

everRun Release Notes



NOTE: For the most recent documentation and updates, please log in to the everRun customer web portal and download the latest versions. The link is:

<http://www.stratus.com/Stratus/Home/Services/CustomerSupport>

Product:	everRun MX
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This document describes the everRun® 6.2 release and provides late-breaking or other information that supplements the main documentation set.

Software Versions and Hardware Supported

The **everRun 6.2** product download contains the everRun software, the everRun OEM Edition of Citrix XenServer 6.0.2 (with Citrix XenServer hotfixes XS602E009, XS602E010, XS602E021, and XS602E023). Each of these software packages are required for this release.

This version of the everRun software is dependent upon the installation of the previously mentioned Citrix XenServer hotfixes, which are included on the everRun installation ISO image. You do not have to preinstall these hotfixes, the everRun installation will manage the upload and installation of the hotfix automatically.

Citrix XenServer 6.0.2 is used as the base software for installing everRun 6.2. No other Citrix updates or hotfixes should be applied to the base software. Please refer to the Setup and Installation Guide for complete installation instructions.

When installing the XenServer software, please be sure to install the new version of XenCenter, using the **XenCenter.msi** file (XenCenter version 6.0.2) on the CD you create from the Citrix ISO downloaded from the everRun website.

everRun also supports the advanced management editions of the Citrix software: XenServer Advanced, Enterprise, and Platinum Editions, which are available from Citrix. In this release, a XenServer Advanced Edition license is required if you include XenServer HA (everRun Level 1) protected VMs in your pool.

CAUTION: Do not install any additional updates to this software without first contacting your certified everRun service provider. ***Installing XenServer updates that are not supported by this everRun release could require you to reinstall XenServer and everRun.***

What's New in this Release

- **Expanded Quorum Link support** - This version of everRun supports any combination of networks for Quorum Service access. The interconnects for these networks are referred to as Quorum Links (Q-Links) and they may be configured to operate over A-Links, management bridges, or any other networks which provide access to the preferred or alternate Quorum Servers either directly or via gateway. Refer to the everRun Configuration Planning Guide and the Enabling and configuring Quorum Service topic of the eAC online help for detailed information.
- **Support for secure eAC communications** - This version of everRun supports secure eAC communication with managed pools using SSL security certificates. everRun uses SSL and the HTTPS protocols along with security certificates, to provide server authentication and encrypted communications between eAC and the master XenServer. In addition, host-to-host everRun communications within a pool are secured. For more information click on the Using everRun SSL Security link from the eAC Welcome tab.
- **Dom0 Root Partition Monitoring** - This version of everRun includes a new dom0 service to monitor the dom0 root partition. The Parent Domain Monitor (PDM) monitors the root partition for disk capacity and availability. Warnings and errors related to the partition/disk are transmitted to all the hosted PVMs for corrective action. Refer to the About Parent Domain Monitor topic in eAC online help for more information about this new feature.
- **Increased Maximum Number of Supported Devices** - everRun now supports up to 6 virtual (redirected) NICs per protected Windows VM (PVM), and a total of 12 redirected devices (NICs and disks combined) per PVM.

- **Enhanced IPv4 Address Migration** - When a VM is protected, static IPv4 addresses and related settings that were configured on Xenet devices will be copied to the corresponding everRun Ethernet devices. If a PVM is then unprotected, the Xenet devices will revert to their original settings. It is important to note however, that if static IPv4 settings are established or modified for everRun Ethernet devices on a PVM, those settings will not be copied to Xenet devices if that PVM is subsequently unprotected.
- **Open vSwitch Not Supported** - everRun does not support Open vSwitch. If you have Open vSwitch configured everRun will disable this feature during Install or Upgrade.

Important License Information

The everRun product includes a XenServer license to enable the XenServer hosts. This license (as a **everRun.xslic** file) can be downloaded from the everRun product web site, and must be applied to each host during installation, using the process described in the XenCenter online help. If you plan to use XenServer HA (Level 1 protection) in your pool, contact your everRun representative, or obtain the appropriate license from Citrix, as described in the final item listed on page 2 of this document.

The everRun license is applied to the pool (not the individual servers), as described in the everRun Online Help topic, "Installing an everRun License Key."

Product Advisories

Enable Multipathing on Fibre Channel Storage

If you are configuring fibre channel shared storage for your pool, it is strongly recommended that you enable multipathing on the storage repository.

Without multipathing, guest VMs with a virtual disk image (VDI) configured on the associated FC SAN will not recover storage access properly following repair of a FC SAN until you restart the XenServer host. For more information, search the Citrix website for articles on multipathing, or contact everRun Technical Support. The *everRun Setup and Installation Guide* describes how to enable multipathing.

Level 1 VM Protection is Not Supported

Protecting a VM at Level 1 using the eAC Protect Wizard is not supported in this release. Although the wizard will perform a Level 1 protect operation, the PVM will be unprotected when shutdown through the eAC. If required, use the XenCenter to administrate Level 1 PVM operations. You are able to shutdown a L1 PVM through XenCenter without unprotecting it.

Kaspersky on L3 PVMs Running Single CPU is not Supported

Following install, upgrade, or an update of any Kaspersky version, Level 3 PVMs running a single processor will fail. Although earlier versions of Kaspersky may work with Level 3 PVMs, future updates may introduce failure. This failure has been confirmed with versions 6 and 8, as well as the most recent updates and can lead to a lengthy outage. If you are running Kaspersky, use one of the following workarounds to avoid an outage due to this problem:

- **Option 1:** From the eAC change the number of vCPUs to 2 or more (Option 1 applies to V6.x systems only). (see eAC>help>search>configure CPUs).
- **Option 2:** From the eAC, run the protect wizard and select to switch the PVM to level 2. (eAC>click virtual tab>right click the PVM> select protect> in the wizard click the Level 2 option and then follow the prompts to complete the wizard).
- **Option 3:** Use one of the two above workarounds to get to a point where the PVM boots and then uninstall Kaspersky. Then return back to a Level 3 with 1 vCPU.
- **Recovery:** If your PVM will not stay up due to this issue, then boot the PVM into safe mode and stop the two Kaspersky services. Then apply one of the above workarounds.

Disable Node Interleave Setting for Sandy Bridge Platforms

For servers that implement the NUMA architecture it is strongly recommended to keep the default BIOS setting and leave Node Interleaving **disabled**. Node interleaving disabled means NUMA is in effect. The node interleave option only exists on servers with Non-Uniform Memory Access (NUMA) architectures and the everRun v6.2 Installer will automatically enable NUMA operation in the hypervisor if the underlying platform will support it.

PVMs Will Not Boot or Recover Redundancy Reliably if the Configuration Rules for A-Link Networking are Violated in a SplitSite Configuration

If A-Link1 and A-Link2 components share a common LAN (including V-LAN), TCP/IP connections cannot reliably be established.

To avoid problems, ensure each A-Link network is separate from the other at layer 2 by performing one of the following configuration tasks:

- Use point-to-point cables (physically separate LANs)

OR

- Use switches (and quorum) – but provide one or two V-LANs for A-Link1, and different V-LANs for A-Link2. Use of separate IP sub-nets is always required, but is not enough to avoid A-Link connection problems. Never permit A-Link1 and A-Link

2 to use a common (V)LAN

Issues and Limitations

The following tables list issues and suggested workarounds that apply to the everRun 6.2 release.

Description	Workaround/Comment	ID
Installation of the everRun software on iSCSI Storage Repositories (SR) is not supported in this version of everRun.	Even though iSCSI shared repositories may appear in the list of available SRs, do not select one for the everRun software installation. Instead, select a local storage device.	5221
everRun will erroneously permit protection of VMs configured with Single-Server Private Network devices.	Remove any configured Single-Server Private Networks from your guest VM prior to everRun Protection. everRun requires separate NICs configured on two hosts in a pool operating as a redundant pair. Single-Server Private Networks are not supported, since they are used to provide connection between VMs on the same host only.	4605
Protecting a VM with a dynamic disk boot partition will fail.	everRun does not support protecting a VM with a dynamic boot partition.	4615
eAC Host Shutdown fails with “Not Enough Free Memory on Host” if an unprotected VM is running on the host.	The workaround for this issue is to manually shutdown the running VM(s) before issuing the Host Shutdown command.	4529
Following an upgrade, the eAC Protect Wizard will not permit creation of a Level 3 PVM from a Level 3 snapshot that was based on a previous version of everRun.	The simplest workaround for this problem is to first create a Level 2 PVM from the Level 3 snapshot and then use the eAC Protect Wizard to convert the PVM from Level 2 to Level 3. Another option is to create the Level 3 PVM directly using the everRun CLI.	4498
Running the Citrix XenServer console window by typing xsconsole in the Console tab window of XenCenter affects the appearance of the everRun installer screens.	It is strongly recommended that you install everRun from the XenCenter Console window before you open xsconsole .	2079

Description	Workaround/Comment	ID
An iSCSI/FC everRun install disk may be marked as read-only if the path is lost and recovered.	Where possible, install everRun to a disk on a local storage repository. If iSCSI or Fibre Channel is used, be sure to use multipath drivers. For best availability, do not assign the same iSCSI/FC storage system for your everRun storage device on two or more hosts. If the disk becomes read-only, you may need to reboot XenServer in order to recover.	2161
Currently, 64-bit browsers do not support Adobe Flash Player, which is required to connect to the everRun eAC.	You can use a 32-bit browser on a 64-bit operating system to run the eAC with Flash Player.	2190
After a XenServer upgrade or fresh install, the XenServer software generates a system alert for each upgraded host: "A storage repository could not be attached when <server name> started.	The message can safely be ignored. It is caused by a temporary condition that occurs during software installation, and the condition is corrected after the everRun installation completes.	3170
After installing XenServer, a "time went backwards" message may appear in the XenServer log file.	To avoid this, always update to the latest version of BIOS available for the platform before installing the XenServer software.	4267

System Management Issues

Description	Workaround/Comment	ID
After recovering from a power failure on the primary host, XenCenter may lose access to the active CI in a protected VM. XenCenter may also become slow to respond after it has been running for some time — particularly under heavy loads.	In XenCenter, disconnect from the pool and close XenCenter; then restart XenCenter and reconnect to the pool.	3163, 3535

Description	Workaround/Comment	ID
<p>Resynchronization of Level 3 PVMs or online migration of Level 2 PVMs may fail when 100 Mbps Ethernet is used for the management LAN.</p>	<p>everRun requires a minimum capacity of 155 Mbps for all network components such as switches or uplinks. The best practice is to use 1 GB Ethernet adapters for management links, as described in the <i>everRun Configuration Planning Guide</i>. Further, the minimum requirement for a SplitSite configuration that includes PVMs protected at Level 3 SMP (FT-SMP) is two 1GB Ethernet adapters for availability links. When providing these minimum bandwidth requirements, be certain no switch or uplinks can reduce the effective bandwidth below supported minimums.</p>	
<p>If you attempt to start a PVM on a XenServer host and the other host is in maintenance mode, a five-minute timeout occurs and the PVM shuts down.</p>	<p>After the second host successfully exits from maintenance mode, you will be able to restart the PVM.</p>	3356
<p>When a XenServer VMPR policy is applied to a XenServer VM, the VM is no longer a candidate for everRun protection. If you attempt to add everRun protection to a VMPR-protected VM, you receive a "Not a Candidate" message in the everRun eAC. Clicking Why Not? displays a brief explanation: "VM has XenServer VMPR policy applied."</p>	<p>The VM Protection and Recovery (VMPR) feature, available in the Citrix XenServer Platinum Edition, provides a backup and restore utility for XenServer VMs. The feature uses regularly scheduled XenServer snapshots, and can be configured with archive and delete options in XenCenter.</p> <p>In order for the VM to qualify for everRun protection, you must first remove its VMPR policy using XenCenter or the xe command line interface. The VM is then a candidate for everRun protection. After protecting the VM with everRun, you can use the everRun snapshot process to make backup copies of the PVM.</p> <p>Note: Do not apply a XenServer VM Protection/Recovery (VMPR) policy to any VM that is part of an everRun-protected VM. The XenServer recovery policy will not work as expected.</p>	4208

Description	Workaround/Comment	ID
<p>If multipathing is not enabled in your storage configuration and all paths to a disk on a Fibre Channel SAN (FC-SAN) are lost, corrective action will be required to reestablish connectivity to the affected everRun AM once physical access to the disk is restored.</p>	<p>When you include FC-SAN storage in your deployment, some form of multipath FC-SAN must be configured to minimize the likelihood of connectivity loss.</p>	4248
<p>If you have PVMs that are started but not in a fully redundant state, an attempt to shut down a XenServer host on which such PVMs reside may stall unexpectedly.</p>	<p>A server shutdown normally takes only a few minutes. Wait for the required redundancy, or make appropriate repairs and issue the shutdown command again. When the remaining PVMs can evacuate successfully, the XenServer shutdown proceeds as requested.</p> <p>Contact everRun Technical Support if you require assistance with this process.</p>	4410
<p>XenCenter allows you to change the properties of any network (except the management LAN). However, if you reset the Maximum Transmission Unit (MTU) for a network in use by a PVM, the network is disabled. Use of the associated A-link or production NIC is lost until the everRun AM is restarted.</p>	<p>If you have reset the MTU value for a network, you must reboot each PVM that is using the network to restore functionality of the associated A-link or production network.</p> <p>Note: In this release, it is strongly recommended that you use only the default value (1500 MTU) on all networks used by a protected VM.</p>	4458

Ongoing issues identified in earlier releases are now documented in the Troubleshooting section of “System Administration” in the everRun Online Help. Please check that section for help on resolving known issues.

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EP1000404; EP1029267; EP1496434; GB2392536; Japanese Patent Numbers: 3679412; 4166939; 4264136. Other patents pending.

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