Cisco DistributedDirector

This chapter provides information on the Cisco DistributedDirector product. The information is organized into the following sections:

- Product Overview
- Product Numbers

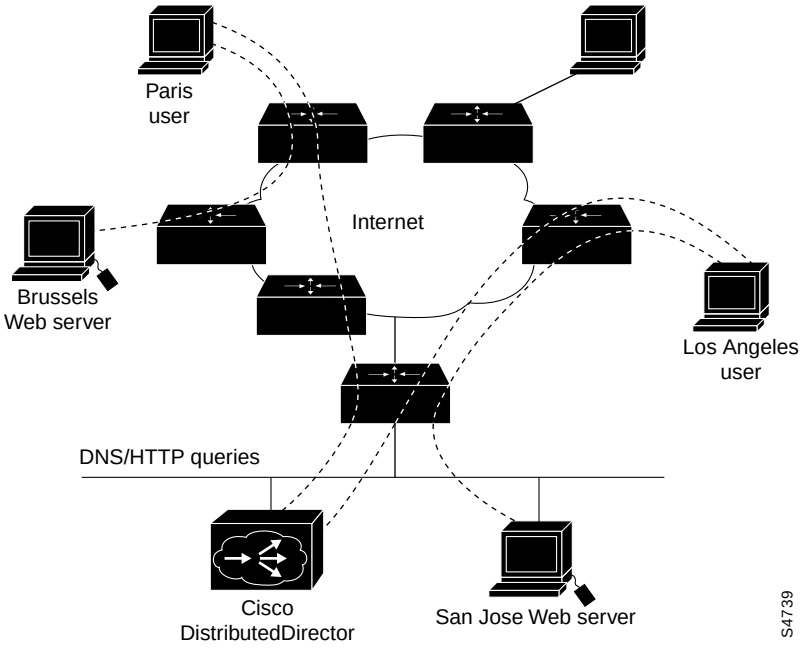
Product Overview

The Cisco DistributedDirector efficiently distributes Internet services among globally dispersed Internet server sites by leveraging the intelligence built into the router-based infrastructure, standard Domain Name Services (DNS), and the Hypertext Transfer Protocol (HTTP).

Cisco DistributedDirector provides the ability to perform load distribution and scaling in a sophisticated manner that takes into account how close a user is to a particular server to determine the “best” server (see Figure 156). This means that users need only a single URL or subdomain name to access a geographically distributed set of servers.

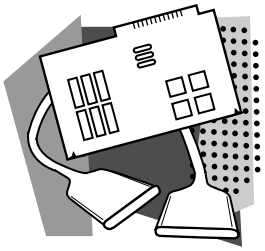
Cisco DistributedDirector can act as a primary DNS nameserver for a given subdomain. Using the Director Response Protocol (DRP), developed by Cisco Systems, the Cisco Distributed Director provides responses to name service queries based on information contained in the network. This sophisticated implementation uses the intelligence in the router-based networking infrastructure to determine the relative topological locations of the user and the server. A DNS query for a named service such as www.cisco.com is sent to the Cisco DistributedDirector. The device then queries selected DRP-associated routers serving the web servers in the network infrastructure for user-to-server distance information or other configurable metrics. The DistributedDirector sorts the various router responses and, using standard DNS, returns the IP address of the “best” or “closest” server to the user.

Figure 156 Cisco DistributedDirector



Cisco DistributedDirector can also be used to provide HTTP-session redirection services. In this mode, for example, queries sent to http://www.cisco.com are routed directly to the DistributedDirector. The device accepts HTTP connections, queries the routers in the network infrastructure as previously described, determines the “best” web server, makes up the new URL for the real web server, and sends the HTTP code “302 Moved Temporarily” to the user, specifying the new URL location. The user is then transparently connected to the “best” web server specified by this URL.

Three Cisco DistributedDirector models will be available in late 1996. Please note that although Cisco DistributedDirector ships on traditional Cisco router hardware platforms, it is not a router and is not intended to provide full routing capabilities.



Product Numbers

Table 325 lists the product numbers for Cisco DistributedDirector.

Table 325 Cisco DistributedDirector Product Numbers

Description	Hardware Platform	Interface	Product Number
Cisco DistributedDirector 2501	Cisco 2501	Ethernet	CA-DDIR-2501
Cisco DistributedDirector 4700ME	Cisco 4700-M	Ethernet	CA-DDIR-4700M-E
Cisco DistributedDirector 4700MFE	Cisco 4700-M	Fast Ethernet	CA-DDIR-4700M-FE