



# Why openSUSE 12.3?

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# Me

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# Everyone expected!!!





# What happened... **openSUSE 12.3**



# Why does openSUSE matter?

- Compilation of the 'latest and greatest' **stable** software available from the F/LOSS community
- The Linux distribution for “Power Users” who want to get work done
  - Capable as a Desktop, Server, Embedded (ARM), etc..
- **Upstream for SUSE Linux Enterprise**
  - SUSE Linux Enterprise 12 expected 2014



# GNOME 3.6



- Design driven. Clean, simple to use, but still powerful
  - “Mac-like”
  - Smarter notifications including a redesigned Message Tray
- Integrated applications
  - **Documents** – Browse/Search local, network and 'cloud' documents
  - **Disks** – Powerful user tool for Disk/Removable media management
  - **Empathy** – Integrated messaging - “Distraction Free computing”
  - **Files** – Search that works, and improved workflows
  - **Boxes** – KVM Desktop virtualisation – Bye Bye Virtualbox!
- 'Online Accounts' integration
  - Google, Facebook Windows Live, Active Directory authentication/integration



Type to search...



AisleRiot



Banshee



Brasero



Cheese



Chess



Contacts



Desktop Search



Desktop Sharing



Dictionary



Disks



Disk Usage Analy...



Documents



- All
- Accessories
- Education
- Games
- Graphics
- Internet
- Office
- Sound & Video
- System Tools
- Universal Access
- Other



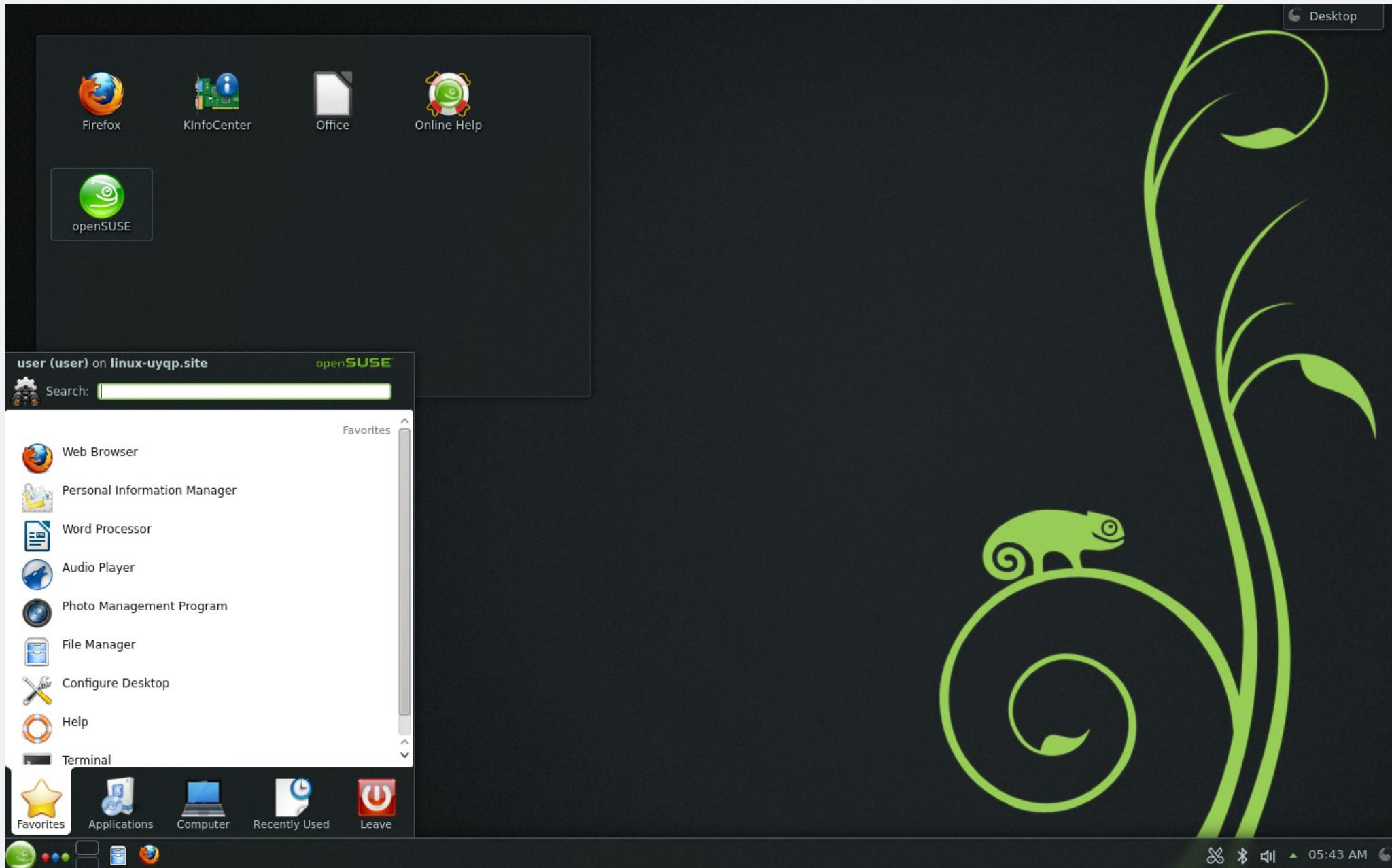
# KDE 4.10

- Feature driven. Highly customisable desktop environment
- Showcase for the capabilities of Qt
- Window Management improvements
  - Scripting support to add functionality/effects to Kwin
  - OpenGL support in most Vms
  - Per-monitor colour management
- Menu customisations – replace Application menu with Title bar button
- File Manager performance improvements
- New Print Manager – support for latest CUPS
- Nepomuk cleaner – tidy up metadata storage
- The Apper update manager v 0.8 should no longer create blocking issues with the zypper commandline and GUI package managers.





# KDE 4.10 – Plasma Desktop



# Other Window Managers

## XFCE

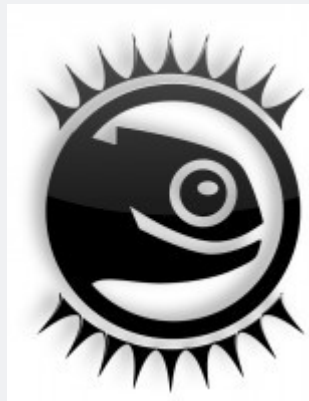
- Tabbed Thunar file manager
- quake-style drop-down mode in xfce4-terminal

**Sawfish** (window manager using a Lisp-based scripting language)

**awesome** (highly configurable, next generation framework window manager for X)

## LXDE 1.1

**Enlightenment 17 (E17):** Version 0.17.1





Home



Root



Temp

**Main**

- Applications >
- Navigate... >
- Run Everything >
- Take Screenshot
- Desktop >
- Windows >
- Enlightenment >
- Settings >
- System >

Sub-menu for 'Run Everything':

- Home >
- Desktop >
- Favorites >
- Root >
- GTK Bookmarks >

Enlightenment

Taskbar area containing various icons:

- System tray icons: volume, network, battery, clock, CPU usage, RAM usage, disk usage, and a German flag.
- Application icons: Firefox, Pidgin, Gedit, and a terminal window.

# Server Developments – Databases

- MariaDB replaces MySQL as default database server
  - More storage engines (XtraDB – fork of InnoDB)
  - Lots of performance & feature improvements over MySQL
  - Tested with 200,000+ connections
  - Optional drop-in replacement for upgrades
  - MySQL still included in openSUSE
- PostgreSQL 9.2
  - Native JSON support – use PostgreSQL like a 'NoSQL' document database
  - Improved scalability & performance (2-20x faster)



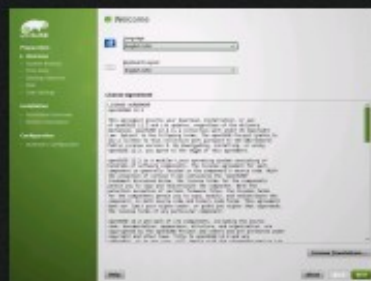


# Server Developments – Other Highlights

- BIND 9.9
  - Inline signing – Simplified deployment of DNSSEC
- Tomcat 7
  - Servlet 3.0, JSP 2.2, EL 2.2
- Squid 3.2.6
  - Client Bandwidth Limits, IPv6, SMP scalability, better streaming support
- WebYaST
  - “Finally works” on openSUSE 12.3
- Nagios 3.4.4
  - Bugfixs/security - simplified Install

# Virtualisation – Highlights

- KVM
  - SPICE, qxl & USB3 support, USB redirection supports live migration
- Xen 4.2.1
  - 'xl' replaces 'xm/xend' tools – SPICE support, but no qxl or USB pass-through
  - EFI support
  - Scalability/density improvements
    - Support for 4095 CPUs and upto 5TB RAM on 64-bit hosts
    - Upto 512 VCPUs per Paravirtualised VM, 256 VCPUs per 'Fully Virtualised' VM
- LXC 0.8.0
  - Apparmor support
  - Container 'imaging' with **lxc-clone** – supports LVM2 and btrfs snapshots
  - **yast2-lxc** – simple management of LXC Containers



openSUSE 12.1  
Installing...

openSUSE-12.2-  
DVD-x86\_64.iso  
Live



openSUSE 12.3  
RC1

# Cloud - OpenStack

- First release of openSUSE with complete packages for OpenStack
- DevStack – developer tools/scripts to quickly build simple OpenStack test/dev environments
- Improved Web Dashboard
- Image replication
- New API and client tool for image service
- Return of Hyper-V support
- Public-Key authentication



# What's new for developers?

## IDEs and tooling

- Anjuta 3.6 with git integration improvements.
- QtCreator 2.6 with 'Kits' offering settings for which device type to develop for.
- KDevelop 4.4 introduces a new welcome screen which helps you to get started with a project in an intuitive way.
- Fossil Distributed Version Control System offers wiki, bugzilla and blog functionality)

## Languages and Libraries

- Mono 3 supports the new async C# 5.0.
- Python 2.7.3 remains the default, Python 3.3.0 is now available
- Python-qt4 supports Qt 5 now.
- The KDE Development Platform introduces a more comprehensive SDK for Plasma and GTK 3.6

## openSUSE Tools

- KIWI 5.04.37 (arm based boards)
- Open Build Service







**INVISIBLE BIKE**

# Kernel 3.7 which is well tested

A few highlights:

- Raid 10 support for the device mapper
- Aggressive SATA device sleep for SSD and HD power saving and (opportunistic) suspend in the kernel and system tools.
- btrfs snapshot diffs, disable copy-on-write on a per-file base and snapper 0.1.1 for snapshots by users and LVM thin-provisioned snapshots
- Performance profiling with perf trace
- Higher TCP performance (Fast Open/Early Retransmit/Small Queues) and more resistance to the dreaded 'buffer bloat'
- SMBv2 protocol support as well as stable NFS 4.1
- Improved security with support for signed kernel modules, stronger sandboxing for sshd and more
- faster and more stable Nouveau NVidia driver, supporting newer hardware

**zypper ar <http://download.opensuse.org/repositories/Kernel:/stable/standard> Kernel:stable**  
**zypper in --from Kernel:stable kernel-desktop**





# systemd - Timeline

- Previewed in openSUSE 11.4
- Default in openSUSE 12.1
- sysVinit removed in openSUSE 12.3

# systemd – what you need to know

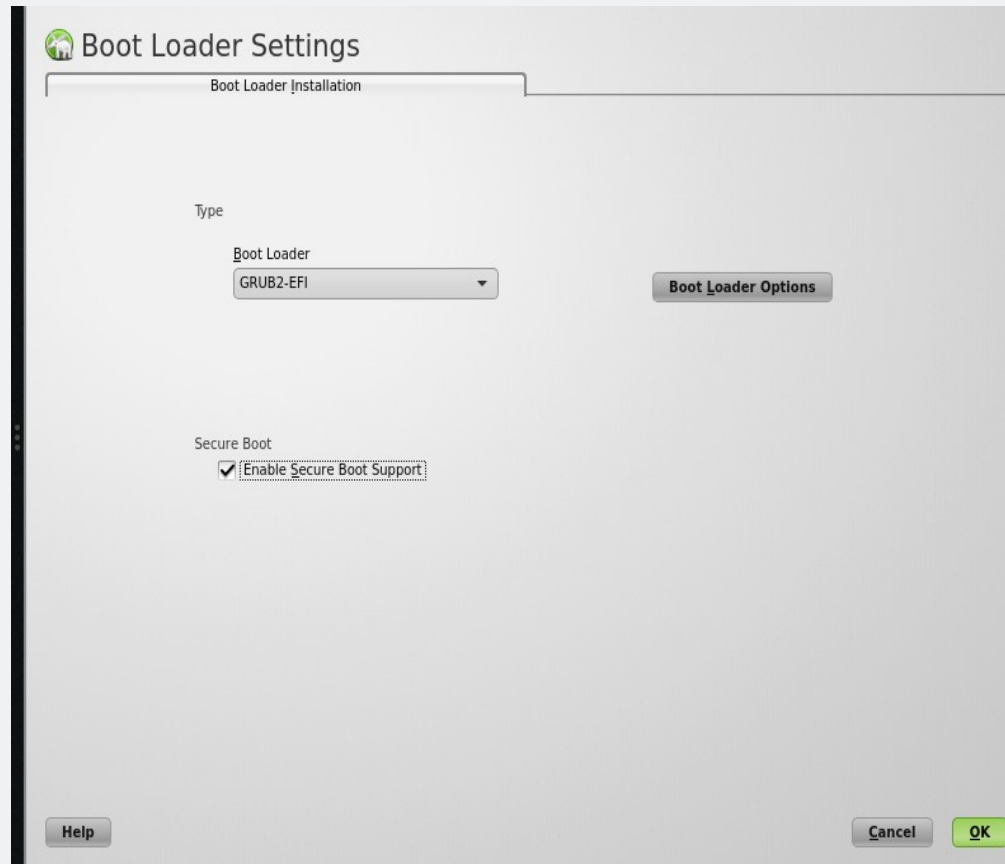
- sysVinit had Runlevels, Numbered 0-5
  - 0 – shutdown
  - 1 – single user mode
  - 3 – multiuser with network
  - 5 – multiuser with network and X
- Systemd has “target units”
  - **halt.target** (aliases – runlevel0.target, poweroff.target)
  - **rescue.target** (aliases – runlevel1.target)
  - **multi-user.target** (aliases – runlevel3.target)
  - **graphical.target** (aliases – runlevel5.target)

# systemd – what you need to know

- Changing targets
  - `init <runlevel number>` - still works, but **deprecated**
- Instead
  - `systemctl isolate <my_target>.target`
    - eg. `systemctl isolate multi-user.target`

# Secure boot - UEFI

This release delivers proper UEFI support for x86\_64 hardware and experimental support for Secure Boot enabled hardware.



- Details: <https://en.opensuse.org/openSUSE:UEFI>





Tumbleweed

# Rolling Release? No problem!!! Tumbleweed

- Normal: 2 life cycles + 2 months = 18 months.
- Tumbleweed: Solved the problem of rolling updates version.
- Always the latest stable software
  - Latest kernel = latest hardware support
  - Latest browser, office, desktop, games...
  - No more 'download and install the new release'!
- Details: <http://en.opensuse.org/Portal:Tumbleweed>




tumbleweed

# LTS? No problem!!! Evergreen

- Normal: 2 life cycles + 2 months = 18 months.
- "Evergreen" is a community effort to prolong maintenance of selected openSUSE versions as they reach official end-of-life
- 11.2: Support started May 12th 2011, support ends Nov 2013  
Total: July 15, 2010 – Nov 2013
- 11.4: Support started Nov 5th 2012, support ends July 2014  
Total: March 10th 2011 - July 2014
- Details: <https://en.opensuse.org/openSUSE:Evergreen>


# I-click-install

<http://software.opensuse.org/>

 Λήψεις Υποστήριξη Κοινότητα Ανάπτυξη

## Αναζήτηση Πακέτων

Αναζήτηση



### owncloud

ownCloud 2012 Server provides you a private file sync and share cloud. Host this server to easily sync business or private documents across all your devices, and share those documents with other users of your ownCloud server on their devices.

- ownCloud gives your employees anytime, anywhere access to the files they need to get the job done, whether through our mobile apps, web interface, or other WebDAV clients. With it, your employees can easily view and share documents and information critical to the business, in a secure, flexible and controlled architecture. You can easily extend ownCloud with plug-ins from the community, or that you build yourself to meet the requirements of your infrastructure and business.

ownCloud - Your Cloud, Your Data, Your Way! [www.owncloud.com](http://www.owncloud.com)

#### openSUSE Factory

---

#### openSUSE 12.3

home:dsonck92	4.5.8	↓	noarch	Πηγή	1 Click Install
home:ecsos	5.0.0	↓	noarch	Πηγή	1 Click Install

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#### openSUSE 12.2

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#### openSUSE 12.1

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#### openSUSE Tumbleweed

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#### SUSE SLE-11 SP 2

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#### SUSE SLE-11 SP 1



# OBS....

# Free

on  
[build.opensuse.org](https://build.opensuse.org)



users  
40.000

200.000  
packages

26  
distributions  
7  
architectures

OpenSUSE ARMs





openQA



# openQA



- Fully automated testing
  - Used to daily test openSUSE Factory
- Easy web interface showing results as images and video
- Covers:
  - Installation and upgrade testing
  - Daily regression testing
  - Application testing
  - benchmarking
- Free and cross-platform Software
  - Run your own tests on your own system!

[openqa.opensuse.org](http://openqa.opensuse.org)

# Overview of all tests ran on openSUSE Factory

## openQA automated testing framework

[Downloads](#)[Support](#)[Community](#)[Development](#)[openQA](#) - openSUSE automated testing > Results

### Recent issues in Factory

*Known Issues seen in test-results:*

Build03xx+ live/usbboot hangup - possible clicfs bug

Build0312+ 2011-09-28 KDE-LiveCD reboot segfault

Build0309+ 2011-09-27 reboot hangs

Build0308+ 2011-09-27 installer-unthemed

Build0296+ 2011-09-21 [Xorgfevdev crash during many installs](#)

Build0296-297 2011-09-21 NET installing kernel blocks in perl-[Bootloader find-L/dev](#)

Build0294+ 2011-09-20 [no bootloader installed \(udev/systemd/run changes\)](#)

Build0279-295 2011-09-14 - 20 gnome gdm --all-black--fixed in [gnomedevil-2011-09-17-with-gdm-fix-autologin-patch](#)

[libMagick display order bug](#)

Build0277+ 2011-09-14 [openSUSE-KDE-LiveCD-i686-Build0279-usbboot/live-panic](#)

[systemd-kdm/gdm/xdm-start-problem](#) - default.target -> runlevel3.target from yast/install

Build0275-0313 2011-09-13 - 2011-09-29 i586 [no autologin because second-stage is interrupted](#) - "YaST got signal 15 at YCP file /usr/share/YaST2/clients/sound\_write.ycp:267" - related to systemd/alsa-service

### Test result overview

This page lists 46 automated test-results from the last 96 hours.

96 h

filter

☐ ignore boring results


[change](#)

link	distri++	type++	arch++	build++	extra++	testtime++	OK++	unk++	fail++
<a href="#">testing</a>	openSUSE	DVD	i586	0315	kdedevel	2011-09-30 13:05			
<a href="#">testing</a>	openSUSE	NET	x86_64	0315	11.4kde64dup	2011-09-30 13:05			
<a href="#">testing</a>	openSUSE	NET	x86_64	0315	gnomedevol	2011-09-30 13:05			
 	openSUSE	NET	x86_64	0315	kdeplaygrounddevel	2011-09-30 12:53	16	11	
 	openSUSE	NET	x86_64	0315	xorgdevel	2011-09-30 11:42	2	19	1
 	openSUSE	DVD	i586	0315	11.4gnome32zdup	2011-09-30 11:19	12	6	2
 	openSUSE	DVD	i586	0315	11.4gnome32dup	2011-09-30 11:15	2	12	1
 	openSUSE	NET	i586	0315	xfce	2011-09-30 11:09	1	12	1
 	openSUSE	DVD	i586	0315	btfrfs	2011-09-30 10:14	15	11	
 	openSUSE	DVD	i586	0315	11.3zdup	2011-09-30 09:46	5	16	4
 	openSUSE	DVD	x86_64	0315	xfcedevol	2011-09-30 09:21	2	10	1
 	openSUSE	DVD	i586	0315	xfce	2011-09-30 08:34	9	4	2
 	openSUSE	KDE_LiveCD	x86_64	0315	live	2011-09-30 08:25	4	16	2
 	openSUSE	DVD	i586	0315	kerneldevel	2011-09-30 08:24	10	15	1
 	openSUSE	DVD	x86_64	0315	11.2dup	2011-09-30 08:12	14	11	1
 	openSUSE	KDE_LiveCD	x86_64	0315	usbboot	2011-09-30 07:27	2	17	4
 	openSUSE	NET	i586	0315	11.3dup	2011-09-30 07:14	1	20	1
 	openSUSE	NET	x86_64	0315	btfrfs	2011-09-30 06:16	11	13	3



# In-dept results of a test

## from openQA automated testing framework




















 **openQA** - openSUSE automated testing > Results > openSUSE-NET-x86\_64-Build0315-xorgdev1

Actions



### Results

This tool displays details on one particular test result.

Test	Result	References
timeout	not-autochecked	    
booted	OK	
NET_inst_mirror	unknown	
initenv	not-autochecked	
bootloader	not-autochecked	
spashscreen	not-autochecked	 
welcome	not-autochecked	 
installation_mode	not-autochecked	 
addon_products	not-autochecked	 
installer_timezone	not-autochecked	
logpackages	not-autochecked	 
installer_desktopselection	not-autochecked	

# Rescue CD

12.3 now ships an Xfce based Live CD designed to provide a lightweight and effective environment and powerful applications for recovering lost data, backing up existing data, editing disk partitions and accessing the help channels of openSUSE. Among others, it provides the following applications:

- **gparted** and **YaST's disk partition manager** for creating and modifying partitions
- Subset of YaST modules to help with system recovery: **bootloader manager**, **network device management**
- GNU **dd\_rescue** and **photorec** for recovering lost or corrupt data
- **grsync**, an **rsync** GUI, useful for backups
- **lftp**: a feature rich ftp client
- a lightweight web-browser (**Midori**), **XChat** for IRC chat, and a **pdf reader** to read manuals in that format



# openSUSE ARM

## Release supported platforms

- HCL:BeagleBoard-xM
- HCL:PandaBoard
- Efika MX



## Community supported platforms

- Calxeda Highbank
- i.MX53 Loco
- CuBox
- Origen Board

## Not yet officially supported but known working platforms

- Toshiba AC100
- Gumstix Overo (experimental):

Details: <http://en.opensuse.org/Portal:ARM>



# So why openSUSE 12.3 and not other distro?

## YaST (Yet another Setup Tool)

- installation and configuration tool for openSUSE
- it is popular for its easy use and attractive graphical interface
- capability to customize your system quickly during and after the installation
- can be used to configure your entire system
- setup hardware, configure the network, system services and tune your security settings



Details: <https://en.opensuse.org/Portal:YaST>

Newcomers welcome



# Information

- Portal: <https://en.opensuse.org/Portal:12.3>
- Features: <https://en.opensuse.org/Features>
- Download: <http://software.opensuse.org/123/en>
- Release notes:  
[https://www.suse.com/releasenotes/x86\\_64/openSUSE/12.3/](https://www.suse.com/releasenotes/x86_64/openSUSE/12.3/)
- Facebook: <https://www.facebook.com/groups/opensuseproject/>
- Twitter: @openSUSE







# OPENSUSE CONFERENCE **2013**

**"Power to the Geeko"**

Thessaloniki, Greece  
July 18-22 2013

[conference.opensuse.org](http://conference.opensuse.org)



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Join the gang





**KEEP  
CALM  
AND  
THROW  
TOMATOES**



# Be a Geeko/Kitten



Thank you



# Image credits

WhiteSmoke: dunno

GreenSmoke: From [news.opensuse.org](http://news.opensuse.org)

Invisible Bike: Somewhere from facebook

Tumbleweed: somenametoforget

Newcomers: abcrumly

Join the gang: malingering

Keep Calm+Tomatoes: keep-calm

GeekoKitten: no idea

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