

Release Notes for Citrix XenServer 6.0.2

This document provides important information about the Citrix XenServer 6.0.2 Release.

Documentation may be updated or changed after the initial release. Citrix suggests regularly visiting the [XenServer 6.0 page](#) on the Citrix Support Website to learn about updates.

Release notes for Windows and Linux Virtual Machines (VMs) are available in the [Citrix XenServer 6.0 Virtual Machine Installation Guide](#).

Contents

- [Licensing](#)
- [New Features](#)
- [XenServer Virtual Appliances](#)
- [Installation and Upgrades](#)
- [Known Issues and Errata](#)
- [Documentation and Support](#)

Licensing

Important:

Utilizing the advanced features in XenServer 6.0.2 requires a Citrix License Server Virtual Appliance (version 11.6.1 or higher) and a XenServer 6.0.2 license. A Citrix License Server Virtual Appliance with a pre-installed XenServer 6.0.2 license is available for download from the Citrix [XenServer 6.0.2 Download page](#). To use an existing Citrix License Server Virtual Appliance, installation of the XenServer 6.0.2 license is required. For information on downloading and installing the Citrix License Server Virtual Appliance, see the Knowledge Base article [Citrix License Server Virtual Appliance for XenServer](#).

- An overview of licensing in XenServer, including required settings, is in the [Citrix XenServer 6.0 Installation Guide](#).
- For information about obtaining license files and installing a license server, see the [Licensing Your Product](#) section on [Citrix eDocs](#).

New Features and Improvements Since XenServer 6.0

We are pleased to announce availability of [XenServer 6.0.2](#). This version includes a number of new features and ongoing improvements to XenServer 6.0, including:

- **Emergency Network Reset:** Network Reset provides a simple mechanism to recover and reset a host's networking configuration to its original state at fresh installation. This is also useful when you simply want to configure networking on a host from scratch, and helps to recover a host from an incorrectly configured state. Refer to [CTX131972](#) for detailed information.

- **Enhanced Guest OS Support.** Support for CentOS 5.7 (32/64-bit), CentOS 6.0 (32/64-bit), Red Hat Enterprise Linux 5.7 (32/64-bit), Oracle Enterprise Linux 5.7 (32/64-bit). Refer to [CTX131973](#) for virtual memory and disk size limits for these new guests.
- **Windows XenServer Tools Improvements.** Windows Guests now can use either .Net 3.5 or .Net 4.0 when installing XenServer Tools.

Ongoing Improvements

- Disk usage for logging in Dom0, logs now rotated hourly (CP-3137)
- NFS stability (XOP-60)
- VLAN performance improvements when using the OVS (CA-68226)
- Default dom0 interrupt processing capabilities improvements (CA-70552)
- VM-level UDP network performance improvements (CA-72746)
- Xapi responsiveness increased during shutdown of large Virtual Machines (SCTX-507)

Additional Fixes

All updated driver disks for v6.0 have been incorporated into XenServer v6.0.2. In addition, XenServer 6.0.2 also includes the following hotfixes to XenServer 6.0:

- [Hotfix XS60E001](#)
- [Hotfix XS60E002](#)
- [Hotfix XS60E003](#)
- [Hotfix XS60E004](#)

The following components have been updated since the release of XenServer 6.0:

- [Microsoft System Center Integration Pack v6.0.2](#)
- [Workload Balancing v6.0.2](#)
- [Web Self Service 1.1.1 Virtual Appliance.](#)

XenServer Virtual Appliances

The following XenServer virtual appliances are available for download from the Citrix [XenServer 6.0 Download page](#):

- Demo Linux Virtual Appliance
- Workload Balancing Virtual Appliance
- vSwitch Controller Virtual Appliance
- Web Self Service 1.1.1 Virtual Appliance
- Citrix License Server VPX v11.10

Installation and Upgrades

Upgrade to XenServer 6.0.2 is possible from any version of XenServer 6.0 or 5.6, including 5.6 (base), 5.6 Feature Pack 1, and 5.6 Service Pack 2.

Upgrading XenServer

Customers upgrading from XenServer 5.6 and later should follow the instructions below. These instructions apply to customers using the XenCenter Rolling Pool Upgrade wizard to upgrade XenServer hosts or pools. For details on upgrading XenServer using the xe CLI, please refer to the [Citrix XenServer 6.0 Installation Guide](#).

Note:

For information on upgrading the vSwitch Controller Virtual Appliance, see the [Citrix XenServer 6.0 vSwitch Controller User Guide](#).

Before You Upgrade

- Download version 6.0.2 of XenCenter.
- Citrix strongly recommends that you take a backup of the state of your existing pool using the **pool-dumpdatabase** xe CLI command (refer to the [Citrix XenServer 6.0 Administrator's Guide](#) for more details).
- Consider suspending any non-critical VMs to ensure that hosts have sufficient memory to carry out the upgrade.
- Ensure that any **running** Windows VMs have XenServer Tools installed. Running a Windows VM without XenServer Tools installed is an **unsupported configuration**. Refer to the [note](#) below if you have running Windows VMs in this configuration.

To Upgrade XenServer Using the XenCenter Rolling Pool Upgrade Wizard

1. Open the Rolling Pool Upgrade wizard: on the **Tools** menu, select **Rolling Pool Upgrade**.
2. Read the **Before You Start** information, and then click **Next** to continue.
3. Select the pool(s) and/or individual hosts that you want to upgrade, and then click **Next**.
4. Choose **Automatic Mode** or **Manual Mode**, depending on whether you are planning an automated upgrade from network installation files on an HTTP, NFS or FTP server, or a manual upgrade from either a CD/DVD or via PXE boot (using already existing infrastructure).

Note:

If you choose **Manual Mode**, you must run the XenServer installer on each XenServer host in turn and follow the on-screen instructions on the serial console of the host. Once the upgrade begins, XenCenter prompts you to insert the XenServer installation media or to specify a PXE boot server for each host that you upgrade.

5. Once you have selected your Upgrade Mode, click **Run Prechecks**. During the Prechecks, if you have not already done so, you will be prompted to install Hotfix **XS60E001.xsupdate**.
6. Follow the recommendations to resolve any upgrade prechecks that have failed. If you would like XenCenter to attempt to automatically resolve all failed prechecks, click **Resolve All**.

Once all prechecks have been resolved, click **Next** to continue.
7. Prepare the XenServer installation media.

- If you chose **Automatic Mode**, enter the installation media details. Choose **HTTP**, **NFS** or **FTP** and then specify the path, username and password, as appropriate.

Note:

Enter the username and password associated with your HTTP, NFS or FTP server, if you have configured security credentials for this server. Do not enter the username and password associated with your XenServer pool.

- If you chose **Manual Mode**, note the upgrade plan and instructions.

Click **Start Upgrade**.

8. Once the upgrade begins, the Rolling Pool Upgrade wizard guides you through any actions you need to take to upgrade each host. Follow the instructions until you have upgraded all hosts in the pool(s).

Once the upgrade completes, the wizard prints a summary. Click **Finish** to close the wizard.

Upgrading from an Unsupported Guest Configuration

Note:

Running a VM without installing the XenServer Tools is not a supported configuration. If you are working with a VM that does not have XenServer Tools installed, a **Tools not installed message** will be visible in XenCenter (on the General tab in the Properties pane).

During Rolling Pool Upgrade, XenCenter runs a series of prechecks. One of these is to check if Hotfix XS60E001 has already been installed on the XenServer host. If it has not been installed, you are prompted to do so. The hotfix will **fail** to apply on a XenServer host with any **running** Windows VMs that do not have the XenServer tools installed (VMs that are shutdown are unaffected). The Rolling Pool Upgrade wizard cannot proceed without this Hotfix, will fail and an error message will be displayed. The workaround is to:

1. Close the Rolling Pool Upgrade wizard.
2. Manually shut down any running Windows VMs.
3. Re-open the Rolling Pool Upgrade wizard and follow through the steps to apply the hotfix and upgrade the version of XenServer.

Citrix advises all customers to install XenServer Tools on all VMs.

To set up the XenServer installation media on a HTTP, FTP, or NFS server

1. On the server, create a new directory from which the XenServer installation media can be exported via HTTP, FTP or NFS.
2. Copy the entire contents of the XenServer installation media to the newly created directory on the HTTP, FTP or NFS server. This is your installation repository.

Note

To make Supplemental Packs available during installation, copy the contents of each Supplemental Pack ISO into a separate directory within the main installation repository. Customers must edit `XS-REPOSITORY-LIST` to include the directory name in which the Supplemental Pack resides (on a new line). Otherwise the Supplemental Pack will not be installed. Refer to [XenServer 6.0 Supplemental Pack & DDK Guide](#) for more details.

Fresh Installation of XenServer 6.0.2

To perform a fresh installation of XenServer 6.0.2, please refer to the instructions in the [Citrix XenServer 6.0 Installation Guide](#).

Known Issues and Errata

This section details known issues with this release and any workarounds that can be applied.

General

- A XenServer installation can abort at the 'Preparing for installation...' stage and display an error message: 'An unrecoverable error has occurred...' Ensure that the host has network access and any necessary permissions required to fetch the XenServer installation files. [CA-74103]
- When using DHCP in the XenServer installer (including when using XenCenter's Rolling Pool Upgrade wizard), the DHCP server must provide the domain-name option, otherwise DNS will not work. [CA-74082]
- If your XenServer hosts are configured with static IP addresses, be sure that the switch ports connected to the XenServer hosts are configured as detailed in Citrix Knowledge Base article [CTX123158](#) before attempting an upgrade. [CA-66492]
- A Windows VM may fail to boot properly if streaming over Citrix Provisioning Services (PVS). This is an intermittent fault, and rebooting the VM should resolve the issue. [CA-60261]
- Attempting to revert back to a snapshot with memory, which has the XenServer Tools ISO in the DVD drive on a host that has been upgraded from an older version of XenServer, will produce a VM that cannot be restarted properly. You can start the suspended VM by forcibly shutting it down and emptying the DVD drive; however, the memory portion of the snapshot will be lost. [CA-59289]
- If upgrading from Beta versions of XenServer 6.0 (XenServer Project Boston Beta and XenServer 6.0 Beta) to XenServer 6.0, do not uninstall the older XenServer Tools before installing the new Tools. If the older XenServer Tools are uninstalled first, the installation of the new Tools will fail. If the installation fails for this reason, a second attempt at installing the new Tools will succeed. [CA-62082]
- If a VM is protected by a VM Protection Policy, and then that VM is converted to a template, the VM Protection Policy will fail to run in the future. To avoid this issue, you should first remove the VM from the VM Protection Policy before converting it to a template. [CA-62503]
- XenServer reports the amount of space used by a virtual disk, but this number can be substantially out of date. [CA-51466]

Internationalization

- Non-ASCII characters, such as characters with accents, cannot be used in the host console. [CA-40845]
- The root password of the host installer must not contain non-ASCII characters. [CA-47461]
- The network path and login credentials (username/password) for CIFS storage repositories must not contain non-ASCII characters. [CA-29017] [CA-64182]

Hardware Compatibility

- Intel Errata for Nehalem and Westmere CPU implementations of C-states may lead to system instability, apparently random freezes or reboots — including during installation. Users with Nehalem and Westmere CPUs are advised to disable C-states in the system BIOS as detailed in Citrix Knowledge Base article [CTX127395](#). [CA-60628]

Networking

- When using Active/Active NIC bonds some customers have reported high CPU load on their core switches. If you experience this issue, Citrix advise that you confirm that either the links of the bond are connected to the same single physical switch, or they are connected to two switches which are correctly **stacked** according to your switch vendor documentation - meaning they appear as a single logical switch to the rest of the network (i.e. they share a single switching table). If this is not possible, Citrix advises changing the bonding mode to Active/Passive.
- DHCP lease renewal fails if the DHCP client and DHCP server are both Linux VMs on the same host. This does not affect Windows VMs. If you want to use dhcp3-server and dhcp3-client in Linux VMs which may be sharing the same host, you must disable checksum offload by issuing the command `ethtool -K eth0 tx off` within the DHCP server VM. [CA-40908]
- If you are using Internet Explorer (IE) version 7 or 8 to access the vSwitch Controller interface remotely, you may find that these versions of IE leak system handles. Citrix recommends using either Firefox or IE 9, which addresses some of the known IE memory and resource leak issues. To help prevent leak issues, the vSwitch Controller GUI now logs out a user after approximately 10 hours if the user has not manually refreshed or navigated away from a webpage. The logout will reclaim memory used by the browser. [CA-65261]
- When NIC bonds are deleted, the vSwitch Controller GUI may fail to show the slave networks that had been bonded. To resolve this issue, refresh the status of the pool or restart the vSwitch Controller. The networks should then reappear. [CA-65261]
- If RSPAN is configured, and you add a pool or network to your vSwitch Controller at the **All Resource Pools** level, then RSPAN will not work properly on the newly-added pool or network. Even though an RSPAN policy appears to be set using the configured RSPAN Target VLAN ID, no RSPAN traffic is detected. To work around this issue, the vSwitch Controller administrator can add additional RSPAN Target VLAN IDs after adding the new pool or network. This will refresh the target VLAN IDs for all pools. The additional IDs can then be removed if they are not needed. [CA-65261]

Storage

- If your resource pool has an existing connection to a CIFS ISO share, subsequent attempts to create a new ISO SR on that same share may fail. [CA-37251]
- Quiesced snapshots are not supported for Windows Server 2008 R2 VMs. [CA-32734]

- If an SR has very little free space, a reversion to a snapshot may fail. This issue can be resolved by re-attempting the revert a few minutes later. [CA-63032]
- If you attempt to include a shared storage device in the list of devices to be incorporated into a host's local SR (in an answerfile that is used to automate XenServer installation), the contents of the shared storage will be destroyed. [CA-41786]
- Writing to CIFS ISO storage repositories is not supported and can result in disk corruption. [CA-41058]
- If your ISO SR is on an NFS server and the connection to the server is temporarily lost, you may need to restart your XenServer host to regain connection. [CA-10471]

XenCenter

- If you are using the XenCenter Rolling Pool Upgrade wizard to upgrade an HA-enabled pool, the wizard may display the status message `The value '1' is invalid for field 'ha_restart_priority'` for the task 'Revert precheck actions' on the Apply Upgrade page of the wizard. If this happens, you will need to manually re-enable HA on the upgraded pool in order for the pool to be HA-protected. [CA-66495]
- If the Rolling Pool Upgrade Wizard finds storage that is detached and that it can't reattach, it will fail. This might happen if the storage is no longer reachable or if a password has changed, for example; and it happens even if no VMs are using that storage. In this case, fix the storage repository (or remove it if it is no longer needed) and then restart the wizard to complete the upgrade. [CA-72541]
- Modifying the font size or DPI on the computer on which XenCenter is running can result in the user interface displaying incorrectly. The default font size is 96 DPI; Windows Vista refers to this as "Default Scale" and Windows 7 as "100%". [CA-45514]
- Importing an .ova or .ova.gz file from a directory for which the user has read-only access will fail. Write permission is required to uncompress the .ova.gz file and extract the .ovf package files from the .ova file. [CA-61238]

Guest OS Support

- If you want to create an Ubuntu 10.04 VM (32-bit) with more than 512 MB of memory, you must run `sudo apt-get upgrade` to upgrade to the latest version of the kernel **before** increasing the RAM to greater than 512 MB. Upgrading to the latest version of the kernel is necessary due to a bug that was introduced between `linux-image-2.6.32-30-generic-pae-2.6.32-30.59` and `linux-image-2.6.32-32-generic-pae-2.6.32-32.62`. It was fixed in `linux-image-2.6.32-33-generic-pae-2.6.32-33.64`. For more information, see [Ubuntu Launchpad 803811](#) and [790747](#). [CA-61400]
- Ubuntu 10.04 (64-bit) running the 2.6.32-32 #72 kernel, has been known to crash with the following message, `kernel BUG at /build/buildd/linux-2.6.32/arch/x86/xen/spinlock.c:343!`. The problem only affects VMs with multiple vCPUs. vCPU hotplugging (only available via the xe CLI/API) should not be attempted with this guest. [CA-57168]
- Significant CPU time can be taken by the Debian Squeeze Graphical Desktop Environment, which uses the Gnome Display Manager daemon. Citrix strongly advises that customers do not install the Gnome Display Manager `gdm3` process, or uninstall it if already installed. [CA-48630]

- A guest operating system which does not support Dynamic Memory Control (DMC) will *not* display an error message if you attempt to configure DMC on the guest. [CA-34753]
- Using DMC with RHEL or CentOS 5.3 or 5.4 (32-/64-bit) may cause the guest to crash. If you want to use DMC, Citrix strongly recommends using a later version of RHEL or CentOS. [EXT-54]
- When running greater than 50 VMs per XenServer host, the steps in [CTX126531](#) should be followed to reconfigure Dom0 memory settings. [CA-48485]
- The RHEL 6.0 kernel has a bug which affects disk I/O on multiple virtualization platforms. This issue causes VMs running RHEL 6.0 to lose interrupts. For more information, see Red Hat issues [681439](#), [603938](#) and [652262](#). [CA-60495]

Documentation and Support

Finding Documentation

For the most up-to-date product documentation for every Citrix product, visit the [Citrix Product Documentation links page](#) or, for many products, [Citrix eDocs](#).

For licensing documentation, go to the [Licensing Your Product](#) section on [Citrix eDocs](#).

Getting Support

Citrix provides technical support primarily through Citrix Solutions Advisors. Contact your supplier for first-line support, or use Citrix Online Technical Support to find the nearest Citrix Solutions Advisor.

Citrix offers online technical support services on the [Citrix Support Web Site](#). This site includes links to downloads, the Citrix Knowledge Center, Citrix Consulting Services, and other useful resources.