



NOVELL OPEN ENTERPRISE SERVER (NETWARE 6.5 KERNEL)

HARDWARE RECOMMENDATIONS

OVERVIEW

Novell Open Enterprise Server (NetWare 6.5 Kernel) includes numerous services, applications, and functions that did not exist in prior versions of NetWare. While Novell does publish a "Minimum Hardware Requirements" list, Marvin Huffaker Consulting has found that in most cases, the bare minimum system components are not adequate to achieve the performance, stability, and service levels required by most businesses today.

If you are serious about running your business, you should be serious about your Data Center and the systems in it. Spending a little extra money up front for quality hardware can potentially save tens or hundreds of thousands of dollars in downtime and support costs over the life of a server.

RISKS OF USING ANTIQUATED OR INADEQUATE HARDWARE:

- X Slower performance than acceptable (Older NetWare versions may have performed adequately, but newer versions do not perform at the same level on the same antiquated hardware)
- X Degraded service levels and instability due to OS and applications not having adequate resources to perform routine tasks.
- X More prone to Hardware failure due to the expected Mean Time Between Failure (MTBF) and other factors.
- X Vendor support has generally expired on older hardware, which results in longer outages, more difficult troubleshooting, and higher support costs.
- X Hardware driver compatibility due to limited vendor support.
- X Installation, Configuration, Upgrades and Migrations may take much longer to complete. This results in higher project costs.

MARVIN HUFFAKER CONSULTING, INC. OFFICIAL SUPPORT STATEMENT

We require that any Open Enterprise Server (NetWare 6.5 Kernel) installation we perform is done on a system that meets or exceeds OUR minimum recommended hardware requirements.

We may, at our own discretion, provide services, support, or installation on server hardware that falls below our recommended guidelines. However, the client will release Marvin Huffaker Consulting, Inc. from any liability resulting from problems or delays which may occur. This could include longer project time lines and higher project costs.

ABOUT MARVIN HUFFAKER CONSULTING, INC.

Marvin Huffaker Consulting, Inc. is a professional services firm specializing in enterprise level network and security based solutions. We have a reputation for quality, expertise, service, and the ability to get things done. We have clients across the United States and can provide projects and support nearly anywhere in the world. We can be reached at 480-988-7215 or 1-888-690-0013 (US Only) or at our website at <http://www.redjuju.com>.



MINIMUM HARDWARE REQUIREMENTS FOR NETWARE 6.5 INSTALLATIONS / MIGRATIONS

We recommend the following minimum hardware specifications for any new Novell Open Enterprise Server (NetWare 6.5 Kernel) installation or migration:

- ✓ A server-class system manufactured by a major manufacturer with a vendor endorsement for Novell NetWare support. For example, DELL, IBM, or HP. **We do NOT recommend custom built servers or servers that are converted from Workstation class systems.**
- ✓ Intel XEON 1000MHz or higher processor.
- ✓ 2 GB of RAM (4GB if running GroupWise, ZENworks, or other memory intensive applications).
- ✓ SCSI RAID Storage Adapter capable of at least RAID 1 and RAID 5 configurations.
- ✓ Multiple SCSI Hard Disks configured in a redundant hardware Based RAID 1 or RAID 5 configuration.
- ✓ A Super VGA display adapter (capable of 1024x768 Resolution).
- ✓ One Network Adapter capable of 100/1000 speeds.
- ✓ A bootable CD drive that supports the El Torito specification. (Most IDE CDROM Drives work)
- ✓ A USB or PS/2 mouse.
- ✓ Minimum of 8GB storage allocated for the boot up partition and SYS: Volumes.

ADDITIONAL SERVER RECOMMENDATIONS

The following additional features are recommended, although not specifically required. These options will improve the performance and reduce potential downtime:

- ✓ Dual Processors.
- ✓ Hot Swappable SCSI Hard Drives.
- ✓ Redundant Power Supplies and Cooling Fans.
- ✓ 4GB Minimum for any servers running heavy applications. This could include eGuide, Virtual Office, iManager, GroupWise, ZENworks, Media Server (backup software), etc.
- ✓ Enough additional storage space to accommodate current storage capacity requirements as well as 3+ years storage growth.

MINIMUM HARDWARE REQUIREMENTS FOR 'IN-PLACE' NETWARE 6.5 UPGRADES

In-Place upgrades from NetWare 3.x, 4.x, or 5.x are not recommended. These older NetWare versions use Traditional volume structures. NetWare 6.5 uses NSS volume structures. When doing an inplace upgrade, the traditional volumes remain intact and are not converted to NSS. It's better to do a clean NetWare 6.5 installation to gain the benefits of the NSS file system.

If you do wish to do an inplace upgrade, we only recommend this strategy if the hardware meets the minimum recommendations as listed above. The following exceptions may be made on a case by case basis due to configuration limitations that may be in place on your existing server:

- ✓ Same basic hardware requirements as NetWare 6.5 Install listed above.
- ✓ Minimum 500MB DOS Boot Partition
- ✓ Minimum 4GB SYS: Volume with at least 50% free space.



FURTHER CLARIFICATION AND ANSWERS TO QUESTIONS YOU MAY HAVE

While it is possible to run an Open Enterprise Server on substandard hardware, please note the following:

- X** We do not recommend using SATA RAID or IDE RAID storage configurations.
- X** We do not recommend using SATA or IDE hard drives in any configuration.
- X** We do not recommend using single hard drive systems, or any drive configuration that is not using hardware based RAID redundancy.
- X** We do not recommend using servers with non-Intel based processors.