

XenServer 7.1 Cumulative Update 1: Release Notes

Welcome to XenServer 7.1 Cumulative Update 1 (CU1). This document provides important information about the XenServer 7.1 CU1 release.

XenServer 7.1 CU1 is available to customers with Customer Success Services in two editions:

- Standard Edition
- Enterprise Edition

XenServer 7.1 CU1 is a Cumulative Update for the XenServer 7.1 Long Term Service Release (LTSR), released in February 2017.

XenServer 7.1 Cumulative Update 1 and its subsequent hotfixes are available only to customers with Customer Success Services.

Support Timeline

For XenServer 7.1, we provide five years of mainstream support and the ability to add an extra five years of extended support.

The XenServer 7.1 release is supported for three months following the release of XenServer 7.1 CU1. During this time, we will issue critical hotfixes for both XenServer 7.1 and XenServer 7.1 CU1. We will issue any functional hotfixes for XenServer 7.1 CU1 only.

To receive support and be issued hotfixes for your XenServer 7.1 installation after this three month period, you must install this Cumulative Update.

Included in XenServer 7.1 CU1

XenServer 7.1 CU1 rolls-up all previously issued hotfixes and simultaneously introduces new fixes for XenServer 7.1.

No additional features are included in XenServer 7.1 CU1, which enables us to guarantee a stable feature set in XenServer 7.1.

Interoperability with Citrix Products

XenServer 7.1 CU1 is interoperable with Citrix XenApp/XenDesktop 7.6 (LTSR), 7.14 (CR), and 7.15 (LTSR). We recommend that you use this XenServer LTSR with a XenApp/XenDesktop LTSR.

Localization Support

The localized version of XenCenter (Simplified Chinese and Japanese) is also available in this release.

Installation Options

XenServer 7.1 CU1 is available to download from the [XenServer Product Download page](#) in the following packages:

- **XenServer 7.1 Cumulative Update 1 Installation** comprises only the fixes that make up the update. Use this ISO to apply the cumulative update to an existing installation of XenServer 7.1.
- **XenServer 7.1 Base Installation ISO including Cumulative Update 1** comprises both a base XenServer 7.1 installation and the fixes that make up the cumulative update. Use this ISO to create a fresh installation of XenServer 7.1 including CU1 or to upgrade from XenServer 6.2, 6.5, or 7.0.

Please note: If you use XenCenter to update your hosts, we recommend updating your XenCenter installation to the latest version supplied on the XenServer 7.1 CU1 download page before beginning.

The following table shows the available options when moving from an existing version of XenServer to XenServer 7.1 CU1.

Installed Version	Update using XenServer 7.1 Cumulative Update 1 Installation	Upgrade or fresh install using XenServer 7.1 Base Installation ISO including Cumulative Update 1
XenServer 6.2	NO	YES
XenServer 6.5	NO	YES
XenServer 7.0	NO	YES
XenServer 7.1	YES	NO

Before beginning installation, review the system requirements and installation instructions detailed in the [XenServer 7.1 CU1 Installation Guide](#).

After installation of XenServer 7.1 CU1, the internal product version number is shown as 7.1.1.

Please note: If you use XenCenter to update your hosts, the list of available updates will show both XenServer 7.1 CU1 and any currently released hotfixes for XenServer 7.1 that are not yet applied.

Applying XenServer 7.1 CU1 includes all the rolled up hotfixes listed in the Issues Resolved section. For a period of 3 months after the release of XenServer 7.1 CU1 there might be further XenServer 7.1 critical hotfixes released that are not included in XenServer 7.1 CU1. These hotfixes have equivalent hotfixes released for XenServer 7.1 CU1. You can choose to apply the XenServer 7.1 hotfixes or to apply XenServer 7.1 CU1 and the equivalent hotfixes for XenServer 7.1 CU1.

If you choose to use the Automated Updates feature to install updates on XenServer 7.1, the XenServer 7.1 CU1 update is applied. Once the installation of XenServer 7.1 CU1 is complete, the list of available updates will display hotfixes for XenServer 7.1 CU1. Run Automated Updates again to apply these hotfixes to the XenServer 7.1 CU1 host.

The Automated Updates feature is described in section 8.4 of the [XenServer 7.1 CU1 Installation Guide](#).

Changing from XenServer 7.1 LTSR to the Current Release

If you're running XenServer 7.1 LTSR, but want to take advantage of new features, you can instead decide to change to the XenServer CR stream. Using the XenServer versions from the CR stream requires you to adopt new CRs regularly to remain in support.

The latest XenServer CR is available to download from the [XenServer Product Download page](#).

Changing from the Current Release to XenServer 7.1 LTSR

If you're running a XenServer CR, but want to move to a version of XenServer with a guaranteed and stable feature set, you can change to XenServer 7.1 LTSR. Use the XenServer 7.1.1 Base Installation ISO including Cumulative Update 1 to create a fresh installation of XenServer. There is no upgrade path from the XenServer CR stream to XenServer 7.1 LTSR.

Licensing

XenServer 7.1 Cumulative Update 1 and its subsequent hotfixes are available only to customers with Customer Success Services (CSS). To become a CSS customer, contact your local Citrix Solution Advisor or contact the Sales department; they can help determine which program is right for you.

Upgrade your Citrix License Server to version 11.14 or higher in order to use all XenServer 7.1 licensed features.

For more information about XenServer 7.1 licensing, see [XenServer 7.1 Licensing FAQ](#).

Issues Resolved in XenServer 7.1 CU1

XenServer 7.1 CU1 includes the following XenServer 7.1 hotfixes:

- Hotfix XS71E001 - <https://support.citrix.com/article/CTX222368>
- Hotfix XS71E002 - <https://support.citrix.com/article/CTX224279>
- Hotfix XS71E003 - <https://support.citrix.com/article/CTX223285>
- Hotfix XS71E004 - <https://support.citrix.com/article/CTX222843>
- Hotfix XS71E005 - <https://support.citrix.com/article/CTX221590>
- Hotfix XS71E006 - <https://support.citrix.com/article/CTX222424>
- Hotfix XS71E007 - <https://support.citrix.com/article/CTX223290>
- Hotfix XS71E008 - <https://support.citrix.com/article/CTX223858>
- Hotfix XS71E009 - <https://support.citrix.com/article/CTX225676>
- Hotfix XS71E010 - <https://support.citrix.com/article/CTX224899>
- Hotfix XS71E011 - <https://support.citrix.com/article/CTX224691>
- Hotfix XS71E012 - <https://support.citrix.com/article/CTX224697>
- Hotfix XS71E013 - <https://support.citrix.com/article/CTX226298>
- Hotfix XS71E014 - <https://support.citrix.com/article/CTX226299>

In addition, the following issues are resolved in XenServer 7.1 CU1:

General

- When the pool had no or invalid default SR, and the `sr-uuid` parameter of the `xe update-upload` command, or the `--sr` parameter of the `xe install-supplemental-pack` command was not specified, these commands never returned. This fix ensures that these commands will return an error message in this case.
- In some cases, most notably when XenServer is configured to use static IP address assignment, both the local and remote (XenCenter) consoles showed the text "IP address not configured" in the logon message, instead of showing the actual IP address of the machine. This fix ensures that the logon message will always show the IP address of the XenServer host, if it has one.

Guests

- When running an installer that contains the latest drivers on VMs that have the latest drivers installed, the installer attempts to reinstall the drivers, leading to additional reboots.
- The dialog box informing about the need to restart to complete installation continues to appear even after restarting the VM if the restart is performed without clicking on the dialog box's Yes or No buttons.

Host Runtime

- A hardware erratum present in Haswell and Broadwell hardware can cause VMs to reboot when performing certain operations. This fix includes a workaround that prevents these reboots.
- When using SSH to connect to XenServer, a user might experience a memory leak in `systemd` on XenServer. For more information, see <https://rhn.redhat.com/errata/RHBA-2016-2216.html>

- When large number of VMs are booted together, a kernel softlockup can occur resulting in kernel crash.
- XenServer fails to boot on certain hardware when booting in UEFI mode.
- Under certain workloads on Skylake and Kaby Lake processors with Hyper-Threading enabled, applications can crash or incorrect program behavior can be observed. Microcode update fixes this issue. For more information, see <https://lists.debian.org/debian-devel/2017/06/msg00308.html>

Installation

- When installing XenServer on a system that has multipath enabled, the installer cannot save a status report to a device.
- Under certain conditions, upgrading a XenServer host takes a large amount of time. This fix reduces the time taken for host upgrades.

XenCenter

- XenCenter 7.1.1 fails to connect to a XenServer that has an 'empty' key in a map variable (for example, in the **other-config** field of a VM object).
- When checking for updates, XenCenter is, in some cases, unable to discover available XenServer updates. This issue is caused by the proxy server configuration in XenCenter's connection settings.
- When exporting a VM with PVS-Accelerator enabled to OVF or XVA using XenCenter and then importing it in the same pool, the PVS-Accelerator settings are lost.
- In XenCenter, a user with the VM Power Admin role is not permitted to shut down a VM hosted in a pool that has HA enabled.
- In XenCenter, when a user without the privileges to restart the toolstack on a host (for example, a user with the VM Admin role) attempts to use elevated credentials (for example, the local root account of the host) to restart the toolstack, the user is incorrectly denied permission.
- In some cases, XenCenter fails to login members of an Active Directory (AD) group if a domain is offline.
- When a VM migrate operation is started in XenCenter, another instance of XenCenter (connected to the same pool) might not show the migration event in the **Notifications/Events** view.
- In XenCenter, a user logged in with Active Directory (AD) cannot run multiple operations in parallel on VMs and cannot convert a VM to a template.
- When using `xe .exe`, the user cannot upload updates to XenServer.
- When multiple hosts in a pool need to be restarted after the installation of an update or updates, XenCenter might not always restart the hosts in the correct order (master first).
- If a hotfix that requires a reboot is applied to some but not all hosts, and is later applied in XenCenter to the whole pool, then the prechecks page of the RPU wizard incorrectly advises

that the hosts that already have the hotfix must be rebooted (although no reboot actually takes place). Furthermore, if those hosts contain any non-agile VMs, it also insists that the VMs are suspended before the wizard can proceed.

Graphics Support

- Intel GVT-g is now supported on Windows 10 on Intel Skylake processors.

Advisories and Known Issues

The following section details advisories and minor issues with this release and any workarounds that you can apply.

General

- After upgrading a XenServer host from a previous version to XenServer 7.1, Windows VMs with XenServer Tools installed may incorrectly report as not having the XenServer Tools installed, or display some of the functionalities as unavailable. To work around this issue, install XenServer Tools issued with XenServer 7.1.
- When you import a Windows VM from an ESXi server to XenServer, the IPv4/IPv6 network settings can be lost. To retain the network settings, reconfigure the IPv4/IPv6 settings after completing the conversion.
- After downloading an update from the Citrix Support website, attempts to upload the zip file without unpacking the ISO, or uploading an incomplete ISO file to a pool of XenServer hosts can fail with `VDI_IO_ERROR - Device I/O errors`. To resolve this issue, ensure that you have completely downloaded the zip file and unpack the ISO **before** attempting to upload the update to the XenServer pool.
- If a pool's CPU feature set changes while a VM is running (for example, when a new host is added to an existing pool, or when the VM is migrated to a host in another pool), the VM will continue to use the feature set which was applied when it was started. To update the VM to use the pool's new feature set, the VM must be powered off and then started. Rebooting the VM, for example, by clicking 'Reboot' in XenCenter, does not update the VM's feature set.
- After migrating Container Managed VMs between pools, the Container Management functionality stops working for the VMs. This is because Container Management is implemented using a pool-specific key. To work around this issue, the VM-specific preparation step for "Container Management" needs to be repeated on the new pool. This means:
 - For CoreOS, the Cloud Config Drive needs to be updated by changing the Config Drive configuration in the VM preferences.
 - For RHEL/CentOS/OL 7 and Ubuntu, the `xscontainer-prepare-vm` needs to be re-run. Note that even if the preparation-step is repeated, the old XenServer pool may keep access to the VMs.
- Renaming a container does not trigger the Container Management view to update. Additionally, on Ubuntu 14.04, the pause or unpause of a container from outside XenCenter does not trigger the view to update. This may mean that XenServer may not show the current (renamed/paused/unpaused) container-status. The underlying cause is that the view

only gets refreshed following Docker event notifications. As a workaround, the refresh can be triggered manually by performing an action (that is, start, stop) on an unrelated container that is running on the same VM.

Internationalization

- Non-ASCII characters, such as characters with accents, cannot be used in the host console.
- XenServer root passwords must not contain non-ASCII characters.

Hardware Compatibility

- Refer to the XenServer [Hardware Compatibility List \(HCL\)](#) for the most recent additions and advice for all hardware compatibility questions.

Driver Disks

- Driver disks built for XenServer 7.1 with the `BASE_REQUIRES` value in the makefile set to the default of `product-version=7.1.0` do not install on XenServer 7.1 CU1. To ensure that your driver disks can be installed on XenServer 7.1 CU1:
 - For updates that contain kernel device drivers, set `BASE_REQUIRES := kernel-
uname-r=4.4.0+10`
 - For other updates, set `BASE_REQUIRES := platform-version=2.2.0`

Storage

- When using Nutanix SRs, the two VDIs (previously used for the HA statefile and pool metadata) that remain after disabling HA will not be reused if HA is subsequently re-enabled. Customers can safely delete these VDIs.
- It is not possible to attach storage provided by Microsoft iSCSI Software Target versions 3.2 or 3.3. However, attempts to attach storage provided by iSCSI Target Server included in Windows Server 2012 and later will succeed.

Networking

- In some cases, booting a XenServer host from FCoE SAN using software FCoE stack can cause the host to become unresponsive due to a temporary link disruption in the host initialization phase. If the host appears to be in an unresponsive state for a long time, reboot the host to resolve this issue.
- XenServer does not prevent users from unplugging a NIC used by the FCoE SR.
- NIC bonds are not supported on NICs that carry FCoE traffic.

XenCenter

- 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 8 and Windows 10 refer to this as 100%.

Guests

- XenServer's use of new hardware security features may reduce the overall performance of 32-bit PV VMs. Customers impacted by this issue can either:
 - Run a 64-bit version of the PV Linux VM, or
 - Boot Xen with the `no-smep no-smap` option. Note that we do not recommend this option as it can reduce the depth of security of the host.
- The console screen on HVM Linux guests can go blank after a period (typically ten minutes) of inactivity. You can work around this issue by adding `consoleblank=0` to the kernel boot parameters of the guest. Consult your guest OS documentation for information about updating the kernel boot parameters.
- Microsoft no longer supports the use of Windows 7 and Windows Server 2008 R2 without Service Pack 1 installed. In line with this policy, to be fully supported, if you are running such VMs on XenServer, ensure that they have these service packs (or later) installed.

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