Microsoft Windows Server 2003* R2 SP2 (x86 & x64) Dual SCM (ALUA) Installation BKM

Microsoft Windows Server 2003* R2 SP2 Dual SCM Installation – Table of Contents

(intel)

UPGRADING FROM SINGLE SCM TO DUAL SCM

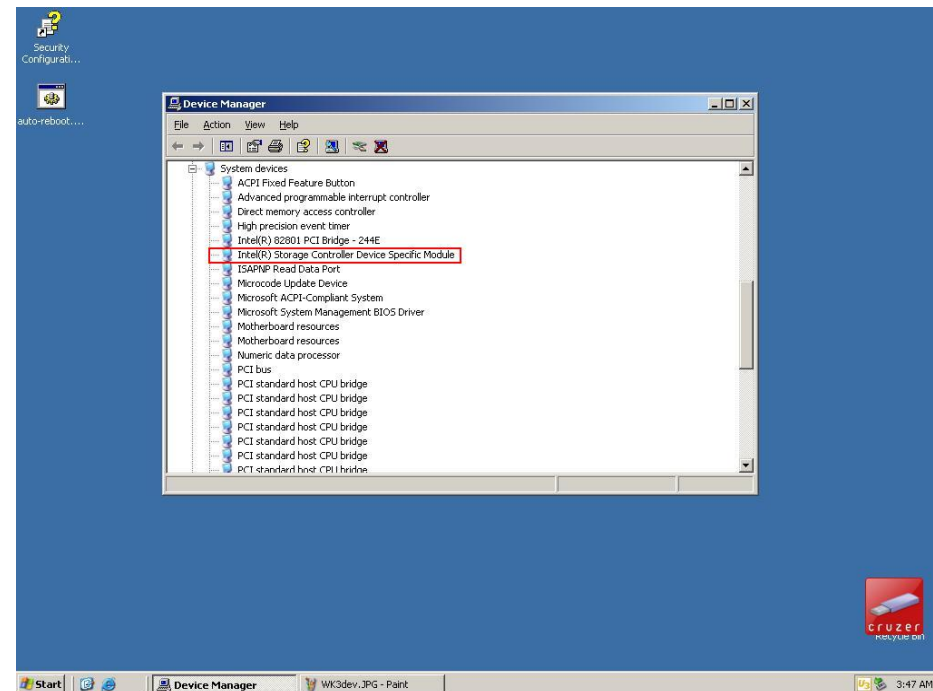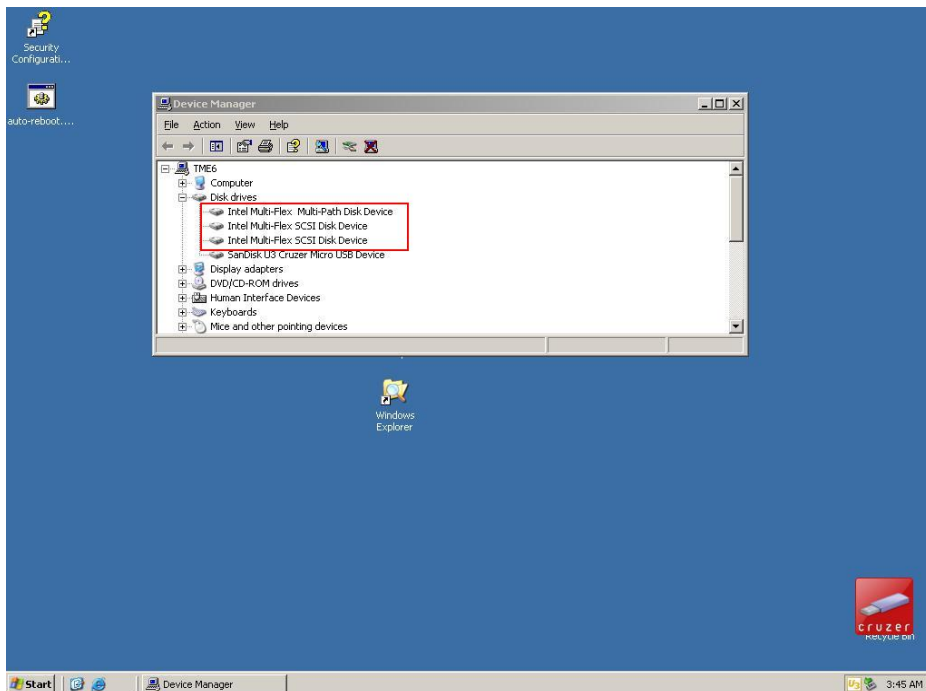# Upgrading Existing OS from Single to Dual SCM

- Before installing the second SCM, perform the following:
  - Ensure that the updated storport driver (KB932755) has been installed.
  - Update the SAS driver to 1.27.03 version
    - For x86, file needed is Windows2K3_x86_Installation_Disk_1.27.03.zip.
    - For x64, file needed is Windows2K3_x64_Installation_Disk_1.27.03.zip.
  - Load the MPIO driver.
  - Reboot the server and verify that the MPIO driver loaded correctly (see the next slide for screenshots).
    - Make sure no error messages pop-up or yellow bangs appear in the device manager.
  - Shut down the compute module.
  - Update the CMM to the software release that supports Dual SCM.
  - Once the CMM comes back up, wait for all the updates to complete and then insert the second SCM.
  - When the second SCM's firmware update completes, check the event log to ensure the SCM is operational, and then power on the compute module.

Upgrading Existing OS from Single to Dual SCM

Device Manager -> Disk drives

Device Manager -> System Devices

FRESH INSTALL IN A DUAL SCM CONFIGURATION

Drive Creation and Assignment

- Create Storage Pool -> Virtual Drive and assign to a compute module
  - Note which SCM is assigned as the active path (see the red box in the screenshot on the next slide).

- Boot the compute module and enter the system BIOS (press F2 during POST)
  - If the active SCM for LUN 0 is SCM #1, place it first in the HDD boot order. Typically, this will show up as ID00 LUN0 (see the screenshot on slide 9).
  - If the active SCM for LUN 0 is SCM #2, place it first in the HDD boot order. Typically, this will show up as ID01 LUN0 (see the screenshot on slide 9).

Note: This step is critical as not correctly setting up the BIOS boot order could lead to operating systems not booting.

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Virtual Drive Properties Page Showing Affinity/Active SCMs

HDD Ordering Based on Active SCM

Aptio Setup Utility – Copyright (C) 2005-2007 American Megatrends, Inc.

Boot Options

Hard Disk #1	[#0400 ID01 LUN0 In...]	Set hard disk boot order by
Hard Disk #2	[#0400 ID00 LUN0 In...]	selecting the boot option for

SCM #2 active SCM for HDD

SCM #1 active SCM for HDD

Selecting Operating System Installation HDD

- Begin the normal operating system installation process as follows:
  - Slipstreamed install with the LSI* SAS drivers already integrated is preferable.
  - If slipstreamed install media is unavailable, press F6 when prompted by the installation and load the 1.27.03 version of the driver.
    - For x86, file needed is Windows2K3_x86_Installation_Disk_1.27.03.zip.
    - For x64, file needed is Windows2K3_x64_Installation_Disk_1.27.03.zip.

- During the install, a list of HDDs where the OS can be installed is presented. This list contains duplicate entries for all Virtual Drives assigned to the compute module (one entry for SCM #1 and one entry for SCM #2).
  - The HDD associated with the SCM that does **not** own the drive will be listed as "Setup cannot access this drive".

- Correctly select the HDD that was assigned the LUN 0 position during VD creation (see the screenshot on the next slide).

Microsoft Windows Server 2003* HDD List

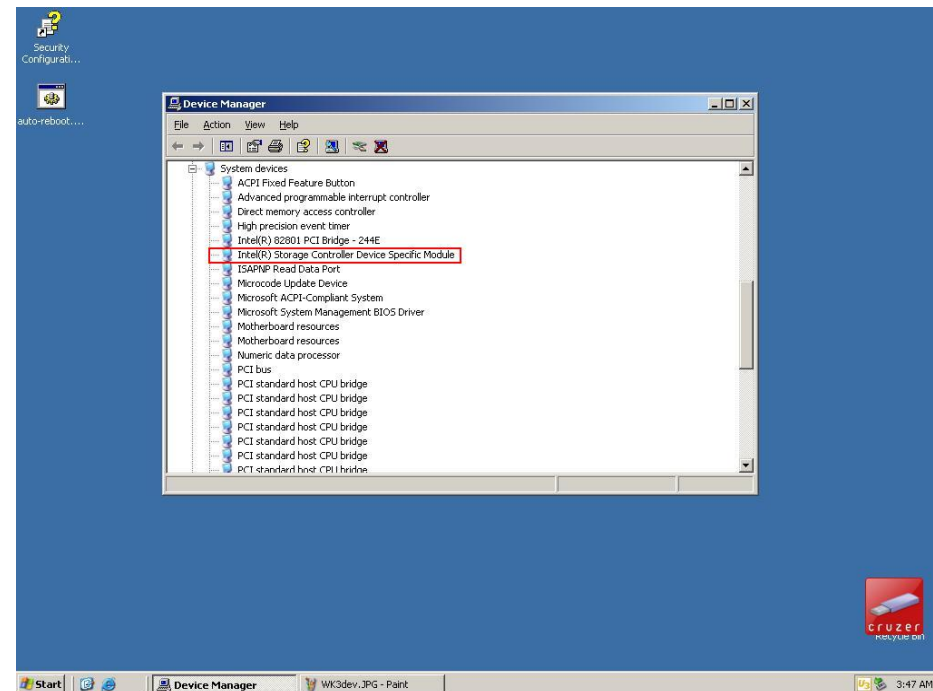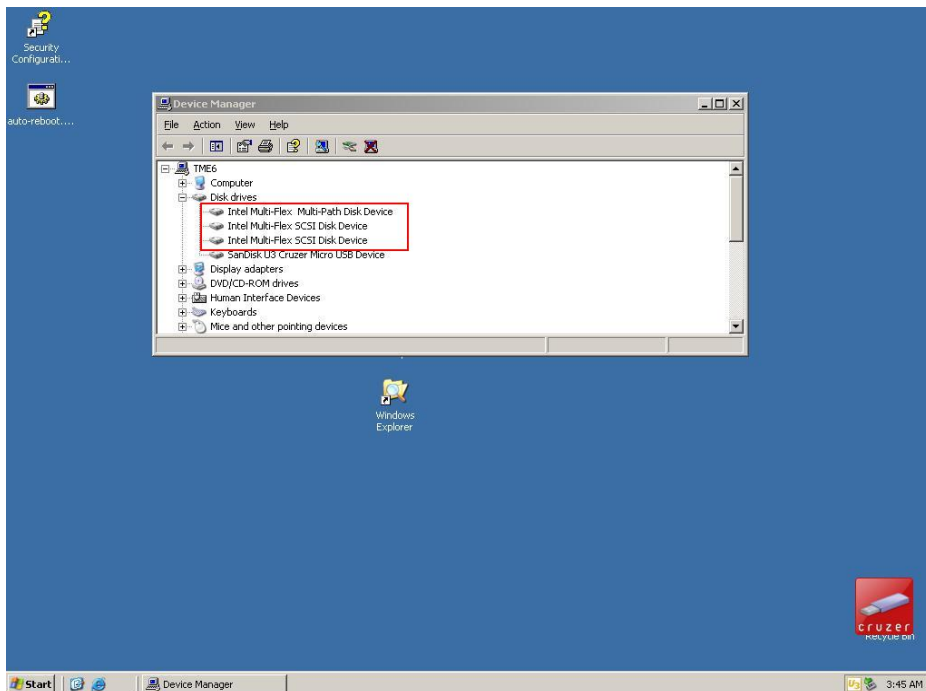# Microsoft Windows Server 2003* Installation (cont'd)

- Once the operating system installation completes, the following drivers must be loaded in the order listed below. During the installation of these drivers, reboot when prompted.
  - Chipset
  - Updated Storport* driver - KB932755
  - MPIO
  - NIC
  - Graphics
  - TPM

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Verifying MPIO Driver Installation

Device Manager -> Disk drives

Device Manager -> System Devices