



Cisco Local Director 417 and 417G

The Cisco Local Director Series offers a high-availability, integrated hardware and software solution that intelligently balances the load of user traffic across multiple TCP/IP application servers. Cisco Local Director tracks network sessions and server load conditions in real time, directing each session to the most appropriate server. All physical servers appear as one virtual server, requiring only a single IP address and a single URL for an entire server farm.

A key component of a content delivery network, Cisco Local Director accelerates content delivery by routing client requests to the best Web server at the Web site of origin. Cisco Local Director supports critical content routing protocols such as Dynamic Feedback Protocol (DFP) and the Boomerang Control Protocol (BCP), which ensure seamless content delivery network integration and reduced deployment costs. Layer 4-7 content load balancing guarantees that the correct client is routed to an optimized content location. The accelerated server load balancing (ASLB) feature works with the Cisco Catalyst® 6000 and 6500 Series switches to accelerate scaling of TCP sessions and help to protect against Flash crowds— sudden traffic surges that can overwhelm a Web site.

Cisco Local Director is an application-aware technology that ensures continuous, high availability of content and applications. It continually monitors servers for application availability and database connectivity, routing traffic only to available applications and ensuring that traffic is not directed to a failed server or application. A sophisticated content verification system generates tests for Web application availability, giving administrators powerful control over traffic direction decisions. In addition, Cisco

Local Director is equipped with a stateful hot-standby failover mechanism that enables customers to build an entire server system with a proven network clustering architecture. Cisco Local Director can also perform an HTTP redirect to a different location upon failure of a real or virtual IP address.

Cisco Local Director features advanced application-aware functionality. Cookie, HTTP redirect, and Secure Sockets Layer (SSL) session ID persistence features guarantee that a specific client gets the correct content, regardless of Internet megaproxies and shopping-cart application design.

Cisco Local Director scales to exceed the demands of the highest traffic data centers and Internet sites. By distributing user requests across a cluster of servers, Cisco Local Director optimizes responsiveness and system capacity, ensures scalability, and dramatically reduces the cost of providing large-scale Internet, database, and application services. With a real-time, embedded operating system, Cisco Local Director is a proven, reliable solution in the highest-traffic and most demanding data centers. The ASLB feature works with the Cisco Catalyst 6000 and 6500 Series to



accelerate TCP sessions to unprecedented speeds. Additionally, Cisco Local Director provides a security solution that protects servers from unwanted traffic, filtering on source IP, service, or content. Cisco Local Director, with an extensive set of sticky or persistence modes, can maintain client-to-server persistence on source IP, SSL session ID, HTTP redirects, and cookies, regardless of megaproxies or SSL-based shopping-cart applications.

Two models are available in the Cisco Local Director series. The value-priced Cisco Local Director 417 is a high-availability solution for TCP applications such as database access or intranets. This model delivers up to 80-Mbps throughput and 7000 connections per second. The Cisco Local Director 417G, enabled by Gigabit Ethernet technology, is ideal for high-traffic Internet sites that require up to 400 Mbps of throughput and 30,000 connections per second.

Key Features and Benefits

Table 1 lists the features and benefits of the Cisco Local Director 417 and 417G.

Table 1

Cisco Local Director 417 and 417G Features and Benefits	
Features	Benefits
HTTP redirect sticky	Enables client-to-server persistence, regardless of SSL and shopping-cart configurations, to improve site availability
Hot-standby and stateful failover mechanisms	Ensures high availability by eliminating all points of failure for the data center
Hot-standby configuration replication	Reduces administrative startup costs by automatically transferring a primary Cisco Local Director configuration to a secondary Cisco Local Director
Transparent addition and removal of servers	Offers continuous user service, with no interruptions; systems can easily be scaled up or down
Transparent support for all common TCP/IP Internet services, including User Datagram Protocol (UDP)	Accommodates a wide range of applications and communications needs (Web, File Transfer Protocol [FTP], Telnet, Domain Name System [DNS], and Simple Mail Transfer Protocol [SMTP]) without special software configuration
Content verification system (CVS)	Determines with accuracy the availability of Web, application, and database servers and gives administrators control of traffic direction
SSL and cookie sticky	Ensures completion of complex transactions in proxy server environments
Packet coloring	Increases effectiveness of quality-of-service (QoS) policy by setting IP Precedence levels on a per-virtual basis and integrating with Cisco QoS Policy Manager
Client-assigned load balancing	Provides QoS mechanism by allowing traffic to be directed to servers based on source IP address
High-performance hardware	Supports six Fast Ethernet (Cisco Local Director 417) or two Fast Ethernet plus two Gigabit Ethernet (Cisco Local Director 417G) interfaces



Cisco Local Director 417 and 417G Features and Benefits (Continued)

Features	Benefits
Flexible subnetting	Increases network configuration flexibility by allowing server farms, real IP addresses, and virtual IP addresses to be located on different subnets without router assistance
Network Address Translation (NAT)	Allows unregistered IP addresses on servers without router assistance
Choice of directed or dispatch mode on a per-virtual IP basis	Increases application support, including applications with embedded IP addresses
Simple setup in 10 commands	Offers simple setup for typical configurations, with little disruption to existing network configuration and no changes to network addresses
Integrated security capability	Effectively protects server farms from unauthorized access by filtering based on client IP address and service
Web-based graphical user interface (GUI)	Simplifies configuration with an intuitive browser-based user interface

Specifications

Product Model Number

- Cisco Local Director 417: LD-417
- Cisco Local Director 417G: LD-417G

Cisco Local Director 417 Hardware

- 1 RU, 19-in. rack-mount enclosure
- Six 10/100BASE-TX interfaces
- RJ-45 console interface
- DB-15 redundant failover interface
- 512 MB of RAM
- 16 MB of Flash memory

Cisco Local Director 417 Performance

- 8000 virtual and real IP addresses
- 700,000 simultaneous TCP connections
- 80-Mbps throughput

Cisco Local Director 417G Hardware

- 1 RU, 19-in. rack-mount enclosure
- Two 10/100BASE-TX plus two 1000BASE-SX interfaces
- RJ-45 console interface
- DB-15 redundant failover interface



- 512 MB of RAM
- 16 MB of Flash memory

Cisco Local Director 417G Performance

- 64,000 virtual and real IP addresses
- 1,000,000 simultaneous TCP connections
- 400-Mbps throughput

Cisco Local Director Series Specifications

- Operational temperature: 32° to 104°F (0° to 40°C)
- Nonoperational temperature: -13° to 158°F (-25° to 70°C)
- Operational humidity: 5 to 95%, noncondensing
- Operational altitude: 6500 ft (2000 m) at 104°F (40°C)
- Operational shock: 5G at 11-ms duration, half sine shock pulse

Dimensions

- H x W x D: 1.72 x 17.5 x 14.13 in. (4.37 x 44.45 x 35.8 cm)

AC power Requirements

- Universal input: 100-240 VAC
- Frequency: 50-60 Hz
- Current: 120 VAC input with power factor correction (PFC), 1.0A or 230 VAC input with PFC, .5A
- Maximum power: 130W

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