
**Hewlett-Packard
Network Server Division
HP NetServer E 60
Frequently Asked Questions**

HP NetServer E 60 Frequently Asked Questions

- Q1.** Which Processors are supported in the NetServer E 60
- A1.** The NetServer E 60 supports Intel Pentium II 400 MHz, P II 450 MHz, P III 500 MHz and PIII 550 MHz processors.
-
- Q2.** What is new on the front panel of the NetServer E 60?
- A2.**
- The Power ON/Off/Sleep button*
The power button acts as both a button for transitioning the system between the off and on states, and a button for transitioning the system between the on and sleep state (NOTE: The term "sleep" refers to a low latency, reduced power consumption, wake up state. When the system detects activity it becomes fully functional).
 - On/Off/Sleep LED*
This green LED indicator remains steady on when the system is running, and off when the system is off. This indicator blinks once per second in sleep mode.
 - Drive Activity LED*
This yellow LED indicator flashes during SCSI or IDE disk drive activity.
-
- Q3.** What are the available ports and connectors on the rear of the NetServer E 60
- A3.**
- One RJ-45 LAN connector and two LEDs to indicated LAN speed and link
 - Serial Port A
 - Serial Port B
 - Parallel Port (ECP/EPP)
 - Mouse Port
 - Keyboard Port
 - Monitor Port (SVGA)
 - Power Connector
 - External SCSI Port Knockout (requires external SCSI port cable kit D8214A)
-
- Q4.** What IDE devices come bundled in the NetServer E 60?
- A4.** The NetServer E 60 comes bundled with a 32x IDE CD-ROM drive. IDE hard drives are not supported on E 60.
-
- Q5.** How many channels are on the IDE controller?
- Q5.** The Enhanced IDE controller in the NetServer E 60 has two channels. A primary and a secondary channel. The CD-ROM drive is connected by default to the primary channel. (NOTE: IDE hard disk drives are not supported).
-

Q6. What is the maximum number of internal disk drives support in the NetServer E 60?

A6. The self-terminating SCSI cable has five 68-pin high-density connectors. The internal mass storage cage can hold up to four Ultra Wide SCSI hard disk drive devices. In some models T20Xi tape is installed in the lowest 5 ¼ front accessible shelf.

One 68-pin connector connects to the factory installed hard disk and one 68-pin connector with 68 to 50 pin adapter connects to an optional tape drive. All systems are shipped with a 68 to 50 pin adapter pre installed on the SCSI cable.

Q7. What type of SCSI controller is embedded on the system board of the NetServer E 60?

A7. The NetServer E 60 has an embedded dual-channel Ultra Wide PCI SCSI controller(AIC-7895). Channel A is used for cabling the factory installed hard disk drive and up to three additional SCSI drives (including an optional tape drive). Channel B may be used in a duplexing arrangement or to accommodate an external mass storage solution (either require an additional cable kit—[D8212A](#) or [D8214A](#) and [D9153A](#))

Q8. What is the boot priority for bootable devices in the NetServer E 60?

- A8.**
1. IDE CDROM Drive
 2. Floppy Disk Drive
 3. Embedded SCSI A
 4. Embedded SCSI B
 5. PCI 2
 6. PCI 1
 7. PCI 6
 8. PCI 3
 9. PCI 4
 10. PCI 5

On each controller, the server scans for a boot device starting at device ID 0 and works up the ID numbers. The system's embedded controller is always SCSI ID 7. The optional bundled tape drive is SCSI address ID 4. All accessory hard drives are set to SCSI ID 3 and should be changed to unique address as new SCSI devices are added.

Q9. What is the kind of memory is used in the E 60? What is the maximum memory configuration in the E 60?

A9. The E 60 uses Unbuffered ECC memory; 72 bits wide, 168-pin PC 100Mhz SDRAM HP DIMMs. E 60 has 4 DIMM slots. The E 60 ships with HP 64MB (D7155A) and also supports 128MB (D7156A) and 256MB (D7157A). The maximum memory configuration is 1 GB. (4 x D7157A)

Q10. Describe the internal mass storage configuration options?

A10.

Interface	Max number of devices supported	Installed devices and addresses
Floppy	1	Factory installed floppy drive in slot 1 (top shelf)
IDE	2*	Factory installed CD-ROM drive in shelf 2 (Primary)
UW SCSI Channel A	Up to 5**	<input type="checkbox"/> Optional Tape Drive in shelf 3 (address=ID4) <input type="checkbox"/> Factory installed Hard Disk in shelf 4 (address=ID0) <input type="checkbox"/> Embedded SCSI controller (address=ID 7)
UW SCSI Channel B	Up to 7**	Embedded SCSI controller (address=ID 7)

*The primary connector is cabled to the factory-installed CD-ROM drive. Please note IDE hard disk drives are not supported.

**Both SCSI channels (A and B) can support up to 7 devices, however there are only enough internal storage shelves for 5 devices. Channel B is typically used to install external SCSI devices. If you decide to duplex internal drives using Channel B, you are restricted to available internal drives.

Q11. What utility is used to configure the embedded SCSI controller configuration?

A11. SCSI Select is the SCSI configuration utility. SCSI select is used for configuring embedded SCSI controllers and devices connected to the SCSI controllers. Features provided using this utility include the option of reassigning the designation of channel A and B, verify or modify SCSI host adapter settings, to low-level format SCSI disks, or verify SCSI media.

To invoke SCSI Select, during the system boot process press *Ctrl+A* when prompted.

Q12. Are High Voltage Differential (HVD) devices supported in the NetServer E 60?

A12. High Voltage Differential SCSI devices are not supported on the embedded SCSI bus. The devices will be damaged if connected to the embedded SCSI bus.

Q13. What optional SCSI kits are available for the NetServer E 60?

- A13.**
- ❑ HP NetServer E 60 SCSI Duplexing Cable kit P/N D8212A/D9153A
Use to mirror drives internally on two different SCSI channels in case one channel goes down. This requires a minimum of two hard disk drives and the Duplexing Cable Kit. D9153A cable kit can be used with NetRAID 1Si or for duplexing.
 - ❑ HP NetServer E 60 External SCSI Cable kit P/N D8214A
The NetServer E 60 can be configured to extend one of its SCSI channels (typically channel B) to an external connector. This allows you to connect additional external mass storage devices to the second channel of the system's embedded SCSI controller. This requires the External SCSI Cable Kit.
-

Q14. Does the NetServer E 60 share interrupts?

A14. Because hardware interrupts are limited, the system allows IRQ sharing. This means that two similar devices, like embedded NICs and D5013A(in PCI slot #4), may share the same interrupt. Using this scheme the system is capable of supporting more accessory devices and avoid internal conflicts; however, interrupt sharing results in a small performance loss as the operating system has to resolve which of the devices caused the interrupt before it responds.

Q15. How are IRQs shared in the NetServer E 60?

A15. The IRQ shared devices and slots are as follows:

IRQ Shared Devices and Slots
Slot 1 and Slot 5
Slot 2 and Slot 6
Embedded SCSI and slot 3
Embedded LAN and slot 4

NOTE: The AGP video board shipped with NetServer E 60 has the interrupt jumper disabled. *The jumper on AGP card disables use on interrupt.* The performance of some video intensive operations, such as 3D rendering, can be improved by enabling (removing) this jumper on the video board. You should also be aware (if jumper removed) that the AGP slot on the system board share an interrupt with slot 1 and slot 5.

Q16. What is the slot architecture for the PCI Bus in the NetServer E 60?

A16. It supports six PCI accessory slots in the system, the NetServer E 60 has a Primary and Secondary PCI Bus. HP recommends that you place high performance cards on the Primary bus before populating the Secondary PCI bus.

PCI Slots	PCI Bus
Slots 1 and 2	Primary PCI Bus
Slots 3 through 6	Secondary PCI Bus

Q17. What is the PCI slot initialization order?

A17. During system boot, the PCI slots are initialized in the following order:

- PCI slot 2
- PCI slot 1
- PCI slot 6
- PCI slot 3
- PCI slot 4
- PCI slot 5

Please note that ONLY two bootable plug in SCSI controllers or NetRAID 1Si/NetRAID 3Si are supported.

Q18. Which Disk Array Controller (NetRAID) card supported in the NetServer E 60?

Q18. HP recommends ONLY using the NetRAID 3Si (D5595A) and NetRAID 1Si (D2140A) PCI board in the NetServer E 60. The NetRAID 3Si may be installed in PCI slots 4, 5, or 6 and slot 5 is recommended. NetRAID 1Si may be installed in slots 1 or 2. Other NetRAID (NetRAID D4943A and NetRAID 1 D4992A) controllers will NOT work in E 60.

Q19. What are the supported video display modes?

Resolution	Max Refresh Rate @ 256 Colors	Max Refresh Rate @ 65K Colors	Max Refresh Rate @ 16.7M Colors
640x480	200Hz	200Hz	200Hz
800x600	200Hz	200Hz	160Hz
1024x768	150Hz	150Hz	120Hz
1152x864	120Hz	120Hz	85Hz
1280x1024	100Hz	100Hz	85Hz
1600x1200	76Hz	76Hz	Not Available

Note: Standard Windows NT 4.0 does not support AGP video card. Service pack 3 or higher must be applied before changing from the default (640x480) video resolution.

Q20. What are the supported Network Operating Systems (NOS) on E 60?

A20. The E 60 supports Novell NetWare 4.2, 5, NWSB 4.2, Microsoft Windows NT 3.51, 4.0, SBS SCO OpenServer 5.05 and Redhat LINUX 5.2. OS/2 big deals only.

The automated NOS install using the HP NetServer Navigator CD is supported on Novell NetWare 4.2, 5, Microsoft Windows NT 4.0 and SBS.

Q21. What is the recommended way of installing Windows NT SBS?

A21. The recommended way of installing Windows NT SBS is to use the automated install option of the Installation Assistant on Navigator CD.

Q22. Will old D5013A Network Interface Card (NIC) drivers work on embedded E 60 NIC?

A22. No. The embedded NIC on E 60 requires drivers from the Navigator CD E.10.00 or later. A plug in D5013A NIC can be added for AFT

Q23. Does pcAnywhere auto install when installing Microsoft Windows NT using Installation Assistant NT on the HP NetServer Navigator CD1?

A23. The pcAnywhere 8.01 is NOT auto installed with Installation Assistant. Before manually installing pcAnywhere, Windows NT Service pack 3 or higher must be applied.