GO-Global Release Notes
Version 6.3.1.33754

Contents

Notes

1. Older GO-Global clients can connect to GO-Global 6.3.1 hosts, but some enhancements and fixes will only be supported with GO-Global 6.3.1 clients. Users should upgrade their clients to version 6.3.1.

2. When upgrading version 6.2.6 relay environments to version 6.3.1, upgrade the Relay Load Balancer before upgrading any Dependent Hosts.

3. Upgrading version 6.0 systems using cloud trial licenses to version 6.3 is not supported.

4. GO-Global 6.3 cannot be used with a lower-version license (e.g., with a version 6.2 license). All cloud subscription licenses have been upgraded to version 6.3, but if you are upgrading to GO-Global 6.3 from an earlier version and you are using an on-premises license, you will need a new version 6.3 license file. You can request a new license file via the License Change Request (LCR) page on the Customer Portal.

5. GO-Global Host 6.3 does not support and will not install on Windows 7, Windows 8, Windows 8.1, Windows Server 2008 R2, Windows 10 Enterprise Long-Term Servicing Channel (LTSC) versions other than 1809, and Windows 10 Semi-Annual Channel (SAC) version 1909 and earlier.

6. Group Policy is now enabled by default. It can be disabled via the Session Startup tab of the Host Options dialog in the Admin Console.

7. GO-Global manages licenses from the Application Host Manager by default.

Supported Platforms

GO-Global Host

The GO-Global Host requires one of the following 64-bit Windows operating systems:

- Windows Server 2022 — Standard and Datacenter
- Windows Server 2019 — Standard and Datacenter
- Windows Server 2016 — Standard and Datacenter
- Windows 11 — Professional and Enterprise
- Windows 10 (latest and prior SAC releases) — Professional and Enterprise
- Windows 10 (latest and prior LTSC releases) — Enterprise

The GO-Global Host is supported on computers that have the latest Windows Updates (released via the Windows Updates service) installed.

The GO-Global Host is supported on computers that have the latest Windows Updates installed. GO-Global can be installed and run on guest operating systems that are managed by hypervisor products such as VMware ESXi, Microsoft Hyper-V, and Citrix Hypervisor.

The GO-Global Host does not support systems on which Virtualization-based security is *Running*. If the GO-Global Host is installed on a system where Virtualization-based security is listed as *Running* in System Information, the system will fail to start or the GO-Global System Extensions Driver will fail to load. To run GO-Global on such a system, Virtualization-based security must be disabled.

GO-Global Client

GO-Global supports the following client platforms:

- Windows 11 Professional and Enterprise (64-bit)
- Windows 10 Professional and Enterprise (32-bit/64-bit)
- Windows 7 Professional, Ultimate, and Enterprise (32-bit/64-bit)
- macOS 10.13 and later
- Red Hat Enterprise Linux 7 and 8 (64-bit)
- CentOS 7 and 8 (64-bit)
- Ubuntu 19 and 20 (64-bit)
- SUSE Linux Enterprise 12 and 15 (64-bit)
- iOS 12.0 and later
- Android 9.0 and later on ARM processors, including Chromebooks manufactured in or after 2019

Browsers

GO-Global supports the following browsers:

- Mozilla Firefox
- Apple Safari 12 and later on macOS
- Google Chrome
- Microsoft Edge

Antivirus Software

The following antivirus products have been tested and verified to be compatible with GO-Global:

- Sophos Endpoint Protection
- 360 Total Security
- Adaware Antivirus 12
- Avira Security
- Bitdefender Agent Antivirus Free Edition
- eScan Anti-Virus (AV) Edition for Windows
- Eset Security
- McAfee Total Protection
- Norton 360
- TotalAV Antivirus 2023
- Vipre
- Panda Free Antivirus
- ZoneAlarm Next Gen
- Cortex XDR
- F-Secure
- Acronis Cyber Protect Cloud (included with Acronis backup solutions)
- CrowdStrike Falcon
- Symantec Endpoint Protection

GO-Global and antivirus products use similar techniques to extend Windows functionality. This can result in incompatibilities between GO-Global and antivirus products. It is not sufficient to deactivate an incompatible antivirus product. Incompatible antivirus products must be completely removed from the system.

The following products are incompatible with GO-Global:

- AVG
- Avast
- Trend Micro — See the workaround.
- Kaspersky — 32-bit applications fail to run. See the workaround.
- SentinelOne — 32-bit applications fail to run. See the workaround.
- Webroot (*Note:* The Webroot uninstall may fail to fully remove Webroot from the computer. To fully remove Webroot, uninstall it, reboot in Safe Mode, and then delete all the files in C:\Program Files\Webroot\Core. Then delete C:\Windows\System32\drivers\dbcm.bin to re-enable GO-Global. Then reboot the computer.)

New Features

Mix Windows Support

Mix Windows support improves usability by allowing the windows of applications running locally on the client computer to be interleaved with the windows of applications running in a GO-Global session. When users activate the window of an application running in a GO-Global session, *only the activated window will come to the foreground*. The z-order of windows belonging to other applications running locally and in the GO-Global session will be unaffected.

User and Group-Based Application Publishing

User and Group-based application publishing allows administrators to publish applications to individual users, groups, and organizational units (Ous).

Session and Process Search

With the Admin Console's new Search button, administrators can quickly locate the session and processes of a specific user and eliminate the need for the Admin Console to simultaneously display all sessions and processes that are running on a farm of GO-Global Hosts.

Localization Support

Text that is displayed to end users can be translated into users' native languages. This includes text displayed by GO-Global's Logon and Program Window applications and messages displayed by GO-Global clients (i.e., AppController and the GO-Global Web App and its associated web pages).

GO-Global healthCheck Request

Third-party load balancers and monitoring tools can test the health of GO-Global Hosts by sending a *healthCheck* request to the Application Publishing Service.

PowerShell API

GO-Global's new PowerShell API supports programmatic monitoring and management of sessions running on GO-Global Application Hosts and Application Host Managers.

New Features

New Universal Printer Driver

Version 6.3.1 includes a new Universal Printer Driver that improves print quality and speed and greatly simplifies printing for both users and administrators. Users running AppController for Windows can access and use all the settings of their printers without requiring printer drivers to be installed on GO-Global Hosts.

In most cases, this eliminates the need to:

- Install native Windows printer drivers on GO-Global Hosts
- Find alternatives to Type 4 printer drivers
- Map printer drivers
- Configure printer settings on GO-Global Hosts

Improved Support for Large Server Farms

Application Publishing Service enhancements in version 6.3.1 improve the reliability of communication between Application Hosts and Application Host Managers.

Known Issues

The enhancement to the Universal Printer Driver that enables users to edit all the settings of their client printers from AppController for Windows does not work from within Google Chrome or Mozilla Firefox running in a GO-Global session. From within these browsers, users can only configure the standard settings of printers that are configured to use GO-Global's Universal Printer Driver.

When the GO-Global Host is upgraded to version 6.3 from earlier versions, GO-Global will continue to use the Universal Printer Driver libraries from the earlier version. To enable the use of version 6.3's new Universal Printer Driver libraries that provide improved quality and performance, change the values of the PDFConverter and PDFPrinter properties in HostProperties.xml from 1 to 2.

On some Windows 11 systems, the Windows Installer fails to run when GO-Global is installed. The workaround requires temporarily renaming the GO-Global driver, **ggse.sys**, then uninstalling, installing or upgrading programs that use the Windows Installer, as follows:

1. Rename C:\Windows\System32\drivers**ggse.sys** to **ggse.sys.bak.**
2. Restart the computer.
3. Uninstall, install, or upgrade GO-Global and/or other programs that use the Windows Installer.
4. To re-enable GO-Global, rename **ggse.sys.bak** to **ggse.sys** and restart the computer.

Printing does not work from the following browsers running in a GO-Global session:
- Chrome or Edge running on Windows Server 2019, Windows 10v1809 LTS, or Windows 10v22H
- Edge running on Windows Server 2016

Printing does work from these browsers on Windows Server 2022. On this platform, Chrome and Edge must be run using the command line arguments --no-sandbox --allow-third-party-modules

When a user connects to a GO-Global Host from a browser and a session fails to start, the browser may continue to display **Session starting...** and fail to report the reason the session failed to start. Users can press F5 to retry.

The Sign In dialog and its associated session remain running forever if the user does not sign in. By default, this is still the case, but administrators can limit the amount of time that users have to sign in by changing the value of the **SignInTimeLimit** property in HostProperties.xml from -1 (no limit) to the number of minutes users will have to sign in. When this limit is exceeded, the session will close after briefly displaying a message that informs the user why the session is closing.

Known Issues

Windows Explorer (File Manager) does not run in GO-Global sessions on Windows 11 Version 21H2.
Client Sound does not work on Windows 11 or Windows Server 2022.
Type 4 printer drivers are not supported.
Task Manager crashes in console and RDS sessions on Windows 10, Windows 11, and Windows Server 2022 when the Performance tab is selected.
The GO-Global Host and AppController for Windows are digitally signed using a certificate issued by DigiCert. The root certificate of GraphOn's signing certificate is the "DigiCert Trusted Root G4" certificate. DigiCert's certificate is normally installed on Windows systems, but it may not be installed on systems where Windows has been freshly installed from an ISO or image. If the certificate is not installed on a computer running the GO-Global Host, GO-Global sessions will not start. If it is not installed on a Windows client computer, AppController may not run. If either occurs, you can resolve the issue by downloading the certificate from DigiCert's website and installing it on the affected computer.
32-bit Chrome is not supported as a published application. Only 64-bit Chrome can be run in GO-Global sessions.
When Open File Redirection is enabled for a given document type (e.g., a Microsoft Word document), the document's normal icon will be replaced with a generic icon when files of the document type are viewed within Windows Explorer or a File Open dialog in a GO-Global session. Also, if a Microsoft Office application is run in a GO-Global session, it will display a message to the user indicating that the application (e.g., Microsoft Word) is not the default application for viewing and editing documents. Therefore, if users need to run Microsoft Office applications on the host, the Open File Redirection feature should be disabled for Microsoft Office document types.

Known Issues

Users running Microsoft Office applications in GO-Global sessions cannot save files to MyWorkDrives mapped on their local computer.

In some configurations on Windows 11, GO-Global sessions do not start until the host is restarted.

The Video Replay option:
- Is only supported by AppController for Windows
- Requires that Window Media Foundation be installed on Windows Server 2012 R2 hosts
- Consumes more memory and CPU than the standard RapidX Protocol
- Is slower when the screen size of the video is larger

Regardless of whether the video option is enabled:
- Videos do not play when Chrome version 80 is run in a GO-Global session
- Videos do not play in Internet Explorer unless the Windows Audio Service is enabled
- Videos are not displayed when Windows Media Player is run in a GO-Global session

To work around the Windows Media Player issue, customers can use a different media player.

The Open File Redirection feature is only supported by AppController for Windows.

DPI Scaling may not work in the GO-Global Web App.

Clients may bypass third-party load balancers and connect to Farm Hosts indirectly via Farm Managers. Similarly, clients may connect directly to Dependent Hosts.

When a user connects to a Farm Host, the Admin Console does not list the IP address of the client device.

Known Issues

When **Notify users when connections are secure is** enabled, the "secure connection" notifications can interfere with automatic reconnect.

When a host is configured to use a cloud license, the **Seats in use** value in the Admin Console displays the number of License Seats that are in use on the selected host. If more than one host is configured to use the same cloud license, **Seats in use** will not display the total number of the license's seats that are in use.

If AppController has been uninstalled from a client system, browsers do not subsequently prompt users to re-install it.

The GO-Global Host installer does not support downgrades or repairs. To downgrade or repair a GO-Global Host installation, use the GO-Global migration utility (migrate.exe) as described in the *Administrator Guide*.

Firefox 64 as a published application might hang after browsing web pages.

When the Web App is used by itself (without AppController), the Cut, Copy, and Paste menu options of applications running in GO-Global sessions cannot be used to transfer data between local and remote applications. To cut, copy, or paste data between local and remote applications, users must use the respective keyboard shortcuts, Ctrl+X, Ctrl+C, and Ctrl+V.

Copy and paste does not work in some scenarios in the GO-Global Web App.

The Microsoft Remote Desktop Client is not supported in GO-Global sessions.

When a file is saved to a directory on a client computer from a Microsoft Office application running in a GO-Global session on a Windows 10 host, an additional temporary (.tmp) file is stored in the client directory along with the saved file.

AppController may not start automatically after it is installed. If this happens, click the **Reload** link.

An image of a rectangular blue bar is displayed instead of the Sign In dialog. To resolve this issue, upgrade the version of the Visual C++ Redistributables on the GO-Global Host by following the instructions at https://learn.microsoft.com/en-us/cpp/windows/latest-supported-vc-redist?view=msvc-170.

Known Issues

The Client Sound feature is not supported on Apple Safari 15 when using the GO-Global Web App.

JPG, PNG, BMP, and JPEG files fail to open in GO-Global sessions. To work around this issue, specify the editor for these file types for all users via Group Policy (https://techcommunity.microsoft.com/t5/ask-the-performance-team/how-to-configure-file-associations-for-it-pros/ba-p/1313151).

When F-Secure Antivirus is installed together with the GO-Global Host on Windows 10, sessions take more than two minutes to start. To work around this issue:

1. Open F-Secure.
2. Select the **AntiVirus** tab on the right pane.
3. Click **Settings**.
4. Select **DeepGuard**.
5. Click **View excluded files**.
6. Click **Add new**.
7. Add C:\Windows\System32.
8. Add C:\Program Files\GraphOn\GO-Global\Programs.
9. Close all F-Secure windows.
10. Restart the computer.

When Enhanced Client-Side IME is enabled, the IME composition might appear in the wrong location initially when the user starts typing in some applications.

32-bit applications fail to launch in a GO-Global session when ZoneAlarm Extreme Security is installed on the GO-Global Host. To allow 32-bit applications to launch, turn off Enable behavioral scanning under ZoneAlarm's Advanced Settings.

Client printing is not supported on GO-Global Hosts running Remote Desktop Services. Printing to redirected printers in the RDS session does not work if GO-Global is installed.

Display problems may occur in multi-monitor configurations when a monitor that is scaled has monitors that abut it on both its left or right and its top or bottom.

Known Issues

GO-Global's version is listed incorrectly in the Program Window's *About* box when a version 6.2.5 client is connected to a GO-Global Host running version 6.2.4 or earlier.

An application (e.g., Windows File Explorer) or an application's features only work for members of the Administrators group when Integrated Windows Authentication or OpenID Connect Authentication are used.

Root Cause: By default, Windows does not grant *Launch and Activation* COM rights to standard users who have not signed in to Windows interactively by entering a username and password.

To resolve this, grant users *Launch and Activation* rights as follows:

1. Run **dcomcnfg**.
2. Navigate to Component Services | Computers | My Computer.
3. Right-click **My Computer** and click **Properties**.
4. Select the **COM Security** tab.
5. Under **Launch and Activation Permissions**, click the **Edit Default…** button.
6. Click the **Add** button. (*Note*: The default permissions grant full rights to the INTERACTIVE and Administrators groups. This is why this works for all users authenticated via a username and password (INTERACTIVE users) and members of the Administrators group when Integrated Windows Authentication or OpenID Connect Authentication is used.
7. Add **Domain Users**.
8. Select **Domain Users in the Group or user names list**.
9. Click the **Allow checkboxes next to Local Launch and Local Activation**.
10. Click **OK**.
11. Click **OK**.

Microsoft Edge WebView2 controls do not work on Windows 11 22H2.

Known Issues

GO-Global provides limited support for client-attached USB devices. Specifically, it supports client-attached USB printers, drives, and some smart cards. It does not support general-purpose USB-redirection of other types of USB devices.

Windows 10 N and Windows 11 N are not supported platforms for the GO-Global Host. In addition, when AppController for Windows is run on Windows 10 N or Windows 11 N without the Media Feature Pack, sessions will fail to start and the AppController.exe process will exit soon after it starts. Users can work around this issue by installing the Windows 10 or Windows 11 Media Feature Pack.

On Chinese GO-Global Hosts that have server-side IME enabled, the IME composition window does not appear the first time a user signs in. When this occurs, the user can work around the issue by signing out and signing back in.

To use client-side IME on an Arabic OS, the KeyReportingMethod property in the HostProperties.xml file must be set to 0. For instructions, see the section, **Key Reporting Method** in the *Administrator Guide*.

To run Microsoft Edge or Google Chrome on Windows Server 2022, the launch parameter **--no-sandbox --allow-third-party-modules** must be assigned to the application in the Admin Console, as follows:

1. In the Admin Console, click the **Applications** tab.
2. Select the appropriate application (e.g., Chrome or Edge) from the list of **Installed Applications**.
3. Click the **Properties** button.
4. In the **Command-Line Options** box, type: **--no-sandbox --allow-third-party-modules**
5. Click **OK**.

Known Issues

Microsoft Edge is not supported as a published application on Windows 11. To run Google Chrome as a published application on Windows 11, the launch parameter
--no-sandbox --allow-third-party-modules must be assigned to the application in the Admin Console, as follows:

1.   In the Admin Console, click the **Applications** tab.
2.   Select Chrome from the list of **Installed Applications**.
3.   Click the **Properties** button.
4.   In the **Command-Line Options** box, type: **--no-sandbox --allow-third-party-modules**
5.   Click **OK**.

To run Microsoft Edge as a published application on Windows Server 2019, Windows 10 22H2, Windows 10 v1809 LTSC, use the following workaround:

1.   From the Registry Editor, expand the HKEY_LOCAL_MACHINE key.
2.   Expand \SOFTWARE\Policies\Microsoft
3.   Create a new key and name it **Edge**.
4.   Create a DWORD (32-bit) Value and name it **RendererAppContainerEnabled**.
5.   Set this value to hexadecimal 0.

When the GO-Global Host installer is run on Windows Server 2019 or Server 2022, clicking the installer's **Restart** button will not restart the computer. When this occurs, restart the computer from the Start menu. Alternatively, run the host installer as Administrator.

The GO-Global feature that provides access to the custom settings of client printers (e.g., printer tray options, etc.) from AppController for Windows does not work from within Google Chrome running in a GO-Global session. From within Chrome, users can only configure the standard settings of printers that are configured to use GO-Global's Universal Printer Driver.

On Windows Server 2019 or Server 2022, clicking the GO-Global Host installer's **Restart** button will not restart the computer unless you are logged in as the Administrator user. If this occurs, restart the computer from the Start menu.

Known Issues

32-bit applications fail to run when **SentinelOne** is installed on the GO-Global Host. Add an Interoperability exclusion for any 32-bit processes that will run in GO-Global sessions, as follows:

1. Log in to the SentinelOne web portal.
2. Select your site or group.
3. Select **Sentinels**, then **Exclusions**.
4. Select **New Exclusion** and/or **Create Exclusion**.
5. Select **Path** as the Exclusion Type.
6. Type the full path of the 32-bit application's executable file (e.g., C:\Windows\System32\notepad.exe).
7. Select **As File**.
8. Enable **Exclude path for alerts and mitigation**.
9. Select **Interoperability** as the Exclusions Mode.
10. Click **Save**.

Trend Micro is incompatible with GO-Global. Use the following workaround: Add logon.exe, pw.exe, and any other programs that need to run in GO-Global sessions under Trend Micro's Protection Settings | Exception Lists | Programs/folders.

32-bit applications fail to run when **Kaspersky** is installed on the GO-Global Host. Use the following workaround:

1. Edit the appropriate security profile settings.
2. Go to Security settings | Behavior Detection.
3. Disable **Behavior Detection, Exploit Prevention, and Remediation Engine**.
4. Click **Save**.

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