Cisco Server Suite 1000

This chapter provides information on the Cisco Server Suite 1000 enhanced TCP/IP server applications. The information is organized into the following sections:

- Product Overview
- Standard Features
- Specifications
- Product Numbers

Note Documentation for the Cisco Server Suite 1000 is available in two forms: on a CD-ROM called Cisco Connection Documentation, Enterprise Series and printed books. A CD and hard-copy installation documentation ship with each product, and a configuration note ships with each component ordered. All configuration notes are available on the CD. Additional CDs and a subscription CD update service are also available.

You can also access Cisco technical documentation on the World Wide Web URL http://www.cisco.com. For more information, see the chapter "Documentation" at the end of the catalog.

Product Overview

The Cisco Server Suite 1000 is a suite of enhanced TCP/IP server applications that are easily managed and configured with a graphical user interface. These servers, DNS, DHCP, BOOTP, TFTP, NTP, and Syslog are the most common TCP/IP servers used in building and maintaining TCP/IP networks. With the Cisco Server Suite 1000 administrators can now get a consistent level of network services across both UNIX and Windows NT with an easy-to-use graphical user interface.

The Cisco Server Suite 1000 is designed for the following applications:

- Using DHCP in a switched network
- TCP/IP servers for Windows NT
- Configuring and managing Cisco internetwork hardware

DHCP in a Switched Network

The Cisco DHCP server allows organizations to use DHCP in a large switched network. The depletion of IP addresses on the Internet has forced organizations to use classless inter-domain routing (CIDR) blocks or groups of Class C networks to build physical networks with more than 256 nodes. This has created a problem for network administrators who want to use DHCP on a large switched network with more than 256 nodes.

Organizations building large switched networks with TCP/IP assign multiple logical IP networks on a single physical switched network. At the same time organizations want to take advantage of DHCP to dynamically configure a large number of PCs on their network. Existing DHCP servers, including the Microsoft DHCP shipping in Windows NT, do not support creating address pools with multiple logical IP networks on a single physical network. The Cisco DHCP server supports address pools that contain multiple logical networks on the same physical network.

TCP/IP Servers for Windows NT

Although Microsoft includes a TCP/IP stack with Windows NT operating system, many critical TCP/IP services are missing from Windows NT. The Cisco Server Suite 1000 enhances Windows NT by providing services or replacing Windows NT existing services with enhanced services. These services include a DHCP server that also supports BOOTP, a DNS server for domain name service, a TFTP server for booting network devices, NTP for synchronizing time on a network, and Syslog for remotely logging errors from a network device.

Configuring and Managing Cisco Internetwork Hardware

The Cisco Server Suite 1000 provides networking services on UNIX platforms and Windows NT for network managers building networks based on Cisco internetworking hardware. Network managers building networks based on Cisco Internetworking hardware need support for networking services such as BOOTP, TFTP, NTP, and Syslog.

BOOTP provides the initial configuration information such as the IP address, default router and TFTP server. An NTP server provides time synchronization. TFTP servers load binary images, including Cisco IOS software and configuration files to network devices including Cisco routers and switches. A Syslog server is used for logging error messages from network devices over the network. All of these services are easily configured with a graphical user interface.

Standard Features

Table 293 provides a summary of the Cisco Server Suite 1000 features and benefits.

Table 293 Cisco Server Suite 1000 Summary of Features

Characteristic	Description
DHCP dynamically updates DNS	Synchronizes DNS and DHCP information
DHCP address pools with multiple logical subnets	Uses DHCP in large switched network
DHCP server supports BOOTP	Uses one server to manage BOOTP and DHCP
TFTP server	Configures network devices over network
NTP server	Synchronizes time on all machine
Syslog server	Logs errors to a central location
Graphical configuration tool	Easier to manage TCP/IP services
Supports Windows NT	Eliminates need for UNIX servers

Enhanced TCP/IP Services for Windows NT and UNIX

The Cisco DNS/DHCP Manager ships additional network services used to efficiently maintain a TCP/IP network. A DNS server provides name service, NTP provides times synchronization, TFTP is provided to load binary images and configuration files to network devices including routers, and a Syslog server is provided for logging error messages from network devices over the network. All of these services can be configured with an easy-to-use graphical user interface.

TCP/IP Network Easier to Configure

The DHCP protocol allows managers to add new nodes to a network without statically defining IP addresses for every node. Nodes, particularly PCs, use the DHCP protocol to dynamically get configuration information, including the IP address, domain name, default router, and subnet mask from a DHCP server.

DHCP and DNS Synchronized

The Cisco DHCP server dynamically updates DNS with the domain name and the IP address allocated to the DHCP client. When the DHCP server creates an address pool, it creates names for each address in the pool and updates DNS with the new names. This requires the Cisco DNS/DHCP Manager.

Services Easy to Configure

The Cisco Server Suite 1000 provides a GUI-based management tool to configure all of the services provided. This is much easier to use than the existing services provided by the operating system vendor that must be configured by editing text-based configuration files.

DHCP Server in a Switched Network

Today many organizations are building large, flat networks with switching and routing technology. This has caused problems with the deployment of DHCP and the use of multiple logical networks on the same physical network. The Cisco DHCP server can combine pools of IP address from multiple networks in to a single large pool of addresses.

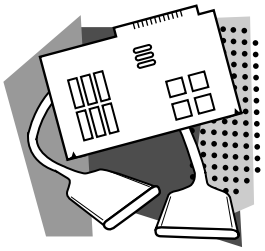
Specifications

The Cisco Server Suite 1000 includes the following servers:

- DHCP/BOOTP server
- DNS server (Bind 4.9.3)
- TFTP server
- NTP server
- Syslog server
- Netscape Navigator 2.0

The Cisco DNS/DHCP Manager is available for the following platforms:

- Sun Solaris 2.4. or greater (SPARC)
- HP-UX 10.0 or greater
- IBM AIX 4.1.3 or greater
- Windows NT 3.51 or greater (Intel and Alpha)



Product Numbers

Table 294 lists the product numbers you can use to order the Cisco Server Suite 1000.

Table 294 Cisco Server Suite 1000 Product Numbers

Description	Product Numbers
Cisco Server Suite 1000, 1 CPU	SS1000-1
Cisco Server Suite 1000, 5 CPUs	SS1000-5
Cisco Server Suite 1000, 10 CPUs	SS1000-10
Cisco Server Suite 1000, 25 CPUs	SS1000-25
Cisco Server Suite 1000, 50 CPUs	SS1000-50