

# XenServer Release Notes

## Version 5.5.0 Update 2

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1.0 Edition

## About this document

This document provides important information about the XenServer™ 5.5.0 Update 2 Release.

Release notes specific to the supported Windows Virtual Machines are present in the *Installing Windows VMs* chapter of the *XenServer Virtual Machine Installation Guide*. Release notes specific to the supported Linux Virtual Machines are present in the *Installing Linux VMs* chapter of the same document.

## New features in XenServer 5.5.0

XenServer 5.5.0 includes a number of new features and ongoing improvements, the most important of which are identified below:

- *Improved backup and snapshot support* allows you to perform live snapshot and clone operations on all storage types. This enables better support for backup utilities and practises, and helps to reduce disk space requirements for storing clones of virtual disks. You can now take snapshots from XenCenter as well as through the xe CLI. For more information on this feature, please refer to the *Storage* chapter and the *VM Snapshots* section of the *Backup and recovery* chapter in the *XenServer Administrator's Guide*.
- *Active Directory integration* to allow credentials to be verified against an AD server. This allows granting and revocation of access to XenServer pools easily and securely using existing IT infrastructure. For more information on this feature, please refer to the *XenServer hosts and resource pools* chapter in the *XenServer Administrator's Guide*.
- *Workload Balancing* to optimize VM placement and assist with balancing of workloads within a pool. This is done using the Workload Balancing server, available as a download with XenServer. For customers interested in creating custom queries on Workload Balancing data, Citrix provides customer accessible SQL views. For more information, see [CTX121348](#). For more information on this feature, please refer to the *Workload Balancing* chapter in the *XenServer Administrator's Guide*.
- *Integration with StorageLink services via the xe CLI* enabling advanced storage management capabilities via the Citrix StorageLink service, available as a download with XenServer. For more information on this feature, please refer to the *Citrix StorageLink Gateway (CSLG) SRs* section of the *Storage* chapter in the *XenServer Administrator's Guide*.
- *Improved operating system support* including new support for Red Hat Enterprise Linux 5.3, Novell SLES 11, and Debian Lenny.
- *XenCenter improvements* including Folder View, allowing you to view your resources as a simple list or organize them into folders, and improved search capabilities. Quick text queries provide a simple way to find resources, while the improved Search tab can be used to create more advanced queries as well as grouping and filtering the results. For more information, please refer to XenCenter help.

## Installation and upgrades

System requirements, preparation, installation, and initial configuration are described in the *XenServer Installation Guide*.

**Note**

Before installing and using XenServer 5.5.0 Update 2, be sure to update to the latest available version of XenCenter. This will provide backwards-compatibility support for management of XenServer version 5.0 servers.

This release fully supports upgrading from XenServer 5.0 hosts. Simply insert the 5.5.0 Update 2 installation CD and select the Update option from the on-screen menus. You can also upgrade resource pools without any VM downtime by using the rolling upgrade procedures described in the *XenServer Installation Guide*.

The Windows Xen VSS provider is not installed by default and must be specifically installed into your Windows VMs via the `install-XenProvider.cmd` script to enable quiesced snapshot support. Please refer to the *Virtual Machine Administration Guide* under the Windows section for full details on how to do this.

## LVHD Snapshots

When LVHD snapshots are deleted, disk space is reclaimed by freeing unused snapshot data. This is provided automatically by XenServer while VMs continue to run. However, there is a known limitation in the 5.5 implementation of this feature: when all snapshots are deleted for a given VMs disks, some disk space allocated to these snapshots may remain. To address this limitation, Update 2 includes an 'Off-line Coalesce' tool that can reclaim all disk space previously allocated to deleted snapshots while the VM is temporarily set offline. The Off-line Coalesce tool, and its use, are described in full in an associated KB article: CTX123400.

## Known Issues and Errata

This section details known issues with this release and any workarounds that can be applied. Please report any other issues to your Citrix support representative.

## Hardware and Installation

**CA-8767**

Motherboards using the Intel 965 chipset with more than 2GB of memory may fail to boot successfully. This has been identified as a BIOS firmware issue, and appears to happen on any 64-bit operating systems (see [Red Hat](#) and [Microsoft](#) related bugs). To workaround this, downgrade your BIOS to version 1669, available from the Intel website.

## Virtual Machines

**CP-1010**

The Debian Sarge VM has been deprecated and we recommend all customers using this to upgrade to Debian Etch or Debian Lenny.

**CA-9772**

The Windows PV drivers do not send a gratuitous ARP after live relocation if the guest has previously been hibernated. Note that hibernation is not a supported use-case, since direct suspension of a VM is supported instead.

**CA-22247**

In a resource pool, the xe CLI commands **vm-copy** and **vm-install** with the *sr-uuid* specified will fail intermittently if some hosts are offline when they are attempted. To work around this issue, repeat the command with the hosts powered on. Alternatively, repeat the command until it succeeds. (The latter works because the virtual disk copy operations invoked by these commands are forwarded by the pool master to any of its member hosts, selected at random.)

## Workload Balancing

### CA-28738

When you apply Workload Balancing optimization recommendations, sometimes an error might appear stating that a virtual machine cannot be migrated to a new host due to insufficient memory. If this occurs, wait for the next optimization recommendations (typically within a minute or two) and then reapply the recommendations.

### CTX123074

When you install the Workload Balancing component with limited Internet connectivity, an error appears indicating the Workload Balancing services failed to start and installation fails or “hangs.” See CTX123074 for details.

### CTX123241

Workload Balancing may stop issuing optimization or placement recommendations after running for a period of time on SQL Server Express Edition. This occurs when the database size has been exceeded and can be prevented proactively by running the script described in CTX123241.

## Active Directory

### CA-30199

When upgrading from the beta release of XenServer 5.5, you must disable and re-enable Active Directory authentication if it was previously enabled. This can be done using XenCenter or an off-host CLI. Until you do this, authentication with AD users will fail (although root authentication will continue to function), and ssh logins will fail.

## Storage

### CA-28951

When upgrading from XenServer 5.0, the snapshot operations will be shown as available for any LVM-based SRs despite the SRs needing to be upgraded before snapshot operations are allowed. For details on upgrading your SR to enable snapshots please see *Upgrading LVM storage from XenServer 5.0 or earlier* in the *XenServer Installation Guide*.

### CA-6966

When using NFS ISO storage repositories, a hard mount is used to communicate with the server. This means that the control domain can hang if the remote NFS server becomes unreachable. The workaround is to use CIFS-based mounts instead.

### CA-9208

Citrix has seen data corruption issues using the iSCSI target provided by Adaptec SnapServers. This appears to be a problem with the SnapServer iSCSI implementation, and has been reproduced by Adaptec using a standard (non-XenServer) Linux distribution. We are currently working with Adaptec to find a solution to this problem. Until this issue is resolved, XenServer users are strongly encouraged to use NFS rather

than iSCSI storage repositories when using SnapServer products. In general, when using network-based storage hardware, users should ensure that the software and/or firmware on the devices being used is up to date, as recommended by the manufacturer.

#### CA-12866

Users should avoid attaching read-only VDIs to Windows VMs as this may result in unexpected behaviour and instability of the VM. This includes NetApp snapshot VDIs; users wishing to attach a snapshot VDI to a Windows VM should first make a read-write copy of the snapshot using the **vdi-copy** CLI command

#### CA-18965

When a server is ejected from a resource pool, some storage repositories from the ejected server may be shown in XenCenter in a broken state. This is also true if the eject operation was performed before an upgrade from the previous version. This is normal behaviour as the storage can no longer be seen by the pool. These storage repositories can be 'forgotten' by right clicking on them and choosing Forget Storage Repository, or by using the **sr-forget** CLI command.

#### CA-22676

When dedicating a network interface as a storage interface for use with iSCSI or NFS SRs, you must ensure that the dedicated interface uses a separate IP subnet which is not routable from the main management interface. If this is not enforced, then storage traffic may be directed via the main management interface after a host reboot, due to the order in which network interfaces are initialized. If you do require static routing to a shared subnet, then you need to re-plug the storage PBDs after each host restart, or use the **xe pif-forget** command to manually configure up networking rules in the control domain.

#### CA-22632

Snapshots initiated directly from within a Windows guest using the vshadow development utility will not be directly bootable. A snapshot taken in this way appears indistinguishable from one taken using the **xe vm-snapshot-with-quiet** CLI command, but the latter snapshot taken using the XenServer CLI or XenCenter will boot.

## Other

#### CA-20462

Triggers for alerts are checked at a minimum interval of five minutes (this avoids placing excessive load on the system to check for these conditions and reporting of false positives); setting an alert repeat interval smaller than this will result in the alerts still being generated at the five minute minimum interval.

#### CA-21737

If you use the **pool-emergency-reset-master** CLI command and set the *master-address* parameter to the current master address, the master host will fail and the XenCenter connection will be lost. Further attempts to connect through XenCenter will cause an "unknown error" to be reported. To remedy this situation, connect to a console on the affected host and run the **xe pool-emergency-transition-to-master** command. Note that you should never have to run the **pool-emergency-reset-master** command on a master host, as it is intended to point a slave host at a new master address.