



Apple Workgroup Server 95

Features

High performance

- Leading AppleShare file server performance
- Tuned for relational database performance
- Enhanced with SCSI DMA, asynchronous I/O, and a large external cache

Expansion

- 16MB of RAM, expandable to 256MB
- Four SCSI channels (two SCSI DMA)
- Up to 20 SCSI devices
- Room for six internal SCSI drives
- Four usable NuBus expansion slots
- Up to 5,000 open files when running AppleShare Pro, compared with 346 open files with other AppleShare systems

Usability

- Preinstalled operating system, file/print services, backup, and networking software
- Pretuned and configured for file/print or relational database services
- Easy server administration with Macintosh System 7 user interface
- Full-function, graphical backup utility

System software

- Tuned version of A/UX, a standard UNIX operating system with Macintosh System 7 features
- Preinstalled TCP/IP and NFS software

Networking

- Full support for AppleTalk and TCP/IP networking protocols
- Built-in Ethernet and LocalTalk support

The Workgroup Server 95 provides file/print, database, information retrieval, and other server-based solutions with the performance, scalability, and manageability needed by large or data-intensive workgroups. The most powerful and expandable of Apple's server family, this system is based on the 33-megahertz Motorola 68040 microprocessor and offers high-performance features such as SCSI DMA support, a large second-level 68040 memory cache, and parity memory. The server is driven by a highly tuned version of A/UX software, Apple's implementation of the multitasking UNIX operating system. And when the Workgroup Server 95 operates with AppleShare Pro, up to 200 users can simultaneously connect to the server.

You can quickly and flexibly expand the server by adding SCSI devices, increasing DRAM, and increasing the second-level memory cache. The server is easy to manage and maintain; every system ships with Retrospect A/UX, a powerful yet easy-to-use utility that allows you to automatically back up data on

the optional DAT tape drive (included in the configuration pictured above). An easy-to-use documentation viewer provides convenient, quick reference to on-line documentation.

Apple servers continue the "plug and play" tradition established by the Macintosh. Because it's a snap to install, maintain, reconfigure, and expand, the Workgroup Server 95 offers the lowest long-term cost of ownership in its class.* To provide file/print, database, information retrieval, or other server-based solutions for demanding desktop publishing, imaging, business administration, or document-management applications, build your networks around the Workgroup Server 95.

*Based on a report by Business Research Group, Newton, MA





Apple Workgroup Server 95

Technical Specifications

- Microprocessor**
- Motorola 68040, 32-bit architecture, running at a clock speed of 33 MHz
 - Integral Paged Memory Management Unit (PMMU), floating-point unit (FPU), and 8K internal cache

- Memory**
- Entry system comes with 16MB of parity RAM
 - 16 Single In-line Memory Module (SIMM) sockets, allowing expansion to 256MB with 16MB SIMMS. Must replace all 4MB SIMMS with 16MB SIMMS to reach 256MB.
 - Noncomposite memory SIMMS are required
 - 128K second-level 68040 memory cache on board, expandable to 512K

- Mass storage devices**
- Built-in Apple SuperDrive 1.4MB floppy disk drive
 - Accommodates five 3.5" half-height SCSI hard drives for a total of 10GB of internal storage and one CD-ROM or DDS-DC 4mm tape drive
 - DDS-DC 4mm tape drive uses the Media Recognition System (MRS) and can back up 4GB to 6GB of compressed data (dependent on data being compressed) on 90-meter tapes

- System software**
- A/UX software, Apple's version of the multitasking, industry-standard UNIX operating system
 - Performance-tuned for file/print and database services (including asynchronous I/O and SCSI DMA driver support)
 - AppleTalk and TCP/NFS software preinstalled for convenient setup

- Interfaces**
- One Apple Desktop Bus (ADB) port supporting a keyboard, mouse, and other devices daisy-chained through a synchronous serial bus
 - Two serial (RS-232/RS-422) ports, 230.4 Kbit/s maximum (up to 0.920 Mbit/s if clocked externally)
 - Two SCSI DMA channels, four SCSI bus interfaces total
 - All SCSI channels support disconnect/reconnect SCSI feature
 - The two SCSI DMA channels support active termination and active negation
 - Four usable NuBus expansion slots (the fifth slot is occupied by the PDS card)
 - AAUI Ethernet connector

- Video display**
- Can support up to 2MB of VRAM
 - 1MB of VRAM standard
 - Supports all Apple monitors
 - Works with a wide range of third-party monitors including some 19-in. VGA, SVGA, NTSC, and PAL monitors

- Keyboard and mouse**
- Supports Apple Desktop Bus (ADB) keyboards
 - Apple Desktop Bus Mouse II
 - Custom chip with long-life lithium battery
 - Clock/calendar

- Electrical requirements**
- Line voltage: 100 to 240 Volts AC, RMS automatically configured
 - Frequency: 50 to 60 Hz, single phase
 - Power: 303 W maximum, not including display power

- ADB power requirements**
- Maximum current draw for all ADB devices: 500 mA (three ADB devices maximum recommended)
 - Mouse draws 80 mA
 - Keyboard draws 25 to 80 mA, depending on the keyboard model used

Performance benchmarks

Database Benchmark ¹	
With ORACLE7 for A/UX 3.0.2	
Transactions per second	63.3 TPC-B
Price/performance	\$586 per transaction
AIM Multiuser Benchmark ²	
With A/UX 3.1	
AIM score	23.4
Jobs per minute	228.9
Maximum user load	206

Notes:
¹ Database benchmark results were generated by the Transaction Processing Council.
² AIM multiuser benchmark results were generated by AIM Technology.

- Size and weight**
- Main unit
- Height: 18.6 in. (47.3 cm)
 - Width: 8.9 in. (22.4 cm)
 - Depth: 20.6 in. (52.3 cm)
 - Weight: 36 lb. 12 oz. (16.7 kg)*

- Mouse
- Height: 1.3 in. (3.3 cm)
 - Width: 2.4 in. (6.2 cm)
 - Depth: 4.2 in. (10.7 cm)
 - Weight: 4.0 oz. (0.10 kg)

*Weight will be greater with internal hard disks and additional internal storage devices.

- Operating environment**
- Operating temperature for a configuration with five 2GB hard drives: 50° to 95° F (10° to 35° C)
 - Operating temperature for all other environments: 50° to 104° F (10° to 40° C)
 - Storage temperature: -40° to 116.6° F (-40° to 47° C)
 - Relative humidity: 20% to 80% noncondensing
 - Maximum altitude: 10,000 ft. (3,048 m)



Apple Workgroup Server 95

Ordering Information

Configurations	Order Number	
	M3074LL/A	M3075LL/A
Memory (RAM)	32MB	48MB
Second-level memory cache	256K	512K
Hard disk(s)	2GB	250MB, 2GB
DDS-DC 4mm tape drive	Included	Included
A/UX pretuned and preinstalled to run	File/print or application services	Relational database services
AppleShare Pro file/print software	Included	Not included

Keyboard, display, and appropriate Ethernet transceiver sold separately. A CD-ROM drive (such as the AppleCD SC, AppleCD SC Plus, AppleCD 150, or AppleCD 300 drive) is required for re-installation of A/UX system software or installation of applications such as AppleShare Pro or AppleSearch.

Service and Support

- 24-hour telephone support
- 1-year hardware warranty with on-site repair
- Additional on-site service options

All configurations include these items:

- Mouse
- 1.4MB Apple SuperDrive
- A/UX system software installer CD-ROM for one-button installation of file/print environment and relational database environment
- Retrospect A/UX backup software pre-loaded on the hard drive
- Apple Documentation Viewer on-line documentation
- Complete set of hard-copy documentation
- Limited warranty
- Bracket and SCSI cable necessary to support five internal hard drives

Upgrade Kits and Accessory Kits

AppleShare Pro

Order No. M6825Z/B

- File and print software for Workgroup Server 95

Workgroup Server PDS Card Upgrade Kit*

Order No. M6940Z/A

- Processor-direct slot card for the Macintosh Quadra 900 or 950 (128K second-level memory cache built in)
- A/UX system software installer CD-ROM (installation of system software, Retrospect A/UX backup software, and Apple Documentation Viewer)
- A/UX CD-ROM for file/print environment and A/UX CD-ROM for database environment
- Complete documentation
- Limited warranty
- CPU labels

* These kits upgrade a Macintosh Quadra 900 or 950 to a Workgroup Server 95. A CD-ROM drive is required to install system software.

Workgroup Server PDS Card/DDS-DC Tape Drive Upgrade Kit*

Order No. M6945Z/A

- Processor-direct slot card for the Macintosh Quadra 900 or 950 (128K second-level cache built in)
- Internal DDS-DC 4mm tape backup drive
- All other features included with the Workgroup Server PDS Card Upgrade Kit for the Macintosh Quadra 900 or 950

Workgroup Server 95—16MB Parity DRAM Upgrade Kit

Order No. M6820Z/A

Adds 16MB of parity DRAM to the Workgroup Server 95

Workgroup Server 95—128KB/Tag Second-Level Memory Cache Upgrade Kit

Order No. M6810Z/A

Adds 128KB and Tag second-level 68040 memory cache to the PDS card for a total of 256KB of second-level memory cache

Workgroup Server 95—256KB Second-Level Memory Cache Upgrade Kit

Order No. M6815Z/A

Adds 256KB of second-level 68040 memory cache to the PDS card for a total of 512KB of second-level memory cache (requires installation of 128KB/Tag Kit)

Blank DDS Tape 5 Pak

Order No. M2092Z/A

Blank DDS tape for use with internal DDS-DC drive (tape uses the Media Recognition System [MRS] standard)

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