
PCS Tech Tips – Windows Server 2008 Install



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Windows 2008 Server Installation

64-bit Foundation Server
HP Proliant ML310G5p
Embedded SATA RAID Controller

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Overview of Installation

This document will provide step by step instructions on how to install the Windows 2008 Foundation Server software on an HP Proliant ML310 (G5p) server. The server is using 2 – 250GB SATA drives in a RAID 1 array using the onboard RAID controller.

The server will be configured as if it was going to be used as a File and Print server for hosting our Profits accounting software at a typical small business.

Setting up the Hardware

The first step after unboxing the server is to configure the system BIOS using the BIOS setup utility. You access the utility by pressing F9 when the system is booting. Once you are in the setup utility perform the following steps:

- 1) System
 - Serial Ports – Disable All Ports
 - LPT Ports – Disable All Ports
 - NumLock – On
 - NIC's – Disable PXE
 - Power Regulator – HP Dynamic Power Saving Mode
- 2) Boot Controller Order
 - 82801GR SATA RAID Controller (Intel)
 - 82801GR SATA Controller #2
- 3) Server Availability
 - Thermal Shut Down – Enabled
 - Wake On Lan – Disabled
 - POST F1 Prompt- Disabled
 - Auto Power On – Enabled
- 4) Server Asset Text
 - Custom POST message – Contact PCS @ 770-569-2900
- 5) Advanced Options
 - Virtual Disk – Enabled (Needed to run SmartStart CD)
 - Embedded SATA RAID – Enabled
- 6) StandardBoot Order
 - CDROM
 - HD

USB (Must be below HD or RAID will not boot correctly)
Diskette

Save the changes using F10 and reboot the system. When the system begins to reboot watch the screen and press F8 when you see a message about the RAID controller configuration. Once you are in the controller setup screen perform the following steps:

- 1) Select Array Configuration Utility, then Create Array
 - a) Press INSERT on each of the two displayed drives
This will add the drives to the array.
 - b) Press ENTER
 - c) Select RAID 1 Mirror, Press ENTER
 - d) Name the array, i.e Main – Mirrored
 - e) Select QuickInit (Build takes hours while it checks the drives)
 - f) Select Done
 - g) Select “00” (First Drive) for the source
 - h) Select YES

Your array will be created on the hardware level. Windows will be installed on the array and will have no idea that it is running on a Mirrored system.

O/S Installation (2008 Foundation Server 64bit)

The current version of the Windows Server DVD and the HP SmartStart disk (v8.40) do not contain the correct RAID Drivers . This prevents us from using the HP SmartStart disk for installing the O/S. So we first need to get the correct driver.

The driver we need contains both the 32 and 64bit versions. The 32bit version is needed to access the array during the initial install. The 64bit version is needed to boot to the newly installed O/S. The driver you need is called cp013131.exe. It was located at <http://h20000.www2.hp.com/bizsupport/TechSupport/SoftwareDescription.jsp?lang=en&cc=dk&prodTypeId=15351&prodSeriesId=3577708&prodNameId=3577715&swEnvOID=4024&swLang=8&mode=2&taskId=135&swItem=MTX-1f2b48ef26ed4136ba2ccca720> or it can be found on our website at www.PCSInfo.com/drivers/hp/raid/ml310g5/32-64bit. Once you have this driver copy it to a USB thumb drive. You will need this during the installation of the O/S.

Insert the thumb drive in the USB port and the Windows O/S disk in the drive. Now turn on the ML310 and boot from the DVD.

Once at the Windows installation screen select INSTALL NOW and then Customer Install. Down near the bottom of the screen is an option to “Load Driver”. Click this link and browse to your thumb drive and select the AARAHCI.INF file.

You should then be prompted for “Where do you want to install Windows”. If the driver loaded correctly you should see your RAID Array displayed as a single drive of 232.5GB. Now select “Drive Options” to create a partition for the O/S. I chose to create one of 75GB for the O/S leaving the rest for a DATA partition. After creating the new partition, select it and then format it as an NTFS partition.

If you see an error about Windows could not find a boot Partition, make sure that the BIOS boot order has the USB key BELOW the HD option.

Now Continue with the standard installation screens.