



Virtual Iron® Software Release Notes

Virtual Iron® Version 4.1

Copyright (c) 2007 Virtual Iron Software, Inc.

00100907R1

This information is the intellectual property of Virtual Iron Software, Inc. This content is for your personal use only, subject to Terms and Conditions. No redistribution allowed.

Contents

Enterprise Edition Upgrade Instructions	3
Single Server Edition Upgrade Instructions	3
New in this Release	4
Fixed in this Release	5
Open Issues in this Release	6
Product Documentation	13
Contacting Virtual Iron Support	13

ENTERPRISE EDITION UPGRADE INSTRUCTIONS

If you are running an earlier version of Virtual Iron® EE or XEE, use this link and follow the instructions to upgrade to the current version of the product. Install the new VS Tools onto each of your Virtual Servers.

<http://www.virtualiron.com/services/virtual-iron-4-upgrade.cfm>

SINGLE SERVER EDITION UPGRADE INSTRUCTIONS

If you are running an earlier version of Virtual Iron®, use this link and follow the instructions to upgrade to the current version of the product.

<http://www.virtualiron.com/services/virtual-iron-ss-41-upgrade.cfm>

NEW IN THIS RELEASE

The following major enhancements are included in this release:

- Release 4.1 adds support for Windows 2003 64-bit operating systems.
- This release includes an MSI file for Windows VSTools. This simplifies VSTools installations, especially for automated deployments.
- Logical disks are now preferred over virtual disks as they perform much better. Although virtual disks are still supported, it is highly recommended that you use the Virtualization Manager clone operation to convert virtual disks to logical disks. Refer to the *Virtualization Manager Administrator Guide*, [Cloning Disks](#).
- The priority settings for virtual servers has changed to afford greater granularity. Previously, the settings ranged from 1 to 10, with a default of 5. The new range is from 1 to 100, with a default of 50.

Note that if you are upgrading to 4.1, the priority settings of your virtual servers will be automatically converted to new equivalent values. For example, a priority of 5 will be converted to 50. For more information, see [Creating a Virtual Server](#).

FIXED IN THIS RELEASE

Number	Fixed in This Release
7	RECOMMENDATION TO RUN SLES 9 WITH THE BIGSMP KERNEL. In v4.1, both smp kernel and bigsmp kernel run well.
671 3687 4015	CLOCK ISSUES WERE OBSERVED WHEN RUNNING MANY VIRTUAL SERVERS UNDER HEAVY LOAD On 64-bit LINUX systems, when running multiple virtual servers on a single physical node under heavy load, the virtual server's clock had been observed to run faster than "true" time as measured by an external time source. Over time, the clock skew resulted in virtual server time differing from external time by minutes or hours.

OPEN ISSUES IN THIS RELEASE

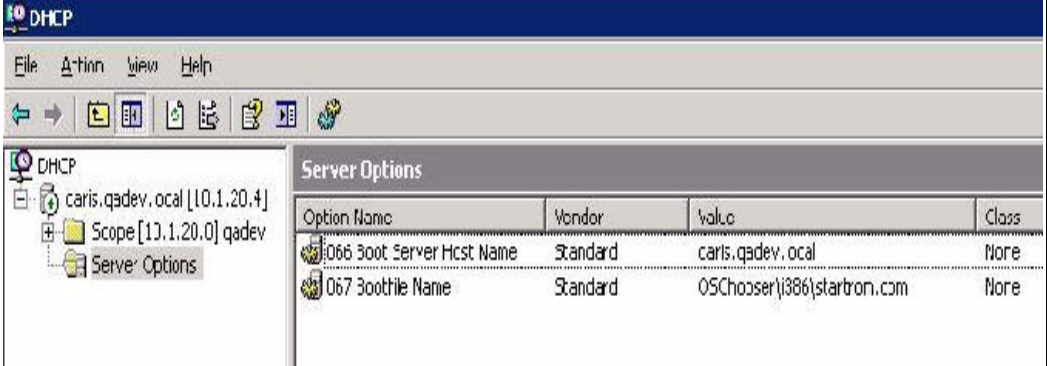
Following are known issues related to this release.

Reference Number	Open in This Release
29	LINUX TIMER ISSUE Occasionally during Linux boot or kernel calibration issues, the following error will appear and the operating system will crash: MP-BIOS bug: 8254 timer not connected to IO-APIC Kernel panic - not syncing: IO-APIC + timer doesn't work! Try using 'noapic' Please report crashes to Virtual Iron Technical Support. See Contacting Virtual Iron Support .
172	QLOGIC HBAS NOT REPORTING PERFORMANCE INFORMATION Nodes with QLogic HBAs will not report disk performance data in the Virtual Server Performance chart.
355	JBOD SAN DISKS ARE NOT RECOMMENDED AS VIRTUAL SERVER STORAGE DEVICES JBODs can be used for storage devices for Virtual Servers, but they are not recommended. If JBOD disks go off-line and then back on-line while connected to managed nodes, the node will go into an error state that requires a node reboot. Use SAN disks connected via a SAN controller.
458	CTRL-ESCAPE, ALT-ESCAPE AND ALT-TAB ARE NOT FUNCTIONAL IN THIS RELEASE In the Virtual Server Console window, there is a pull-down menu titled Commands. Ctrl-Escape, Alt-Escape, and Alt-Tab, are not currently functional.
537	KEYBOARD INPUT INTO VIRTUAL CONSOLE OCCASIONALLY RESULTS IN REPEATED CHARACTERS When you type into a virtual console that contains an X windows display, occasionally the keyboard output will be repeated. For example if you type ls into a terminal window in X, you may see llllssss output in the virtual console. The workaround is to disable the keyboard repeat function.
619	VIRTUALIZATION MANAGER SHUTDOWN CAUSES VSS BOOTED FROM A NETWORK BOOT DEVICE TO HANG Stopping or Restarting the management server takes down the NBD server. This takes down all VSs booted using NBD. To resolve this issue, restart the management server. Then, perform a hard reset on each impacted VS.
723	POOR NETWORK PERFORMANCE ON 3COM NICs Poor network performance has been observed on 3COM NICs. This may impact the performance of virtual server network operations.

Reference Number	Open in This Release
892	APPLICATIONS THAT ATTEMPT TO COMMUNICATE DIRECTLY TO AN HBA ARE NOT SUPPORTED Kernel-level management applications or agents (such as Emulex HBAnywhere, QLogic SANSurfer) in a guest operating system that communicate directly to an HBA or directly to other specific devices are not supported. Running these types of applications may cause virtual servers to become unresponsive.
1122	AFTER A RED HAT INSTALL, THE VCONSOLE IS BLANK WHEN VS BOOTS TO RUN LEVEL 5 The first time Red Hat boots after an OS installation, the virtual console may be blank when the system goes into run level 5. Workaround: Remove rhgb from the boot line in /boot/grub/menu.lst.
1189 2278 3006	ADDING OR REMOVING LUNS COULD REQUIRE A NODE REBOOT When adding or removing LUNs to the system to modify storage capacity, it is sometimes necessary to reboot the nodes to accurately display the LUN configuration. If a LUN is removed or offline and the Virtualization Manager shows it as online, errors could result if a user attempts to perform operations on that LUN, such as creating virtual hard disks. First, LiveMigrate all virtual servers off the node, then reboot the node. You can then LiveMigrate servers back onto the node.
1504 4159	THE VIRTUALIZATION MANAGER USER INTERFACE MAY RUN SLOWLY IF ANTI-VIRUS SOFTWARE IS RUNNING ON THE MANAGEMENT SERVER HOST. Some anti-virus software inspects Java applications. This may result in reduced Virtualization Manager client performance. If this occurs, designate Virtualization Manager a trusted application in the virus scanning software. The Virtualization Manager directory should be excluded by virus scanners.
1816	VIRTUALIZATION MANAGER INSTALL FAILS WITH BONDED ETHERNET The Virtualization Manager installer does not handle bonded Ethernet controllers. Make sure the network controller on the node that will be running the management server is not bonded before starting the installation.
1962	DATAcore THIN PROVISIONING CONFIGURATION REQUIREMENTS DataCore LUNs used for logical volume groups must have sufficient backing storage for the size of the Virtual Iron volume group. Set the Datacore NMV chunk size to be 4 MB.

Reference Number	Open in This Release
2028	RH3-U8 CONSOLE KEYBOARD NOT WORKING WITH KUDZU If RedHat 3 is installed while the virtual server is configured in the Virtualization Manager with a USB mouse (for example, RHEL4 LINUX) instead of a PS2 mouse, you will be in Kudzu after you boot with a PS2 mouse configuration. Kudzu can not use the mouse or keyboard at that point and will time-out. The system will continue to boot. Workaround: Configure the virtual server properly in the Virtualization Manager prior to installing. If the problem does occur, correct the Virtualization Manager virtual server configuration. Then, boot the virtual server and manually invoke Kudzu from a console window. Remove the USB drive when you are prompted to do so.
2244	THE ADMINISTRATION MANAGER IS NOT COMPATIBLE WITH JAVA BUILD 1.5.0_06_B05. Virtual Iron® recommends running the latest Java Version 1.5.0 (build 1.5.0_10-b03 or later) on the system that is running the Administration Manager client.
2549	DYNAMIC RESIZING OF LUNS Use the following procedure if you have to resize a LUN. 1. Cause the LUN you wish to resize to go offline, which is depicted in the Management Server Hardware view as offline. 2. Delete that LUN from the Management Server Hardware view and Commit this operation 3. Resize the LUN to your needs. 4. Rediscover the LUN in your Management Server Hardware view with the Node--> Rediscover option or the Node--> Rescan SAN Ports option.
2763	IPV6 NETWORKS ARE NOT SUPPORTED. IPV6 networks are not supported for dedicated management networks, iSCSI networks, or networks used by virtual servers.
2884	VS SHUTDOWN DOES NOT WORK IF YOU ARE NOT LOGGED INTO THE CONSOLE You must be logged into the virtual server console for the VS Shutdown command to work.

Reference Number	Open in This Release
2978	RED HAT 3 VIRTUAL SERVER TOOLS HAVE SEPARATE RPMs FOR INTEL AND AMD PROCESSORS VS Tools for RH3 have separate RPMs for Intel and AMD processors. The RPM you install in a virtual server must match the processor type (Intel or AMD) of the node (physical server) on which the virtual server is installed. Name these virtual servers, since they will only run on that processor type from that point forward. AMD: virtualiron-2.4.21-47.ELsmp-4.1.*.athlon.rpm Intel: virtualiron-2.4.21-47.ELsmp-4.1.*.i686.rpm Use the standard rpm -Uvh to install the proper VS Tools as described in the <i>Virtualization Manager Administrator Guide</i>, Creating and Configuring Virtual Servers.
3006	SEE 1189.
3045	WINDOWS MOUSE LOSES CONNECTIVITY UPON FIRST BOOT AFTER VIRTUAL IRON UPGRADE When Virtual Iron is upgraded, the first time each existing Windows virtual server is booted, the mouse loses connectivity. You may see the hardware wizard notification that a PCI device cannot be found and that a new device is discovered. Workaround: Please go through the hardware wizard as it is connecting the new virtual mouse hardware. The mouse will function correctly once you complete the steps in the hardware wizard.

Reference Number	Open in This Release
3445	VIRTUAL IRON AND MICROSOFT RIS When using Windows RIS to install Windows into virtual servers, note that Windows 2000 RIS Server is unsupported; Windows 2000 does not provide RealTek NIC driver support. (Windows 2003 Server and RIS is supported.) Workaround: Configure the Windows DHCP server to use options 66 (boot server host name) and 67 (boot file name). Set DHCP option 67 to point to the location of your startrom.com. This causes the DHCP and PXE boot process to boot the RIS kernel. Refer to figure below.  For additional information, refer to: http://support.microsoft.com/kb/244036/
3466	WINDOWS RE-ACTIVATION MAY BE REQUIRED WHEN UPGRADING FROM VI v3.x TO v4.x Virtual Iron v4.x presents a significantly different virtual motherboard to virtual servers than v3.x. In some cases, these differences may be enough to trigger a Windows request to reactivate the virtual server's copy of Windows with Microsoft.
3494	WINDOWS 2000 MAY REPORT AN UNKNOWN PCI DEVICE When a Windows 2000 virtual server boots, you may see an unknown PCI device reported as found. This is an innocuous message, and this PCI device should be disabled. This device is the HPET timer which is not used in the VI virtual environment.
3611	VIRTUALIZATION MANAGER REQUIRES COMPAT-ARCH-SUPPORT PACKAGE ON 64-BIT RHEL-4 The Virtualization Manager requires the compat-arch-support RPM package to run properly on 64-bit RHEL-4. This package is part of the default RHEL-4 install when installing from CD, but could be omitted if a custom kickstart is used. Without this package, the Virtual Iron DHCP and TFTP servers will not start and managed nodes will not be able to PXE-boot into the Virtual Iron infrastructure.

Reference Number	Open in This Release
3715	WINDOWS 2000 IDLE LOOP CONSUMES 100% OF CPU When a Windows 2000 system is idle, it will appear to be consuming no CPU resources. Task Manager will show that the CPU is idle. However, Windows 2000 is actually executing instructions in its idle loop. These cycles will not be available for other virtual servers on the same node to use. In order to get Windows 2000 to act like the other more recent Windows operating systems and actually relinquish the CPUs when idle, please do the following: 1. Make sure VS Tools are loaded and running in the Windows 2000 virtual server. 2. Open a browser within the Windows 2000 virtual server, and navigate to the Virtualization Manager's IP address. You will see the Virtual Iron Virtualization Manager home page. 3. Click the VS Tools Installers link. 4. Click the win /link. 5. Click the Win2000_idler_on.reg and download that file to the virtual server. Do the same for Win2000_idler_off.reg. 6. Double click Win2000_idler_on.reg to read the idler information into the Windows Registry. 7. On the Windows 2000 desktop, right click the My Computer icon and select Manage. 8. Navigate to Services and Applications > Services. 9. Find the Virtual Iron Service and right-click Restart. A side-effect of the idler is that it will appear that the ViStats.exe process is consuming all idle cycles in the virtual server. In fact, it only appears this way; it is actually releasing control to the underlying virtualization services so that idle cycles can be used by other virtual servers. You can turn off the idler by double-clicking the Win2000_idler_off.reg file and then restarting the Virtual Iron Service. We recommend that the idler is turned on.
3803	DEDICATED MANAGEMENT NETWORKS MUST USE A CLASS C ADDRESS For management networks, always use Class C Ethernet addresses.
3831	UPGRADING TO 4.0 CAUSES WINDOWS VIRTUALIZATION MANAGERS TO LOSE STATIC NETWORK CONFIGURATION INFORMATION When a Virtual Iron installation is upgraded to 4.0 from any previous version, any Windows Virtualization Managers will lose any static IP address assignments they may have when they are first booted without VSTools, and then again when they are first booted with the 4.x VSTools. To restore network connectivity, manually re-enter the static network configuration for the Virtualization Manager. This does not affect Windows VMs that use DHCP to auto-configure network settings.

Reference Number	Open in This Release
3839	LEFTHAND NETWORKS ISCSI SERVERS During qualification testing of LeftHand Networks (LHN) iSCSI servers, it was found that the Open-iSCSI initiator used in the Virtual Iron virtualization layer, is not able to discover more than 90 iSCSI disks. Further testing indicates the same limitation exists when using SLES-10 SP1 as an iSCSI client. If you need more than 90 disks with LHN iSCSI storage, you can use the Virtual Iron virtual disk management features to partition raw iSCSI disks into multiple logical disks.
4110	
NONE	SAN MULTIPATH SUPPORT SAN multipath for fibre channel-based SAN has been tested on limited configurations in Virtual Iron. Please see the Virtual Iron HCL for complete multipath support information: http://www.virtualiron.com/products/servers.cfm SAN multipath for iSCSI-based SAN will be tested and supported in a future release.

PRODUCT DOCUMENTATION

The following documents are also available online:

- *Virtualization Manager™ Administrator Guide* - Explains how to configure and manage virtual data centers and virtual servers.
- *Virtualization Manager™ Getting Started Guide* - Guides you through the process of getting a virtual server up and running
- *Virtual Iron Tutorial* - Guides you through installation, and storage, boot, and memory configuration options of a virtual server.

CONTACTING VIRTUAL IRON SUPPORT

Use this information to reach Virtual Iron® customer support.

Phone: 1-800-314-9872 (Select option 2)

Mail: support@virtualiron.com

Web: www.virtualiron.com/services/support_login.cfm