XenClient Enterprise 5.0

Version 5.0.4 Release Notes

Updated December 20, 2013
About this Maintenance Release
Citrix has officially released XenClient Enterprise Version 5.0.4. This document provides information about resolved (for XenClient Versions 5.0.1, 5.0.2 and 5.0.3) and current issues; it also includes guidelines for upgrading to this release.

For specific information about XenClient Enterprise Version 5.0, refer to the release notes. Access the Citrix eDocs site for the entire set of XenClient documentation.

New in this Release
The release provides support for a new product, Citrix DesktopPlayer for Mac, via the XenClient Synchronizer.

Citrix DesktopPlayer for Mac extends the benefits of XenDesktop to MacBook users, enabling them to run Windows desktops on a Mac whether they are online, offline, or even experiencing a slow or intermittent network connection. End users gain freedom while IT gains control by centrally managing Windows virtual desktops deployed to corporate and BYO MacBooks.

DesktopPlayer for Mac is a client virtualization solution for the Mac platform to allow users to run Windows virtual desktops on Macs. It uses a Type-2 hypervisor that installs on top of the Mac OS. Because DesktopPlayer installs on top of the existing Mac OS, it’s ideal for BYO. XenClient Enterprise offers similar client virtualization capabilities for the PC platform, but it uses a Type-1 hypervisor that installs under the Windows OS (on the bare metal). XenClient Enterprise is ideal for corporate-issued Windows laptops and PCs. Both DesktopPlayer and XenClient share the same management server called the XenClient Synchronizer that is used to centrally control and provision Windows virtual desktops to the local Mac and PC endpoints.

DesktopPlayer is an add-on that offers the ability to run your corporate Windows virtual desktops locally on Macs, but you still need licenses for rights to the Synchronizer, which is used to deploy and manage the virtual desktops. If your users are already licensed to use XenDesktop Enterprise/Platinum, you do not need to purchase additional licenses and can just add on DesktopPlayer. If you are looking to deploy DesktopPlayer to new users, you must procure the appropriate XenDesktop license and then purchase the DesktopPlayer add-on. For customers of XenClient Enterprise, DesktopPlayer can also be added onto a XenClient Enterprise user/device license.

Click here for more information on Citrix DesktopPlayer for Mac.
Activating the DesktopPlayer License

A DesktopPlayer license must be activated by an Administrator using Synchronizer. Administrators can use the information in this section to activate a license.

> Synchronizer version 5.0.4 is required to manage DesktopPlayer endpoints.

To activate a license:

1. Log into Synchronizer as an Administrator.
2. In the Synchronizer Actions panel, click Import License:

   ![Image of Synchronizer Actions panel]

   The installation process places a license file (for example, DesktopPlayer_license.xml) in the Synchronizer\conf directory.

3. In the Import License screen, browse to the location of the license file and enter the license filename:

   ![Image of Import License screen]

   for example, DesktopPlayer_license.xml

4. Click Finish.
Upgrading to XenClient Enterprise Version 5.0.4
The following sequence is recommended when upgrading existing installations to this release.

⚠️ This release has specific upgrade considerations for systems running previous XenClient versions. Before upgrading to this release, review the procedures outlined in the following pages.

Compatibility Considerations
Before upgrading, consider the following:

- A Version 5.0.x Engine can run VMs published by 4.5 Synchronizer.
- A Version 4.5 Engine cannot run VMs published by Version 5.0.4 Synchronizer.

The table below illustrates compatibility between the Engine and Synchronizer in this release:

<table>
<thead>
<tr>
<th>Synchronizer</th>
<th>Synchronizer</th>
<th>Synchronizer</th>
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<tbody>
<tr>
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<tr>
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<td>✓</td>
</tr>
<tr>
<td>5.0.x</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

⚠️ Upgrading from XenClient Enterprise Technical Preview 5.0 to Version 5.0.4 is not supported.

Download the Latest Version
The latest version of XenClient Enterprise is available on the My Citrix Website. This site provides access to the Engine, the Synchronizer, and the latest PV drivers in various bundled installation packages.

Upgrade the Engine
When upgrading, consider the following:

- If backups are enabled, ensure that current VM backups are on Synchronizer for any computer being upgraded.
- Upgrades to this release can be centrally administered via Synchronizer. Simply import the Engine update kit into the software library and assign it to the computers identified for upgrade.
- Verify that all upgraded devices have been installed and rebooted.

Upgrade Synchronizer
When upgrading Synchronizer, consider the following:

- For information regarding supported versions, refer to Compatibility Considerations.
- Any modifications made to files in the Synchronizer\conf folder must be manually reapplied after upgrading Synchronizer.
To upgrade Synchronizer:
1. First upgrade the central server to this release before installing remote servers. Remote Servers and central servers must all be at the same version (i.e. all servers must be running version 5.0.4).

All remote servers should be shutdown before upgrading the central server to avoid database problems.

2. Upgrade or install this version on all remote servers.

**Important upgrade considerations for XenClient Enterprise 5.0.4**

Use the following procedure when upgrading from XenClient Enterprise 4.5.x to 5.0.4:

1. Citrix strongly recommends that you update all in-use 4.5.x Shared VMs on the server by applying any Windows or application updates and/or patches.

2. After performing these updates, republish and re-deploy all the 4.5.x clients as the **default** version of the VM; ensure all users are running the default version. For reference on how to publish VMs, refer to pages 33-35 of the *XenClient Enterprise 5.0 Administration Guide*.

All 4.5.x clients should be running these new VM versions before upgrading the Engine or Synchronizer.

3. First upgrade all clients (Engines) to this release. For more information, refer to the *XenClient Enterprise Upgrade Guide Version 5.0*.

4. Once all clients (Engines) have been upgraded, upgrade Synchronizer to the same version. For more information, refer to the *XenClient Enterprise Upgrade Guide Version 5.0*. When upgrading Synchronizer, consider the following:
   a. Upgrade the central server to this release before installing remote servers. Remote Servers and central servers must all be at the same version.
   b. Upgrade or install this version on all remote servers.

All remote servers should be shutdown before upgrading the central server to avoid database problems.

5. On the Synchronizer, republish as **staged** all the VMs previously published and deployed as the default version (as described in step 2 above). For reference on how to publish VMs, refer to pages 33-35 of the *XenClient Enterprise 5.0 Administration Guide*.

6. Deploy the previously staged version to all users. Once all clients (Engines) are upgraded to this release they can be assigned the **default** version of the VM (i.e., only after the staged version has been re-deployed as the default version). For reference on how to publish VMs, refer to pages 33 -35 of the *XenClient Enterprise 5.0 Administration Guide*. 


Issues Addressed in 5.0.4

Resolved Synchronizer Issues in Version 5.0.4
The following issues were resolved in the 5.0.4 XenClient Synchronizer release:

Windows 8 KMS activation not functioning
When deploying either a shared or custom Windows 8 VM, including the “KMS Activation” definition in the VM’s OS Profile policy would cause the Windows Software Protection Service to fail to start and activate Windows. Without the "KMS Activation" definition, Windows would require access to the KMS server at each reboot in order to activate the VM.

IE11 cannot view the Synchronizer VM console
When using Internet Explorer 11 users see the following message when trying to view the VM Console: “The Virtual Machine Console is only viewable in Internet Explorer. Please use Internet Explorer.”

Publish failing with McAfee installed
When publishing a virtual machine in Synchronizer, the process fails when McAfee is installed.

License summary doesn’t auto-refresh after importing license
Importing a license into the Synchronizer console does not automatically update the license summary. To resolve this issue, refresh the browser.

Publish fails when in-guest tools are installed
After importing a virtual machine template to Synchronizer, attempting to publish the VM with in-guest tools installed results in the publish process failing.

Resolved Engine Issues in Version 5.0.4
The following issues were resolved in the 5.0.4 XenClient Engine release:

Mouse cursor disappears in XenDesktop 7
In an Engine, connect to a XenDesktop 7 hosted VM using Citrix Receiver by moving the mouse from the desktop into the application text-input area. Normally the mouse cursor should change from an arrow to an I-bar. But instead of the I-bar, no cursor is displayed at all. To the user it appears as if the cursor disappears.

Time incorrect after VM reboot
When rebooting an Engine which is set to Pacific time zone, but connected to an Eastern time zone Synchronizer, the local time is incorrect, usually 3 hours earlier than the set local time (for example, the time resets to 6am EDT, rather than 9am PDT after any reboot).

Domain trust broken after PvD VM update
After updating a PvD VM, domain trust breaks.

Support for Windows 8.1 PvD Images
A Windows 8.1 PvD VM fails to start, displaying the message “Your PC ran into problems” and enters a infinite restart loop.
**Xen Security Advisory: XSA-63**
Insufficient or missing error handling in certain routines dealing with guest memory reads can lead to uninitialized data on the hypervisor stack (potentially containing sensitive data from prior work the hypervisor performed) being copied to guest visible storage.

This allows a malicious HVM guest to craft certain operations (namely, but not limited to, port or memory mapped I/O writes) involving physical or virtual addresses that have no actual memory associated with them, so that hypervisor stack contents are copied into the destination of the operation, thus becoming visible to the guest.

**Xen Security Advisory: XSA-66**
The emulation of the fbld instruction (which is used during I/O emulation) uses the wrong variable for the source effective address. As a result, the actual address used is an uninitialized bit pattern from the stack.

A malicious guest might be able to find out information about the contents of the hypervisor stack, by observing which values are actually being used by fbld and inferring what the address must have been. Depending on the actual values on the stack this attack might be very difficult to carry out.

**Engine will not coalesce user backups after uploading them**
The Engine will not coalesce user disk backups after they have been uploaded. Eventually the backups build up to the point where the Engine is out of disk space. Once the Engine is out of disk space, the only solution is to redeploy the VM, which will reset it back to the latest backup on the Server.

**Virtual machine fails to start with pending download of new VM**
In some cases, a VM may fail to start while an updated version of the VM is being downloaded.

**Current Known Issues in 5.0.4**

**Synchronizer Issues in Version 5.0.4**
This Synchronizer release has undergone significant testing. The following issues have been identified and will be addressed in a subsequent release.

**Synchronizer does not work with Windows Server 2012 R2**
Synchronizer cannot communicate with Hyper-V running on Windows Server 2012 R2. Installations on Windows Server 2012 R2 are not supported.

**Password truncated when attempting to display localized characters**
Entering Chinese characters in a password field, and then clicking the eye icon to reveal them, results in the password being truncated; as a result, users cannot view the entire password.

⚠️ This issue only occurs when accessing Synchronizer using Internet Explorer Version 10; no other browsers support password reveal as a built-in feature.
Engine Issues in Version 5.0.4
The following issues have been identified in this release and will be addressed in a subsequent release.

**USB devices seem to be spontaneously disconnected**
When plugging in USB devices to the Engine, sometimes the device will spontaneously disconnect and no longer function. The only workaround for that particular device is to reboot the Engine.

**Windows 8 loses ‘Metro’ applications and updates upon snapback and update**
When snapping back or updating an image, a Windows 8 PvD VM will lose user-installed ‘Metro’ applications and updates.

**Mirror mode problems on platforms with ATI graphics adapters**
On some systems with ATI graphics adapters, if two monitors of different sizes are attached then the display will not fill the entire screen of the larger display when running in mirror mode.

**Wireless network may be inaccessible after suspend and resume**
On some Lenovo platforms, suspending and then resuming may result in loss of wireless connectivity; use the approach suggested by the vendor to upgrade the BIOS.

**Custom Windows 8 VM prompts user to change password**
On some custom Windows 8 VMs, the user may be prompted to change the login password; this occurs after the VM is assigned by Synchronizer and the VM is booted.

**Windows virtual machines have extra COM port**
On Windows VMs (Windows 7/Windows XP) an extra COM port may appear in the Device Manager; this COM port is not usable.

Issues Addressed in Past 5.0.x Releases

Resolved Engine Issues in Version 5.0.3
The following issues were resolved in the 5.0.3 release:

**PVD enhancements**
This release resolves a number of PVD-related issues, including:

- Improved boot times for PVD VMs
- User-installed applications would fail to appear after snapback
- VM preparation continues despite failed PVD VM installation
- Snapback failed to discard user made changes, resulting in some files being written to the DIFF disk.

**Fast lockups and reboot loops after installing or upgrading**
In some cases, some older Dell platforms would experience lockups or reboot loops after installing or upgrading to XenClient 5.0.x.
**WiFi hotspot fails to authenticate**
iPhone hotspot WLAN connections would fail after upgrading to XenClient 5.0.x. This issue has been resolved.

**Wireless connectivity improvements**
This release provides wireless connectivity improvements by implementing a band selector, which effectively allows dual band clients to automatically connect to 5 GHz networks when 2.4 GHz networks are congested.

**Resolved Synchronizer Issues in Version 5.0.2**
The following issues were resolved in the 5.0.2 release:

**Upgrading prevents a user from logging in**
In some cases, upgrading to XenClient Enterprise 5.0 could result in the inability to log in to the Synchronizer management console. An error message stating “The response could not be de-serialized” would be displayed.

**Unable to submit problem report**
In the previous release, submitting a problem report could generate an error.

**Downgrading to a previous release fails**
Downgrading Synchronizer to a previous release causes installation errors. Downgrading to a previous release is not supported.

**Resolved Engine Issues in Version 5.0.2**
The following issues were resolved in the 5.0.2 release:

**Upgrading from previous version loses custom drive letter configuration**
Upgrading from a previous release (for example, XenClient Enterprise 4.5) to Version 5.0/5.0.1 changes pre-defined drive letter designations. For example, if a VM image is configured so that the user drive letter is Z:, upgrading changes the drive letter to the default (U:).

**Unable to assign a serial port to a virtual machine**
Previously, the Device Manager prevented you from changing serial port assignments a COM port after upgrading.

**Unable to authenticate to wireless networks**
Some Intel-based wireless network drivers could not authenticate properly, resulting in the inability to connect to a wireless network (WPA and WPA2).

**Drive letters are not created on PVD virtual machines**
During the PVD virtual machine preparation process, drive letters were not automatically created. This issue has been resolved. U: and L: drive letters are now mapped appropriately when a PVD VM is initialized.
**Virtual machine loses CD ROM assignment during installation**
When installing a personal VM using a CD-ROM, the VM could lose its CD-ROM assignment. Upon rebooting, the CD-ROM was unusable until it was either ejected, or manually reassigned using the Device Manager Control Panel.

**System is not automatically locked after being idle for a period of time**
In some cases, a condition existed where a system would not automatically lock the platform after a period of inactivity.

**Resolved Engine Issues in Version 5.0.1**
The following issues were resolved in the 5.0.1 release:

**Domain trust may fail for first time AD users when downloading a PvD VM**
In the previous release, registering an AD user to Synchronizer for the first time, then downloading a PvD VM could potentially result in the inability to login to the newly provisioned VM. Resolving this issue involved shutting down the VM, then restarting it to establish domain trust. This issue has been resolved.