartcard

- Updated **OpenSC library to version 0.19.0**. Improved handling of PIV and CAC ALT token and other improvements.
- Fixed problem with **ActivClient smartcards in VMware Horizon sessions**. Before this fix, smartcard access inside the session was blocked.
  More...

Parameter	Smartcard SCardConnect in non-blocking mode
Registry	`vmware.view.pcsc-connect-nonblocking`
Value	<u>enabled</u> / disabled

- Improved **PC/SC lite daemon** to handle attributes SCARD_ATTR_DEVICE_FRIENDLY_NAME_W and SCARD_ATTR_DEVICE_SYSTEM_NAME_W.
- Updated **Cherry USB2LAN Proxy to version 3.0.0.6**.
  - Fixed an issue where the **SICCT listener was not restarted** when a SICCT connection has been closed by the EGK device (ORS-880).
  - Fixed **TLS errors** resulting from re-using channels before the EGK device confirmed the disconnection of the previous connection (ORS-735).
  - **Increase connection handshake timeout from 1 second to 20 seconds**. This is necessary as the EGK device (G87-1505, firmware 2.108.3) does not process the handshake immediately in all situations. (ORS-735).
  - Added **timestamp** to log output.
- Fixed **AD/Kerberos log on with smartcard** and **Smartcard Removal Action: Lock Thin Client**.
- Fixed custom **PKCS#11 module for VMware Horizon logon**. Before this fix, the parameters did not get effective.
  More...

Parameter	Horizon logon with custom PKCS#11 module
Registry	`vmware.view.pkcs11.use_custom`
Value	enabled / <u>disabled</u>
Parameter	Path to the library
Registry	`vmware.view.pkcs11.custom_path`
Value	

- Fixed **error in IGEL Smartcard which prevented login with personalized cards** when certain card holder names contained **non-ASCII characters**.

HID

- Added support for **Wacom HID 483C touchscreens** (HP Pro x2 612 g2).
- Fixed non working **Lenovo KBRFBU71 wireless keyboard**.
- Fixed **mouse button mapping**.

CUPS Printing

- Fixed **HPLIP related printer drivers**.
- Added missing **LaserJet 200 color MFP M276 Postscript** to **Printer Names** for manufacturer HP in the TC Setup under **Devices > Printer > CUPS > Printers**.

Application Launcher

- Fixed **display order** of DNS servers in **Application Launcher** and **About** dialog.

Base system

- **IGEL Setup Assistant** fixes:
    - Fixed **startup on first boot**.
    - **Retain network configuration** if exited via cancel.
    - Fixed **graphical glitches**
    - Fixed **WiFi configuration**
    - **Prevent startup if an administrator passphrase is set** (e.g. from a IGEL System 5 migration).
- Fixed **System suspend on inactivity** showing the suspend dialog directly after system resume.
- Fixed the **custom bootsplash scaling when multiple monitors are configured**. Necessary to force a re-installation of the custom bootsplash for this fix to take effect. To force a re-installation:
    - Trigger the **Update desktop customization** command via UMS or
    - Press the **Bootsplash update** button at **IGEL Setup > System > Firmware Customization > Corporate Design > Custom Bootsplash**.
- Fixed sporadic problems with **custom bootsplash and wallpaper installation**.
- Fixed the **buddy update server** so that UD Pocket devices can also update from buddy update servers.
- Fixed handling of **custom environment variables**. If values contained white spaces the variables could not be set.
- Fixed **reboot/shutdown** when triggered from the lock screen panel.
- Removed **maximize button from on-screen keyboard window**.
- Fixed **deletion of debuglog partition content** when booted in emergency boot.
- Fixed **handling of optional partitions which are not active as default** while booting in emergency mode.
- Fixed instability in **authentication module pam_igelsession.so** in some special cases.
- Fixed **ECDSA/ECDH support in HEIMDAL libraries**.
- Fixed **black screen issues** if hostname contains other characters as 'A-Z a-z 0-9 . _ - '.
- Improved **debuglog partition based login**.
- **Restricted access to command **su** to root and user**.
- **Root home** is now **/root**.
- Removed **system** group (GID 0) which shadowed **root** group (GID 0).
- **Stricter folder and file permissions**.
- Prevent **flickering problems on 4k 60Hz screens**.

Storage Devices

- Fixed **mount issue of PTP devices** (Mobile Device Access USB feature must be enabled).
- Fixed **double detection of MTP and PTP**. MTP is preferred over PTP now (Mobile Device Access USB feature must be enabled).

Appliance Mode

- Fixed **configuration of post session commands via UMS profile**: There is no second reboot required anymore to apply the settings properly in Appliance Mode.

X11 system

- Fixed graphic card support for **HP EliteBook 745 G5** (disabled AMDGPU framebuffer compression as default).
- Fixed **non loading DRM/KMS driver on Spectra Nise 106**.
- Added possibility to **change the framebuffer compression for AMDGPU driver**.
  More...

Parameter	AMDGPU framebuffer compression.
Registry	`x.drivers.amdgpu.use_fbc`
Range	[default][enable][disable]

- Fixed **DP MST handling** (fixes Dell XPS Notebook Dock Station monitor issues).
- Fixed `sessions.user_display0.options.lid_events` work for **eDP** also.
- Fixed **VESA** only boot with **UEFI system**.
- **AMDGPU stability** fixes applied.
- Fixed issue with **screen configuration for certain cases**.
- Fixed **screen configuration** getting in **endless loop** with multi monitor setups.
- Fixed **memleak in** `igel_drm_daemon`.
- Fixed **DRI2 memleak with AMDGPU driver**.
- Changed `x.xserver0.force_reconfig registry key` (former bool now range).
  More...

Parameter	Force a display reconfiguration
Registry	`x.xserver0.force_reconfig`
Range	[default][only on Xorg start/restart][always][never]

- Usage of o**nly on Xorg start/restart** as new default for **AMDGPU based devices**.
- Removed `x.xserver0.composite` registry key to prevent problems with **AMD/ATI devices**.
- Fixed **screen remains black** when **Monitor Probing (DDC)** option is "Off", configurable at setup page **User Interface > Display > Options**.
- Fixed wrong detected **DisplayPort (eDP instead of DP) for Dell Wyse 5070**.
- Added possibility to configure **graphic displays only if DPMS state is not OFF**.
  More...

Parameter	Do not reconfigure if monitors are in DPMS off state
Registry	`x.xserver0.config_on_dpms_on`
Value	enabled / disabled

Window Manager

- **On-Screen Keyboard will keep aspect ratio** when resized via double click on edge.

Shadowing/VNC

- Fixed instability of **Secure Shadowing** connector.

Audio

- Added a workaround for **button handling of Sennheiser USB headsets**.
- Fixed saving and restoring of **volume controls in Pulseaudio and ALSA**.
- Fixed **volume control** of the internal speaker in **Wyse ZX0D**.
- Improved consistency while **storing of changed volume values**.
- Fixed configuration of the **default sound output or input on hardware** when presence detection in jack connector is missing.

Hardware

- Fixed shutdown problems for **Dell Wyse Thin Client AIO 5212** (use legacy boot instead of EFI).
- Fixed support for **four screens with Nvidia Quadro graphic cards** (all current cards which are able to drive four outputs).
- Fixed graphic issues for **HP ProBook 455 G5**.
- Fixed non working **StarTech.com USB2DVIPRO2 DisplayLink** graphics adapter.
- Fixed freezes of Intel **Baytrail devices**.
- Fixed **VDPAU** hardware accelerated video support for **NVIDIA graphics cards**.
- Fixed non working **DisplayLink USB graphics adapter** after reboot.

Remote Management

- Fixed **zero touch deployment** by adding a timeout to the Setup Assistant abort message.
- Fixed **computation of Unit ID**. The Unit ID is the identification key of the thin client in UMS, and also thin client licenses will be bound to the Unid ID. Now the Unit ID is computed once and persistently saved. It consists of the serial number of UD Pocket or the MAC address of a network interface. When multiple network interfaces are present, the interface is selected taking following attributes into account:
  If a license bound to the interface exists, how it is connected (PCI, SDIO, USB or other) and if it is wireless or wired.
  It is best practice not to connect external network interfaces when a freshly installed thin client device is booted for the first time, so that the Unit ID will consist of a MAC address of a network interface which cannot be removed from the thin client device.
- Fixed **monitor serial numbers** not shown in UMS.
- Fixed **Bluetooth Asset Inventory** zombie when bluetooth dongle is removed.
- Fixed **UMS filetransfer** - now filetransfer action is triggered also if only the file classification was changed.
- Fixed **Update on shutdown** UMS job which could be stucked if update is failed once for some reasons.

IGEL Universal Desktop Converter (UDC3)

Supported Hardware:

https://kb.igel.com/igelos/en/devices-supported-by-udc3-and-ud-pocket-3117174.html

- Versions 10.05.100(see page 1117)
- New Features 10.05.100(see page 1117)

Versions 10.05.100

- **Clients**

Product	Version
Oracle JRE	1.8.0_181

- **System Components**

OpenSSL	1.0.2g-1ubuntu4.13
Bluetooth stack (bluez)	5.50-0ubuntu1igel5
MESA OpenGL stack	18.2.1-1igel51
Graphics Driver INTEL	2.99.917+git20180214-igel1830
Graphics Driver ATI/RADEON	18.0.1-1igel831
Graphics Driver ATI/AMDGPU	18.0.1-1igel831
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2igel775
Graphics Driver Vboxvideo	5.2.18-dfsg-2igel17
Graphics Driver VMware	13.3.0-2igel812
Graphics Driver QXL (Spice)	0.1.5-2build1igel775
Graphics Driver FBDEV	0.5.0-1igel819
Graphics Driver VESA	2.3.4-1build2igel639
Input Driver Evdev	2.10.5-1ubuntu1igel750
Input Driver Elographics	1.4.1-1build5igel633
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1igel748
Input Driver Vmmouse	13.1.0-1ubuntu2igel635
Input Driver Wacom	0.36.1-0ubuntu1igel813
Kernel	4.18.11 #mainline-udos-r2463
Xorg X11 Server	1.19.6-1ubuntu4igel838
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2igel653
ISC DHCP Client	4.3.3-5ubuntu12.10igel6

New Features 10.05.100

Hardware

- Added official support for **HP T630**.
- Added official support for **Intel NUC 6CAYH and 5i5MYHE**.
- Added official support for **Dell/Wyse 3040**.
- Added official support for **Toshiba Tecra C50-B1503**.
- Added official support for **Toshiba R50**.
- Added official support for **Dell/Wyse AIO 5212**.
- Added official support for **LG 24CK550W AiO Thin Client**.

Notes for Release 10.04.100

Software:	Version	10.04.100
Release Date:	2018-04-12	
Release Notes:	Version	RN-104100-1
Last update:	2018-04-12	

The following formatting is used in this document:

format type	example	use
bold and underlined	<u>enable</u>/disable	the default setting of a value
bold and arrow	**menu > path**	menu path in the IGEL setup
bold	**GUI** [keyboard]	elements of the graphical user interface or commands that are entered using the keyboard

- IGEL Linux Universal Desktop 10.04.100
- IGEL Universal Desktop OS3/IGEL UD Pocket 10.04.100
- IGEL Universal Desktop Converter (UDC3) 10.04.100

IGEL Linux Universal Desktop 10.04.100

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 51
	UD3-LX 50
	UD3-LX 42
	UD3-LX 41
UD5-LX:	UD5-LX 50
	UD5-LX 40
UD6-LX:	UD6-LX 51
UD7-LX:	UD7-LX 10
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10

IGEL Zero:
IZ2-RFX
IZ2-HDX
IZ2-HORIZON
IZ3-RFX
IZ3-HDX
IZ3-HORIZON

- Resolved Issues 10.04.100

Versions for Release 10.04.100

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.4.0-1233
Citrix Receiver	13.3.2.366713
Citrix Receiver	13.4.2.10146724
Citrix Receiver	13.7.0.10276927
Citrix Receiver	13.8.0.10299729
deviceTRUST Citrix Channel	17.2.100.0
deviceTRUST RDP Channel	17.2.100.0
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.6362
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.23
Firefox	52.7.2
IBM iAccess Client Solutions	1.1.5.0
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
Leostream Java Connect	3.3.7.0
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_162
Parallels Client (64 bit)	16.2.0.19039
Remote Viewer (RedHat Virtualization)	7.0
Systancia AppliDis	4.0.0.17
Thinlinc Client	4.8.0-5456
ThinPrint Client	7.5.83
Totem Media Player	2.30.2

VMware Horizon Client	4.7.0-7395152
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20161103
Philips Speech Driver	12.5.4

- **Signature**

signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.0.5.592
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.6.0.30
Reader Driver ACS CCID	1.1.5
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.2.4
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.28
Reader Driver REINER SCT cyberJack	3.99.5final.SP11
Resource Manager PC/SC Lite	1.8.22
Cherry USB2LAN Proxy	3.0.0.4

- **System Components**

Bluetooth stack (bluez)	5.46-0ubuntu3
MESA OpenGL stack	17.2.8-0igel3
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20180214-igel1
Graphics Driver ATI/RADEON	7.10.0-2igel3
Graphics Driver ATI/AMDGPU	1.4.0-2igel3
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2
Graphics Driver Nvidia	384.111-0ubuntu0.16.04.1
Graphics Driver Vboxvideo	5.2.6-dfsg-2
Graphics Driver VMware	13.2.1-1build1
Graphics Driver QXL (Spice)	0.1.5-2build1
Graphics Driver FBDEV	0.4.4-1build5
Graphics Driver VESA	2.3.4-1build2
Input Driver Evdev	2.10.5-1ubuntu1
Input Driver Elographics	1.4.1-1build5
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1
Input Driver Vmmouse	13.1.0-1ubuntu2
Input Driver Wacom	0.34.0-0ubuntu2
Kernel	4.15.15 #mainline-ud-r2141
Xorg X11 Server	1.19.6-2igel1
CUPS printing daemon	2.1.3-4ubuntu0.4
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2
ISC DHCP Client	4.3.3-5ubuntu12.7
NetworkManager	1.2.2-0ubuntu0.16.04.4
ModemManager	1.6.4-1

GStreamer 0.10	0.10.36-2ubuntu0.1

- **Features with Limited IGEL Support**

Mobile Device Access USB	
VPN OpenConnect	

General Information 10.04.100

The following clients and features are not supported anymore in version 10.04.100:

- Citrix Receiver 12.1 and 13.1
- Citrix Access Gateway Standard Plug-in
- Dell vWorkspace Connector for Linux
- Ericom PowerTerm Emulation 9 and 11
- Ericom Webconnect
- IGEL Legacy RDP Client (rdesktop)
- Virtual Bridges VERDE Client
- PPTP VPN Support
- IGEL Upgrade License Tool with IGEL Smartcard Token
- Remote Management by setup.ini file transfer (TFTP)
- Remote Access via RSH
- Legacy Philips Speech Driver
- Digital Persona Support
- Sane Scanner Support
- Softpro/Kofax Citrix Virtual Channel
- t-Systems TCOS Smartcard Support
- DUS Series touch screens
- Elo serial touch screens
- IGEL Smartcard without locking desktop
- Video Hardware Acceleration Support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, D10-LX 10
- H.264 Hardware Acceleration Support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10
- Storage Hotplug devices are not automatically removed anymore, instead they must always be ejected manually:
    - by panel tray icon
    - by an icon in the 'In-Session Control Bar' (configurable at **IGEL Setup > User Interface > Desktop**)
    - by a 'Safely Remove Hardware' session (configurable at **IGEL Setup > Accessories**)

The following clients and features are not available in release 10.04.100:

- X session (Xorg Xephyr)
- Cherry eGK Channel
- Open VPN Smartcard Support
- NCP Secure Client
- Asian Input Methods
- Composite Manager
- Softpro/Kofax Citrix Virtual Channel

Security Fixes 10.04.100

Firefox

- Fixes for **mfsa2018-08**, also known as CVE-2018-5146, CVE-2018-5147.
- Fixes for **mfsa2018-07**, also known as CVE-2018-5127, CVE-2018-5129, CVE-2018-5130, CVE-2018-5131, CVE-2018-5144, CVE-2018-5125, CVE-2018-5145.

Base System

- Added support for UEFI Secure Boot.

  > ⓘ When booted with Secure Boot the downgrade to a firmware version older than 10.04.100 is locked.

- When booted with Secure Boot the downgrade to a firmware version older than 10.04.100 is locked.
- Fixed evince security issue CVE-2017-1000159.
- Fixed bind9 security issue CVE-2017-3145.
- Fixed glibc security issues CVE-2018-1000001, CVE-2017-16997, CVE-2017-15804, CVE-2017-15670, CVE-2017-1000409 and CVE-2017-1000408.
- Fixed gdk-pixbuf security issues CVE-2017-6314, CVE-2017-6313, CVE-2017-6312 and CVE-2017-1000422.
- Fixed webkit2gtk security issues CVE-2017-7156, CVE-2017-5753, CVE-2017-5715, CVE-2017-13870, CVE-2017-13866, CVE-2017-13856, CVE-2018-4096, CVE-2018-4088, CVE-2017-7165, CVE-2017-7161, CVE-2017-7160, CVE-2017-7153, CVE-2017-13885 and CVE-2017-13884.
- Fixed poppler security issues CVE-2017-14976 and CVE-2017-1000456.
- Fixed openssl security issues CVE-2017-3738 and CVE-2017-3737.
- Fixed libxml2 security issues CVE-2017-16932 and CVE-2017-15412.
- Fixed nvidia-graphics-drivers-384 security issue CVE-2017-5753.
- Fixed openssh security issues CVE-2017-15906, CVE-2016-10012, CVE-2016-10011, CVE-2016-10010 and CVE-2016-10009.
- Fixed libtasn1-6 security issues CVE-2018-6003 and CVE-2017-10790.
- Fixed curl security issues CVE-2018-1000005 and CVE-2018-1000007.
- Fixed libvorbis security issues CVE-2017-14633 and CVE-2017-14632.
- Fixed wavpack security issue CVE-2016-10169.
- Fixed cups security issue CVE-2017-18190.
- Fixed sensible-utils security issue CVE-2017-17512.
- Removed terminal start function from task manager menu bar.
- Updated kernel to version 4.15.15
    - Fixed Meltdown (CVE-2017-5754) by PTI (page table isolation)
    - Fixed Spectre Variant 1 (CVE-2017-5753) by __user pointer sanitization
    - Fixed Spectre Variant 2 (CVE-2017-5715) by full generic retpoline
- Fixed beep security issue CVE-2018-0492.
- Added Intel Processor Microcode Updates to provide IBRS/IBPB/STIBP microcode support for Spectre Variant 2 (CVE-2017-5715) mitigation.

Product Name	CPU ID	Platform ID	Microcode Revision
IGEL UD9-LX Touch 41, IGEL UD9-LX 40, IGEL UD6-LX 51, IGEL UD5-LX 50 Bay Trail	30678	0C	0x836
IGEL UD2-LX 40 Bay Trail	30679	0F	0x90A
IGEL UD5-LX 40 Sandy Bridge	206A7	12	0x2D

Network

- Disabled **weak message authentication codes** for SSH server and client as default. If problems occur change the default setting.
  More

Parameter	Disable weak message authentication codes
Registry	`network.ssh_client.disable_weak_macs`
Value	enabled / disabled

Parameter	Disable weak message authentication codes
Registry	`network.ssh_server.disable_weak_macs`
Value	enabled / disabled

- Disabled **weak key exchange algorithms** for SSH server and client as default. If problems occur, change the default setting.
  More

Parameter	Disable weak key exchange algorithms
Registry	`network.ssh_client.disable_weak_kexalgorithms`
Value	enabled / disabled
Parameter	Disable weak key exchange algorithms
Registry	`network.ssh_server.disable_weak_kexalgorithms`
Value	enabled / disabled

- Disabled **weak hostkeys** (server) and **hostkey algorithms** (client) for SSH server and client as default. If problems occur, change the default setting.
  More

Parameter	Disable weak Hostkey algorithms
Registry	`network.ssh_client.disable_weak_hostkey_algos`
Value	enabled / disabled
Parameter	Disable weak Hostkeys
Registry	`network.ssh_server.disable_weak_hostkeys`
Value	enabled / disabled

- Changed **SMB protocol version default** v1.0 to **v2.0** for mounting windows shares to improve security.
- Added the possibility to change the **SMB protocol** version for windows shares. The windows shares are configurable at **IGEL Setup > Network > Network Drives > Windows Drive**. **More**

Parameter	SMB protocol version
Registry	`network.smbmount.smb_version`
Range	1.0 / 2.0 / 2.1 / 3.0

When using a very old Windows file server, the change to version 1.0 is necessary.

RDP / IGEL RDP Client 2

- Fixed RDP: CVE-2018-0886.

Java

- Fixed in **Oracle JRE 1.8U162** : CVE-2018-2638, CVE-2018-2639, CVE-2018-2633, CVE-2018-2627, CVE-2018-2637, CVE-2018-2634, CVE-2018-2582, CVE-2018-2641, CVE-2018-2618, CVE-2018-2629, CVE-2018-2603, CVE-2018-2657, CVE-2018-2599, CVE-2018-2581, CVE-2018-2602, CVE-2018-2677, CVE-2018-2678, CVE-2018-2588, CVE-2018-2663, CVE-2018-2675, CVE-2018-2579

Known Issues 10.04.100

Citrix Receiver 13

- On devices with AMD/Radeon graphics chipsets and activated DRI3 X driver option **the hardware accelerated Citrix H.264 decoder plugin can hang**. To solve this issue deactivation of DRI3 option is necessary (default setting).
  More

Parameter	Use DRI3
Registry	`x.drivers.use_dri3`
Value	enabled / <u>disabled</u>

Parameter	Force usage of DRI3
Registry	`x.drivers.amdgpu.force_dri3` `x.drivers.ati.force_dri3`
Value	enabled / <u>disabled</u>

- Citrix StoreFront login with **Gemalto smartcard middleware** does not detect smartcard correctly when the card is inserted after start of login. As a workaround, insert the smartcard before starting StoreFront login.
- **No smooth playback** over **Nuance** channel if the dictation device isn't attached.

VMware Horizon

- **External drives** mounted already before connection do not appear in the remote desktop.
  Workaround: mapping the directory `/media` as a drive on desktop.
  Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local Storage Hotplug: On page **Devices > Storage Devices > Storage Hotplug**, put number of storage hotplug devices to 0.
  - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Change on the following setup page is required: **Devices > Storage Devices > Storage Hotplug**.
  Activate **Enable dynamic drive mapping** and set **Number of storage hotplug devices** to at least 1.

Firefox

- Because the **support for the gstreamer framework** was dropped by recent Firefox versions, support for H264 decoding in the browser is not possible anymore due to licensing restrictions.

OpenConnect VPN

- **VPNs which need the OpenConnect** client cannot be used for firmware updates.

Evidian

- Active Directory users with a **password containing special characters** may have problems to authenticate with the configured session.
  Known special characters which result in errors are:
  ` (grave accent, ASCII code 96)
  ´ (acute accent, ASCII code 239)

New Features 10.04.100

Citrix Receiver 13

- Integrated **Citrix Receiver 13.8.0**.
  More

Parameter	Use Citrix Cloud with receiver 13.8 or newer
Registry	`ica.cloudconnect`
Value	enabled / disabled

  - Support for **Azure** Active Directory (Azure AD) authentication
  - Support for **Workspace** configuration from Citrix Cloud
- Integrated **Citrix Receiver 13.4.2**. Citrix Receiver version 13.5.0 was removed. Available Citrix Receiver versions: 13.3.2, 13.4.2, 13.7.0, 13.8.0 (default)
- Updated **Citrix HDX RTME** used for optimization of Skype for Business to 2.4.0.

RDP / IGEL RDP Client 2

- Added possibility to use **RDP local logon** for smartcard login. This can be activated in the setup.
  More

Parameter	Enable smartcard support for local logon
Registry	`rdp.login.smartcard-local-logon`
Value	enabled / disabled

By enabling this parameter local logon can be used for smartcard authentication. If **Username** is left empty the connection to the RDP server will be made without sending credentials, so you can choose **Smartcard** as login method in the microsoft login window . However this will not work with **NLA**.

- Added support for CredSSP up to version 6.

VMware Horizon

- Updated **VMware Horizon Client** to version **4.7.0-7395152**.
- Added key to enable **seamless window mode** in each application session.
  More

Parameter	Seamless Application Windows
Registry	sessions.vdm_client.options.enable_seamless_window
Value	enabled / disabled

- Added possibility to use **Fabulatech USB Redirection** in a Horizon Client PCoIP session.
  More

IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Fabulatech USB Redirection**
Parameter	Enable Fabulatech USB Redirection
Registry	`vmware.view.` usb.enable-fabulatech-usb
Value	enabled / <u>disabled</u>

Parallels Client

- Integrated **Parallels Client** version **16.2.0 (19039)**
- Added support for USB Redirection, configurable at new IGEL Setup page **Sessions > Parallels Client > Parallels Client Global > USB Redirection**.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Global > USB Redirection**
Parameter	Enable USB Redirection
Registry	`twox.usb_redirection.usb_enable`
Value	enabled / <u>disabled</u>
Parameter	Product ID
Registry	`twox.usb_redirection.devicepolicy.product_rule.product`
Parameter	Vendor ID
Registry	`twox.usb_redirection.devicepolicy.product_rule.vendor`
Parameter	Rule
Registry	`twox.usb_redirection.devicepolicy.product_rule.rule`
Value	<u>Deny</u> / Allow
Parameter	Name
Registry	`twox.usb_redirection.devicepolicy.product_rule.name`
Value	Policy Rule
Parameter	Automatically redirect all USB devices
Registry	`twox.usb_redirection.devicepolicy.redirect_all`
Value	enabled / <u>disabled</u>

- Added support for **PTP/MTP** Redirection.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Global > USB Redirection**

Parameter	Enable PTP/MTP Redirection
Registry	`twox.mtp_redirection.mtp_enable`
Value	enabled / <u>disabled</u>
Parameter	Product ID
Registry	`twox.mtp_redirection.devicepolicy.product_rule.product`
Parameter	Vendor ID
Registry	`twox.mtp_redirection.devicepolicy.product_rule.vendor`
Parameter	Rule
Registry	`twox.mtp_redirection.devicepolicy.product_rule.rule`
Value	<u>Deny</u> / Allow
Parameter	Name
Registry	`twox.mtp_redirection.devicepolicy.product_rule.name`
Value	Policy Rule
Parameter	Automatically redirect all PTP/MTP devices
Registry	`twox.mtp_redirection.devicepolicy.redirect_all`
Value	enabled / <u>disabled</u>

- Added support for **Clipboard** Redirection.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Sessions > Parallels Client Session > Local Resources**
Parameter	Connect clipboard
Registry	`sessions.twox.local_resources.connect_clipboard`
Value	<u>enabled</u> / disabled

VoIP

- Added **VoIP client Ekiga 4.0.1**.

Firefox

- Updated **Firefox** to version **52.7.2 ESR**.
- Updated **Adobe Flash Player** download URL to version 29.0.0.113.

Network

- Added **TTLS/PAP** and **TTLS/MSCHAPv2** to possible 802.1x authentication methods.

- Improved support for **Sierra EM7305 LTE** device (e.g. in Toshiba Portégé and Fujitsu LIFEBOOK E Series).

  > ⚠ The EM7305 comes in various variants, e.g. one with ProductId 9041 and another one with ProductId 9063. The latter comes at least with one or with two USB configuration options. A device with only one configuration option has been observed on a Toshiba Tecra Z-50-D-115 notebook. It only works in MBIM mode and with IGEL firmware, when the device has successfully connected before with the same settings (particularly APN), e.g. under Microsoft Windows 10.

- Added support for **Sierra EM7455 WWAN module**.
- Added support for running the **Huawei E3531i WWAN** device in modem mode (in addition to HiLink mode).
- Added possibility to adopt the **hostname from a DHCP lease** as **permanent** terminal name. The purpose is to use the name received as part of a DHCP lease in future interactions with the DHCP server.
  More

Parameter	Adopt permanent Terminal Name from DHCP lease
Registry	`network.dns.hostname_adopt_from_dhcp`
Value	enabled / <u>disabled</u>

- **NetworkManager** updated to version **1.2.2**
- **ModemManager** updated to version **1.6.4**
- **usb_modeswitch** updated to version **2.5.1**

Open VPN

- Added **Huawei HiLink Mobile Broadband USB** device as possible uplink to OpenVPN sessions.

OpenConnect VPN

- Added **OpenConnect** client version **7.08** to connect to **Cisco AnyConnect** and **Juniper VPN**. The feature must be enabled.
  More

IGEL Setup	**System > Firmware Customization > Features**
Parameter	VPN OpenConnect (Limited support - functionality "as is", see product documentation for details)
Registry	services.unsupported02.enabled
Value	enabled / <u>disabled</u>

- The OpenConnect VPN configuration is available at IGEL Setup page **Network > VPN > OpenConnect VPN**.
  More

IGEL Setup	**Network > VPN > OpenConnect VPN > VPN OpenConnect > Session**

Parameter	Gateway
Registry	`sessions.openconnect.vpnopts.gateway`
Parameter	Enable Name/Password Authentication
Registry	`sessions.openconnect.vpnopts.enable-name-pwd`
Value	enabled / <u>disabled</u>
Parameter	User Name
Registry	`sessions.openconnect.vpnopts.username`
Parameter	Password
Registry	`sessions.openconnect.vpnopts.crypt_password`
Parameter	CA Certificate
Registry	`sessions.openconnect.vpnopts.ca-cert`
Parameter	User Certificate
Registry	`sessions.openconnect.vpnopts.user-cert`
Parameter	Private Key
Registry	`sessions.openconnect.vpnopts.priv-key`
Parameter	Private Key password
Registry	`sessions.openconnect.vpnopts.priv-key-pwd.crypt_password`
Parameter	Connect to Juniper Networks VPN
Registry	`sessions.openconnect%.vpnopts.is-juniper`
Value	enabled / <u>disabled</u>

ⓘ Tray icon is placed in the panel to disconnect from a running OpenConnect VPN connection.

Smartcard

- Added **CoolKey PKCS#11** library for access to **Common Access Card (CAC)** smartcards. **More**

IGEL Setup	**Sessions > Browser > Browser Global > Encryption**
Parameter	Coolkey Security Device
Registry	`browserglobal.security_device.coolkey`

Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by Coolkey library
Registry	`vmware.view.pkcs11.use_coolkey`
Value	enabled / <u>disabled</u>
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	Coolkey
Registry	`scard.pkcs11.use_coolkey`
Value	enabled / <u>disabled</u>

- Updated **Gemalto SafeNet PKCS#11** library to version **10.0.37-0**. This package replaces **Gemalto/SafeNet eToken** and **Gemalto IDPrime** libraries.
  Gemalto SafeNet (formerly **Gemalto/SafeNet eToken**) now handles Gemalto cards and tokens including eToken and IDPrime.
  Gemalto IDPrime now handles IDPrime cards and tokens, preferred Common Creteria (CC) cards and tokens in Unlinked Mode.
- Added full integration of **OpenSC PKCS#11** library for access to smartcards.
  More

IGEL Setup	**Sessions > Browser > Browser Global > Encryption**
Parameter	OpenSC Security Device
Registry	`browserglobal.security_device.opensc`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by OpenSC library
Registry	`vmware.view.pkcs11.use_opensc`
Value	enabled / <u>disabled</u>
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	OpenSC
Registry	`scard.pkcs11.use_opensc`
Value	enabled / <u>disabled</u>

- Updated **MUSCLE CCID** smartcard reader driver to version **1.4.28**.
- Updated **ACS CCID** smartcard reader driver to version **1.1.5**.
- Updated **REINER SCT cyberJack** smartcard reader driver to version **3.99.5final.sp11**.

- Added parameter to disable **Identive CCID** smartcard reader driver. If this driver is disabled, some of the readers are handled by the MUSCLE CCID driver. This can help when problems with Identive reader driver occur.
  More

Parameter	Identive driver for smart card readers
Registry	`scard.pcscd.identiv_enable`
Value	<u>enabled /</u> disabled

- Updated **cryptovision sc/interface PKCS#11** library to version **7.0.5.592**.
- New smartcard reader driver for **Fujitsu KB SCR eSIG** version **5.0.24**.

HID

- Added **layout toggle** feature to on-screen keyboard.
  More

IGEL Setup	**Accessories > On-Screen Keyboard > Appearance**
Parameter	Enable switching to alternative layout
Registry	`userinterface.softkeyboard.enable_alternative_layout`
Value	enabled / <u>disabled</u>
If this is enabled there is a key on the on-screen keyboard for toggling between the normal layout and a reduced layout, that saves space on the screen and has more or less the same features as the number block of an ordinary keyboard with some extensions.	

Base System

- Added support for **UEFI Secure Boot**.

  > (i) When booted with Secure Boot the downgrade to a firmware version older than 10.04.100 is locked.

- Updated **kernel to version 4.15.15**
- **Boot time optimization** (up to 25% faster)
- **Switch power off on USB ports on shutdown and reboot**. The feature can be enabled in IGEL Setup. At the moment only IGEL H830C is supported.
  More

IGEL Setup	**System > Registry**
Parameter	Power off on shutdown
Registry	`devices.usb.poweroff_shutdown`
Value	enabled / <u>disabled</u>

- Added Unit ID in Application Launcher **About > Hardware** section.

- Showing **number of CPU cores** in Application Launcher **About > Hardware** section now.

Storage Devices

- Added support for **Mobile Device Access** feature in **Appliance Mode**. The Mobile Device Access tool can be opened via a new icon in the **In-session control bar**. The Mobile Device Access tool can also be started automatically.
  More

Parameter	Autostart
Registry	`sessions.mtp-devices0.autostart`
Value	enabled / <u>disabled</u>
Mobile Device Access must be enabled at **IGEL Setup > System > Firmware Customization > Features**. Appliance Mode must be enabled at **IGEL Setup > Sessions > Appliance Mode**.	

- The **Mobile Device Access tool** is now configurable at **IGEL Setup > Accessories > Mobile Device Access**.
- The **Mobile Device Access tray icon** respects the current theme now.

X11 System

- Added support for **XDMCP Appliance Mode**. The XDMCP connection is configurable.
  More

IGEL Setup	**Sessions > Appliance Mode**
Parameter	XDMCP for this Display
Registry	`x.xdmcp0.enabled`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Connection Type
Registry	`x.xdmcp0.server.connectiontype`
Range	**indirect via localhost** / indirect / direct / broadcast
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Name or IP of server
Registry	`x.xdmcp0.server.servername`
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Enable hotkeys for XDMCP Display
Registry	`x.xdmcp0.hotkeys.enabled`

Value	enabled / disabled

The default hotkey to open IGEL Setup is: CTRL + ALT + F2. The setup page **User Interface > Display > XDMCP** was removed.

- Added **XC Font Service** support.
  More

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Enable XC Font Service
Registry	`x.xc_fontservice.enabled`
Value	enabled / disabled

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	XC Font Server
Registry	`x.xc_fontservice.fontserver`

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Port Number
Registry	`x.xc_fontservice.port`
Value	7100

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Prefer Local Fonts
Registry	`x.xc_fontservice.prefer_localfonts`
Value	enabled / disabled

- Added **auto detection of monitor refresh rate**. This can be controlled with new parameters.
  More

IGEL Setup	**User Interface > Display > Advanced**
Parameter	Detect refresh rate automatically
Registry	`x.xserver0.auto_frequency`
Value	enabled / disabled

IGEL Setup	**User Interface > Display > Advanced**
Parameter	Detect refresh rate automatically
Registry	`x.xserver0.` screen.auto_frequency

Value	enabled / disabled

- Added xorg debug script **/etc/igel/igel_debug_tools/xorg-debug.sh** to make collecting Xorg debug data easier (a /tmp/xorg-debug.log file is generated).

Window Manager

- Added possibility to
    - a) **change the preferred placement mode** and
    - b) **modify the threshold value** up to which window size this placement mode should be chosen (otherwise window placement defaults to so called smart mode which tries to minimize overlapping).

    More

Parameter	Preferred Placement
Registry	`windowmanager.wm0.variables.placement_mode`
Value	At mouse position / Centered
Parameter	Maximum window size for which the preferred placement should apply
Registry	`windowmanager.wm0.variables.placement_ratio`
Value	0% / 10% / 20% / 30% / 40% / 50% / 60% / 70% / 80% / 90% / 100%

Audio

- **Volume** of audio output and input can now be configured up to 150% at **IGEL Setup page Accessories > Sound Preferences > Options**.
- Added a parameter for log level configuration of **Pulseaudio** service.

    More

Parameter	Log level
Registry	`multimedia.pulseaudio.daemon.log-level`
Range	debug / info / notice / warning / error

Misc

- An EULA must be accepted now in IGEL setup assistant before finalizing it and using the IGEL OS.

Java

- Updated **Oracle JRE to 1.8U162**.

Remote Management

- Added **new log file transfer mechanism** for UMS feature **Save TC files for support** (UMS 5.08.110 or higher required). By default, it collects all log files visible in system log viewer, system configuration files group.ini, setup.ini and dhclient lease files. More files can be specified at **IGEL**

Setup > Accessories > System Log Viewer > Options. The resulting zip file has now a folder structure.

IGEL Cloud Gateway

- Added **UMS structure tag** handling for usage with **ICG agent**.

Hardware

- Added support for **IGEL UD7-LX 10**.

Resolved Issues 10.04.100

Citrix

- Fixed sporadic crashes of the **Citrix USB Daemon**.

RDP / IGEL RDP Client 2

- Fixed passing **Ctrl+Alt+C keyboard shortcut** to RDP session.
- Fixed **smartcard redirection**: after session reconnection readers and cards were not connected any more in some cases.
- Fixed the **rdpdebugger** to work again (was broken in the previous release).
- Fixed misleading **RDP error message `Authentication failed`** on wakeup from suspend mode
- Fixed **TCP timeout value** to get more stable **RDP connections** under certain circumstances.

VMware Horizon

- Fixed bug which prevented **microphone redirection** in Horizon Client RDP sessions.
  More

IGEL Setup	**Sessions > RDP > RDP Global > Mapping > Audio**
Parameter	Audio recording
Registry	`rdp.winconnect.rdpeai.enable`
Value	enabled / <u>disabled</u>

RedHat Enterprise Virtualization Client

- Fixed **display corruption** with Windows connections.

Firefox

- Fixed possibility to **download files in the browser** if needed. The parameter to enable/disable file download is available here.
  More

IGEL Setup	**Sessions > Browser > Browser Sessions > Window**
Parameter	Hide local filesystem
Registry	`sessions.browser.app.filepicker_dialog_hidden`
Value	enabled / <u>disabled</u>
If enabled, the user is not allowed to download or use any save-as functionality from menu, context or keyboard shortcut.	

- Fixed bug which **prevented the download using the file dialog** (in the case you open a link to a file of unkonwn type).
- Fixed **unmounting of the Firefox profile partition during shutdown** - now it is unmounted in a determinate manner after Custom Partition.

Network

- Fixed bug: **Network tray icons** sometimes didn't reappear after network restart.
- Fixed bug: **tcpdump debug tool** terminated immediately during boot.
- Fixed issue with **naming of USB ethernet devices**.
- Fixed wrong **LinkMode (10baseT/Half)** with autonegotiation and some USB ethernet devices.

AppliDis

- Changed default value of **PasswordMode** from **cmdline** to **prompt** as suggested by Systancia.

Smartcard

- Fixed driver for **Elatec RFID readers**. Before this fix the readers sometimes were not available after boot.
- Fixed VMware Horizon logon with OpenSC smartcards.

CUPS Printing

- Fixed bug where the **user for printjobs** was not set to the **domain user**.

Base System

- Fixed **Kerberos password change** to work also with transport protocol **TCP**. To force protocol TCP, prepend Domain Controllers with prefix "tcp/", e.g. "tcp/dc.example.com".
- Fixed **occasional desktop hang** in the local login or the network login mask after successful authentication.
- Fixed **password expiry notification** showing negative expiry period.
- Fixed **update to connect to SFTP** servers with very restrictive key exchange settings.
- Fixed input of the **reset key in reset to defaults boot**, if the administrator password is not available anymore. If more than 255 characters were entered in the 1st try, it was not possible to enter the reset key for a 2nd or 3rd time.
- Fixed **Active Directory logon with smartcard**: If the smartcard contains logon certificates for multiple users, it is possible to switch between these certificates and log on with the chosen certificate now.
- Fixed missing names for some **partitions** in update notification when having a user interface **language other than English**.
- Fixed problems with **never ending bootcode** update with some EFI BIOS variants.
- Fixed **ssh server port** configuration.
- Fixed **signotec signature pad** channel for Citrix.
- Increased stability of **signotec VCOM Daemon**.
- Remove residual information belonging to a **removed content from a custom partition**.
- Fixed **crash of xfce4-power-manager** after adding or removing input devices.

Custom Partition

- Fixed **automatic update of custom partition** - if download source isn't accessible then the content of the custom partition got lost.

Appliance Mode

- Fixed post session command **Logoff** in Appliance Mode.

X11 System

- Fixed **Elo-USB Touchscreen functionality** after reboot.

- Fixed **DisplayLink USB Support on UD3 LX50**.
- Fixed issue with **two monitors connected via DVI-D to HDMI adapter on a UD3 M330 (VIA)**.
  Added registry key to disable the new HDMI autodetection.
  More

Parameter	Autodetect if DVI to HDMI adapter is in use
Registry	`x.drivers.via.autodetect_hdmi_output`
Value	enabled / disabled

- Fixed **wrong automatic resolution detection** if monitor does not have a preferred mode.
- Fixed **sporadic display corruptions** after monitors leaving the power saving mode.
- Improved handling of more than 2 screens.

Shadowing/VNC

- Fixed **sporadic VNC server crash**.

Audio

- Fixed **volume control of internal speaker in HP T610**.
- Fixed **automatic switch to output** over analog headphones.
- Not existing **S/PDIF inputs and outputs in Plantronics and Jabra USB headsets** are now ignored by audio subsystem (Pulseaudio).
- Added workaround in the kernel USB audio driver for **volume control on Sennheiser USB headsets**.

Remote Management

- Fixed **calculation of Unit ID for UMS management**. In some cases, it could happen that the MAC address of wrong network interface was chosen.
- Fixed **IGEL Setup Assistant** to get stopped when settings were received from UMS.

IGEL Universal Desktop OS3/IGEL UD Pocket 10.04.100

Supported Hardware:

Third-Party Devices Supported by IGEL OS 10

Versions for Release 10.04.100

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.4.0-1233
Citrix Receiver	13.3.2.366713
Citrix Receiver	13.4.2.10146724
Citrix Receiver	13.7.0.10276927
Citrix Receiver	13.8.0.10299729
deviceTRUST Citrix Channel	17.2.100.0
deviceTRUST RDP Channel	17.2.100.0
Ericom PowerTerm	12.0.1.0.20170219.2-_dev_-34574
Evidian AuthMgr	1.5.6362
Evince PDF Viewer	3.18.2-1ubuntu4.3
FabulaTech USB for Remote Desktop	5.2.23
Firefox	52.7.2
IBM iAccess Client Solutions	1.1.5.0
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
Leostream Java Connect	3.3.7.0
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_162
Parallels Client (64 bit)	16.2.0.19039
Remote Viewer (RedHat Virtualization)	7.0
Systancia AppliDis	4.0.0.17
Thinlinc Client	4.8.0-5456
ThinPrint Client	7.5.83
Totem Media Player	2.30.2

VMware Horizon Client	4.7.0-7395152
Voip Client Ekiga	4.0.1

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20161103
Philips Speech Driver	12.5.4

- **Signature**

signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	7.0.5.592
PKCS#11 Library Gemalto SafeNet	10.0.37-0
PKCS#11 Library SecMaker NetID	6.6.0.30
Reader Driver ACS CCID	1.1.5
Reader Driver Gemalto eToken	10.0.37-0
Reader Driver HID Global Omnikey	4.2.4
Reader Driver Identive CCID	5.0.35
Reader Driver Identive eHealth200	1.0.5
Reader Driver Identive SCRKBC	5.0.24
Reader Driver MUSCLE CCID	1.4.28
Reader Driver REINER SCT cyberJack	3.99.5final.SP11
Resource Manager PC/SC Lite	1.8.22
Cherry USB2LAN Proxy	3.0.0.4

- **System Components**

Bluetooth stack (bluez)	5.46-0ubuntu3
MESA OpenGL stack	17.2.8-0igel3
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20180214-igel1
Graphics Driver ATI/RADEON	7.10.0-2igel3
Graphics Driver ATI/AMDGPU	1.4.0-2igel3
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2
Graphics Driver Nvidia	384.111-0ubuntu0.16.04.1
Graphics Driver Vboxvideo	5.2.6-dfsg-2
Graphics Driver VMware	13.2.1-1build1
Graphics Driver QXL (Spice)	0.1.5-2build1
Graphics Driver FBDEV	0.4.4-1build5
Graphics Driver VESA	2.3.4-1build2
Input Driver Evdev	2.10.5-1ubuntu1
Input Driver Elographics	1.4.1-1build5
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1
Input Driver Vmmouse	13.1.0-1ubuntu2
Input Driver Wacom	0.34.0-0ubuntu2
Kernel	4.15.15 #mainline-udos-r2141
Xorg X11 Server	1.19.6-2igel1
CUPS printing daemon	2.1.3-4ubuntu0.4
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2
ISC DHCP Client	4.3.3-5ubuntu12.7
NetworkManager	1.2.2-0ubuntu0.16.04.4
ModemManager	1.6.4-1

GStreamer 0.10	0.10.36-2ubuntu0.1

- **Features with Limited IGEL Support**

Mobile Device Access USB	
VPN OpenConnect	

General Information 10.04.100

The following clients and features are not supported anymore in version 10.04.100:

- Citrix Receiver 12.1 and 13.1
- Citrix Access Gateway Standard Plug-in
- Dell vWorkspace Connector for Linux
- Ericom PowerTerm Emulation 9 and 11
- Ericom Webconnect
- IGEL Legacy RDP Client (rdesktop)
- Virtual Bridges VERDE Client
- PPTP VPN Support
- IGEL Upgrade License Tool with IGEL Smartcard Token
- Remote Management by setup.ini file transfer (TFTP)
- Remote Access via RSH
- Legacy Philips Speech Driver
- Digital Persona Support
- Sane Scanner Support
- t-Systems TCOS Smartcard Support
- DUS Series touch screens
- Elo serial touch screens
- IGEL Smartcard without locking desktop
- VIA Graphics Support
- Storage Hotplug devices are not automatically removed anymore, instead they must be always ejected manually:
    - by panel tray icon
    - by an icon in the **In-Session Control Bar** (configurable at **IGEL Setup > User Interface > Desktop**)
    - by a **Safely Remove Hardware** session (configurable at **IGEL Setup > Accessories**)

The following clients and features are not available in release 10.04.100:

- X session (Xorg Xephyr)
- Cherry eGK Channel
- Softpro/Kofax Citrix Virtual Channel
- Open VPN Smartcard Support
- NCP Secure Client
- Asian Input Methods
- Composite Manager

Security Fixes 10.04.100

Firefox

- Fixes for **mfsa2018-08**, also known as CVE-2018-5146, CVE-2018-5147.
- Fixes for **mfsa2018-07**, also known as CVE-2018-5127, CVE-2018-5129, CVE-2018-5130, CVE-2018-5131, CVE-2018-5144, CVE-2018-5125, CVE-2018-5145.

Base System

- Added support for UEFI Secure Boot.

  > ⓘ When booted with Secure Boot the downgrade to a firmware version older than 10.04.100 is locked.

- When booted with Secure Boot the downgrade to a firmware version older than 10.04.100 is locked.
- Fixed evince security issue CVE-2017-1000159.
- Fixed bind9 security issue CVE-2017-3145.
- Fixed glibc security issues CVE-2018-1000001, CVE-2017-16997, CVE-2017-15804, CVE-2017-15670, CVE-2017-1000409 and CVE-2017-1000408.
- Fixed gdk-pixbuf security issues CVE-2017-6314, CVE-2017-6313, CVE-2017-6312 and CVE-2017-1000422.
- Fixed webkit2gtk security issues CVE-2017-7156, CVE-2017-5753, CVE-2017-5715, CVE-2017-13870, CVE-2017-13866, CVE-2017-13856, CVE-2018-4096, CVE-2018-4088, CVE-2017-7165, CVE-2017-7161, CVE-2017-7160, CVE-2017-7153, CVE-2017-13885 and CVE-2017-13884.
- Fixed poppler security issues CVE-2017-14976 and CVE-2017-1000456.
- Fixed openssl security issues CVE-2017-3738 and CVE-2017-3737.
- Fixed libxml2 security issues CVE-2017-16932 and CVE-2017-15412.
- Fixed nvidia-graphics-drivers-384 security issue CVE-2017-5753.
- Fixed openssh security issues CVE-2017-15906, CVE-2016-10012, CVE-2016-10011, CVE-2016-10010 and CVE-2016-10009.
- Fixed libtasn1-6 security issues CVE-2018-6003 and CVE-2017-10790.
- Fixed curl security issues CVE-2018-1000005 and CVE-2018-1000007.
- Fixed libvorbis security issues CVE-2017-14633 and CVE-2017-14632.
- Fixed wavpack security issue CVE-2016-10169.
- Fixed cups security issue CVE-2017-18190.
- Fixed sensible-utils security issue CVE-2017-17512.
- Removed terminal start function from task manager menu bar.
- Updated kernel to version 4.15.15
  - Fixed Meltdown (CVE-2017-5754) by PTI (page table isolation)
  - Fixed Spectre Variant 1 (CVE-2017-5753) by __user pointer sanitization
  - Fixed Spectre Variant 2 (CVE-2017-5715) by full generic retpoline
- Fixed beep security issue CVE-2018-0492.
- Added Intel Processor Microcode Updates to provide IBRS/IBPB/STIBP microcode support for Spectre Variant 2 (CVE-2017-5715) mitigation.

Product Name	CPU ID	Platform ID	Microcode Revision
IGEL UD9-LX Touch 41, IGEL UD9-LX 40, IGEL UD6-LX 51, IGEL UD5-LX 50 Bay Trail	30678	0C	0x836
IGEL UD2-LX 40 Bay Trail	30679	0F	0x90A
IGEL UD5-LX 40 Sandy Bridge	206A7	12	0x2D

Network

- Disabled **weak message authentication codes** for SSH server and client as default. If problems occur change the default setting.
  More

Parameter	Disable weak message authentication codes
Registry	`network.ssh_client.disable_weak_macs`
Value	enabled / disabled

Parameter	Disable weak message authentication codes
Registry	`network.ssh_server.disable_weak_macs`
Value	enabled / disabled

- Disabled **weak key exchange algorithms** for SSH server and client as default. If problems occur, change the default setting.
  More

Parameter	Disable weak key exchange algorithms
Registry	`network.ssh_client.disable_weak_kexalgorithms`
Value	enabled / disabled
Parameter	Disable weak key exchange algorithms
Registry	`network.ssh_server.disable_weak_kexalgorithms`
Value	enabled / disabled

- Disabled **weak hostkeys** (server) and **hostkey algorithms** (client) for SSH server and client as default. If problems occur, change the default setting.
  More

Parameter	Disable weak Hostkey algorithms
Registry	`network.ssh_client.disable_weak_hostkey_algos`
Value	<u>enabled</u> / disabled
Parameter	Disable weak Hostkeys
Registry	`network.ssh_server.disable_weak_hostkeys`
Value	<u>enabled</u> / disabled

- Changed **SMB protocol version default** v1.0 to **v2.0** for mounting windows shares to improve security.
- Added the possibility to change the **SMB protocol** version for windows shares. The windows shares are configurable at **IGEL Setup > Network > Network Drives > Windows Drive**.
  More

Parameter	SMB protocol version
Registry	`network.smbmount.smb_version`
Range	1.0 / <u>2.0</u> / 2.1 / 3.0
When using a very old Windows file server, the change to version 1.0 is necessary.	

RDP / IGEL RDP Client 2

- Fixed RDP: CVE-2018-0886.

Java

- Fixed in **Oracle JRE 1.8U162** : CVE-2018-2638, CVE-2018-2639, CVE-2018-2633, CVE-2018-2627, CVE-2018-2637, CVE-2018-2634, CVE-2018-2582, CVE-2018-2641, CVE-2018-2618, CVE-2018-2629, CVE-2018-2603, CVE-2018-2657, CVE-2018-2599, CVE-2018-2581, CVE-2018-2602, CVE-2018-2677, CVE-2018-2678, CVE-2018-2588, CVE-2018-2663, CVE-2018-2675, CVE-2018-2579

Known Issues 10.04.100

Citrix Receiver 13

- On devices with AMD/Radeon graphics chipsets and activated DRI3 X driver option **the hardware accelerated Citrix H.264 decoder plugin can hang**. To solve this issue deactivation of DRI3 option is necessary (default setting).
  More

Parameter	Use DRI3
Registry	`x.drivers.use_dri3`
Value	enabled / <u>disabled</u>

Parameter	Force usage of DRI3
Registry	`x.drivers.amdgpu.force_dri3` `x.drivers.ati.force_dri3`
Value	enabled / <u>disabled</u>

- Citrix StoreFront login with **Gemalto smartcard middleware** does not detect smartcard correctly when the card is inserted after start of login. As a workaround, insert the smartcard before starting StoreFront login.
- **No smooth playback** over **Nuance** channel if the dictation device isn't attached.

VMware Horizon

- **External drives** mounted already before connection do not appear in the remote desktop.
  Workaround: mapping the directory `/media` as a drive on desktop.
  Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local Storage Hotplug: On page **Devices > Storage Devices > Storage Hotplug**, put number of storage hotplug devices to 0.
  - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Change on the following setup page is required: **Devices > Storage Devices > Storage Hotplug**.
    Activate **Enable dynamic drive mapping** and set **Number of storage hotplug devices** to at least 1.

Firefox

- Because the **support for the gstreamer framework** was dropped by recent Firefox versions, support for H264 decoding in the browser is not possible anymore due to licensing restrictions.

OpenConnect VPN

- **VPNs which need the OpenConnect** client cannot be used for firmware updates.

Evidian

- Active Directory users with a **password containing special characters** may have problems to authenticate with the configured session.
  Known special characters which result in errors are:
  ` (grave accent, ASCII code 96)
  ´ (acute accent, ASCII code 239)

New Features 10.04.100

Citrix Receiver 13

- Integrated **Citrix Receiver 13.8.0**.
  More

Parameter	Use Citrix Cloud with receiver 13.8 or newer
Registry	`ica.cloudconnect`
Value	enabled / disabled

  - Support for **Azure** Active Directory (Azure AD) authentication
  - Support for **Workspace** configuration from Citrix Cloud
- Integrated **Citrix Receiver 13.4.2**. Citrix Receiver version 13.5.0 was removed. Available Citrix Receiver versions: 13.3.2, 13.4.2, 13.7.0, 13.8.0 (default)
- Updated **Citrix HDX RTME** used for optimization of Skype for Business to 2.4.0.

RDP / IGEL RDP Client 2

- Added possibility to use **RDP local logon** for smartcard login. This can be activated in the setup.
  More

Parameter	Enable smartcard support for local logon
Registry	`rdp.login.smartcard-local-logon`
Value	enabled / disabled

By enabling this parameter local logon can be used for smartcard authentication. If **Username** is left empty the connection to the RDP server will be made without sending credentials, so you can choose **Smartcard** as login method in the microsoft login window . However this will not work with **NLA**.

- Added support for CredSSP up to version 6.

VMware Horizon

- Updated **VMware Horizon Client** to version **4.7.0-7395152**.
- Added key to enable **seamless window mode** in each application session.
  More

Parameter	Seamless Application Windows
Registry	sessions.vdm_client.options.enable_seamless_window
Value	enabled / disabled

- Added possibility to use **Fabulatech USB Redirection** in a Horizon Client PCoIP session.
  More

IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Fabulatech USB Redirection**
Parameter	Enable Fabulatech USB Redirection
Registry	`vmware.view.` usb.enable-fabulatech-usb
Value	enabled / <u>disabled</u>

Parallels Client

- Integrated **Parallels Client** version **16.2.0 (19039)**
- Added support for USB Redirection, configurable at new IGEL Setup page **Sessions > Parallels Client > Parallels Client Global > USB Redirection**.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Global > USB Redirection**
Parameter	Enable USB Redirection
Registry	`twox.usb_redirection.usb_enable`
Value	enabled / <u>disabled</u>
Parameter	Product ID
Registry	`twox.usb_redirection.devicepolicy.product_rule.product`
Parameter	Vendor ID
Registry	`twox.usb_redirection.devicepolicy.product_rule.vendor`
Parameter	Rule
Registry	`twox.usb_redirection.devicepolicy.product_rule.rule`
Value	<u>Deny</u> / Allow
Parameter	Name
Registry	`twox.usb_redirection.devicepolicy.product_rule.name`
Value	Policy Rule
Parameter	Automatically redirect all USB devices
Registry	`twox.usb_redirection.devicepolicy.redirect_all`
Value	enabled / <u>disabled</u>

- Added support for **PTP/MTP** Redirection.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Global > USB Redirection**

Parameter	Enable PTP/MTP Redirection
Registry	`twox.mtp_redirection.mtp_enable`
Value	enabled / <u>disabled</u>
Parameter	Product ID
Registry	`twox.mtp_redirection.devicepolicy.product_rule.product`
Parameter	Vendor ID
Registry	`twox.mtp_redirection.devicepolicy.product_rule.vendor`
Parameter	Rule
Registry	`twox.mtp_redirection.devicepolicy.product_rule.rule`
Value	<u>Deny</u> / Allow
Parameter	Name
Registry	`twox.mtp_redirection.devicepolicy.product_rule.name`
Value	Policy Rule
Parameter	Automatically redirect all PTP/MTP devices
Registry	`twox.mtp_redirection.devicepolicy.redirect_all`
Value	enabled / <u>disabled</u>

- Added support for **Clipboard** Redirection.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Sessions > Parallels Client Session > Local Resources**
Parameter	Connect clipboard
Registry	`sessions.twox.local_resources.connect_clipboard`
Value	<u>enabled</u> / disabled

VoIP

- Added **VoIP client Ekiga 4.0.1**.

Firefox

- Updated **Firefox** to version **52.7.2 ESR**.
- Updated **Adobe Flash Player** download URL to version 29.0.0.113.

Network

- Added **TTLS/PAP** and **TTLS/MSCHAPv2** to possible 802.1x authentication methods.

- Improved support for **Sierra EM7305 LTE** device (e.g. in Toshiba Portégé and Fujitsu LIFEBOOK E Series).

  > ⊘ The EM7305 comes in various variants, e.g. one with ProductId 9041 and another one with ProductId 9063. The latter comes at least with one or with two USB configuration options. A device with only one configuration option has been observed on a Toshiba Tecra Z-50-D-115 notebook. It only works in MBIM mode and with IGEL firmware, when the device has successfully connected before with the same settings (particularly APN), e.g. under Microsoft Windows 10.

- Added support for **Sierra EM7455 WWAN module**.
- Added support for running the **Huawei E3531i WWAN** device in modem mode (in addition to HiLink mode).
- Added possibility to adopt the **hostname from a DHCP lease** as **permanent** terminal name. The purpose is to use the name received as part of a DHCP lease in future interactions with the DHCP server.
  More

Parameter	Adopt permanent Terminal Name from DHCP lease
Registry	`network.dns.hostname_adopt_from_dhcp`
Value	enabled / <u>disabled</u>

- **NetworkManager** updated to version **1.2.2**
- **ModemManager** updated to version **1.6.4**
- **usb_modeswitch** updated to version **2.5.1**

Open VPN

- Added **Huawei HiLink Mobile Broadband USB** device as possible uplink to OpenVPN sessions.

OpenConnect VPN

- Added **OpenConnect** client version **7.08** to connect to **Cisco AnyConnect** and **Juniper VPN**. The feature must be enabled.
  More

IGEL Setup	**System > Firmware Customization > Features**
Parameter	VPN OpenConnect (Limited support - functionality "as is", see product documentation for details)
Registry	services.unsupported02.enabled
Value	enabled / <u>disabled</u>

- The OpenConnect VPN configuration is available at IGEL Setup page **Network > VPN > OpenConnect VPN**.
  More

IGEL Setup	**Network > VPN > OpenConnect VPN > VPN OpenConnect > Session**

Parameter	Gateway
Registry	`sessions.openconnect.vpnopts.gateway`
Parameter	Enable Name/Password Authentication
Registry	`sessions.openconnect.vpnopts.enable-name-pwd`
Value	enabled / <u>disabled</u>
Parameter	User Name
Registry	`sessions.openconnect.vpnopts.username`
Parameter	Password
Registry	`sessions.openconnect.vpnopts.crypt_password`
Parameter	CA Certificate
Registry	`sessions.openconnect.vpnopts.ca-cert`
Parameter	User Certificate
Registry	`sessions.openconnect.vpnopts.user-cert`
Parameter	Private Key
Registry	`sessions.openconnect.vpnopts.priv-key`
Parameter	Private Key password
Registry	`sessions.openconnect.vpnopts.priv-key-pwd.crypt_password`
Parameter	Connect to Juniper Networks VPN
Registry	`sessions.openconnect%.vpnopts.is-juniper`
Value	enabled / <u>disabled</u>

ⓘ Tray icon is placed in the panel to disconnect from a running OpenConnect VPN connection.

Smartcard

- Added **CoolKey PKCS#11** library for access to **Common Access Card (CAC)** smartcards. **More**

IGEL Setup	**Sessions > Browser > Browser Global > Encryption**
Parameter	Coolkey Security Device
Registry	`browserglobal.security_device.coolkey`

Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by Coolkey library
Registry	`vmware.view.pkcs11.use_coolkey`
Value	enabled / <u>disabled</u>
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	Coolkey
Registry	`scard.pkcs11.use_coolkey`
Value	enabled / <u>disabled</u>

- Updated **Gemalto SafeNet PKCS#11** library to version **10.0.37-0**. This package replaces **Gemalto/ SafeNet eToken** and **Gemalto IDPrime** libraries.
  Gemalto SafeNet (formerly **Gemalto/SafeNet eToken**) now handles Gemalto cards and tokens including eToken and IDPrime.
  Gemalto IDPrime now handles IDPrime cards and tokens, preferred Common Creteria (CC) cards and tokens in Unlinked Mode.
- Added full integration of **OpenSC PKCS#11** library for access to smartcards.
  More

IGEL Setup	**Sessions > Browser > Browser Global > Encryption**
Parameter	OpenSC Security Device
Registry	`browserglobal.security_device.opensc`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by OpenSC library
Registry	`vmware.view.pkcs11.use_opensc`
Value	enabled / <u>disabled</u>
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	OpenSC
Registry	`scard.pkcs11.use_opensc`
Value	enabled / <u>disabled</u>

- Updated **MUSCLE CCID** smartcard reader driver to version **1.4.28**.
- Updated **ACS CCID** smartcard reader driver to version **1.1.5**.
- Updated **REINER SCT cyberJack** smartcard reader driver to version **3.99.5final.sp11**.

- Added parameter to disable **Identive CCID** smartcard reader driver. If this driver is disabled, some of the readers are handled by the MUSCLE CCID driver. This can help when problems with Identive reader driver occur.
  More

Parameter	Identive driver for smart card readers
Registry	`scard.pcscd.identiv_enable`
Value	<u>enabled</u> / disabled

- Updated **cryptovision sc/interface PKCS#11** library to version **7.0.5.592**.
- New smartcard reader driver for **Fujitsu KB SCR eSIG** version **5.0.24**.

HID

- Added **layout toggle** feature to on-screen keyboard.
  More

IGEL Setup	**Accessories > On-Screen Keyboard > Appearance**
Parameter	Enable switching to alternative layout
Registry	`userinterface.softkeyboard.enable_alternative_layout`
Value	enabled / <u>disabled</u>
If this is enabled there is a key on the on-screen keyboard for toggling between the normal layout and a reduced layout, that saves space on the screen and has more or less the same features as the number block of an ordinary keyboard with some extensions.	

Base System

- Added support for **UEFI Secure Boot**.

  > (i) When booted with Secure Boot the downgrade to a firmware version older than 10.04.100 is locked.

- Updated **kernel to version 4.15.15**
- **Boot time optimization** (up to 25% faster)
- **Switch power off on USB ports on shutdown and reboot**. The feature can be enabled in IGEL Setup. At the moment only IGEL H830C is supported.
  More

IGEL Setup	**System > Registry**
Parameter	Power off on shutdown
Registry	`devices.usb.poweroff_shutdown`
Value	enabled / <u>disabled</u>

- Added Unit ID in Application Launcher **About > Hardware** section.

- Showing **number of CPU cores** in Application Launcher **About > Hardware** section now.

Storage Devices

- Added support for **Mobile Device Access** feature in **Appliance Mode**. The Mobile Device Access tool can be opened via a new icon in the **In-session control bar**. The Mobile Device Access tool can also be started automatically.
  More

Parameter	Autostart
Registry	`sessions.mtp-devices0.autostart`
Value	enabled / <u>disabled</u>
Mobile Device Access must be enabled at **IGEL Setup > System > Firmware Customization > Features**. Appliance Mode must be enabled at **IGEL Setup > Sessions > Appliance Mode**.	

- The **Mobile Device Access tool** is now configurable at **IGEL Setup > Accessories > Mobile Device Access**.
- The **Mobile Device Access tray icon** respects the current theme now.

X11 System

- Added support for **XDMCP Appliance Mode**. The XDMCP connection is configurable.
  More

IGEL Setup	**Sessions > Appliance Mode**
Parameter	XDMCP for this Display
Registry	`x.xdmcp0.enabled`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Connection Type
Registry	`x.xdmcp0.server.connectiontype`
Range	**indirect via localhost** / indirect / direct / broadcast
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Name or IP of server
Registry	`x.xdmcp0.server.servername`
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Enable hotkeys for XDMCP Display
Registry	`x.xdmcp0.hotkeys.enabled`

Value	enabled / disabled

The default hotkey to open IGEL Setup is: CTRL + ALT + F2. The setup page **User Interface > Display > XDMCP** was removed.

- Added **XC Font Service** support.
  More

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Enable XC Font Service
Registry	`x.xc_fontservice.enabled`
Value	enabled / disabled

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	XC Font Server
Registry	`x.xc_fontservice.fontserver`

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Port Number
Registry	`x.xc_fontservice.port`
Value	7100

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Prefer Local Fonts
Registry	`x.xc_fontservice.prefer_localfonts`
Value	enabled / disabled

- Added **auto detection of monitor refresh rate**. This can be controlled with new parameters.
  More

IGEL Setup	**User Interface > Display > Advanced**
Parameter	Detect refresh rate automatically
Registry	`x.xserver0.auto_frequency`
Value	enabled / disabled

IGEL Setup	**User Interface > Display > Advanced**
Parameter	Detect refresh rate automatically
Registry	`x.xserver0.` screen.auto_frequency

Value	enabled / disabled

- Added xorg debug script **/etc/igel/igel_debug_tools/xorg-debug.sh** to make collecting Xorg debug data easier (a /tmp/xorg-debug.log file is generated).

Window Manager

- Added possibility to
    - a) **change the preferred placement mode** and
    - b) **modify the threshold value** up to which window size this placement mode should be chosen (otherwise window placement defaults to so called smart mode which tries to minimize overlapping).

  More

Parameter	Preferred Placement
Registry	`windowmanager.wm0.variables.placement_mode`
Value	At mouse position / Centered
Parameter	Maximum window size for which the preferred placement should apply
Registry	`windowmanager.wm0.variables.placement_ratio`
Value	0% / 10% / 20% / 30% / 40% / 50% / 60% / 70% / 80% / 90% / 100%

Audio

- **Volume** of audio output and input can now be configured up to 150% at **IGEL Setup page Accessories > Sound Preferences > Options**.
- Added a parameter for log level configuration of **Pulseaudio** service.

  More

Parameter	Log level
Registry	`multimedia.pulseaudio.daemon.log-level`
Range	debug / info / notice / warning / error

Misc

- An EULA must be accepted now in IGEL setup assistant before finalizing it and using the IGEL OS.

Java

- Updated **Oracle JRE to 1.8U162**.

Remote Management

- Added **new log file transfer mechanism** for UMS feature **Save TC files for support** (UMS 5.08.110 or higher required). By default, it collects all log files visible in system log viewer, system configuration files group.ini, setup.ini and dhclient lease files. More files can be specified at **IGEL**

Setup > Accessories > System Log Viewer > Options. The resulting zip file has now a folder structure.

IGEL Cloud Gateway

- Added **UMS structure tag** handling for usage with **ICG agent**.

Hardware

- Added support for **IGEL UD7-LX 10**.

Resolved Issues 10.04.100

Citrix

- Fixed sporadic crashes of the **Citrix USB Daemon**.

RDP / IGEL RDP Client 2

- Fixed passing **Ctrl+Alt+C keyboard shortcut** to RDP session.
- Fixed **smartcard redirection**: after session reconnection readers and cards were not connected any more in some cases.
- Fixed the **rdpdebugger** to work again (was broken in the previous release).
- Fixed misleading **RDP error message `Authentication failed`** on wakeup from suspend mode
- Fixed **TCP timeout value** to get more stable **RDP connections** under certain circumstances.

VMware Horizon

- Fixed bug which prevented **microphone redirection** in Horizon Client RDP sessions.
  More

IGEL Setup	**Sessions > RDP > RDP Global > Mapping > Audio**
Parameter	Audio recording
Registry	`rdp.winconnect.rdpeai.enable`
Value	enabled / <u>disabled</u>

RedHat Enterprise Virtualization Client

- Fixed **display corruption** with Windows connections.

Firefox

- Fixed possibility to **download files in the browser** if needed. The parameter to enable/disable file download is available here.
  More

IGEL Setup	**Sessions > Browser > Browser Sessions > Window**
Parameter	Hide local filesystem
Registry	`sessions.browser.app.filepicker_dialog_hidden`
Value	enabled / <u>disabled</u>
If enabled, the user is not allowed to download or use any save-as functionality from menu, context or keyboard shortcut.	

- Fixed bug which **prevented the download using the file dialog** (in the case you open a link to a file of unkonwn type).
- Fixed **unmounting of the Firefox profile partition during shutdown** - now it is unmounted in a determinate manner after Custom Partition.

Network

- Fixed bug: **Network tray icons** sometimes didn't reappear after network restart.
- Fixed bug: **tcpdump debug tool** terminated immediately during boot.
- Fixed issue with **naming of USB ethernet devices**.
- Fixed wrong **LinkMode (10baseT/Half)** with autonegotiation and some USB ethernet devices.

AppliDis

- Changed default value of **PasswordMode** from **cmdline** to **prompt** as suggested by Systancia.

Smartcard

- Fixed driver for **Elatec RFID readers**. Before this fix the readers sometimes were not available after boot.
- Fixed VMware Horizon logon with OpenSC smartcards.

CUPS Printing

- Fixed bug where the **user for printjobs** was not set to the **domain user**.

Base System

- Fixed **Kerberos password change** to work also with transport protocol **TCP**. To force protocol TCP, prepend Domain Controllers with prefix "tcp/", e.g. "tcp/dc.example.com".
- Fixed **occasional desktop hang** in the local login or the network login mask after successful authentication.
- Fixed **password expiry notification** showing negative expiry period.
- Fixed **update to connect to SFTP** servers with very restrictive key exchange settings.
- Fixed input of the **reset key in reset to defaults boot**, if the administrator password is not available anymore. If more than 255 characters were entered in the 1st try, it was not possible to enter the reset key for a 2nd or 3rd time.
- Fixed **Active Directory logon with smartcard**: If the smartcard contains logon certificates for multiple users, it is possible to switch between these certificates and log on with the chosen certificate now.
- Fixed missing names for some **partitions** in update notification when having a user interface **language other than English**.
- Fixed problems with **never ending bootcode** update with some EFI BIOS variants.
- Fixed **ssh server port** configuration.
- Fixed **signotec signature pad** channel for Citrix.
- Increased stability of **signotec VCOM Daemon**.
- Remove residual information belonging to a **removed content from a custom partition**.
- Fixed **crash of xfce4-power-manager** after adding or removing input devices.

Custom Partition

- Fixed **automatic update of custom partition** - if download source isn't accessible then the content of the custom partition got lost.

Appliance Mode

- Fixed post session command **Logoff** in Appliance Mode.

X11 System

- Fixed **Elo-USB Touchscreen functionality** after reboot.

- Fixed **DisplayLink USB Support on UD3 LX50**.
- Fixed issue with **two monitors connected via DVI-D to HDMI adapter on a UD3 M330 (VIA)**.
  Added registry key to disable the new HDMI autodetection.
  More

Parameter	Autodetect if DVI to HDMI adapter is in use
Registry	`x.drivers.via.autodetect_hdmi_output`
Value	enabled / disabled

- Fixed **wrong automatic resolution detection** if monitor does not have a preferred mode.
- Fixed **sporadic display corruptions** after monitors leaving the power saving mode.
- Improved handling of more than 2 screens.

Shadowing/VNC

- Fixed **sporadic VNC server crash**.

Audio

- Fixed **volume control of internal speaker in HP T610**.
- Fixed **automatic switch to output** over analog headphones.
- Not existing **S/PDIF inputs and outputs in Plantronics and Jabra USB headsets** are now ignored by audio subsystem (Pulseaudio).
- Added workaround in the kernel USB audio driver for **volume control on Sennheiser USB headsets**.

Remote Management

- Fixed **calculation of Unit ID for UMS management**. In some cases, it could happen that the MAC address of wrong network interface was chosen.
- Fixed **IGEL Setup Assistant** to get stopped when settings were received from UMS.

IGEL Universal Desktop Converter (UDC3) 10.04.100

Supported Hardware:

Third-Party Devices Supported by IGEL OS 10

- Versions for Release 10.04.100
- New Features 10.04.100

Versions for Release 10.04.100

- **Clients**

Product	Version
Oracle JRE	1.8.0_162

- **System Components**

Bluetooth stack (bluez)	5.46-0ubuntu3
MESA OpenGL stack	17.2.8-0igel3
VAAPI ABI Version	0.40
Graphics Driver INTEL	2.99.917+git20180214-igel1
Graphics Driver ATI/RADEON	7.10.0-2igel3
Graphics Driver ATI/AMDGPU	1.4.0-2igel3
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2
Graphics Driver Vboxvideo	5.2.6-dfsg-2
Graphics Driver VMware	13.2.1-1build1
Graphics Driver QXL (Spice)	0.1.5-2build1
Graphics Driver FBDEV	0.4.4-1build5
Graphics Driver VESA	2.3.4-1build2
Input Driver Evdev	2.10.5-1ubuntu1
Input Driver Elographics	1.4.1-1build5
Input Driver Synaptics	1.9.0-1ubuntu1
Input Driver Vmmouse	13.1.0-1ubuntu2
Input Driver Wacom	0.34.0-0ubuntu2
Kernel	4.15.15 #mainline-udos-r2141
Xorg X11 Server	1.19.6-2igel1
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2
ISC DHCP Client	4.3.3-5ubuntu12.7

Security Fixes

- Added support for UEFI Secure Boot.

  ⓘ When booted with Secure Boot the downgrade to a firmware version older than 10.04.100 is locked.

New Features 10.04.100

Citrix Receiver 13

- Integrated **Citrix Receiver 13.8.0**.
  More

Parameter	Use Citrix Cloud with receiver 13.8 or newer
Registry	`ica.cloudconnect`
Value	enabled / <u>disabled</u>

  - Support for **Azure** Active Directory (Azure AD) authentication
  - Support for **Workspace** configuration from Citrix Cloud
- Integrated **Citrix Receiver 13.4.2**. Citrix Receiver version 13.5.0 was removed. Available Citrix Receiver versions: 13.3.2, 13.4.2, 13.7.0, 13.8.0 (default)
- Updated **Citrix HDX RTME** used for optimization of Skype for Business to 2.4.0.

RDP / IGEL RDP Client 2

- Added possibility to use **RDP local logon** for smartcard login. This can be activated in the setup.
  More

Parameter	Enable smartcard support for local logon
Registry	`rdp.login.smartcard-local-logon`
Value	enabled / <u>disabled</u>

By enabling this parameter local logon can be used for smartcard authentication. If **Username** is left empty the connection to the RDP server will be made without sending credentials, so you can choose **Smartcard** as login method in the microsoft login window . However this will not work with **NLA**.

- Added support for CredSSP up to version 6.

VMware Horizon

- Updated **VMware Horizon Client** to version **4.7.0-7395152**.
- Added key to enable **seamless window mode** in each application session.
  More

Parameter	Seamless Application Windows
Registry	sessions.vdm_client.options.enable_seamless_window
Value	enabled / <u>disabled</u>

- Added possibility to use **Fabulatech USB Redirection** in a Horizon Client PCoIP session.
  More

IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Fabulatech USB Redirection**
Parameter	Enable Fabulatech USB Redirection
Registry	`vmware.view.` usb.enable-fabulatech-usb
Value	enabled / <u>disabled</u>

Parallels Client

- Integrated **Parallels Client** version **16.2.0 (19039)**
- Added support for USB Redirection, configurable at new IGEL Setup page **Sessions > Parallels Client > Parallels Client Global > USB Redirection**.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Global > USB Redirection**
Parameter	Enable USB Redirection
Registry	`twox.usb_redirection.usb_enable`
Value	enabled / <u>disabled</u>
Parameter	Product ID
Registry	`twox.usb_redirection.devicepolicy.product_rule.product`
Parameter	Vendor ID
Registry	`twox.usb_redirection.devicepolicy.product_rule.vendor`
Parameter	Rule
Registry	`twox.usb_redirection.devicepolicy.product_rule.rule`
Value	<u>Deny</u> / Allow
Parameter	Name
Registry	`twox.usb_redirection.devicepolicy.product_rule.name`
Value	Policy Rule
Parameter	Automatically redirect all USB devices
Registry	`twox.usb_redirection.devicepolicy.redirect_all`
Value	enabled / <u>disabled</u>

- Added support for **PTP/MTP** Redirection.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Global > USB Redirection**

Parameter	Enable PTP/MTP Redirection
Registry	`twox.mtp_redirection.mtp_enable`
Value	enabled / <u>disabled</u>
Parameter	Product ID
Registry	`twox.mtp_redirection.devicepolicy.product_rule.product`
Parameter	Vendor ID
Registry	`twox.mtp_redirection.devicepolicy.product_rule.vendor`
Parameter	Rule
Registry	`twox.mtp_redirection.devicepolicy.product_rule.rule`
Value	<u>Deny</u> / Allow
Parameter	Name
Registry	`twox.mtp_redirection.devicepolicy.product_rule.name`
Value	Policy Rule
Parameter	Automatically redirect all PTP/MTP devices
Registry	`twox.mtp_redirection.devicepolicy.redirect_all`
Value	enabled / <u>disabled</u>

- Added support for **Clipboard** Redirection.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Sessions > Parallels Client Session > Local Resources**
Parameter	Connect clipboard
Registry	`sessions.twox.local_resources.connect_clipboard`
Value	<u>enabled</u> / disabled

VoIP

- Added **VoIP client Ekiga 4.0.1**.

Firefox

- Updated **Firefox** to version **52.7.2 ESR**.
- Updated **Adobe Flash Player** download URL to version 29.0.0.113.

Network

- Added **TTLS/PAP** and **TTLS/MSCHAPv2** to possible 802.1x authentication methods.

- Improved support for **Sierra EM7305 LTE** device (e.g. in Toshiba Portégé and Fujitsu LIFEBOOK E Series).

> ⊘ The EM7305 comes in various variants, e.g. one with ProductId 9041 and another one with ProductId 9063. The latter comes at least with one or with two USB configuration options. A device with only one configuration option has been observed on a Toshiba Tecra Z-50-D-115 notebook. It only works in MBIM mode and with IGEL firmware, when the device has successfully connected before with the same settings (particularly APN), e.g. under Microsoft Windows 10.

- Added support for **Sierra EM7455 WWAN module**.
- Added support for running the **Huawei E3531i WWAN** device in modem mode (in addition to HiLink mode).
- Added possibility to adopt the **hostname from a DHCP lease** as **permanent** terminal name. The purpose is to use the name received as part of a DHCP lease in future interactions with the DHCP server.
  More

Parameter	Adopt permanent Terminal Name from DHCP lease
Registry	`network.dns.hostname_adopt_from_dhcp`
Value	enabled / <u>disabled</u>

- **NetworkManager** updated to version **1.2.2**
- **ModemManager** updated to version **1.6.4**
- **usb_modeswitch** updated to version **2.5.1**

Open VPN

- Added **Huawei HiLink Mobile Broadband USB** device as possible uplink to OpenVPN sessions.

OpenConnect VPN

- Added **OpenConnect** client version **7.08** to connect to **Cisco AnyConnect** and **Juniper VPN**. The feature must be enabled.
  More

IGEL Setup	**System > Firmware Customization > Features**
Parameter	VPN OpenConnect (Limited support - functionality "as is", see product documentation for details)
Registry	services.unsupported02.enabled
Value	enabled / <u>disabled</u>

- The OpenConnect VPN configuration is available at IGEL Setup page **Network > VPN > OpenConnect VPN**.
  More

IGEL Setup	**Network > VPN > OpenConnect VPN > VPN OpenConnect > Session**

Parameter	Gateway
Registry	`sessions.openconnect.vpnopts.gateway`
Parameter	Enable Name/Password Authentication
Registry	`sessions.openconnect.vpnopts.enable-name-pwd`
Value	enabled / <u>disabled</u>
Parameter	User Name
Registry	`sessions.openconnect.vpnopts.username`
Parameter	Password
Registry	`sessions.openconnect.vpnopts.crypt_password`
Parameter	CA Certificate
Registry	`sessions.openconnect.vpnopts.ca-cert`
Parameter	User Certificate
Registry	`sessions.openconnect.vpnopts.user-cert`
Parameter	Private Key
Registry	`sessions.openconnect.vpnopts.priv-key`
Parameter	Private Key password
Registry	`sessions.openconnect.vpnopts.priv-key-pwd.crypt_password`
Parameter	Connect to Juniper Networks VPN
Registry	`sessions.openconnect%.vpnopts.is-juniper`
Value	enabled / <u>disabled</u>

> ⓘ Tray icon is placed in the panel to disconnect from a running OpenConnect VPN connection.

Smartcard

- Added **CoolKey PKCS#11** library for access to **Common Access Card (CAC)** smartcards. **More**

IGEL Setup	**Sessions > Browser > Browser Global > Encryption**
Parameter	Coolkey Security Device
Registry	`browserglobal.security_device.coolkey`

Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by Coolkey library
Registry	`vmware.view.pkcs11.use_coolkey`
Value	enabled / <u>disabled</u>
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	Coolkey
Registry	`scard.pkcs11.use_coolkey`
Value	enabled / <u>disabled</u>

- Updated **Gemalto SafeNet PKCS#11** library to version **10.0.37-0**. This package replaces **Gemalto/SafeNet eToken** and **Gemalto IDPrime** libraries.
  Gemalto SafeNet (formerly **Gemalto/SafeNet eToken**) now handles Gemalto cards and tokens including eToken and IDPrime.
  Gemalto IDPrime now handles IDPrime cards and tokens, preferred Common Creteria (CC) cards and tokens in Unlinked Mode.
- Added full integration of **OpenSC PKCS#11** library for access to smartcards.
  More

IGEL Setup	**Sessions > Browser > Browser Global > Encryption**
Parameter	OpenSC Security Device
Registry	`browserglobal.security_device.opensc`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by OpenSC library
Registry	`vmware.view.pkcs11.use_opensc`
Value	enabled / <u>disabled</u>
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	OpenSC
Registry	`scard.pkcs11.use_opensc`
Value	enabled / <u>disabled</u>

- Updated **MUSCLE CCID** smartcard reader driver to version **1.4.28**.
- Updated **ACS CCID** smartcard reader driver to version **1.1.5**.
- Updated **REINER SCT cyberJack** smartcard reader driver to version **3.99.5final.sp11**.

- Added parameter to disable **Identive CCID** smartcard reader driver. If this driver is disabled, some of the readers are handled by the MUSCLE CCID driver. This can help when problems with Identive reader driver occur.
  More

Parameter	Identive driver for smart card readers
Registry	`scard.pcscd.identiv_enable`
Value	<u>enabled</u> / disabled

- Updated **cryptovision sc/interface PKCS#11** library to version **7.0.5.592**.
- New smartcard reader driver for **Fujitsu KB SCR eSIG** version **5.0.24**.

HID

- Added **layout toggle** feature to on-screen keyboard.
  More

IGEL Setup	**Accessories > On-Screen Keyboard > Appearance**
Parameter	Enable switching to alternative layout
Registry	`userinterface.softkeyboard.enable_alternative_layout`
Value	enabled / <u>disabled</u>
If this is enabled there is a key on the on-screen keyboard for toggling between the normal layout and a reduced layout, that saves space on the screen and has more or less the same features as the number block of an ordinary keyboard with some extensions.	

Base System

- Added support for **UEFI Secure Boot**.

  > (i) When booted with Secure Boot the downgrade to a firmware version older than 10.04.100 is locked.

- Updated **kernel to version 4.15.15**
- **Boot time optimization** (up to 25% faster)
- **Switch power off on USB ports on shutdown and reboot**. The feature can be enabled in IGEL Setup. At the moment only IGEL H830C is supported.
  More

IGEL Setup	**System > Registry**
Parameter	Power off on shutdown
Registry	`devices.usb.poweroff_shutdown`
Value	enabled / <u>disabled</u>

- Added Unit ID in Application Launcher **About > Hardware** section.

- Showing **number of CPU cores** in Application Launcher **About > Hardware** section now.

Storage Devices

- Added support for **Mobile Device Access** feature in **Appliance Mode**. The Mobile Device Access tool can be opened via a new icon in the **In-session control bar**. The Mobile Device Access tool can also be started automatically.
  More

Parameter	Autostart
Registry	`sessions.mtp-devices0.autostart`
Value	enabled / <u>disabled</u>
Mobile Device Access must be enabled at **IGEL Setup > System > Firmware Customization > Features**. Appliance Mode must be enabled at **IGEL Setup > Sessions > Appliance Mode**.	

- The **Mobile Device Access tool** is now configurable at **IGEL Setup > Accessories > Mobile Device Access**.
- The **Mobile Device Access tray icon** respects the current theme now.

X11 System

- Added support for **XDMCP Appliance Mode**. The XDMCP connection is configurable.
  More

IGEL Setup	**Sessions > Appliance Mode**
Parameter	XDMCP for this Display
Registry	`x.xdmcp0.enabled`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Connection Type
Registry	`x.xdmcp0.server.connectiontype`
Range	**indirect via localhost** / indirect / direct / broadcast
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Name or IP of server
Registry	`x.xdmcp0.server.servername`
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Enable hotkeys for XDMCP Display
Registry	`x.xdmcp0.hotkeys.enabled`

Value	<u>enabled</u> / disabled

The default hotkey to open IGEL Setup is: CTRL + ALT + F2. The setup page **User Interface > Display > XDMCP** was removed.

- Added **XC Font Service** support.
  More

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Enable XC Font Service
Registry	`x.xc_fontservice.enabled`
Value	enabled / <u>disabled</u>

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	XC Font Server
Registry	`x.xc_fontservice.fontserver`

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Port Number
Registry	`x.xc_fontservice.port`
Value	<u>7100</u>

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Prefer Local Fonts
Registry	`x.xc_fontservice.prefer_localfonts`
Value	enabled / <u>disabled</u>

- Added **auto detection of monitor refresh rate**. This can be controlled with new parameters.
  More

IGEL Setup	**User Interface > Display > Advanced**
Parameter	Detect refresh rate automatically
Registry	`x.xserver0.auto_frequency`
Value	<u>enabled</u> / disabled

IGEL Setup	**User Interface > Display > Advanced**
Parameter	Detect refresh rate automatically
Registry	`x.xserver0.` screen.auto_frequency

Value	enabled / disabled

- Added xorg debug script **/etc/igel/igel_debug_tools/xorg-debug.sh** to make collecting Xorg debug data easier (a /tmp/xorg-debug.log file is generated).

Window Manager

- Added possibility to
    - a) **change the preferred placement mode** and
    - b) **modify the threshold value** up to which window size this placement mode should be chosen (otherwise window placement defaults to so called smart mode which tries to minimize overlapping).
  More

Parameter	Preferred Placement
Registry	`windowmanager.wm0.variables.placement_mode`
Value	At mouse position / Centered
Parameter	Maximum window size for which the preferred placement should apply
Registry	`windowmanager.wm0.variables.placement_ratio`
Value	0% / 10% / 20% / 30% / 40% / 50% / 60% / 70% / 80% / 90% / 100%

Audio

- **Volume** of audio output and input can now be configured up to 150% at **IGEL Setup page Accessories > Sound Preferences > Options**.
- Added a parameter for log level configuration of **Pulseaudio** service.
  More

Parameter	Log level
Registry	`multimedia.pulseaudio.daemon.log-level`
Range	debug / info / notice / warning / error

Misc

- An EULA must be accepted now in IGEL setup assistant before finalizing it and using the IGEL OS.

Java

- Updated **Oracle JRE to 1.8U162**.

Remote Management

- Added **new log file transfer mechanism** for UMS feature **Save TC files for support** (UMS 5.08.110 or higher required). By default, it collects all log files visible in system log viewer, system configuration files group.ini, setup.ini and dhclient lease files. More files can be specified at **IGEL**

Setup > Accessories > System Log Viewer > Options. The resulting zip file has now a folder structure.

IGEL Cloud Gateway

- Added **UMS structure tag** handling for usage with **ICG agent**.

Hardware

- Added support for **IGEL UD7-LX 10**.

Notes for Release 10.03.570

Software:	Version	10.03.570
Release Date:	2018-02-01	
Release Notes:	Version	RN-1003570-1
Last update:	2018-02-05	

- IGEL Universal Desktop LX / IGEL Zero 10.03.570(see page 1186)
- IGEL Universal Desktop OS 3 / IGEL UD Pocket 10.03.570(see page 1186)

IGEL Universal Desktop LX / IGEL Zero 10.03.570

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 50
	UD3-LX 42
	UD3-LX 41
	UD3-LX 40
UD5-LX:	UD5-LX 50
	UD5-LX 40
UD6-LX:	UD6-LX 51
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10

IGEL Zero:
IZ2-RFX
IZ2-HDX
IZ2-HORIZON
IZ3-RFX
IZ3-HDX
IZ3-HORIZON

Versions for Release 10.03.570

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.3.0-1075
Citrix Receiver	13.3.2.366713
Citrix Receiver	13.5.0.10185126
Citrix Receiver	13.7.0.10276927
deviceTRUST Citrix Channel	17.2.100.0
deviceTRUST RDP Channel	17.2.100.0
Ericom PowerTerm	12.0.1.0.20170219.2-dev-34574
Evidian AuthMgr	1.5.6362
Evince PDF Viewer	3.18.2-1ubuntu4.2
FabulaTech USB for Remote Desktop	5.2.23
Firefox	52.5.0
IBM iAccess Client Solutions	1.1.5.0
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
Leostream Java Connect	3.3.7.0
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_152
Parallels 2X Client	16.2.0.19039
Remote Viewer for RedHat Enterprise Virtualization Desktops	7.0
Systancia AppliDis	4.0.0.17
Thinlinc Client	4.8.0-5456
ThinPrint Client	7.5.83
Totem Media Player	2.30.2

VMware Horizon Client	4.6.0-6617224

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20161103
Philips Speech Driver	12.5.4

- **Signature**

signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	6.6.3.502
PKCS#11 Library Gemalto IDPrime	1.2.3
PKCS#11 Library SecMaker NetID	6.6.0.30
Reader Driver ACS CCID	1.1.3
Reader Driver Gemalto eToken	9.0.43
Reader Driver HID Global Omnikey CCID	4.2.4
Reader Driver Identiv / SCM Microsystems CCID	5.0.35
Reader Driver Identiv eHealth200	1.0.5
Reader Driver MUSCLE CCID	1.4.27
Reader Driver REINER SCT cyberJack	3.99.5final.SP09
Resource Manager PC/SC Lite	1.8.22
Cherry USB2LAN Proxy	3.0.0.4

- **System Components**

Bluetooth stack (bluez)	5.46-0ubuntu3
MESA OpenGL stack	17.2.2-0ubuntu1

VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20171109-igel
Graphics Driver ATI/RADEON	7.10.0-1
raphics Driver ATI/AMDGPU	1.4.0-1
Graphics Driver VIA	5.76.52.92-009-005f78-20150730
Graphics Driver FBDEV	0.4.4-1build5
Graphics Driver VESA	2.3.4-1build2
Input Driver Evdev	2.10.5-1ubuntu1
Input Driver Elographics	1.4.1-1build5
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1
Input Driver Vmmouse	13.1.0-1ubuntu2
Input Driver Wacom	0.34.0-0ubuntu2
Kernel	4.10.17 #43.47-ud-r1949
Xorg X11 Server	1.19.5-0ubuntu2
CUPS printing daemon	2.1.3-4ubuntu0.3
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2
ISC DHCP Client	4.3.3-5ubuntu12.7
NetworkManager	1.2.0-0ubuntu0.16.04.3
ModemManager	1.4.12-1ubuntu1
GStreamer	0.10.36-2ubuntu0.1

- **Features with Limited IGEL Support**

Mobile Device Access USB	

Security Fixes 10.03.570

- Fixed kernel security issues CVE-2017-16939, CVE-2017-12192, CVE-2017-1000370, CVE-2017-1000371, CVE-2017-12190, CVE-2017-15274, CVE-2017-14156, CVE-2017-14140, CVE-2017-15115, CVE-2017-14489, CVE-2017-12153, CVE-2017-16525, CVE-2017-7542 and CVE-2017-8824.
- Removed Intel Spectre microcode updates due to various issues with them. (Intel officially withdrew the microcode updates.)
- Fixed kernel security issues CVE-2017-1000405 (aka Huge Dirty Cow).
- Fixed Intel meltdown problem CVE-2017-5754 with Kernel Page Table Isolation (KPTI) Patch

General Information 10.03.570

The following clients and features are not supported anymore in version 10.03.570:

- Citrix Receiver 12.1 and 13.1
- Citrix Access Gateway Standard Plug-in
- Dell vWorkspace Connector for Linux
- Ericom PowerTerm Emulation 9 and 11
- Ericom Webconnect
- IGEL Legacy RDP Client (rdesktop)
- Virtual Bridges VERDE Client
- PPTP VPN Support
- IGEL Upgrade License Tool with IGEL Smartcard Token
- Remote Management by setup.ini file transfer (TFTP)
- XC Font Service
- Remote Access via RSH
- Legacy Philips Speech Driver
- Digital Persona Support
- Sane Scanner Support
- Softpro/Kofax Citrix Virtual Channel
- t-Systems TCOS Smartcard Support
- DUS Series touch screens
- Elo serial touch screens
- IGEL Smartcard without locking desktop
- Video Hardware Acceleration Support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10
- H.264 Hardware Acceleration Support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10
- Storage Hotplug devices are not automatically removed anymore, instead they must be always ejected manually:
  - by panel tray icon
  - by an icon in the 'In-Session Control Bar' (configurable at
    IGEL Setup > User Interface > Desktop
)
  - by a 'Safely Remove Hardware' session (configurable at
    IGEL Setup > Accessories
)

The following clients and features are not available in release 10.03.570:

- Voip Client Ekiga
- X session (Xorg Xephyr)
- XDMCP
- Cherry eGK Channel
- Open VPN Smartcard Support
- NCP Secure Client
- Asian Input Methods

- Composite Manager

Known Issues 10.03.570

Citrix Receiver 13

- With Citrix Receiver 13.5 print problems in legacy sessions can occur.

VMware Horizon

- External drives mounted already before connection, do not appear in the remote desktop. Workaround: map the directory /media as a drive in your desktop. Then the external devices will show up inside the media drive.
- Client drive mapping and USB redirection for storage devices should not be enabled both at the same time.
    - On the one hand, if you want to use USB redirection for your storage devices: Note that the USB on-insertion feature is only working if the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in:
    Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping
    . It is also recommended to disable local Storage Hotplug: On page
    Devices > Storage Devices > Storage Hotplug
    , put number of storage hotplug devices to 0.
    - On the other hand, if you use drive mapping instead, it is recommended that you should either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. And because Horizon Client relies on the OS to mount the storage devices itself, please go to setup page:
    Devices > Storage Devices > Storage Hotplug
    and switch on 'Enable dynamic drive mapping' and put 'Number of storage hotplug devices' to at least 1.

Firefox

- Support for the gstreamer framework was dropped by recent Firefox versions. Therefore support for H264 decoding in the browser is not possible anymore, due to licensing restrictions.
- After firmware update, a fullscreen browser session starts onetime in window mode. Afterwards the fullscreen mode is functional again.

Audio

- Headphone jack detection doesn't properly work on IGEL UD3 (M330C and M340C). The audio controlling system is unable to notice status change of the audio jack.

IGEL Universal Desktop OS 3 / IGEL UD Pocket 10.03.570

Versions for Release 10.03.570

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.3.0-1075
Citrix Receiver	13.3.2.366713
Citrix Receiver	13.5.0.10185126
Citrix Receiver	13.7.0.10276927
deviceTRUST Citrix Channel	17.2.100.0
deviceTRUST RDP Channel	17.2.100.0
Ericom PowerTerm	12.0.1.0.20170219.2-dev-34574
Evidian AuthMgr	1.5.6362
Evince PDF Viewer	3.18.2-1ubuntu4.2
FabulaTech USB for Remote Desktop	5.2.23
Firefox	52.5.0
IBM iAccess Client Solutions	1.1.5.0
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
Leostream Java Connect	3.3.7.0
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_152
Parallels 2X Client	16.2.0.19039
Remote Viewer for RedHat Enterprise Virtualization Desktops	7.0
Systancia AppliDis	4.0.0.17
Thinlinc Client	4.8.0-5456
ThinPrint Client	7.5.83
Totem Media Player	2.30.2

VMware Horizon Client	4.6.0-6617224

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20161103
Philips Speech Driver	12.5.4

- **Signature**

signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	6.6.3.502
PKCS#11 Library Gemalto IDPrime	1.2.3
PKCS#11 Library SecMaker NetID	6.6.0.30
Reader Driver ACS CCID	1.1.3
Reader Driver Gemalto eToken	9.0.43
Reader Driver HID Global Omnikey CCID	4.2.4
Reader Driver Identiv / SCM Microsystems CCID	5.0.35
Reader Driver Identiv eHealth200	1.0.5
Reader Driver MUSCLE CCID	1.4.27
Reader Driver REINER SCT cyberJack	3.99.5final.SP09
Resource Manager PC/SC Lite	1.8.22
Cherry USB2LAN Proxy	3.0.0.4

- **System Components**

Bluetooth stack (bluez)	5.46-0ubuntu3
MESA OpenGL stack	17.2.2-0ubuntu1

VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1
Graphics Driver INTEL	2.99.917+git20171109-igel
Graphics Driver ATI/RADEON	7.10.0-1
raphics Driver ATI/AMDGPU	1.4.0-1
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2
Graphics Driver Nvidia	384.90-0ubuntu0.16.04.2
Graphics Driver Vboxvideo	5.1.30-dfsg-1
Graphics Driver VMware	13.2.1-1build1
Graphics Driver QXL (Spice)	0.1.5-2build1
Graphics Driver FBDEV	0.4.4-1build5
Graphics Driver VESA	2.3.4-1build2
Input Driver Evdev	2.10.5-1ubuntu1
Input Driver Elographics	1.4.1-1build5
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ModemManager	1.4.12-1ubuntu1
GStreamer	0.10.36-2ubuntu0.1

- **Features with Limited IGEL Support**

Mobile Device Access USB	

Security Fixes 10.03.570

- Fixed kernel security issues CVE-2017-16939, CVE-2017-12192, CVE-2017-1000370, CVE-2017-1000371, CVE-2017-12190, CVE-2017-15274, CVE-2017-14156, CVE-2017-14140, CVE-2017-15115, CVE-2017-14489, CVE-2017-12153, CVE-2017-16525, CVE-2017-7542 and CVE-2017-8824.
- Partially addressed CVE-2017-5715 (Spectre Branch Target Injection) with Intel microcode updates version 20180108. CPU Models with updated microcode:
  - IVT C0
  - SKL-U/Y D0 and SKL-H/S R0
  - BDW-U/Y E/F and BDW-H E/G
  - HSW-ULT Cx/Dx and HSW Cx/Dx
  - Crystalwell Cx
  - HSX-EX E0 and HSX C0
  - BDX-DE V0/V1 and BDX-DE V2
  - KBL-U/Y H0, KBL Y0 / CFL D0 and KBL-H/S B0
  - CFL U0 and CFL B0
  - SKX H0
  - GLK B0
- Fixed kernel security issues CVE-2017-1000405 (aka Huge Dirty Cow).
- Fixed Intel meltdown problem CVE-2017-5754 with Kernel Page Table Isolation (KPTI) Patch

General Information 10.03.570

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- Open VPN Smartcard Support
- NCP Secure Client
- Asian Input Methods

- Composite Manager

Known Issues 10.03.570

Citrix Receiver 13

- With Citrix Receiver 13.5 print problems in legacy sessions can occur.

VMware Horizon

- External drives mounted already before connection, do not appear in the remote desktop. Workaround: map the directory /media as a drive in your desktop. Then the external devices will show up inside the media drive.
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Audio

- Headphone jack detection doesn't properly work on IGEL UD3 (M330C and M340C). The audio controlling system is unable to notice status change of the audio jack.

Notes for Release 10.03.550

Software:	Version	10.03.550
Release Date:	2018-01-12	
Release Notes:	Version	RN-1003550-1
Last update:	2018-01-12	

- IGEL Universal Desktop / IGEL Zero 10.03.550(see page 1203)
- IGEL Universal Desktop OS 3 / IGEL UD Pocket 10.03.550(see page 1203)

IGEL Universal Desktop / IGEL Zero 10.03.550

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 50
	UD3-LX 42
	UD3-LX 41
	UD3-LX 40
UD5-LX:	UD5-LX 50
	UD5-LX 40
UD6-LX:	UD6-LX 51
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10

IGEL Zero:
IZ2-RFX
IZ2-HDX
IZ2-HORIZON
IZ3-RFX
IZ3-HDX
IZ3-HORIZON

Versions for Release 10.03.550

- **Clients**

Product	Version
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Firefox	52.5.0
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Imprivata OneSign ProveID Embedded	
Leostream Java Connect	3.3.7.0
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VMware Horizon Client	4.6.0-6617224

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Reader Driver Identiv eHealth200	1.0.5
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- **Features with Limited IGEL Support**

Mobile Device Access USB	

Security Fixes 10.03.550

- Fixed **kernel security issues** CVE-2017-16939, CVE-2017-12192, CVE-2017-1000370, CVE-2017-1000371, CVE-2017-12190, CVE-2017-15274, CVE-2017-14156, CVE-2017-14140, CVE-2017-15115, CVE-2017-14489, CVE-2017-12153, CVE-2017-16525, CVE-2017-7542 and CVE-2017-8824.
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- NCP Secure Client
- Asian Input Methods
- Composite Manager

Known Issues 10.03.550

Citrix Receiver 13

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VMware Horizon

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Firefox

- Because the support for the gstreamer framework was dropped by recent Firefox versions, support for H264 decoding in the browser is not possible anymore due to licensing restrictions.
- After firmware update, a fullscreen browser session starts onetime in window mode. Afterwards the fullscreen mode is functional again.

Audio

- Headphone jack detection doesn't properly work on IGEL UD3 (M330C and M340C). The audio controlling system is unable to notice status change of the audio jack.

New Features 10.03.550

Parallels Client

- Integrated Parallels Client version 16.2.0 (19039) 64 bit.

Resolved Issues 10.03.550

RDP/IGEL RDP Client 2

- Fixed the rdpdebugger to work again (was broken in the previous release).
- Fixed smartcard redirection: after session reconnection readers and cards were not connected anymore in some cases.

Parallels Client

- Fixed crash after closing one session if started 2 same sessions before

Smartcard

- Fixed driver for Elatec RFID readers. Before this fix the readers sometimes were not available after boot.

Base System

- Updated kernel to Ubuntu-hwe-4.10.0-43.47_16.04.1.
- Fixed kernel security issues CVE-2017-16939, CVE-2017-12192, CVE-2017-1000370, CVE-2017-1000371, CVE-2017-12190, CVE-2017-15274, CVE-2017-14156, CVE-2017-14140, CVE-2017-15115, CVE-2017-14489, CVE-2017-12153, CVE-2017-16525, CVE-2017-7542 and CVE-2017-8824.
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- Fixed Intel meltdown problem CVE-2017-5754 with Kernel Page Table Isolation (KPTI) Patch.

IGEL Universal Desktop OS 3 / IGEL UD Pocket 10.03.550

Supported Hardware:

Third-Party Devices Supported by IGEL OS 10

-
-
-
-
-
-

Versions for Release 10.03.550

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.3.0-1075
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Graphics Driver Nvidia	384.90-0ubuntu0.16.04.2
Graphics Driver Vboxvideo	5.1.30-dfsg-1
Graphics Driver VMware	13.2.1-1build1
Graphics Driver QXL (Spice)	0.1.5-2build1
Graphics Driver FBDEV	0.4.4-1build5
Graphics Driver VESA	2.3.4-1build2
Input Driver Evdev	2.10.5-1ubuntu1
Input Driver Elographics	1.4.1-1build5
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1
Input Driver Vmmouse	13.1.0-1ubuntu2
Input Driver Wacom	0.34.0-0ubuntu2
Kernel	4.10.17 #43.47-udos-r1949
Xorg X11 Server	1.19.5-0ubuntu2
CUPS printing daemon	2.1.3-4ubuntu0.3
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2
ISC DHCP Client	4.3.3-5ubuntu12.7
NetworkManager	1.2.0-0ubuntu0.16.04.3
ModemManager	1.4.12-1ubuntu1
GStreamer	0.10.36-2ubuntu0.1

- **Features with Limited IGEL Support**

Mobile Device Access USB	

Security Fixes 10.03.550

- Fixed kernel security issues CVE-2017-16939, CVE-2017-12192, CVE-2017-1000370, CVE-2017-1000371, CVE-2017-12190, CVE-2017-15274, CVE-2017-14156, CVE-2017-14140, CVE-2017-15115, CVE-2017-14489, CVE-2017-12153, CVE-2017-16525, CVE-2017-7542 and CVE-2017-8824.
- Partially addressed CVE-2017-5715 (Spectre Branch Target Injection) with Intel microcode updates version 20180108. CPU Models with updated microcode:
  - IVT C0
  - SKL-U/Y D0 and SKL-H/S R0
  - BDW-U/Y E/F and BDW-H E/G
  - HSW-ULT Cx/Dx and HSW Cx/Dx
  - Crystalwell Cx
  - HSX-EX E0 and HSX C0
  - BDX-DE V0/V1 and BDX-DE V2
  - KBL-U/Y H0, KBL Y0 / CFL D0 and KBL-H/S B0
  - CFL U0 and CFL B0
  - SKX H0
  - GLK B0
- Fixed kernel security issues CVE-2017-1000405 (aka Huge Dirty Cow).
- Fixed Intel meltdown problem CVE-2017-5754 with Kernel Page Table Isolation (KPTI) Patch.

General Information 10.03.550

The following clients and features are not supported anymore in version 10.03.550:

- Citrix Receiver 12.1 and 13.1
- Citrix Access Gateway Standard Plug-in
- Dell vWorkspace Connector for Linux
- Ericom PowerTerm Emulation 9 and 11
- Ericom Webconnect
- IGEL Legacy RDP Client (rdesktop)
- Virtual Bridges VERDE Client
- PPTP VPN Support
- IGEL Upgrade License Tool with IGEL Smartcard Token
- Remote Management by setup.ini file transfer (TFTP)
- XC Font Service
- Remote Access via RSH
- Legacy Philips Speech Driver
- Digital Persona Support
- Sane Scanner Support
- Softpro/Kofax Citrix Virtual Channel
- t-Systems TCOS Smartcard Support
- DUS Series touch screens
- Elo serial touch screens
- IGEL Smartcard without locking desktop
- VIA Graphics Support
- Storage Hotplug devices are not automatically removed anymore, instead they must be always ejected manually:
    - by panel tray icon
    - by an icon in the 'In-Session Control Bar' (configurable at **IGEL Setup > User Interface > Desktop**)
    - by a 'Safely Remove Hardware' session (configurable at **IGEL Setup > Accessories**)

The following clients and features are not available in release 10.03.550:

- Voip Client Ekiga
- X session (Xorg Xephyr)
- XDMCP
- Cherry eGK Channel
- Open VPN Smartcard Support
- NCP Secure Client
- Asian Input Methods
- Composite Manager

Known Issues 10.03.550

Citrix Receiver 13

- With Citrix Receiver 13.5 print problems in legacy sessions can occur.

VMware Horizon

- External drives mounted already before connection, do not appear in the remote desktop. Workaround: map the directory /media as a drive in your desktop. Then the external devices will show up inside the media drive.
- Client drive mapping and USB redirection for storage devices should not be enabled both at the same time.
    - On the one hand, if you want to use USB redirection for your storage devices: Note that the USB on-insertion feature is only working if the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: `Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping`. It is also recommended to disable local Storage Hotplug: On page `Devices > Storage Devices > Storage Hotplug`, put number of storage hotplug devices to 0.
    - On the other hand, if you use drive mapping instead, it is recommended that you should either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. And because Horizon Client relies on the OS to mount the storage devices itself, please go to setup page: `Devices > Storage Devices > Storage Hotplug` and switch on 'Enable dynamic drive mapping' and put 'Number of storage hotplug devices' to at least 1.

Firefox

- Because the support for the gstreamer framework was dropped by recent Firefox versions, support for H264 decoding in the browser is not possible anymore due to licensing restrictions.
- After firmware update, a fullscreen browser session starts onetime in window mode. Afterwards the fullscreen mode is functional again.

Hardware

- The TrackPoint and TrackPoint keys of the Toshiba Portege X30-D laptop are not working.

New Features 10.03.550

Parallels Client

- Integrated Parallels Client version 16.2.0 (19039) 64 bit.

Resolved Issues 10.03.550

RDP/IGEL RDP Client 2

- Fixed the rdpdebugger to work again (was broken in the previous release).
- Fixed smartcard redirection: after session reconnection readers and cards were not connected anymore in some cases.

Parallels Client

- Fixed crash after closing one session if started 2 same sessions before

Smartcard

- Fixed driver for Elatec RFID readers. Before this fix the readers sometimes were not available after boot.

Base System

- Updated kernel to Ubuntu-hwe-4.10.0-43.47_16.04.1.
- Fixed kernel security issues CVE-2017-16939, CVE-2017-12192, CVE-2017-1000370, CVE-2017-1000371, CVE-2017-12190, CVE-2017-15274, CVE-2017-14156, CVE-2017-14140, CVE-2017-15115, CVE-2017-14489, CVE-2017-12153, CVE-2017-16525, CVE-2017-7542 and CVE-2017-8824.
- Partially addressed CVE-2017-5715 (Spectre Branch Target Injection) with Intel microcode updates version 20180108. CPU Models with updated microcode:
    - IVT C0
    - SKL-U/Y D0 and SKL-H/S R0
    - BDW-U/Y E/F and BDW-H E/G
    - HSW-ULT Cx/Dx and HSW Cx/Dx
    - Crystalwell Cx
    - HSX-EX E0 and HSX C0
    - BDX-DE V0/V1 and BDX-DE V2
    - KBL-U/Y H0, KBL Y0 / CFL D0 and KBL-H/S B0
    - CFL U0 and CFL B0
    - SKX H0
    - GLK B0
- Fixed kernel security issues CVE-2017-1000405 (aka Huge Dirty Cow).
- Fixed Intel meltdown problem CVE-2017-5754 with Kernel Page Table Isolation (KPTI) Patch.

Notes for Release 10.03.500

Software:	Version	10.03.500
Release Date:	2017-12-14	
Release Notes:	Version	RN-1003500-1
Last update:	2017-12-14	

- IGEL Universal Desktop / IGEL Zero 10.03.500(see page 1222)
- IGEL Universal Desktop OS3 / IGEL UD Pocket 10.03.500(see page 1222)
- IGEL Universal Desktop Converter (UDC3) 10.03.500(see page 1222)

IGEL Universal Desktop / IGEL Zero 10.03.500

Supported Devices

Universal Desktop:	
UD2-LX:	UD2-LX 40
UD3-LX:	UD3-LX 50
	UD3-LX 42
	UD3-LX 41
	UD3-LX 40
UD5-LX:	UD5-LX 50
	UD5-LX 40
UD6-LX:	UD6-LX 51
UD9-LX:	UD9-LX Touch 41
	UD9-LX 40
UD10-LX:	UD10-LX Touch 10
	UD10-LX 10

IGEL Zero:
IZ2-RFX
IZ2-HDX
IZ2-HORIZON
IZ3-RFX
IZ3-HDX
IZ3-HORIZON

- Versions for 10.03.500
- Security Fixes 10.03.500
- General Information 10.03.500
- Known Issues 10.03.500
- New Features 10.03.500
- Resolved Issues 10.03.500

Versions for 10.03.500

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.3.0-1075
Citrix Receiver	13.3.2.366713
Citrix Receiver	13.5.0.10185126
Citrix Receiver	13.7.0.10276927
deviceTRUST Citrix Channel	17.2.100.0
deviceTRUST RDP Channel	17.2.100.0
Ericom PowerTerm	12.0.1.0.20170219.2-dev-34574
Evidian AuthMgr	1.5.6362
FabulaTech USB for Remote Desktop	5.2.23
Firefox	52.5.0
IBM iAccess Client Solutions	1.1.5.0
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
Leostream Java Connect	3.3.7.0
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_152
Parallels 2X Client	16.0.1.18456
Remote Viewer for RedHat Enterprise Virtualization Desktops	7.0
Systancia AppliDis	4.0.0.17
Thinlinc Client	4.8.0-5456
ThinPrint Client	7.5.83
Totem Media Player	2.30.2
VMware Horizon Client	4.6.0-6617224

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20161103
Philips Speech Driver	12.5.4

- **Signature**

signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	6.6.3.502
PKCS#11 Library Gemalto IDPrime	1.2.3
PKCS#11 Library SecMaker NetID	6.6.0.30
Reader Driver ACS CCID	1.1.3
Reader Driver Gemalto eToken	9.0.43
Reader Driver HID Global Omnikey CCID	4.2.4
Reader Driver Identiv / SCM Microsystems CCID	5.0.35
Reader Driver Identiv eHealth200	1.0.5
Reader Driver MUSCLE CCID	1.4.27
Reader Driver REINER SCT cyberJack	3.99.5final.SP09
Resource Manager PC/SC Lite	1.8.22
Cherry USB2LAN Proxy	3.0.0.4

- **System Components**

Bluetooth stack (bluez)	5.46-0ubuntu3
MESA OpenGL stack	17.2.2-0ubuntu1
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1

Graphics Driver INTEL	2.99.917+git20171109-igel
Graphics Driver ATI/RADEON	7.10.0-1
raphics Driver ATI/AMDGPU	1.4.0-1
Graphics Driver VIA	5.76.52.92-009-005f78-20150730
Graphics Driver FBDEV	0.4.4-1build5
Graphics Driver VESA	2.3.4-1build2
Input Driver Evdev	2.10.5-1ubuntu1
Input Driver Elographics	1.4.1-1build5
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1
Input Driver Vmmouse	13.1.0-1ubuntu2
Input Driver Wacom	0.34.0-0ubuntu2
Kernel	4.10.17 #41.45-ud-r1938
Xorg X11 Server	1.19.5-0ubuntu2
CUPS printing daemon	2.1.3-4ubuntu0.3
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2
ISC DHCP Client	4.3.3-5ubuntu12.7
NetworkManager	1.2.0-0ubuntu0.16.04.3
ModemManager	1.4.12-1ubuntu1
GStreamer	0.10 0.10.36-2ubuntu0.1

- **Features with Limited IGEL Support**

Mobile Device Access USB	

Security Fixes 10.03.500

- Fixed **wpa** security issues (KRACK vulnerability).
  More

  CVE-2017-13077

  CVE-2017-13078

  CVE-2017-13079

  CVE-2017-13080

  CVE-2017-13081

  CVE-2017-13082

  CVE-2017-13086

  CVE-2017-13087

  CVE-2017-13088

  CVE-2016-4476

  CVE-2016-4477

- Fixed **libgd2** security issues. CVE-2017-7890 and CVE-2017-6362.
- Fixed **graphite2** security issues.
  More

  CVE-2017-7778

  CVE-2017-7777

  CVE-2017-7776

  CVE-2017-7775

  CVE-2017-7774

  CVE-2017-7773

  CVE-2017-7772

  CVE-2017-7771

- Fixed **ghostscript** security issues.
  More

  CVE-2017-9835

  CVE-2017-9739

  CVE-2017-9727

  CVE-2017-9726

  CVE-2017-9612

  CVE-2017-9611

  CVE-2017-11714

- Fixed **libmspack** security issues CVE-2017-6419 and CVE-2017-11423.
- Fixed **libsoup2.4** security issue CVE-2017-2885.
- Fixed **xorg-server** security issues.
  More

  CVE-2017-10971

  CVE-2017-10972

  CVE-2017-13721

  CVE-2017-13723

  CVE-2017-12176

  CVE-2017-12177

  CVE-2017-12178

  CVE-2017-12179

  CVE-2017-12180

  CVE-2017-12181

  CVE-2017-12182

  CVE-2017-12183

  CVE-2017-12184

  CVE-2017-12185

  CVE-2017-12186

  CVE-2017-12187

- Fixed **bluez** security issue CVE-2017-1000250.
- Fixed **kernel** security issues.
  More

  CVE-2017-7541

  CVE-2017-1000112

  CVE-2017-1000111

  CVE-2017-7487

  CVE-2017-7533

  CVE-2017-1000251

  CVE-2017-14106

  CVE-2017-11176

  CVE-2017-10911

  CVE-2017-14340

  CVE-2017-10663

  CVE-2017-1000252

CVE-2017-12188

CVE-2017-12146

- Fixed **gdk-pixbuf** security issues CVE-2017-6311, CVE-2017-2870 and CVE-2017-2862.
- Fixed **tcpdump** security issues.
  More

  CVE-2017-13725, CVE-2017-13690, CVE-2017-13689, CVE-2017-13688,

  CVE-2017-13687, CVE-2017-13055, CVE-2017-13054, CVE-2017-13053,

  CVE-2017-13052, CVE-2017-13051, CVE-2017-13050, CVE-2017-13049,

  CVE-2017-13048, CVE-2017-13047, CVE-2017-13046, CVE-2017-13045,

  CVE-2017-13044, CVE-2017-13043, CVE-2017-13042, CVE-2017-13041,

  CVE-2017-13040, CVE-2017-13039, CVE-2017-13038, CVE-2017-13037,

  CVE-2017-13036, CVE-2017-13035, CVE-2017-13034, CVE-2017-13033,

  CVE-2017-13032, CVE-2017-13031, CVE-2017-13030, CVE-2017-13029,

  CVE-2017-13028, CVE-2017-13027, CVE-2017-13026, CVE-2017-13025,

  CVE-2017-13024, CVE-2017-13023, CVE-2017-13022, CVE-2017-13021,

  CVE-2017-13020, CVE-2017-13019, CVE-2017-13018, CVE-2017-13017,

  CVE-2017-13016, CVE-2017-13015, CVE-2017-13014, CVE-2017-13013,

  CVE-2017-13012, CVE-2017-13011, CVE-2017-13010, CVE-2017-13009,

  CVE-2017-13008, CVE-2017-13007, CVE-2017-13006, CVE-2017-13005,

  CVE-2017-13004, CVE-2017-13003, CVE-2017-13002, CVE-2017-13001,

  CVE-2017-13000, CVE-2017-12999, CVE-2017-12998, CVE-2017-12997,

  CVE-2017-12996, CVE-2017-12995, CVE-2017-12994, CVE-2017-12993,

  CVE-2017-12992, CVE-2017-12991, CVE-2017-12990, CVE-2017-12989,

  CVE-2017-12988, CVE-2017-12987, CVE-2017-12986, CVE-2017-12985,

  CVE-2017-12902, CVE-2017-12901, CVE-2017-12900, CVE-2017-12899,

  CVE-2017-12898, CVE-2017-12897, CVE-2017-12896, CVE-2017-12895,

  CVE-2017-12894, CVE-2017-12893, CVE-2017-11543, CVE-2017-11542,

  CVE-2017-11541 and CVE-2017-11108.

- Fixed **libxml2** security issues.
  More

  CVE-2017-9050

  CVE-2017-9049

  CVE-2017-9048

  CVE-2017-9047

CVE-2017-7376

CVE-2017-7375

CVE-2017-0663

- Fixed **samba** security issues.
  More

  CVE-2017-12163

  CVE-2017-12151

  CVE-2017-12150

  CVE-2017-15275

  CVE-2017-14746

- Fixed **libplist** security issue CVE-2017-7982.
- Fixed **nss** security issue CVE-2017-7805.
- Fixed **libidn** security issue CVE-2017-14062.
- Fixed **poppler** security issues.
  More

  CVE-2017-9776,

  CVE-2017-14977

  CVE-2017-14975

  CVE-2017-14929

  CVE-2017-14928

  CVE-2017-14926

  CVE-2017-14617

  CVE-2017-14520

  CVE-2017-14519

  CVE-2017-14518

  CVE-2017-15565

- Fixed **dnsmasq** security issues.
  More

  CVE-2017-14496

  CVE-2017-14495

  CVE-2017-14494

  CVE-2017-14493

  CVE-2017-14492

  CVE-2017-14491

- Fixed **libxfont** security issues CVE-2017-13722, CVE-2017-13720 and CVE-2017-16611.

- Fixed **curl** security issues.
  More

  CVE-2016-9586

  CVE-2017-2629

  CVE-2017-7407

  CVE-2017-7468

  CVE-2017-1000100

  CVE-2017-1000101

  CVE-2017-1000254

  CVE-2017-1000257

  CVE-2017-8816

  CVE-2017-8817

- Fixed **libxfont2** security issues CVE-2017-13722, CVE-2017-13720 and CVE-2017-16611.
- Fixed **nvidia** security issues CVE-2017-6266, CVE-2017-6267 and CVE-2017-6272.
- Fixed **icu** security issue CVE-2017-14952.
- Fixed **wget** security issues CVE-2017-6508, CVE-2017-13090, CVE-2017-13089 and CVE-2016-7098.
- Fixed **systemd** security issue CVE-2017-15908.
- Fixed **openssl** security issues CVE-2017-3736 and CVE-2017-3735.
- Fixed **perl** security issues CVE-2017-12883 and CVE-2017-12837.
- Fixed **webkit2gtk** security issues.
  More

  CVE-2017-13803

  CVE-2017-13802

  CVE-2017-13798

  CVE-2017-13796

  CVE-2017-13795

  CVE-2017-13794

  CVE-2017-13793

  CVE-2017-13792

  CVE-2017-13791

  CVE-2017-13788

  CVE-2017-13785

  CVE-2017-13784

  CVE-2017-13783

- Fixed **db5.3** security issue CVE-2017-10140.
- Fixed **ldns** security issues CVE-2017-1000232 and CVE-2017-1000231.
- Fixed **python2.7** security issue CVE-2017-1000158.

- Fixed **python3.5** security issue CVE-2017-1000158.
- Fixed **libxcursor** security issue CVE-2017-16612.
- Fixed a security issue in the base system regarding of not reseting certain environment variables.
- Updated Firefox to version 52.5 ESR:
    - Fixes for **mfsa2017-25**, also known as: CVE-2017-7828, CVE-2017-7830, CVE-2017-7826.
    - Fixes for **mfsa2017-22**, also known as: CVE-2017-7793, CVE-2017-7818, CVE-2017-7819, CVE-2017-7824, CVE-2017-7805, CVE-2017-7814, CVE-2017-7823, CVE-2017-7810.

General Information 10.03.500

The following clients and features are not supported anymore in version 10.03.500:

- Citrix Receiver 12.1 and 13.1
- Citrix Access Gateway Standard Plug-in
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- IGEL Legacy RDP Client (rdesktop)
- Virtual Bridges VERDE Client
- PPTP VPN Support
- IGEL Upgrade License Tool with IGEL Smartcard Token
- Remote Management by setup.ini file transfer (TFTP)
- XC Font Service
- Remote Access via RSH
- Legacy Philips Speech Driver
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- Sane Scanner Support
- Softpro/Kofax Citrix Virtual Channel
- t-Systems TCOS Smartcard Support
- DUS Series touch screens
- Elo serial touch screens
- IGEL Smartcard without locking desktop
- Video Hardware Acceleration Support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10
- H.264 Hardware Acceleration Support is discontinued on UD3-LX 42, UD3-LX 41, UD3-LX 40 (M320C/M330C) and UD10-LX Touch 10, UD10-LX 10
- Storage Hotplug devices are not automatically removed anymore, instead they must be always ejected manually:
    - by panel tray icon
    - by an icon in the 'In-Session Control Bar' (configurable at **IGEL Setup > User Interface > Desktop**)
    - by a 'Safely Remove Hardware' session (configurable at **IGEL Setup > Accessories**)

The following clients and features are not available in the release 10.03.500:

- Voip Client Ekiga
- X session (Xorg Xephyr)
- XDMCP
- Cherry eGK Channel
- Open VPN Smartcard Support
- NCP Secure Client
- Asian Input Methods
- Composite Manager

Known Issues 10.03.500

Citrix Receiver 13

- On devices with AMD/Radeon graphics chipsets and activated DRI3 X driver option **the hardware accelerated Citrix H.264 decoder plugin can hang**. To solve this issue deactivation of DRI3 option is necessary (default setting).
  More

Parameter	Use DRI3
Registry	`x.drivers.use_dri3`
Value	enabled / <u>disabled</u>

Parameter	Force usage of DRI3
Registry	`x.drivers.amdgpu.force_dri3` `x.drivers.ati.force_dri3`
Value	enabled / <u>disabled</u>

- Citrix StoreFront login with **Gemalto smartcard middleware** does not detect smartcard correctly when the card is inserted after start of login. As a workaround, insert the smartcard before starting StoreFront login.
- **No smooth playback** over **Nuance** channel if the dictation device isn't attached.

VMware Horizon

- **External drives** mounted already before connection do not appear in the remote desktop.
  Workaround: mapping the directory `/media` as a drive on desktop.
  Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local Storage Hotplug: On page **Devices > Storage Devices > Storage Hotplug**, put number of storage hotplug devices to 0.
  - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Change on the following setup page is required: **Devices > Storage Devices > Storage Hotplug**.
  Activate **Enable dynamic drive mapping** and set **Number of storage hotplug devices** to at least 1.

Firefox

- Because the **support for the gstreamer framework** was dropped by recent Firefox versions, support for H264 decoding in the browser is not possible anymore due to licensing restrictions.

OpenConnect VPN

- **VPNs which need the OpenConnect** client cannot be used for firmware updates.

Evidian

- Active Directory users with a **password containing special characters** may have problems to authenticate with the configured session.
  Known special characters which result in errors are:
  ` (grave accent, ASCII code 96)
  ´ (acute accent, ASCII code 239)

New Features 10.03.500

Citrix Receiver 13

- Integrated **Citrix Receiver 13.8.0**.
  More

Parameter	Use Citrix Cloud with receiver 13.8 or newer
Registry	`ica.cloudconnect`
Value	enabled / disabled

  - Support for **Azure** Active Directory (Azure AD) authentication
  - Support for **Workspace** configuration from Citrix Cloud
- Integrated **Citrix Receiver 13.4.2**. Citrix Receiver version 13.5.0 was removed. Available Citrix Receiver versions: 13.3.2, 13.4.2, 13.7.0, 13.8.0 (default)
- Updated **Citrix HDX RTME** used for optimization of Skype for Business to 2.4.0.

RDP / IGEL RDP Client 2

- Added possibility to use **RDP local logon** for smartcard login. This can be activated in the setup.
  More

Parameter	Enable smartcard support for local logon
Registry	`rdp.login.smartcard-local-logon`
Value	enabled / disabled
By enabling this parameter local logon can be used for smartcard authentication. If **Username** is left empty the connection to the RDP server will be made without sending credentials, so you can choose **Smartcard** as login method in the microsoft login window . However this will not work with **NLA**.	

- Added support for CredSSP up to version 6.

VMware Horizon

- Updated **VMware Horizon Client** to version **4.7.0-7395152**.
- Added key to enable **seamless window mode** in each application session.
  More

Parameter	Seamless Application Windows
Registry	sessions.vdm_client.options.enable_seamless_window
Value	enabled / disabled

- Added possibility to use **Fabulatech USB Redirection** in a Horizon Client PCoIP session.
  More

IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Fabulatech USB Redirection**
Parameter	Enable Fabulatech USB Redirection
Registry	`vmware.view.` usb.enable-fabulatech-usb
Value	enabled / <u>disabled</u>

Parallels Client

- Integrated **Parallels Client** version **16.2.0 (19039)**
- Added support for USB Redirection, configurable at new IGEL Setup page **Sessions > Parallels Client > Parallels Client Global > USB Redirection**.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Global > USB Redirection**
Parameter	Enable USB Redirection
Registry	`twox.usb_redirection.usb_enable`
Value	enabled / <u>disabled</u>
Parameter	Product ID
Registry	`twox.usb_redirection.devicepolicy.product_rule.product`
Parameter	Vendor ID
Registry	`twox.usb_redirection.devicepolicy.product_rule.vendor`
Parameter	Rule
Registry	`twox.usb_redirection.devicepolicy.product_rule.rule`
Value	<u>Deny</u> / Allow
Parameter	Name
Registry	`twox.usb_redirection.devicepolicy.product_rule.name`
Value	Policy Rule
Parameter	Automatically redirect all USB devices
Registry	`twox.usb_redirection.devicepolicy.redirect_all`
Value	enabled / <u>disabled</u>

- Added support for **PTP/MTP** Redirection.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Global > USB Redirection**

Parameter	Enable PTP/MTP Redirection
Registry	`twox.mtp_redirection.mtp_enable`
Value	enabled / <u>disabled</u>
Parameter	Product ID
Registry	`twox.mtp_redirection.devicepolicy.product_rule.product`
Parameter	Vendor ID
Registry	`twox.mtp_redirection.devicepolicy.product_rule.vendor`
Parameter	Rule
Registry	`twox.mtp_redirection.devicepolicy.product_rule.rule`
Value	<u>Deny</u> / Allow
Parameter	Name
Registry	`twox.mtp_redirection.devicepolicy.product_rule.name`
Value	Policy Rule
Parameter	Automatically redirect all PTP/MTP devices
Registry	`twox.mtp_redirection.devicepolicy.redirect_all`
Value	enabled / <u>disabled</u>

- Added support for **Clipboard** Redirection.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Sessions > Parallels Client Session > Local Resources**
Parameter	Connect clipboard
Registry	`sessions.twox.local_resources.connect_clipboard`
Value	<u>enabled</u> / disabled

VoIP

- Added **VoIP client Ekiga 4.0.1**.

Firefox

- Updated **Firefox** to version **52.7.2 ESR**.
- Updated **Adobe Flash Player** download URL to version 29.0.0.113.

Network

- Added **TTLS/PAP** and **TTLS/MSCHAPv2** to possible 802.1x authentication methods.

- Improved support for **Sierra EM7305 LTE** device (e.g. in Toshiba Portégé and Fujitsu LIFEBOOK E Series).

> ⚠ The EM7305 comes in various variants, e.g. one with ProductId 9041 and another one with ProductId 9063. The latter comes at least with one or with two USB configuration options. A device with only one configuration option has been observed on a Toshiba Tecra Z-50-D-115 notebook. It only works in MBIM mode and with IGEL firmware, when the device has successfully connected before with the same settings (particularly APN), e.g. under Microsoft Windows 10.

- Added support for **Sierra EM7455 WWAN module**.
- Added support for running the **Huawei E3531i WWAN** device in modem mode (in addition to HiLink mode).
- Added possibility to adopt the **hostname from a DHCP lease** as **permanent** terminal name. The purpose is to use the name received as part of a DHCP lease in future interactions with the DHCP server.
  More

Parameter	Adopt permanent Terminal Name from DHCP lease
Registry	`network.dns.hostname_adopt_from_dhcp`
Value	enabled / <u>disabled</u>

- **NetworkManager** updated to version **1.2.2**
- **ModemManager** updated to version **1.6.4**
- **usb_modeswitch** updated to version **2.5.1**

Open VPN

- Added **Huawei HiLink Mobile Broadband USB** device as possible uplink to OpenVPN sessions.

OpenConnect VPN

- Added **OpenConnect** client version **7.08** to connect to **Cisco AnyConnect** and **Juniper VPN**. The feature must be enabled.
  More

IGEL Setup	**System > Firmware Customization > Features**
Parameter	VPN OpenConnect (Limited support - functionality "as is", see product documentation for details)
Registry	services.unsupported02.enabled
Value	enabled / <u>disabled</u>

- The OpenConnect VPN configuration is available at IGEL Setup page **Network > VPN > OpenConnect VPN**.
  More

IGEL Setup	**Network > VPN > OpenConnect VPN > VPN OpenConnect > Session**

Parameter	Gateway
Registry	`sessions.openconnect.vpnopts.gateway`
Parameter	Enable Name/Password Authentication
Registry	`sessions.openconnect.vpnopts.enable-name-pwd`
Value	enabled / <u>disabled</u>
Parameter	User Name
Registry	`sessions.openconnect.vpnopts.username`
Parameter	Password
Registry	`sessions.openconnect.vpnopts.crypt_password`
Parameter	CA Certificate
Registry	`sessions.openconnect.vpnopts.ca-cert`
Parameter	User Certificate
Registry	`sessions.openconnect.vpnopts.user-cert`
Parameter	Private Key
Registry	`sessions.openconnect.vpnopts.priv-key`
Parameter	Private Key password
Registry	`sessions.openconnect.vpnopts.priv-key-pwd.crypt_password`
Parameter	Connect to Juniper Networks VPN
Registry	`sessions.openconnect%.vpnopts.is-juniper`
Value	enabled / <u>disabled</u>

> ⓘ Tray icon is placed in the panel to disconnect from a running OpenConnect VPN connection.

Smartcard

- Added **CoolKey PKCS#11** library for access to **Common Access Card (CAC)** smartcards. **More**

IGEL Setup	**Sessions > Browser > Browser Global > Encryption**
Parameter	Coolkey Security Device
Registry	`browserglobal.security_device.coolkey`

Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by Coolkey library
Registry	`vmware.view.pkcs11.use_coolkey`
Value	enabled / <u>disabled</u>
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	Coolkey
Registry	`scard.pkcs11.use_coolkey`
Value	enabled / <u>disabled</u>

- Updated **Gemalto SafeNet PKCS#11** library to version **10.0.37-0**. This package replaces **Gemalto/SafeNet eToken** and **Gemalto IDPrime** libraries.
  Gemalto SafeNet (formerly **Gemalto/SafeNet eToken**) now handles Gemalto cards and tokens including eToken and IDPrime.
  Gemalto IDPrime now handles IDPrime cards and tokens, preferred Common Creteria (CC) cards and tokens in Unlinked Mode.
- Added full integration of **OpenSC PKCS#11** library for access to smartcards.
  More

IGEL Setup	**Sessions > Browser > Browser Global > Encryption**
Parameter	OpenSC Security Device
Registry	`browserglobal.security_device.opensc`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by OpenSC library
Registry	`vmware.view.pkcs11.use_opensc`
Value	enabled / <u>disabled</u>
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	OpenSC
Registry	`scard.pkcs11.use_opensc`
Value	enabled / <u>disabled</u>

- Updated **MUSCLE CCID** smartcard reader driver to version **1.4.28**.
- Updated **ACS CCID** smartcard reader driver to version **1.1.5**.
- Updated **REINER SCT cyberJack** smartcard reader driver to version **3.99.5final.sp11**.

- Added parameter to disable **Identive CCID** smartcard reader driver. If this driver is disabled, some of the readers are handled by the MUSCLE CCID driver. This can help when problems with Identive reader driver occur.
  More

Parameter	Identive driver for smart card readers
Registry	`scard.pcscd.identiv_enable`
Value	<u>enabled</u> / disabled

- Updated **cryptovision sc/interface PKCS#11** library to version **7.0.5.592**.
- New smartcard reader driver for **Fujitsu KB SCR eSIG** version **5.0.24**.

HID

- Added **layout toggle** feature to on-screen keyboard.
  More

IGEL Setup	**Accessories > On-Screen Keyboard > Appearance**
Parameter	Enable switching to alternative layout
Registry	`userinterface.softkeyboard.enable_alternative_layout`
Value	enabled / <u>disabled</u>
If this is enabled there is a key on the on-screen keyboard for toggling between the normal layout and a reduced layout, that saves space on the screen and has more or less the same features as the number block of an ordinary keyboard with some extensions.	

Base System

- Added support for **UEFI Secure Boot**.

  > ⓘ When booted with Secure Boot the downgrade to a firmware version older than 10.04.100 is locked.

- Updated **kernel to version 4.15.15**
- **Boot time optimization** (up to 25% faster)
- **Switch power off on USB ports on shutdown and reboot**. The feature can be enabled in IGEL Setup. At the moment only IGEL H830C is supported.
  More

IGEL Setup	**System > Registry**
Parameter	Power off on shutdown
Registry	`devices.usb.poweroff_shutdown`
Value	enabled / <u>disabled</u>

- Added Unit ID in Application Launcher **About > Hardware** section.

- Showing **number of CPU cores** in Application Launcher **About > Hardware** section now.

Storage Devices

- Added support for **Mobile Device Access** feature in **Appliance Mode**. The Mobile Device Access tool can be opened via a new icon in the **In-session control bar**. The Mobile Device Access tool can also be started automatically.
  More

Parameter	Autostart
Registry	`sessions.mtp-devices0.autostart`
Value	enabled / <u>disabled</u>
Mobile Device Access must be enabled at **IGEL Setup > System > Firmware Customization > Features**. Appliance Mode must be enabled at **IGEL Setup > Sessions > Appliance Mode**.	

- The **Mobile Device Access tool** is now configurable at **IGEL Setup > Accessories > Mobile Device Access**.
- The **Mobile Device Access tray icon** respects the current theme now.

X11 System

- Added support for **XDMCP Appliance Mode**. The XDMCP connection is configurable.
  More

IGEL Setup	**Sessions > Appliance Mode**
Parameter	XDMCP for this Display
Registry	`x.xdmcp0.enabled`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Connection Type
Registry	`x.xdmcp0.server.connectiontype`
Range	**indirect via localhost** / indirect / direct / broadcast
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Name or IP of server
Registry	`x.xdmcp0.server.servername`
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Enable hotkeys for XDMCP Display
Registry	`x.xdmcp0.hotkeys.enabled`

Value	<u>enabled</u> / disabled

The default hotkey to open IGEL Setup is: CTRL + ALT + F2. The setup page **User Interface > Display > XDMCP** was removed.

- Added **XC Font Service** support.
  More

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Enable XC Font Service
Registry	`x.xc_fontservice.enabled`
Value	enabled / <u>disabled</u>

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	XC Font Server
Registry	`x.xc_fontservice.fontserver`

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Port Number
Registry	`x.xc_fontservice.port`
Value	<u>7100</u>

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Prefer Local Fonts
Registry	`x.xc_fontservice.prefer_localfonts`
Value	enabled / <u>disabled</u>

- Added **auto detection of monitor refresh rate**. This can be controlled with new parameters.
  More

IGEL Setup	**User Interface > Display > Advanced**
Parameter	Detect refresh rate automatically
Registry	`x.xserver0.auto_frequency`
Value	<u>enabled</u> / disabled

IGEL Setup	**User Interface > Display > Advanced**
Parameter	Detect refresh rate automatically
Registry	`x.xserver0.` screen.auto_frequency

Value	enabled / disabled

- Added xorg debug script **/etc/igel/igel_debug_tools/xorg-debug.sh** to make collecting Xorg debug data easier (a /tmp/xorg-debug.log file is generated).

Window Manager

- Added possibility to
    - a) **change the preferred placement mode** and
    - b) **modify the threshold value** up to which window size this placement mode should be chosen (otherwise window placement defaults to so called smart mode which tries to minimize overlapping).
    More

Parameter	Preferred Placement
Registry	`windowmanager.wm0.variables.placement_mode`
Value	At mouse position / Centered
Parameter	Maximum window size for which the preferred placement should apply
Registry	`windowmanager.wm0.variables.placement_ratio`
Value	0% / 10% / 20% / 30% / 40% / 50% / 60% / 70% / 80% / 90% / 100%

Audio

- **Volume** of audio output and input can now be configured up to 150% at **IGEL Setup page Accessories > Sound Preferences > Options**.
- Added a parameter for log level configuration of **Pulseaudio** service.
    More

Parameter	Log level
Registry	`multimedia.pulseaudio.daemon.log-level`
Range	debug / info / notice / warning / error

Misc

- An EULA must be accepted now in IGEL setup assistant before finalizing it and using the IGEL OS.

Java

- Updated **Oracle JRE to 1.8U162**.

Remote Management

- Added **new log file transfer mechanism** for UMS feature **Save TC files for support** (UMS 5.08.110 or higher required). By default, it collects all log files visible in system log viewer, system configuration files group.ini, setup.ini and dhclient lease files. More files can be specified at **IGEL**

Setup > Accessories > System Log Viewer > Options. The resulting zip file has now a folder structure.

IGEL Cloud Gateway

- Added **UMS structure tag** handling for usage with **ICG agent**.

Hardware

- Added support for **IGEL UD7-LX 10**.

Resolved Issues 10.03.500

Citrix

- Fixed sporadic crashes of the **Citrix USB Daemon**.

RDP / IGEL RDP Client 2

- Fixed passing **Ctrl+Alt+C keyboard shortcut** to RDP session.
- Fixed **smartcard redirection**: after session reconnection readers and cards were not connected any more in some cases.
- Fixed the **rdpdebugger** to work again (was broken in the previous release).
- Fixed misleading **RDP error message `Authentication failed`** on wakeup from suspend mode
- Fixed **TCP timeout value** to get more stable **RDP connections** under certain circumstances.

VMware Horizon

- Fixed bug which prevented **microphone redirection** in Horizon Client RDP sessions.
  More

IGEL Setup	**Sessions > RDP > RDP Global > Mapping > Audio**
Parameter	Audio recording
Registry	`rdp.winconnect.rdpeai.enable`
Value	enabled / <u>disabled</u>

RedHat Enterprise Virtualization Client

- Fixed **display corruption** with Windows connections.

Firefox

- Fixed possibility to **download files in the browser** if needed. The parameter to enable/disable file download is available here.
  More

IGEL Setup	**Sessions > Browser > Browser Sessions > Window**
Parameter	Hide local filesystem
Registry	`sessions.browser.app.filepicker_dialog_hidden`
Value	enabled / <u>disabled</u>
If enabled, the user is not allowed to download or use any save-as functionality from menu, context or keyboard shortcut.	

- Fixed bug which **prevented the download using the file dialog** (in the case you open a link to a file of unkonwn type).
- Fixed **unmounting of the Firefox profile partition during shutdown** - now it is unmounted in a determinate manner after Custom Partition.

Network

- Fixed bug: **Network tray icons** sometimes didn't reappear after network restart.
- Fixed bug: **tcpdump debug tool** terminated immediately during boot.
- Fixed issue with **naming of USB ethernet devices**.
- Fixed wrong **LinkMode (10baseT/Half)** with autonegotiation and some USB ethernet devices.

AppliDis

- Changed default value of **PasswordMode** from **cmdline** to **prompt** as suggested by Systancia.

Smartcard

- Fixed driver for **Elatec RFID readers**. Before this fix the readers sometimes were not available after boot.
- Fixed VMware Horizon logon with OpenSC smartcards.

CUPS Printing

- Fixed bug where the **user for printjobs** was not set to the **domain user**.

Base System

- Fixed **Kerberos password change** to work also with transport protocol **TCP**. To force protocol TCP, prepend Domain Controllers with prefix "tcp/", e.g. "tcp/dc.example.com".
- Fixed **occasional desktop hang** in the local login or the network login mask after successful authentication.
- Fixed **password expiry notification** showing negative expiry period.
- Fixed **update to connect to SFTP** servers with very restrictive key exchange settings.
- Fixed input of the **reset key in reset to defaults boot**, if the administrator password is not available anymore. If more than 255 characters were entered in the 1st try, it was not possible to enter the reset key for a 2nd or 3rd time.
- Fixed **Active Directory logon with smartcard**: If the smartcard contains logon certificates for multiple users, it is possible to switch between these certificates and log on with the chosen certificate now.
- Fixed missing names for some **partitions** in update notification when having a user interface **language other than English**.
- Fixed problems with **never ending bootcode** update with some EFI BIOS variants.
- Fixed **ssh server port** configuration.
- Fixed **signotec signature pad** channel for Citrix.
- Increased stability of **signotec VCOM Daemon**.
- Remove residual information belonging to a **removed content from a custom partition**.
- Fixed **crash of xfce4-power-manager** after adding or removing input devices.

Custom Partition

- Fixed **automatic update of custom partition** - if download source isn't accessible then the content of the custom partition got lost.

Appliance Mode

- Fixed post session command **Logoff** in Appliance Mode.

X11 System

- Fixed **Elo-USB Touchscreen functionality** after reboot.

- Fixed **DisplayLink USB Support on UD3 LX50**.
- Fixed issue with **two monitors connected via DVI-D to HDMI adapter on a UD3 M330 (VIA)**. Added registry key to disable the new HDMI autodetection.
  More

Parameter	Autodetect if DVI to HDMI adapter is in use
Registry	`x.drivers.via.autodetect_hdmi_output`
Value	<u>enabled</u> / disabled

- Fixed **wrong automatic resolution detection** if monitor does not have a preferred mode.
- Fixed **sporadic display corruptions** after monitors leaving the power saving mode.
- Improved handling of more than 2 screens.

Shadowing/VNC

- Fixed **sporadic VNC server crash**.

Audio

- Fixed **volume control of internal speaker in HP T610**.
- Fixed **automatic switch to output** over analog headphones.
- Not existing **S/PDIF inputs and outputs in Plantronics and Jabra USB headsets** are now ignored by audio subsystem (Pulseaudio).
- Added workaround in the kernel USB audio driver for **volume control on Sennheiser USB headsets**.

Remote Management

- Fixed **calculation of Unit ID for UMS management**. In some cases, it could happen that the MAC address of wrong network interface was chosen.
- Fixed **IGEL Setup Assistant** to get stopped when settings were received from UMS.

IGEL Universal Desktop OS3 / IGEL UD Pocket 10.03.500

Supported Hardware:

Third-Party Devices Supported by IGEL OS 10

- Versions 10.03.500(see page 1250)
- Security Fixes 10.03.500(see page 1250)
- General Information 10.03.500(see page 1250)
- Known Issues 10.03.500(see page 1250)
- New Features 10.03.500(see page 1250)
- Resolved Issues 10.03.500(see page 1250)

Versions 10.03.500

- **Clients**

Product	Version
Citrix HDX Realtime Media Engine	2.3.0-1075
Citrix Receiver	13.3.2.366713
Citrix Receiver	13.5.0.10185126
Citrix Receiver	13.7.0.10276927
deviceTRUST Citrix Channel	17.2.100.0
deviceTRUST RDP Channel	17.2.100.0
Ericom PowerTerm	12.0.1.0.20170219.2-dev-34574
Evidian AuthMgr	1.5.6362
FabulaTech USB for Remote Desktop	5.2.23
Firefox	52.5.0
IBM iAccess Client Solutions	1.1.5.0
IGEL RDP Client	2.2
Imprivata OneSign ProveID Embedded	
Leostream Java Connect	3.3.7.0
NX Client	5.3.12
Open VPN	2.3.10-1ubuntu2.1
Oracle JRE	1.8.0_152
Parallels 2X Client	16.0.1.18456
Remote Viewer for RedHat Enterprise Virtualization Desktops	7.0
Systancia AppliDis	4.0.0.17
Thinlinc Client	4.8.0-5456
ThinPrint Client	7.5.83
Totem Media Player	2.30.2
VMware Horizon Client	4.6.0-6617224

- **Dictation**

Diktamen driver for dictation	
Driver for Grundig Business Systems dictation devices	
Nuance Audio Extensions for dictation	B048
Olympus driver for dictation	20161103
Philips Speech Driver	12.5.4

- **Signature**

signotec Citrix Channel	8.0.6
signotec VCOM Daemon	2.0.0
StepOver TCP Client	2.1.0

- **Smartcard**

PKCS#11 Library A.E.T SafeSign	3.0.101
PKCS#11 Library Athena IDProtect	623.07
PKCS#11 Library cryptovision sc/interface	6.6.3.502
PKCS#11 Library Gemalto IDPrime	1.2.3
PKCS#11 Library SecMaker NetID	6.6.0.30
Reader Driver ACS CCID	1.1.3
Reader Driver Gemalto eToken	9.0.43
Reader Driver HID Global Omnikey CCID	4.2.4
Reader Driver Identiv / SCM Microsystems CCID	5.0.35
Reader Driver Identiv eHealth200	1.0.5
Reader Driver MUSCLE CCID	1.4.27
Reader Driver REINER SCT cyberJack	3.99.5final.SP09
Resource Manager PC/SC Lite	1.8.22
Cherry USB2LAN Proxy	3.0.0.4

- **System Components**

Bluetooth stack (bluez)	5.46-0ubuntu3
MESA OpenGL stack	17.2.2-0ubuntu1
VAAPI ABI Version	0.40
VDPAU Library version	1.1.1-3ubuntu1

Graphics Driver INTEL	2.99.917+git20171109-igel
Graphics Driver ATI/RADEON	7.10.0-1
raphics Driver ATI/AMDGPU	1.4.0-1
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2
Graphics Driver Nvidia	384.90-0ubuntu0.16.04.2
Graphics Driver Vboxvideo	5.1.30-dfsg-1
Graphics Driver VMware	13.2.1-1build1
Graphics Driver QXL (Spice)	0.1.5-2build1
Graphics Driver FBDEV	0.4.4-1build5
Graphics Driver VESA	2.3.4-1build2
Input Driver Evdev	2.10.5-1ubuntu1
Input Driver Elographics	1.4.1-1build5
Input Driver eGalax	2.5.5814
Input Driver Synaptics	1.9.0-1ubuntu1
Input Driver Vmmouse	13.1.0-1ubuntu2
Input Driver Wacom	0.34.0-0ubuntu2
Kernel	4.10.17 #41.45-udos-r1938
Xorg X11 Server	1.19.5-0ubuntu2
CUPS printing daemon	2.1.3-4ubuntu0.3
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2
ISC DHCP Client	4.3.3-5ubuntu12.7
NetworkManager	1.2.0-0ubuntu0.16.04.3
ModemManager	1.4.12-1ubuntu1
GStreamer	0.10 0.10.36-2ubuntu0.1

- **Features with Limited IGEL Support**

Mobile Device Access USB	

Security Fixes 10.03.500

- Fixed **wpa** security issues (KRACK vulnerability).
  More

  CVE-2017-13077

  CVE-2017-13078

  CVE-2017-13079

  CVE-2017-13080

  CVE-2017-13081

  CVE-2017-13082

  CVE-2017-13086

  CVE-2017-13087

  CVE-2017-13088

  CVE-2016-4476

  CVE-2016-4477

- Fixed **libgd2** security issues. CVE-2017-7890 and CVE-2017-6362.
- Fixed **graphite2** security issues.
  More

  CVE-2017-7778

  CVE-2017-7777

  CVE-2017-7776

  CVE-2017-7775

  CVE-2017-7774

  CVE-2017-7773

  CVE-2017-7772

  CVE-2017-7771

- Fixed **ghostscript** security issues.
  More

  CVE-2017-9835

  CVE-2017-9739

  CVE-2017-9727

  CVE-2017-9726

  CVE-2017-9612

  CVE-2017-9611

  CVE-2017-11714

- Fixed **libmspack** security issues CVE-2017-6419 and CVE-2017-11423.
- Fixed **libsoup2.4** security issue CVE-2017-2885.
- Fixed **xorg-server** security issues.
  More

  CVE-2017-10971

  CVE-2017-10972

  CVE-2017-13721

  CVE-2017-13723

  CVE-2017-12176

  CVE-2017-12177

  CVE-2017-12178

  CVE-2017-12179

  CVE-2017-12180

  CVE-2017-12181

  CVE-2017-12182

  CVE-2017-12183

  CVE-2017-12184

  CVE-2017-12185

  CVE-2017-12186

  CVE-2017-12187

- Fixed **bluez** security issue CVE-2017-1000250.
- Fixed **kernel** security issues.
  More

  CVE-2017-7541

  CVE-2017-1000112

  CVE-2017-1000111

  CVE-2017-7487

  CVE-2017-7533

  CVE-2017-1000251

  CVE-2017-14106

  CVE-2017-11176

  CVE-2017-10911

  CVE-2017-14340

  CVE-2017-10663

  CVE-2017-1000252

CVE-2017-12188

CVE-2017-12146

- Fixed **gdk-pixbuf** security issues CVE-2017-6311, CVE-2017-2870 and CVE-2017-2862.
- Fixed **tcpdump** security issues.
  More

  CVE-2017-13725, CVE-2017-13690, CVE-2017-13689, CVE-2017-13688,

  CVE-2017-13687, CVE-2017-13055, CVE-2017-13054, CVE-2017-13053,

  CVE-2017-13052, CVE-2017-13051, CVE-2017-13050, CVE-2017-13049,

  CVE-2017-13048, CVE-2017-13047, CVE-2017-13046, CVE-2017-13045,

  CVE-2017-13044, CVE-2017-13043, CVE-2017-13042, CVE-2017-13041,

  CVE-2017-13040, CVE-2017-13039, CVE-2017-13038, CVE-2017-13037,

  CVE-2017-13036, CVE-2017-13035, CVE-2017-13034, CVE-2017-13033,

  CVE-2017-13032, CVE-2017-13031, CVE-2017-13030, CVE-2017-13029,

  CVE-2017-13028, CVE-2017-13027, CVE-2017-13026, CVE-2017-13025,

  CVE-2017-13024, CVE-2017-13023, CVE-2017-13022, CVE-2017-13021,

  CVE-2017-13020, CVE-2017-13019, CVE-2017-13018, CVE-2017-13017,

  CVE-2017-13016, CVE-2017-13015, CVE-2017-13014, CVE-2017-13013,

  CVE-2017-13012, CVE-2017-13011, CVE-2017-13010, CVE-2017-13009,

  CVE-2017-13008, CVE-2017-13007, CVE-2017-13006, CVE-2017-13005,

  CVE-2017-13004, CVE-2017-13003, CVE-2017-13002, CVE-2017-13001,

  CVE-2017-13000, CVE-2017-12999, CVE-2017-12998, CVE-2017-12997,

  CVE-2017-12996, CVE-2017-12995, CVE-2017-12994, CVE-2017-12993,

  CVE-2017-12992, CVE-2017-12991, CVE-2017-12990, CVE-2017-12989,

  CVE-2017-12988, CVE-2017-12987, CVE-2017-12986, CVE-2017-12985,

  CVE-2017-12902, CVE-2017-12901, CVE-2017-12900, CVE-2017-12899,

  CVE-2017-12898, CVE-2017-12897, CVE-2017-12896, CVE-2017-12895,

  CVE-2017-12894, CVE-2017-12893, CVE-2017-11543, CVE-2017-11542,

  CVE-2017-11541 and CVE-2017-11108.

- Fixed **libxml2** security issues.
  More

  CVE-2017-9050

  CVE-2017-9049

  CVE-2017-9048

  CVE-2017-9047

CVE-2017-7376

CVE-2017-7375

CVE-2017-0663

- Fixed **samba** security issues.
  More

  CVE-2017-12163

  CVE-2017-12151

  CVE-2017-12150

  CVE-2017-15275

  CVE-2017-14746

- Fixed **libplist** security issue CVE-2017-7982.
- Fixed **nss** security issue CVE-2017-7805.
- Fixed **libidn** security issue CVE-2017-14062.
- Fixed **poppler** security issues.
  More

  CVE-2017-9776,

  CVE-2017-14977

  CVE-2017-14975

  CVE-2017-14929

  CVE-2017-14928

  CVE-2017-14926

  CVE-2017-14617

  CVE-2017-14520

  CVE-2017-14519

  CVE-2017-14518

  CVE-2017-15565

- Fixed **dnsmasq** security issues.
  More

  CVE-2017-14496

  CVE-2017-14495

  CVE-2017-14494

  CVE-2017-14493

  CVE-2017-14492

  CVE-2017-14491

- Fixed **libxfont** security issues CVE-2017-13722, CVE-2017-13720 and CVE-2017-16611.

- Fixed **curl** security issues.
  More

  CVE-2016-9586

  CVE-2017-2629

  CVE-2017-7407

  CVE-2017-7468

  CVE-2017-1000100

  CVE-2017-1000101

  CVE-2017-1000254

  CVE-2017-1000257

  CVE-2017-8816

  CVE-2017-8817

- Fixed **libxfont2** security issues CVE-2017-13722, CVE-2017-13720 and CVE-2017-16611.
- Fixed **nvidia** security issues CVE-2017-6266, CVE-2017-6267 and CVE-2017-6272.
- Fixed **icu** security issue CVE-2017-14952.
- Fixed **wget** security issues CVE-2017-6508, CVE-2017-13090, CVE-2017-13089 and CVE-2016-7098.
- Fixed **systemd** security issue CVE-2017-15908.
- Fixed **openssl** security issues CVE-2017-3736 and CVE-2017-3735.
- Fixed **perl** security issues CVE-2017-12883 and CVE-2017-12837.
- Fixed **webkit2gtk** security issues.
  More

  CVE-2017-13803

  CVE-2017-13802

  CVE-2017-13798

  CVE-2017-13796

  CVE-2017-13795

  CVE-2017-13794

  CVE-2017-13793

  CVE-2017-13792

  CVE-2017-13791

  CVE-2017-13788

  CVE-2017-13785

  CVE-2017-13784

  CVE-2017-13783

- Fixed **db5.3** security issue CVE-2017-10140.
- Fixed **ldns** security issues CVE-2017-1000232 and CVE-2017-1000231.
- Fixed **python2.7** security issue CVE-2017-1000158.

- Fixed **python3.5** security issue CVE-2017-1000158.
- Fixed **libxcursor** security issue CVE-2017-16612.
- Fixed a security issue in the base system regarding of not reseting certain environment variables.
- Updated Firefox to version 52.5 ESR:
    - Fixes for **mfsa2017-25**, also known as: CVE-2017-7828, CVE-2017-7830, CVE-2017-7826.
    - Fixes for **mfsa2017-22**, also known as: CVE-2017-7793, CVE-2017-7818, CVE-2017-7819, CVE-2017-7824, CVE-2017-7805, CVE-2017-7814, CVE-2017-7823, CVE-2017-7810.

General Information 10.03.500

The following clients and features are not supported anymore in version 10.03.550:

- Citrix Receiver 12.1 and 13.1
- Citrix Access Gateway Standard Plug-in
- Dell vWorkspace Connector for Linux
- Ericom PowerTerm Emulation 9 and 11
- Ericom Webconnect
- IGEL Legacy RDP Client (rdesktop)
- Virtual Bridges VERDE Client
- PPTP VPN Support
- IGEL Upgrade License Tool with IGEL Smartcard Token
- Remote Management by setup.ini file transfer (TFTP)
- XC Font Service
- Remote Access via RSH
- Legacy Philips Speech Driver
- Digital Persona Support
- Sane Scanner Support
- Softpro/Kofax Citrix Virtual Channel
- t-Systems TCOS Smartcard Support
- DUS Series touch screens
- Elo serial touch screens
- IGEL Smartcard without locking desktop
- VIA Graphics Support
- Storage Hotplug devices are not automatically removed anymore, instead they must be always ejected manually:
    - by panel tray icon
    - by an icon in the 'In-Session Control Bar' (configurable at **IGEL Setup > User Interface > Desktop**)
    - by a 'Safely Remove Hardware' session (configurable at **IGEL Setup > Accessories**)

The following clients and features are not available in release 10.03.550:

- Voip Client Ekiga
- X session (Xorg Xephyr)
- XDMCP
- Cherry eGK Channel
- Open VPN Smartcard Support
- NCP Secure Client
- Asian Input Methods
- Composite Manager

Known Issues 10.03.500

Citrix Receiver 13

- On devices with AMD/Radeon graphics chipsets and activated DRI3 X driver option **the hardware accelerated Citrix H.264 decoder plugin can hang**. To solve this issue deactivation of DRI3 option is necessary (default setting).
  More

Parameter	Use DRI3
Registry	`x.drivers.use_dri3`
Value	enabled / <u>disabled</u>

Parameter	Force usage of DRI3
Registry	`x.drivers.amdgpu.force_dri3` `x.drivers.ati.force_dri3`
Value	enabled / <u>disabled</u>

- Citrix StoreFront login with **Gemalto smartcard middleware** does not detect smartcard correctly when the card is inserted after start of login. As a workaround, insert the smartcard before starting StoreFront login.
- **No smooth playback** over **Nuance** channel if the dictation device isn't attached.

VMware Horizon

- **External drives** mounted already before connection do not appear in the remote desktop.
  Workaround: mapping the directory `/media` as a drive on desktop.
  Then the external devices will show up inside the media drive.
- **Client drive mapping** and **USB redirection for storage devices** should not be enabled both at the same time.
  - On the one hand, when using USB redirection for storage devices: The USB on-insertion feature is only working when the client drive mapping is switched off. In the IGEL Setup client drive mapping can be found in: **Sessions > Horizon Client > Horizon Client Global > Drive Mapping > Enable Drive Mapping**. It is also recommended to disable local Storage Hotplug: On page **Devices > Storage Devices > Storage Hotplug**, put number of storage hotplug devices to 0.
  - On the other hand, when using drive mapping instead, it is recommended to either switch off USB redirection entirely or at least deny storage devices by adding a filter to the USB class rules. Furthermore, Horizon Client relies on the OS to mount the storage devices itself. Change on the following setup page is required: **Devices > Storage Devices > Storage Hotplug**.
    Activate **Enable dynamic drive mapping** and set **Number of storage hotplug devices** to at least 1.

Firefox

- Because the **support for the gstreamer framework** was dropped by recent Firefox versions, support for H264 decoding in the browser is not possible anymore due to licensing restrictions.

OpenConnect VPN

- **VPNs which need the OpenConnect** client cannot be used for firmware updates.

Evidian

- Active Directory users with a **password containing special characters** may have problems to authenticate with the configured session.
  Known special characters which result in errors are:
  ˋ (grave accent, ASCII code 96)
  ˊ (acute accent, ASCII code 239)

New Features 10.03.500

Citrix Receiver 13

- Integrated **Citrix Receiver 13.8.0**.
  More

Parameter	Use Citrix Cloud with receiver 13.8 or newer
Registry	`ica.cloudconnect`
Value	enabled / disabled

  - Support for **Azure** Active Directory (Azure AD) authentication
  - Support for **Workspace** configuration from Citrix Cloud
- Integrated **Citrix Receiver 13.4.2**. Citrix Receiver version 13.5.0 was removed. Available Citrix Receiver versions: 13.3.2, 13.4.2, 13.7.0, 13.8.0 (default)
- Updated **Citrix HDX RTME** used for optimization of Skype for Business to 2.4.0.

RDP / IGEL RDP Client 2

- Added possibility to use **RDP local logon** for smartcard login. This can be activated in the setup.
  More

Parameter	Enable smartcard support for local logon
Registry	`rdp.login.smartcard-local-logon`
Value	enabled / disabled

  By enabling this parameter local logon can be used for smartcard authentication. If **Username** is left empty the connection to the RDP server will be made without sending credentials, so you can choose **Smartcard** as login method in the microsoft login window . However this will not work with **NLA**.

- Added support for CredSSP up to version 6.

VMware Horizon

- Updated **VMware Horizon Client** to version **4.7.0-7395152**.
- Added key to enable **seamless window mode** in each application session.
  More

Parameter	Seamless Application Windows
Registry	sessions.vdm_client.options.enable_seamless_window
Value	enabled / disabled

- Added possibility to use **Fabulatech USB Redirection** in a Horizon Client PCoIP session.
  More

IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Fabulatech USB Redirection**
Parameter	Enable Fabulatech USB Redirection
Registry	`vmware.view.` usb.enable-fabulatech-usb
Value	enabled / <u>disabled</u>

Parallels Client

- Integrated **Parallels Client** version **16.2.0 (19039)**
- Added support for USB Redirection, configurable at new IGEL Setup page **Sessions > Parallels Client > Parallels Client Global > USB Redirection**.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Global > USB Redirection**
Parameter	Enable USB Redirection
Registry	`twox.usb_redirection.usb_enable`
Value	enabled / <u>disabled</u>
Parameter	Product ID
Registry	`twox.usb_redirection.devicepolicy.product_rule.product`
Parameter	Vendor ID
Registry	`twox.usb_redirection.devicepolicy.product_rule.vendor`
Parameter	Rule
Registry	`twox.usb_redirection.devicepolicy.product_rule.rule`
Value	<u>Deny</u> / Allow
Parameter	Name
Registry	`twox.usb_redirection.devicepolicy.product_rule.name`
Value	Policy Rule
Parameter	Automatically redirect all USB devices
Registry	`twox.usb_redirection.devicepolicy.redirect_all`
Value	enabled / <u>disabled</u>

- Added support for **PTP/MTP** Redirection.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Global > USB Redirection**

Parameter	Enable PTP/MTP Redirection
Registry	`twox.mtp_redirection.mtp_enable`
Value	enabled / <u>disabled</u>
Parameter	Product ID
Registry	`twox.mtp_redirection.devicepolicy.product_rule.product`
Parameter	Vendor ID
Registry	`twox.mtp_redirection.devicepolicy.product_rule.vendor`
Parameter	Rule
Registry	`twox.mtp_redirection.devicepolicy.product_rule.rule`
Value	<u>Deny</u> / Allow
Parameter	Name
Registry	`twox.mtp_redirection.devicepolicy.product_rule.name`
Value	Policy Rule
Parameter	Automatically redirect all PTP/MTP devices
Registry	`twox.mtp_redirection.devicepolicy.redirect_all`
Value	enabled / <u>disabled</u>

- Added support for **Clipboard** Redirection.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Sessions > Parallels Client Session > Local Resources**
Parameter	Connect clipboard
Registry	`sessions.twox.local_resources.connect_clipboard`
Value	<u>enabled</u> / disabled

VoIP

- Added **VoIP client Ekiga 4.0.1**.

Firefox

- Updated **Firefox** to version **52.7.2 ESR**.
- Updated **Adobe Flash Player** download URL to version 29.0.0.113.

Network

- Added **TTLS/PAP** and **TTLS/MSCHAPv2** to possible 802.1x authentication methods.

- Improved support for **Sierra EM7305 LTE** device (e.g. in Toshiba Portégé and Fujitsu LIFEBOOK E Series).

  > ❗ The EM7305 comes in various variants, e.g. one with ProductId 9041 and another one with ProductId 9063. The latter comes at least with one or with two USB configuration options. A device with only one configuration option has been observed on a Toshiba Tecra Z-50-D-115 notebook. It only works in MBIM mode and with IGEL firmware, when the device has successfully connected before with the same settings (particularly APN), e.g. under Microsoft Windows 10.

- Added support for **Sierra EM7455 WWAN module**.
- Added support for running the **Huawei E3531i WWAN** device in modem mode (in addition to HiLink mode).
- Added possibility to adopt the **hostname from a DHCP lease** as **permanent** terminal name. The purpose is to use the name received as part of a DHCP lease in future interactions with the DHCP server.
  More

Parameter	Adopt permanent Terminal Name from DHCP lease
Registry	`network.dns.hostname_adopt_from_dhcp`
Value	enabled / <u>disabled</u>

- **NetworkManager** updated to version **1.2.2**
- **ModemManager** updated to version **1.6.4**
- **usb_modeswitch** updated to version **2.5.1**

Open VPN

- Added **Huawei HiLink Mobile Broadband USB** device as possible uplink to OpenVPN sessions.

OpenConnect VPN

- Added **OpenConnect** client version **7.08** to connect to **Cisco AnyConnect** and **Juniper VPN**. The feature must be enabled.
  More

IGEL Setup	**System > Firmware Customization > Features**
Parameter	VPN OpenConnect (Limited support - functionality "as is", see product documentation for details)
Registry	services.unsupported02.enabled
Value	enabled / <u>disabled</u>

- The OpenConnect VPN configuration is available at IGEL Setup page **Network > VPN > OpenConnect VPN**.
  More

IGEL Setup	**Network > VPN > OpenConnect VPN > VPN OpenConnect > Session**

Parameter	Gateway
Registry	`sessions.openconnect.vpnopts.gateway`
Parameter	Enable Name/Password Authentication
Registry	`sessions.openconnect.vpnopts.enable-name-pwd`
Value	enabled / <u>disabled</u>
Parameter	User Name
Registry	`sessions.openconnect.vpnopts.username`
Parameter	Password
Registry	`sessions.openconnect.vpnopts.crypt_password`
Parameter	CA Certificate
Registry	`sessions.openconnect.vpnopts.ca-cert`
Parameter	User Certificate
Registry	`sessions.openconnect.vpnopts.user-cert`
Parameter	Private Key
Registry	`sessions.openconnect.vpnopts.priv-key`
Parameter	Private Key password
Registry	`sessions.openconnect.vpnopts.priv-key-pwd.crypt_password`
Parameter	Connect to Juniper Networks VPN
Registry	`sessions.openconnect%.vpnopts.is-juniper`
Value	enabled / <u>disabled</u>

> ⓘ Tray icon is placed in the panel to disconnect from a running OpenConnect VPN connection.

Smartcard

- Added **CoolKey PKCS#11** library for access to **Common Access Card (CAC)** smartcards. **More**

IGEL Setup	**Sessions > Browser > Browser Global > Encryption**
Parameter	Coolkey Security Device
Registry	`browserglobal.security_device.coolkey`

Value	enabled / disabled
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by Coolkey library
Registry	`vmware.view.pkcs11.use_coolkey`
Value	enabled / disabled
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	Coolkey
Registry	`scard.pkcs11.use_coolkey`
Value	enabled / disabled

- Updated **Gemalto SafeNet PKCS#11** library to version **10.0.37-0**. This package replaces **Gemalto/ SafeNet eToken** and **Gemalto IDPrime** libraries.
  Gemalto SafeNet (formerly **Gemalto/SafeNet eToken**) now handles Gemalto cards and tokens including eToken and IDPrime.
  Gemalto IDPrime now handles IDPrime cards and tokens, preferred Common Creteria (CC) cards and tokens in Unlinked Mode.
- Added full integration of **OpenSC PKCS#11** library for access to smartcards.
  More

IGEL Setup	**Sessions > Browser > Browser Global > Encryption**
Parameter	OpenSC Security Device
Registry	`browserglobal.security_device.opensc`
Value	enabled / disabled
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by OpenSC library
Registry	`vmware.view.pkcs11.use_opensc`
Value	enabled / disabled
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	OpenSC
Registry	`scard.pkcs11.use_opensc`
Value	enabled / disabled

- Updated **MUSCLE CCID** smartcard reader driver to version **1.4.28**.
- Updated **ACS CCID** smartcard reader driver to version **1.1.5**.
- Updated **REINER SCT cyberJack** smartcard reader driver to version **3.99.5final.sp11**.

- Added parameter to disable **Identive CCID** smartcard reader driver. If this driver is disabled, some of the readers are handled by the MUSCLE CCID driver. This can help when problems with Identive reader driver occur.
  More

Parameter	Identive driver for smart card readers
Registry	`scard.pcscd.identiv_enable`
Value	<u>enabled</u> / disabled

- Updated **cryptovision sc/interface PKCS#11** library to version **7.0.5.592**.
- New smartcard reader driver for **Fujitsu KB SCR eSIG** version **5.0.24**.

HID

- Added **layout toggle** feature to on-screen keyboard.
  More

IGEL Setup	**Accessories > On-Screen Keyboard > Appearance**
Parameter	Enable switching to alternative layout
Registry	`userinterface.softkeyboard.enable_alternative_layout`
Value	enabled / <u>disabled</u>
If this is enabled there is a key on the on-screen keyboard for toggling between the normal layout and a reduced layout, that saves space on the screen and has more or less the same features as the number block of an ordinary keyboard with some extensions.	

Base System

- Added support for **UEFI Secure Boot**.

  > ⓘ When booted with Secure Boot the downgrade to a firmware version older than 10.04.100 is locked.

- Updated **kernel to version 4.15.15**
- **Boot time optimization** (up to 25% faster)
- **Switch power off on USB ports on shutdown and reboot**. The feature can be enabled in IGEL Setup. At the moment only IGEL H830C is supported.
  More

IGEL Setup	**System > Registry**
Parameter	Power off on shutdown
Registry	`devices.usb.poweroff_shutdown`
Value	enabled / <u>disabled</u>

- Added Unit ID in Application Launcher **About > Hardware** section.

- Showing **number of CPU cores** in Application Launcher **About > Hardware** section now.

Storage Devices

- Added support for **Mobile Device Access** feature in **Appliance Mode**. The Mobile Device Access tool can be opened via a new icon in the **In-session control bar**. The Mobile Device Access tool can also be started automatically.
  More

Parameter	Autostart
Registry	`sessions.mtp-devices0.autostart`
Value	enabled / <u>disabled</u>
Mobile Device Access must be enabled at **IGEL Setup > System > Firmware Customization > Features**. Appliance Mode must be enabled at **IGEL Setup > Sessions > Appliance Mode**.	

- The **Mobile Device Access tool** is now configurable at **IGEL Setup > Accessories > Mobile Device Access**.
- The **Mobile Device Access tray icon** respects the current theme now.

X11 System

- Added support for **XDMCP Appliance Mode**. The XDMCP connection is configurable.
  More

IGEL Setup	**Sessions > Appliance Mode**
Parameter	XDMCP for this Display
Registry	`x.xdmcp0.enabled`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Connection Type
Registry	`x.xdmcp0.server.connectiontype`
Range	**indirect via localhost** / indirect / direct / broadcast
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Name or IP of server
Registry	`x.xdmcp0.server.servername`
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Enable hotkeys for XDMCP Display
Registry	`x.xdmcp0.hotkeys.enabled`

Value	enabled / disabled

The default hotkey to open IGEL Setup is: CTRL + ALT + F2. The setup page **User Interface > Display > XDMCP** was removed.

- Added **XC Font Service** support.
  More

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Enable XC Font Service
Registry	`x.xc_fontservice.enabled`
Value	enabled / disabled

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	XC Font Server
Registry	`x.xc_fontservice.fontserver`

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Port Number
Registry	`x.xc_fontservice.port`
Value	7100

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Prefer Local Fonts
Registry	`x.xc_fontservice.prefer_localfonts`
Value	enabled / disabled

- Added **auto detection of monitor refresh rate**. This can be controlled with new parameters.
  More

IGEL Setup	**User Interface > Display > Advanced**
Parameter	Detect refresh rate automatically
Registry	`x.xserver0.auto_frequency`
Value	enabled / disabled

IGEL Setup	**User Interface > Display > Advanced**
Parameter	Detect refresh rate automatically
Registry	`x.xserver0.` screen.auto_frequency

Value	enabled / disabled

- Added xorg debug script **/etc/igel/igel_debug_tools/xorg-debug.sh** to make collecting Xorg debug data easier (a /tmp/xorg-debug.log file is generated).

Window Manager

- Added possibility to
    - a) **change the preferred placement mode** and
    - b) **modify the threshold value** up to which window size this placement mode should be chosen (otherwise window placement defaults to so called smart mode which tries to minimize overlapping).
    More

Parameter	Preferred Placement
Registry	`windowmanager.wm0.variables.placement_mode`
Value	At mouse position / Centered
Parameter	Maximum window size for which the preferred placement should apply
Registry	`windowmanager.wm0.variables.placement_ratio`
Value	0% / 10% / 20% / 30% / 40% / 50% / 60% / 70% / 80% / 90% / 100%

Audio

- **Volume** of audio output and input can now be configured up to 150% at **IGEL Setup page Accessories > Sound Preferences > Options**.
- Added a parameter for log level configuration of **Pulseaudio** service.
    More

Parameter	Log level
Registry	`multimedia.pulseaudio.daemon.log-level`
Range	debug / info / notice / warning / error

Misc

- An EULA must be accepted now in IGEL setup assistant before finalizing it and using the IGEL OS.

Java

- Updated **Oracle JRE to 1.8U162**.

Remote Management

- Added **new log file transfer mechanism** for UMS feature **Save TC files for support** (UMS 5.08.110 or higher required). By default, it collects all log files visible in system log viewer, system configuration files group.ini, setup.ini and dhclient lease files. More files can be specified at **IGEL**

Setup > Accessories > System Log Viewer > Options. The resulting zip file has now a folder structure.

IGEL Cloud Gateway

- Added **UMS structure tag** handling for usage with **ICG agent**.

Hardware

- Added support for **IGEL UD7-LX 10**.

Resolved Issues 10.03.500

Citrix

- Fixed sporadic crashes of the **Citrix USB Daemon**.

RDP / IGEL RDP Client 2

- Fixed passing **Ctrl+Alt+C keyboard shortcut** to RDP session.
- Fixed **smartcard redirection**: after session reconnection readers and cards were not connected any more in some cases.
- Fixed the **rdpdebugger** to work again (was broken in the previous release).
- Fixed misleading **RDP error message `Authentication failed`** on wakeup from suspend mode
- Fixed **TCP timeout value** to get more stable **RDP connections** under certain circumstances.

VMware Horizon

- Fixed bug which prevented **microphone redirection** in Horizon Client RDP sessions.
  More

IGEL Setup	**Sessions > RDP > RDP Global > Mapping > Audio**
Parameter	Audio recording
Registry	`rdp.winconnect.rdpeai.enable`
Value	enabled / <u>disabled</u>

RedHat Enterprise Virtualization Client

- Fixed **display corruption** with Windows connections.

Firefox

- Fixed possibility to **download files in the browser** if needed. The parameter to enable/disable file download is available here.
  More

IGEL Setup	**Sessions > Browser > Browser Sessions > Window**
Parameter	Hide local filesystem
Registry	`sessions.browser.app.filepicker_dialog_hidden`
Value	enabled / <u>disabled</u>
If enabled, the user is not allowed to download or use any save-as functionality from menu, context or keyboard shortcut.	

- Fixed bug which **prevented the download using the file dialog** (in the case you open a link to a file of unkonwn type).
- Fixed **unmounting of the Firefox profile partition during shutdown** - now it is unmounted in a determinate manner after Custom Partition.

Network

- Fixed bug: **Network tray icons** sometimes didn't reappear after network restart.
- Fixed bug: **tcpdump debug tool** terminated immediately during boot.
- Fixed issue with **naming of USB ethernet devices**.
- Fixed wrong **LinkMode (10baseT/Half)** with autonegotiation and some USB ethernet devices.

AppliDis

- Changed default value of **PasswordMode** from **cmdline** to **prompt** as suggested by Systancia.

Smartcard

- Fixed driver for **Elatec RFID readers**. Before this fix the readers sometimes were not available after boot.
- Fixed VMware Horizon logon with OpenSC smartcards.

CUPS Printing

- Fixed bug where the **user for printjobs** was not set to the **domain user**.

Base System

- Fixed **Kerberos password change** to work also with transport protocol **TCP**. To force protocol TCP, prepend Domain Controllers with prefix "tcp/", e.g. "tcp/dc.example.com".
- Fixed **occasional desktop hang** in the local login or the network login mask after successful authentication.
- Fixed **password expiry notification** showing negative expiry period.
- Fixed **update to connect to SFTP** servers with very restrictive key exchange settings.
- Fixed input of the **reset key in reset to defaults boot**, if the administrator password is not available anymore. If more than 255 characters were entered in the 1st try, it was not possible to enter the reset key for a 2nd or 3rd time.
- Fixed **Active Directory logon with smartcard**: If the smartcard contains logon certificates for multiple users, it is possible to switch between these certificates and log on with the chosen certificate now.
- Fixed missing names for some **partitions** in update notification when having a user interface **language other than English**.
- Fixed problems with **never ending bootcode** update with some EFI BIOS variants.
- Fixed **ssh server port** configuration.
- Fixed **signotec signature pad** channel for Citrix.
- Increased stability of **signotec VCOM Daemon**.
- Remove residual information belonging to a **removed content from a custom partition**.
- Fixed **crash of xfce4-power-manager** after adding or removing input devices.

Custom Partition

- Fixed **automatic update of custom partition** - if download source isn't accessible then the content of the custom partition got lost.

Appliance Mode

- Fixed post session command **Logoff** in Appliance Mode.

X11 System

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- Fixed **DisplayLink USB Support on UD3 LX50**.
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- Fixed **IGEL Setup Assistant** to get stopped when settings were received from UMS.

IGEL Universal Desktop Converter (UDC3) 10.03.500

Supported Hardware:

Third-Party Devices Supported by IGEL OS 10

Versions 10.03.500

- **Clients**

Oracle JRE	**1.8.0_152**

- **System Components**

Bluetooth stack (bluez)	5.46-0ubuntu3
MESA OpenGL stack	17.2.2-0ubuntu1
VAAPI ABI Version	0.40
Graphics Driver INTEL	2.99.917+git20171109-igel
Graphics Driver ATI/RADEON	7.10.0-1
raphics Driver ATI/AMDGPU	1.4.0-1
Graphics Driver Nouveau (Nvidia Legacy)	1.0.15-2
Graphics Driver Vboxvideo	5.1.30-dfsg-1
Graphics Driver VMware	13.2.1-1build1
Graphics Driver QXL (Spice)	0.1.5-2build1
Graphics Driver FBDEV	0.4.4-1build5
Graphics Driver VESA	2.3.4-1build2
Input Driver Evdev	2.10.5-1ubuntu1
Input Driver Elographics	1.4.1-1build5
Input Driver Synaptics	1.9.0-1ubuntu1
Input Driver Vmmouse	13.1.0-1ubuntu2
Input Driver Wacom	0.34.0-0ubuntu2
Kernel	4.10.17 #41.45-udos-r1938
Xorg X11 Server	1.19.5-0ubuntu2
Lightdm graphical login manager	1.18.3-0ubuntu1.1
XFCE4 Windowmanager	4.12.3-1ubuntu2
ISC DHCP Client	4.3.3-5ubuntu12.7

New Features 10.03.500

Citrix Receiver 13

- Integrated **Citrix Receiver 13.8.0**.
  More

Parameter	Use Citrix Cloud with receiver 13.8 or newer
Registry	`ica.cloudconnect`
Value	enabled / <u>disabled</u>

  - Support for **Azure** Active Directory (Azure AD) authentication
  - Support for **Workspace** configuration from Citrix Cloud
- Integrated **Citrix Receiver 13.4.2**. Citrix Receiver version 13.5.0 was removed. Available Citrix Receiver versions: 13.3.2, 13.4.2, 13.7.0, 13.8.0 (default)
- Updated **Citrix HDX RTME** used for optimization of Skype for Business to 2.4.0.

RDP / IGEL RDP Client 2

- Added possibility to use **RDP local logon** for smartcard login. This can be activated in the setup.
  More

Parameter	Enable smartcard support for local logon
Registry	`rdp.login.smartcard-local-logon`
Value	enabled / <u>disabled</u>

By enabling this parameter local logon can be used for smartcard authentication. If **Username** is left empty the connection to the RDP server will be made without sending credentials, so you can choose **Smartcard** as login method in the microsoft login window . However this will not work with **NLA**.

- Added support for CredSSP up to version 6.

VMware Horizon

- Updated **VMware Horizon Client** to version **4.7.0-7395152**.
- Added key to enable **seamless window mode** in each application session.
  More

Parameter	Seamless Application Windows
Registry	sessions.vdm_client.options.enable_seamless_window
Value	enabled / <u>disabled</u>

- Added possibility to use **Fabulatech USB Redirection** in a Horizon Client PCoIP session.
  More

IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Fabulatech USB Redirection**
Parameter	Enable Fabulatech USB Redirection
Registry	`vmware.view.` usb.enable-fabulatech-usb
Value	enabled / <u>disabled</u>

Parallels Client

- Integrated **Parallels Client** version **16.2.0 (19039)**
- Added support for USB Redirection, configurable at new IGEL Setup page **Sessions > Parallels Client > Parallels Client Global > USB Redirection**.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Global > USB Redirection**
Parameter	Enable USB Redirection
Registry	`twox.usb_redirection.usb_enable`
Value	enabled / <u>disabled</u>
Parameter	Product ID
Registry	`twox.usb_redirection.devicepolicy.product_rule.product`
Parameter	Vendor ID
Registry	`twox.usb_redirection.devicepolicy.product_rule.vendor`
Parameter	Rule
Registry	`twox.usb_redirection.devicepolicy.product_rule.rule`
Value	<u>Deny</u> / Allow
Parameter	Name
Registry	`twox.usb_redirection.devicepolicy.product_rule.name`
Value	Policy Rule
Parameter	Automatically redirect all USB devices
Registry	`twox.usb_redirection.devicepolicy.redirect_all`
Value	enabled / <u>disabled</u>

- Added support for **PTP/MTP** Redirection.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Global > USB Redirection**

Parameter	Enable PTP/MTP Redirection
Registry	`twox.mtp_redirection.mtp_enable`
Value	enabled / <u>disabled</u>
Parameter	Product ID
Registry	`twox.mtp_redirection.devicepolicy.product_rule.product`
Parameter	Vendor ID
Registry	`twox.mtp_redirection.devicepolicy.product_rule.vendor`
Parameter	Rule
Registry	`twox.mtp_redirection.devicepolicy.product_rule.rule`
Value	<u>Deny</u> / Allow
Parameter	Name
Registry	`twox.mtp_redirection.devicepolicy.product_rule.name`
Value	Policy Rule
Parameter	Automatically redirect all PTP/MTP devices
Registry	`twox.mtp_redirection.devicepolicy.redirect_all`
Value	enabled / <u>disabled</u>

- Added support for **Clipboard** Redirection.
  More

IGEL Setup	**Sessions > Parallels Client > Parallels Client Sessions > Parallels Client Session > Local Resources**
Parameter	Connect clipboard
Registry	`sessions.twox.local_resources.connect_clipboard`
Value	<u>enabled</u> / disabled

VoIP

- Added **VoIP client Ekiga 4.0.1**.

Firefox

- Updated **Firefox** to version **52.7.2 ESR**.
- Updated **Adobe Flash Player** download URL to version 29.0.0.113.

Network

- Added **TTLS/PAP** and **TTLS/MSCHAPv2** to possible 802.1x authentication methods.

- Improved support for **Sierra EM7305 LTE** device (e.g. in Toshiba Portégé and Fujitsu LIFEBOOK E Series).

  > ❗ The EM7305 comes in various variants, e.g. one with ProductId 9041 and another one with ProductId 9063. The latter comes at least with one or with two USB configuration options. A device with only one configuration option has been observed on a Toshiba Tecra Z-50-D-115 notebook. It only works in MBIM mode and with IGEL firmware, when the device has successfully connected before with the same settings (particularly APN), e.g. under Microsoft Windows 10.

- Added support for **Sierra EM7455 WWAN module**.
- Added support for running the **Huawei E3531i WWAN** device in modem mode (in addition to HiLink mode).
- Added possibility to adopt the **hostname from a DHCP lease** as **permanent** terminal name. The purpose is to use the name received as part of a DHCP lease in future interactions with the DHCP server.
  More

Parameter	Adopt permanent Terminal Name from DHCP lease
Registry	`network.dns.hostname_adopt_from_dhcp`
Value	enabled / <u>disabled</u>

- **NetworkManager** updated to version **1.2.2**
- **ModemManager** updated to version **1.6.4**
- **usb_modeswitch** updated to version **2.5.1**

Open VPN

- Added **Huawei HiLink Mobile Broadband USB** device as possible uplink to OpenVPN sessions.

OpenConnect VPN

- Added **OpenConnect** client version **7.08** to connect to **Cisco AnyConnect** and **Juniper VPN**. The feature must be enabled.
  More

IGEL Setup	**System > Firmware Customization > Features**
Parameter	VPN OpenConnect (Limited support - functionality "as is", see product documentation for details)
Registry	services.unsupported02.enabled
Value	enabled / <u>disabled</u>

- The OpenConnect VPN configuration is available at IGEL Setup page **Network > VPN > OpenConnect VPN**.
  More

IGEL Setup	**Network > VPN > OpenConnect VPN > VPN OpenConnect > Session**

Parameter	Gateway
Registry	`sessions.openconnect.vpnopts.gateway`
Parameter	Enable Name/Password Authentication
Registry	`sessions.openconnect.vpnopts.enable-name-pwd`
Value	enabled / <u>disabled</u>
Parameter	User Name
Registry	`sessions.openconnect.vpnopts.username`
Parameter	Password
Registry	`sessions.openconnect.vpnopts.crypt_password`
Parameter	CA Certificate
Registry	`sessions.openconnect.vpnopts.ca-cert`
Parameter	User Certificate
Registry	`sessions.openconnect.vpnopts.user-cert`
Parameter	Private Key
Registry	`sessions.openconnect.vpnopts.priv-key`
Parameter	Private Key password
Registry	`sessions.openconnect.vpnopts.priv-key-pwd.crypt_password`
Parameter	Connect to Juniper Networks VPN
Registry	`sessions.openconnect%.vpnopts.is-juniper`
Value	enabled / <u>disabled</u>

ⓘ Tray icon is placed in the panel to disconnect from a running OpenConnect VPN connection.

Smartcard

- Added **CoolKey PKCS#11** library for access to **Common Access Card (CAC)** smartcards. **More**

IGEL Setup	**Sessions > Browser > Browser Global > Encryption**
Parameter	Coolkey Security Device
Registry	`browserglobal.security_device.coolkey`

Value	enabled / disabled
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by Coolkey library
Registry	`vmware.view.pkcs11.use_coolkey`
Value	enabled / disabled
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	Coolkey
Registry	`scard.pkcs11.use_coolkey`
Value	enabled / disabled

- Updated **Gemalto SafeNet PKCS#11** library to version **10.0.37-0**. This package replaces **Gemalto/SafeNet eToken** and **Gemalto IDPrime** libraries.
  Gemalto SafeNet (formerly **Gemalto/SafeNet eToken**) now handles Gemalto cards and tokens including eToken and IDPrime.
  Gemalto IDPrime now handles IDPrime cards and tokens, preferred Common Creteria (CC) cards and tokens in Unlinked Mode.
- Added full integration of **OpenSC PKCS#11** library for access to smartcards.
  More

IGEL Setup	**Sessions > Browser > Browser Global > Encryption**
Parameter	OpenSC Security Device
Registry	`browserglobal.security_device.opensc`
Value	enabled / disabled
IGEL Setup	**Sessions > Horizon Client > Horizon Client Global > Smartcard**
Parameter	Horizon logon with smartcards supported by OpenSC library
Registry	`vmware.view.pkcs11.use_opensc`
Value	enabled / disabled
IGEL Setup	**Security > Smartcard > Middleware**
Parameter	OpenSC
Registry	`scard.pkcs11.use_opensc`
Value	enabled / disabled

- Updated **MUSCLE CCID** smartcard reader driver to version **1.4.28**.
- Updated **ACS CCID** smartcard reader driver to version **1.1.5**.
- Updated **REINER SCT cyberJack** smartcard reader driver to version **3.99.5final.sp11**.

- Added parameter to disable **Identive CCID** smartcard reader driver. If this driver is disabled, some of the readers are handled by the MUSCLE CCID driver. This can help when problems with Identive reader driver occur.
  More

Parameter	Identive driver for smart card readers
Registry	`scard.pcscd.identiv_enable`
Value	<u>enabled</u> / disabled

- Updated **cryptovision sc/interface PKCS#11** library to version **7.0.5.592**.
- New smartcard reader driver for **Fujitsu KB SCR eSIG** version **5.0.24**.

HID

- Added **layout toggle** feature to on-screen keyboard.
  More

IGEL Setup	**Accessories > On-Screen Keyboard > Appearance**
Parameter	Enable switching to alternative layout
Registry	`userinterface.softkeyboard.enable_alternative_layout`
Value	enabled / <u>disabled</u>
If this is enabled there is a key on the on-screen keyboard for toggling between the normal layout and a reduced layout, that saves space on the screen and has more or less the same features as the number block of an ordinary keyboard with some extensions.	

Base System

- Added support for **UEFI Secure Boot**.

  > ⓘ When booted with Secure Boot the downgrade to a firmware version older than 10.04.100 is locked.

- Updated **kernel to version 4.15.15**
- **Boot time optimization** (up to 25% faster)
- **Switch power off on USB ports on shutdown and reboot**. The feature can be enabled in IGEL Setup. At the moment only IGEL H830C is supported.
  More

IGEL Setup	**System > Registry**
Parameter	Power off on shutdown
Registry	`devices.usb.poweroff_shutdown`
Value	enabled / <u>disabled</u>

- Added Unit ID in Application Launcher **About > Hardware** section.

- Showing **number of CPU cores** in Application Launcher **About > Hardware** section now.

Storage Devices

- Added support for **Mobile Device Access** feature in **Appliance Mode**. The Mobile Device Access tool can be opened via a new icon in the **In-session control bar**. The Mobile Device Access tool can also be started automatically.
  More

Parameter	Autostart
Registry	`sessions.mtp-devices0.autostart`
Value	enabled / <u>disabled</u>
Mobile Device Access must be enabled at **IGEL Setup > System > Firmware Customization > Features**. Appliance Mode must be enabled at **IGEL Setup > Sessions > Appliance Mode**.	

- The **Mobile Device Access tool** is now configurable at **IGEL Setup > Accessories > Mobile Device Access**.
- The **Mobile Device Access tray icon** respects the current theme now.

X11 System

- Added support for **XDMCP Appliance Mode**. The XDMCP connection is configurable.
  More

IGEL Setup	**Sessions > Appliance Mode**
Parameter	XDMCP for this Display
Registry	`x.xdmcp0.enabled`
Value	enabled / <u>disabled</u>
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Connection Type
Registry	`x.xdmcp0.server.connectiontype`
Range	**indirect via localhost** / indirect / direct / broadcast
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Name or IP of server
Registry	`x.xdmcp0.server.servername`
IGEL Setup	**Sessions > Appliance Mode**
Parameter	Enable hotkeys for XDMCP Display
Registry	`x.xdmcp0.hotkeys.enabled`

Value	enabled / disabled

The default hotkey to open IGEL Setup is: CTRL + ALT + F2. The setup page **User Interface > Display > XDMCP** was removed.

- Added **XC Font Service** support.
  More

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Enable XC Font Service
Registry	`x.xc_fontservice.enabled`
Value	enabled / <u>disabled</u>

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	XC Font Server
Registry	`x.xc_fontservice.fontserver`

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Port Number
Registry	`x.xc_fontservice.port`
Value	<u>7100</u>

IGEL Setup	**User Interface > Font Services > XC Font Service**
Parameter	Prefer Local Fonts
Registry	`x.xc_fontservice.prefer_localfonts`
Value	enabled / <u>disabled</u>

- Added **auto detection of monitor refresh rate**. This can be controlled with new parameters.
  More

IGEL Setup	**User Interface > Display > Advanced**
Parameter	Detect refresh rate automatically
Registry	`x.xserver0.auto_frequency`
Value	<u>enabled</u> / disabled

IGEL Setup	**User Interface > Display > Advanced**
Parameter	Detect refresh rate automatically
Registry	`x.xserver0.` screen.auto_frequency

Value	enabled / disabled

- Added xorg debug script **/etc/igel/igel_debug_tools/xorg-debug.sh** to make collecting Xorg debug data easier (a /tmp/xorg-debug.log file is generated).

Window Manager

- Added possibility to
  - a) **change the preferred placement mode** and
  - b) **modify the threshold value** up to which window size this placement mode should be chosen (otherwise window placement defaults to so called smart mode which tries to minimize overlapping).

  More

Parameter	Preferred Placement
Registry	`windowmanager.wm0.variables.placement_mode`
Value	At mouse position / Centered
Parameter	Maximum window size for which the preferred placement should apply
Registry	`windowmanager.wm0.variables.placement_ratio`
Value	0% / 10% / 20% / 30% / 40% / 50% / 60% / 70% / 80% / 90% / 100%

Audio

- **Volume** of audio output and input can now be configured up to 150% at **IGEL Setup page Accessories > Sound Preferences > Options**.
- Added a parameter for log level configuration of **Pulseaudio** service.

  More

Parameter	Log level
Registry	`multimedia.pulseaudio.daemon.log-level`
Range	debug / info / notice / warning / error

Misc

- An EULA must be accepted now in IGEL setup assistant before finalizing it and using the IGEL OS.

Java

- Updated **Oracle JRE to 1.8U162**.

Remote Management

- Added **new log file transfer mechanism** for UMS feature **Save TC files for support** (UMS 5.08.110 or higher required). By default, it collects all log files visible in system log viewer, system configuration files group.ini, setup.ini and dhclient lease files. More files can be specified at **IGEL**

Setup > Accessories > System Log Viewer > Options. The resulting zip file has now a folder structure.

IGEL Cloud Gateway

- Added **UMS structure tag** handling for usage with **ICG agent**.

Hardware

- Added support for **IGEL UD7-LX 10**.

Resolved Issues 10.03.500

Citrix

- Fixed sporadic crashes of the **Citrix USB Daemon**.

RDP / IGEL RDP Client 2

- Fixed passing **Ctrl+Alt+C keyboard shortcut** to RDP session.
- Fixed **smartcard redirection**: after session reconnection readers and cards were not connected any more in some cases.
- Fixed the **rdpdebugger** to work again (was broken in the previous release).
- Fixed misleading **RDP error message `Authentication failed`** on wakeup from suspend mode
- Fixed **TCP timeout value** to get more stable **RDP connections** under certain circumstances.

VMware Horizon

- Fixed bug which prevented **microphone redirection** in Horizon Client RDP sessions.
  More

IGEL Setup	**Sessions > RDP > RDP Global > Mapping > Audio**
Parameter	Audio recording
Registry	`rdp.winconnect.rdpeai.enable`
Value	enabled / <u>disabled</u>

RedHat Enterprise Virtualization Client

- Fixed **display corruption** with Windows connections.

Firefox

- Fixed possibility to **download files in the browser** if needed. The parameter to enable/disable file download is available here.
  More

IGEL Setup	**Sessions > Browser > Browser Sessions > Window**
Parameter	Hide local filesystem
Registry	`sessions.browser.app.filepicker_dialog_hidden`
Value	enabled / <u>disabled</u>
If enabled, the user is not allowed to download or use any save-as functionality from menu, context or keyboard shortcut.	

- Fixed bug which **prevented the download using the file dialog** (in the case you open a link to a file of unkonwn type).
- Fixed **unmounting of the Firefox profile partition during shutdown** - now it is unmounted in a determinate manner after Custom Partition.

Network

Notes for Release 10.03.500

- Fixed bug: **Network tray icons** sometimes didn't reappear after network restart.
- Fixed bug: **tcpdump debug tool** terminated immediately during boot.
- Fixed issue with **naming of USB ethernet devices**.
- Fixed wrong **LinkMode (10baseT/Half)** with autonegotiation and some USB ethernet devices.

AppliDis

- Changed default value of **PasswordMode** from **cmdline** to **prompt** as suggested by Systancia.

Smartcard

- Fixed driver for **Elatec RFID readers**. Before this fix the readers sometimes were not available after boot.
- Fixed VMware Horizon logon with OpenSC smartcards.

CUPS Printing

- Fixed bug where the **user for printjobs** was not set to the **domain user**.

Base System

- Fixed **Kerberos password change** to work also with transport protocol **TCP**. To force protocol TCP, prepend Domain Controllers with prefix "tcp/", e.g. "tcp/dc.example.com".
- Fixed **occasional desktop hang** in the local login or the network login mask after successful authentication.
- Fixed **password expiry notification** showing negative expiry period.
- Fixed **update to connect to SFTP** servers with very restrictive key exchange settings.
- Fixed input of the **reset key in reset to defaults boot**, if the administrator password is not available anymore. If more than 255 characters were entered in the 1st try, it was not possible to enter the reset key for a 2nd or 3rd time.
- Fixed **Active Directory logon with smartcard**: If the smartcard contains logon certificates for multiple users, it is possible to switch between these certificates and log on with the chosen certificate now.
- Fixed missing names for some **partitions** in update notification when having a user interface **language other than English**.
- Fixed problems with **never ending bootcode** update with some EFI BIOS variants.
- Fixed **ssh server port** configuration.
- Fixed **signotec signature pad** channel for Citrix.
- Increased stability of **signotec VCOM Daemon**.
- Remove residual information belonging to a **removed content from a custom partition**.
- Fixed **crash of xfce4-power-manager** after adding or removing input devices.

Custom Partition

- Fixed **automatic update of custom partition** - if download source isn't accessible then the content of the custom partition got lost.

Appliance Mode

- Fixed post session command **Logoff** in Appliance Mode.

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- Fixed **Elo-USB Touchscreen functionality** after reboot.

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