Cisco LocalDirector

Product Overview

Cisco Systems's LocalDirector is an integrated solution with a secure real-time embedded operating system that intelligently load-balances Transmission Control Protocol/Internet Protocol (TCP/IP) traffic across multiple servers. Appearing as one "virtual" server, it delivers optimized performance by distributing client requests across a cluster of low-cost servers. As a result, it dramatically reduces the cost of providing large-scale internet services. Additionally, it provides a robust, high-availability system and proven technique for actively managing servers and connections in a distributed environment.

LocalDirector is a high-performance internet appliance with over 80-Mbps throughput and proven performance in the highest-traffic internet sites. The session distribution algorithm (SDA) intelligently distributes load and maximizes the number of TCP/IP connections that a server farm can manage.

Ideal for mission-critical applications, LocalDirector provides a robust, high-availability system for server farms. Servers can be automatically and transparently placed in or out of service, depending on availability. Finally, LocalDirector allows virtual and real servers to back up one another, and a maximum connection limit can be set to ensure that services do not fail from traffic overload.

LocalDirector is a sophisticated server connection management system, which allows administrators to direct TCP traffic to different servers based on service, speed, and number of connections. Server resources can easily be reallocated depending on traffic demands and patterns. LocalDirector can effectively manager servers consisting of a collection of heterogeneous hardware and operating systems. LocalDirector requires minimal set up and no network address changes, which eliminates valuable administrative resources.

The Cisco LocalDirector series consists of the following two models:

- Cisco LocalDirector 420
- Cisco LocalDirector 410

Introducing Two New Cisco Products: Cisco LocalDirector 420

The Cisco LocalDirector 420 is ideal for high-traffic internet sites requiring up to 80 Mbps of through-put, as well as for rapidly growing web sites that receive two-million or more hits per day.
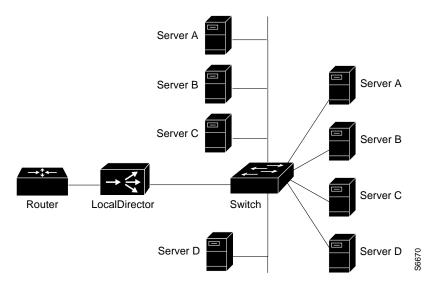
Cisco LocalDirector 410

The Cisco LocalDirector 410 is a value-priced, high-availability solution for all TCP applications including the following:

- Intranets
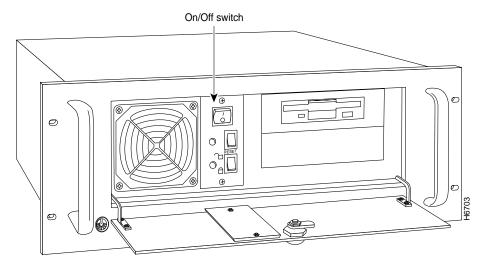- Financial database applications
- E-mail applications

The following figure illustrates Local Director in a distributed environment with four servers available for access from the internet.

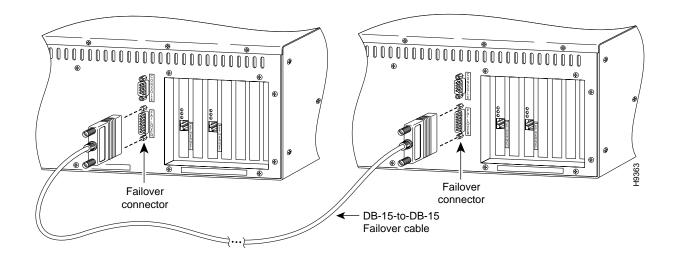**Figure 9-4: Distributed TCP Services**

The figure below shows a front view of LocalDirector.

Figure 9-5: Cisco LocalDirector Front View

The figure below shows a rear view with a failover connection cable between two LocalDirector units

Figure 9-6: Cisco LocalDirector Rear View with Failover Connection

Failover
connector

Failover
connector

DB-15-to-DB-15
Failover cable

Key Features and Benefits

LocalDirector provides the following key features and benefits:

- Hot standby failover, which enables configuration of robust, high-availability solution.

- Provides over 80-Mbps through-put, which is scalable to meet the needs of the largest web sites.

- Basic configuration in ten commands, which ensures an easy setup with little disruption to existing network configuration.

- Supports more than 700, 000 simultaneous TCP sessions, which provides scalablity and accomodates growth.

- Configurable with a total of 8000 virtual and real servers, which offers flexibility in domain names, network configuration, and IP management.

- Transparent support for all common TCP/IP services, which allows support of TN3270, Oracle, Web, and File Transfer Protocol, without requiring special software configuration.

- Advanced server management, which adds and removes servers transparently and easily reallocates server resources to optimize IS resources, and improves internet commerce security.

- Supports SSL, which improves internet commerce and security.

Specifications

Hardware

Table 9-10: Hardware Specifications for Cisco LocalDirector 410 and 420

Specification	Description
Cisco LocalDirector 410	
Required space	19 in. rack-mount enclosure
Interfaces	10/100BaseT, Fiber Distributed Data Interfaces (FDDIs)
Ports	DB-9 EIA/TIA-323 console interface port
DRAM	32 MB
Flash Memory	2 MB

3

Specification	Description
Processor	166 MHz Pentium Pro processor
Cisco LocalDirector 420	
Required space	19 in. rack-mount enclosure
Interfaces	10/100BaseT, Fiber Distributed Data Interfaces (FDDIs)
Ports	DB-9 EIA/TIA-323 console interface port
DRAM	128 MB
Flash Memory	2 MB
Processor	300 MHz Pentium II processor

Table 9-11: Environmental, Size, and Power Specifications for Cisco LocalDIrector 410 and 420

Specification	Description
Environmental Specifications for Cisco LocalDirector 410 and 420	
Operational temperature	-5C to +45C (-25 F to + 113 F)
Operational humidity	95% relative humidity (RH)
Size Specifications for Cisco LocalDirector 410 and 420	
Height	5.21 in.
Width	16.82 in.
Depth	17.5 in.
Power Requirements for Cisco LocalDirector 410 and 420	
Cisco LocalDirector 420	90 - 135 VAC, 47 - 63 Hz, 2.5 A
Cisco LocalDirector 420	180 - 270 VAC, 47 - 63 Hz, 1.25 A
Service and Support for the Cisco LocalDirector 410 and 420	
SMARTnet maintenance contract	See the "Services and Support" chapter.

Software

For additional software specification information, access Cisco Connection Online at http://www.cisco.com.

Product Numbers

Part Numbers

Description	Part Number
Cisco LocalDirector	CA-LDIR
Failover cable	LD-FO=
LocalDirector 410	LDIR-410
LocalDirector 420	LDIR-420
FDDI card (LD-420 only)	LD-FDDI=
4-Port High-Speed Ethernet Card (spare)	LD-4FE=

Description	Part Number
Software Upgrade	SW-LDIR-VER