

## **1-00 MegaRAID Storage Manager Overview and Installation**

### **1.1 MegaRAID Storage Manager Support and Installation on VMWare**

This section documents the installation of MegaRAID Storage Manager (MSM) on VMWare Classic (with console operating system). Supported versions are 3.5 and 4.0 ESX.

### **1.2 Installing MegaRAID Storage Manager for VMWare**

VMWare does not support any graphics components. In order to install the server component of MSM (MSM without popup and client), MSM does not support ESXi 3.5 or 4.0 at this time only ESX version of VMWare are supported.

### **1.3 Uninstalling MegaRAID Storage Manager**

You can uninstall MSM by using the Uninstall command in the Program menu, or by running the script `/usr/local/MegaRAID Storage Manager/uninstaller.sh`.

### **1.4 Uninstalling MegaRAID Storage Manager for VMWare**

To uninstall the Server Component of MSM on VMWare, use the Uninstall command in the Program menu or run the script `/usr/local/MegaRAID Storage Manager/uninstaller.sh`. Note the following points:

1. A MSM upgrade is supported in this release. This release can be upgraded by future releases.
2. To shut down the MSM Framework service, run the following command:  
`/etc/init.d/vivaldiframeworkd stop`

It is recommended that you stop the Monitor service before you stop the MSM Framework service. To stop the Monitor service run the following command:  
`/etc/init.d/mrmonitor stop MegaRAID Storage Manager Support and Installation on VMWare`

### **1.5 MegaRAID Storage Manager Support on the VMWare ESX**

This section outlines the product requirements needed to support the VMWare ESX operating system. Classic VMWare includes a Service Console that is derived from the Linux 2.4 kernel, but with reduced functionality. Note: There is a known limitation that virtual drives that are created or deleted will not be reflected to the kernel. The workaround is to reboot the server or to run `esxcfg-rescan <vmhba#>` from COS shell.

### **1.6 Installing MegaRAID Storage Manager on a VMWare ESX Server**

Perform the following steps to install MegaRAID Storage Manager on a VMWare ESX Server:

1. Download the latest MSM from [ibm.com](http://ibm.com), `ibm_sw_msm_5.01.01-linux_32-64.zip`

2. Unzip the package and copy MSM\_linux\_installer-501.01.tar.gz to a USB key.
  3. From the ESX server, at root console, type the following command to identify the USB device: fdisk -l
  4. Type the following command: mount /dev/{name of your USB device} /mnt
  5. Type the following command: cd /mnt
  6. Type the following command to copy MSM\_linux\_installer-501.01.tar.gz to the opt folder: cp MSM\_linux\_installer-501.01.tar.gz /opt
  7. Type the following to unzip the package gunzip MSM\_linux\_installer-501.01.tar.gz
  8. Type the following to untar the package tar -vxf MSM\_linux\_installer-501.01.tar
  9. Change directories to the /opt/disk path
  10. type ./vmware\_install.sh to install MSM
  11. Select VMware version
    - a. Enter 1 for VMware 3.5 install
    - b Enter 2 for VMware 4.0 install
  12. Select storlib option
    - a. enter n if you want to use the inbox storlib driver
    - b. enter y if you want to install the storlib packaged with MSM
- IBM recommends 'y' is selected to use storlib packaged with MSM, selecting 'n' may cause some functions of MSM not to work correctly

## 1.7 Setting Port and UDP configurations

Before you use the Windows operating system on the remote ESX server users need to setup the networking for MSM to function correctly.

1. Configure the multicast group and the ESX firewall to allow access to the MSM components (ports 3071 and 5571 need to be opened):

```
- run the following commands:
/etc/init.d/mrmonitor stop
/etc/init.d/vivaldiframeworkd stop
route add 229.111.112.12 dev vswif0
esxcfg-firewall -o 3071,tcp,in,vivaldi
esxcfg-firewall -o 3071,tcp,out,vivaldi
esxcfg-firewall -o 3071,udp,in,vivaldi
esxcfg-firewall -o 3071,udp,out,vivaldi
esxcfg-firewall -o 5571,tcp,in,vivaldi
esxcfg-firewall -o 5571,tcp,out,vivaldi
esxcfg-firewall -o 5571,udp,in,vivaldi
esxcfg-firewall -o 5571,udp,out,vivaldi
/etc/init.d/vivaldiframeworkd start
/etc/init.d/mrmonitor start
```

## 1.8 Logging into the ESX Server

Perform the following steps to use MSM from Windows to log in to the ESX server.

1. At the Window Client, open MSM. The MSM access screen appears.
2. Select or enter the ESX server IP address. The login dialog box appears.
3. Enter your username.
4. Enter your password.
5. Select Full access in the Login Mode field.
6. Click Login and then click Connect.

**Note: MSM Requires the following ports to function**

Component	Sending port/Source Port	Listening Port/Dest Port
MSM GUI Client	49258 - 50058 (TCP)	49258 - 50058 (TCP)
Framework	49258 - 50058 (TCP)	3071,5571 (TCP/UDP)
Popup	49152 - 65535 (TCP)	49152 - 65535 (TCP)
MrMonitor	49152 - 65535 (TCP)	49152 - 65535 (TCP)

Port 49152 - 65535 (TCP) – Dynamic ports, can be used by anyone.

Port 3071(TCP/UDP) - Registered Port with IANA registration.