

everRun Release Notes



NOTE: For the most recent documentation and updates, please log in to the Marathon customer web portal and download the latest versions. The link is:
<https://support.marathontechnologies.com/portallogin.asp>

Product:	everRun
Version Number	V6.0
Release Date	October 2010
Customer Support	http://support.marathontechnologies.com

This document describes the everRun® 6.0 release and provides late-breaking or other information that supplements the main documentation set.

Software Versions and Processors Supported

The everRun 6.0 product download contains both the everRun and the Citrix software required for this release. The Citrix software, including Citrix Update 2 for XenServer 5.5.0, must be installed before you install everRun 6.0.

NOTE: You may also have installed "Hotfix XS55EU2001 - For XenServer 5.5 Security hotfix for XenServer 5.5.0 Update 2 (<http://support.citrix.com/article/CTX125519>)."

Do not install any additional updates to the Citrix software without first contacting your certified Marathon service provider. ***Installing XenServer updates that are not supported by everRun could require that you reinstall your entire software deployment.***

When setting up everRun 6.0, it is also recommended that you install the version of XenCenter released with XenServer 5.6. See Issue “3976” on page 10 for information on obtaining the correct version of XenCenter.

The Marathon OEM edition of the Citrix XenServer software does NOT include the Essentials or Enterprise features of the XenServer software. If you wish, you may upgrade XenServer by purchasing an edition that includes advanced management features described in XenCenter — as long as the release is identical to the one shipped as the OEM edition with your everRun software.

A list of the currently supported processors for everRun MX Level 3 (both uniprocessor and SMP) and Level 2 protection is available at

http://www.marathontechnologies.com/documents/Hardware_Qualifications.pdf

Software Licensing Requirements

The Citrix license supplied with this release must be applied to each XenServer host in the pool using the XenCenter **Server > Install License Key** menu item, as described in the *everRun Setup and Installation Guide*. In addition, a single everRun license must be applied to the pool, as described in “Configuring an everRun Pool” within the eAC online Help.

What’s New in this Release

The following features are new in this everRun 6.0 release:

- everRun now supports SMP (symmetric multiprocessing) for both Level 2 and Level 3 protected VMs. The ability to configure multiple CPUs when protecting a virtual machine with everRun's Level 3 Fault Tolerance (also called FT-SMP) is a key product feature and an industry first. The ability to run protected VMs on multiple processors provides important scalability benefits for the protection of critical applications.
- This release supports virtual machines running the following operating systems: Windows® Server 2008 Standard or Enterprise (32- or 64-bit, SP2) Release 2 (64-bit); Windows Small Business Server (SBS) 2003 and 2008; Windows Server 2003 Standard or Enterprise (32- or 64-bit, SP2).
- The release adds support for the Intel Extended Page Table (EPT) feature, which reduces the overhead associated with page-table virtualization in guest machines.
- SNMP system alerts, which enable you to monitor the health of each everRun protected VM (PVM) and to receive notice of state changes within the PVM, are now integrated into the everRun product. When appropriate Microsoft Windows® SNMP software and a third-party SNMP management utility are installed, you can receive email notification of the state changes. The procedure for using the SNMP service is described in the *everRun SNMP Guide*.

- everRun snapshots, which extend the XenServer snapshot functionality, provide backup of a virtual machine image at a single point in time. Exporting snapshots to a secure location provides a backup/recovery strategy as well as a means of creating new vital machines.
- A single everRun Availability Center (eAC) connection can be used to manage multiple everRun pools in a single session.
- Enhancements in data storage include safeguards to protect storage and data against corruption during mirror copy, and the ability to add disks with pre-existing data to a protected VM.
- More flexible configuration rules now make it possible to adjust the network black-out time during the synchronization of redundant resources, for example.
- In this release, the method of setting the everRun isolation IP address, which is used for pool master host failover, has changed. In previous releases, everRun provided a default setting that was derived from the IP address range specified for your management network. In everRun 6.0, there is no default setting. When you configure a pool, you should specify the address of a hardware device that pool hosts can always ping from the management network — such as the pool gateway, for example. For more information, see the Online Help section “Configuring an everRun Pool.”

Issues and Limitations

The following tables list issues and suggested workarounds that apply to the everRun 6.0 release. For your convenience, issues are divided into functional areas: installation and system management.

NOTE: Protected virtual machines (PVMs) using the everRun Storage Subsystem Data Protection feature (the path-redundant alternative to everRun mirror sets) are at risk of possible disk corruption and data loss if the storage repository is converted to type VHD. Until this issue is resolved, do not use any PVMs configured with this feature. It has been temporarily disabled in this release — which also prevents booting of any PVM that has path-redundant disks configured. Please disregard any references to this feature in the documentation or the everRun interfaces.

If you are upgrading from a prior version of everRun that included Storage Subsystem Data Protection, please reconfigure your data protection in everRun 6.0 to use everRun mirroring. For more information, see issue “3976” on page 10, as well as the customer advisory, “Storage Subsystem Data Protection Feature - Potential Disk Corruption,” at the Marathon Technical Support web site.

Installation Issues

Description	Workaround/Comment	ID
Running the Citrix XenServer console window by typing xsconsole in the Console tab window of XenCenter affects the appearance of the everRun installer screens.	Marathon recommends that you install everRun from the XenCenter Console window before you open xsconsole .	2079
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.	2131
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. Adobe is currently working to provide native support for 64-bit platforms in an upcoming release of Flash Player.	2190
After a XenServer upgrade or fresh install, the XenServer software generates a system alert that the upgraded host could not be 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

System Management Issues

Description	Workaround/Comment	ID
When rebooting a Level 3 or Level 2 PVM after a protect or unprotect operation, the everRun IP addresses, bindings, etc., are replaced with Windows defaults.	The Protect and Unprotect wizards explain that IP addresses for the redirected NICs have been modified by the everrun Protect/Unprotect process, and shows where the original settings are located. You should manually restore the setting for each NIC by using the information given in the wizard -- or the following Online Help topics: Starting a Protected VM for the First Time or Unprotecting a Virtual Machine.	1278, 2933

Description	Workaround/Comment	ID
Do not change any of the BIOS settings after the XenServer hosts have been joined into a pool.	In particular, changing CPU capabilities features, such as the “no execute” or “NX”, can lead to a mismatched pool that would not support VM migration or Level 3 synchronization.	2243
The eAC may disconnect from a running pool when multiple Start, Reboot, or Force Reboot commands are issued from the GUI.	Microsoft explains how to change settings for Internet Explorer at: http://support.microsoft.com/kb/282402 . Mozilla describes the Firefox settings at http://kb.mozillazine.org/Network.http.max-connections-per-server	2251
Do not use xe host-shutdown command on XenServer host containing everRun software.	This XenServer command will not perform the VM evacuations correctly on an everRun-enabled system. Use the ev host-evacuate or ev host-reboot command, as described in the Host Management topic in the “Choosing a Management Interface” section of the eAC Online Help	2264
After restoring lost Fibre Channel paths, some disks are failed while others recover automatically.	<p>After detecting that access to disks has been restored, the everRun software will try to bring them online as fast as possible, while still retaining data integrity.</p> <p>If no disk I/O requests failed during the loss of access, the disk will be brought online with a delta copy once access is restored.</p> <p>If there were any failed I/O requests, then the disk will be marked as failed. If the disk is marked as failed, automatic recovery may still take place through a full mirror copy.</p> <p>If the disk does not automatically recover, but stays in the failed state, you must enable the disk through the eAC. The disk will then be brought online by a full mirror copy.</p>	2270
Quorum service port numbers can be changed only before using everRun to protect VMs. If you inadvertently change a port number, use the workaround shown at right.	With all PVMs running, disable quorum service then shut down the PVMs. Change the server port number in the eAC, re-enable quorum service, and re-start the PVMs. If an invalid port number prevents a PVM from booting, call Marathon Customer Support.	2841

Description	Workaround/Comment	ID
VMs marked with the XenServer AutoBoot option will boot before all other VMs — including all everRun-protected VMs.	The best practice is to not enable XenServer AutoBoot on any VMs that run on the same hosts as everRun-protected VMs, unless you are certain that sufficient memory resources exist to support all required VMs.	2922, 2903
If you attempt to reassign the original IP address of a network adapter after protecting a VM, a warning dialog states that the IP address is in use by a Citrix network adapter.	You can dismiss the pop-up and make the change. The conflict is almost always with a Citrix PV driver (NIC) that has already been overridden by the everRun protect process.	2933
When a host containing multiple Level 3 PVMs is removed from the system (via failure or reboot) then returned to service, requests to synchronize PVMs are handled sequentially.	The system platform allows only one synchronization of a Level 3 PVM at a time. All PVMs will be restored in turn, but error messages indicating synchronization failure may appear in the eAC GUI during this operation. You can ignore those error messages, and wait for the system to resynchronize all affected PVMs.	2943
When Level 1 (XenServer HA) is enabled in a XenServer pool, you may see system alerts in XenCenter: “Lost access to HA metadisk data.”	The warnings do not have an adverse impact on everRun protected VMs.	3059
When an everRun PVM is upgraded from Windows Server 2008 SP1 to SP2, the system reports it cannot load the Citrix paravirtualization (PV) drivers.	This message can safely be ignored. The everRun PVM uses Marathon drivers, and the Citrix drivers are not required.	3074
After you protect a PVM running Windows Server 2008 SP2, the PVM prompts for a second reboot.	The server is fully operational and you can safely ignore this message. If you do so, Windows may warn that the driver may not operate properly. You can also ignore this second message.	3083

Description	Workaround/Comment	ID
XenCenter does not always close properly upon exit, which prevents another XenCenter session from starting.	If you encounter this condition, use the Windows Task Manager to terminate the XenCenterMain.exe process before starting XenCenter again.	3095
After you create a virtual machine and install its XenServer tools, XenCenter reports “optimized for virtualization.” However, it takes more time for the eAC to report that the VM is a candidate for Level 2 or Level 3 protection.	Because of the inspection process performed by the everRun MMS, you may have to wait as long as several minutes (depending upon other activity at the time) until the eAC displays a message indicating whether the VM is a candidate for everRun protection. If it is not a candidate, the VM Candidacy section of the VM’s Detail tab displays “Not a Candidate; and provides a reason (to see the reason, click “Why Not”).	3102
After recovering from a power failure on the primary host, XenCenter may fail to display all booted PVMs or may return error messages.	In XenCenter, disconnect from the pool then reconnect. That should enable you to connect to the CI again in XenCenter.	3133
Although the eAC allows you to add a fifth virtual NIC to a PVM, an error code will be generated when this configuration is specified. Virtual machines that contain more than the maximum number of redirected NICs can not be protected with everRun.	everRun supports up to four virtual (redirected) NICs per protected Windows VM (PVM), and a total of 8 redirected devices (NICs and disks combined) per PVM.	
eAC declares Windows Vista and Windows 7 are valid candidates for everRun protection.	everRun protection does not support virtual machines running these operating systems. The supported operating systems are listed in “What’s New in this Release” on page 2 of this document.	3252

Description	Workaround/Comment	ID
<p>Any time you select the multipath option for a protected VM (in XenCenter) the error message “Storage repository not available” displays.</p>	<p>The workaround is to stop the everRun services. To do that, issue the following commands in a Console window for each host in the pool:</p> <pre># service everrund stop # service mtcamlogd stop # service xenfiled stop # service mtclinkwatchd stop # service everrun-prep stop</pre> <p>After multipathing has been set, the following steps will re-enable everRun:</p> <pre># service everrun-prep start # service everrund start # service mtcamlogd start # service xenfiled start # service mtclinkwatchd start</pre>	3255
<p>If you attempt to start a PVM on a XenServer host and the other host is in maintenance mode, a 5-minute timeout will occur and the PVM will shut down.</p>	<p>After the second host successfully exits from maintenance mode, you will be able to start the PVM.</p>	3356
<p>If a VM shutdown command issued in the eAC times out in XenServer, display data in the eAC may become stale; events may also be lost while waiting for the timeout.</p>	<p>After the timeout occurs, refresh the eAC manually to update the display.</p>	3492
<p>If quorum service is enabled on a protected VM while it is running, the quorum gateway is not set correctly and the second AM is disabled because quorum service cannot be reached.</p>	<p>Shut down the protected VM before enabling quorum service. The gateway is then set correctly, the quorum server can be reached, and the second AM operates correctly.</p>	3519

Description	Workaround/Comment	ID
After XenCenter has been running for some time — particularly under heavy loads — it may become slow to respond.	Restart XenCenter and reconnect to the pool.	3535
If XenService stops during a PVM Unprotect operation, the operation will not complete. However, the PVM “unpair” operation does occur, leaving the user with an unpaired PVM on the active host.	Use the Windows Control Panel on the PVM to restart XenService (a Windows service). If you need assistance, contact Marathon Technical Support. After restoring XenService, reissue the Unprotect command from the eAC to complete the operation.	3599
The everRun Protect process fails if it cannot locate the XenTools.	Make sure a single copy of the XenTools drivers is installed on the same partition of your VM where Windows is installed, then try Protect again.	3722
If you have changed the time in Dom0 and synchronized the hardware clock, the time in the PVM will need to be reset after a PVM restart, synchronization, or reboot migrate.	Because the Windows time is stored as an offset to the Dom0 hardware clock, any changes to the hardware clock will affect the PVM. Reset the time in Windows to move the offset to the correct value. Note: After changing the time in Dom0, you may need to use the <code>hwclock --system</code> command to set the hardware clock. The Online Help topic “Synchronizing Time Settings” contains a helpful example.	3752
After you protect a 64-bit PVM, you may see a Microsoft file, <code>Msdia80.dll</code> , at the root of a data disk associated with the PVM.	This is a known problem associated with the Microsoft VC Redistributables installer. The file can safely be removed. The everRun installer has applied the fix recommended in the Microsoft Knowledge Base article at http://support.microsoft.com/kb/927665 .	3796
When configuring a VM for everRun protection, do not choose Storage Subsystem Data Protection (path-redundant storage) in this release, to avoid possible issues with this feature.	Please use everRun mirroring for data protection in this release.	3820

Description	Workaround/Comment	ID
In this release, do not attempt to take a snapshot of a PVM on a data-redundant disk.	This is related to Issue 3820, which cites possible issues with Storage Subsystem Data Protection (path-redundant storage) in the current release. Please choose everRun mirroring for data protection in this release.	3899
In some cases, PVMs recovering from a pool master failure may report that they are still starting even after they have actually started.	Although this does not affect the functionality of the PVMs, it affects the display in the everRun Availability Center (eAC). To correct the display, choose Force Reboot for the PVMs that report they are still starting.	3933
There is no Take Snapshot menu option for Level 1 PVMs in the everRun Availability Center (eAC).	Level 1 Snapshots of XenServer HA VMs can be taken only from XenCenter or the xe command-line interface.	3950
XenCenter does not show booted PVMs after you issue ev pvm-start --all or shows error messages.	Remove XenCenter and install the newer version released with XenServer 5.6 (XenServer-5.6.0-XenCenter.msi). This software is available at the Marathon download site for everRun 6.0.	3976
After you configure the pool isolation IP address, the eAC may display a message indicating that the isolation IP address can not be pinged from a pool host.	This message does not clear until the management software successfully pings all the hosts in the pool, and thus persists longer when multiple hosts are present. If it does not clear, you should check to see whether the host can pin	4009
If you attempt to snapshot a PVM only on a disabled PVM host or on a PVM host with a disabled disk, the snapshot fails with the error, "No PVM disks can be snapshotted." (If you specify both hosts, the snapshot proceeds, but issues warnings about the snapshot on the compromised host.)	You can create a snapshot of a PVM on a disabled host — or a host with a disabled disk — from the CLI by using the snapshot command with the --force option: ev pvm-snapshot uuid=<pvm-uuid> --hostn --force	4094

Description	Workaround/Comment	ID
Resynchronization of Level 3 PVMs or online migration of Level 2 PVMs may fail when 100 Mbps Ethernet is used for the management LAN.	Marathon requires a minimum capacity of 155 Mbps for all network components such as switches or uplinks. The best practice is to use two 1 GB Ethernet adapters for the management LAN, as described in the <i>everRun Configuration Planning Guide</i> .	
The Switch to Remote Desktop button, available for XenServer VMs, is disabled for protected VMs (PVMs).	On PVMs, you can use the Windows Remote Desktop functionality instead of the Switch to Remote Desktop button.	

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 additional tips on resolving known issues.

Choosing a Management Interface

The Online Help section “Choosing a Management Interface” describes the recommended interface (everRun Availability Center, XenCenter, or **xe** or **ev** command line) to use for management of protected VMs and XenServer hosts that contain protected VMs. Guidelines also appear for functions such as everRun snapshots or pool management, which may require the combined resources of everRun and XenServer management interfaces.

For Technical Support

For technical support, contact your certified everRun support provider. You can also consult the Marathon support web site shown on page 1 for additional documentation, the latest technical information such as supported platforms, and the Technical Information Knowledgebase.

In addition, you can obtain login access and interact with Marathon technical support via the Marathon web portal. You can enter new incidents, obtain status on open incidents, download software and documentation, and search the knowledgebase.

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SOFTWARE REVISION

The revision of the software that this document supports is everRun 6.0.

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