

Network Install

Administer software installations and upgrades across your organization quickly and easily.

Features

Automated software installation

- Install system software and packaged applications from a network-based installation image*
- Manage options for automated or semi-automated installations
- Modify or update existing disk images without complete reconfiguration
- Host disk images via NFS or HTTP

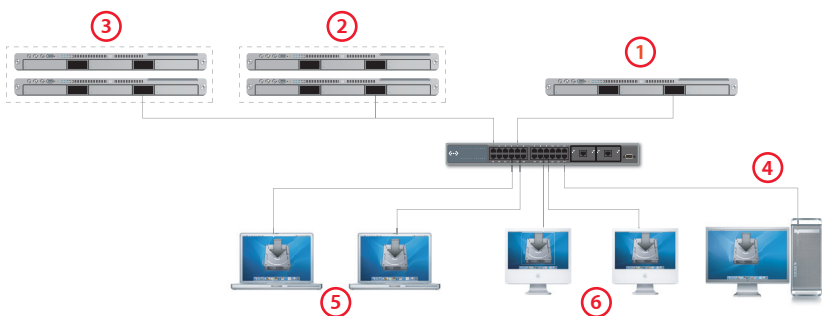
Simplified client administration

- Standardize system configurations across your network
- Set up new computers and restore altered systems to your specifications
- Install new applications and perform operating system updates in a single operation—even behind a network firewall
- Clone existing volumes for efficient block-copy installations on new or repurposed systems

Network Install is an ideal solution for installing software across multiple Mac OS X desktop and portable systems. Designed for administrators who manage operating system installations and software updates for their organizations, this powerful tool performs automated software installations—whether it's a new version of the operating system, a specific suite of applications for a workgroup, or both—saving time and eliminating the expense of distributing software on CD.* And with block-copy installation capabilities, Network Install makes it even faster and easier to configure new systems or repurpose existing systems in your organization.

Using the innovative technology that Apple pioneered with NetBoot, Network Install enables client systems on your network to automatically discover a server-based disk image and install its contents on their hard drives. You can set Network Install to run completely unattended, providing a streamlined installation and upgrade experience for your users. Alternatively, you can require users to respond to specific dialogs before or after the installation of a software package or system image. Once the installation process is complete, client systems no longer need to be connected to the network, making Network Install an excellent tool for managing mobile computers.

Network Install at a Glance



- ① A server-based installer disk image can contain any combination of operating system and packaged application software.
- ② The image can also be stored on a remote NFS file server.
- ③ Directory service configurations can be distributed.
- ④ The image can be served using NFS or HTTP.
- ⑤ Images can be created for specific computers.
- ⑥ Mac OS X systems connect to the server, and the contents of the disk image are installed on the local hard drives. Once the installation is complete, client systems can be disconnected from the network.

Technology Brief

Mac OS X Server: Network Install

Client management with NetBoot

A complementary technology to Network Install, NetBoot enables you to start up multiple Mac systems from a server-based disk image. Updating the NetBoot image on the server automatically updates all of these systems, making network administration as easy as managing a single computer. If your organization has a large number of networked desktop computers, you may prefer to deploy NetBoot and use Network Install only for configuring and updating portable systems.

Why Network Install?

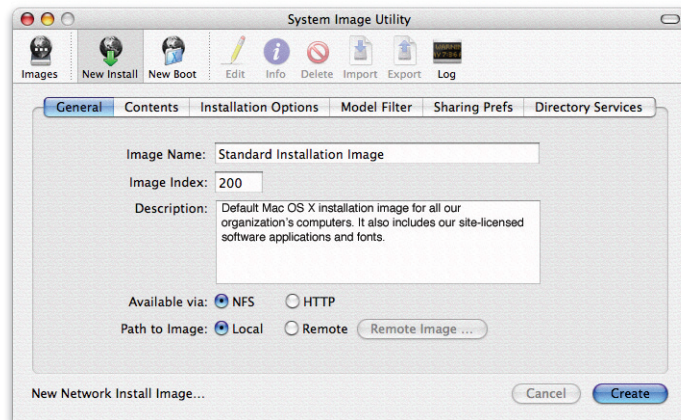
Network Install provides a standardized method for upgrading all your Mac clients to version 10.4 of Mac OS X—whether from Mac OS 9 or an earlier version of Mac OS X. By creating server-based disk images with standard configurations, you can easily upgrade or restore Mac clients anywhere on your network. For networks protected by firewalls, Network Install provides the option to host images using HTTP.

Network Install isn't limited to full system software installations. You can also create disk images for distributing software updates or site-licensed applications across a workgroup or throughout your organization. Mac OS X Server enables you to host multiple installer images, so you can create disk images for different groups or containing different kinds of software. For example, one disk image may contain the latest versions of your organization's productivity applications and another may contain all the software required for a specific classroom or lab.

System Image Utility

Creating an installation disk image

Mac OS X Server gives you all the tools you need to enable automatic software installations over the network. Using the new System Image Utility, you can create an installation disk image that contains just the operating system, the operating system plus applications, or only applications. Creating a new image allows you to perform a clean installation—as if from CDs—on multiple systems, all at the same time.

**Cloning an existing volume**

The fastest way to create a disk image is to clone an existing volume. This allows you to take an already configured system and make it a “master” for multiple client systems—eliminating the need to insert CDs or deal with individual installation packages when configuring new systems or repurposing existing systems.

After configuring a master system on a local volume, use System Image Utility to take a snapshot of the volume, creating an identical block-copy replica of the contents.



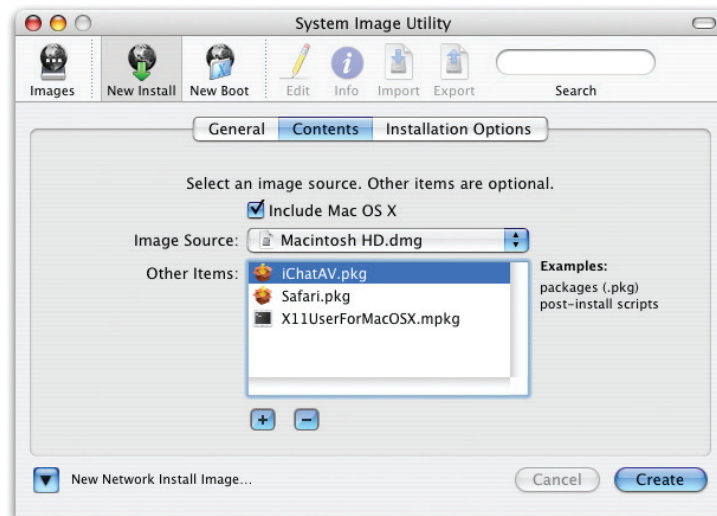
Apple Remote Desktop 2

By adding the remote control capabilities of Apple Remote Desktop 2 (sold separately), you can specify the Network Install startup disk for multiple Mac systems on your network—and restart them remotely. With just a few clicks and without leaving your desk, you can manage software installations or upgrades for an entire classroom, lab, or office at once. There is no need to walk around and configure each system individually.

Updating existing images

Disk images are easy to update and maintain with System Image Utility. For example, if you want to add a site-licensed application or upgrade the operating system contained in your installation volume, you don't need to reconfigure the whole disk image.

From the Contents pane, select the disk image on your server and add package installers for the desired updates. System Image Utility mounts the disk image and installs the new software.



Managing installation actions

Network Install makes it easy to specify automated or semi-automated installation options. Fully automated installations, with no user interaction required, are useful for setting up pools of new computers. Or you may choose to define a semi-automated process, requiring the user to respond to specified dialogs during installation. You can also use the automation capability to perform a “checksum destination” after installation to ensure that all the data was successfully written to the disk.

Installing Software over the Network

When the installation disk image is configured, use the NetBoot pane in Server Admin to host it on the server. This allows any Mac OS X system on your network to be configured or updated quickly and easily.

Starting up client systems from the network

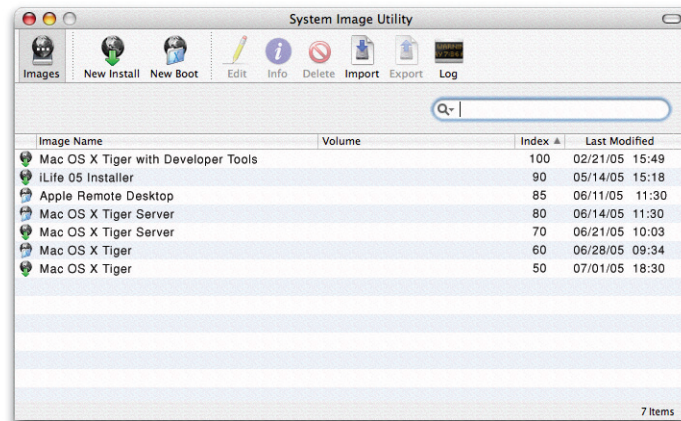
Mac OS X users on your network can install software easily by selecting a Network Install disk image in the Startup Disk pane of System Preferences and restarting the computer.* The system mounts the server-based disk image and installs its contents on the local hard drive. If you have specified client actions during the installation process, the user may need to respond to dialogs or perform required functions. After the installation is complete, the system resets itself to the internal startup drive.

NFS or HTTP serving?

With Mac OS X Server v10.4, you can define how installation disk images are served. NFS continues to be the default and the preferred method. HTTP is an alternative that allows you to serve disk images without having to reconfigure your firewall to allow NFS traffic.

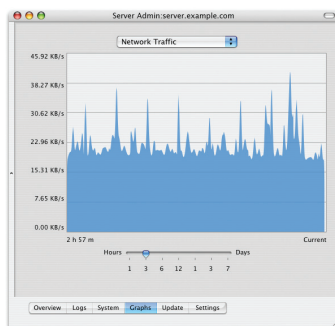
Supporting multiple workgroups

Mac OS X Server can host up to 25 different disk images per server, so you can maintain customized software configurations for different departments and workgroups, each with its own suite of site-licensed system software, applications, and fonts.



Setting Up New Computers

Network Install can also be used to configure new computers right from the box. Using the Server Admin tool, you can configure a default network-based disk image with appropriate system software, applications, preferences, and libraries. To start up a new or repurposed system from the Network Install image, plug in the power cord and Ethernet cable and hold down the “n” key when you turn it on. The system boots, connects to the network, finds the Network Install image, and installs the contents on its hard drive. When you restart, the system will be set up according to your specifications, without inserting a single disk.



Remote service monitoring

Mac OS X Server provides comprehensive tools for remotely managing and monitoring network services. Using Server Admin, you can view Network Install activity logs and graphs of network traffic.

Apple Server Solutions

Network Install is one of the innovative client management solutions built into Apple's UNIX-based Mac OS X Server operating system. Combining the latest open source technologies with Mac ease of use, Mac OS X Server unleashes the power of Xserve G5, Apple's rack-optimized server hardware. With phenomenal performance, massive storage capacity, high-bandwidth I/O, and integrated remote management tools, Xserve G5 running Mac OS X Server is an unparalleled server solution for businesses, schools, and research centers.

For More Information

For more information about Mac OS X Server, Xserve, and other Apple server solutions, visit www.apple.com/server.

*Network Install can be used to install software only on Mac systems released in October 1999 or later. Application installation requires Mac OS X v10.2 or later client systems. Licensing terms apply to Apple and third-party software installations.

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