Mac OS X Server

Industrial-strength server with Macintosh ease of use.

Key Features

Unprecedented stability and performance

- UNIX-based operating system forms industrial-strength foundation
- Protected memory and advanced memory management increase system stability
- Preemptive multitasking boosts system performance and responsiveness
- Symmetric multiprocessing takes advantage of dual processor systems
- Industry-standard BSD networking provides seamless network integration
- Modern operating system design supports the latest in advanced security standards
- Fault tolerance systems provide greater server reliability
- Software RAID support enables disk striping and mirroring

Comprehensive services

- IP-based file sharing and print services for Macintosh, Windows, UNIX, and Linux clients
- Internet, web, and mail services, including Apache with WebDAV, WebObjects 5 deployment software, and QuickTime Streaming Server
- Standards-based networking services, including IP filtering, DHCP, DNS, and SLP
- Workgroup management services, including NetBoot and Macintosh Manager 2
- Directory services integration with NetInfo and LDAP directories

Ease of use and administration

- Simple installation and setup to help get you up and running in minutes
- Easy transition from AppleShare IP or Mac OS X Server 1.2
- Secure remote administration from anywhere on the Internet
- Integrated services management with simple, intuitive user interface

Mac OS X Server is Apple's next-generation server platform, combining the ease of use of AppleShare IP with the power and innovation of Mac OS X. It provides comprehensive services for Internet and web serving, file and printer sharing, networking, and workgroup management. And the stunning new Aqua user interface makes setup and management of network services intuitive for new users, while providing the advanced features webmasters and network administrators require.

Beneath the easy-to-use Aqua interface, Mac OS X Server is a modern, industrial-strength server platform designed for superior performance, reliability, security, and scalability. The UNIX-based operating system—called Darwin—delivers powerful features, including protected memory, preemptive multitasking, symmetric multiprocessing, advanced memory management, and the latest in security standards. To maximize server uptime, Mac OS X Server includes fault tolerance systems that continuously monitor server activity, restart malfunctioning services, and even automatically restart the server after a power failure.

Highly scalable IP-based file sharing services in Mac OS X Server enable Macintosh, Windows, UNIX, and Linux clients to access file servers seamlessly from anywhere on the Internet. Mac OS X Server also offers versatile print sharing services for PostScript-compatible printers.

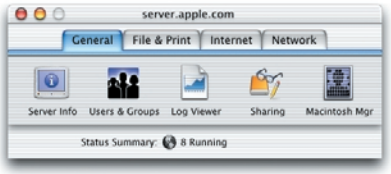
Powerful Internet and web services are built right into Mac OS X Server. Apache—the world's most popular web server—provides reliable, high-performance delivery of static and dynamically generated web content. Integrated into Apache is WebDAV, bringing drag-and-drop simplicity to web publishing and content management. The addition of Secure Sockets Layer (SSL) support enables secure encryption and authentication for e-commerce websites. And for dynamic interactive websites, Mac OS X Server offers support for Java Servlets, JavaServer Pages, MySQL, PHP, Perl, and UNIX and Mac CGI scripts. WebObjects provides the most flexible and scalable way to deploy network applications. An easy-to-use mail server supports standard Internet mail clients. And QuickTime Streaming Server lets you easily and affordably stream both live and stored multimedia content on the Internet using industry-standard protocols.

Robust network services in Mac OS X Server allow you to protect network resources from intruders with an IP firewall system, dynamically assign IP addresses with DHCP, locate Internet resources utilizing DNS, and organize IP-based workgroups with SLP. Workgroup management services enable the administration of both user accounts and workstations through such popular Apple-designed solutions as NetBoot and Macintosh Manager. Integrated directory services with support for NetInfo and LDAP let you share user accounts between servers, simplifying network administration and offering superior scalability.

Mac OS X Server. The easiest way to set up and manage powerful network services.

UNIX-based network services
Mac OS X Server provides industry-standard UNIX-based network services. It incorporates the time-tested BSD networking stack—the backbone of most TCP/IP implementations on the Internet today—along with support for multilink multihoming and secondary IP addresses.

UNIX and Linux users will appreciate the flexibility of the Darwin core operating system. Its BSD heritage provides a full BSD command set accessible from a command line terminal interface, and its support for POSIX APIs makes it easy to port existing UNIX applications and services to Mac OS X Server.



Aqua user interface
Mac OS X Server features Aqua, a simple and intuitive new user interface. Shown here is the Server Admin application, which integrates key services in a single window to simplify administration of network-based computers, user accounts, and access privileges.

Industrial-strength server platform

At the foundation of Mac OS X Server lies a UNIX-based core operating system, called Darwin, that is built from the ground up for superior stability and performance. Based on the Mach 3.0 kernel and BSD (Berkeley Standard Distribution) tools and networking protocols, Darwin evolved from a collaborative effort by Apple engineers and programmers in the open source software community. Together, we've created a robust, stable, and scalable operating system based on open standards and the latest in networking technologies. For superior reliability, we added a series of fault tolerance systems that automatically detect and correct failures in essential system services—maximizing your server uptime. And because data security and the prevention of unauthorized file access are critical concerns for server administrators, Mac OS X Server features a modern, secure operating system design and the latest in advanced security standards.

Protected memory

Isolates applications in their own memory space, so they can't interfere with each other if one crashes.

- If a service crashes, Mac OS X Server shuts it down without affecting other processes, so other services continue to run without interruption and without restarting your computer.

Preemptive multitasking

Prioritizes tasks depending on their importance and ensures that each task receives the resources it needs.

- Gives priority to primary demands, while still crunching away at other jobs in the background, so your server can be running multiple services at the same time.
- Your server continues to be responsive when performing processor-intensive tasks. For example, even when the web server sustains a heavy amount of traffic, the mail server is still able to accept and process requests.

Advanced memory management

Automatically and precisely allocates the amount of memory needed by an application or a service.

- Eliminates out-of-memory conditions and the need to manually adjust memory allocations.

Symmetric multiprocessing

Provides built-in support for dual processor Power Mac G4 and Macintosh Server G4 computers.

- Mac OS X Server automatically takes advantage of both processors in dual processor systems, so two complex operations can be handled simultaneously by different processors, allowing the server to do almost twice as much in the same amount of time.
- Multithreaded applications can allocate tasks to both processors, so a single processor-intensive operation can run almost twice as fast using Mac OS X Server on a dual processor Macintosh Server G4 or Power Mac G4.

Fault tolerance systems

Monitors Mac OS X Server processes continuously to maximize server uptime.

- Automatically restarts malfunctioning services.
- Detects and recovers from system failures on Macintosh Server G4 and Power Mac G4 systems.*
- Automatically restarts the computer after a power failure.

Latest security standards

Modern, secure operating system design supports the latest in data and protocol security.

- Multiple-user architecture and user-level access privileges provide security for server data and processes.
- Integrated Secure Sockets Layer (SSL) support provides encrypted and authenticated client/server communications.
- Secure Shell (SSH) provides encryption and authentication for secure remote administration.

Java 2

Supports Java 2 Standard Edition for hosting versatile browser-based applications.

- Integrates the Java runtime code with the native object model and threads for impressive performance and stability.
- Allows deployment of server-side web applications.

* Automatic hardware restart requires a Macintosh Server G4 or Power Mac G4 released in February 2000 or later.

Mac OS X Server in K–12 schools
Upgrading to Mac OS X Server allows K–12 schools to maintain support for Mac OS 8 and Mac OS 9 clients, while giving them the benefits of a powerful, super-modern server platform.

Building on Apple's most popular network services, such as Apple file services, NetBoot, and Macintosh Manager, Mac OS X Server provides exciting new features for education, while the industrial-strength core operating system delivers a dramatic boost in performance and reliability.

Mac OS X Server was designed to be incredibly easy to use, so that a teacher without server experience can set up a classroom or a school with file, print, web, mail, and other network services.

Macintosh Manager 2
Macintosh Manager allows you to store home directories on the server so that individual users can log in and access their own files from any computer on the network. Mac OS X Server includes some practical new services for Macintosh Manager, such as a new "backpack" checkout feature that enables students to take a portable computer and work assignments home with them.

QuickTime Streaming Server
QuickTime Streaming Server is built into Mac OS X Server, allowing schools and departments to easily and affordably stream high-quality video and audio content across campus—or around the world—for web-based learning.

A comprehensive suite of powerful services

Mac OS X Server delivers a powerful set of standards-based Internet and networking services. It provides a superior architecture for connecting users to each other—through email, file sharing, or general networking—and for delivering content—in the form of a printed page, a website, a real-time media broadcast, or any other form of digital media. And by integrating services into an easy-to-use interface, Mac OS X Server simplifies administration of network-based computers, user accounts, and access privileges. This comprehensive suite of services makes Mac OS X Server the perfect solution for teachers, media designers, network administrators, and professional webmasters.

File and print services

Support for Apple File Protocol (AFP), Server Message Block (SMB), Common Internet File System (CIFS), Network File System (NFS), and File Transfer Protocol (FTP)	• Enables Macintosh, Windows, UNIX, and Linux clients to access files seamlessly. • Provides fast TCP/IP file sharing with Macintosh clients using Apple File Protocol 3.0. • Enables native file sharing with Windows clients using SMB/CIFS (Samba). • Allows sharing with UNIX and Linux clients through Network File System (NFS). • Supports Internet-standard File Transfer Protocol (FTP) services. • Provides PostScript-compatible printer sharing for a wide variety of Macintosh, Windows, and UNIX clients through LPR and SMB/CIFS.

Internet and web services

Apache web server	• Provides reliable, high-performance delivery of static and dynamically generated web content. • Allows hosting of multiple websites on a single server. • Supports the emerging WebDAV standard for drag-and-drop publishing and file sharing; WebDAV also integrates with Mac OS X for desktop computers. • Includes high-performance front-end cache to accelerate serving of static web content. • Supports server-side includes (SSIs), allowing you to create dynamic web pages without having to write CGI scripts. • Supports SSL for secure connections. • Includes caching web proxy system to accelerate workgroup web access and to improve security. • Hosts dynamic content and automated solutions with Perl, UNIX scripts, AppleScript, and other Apple event–based CGIs. • Enables you to deploy web solutions and middleware applications using PHP and MySQL. • Allows you to use Java Servlets to deploy platform-independent middleware solutions. • Lets you generate platform-independent web content using JavaServer Pages (JSP).
QuickTime Streaming Server	• Uses industry-standard RTP/RTSP protocols for real-time streaming of digital media over the Internet. • When paired with broadcaster software, lets you webcast live events. • Can serve more than 2000 low-bit-rate streams simultaneously from one server. • Includes patented Skip Protection technology that works with QuickTime 5 to prevent viewers from experiencing interruptions, or "skips." • Provides power and flexibility with no per-stream license fees (no "server tax"). • Provides a web-based administration interface for easy local or remote server administration. • Includes Playlist Broadcaster for creating simulated live streams or a 24/7 Internet radio station.

Mac OS X Server in higher education
Mac OS X Server is the perfect solution for higher education departments that want an easy-to-set-up, easy-to-administer, and highly reliable file, print, web, and network server. Built on the rock-solid foundation of the Mach kernel, Mac OS X Server is an enterprise server operating system built to provide maximum performance, stability, and interoperability in academic departments and IT applications.

Apache, the industry standard in web serving, is built into Mac OS X Server and designed to support WebDAV, the emerging standard for powerful, easy-to-implement file sharing over the Internet. Also included is WebObjects, a powerful application server ideal for higher education institutions interested in developing and deploying web-based e-learning and administrative applications.

Directory services
Integrated directory services allow Mac OS X Server to work seamlessly with existing NetInfo or LDAP directories. It allows you to share user accounts between servers, simplifying network administration and offering superior scalability.

WebObjects 5 Deployment	• Provides a flexible and scalable server technology for deploying network applications that can connect to multiple databases and generate HTML and Java user interfaces for a standard web browser.
Mail server	• SMTP support enables Mac OS X Server to exchange mail with standard Internet mail servers. • IMAP support allows users to store mail on a central server for access from any networked computer. • POP support provides standard Internet mail retrieval protocols. • Realtime Blackhole List support allows you to block messages from known spam sources.

Network services

IP filtering	• Provides an IP firewall system to protect network resources from intruders.
Dynamic Host Configuration Protocol (DHCP)	• Assigns and leases addresses dynamically for more efficient use of IP blocks.
Domain Name System (DNS)	• Allows users to locate computers on the Internet by domain name. • Enables you to create your own host names for your domain.
Service Location Protocol (SLP)	• Allows convenient setup of IP networks for your workgroup, enabling users to easily browse and access shared system resources, including servers and printers.

Workgroup management services

Macintosh Manager 2	• Provides a centralized method for securing and managing Mac OS workstations, controlling student access to software, and providing a consistent, personalized experience for students and staff. • Offers Kerberos support for centralized login authentication. • Enables students to take a portable computer and work assignments home with them using the new checkout feature.
NetBoot	• Allows multiple Mac desktop systems to run from a shared System Folder and applications volume. • Eliminates the need to configure individual computers to update the operating system or applications. • Permits access to customized user environments from any Mac OS 9–based system on the network.

Directory services

Support for both NetInfo and Lightweight Directory Access Protocol (LDAP)	• Enables Mac OS X Server to interoperate with existing directories. • Permits distributed network configurations. • Lets you share user accounts and access privileges among servers.

Ease of use and administration

Mac OS X Server includes features that make network administration easier and more efficient. Integrated service management makes it easy to administer multiple services at the same time. Secure remote administration allows you to manage your server from anywhere on the Internet. You can even connect to and administer multiple servers at the same time. Built-in fault tolerance systems increase reliability and server uptime by automatically restarting services and rebooting server hardware in case of a failure.

Mac OS X Server is a powerful upgrade from AppleShare IP and Mac OS X Server 1.2. It delivers increased performance, reliability, security, and scalability—and amazing ease of use. Best of all, upgrading to Mac OS X Server is an easy transition for AppleShare IP or Mac OS X Server 1.2 users. Installation and setup are simple, and you can even preserve the data and account information for existing Apple server solutions.

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Support and Related Services

Mac OS X Server comes with onscreen help, an electronic user guide, online support, and 90 days of free telephone support. Mac Help is built into Mac OS X Server to provide comprehensive help and tips right on your desktop. You can extend your basic installation, launch, and recovery support annually by purchasing AppleCare Professional SupportLine and Tools. For more information, visit www.apple.com/support/products or call 800-823-2775.

Apple iServices offers comprehensive training and certification, installation and integration, planning and migration, application development and project consulting, and extended system administration and development support for Mac OS X Server. For more information, visit www.apple.com/iservices or call 800-848-6398.

For More Information

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Services

File services
- Macintosh (AFP over TCP/IP)
- Windows (Samba; SMB/CIFS)
- Internet (FTP)
- UNIX and Linux (NFS)

Printer sharing
- Macintosh and UNIX (LPR/LPD)
- Windows (SMB/CIFS)

Internet and web services
- Apache web server
- QuickTime Streaming Server
- WebObjects 5 Deployment
- Mail (SMTP, POP, IMAP)
- WebDAV
- SSL
- PHP
- MySQL
- JavaServer Pages
- Java Servlets
- Perl
- Mac CGI
- Caching web proxy

Networking and security
- BSD networking
- IP filtering firewall
- DHCP server
- DNS server
- SLP server

Administration
- Server Admin (TCP/IP)
- SSH

Workgroup management
- Macintosh Manager 2
- NetBoot

Directory services
- NetInfo
- LDAP connectivity

Additional Software

- ACGI Enabler
- Directory Setup
- NetInfo Manager
- Microsoft Internet Explorer 5.1
- CPU Monitor
- Terminal
- TextEdit
- Network Utility
- ProcessViewer
- Disk Utility

Ordering Information

Mac OS X Server v10.1 (10-Client License)
Order No. M8583Z/A

Mac OS X Server v10.1 (Unlimited-Client License)
Order No. M8585Z/A

Mac OS X Server (10-Client to Unlimited-Client Upgrade)
Order No. M8414Z/A

Contents
- Mac OS X Server v10.1
- Macintosh Manager 2.1 CD
- NetBoot CD
- WebObjects 5 Deployment CD
- Developer Tools CD
- Electronic documentation
- Getting started guide

Requirements

- Macintosh Server G4, Power Mac G4, Power Mac G4 Cube, iMac, Macintosh Server G3, or Power Macintosh G3*
- 128MB of RAM; at least 256MB of RAM for high-demand servers running multiple services
- 4GB of available disk space

* Automatic hardware restart requires a Macintosh Server G4 or Power Mac G4 released in February 2000 or later.

Mac

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