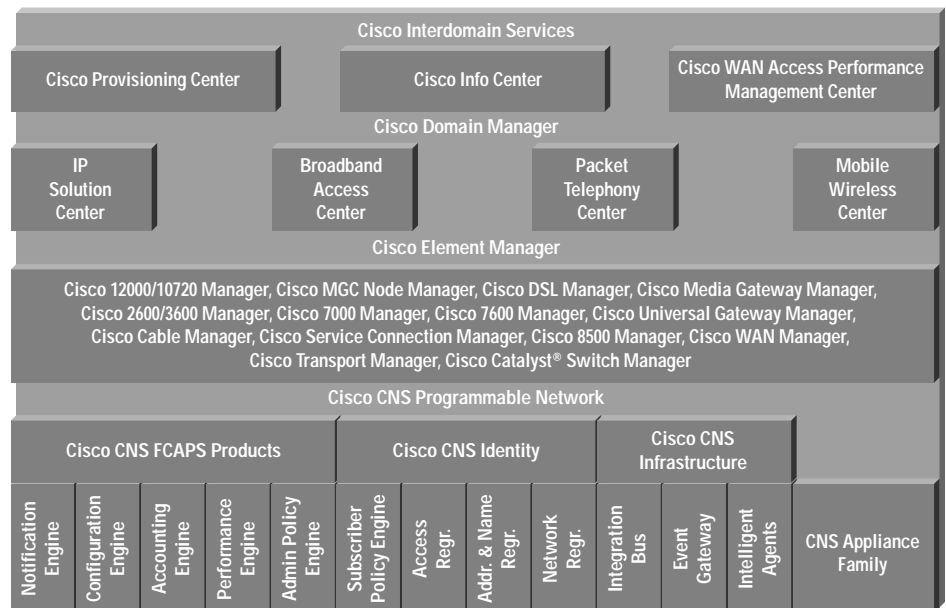


Cisco DSL Manager

Cisco Digital Subscriber Line (DSL) Manager is a multiprotocol management software package designed specifically for configuring networks of Cisco DSL access multiplexers (DSLAMs) and operating system software-based IP DSL switches. Providing element management support for the Cisco 6000 Series (NI2) IP DSL switches, Cisco DSL Manager was designed to address the significant demands in managing and operating large DSL networks. Cisco DSL Manager provides service management and process automation to simplify the management of complex networks. It allows you to easily provision connections, detect faults, configure devices, and track network statistics.

Cisco DSL Manager is part of the Cisco Element Manager product line to deliver consistent element management with a track to standards-based interfaces to customer operations support systems (OSSs). It supplies an integrated suite of management solutions that enable service providers to quickly plan, provision, monitor, and bill for differentiated network services (refer to Figure 1).

Figure 1
Cisco Internet OSS Element Management





Cisco DSL Manager has a robust architecture that supports end-to-end Layer 2 configuration as well as fault and performance management. It has the ability to scale to support control and operation for large networks. Cisco DSL Manager assists the user in making network connections while eliminating the need for the user to have technical knowledge of the Simple Network Management Protocol (SNMP) and Cisco IOS[®] Software commands required to establish these connections. It streamlines the provisioning process for the Cisco IP DSL Switch while providing complete element management support.

Cisco DSL Manager not only meets the business requirements for the control and operation of Cisco IP DSL switches, but it also has the ability to integrate with other Cisco network management products to provide end-to-end service management of wide-area multiservice networks.

Features

Cisco DSL Manager enables an operator to:

- Manually “preprovision” NI2-based IP DSL switches in the management system before actual installation, and advise the system to automatically detect its presence and begin management upon physical installation and configuration
- Utilize the autodiscovery feature to identify new Cisco IP DSL switches and their detailed hardware configuration upon physical installation
- Utilize maps that have been automatically constructed by the management system to show the exact representation of Cisco 6000 components
- Configure the Cisco NI2-based IP DSL switches using service-oriented terms such as “subscribers,” eliminating the need to understand the underlying network fabric
- Provision connections through the Cisco NI2-based IP DSL switches, via a service- or subscriber-oriented user interface, without the technical knowledge of the numerous sequences of Cisco IOS Software commands and SNMP Management Information Base (MIB) variables that underlie the configuration of each connection
- Define asymmetric DSL (ADSL) line MIB-based profiles that may be used to provision services for multiple subscribers, reducing the amount of repetitive configuration that must be performed
- View SNMP traps as color-coded icons on network maps
- Access fault, configuration, accounting, performance, and security (FCAPS) functionality, supported by the device via SNMP and Cisco IOS Software, through easy-to-use graphical user interfaces (GUIs) that can be operated by users without SNMP or Cisco IOS Software expertise
- Access to Cisco MIBs and element management functionality (such as the ADSL line MIB) via simple tabbed dialog boxes within the Cisco DSL Manager application
- Analyze historical information provided via the event browser or performance manager



Benefits

- Requires minimal user knowledge of the underlying Cisco IOS Software system and SNMP commands
- Provides simple, quick, and flexible installation alternatives, including a preprovisioning GUI wizard and autodiscovery
- Supports configuration of service definitions in accordance with service provider policies and products
- Reduces the opportunity for error in establishing service parameters through the use of templates
- Minimizes setup time for each Cisco NI2-based IP DSL switch
- Minimizes connection installation time, providing rapid service availability to new subscribers
- Minimizes downtime via assurance tools for fault determination and proactive troubleshooting

Cisco DSL Manager Releases

Previous Release—Cisco DSL Manager 3.4

- Supports the Cisco Element Manager System (Cisco Element Management Framework {EMF} v 3.2 included with Cisco DSL Manager)
- Supports up to 250 chassis and 60,000 lines per server (configuration dependent)
- Supports the features of Cisco IOS 12.1(1)DA through Cisco IOS 12.1(7)DA and the functionality (not full feature set) of Cisco IOS 12.2(1)DA and 12.2(5)DA
- Supports the NI2-based Cisco 6160, 6015, 6015 Outside Plant (OSP), and 6260 chassis (support for the NI1-based Cisco 6100 and 6130 chassis is available via special order)
 - Supports the following four- and eight-port line cards:
 - 4xFlexi – 8xIDSL
 - 4xSDSL – 8xDMT
 - 4xDMT – 8xG.shdsl
 - 4xDMT/ISDN – 8xDMT/ISDN
- Supports the Solaris 2.6 operating system

Current Release—Cisco DSL Manager 3.4.2

- Supports the Cisco Element Manager System—(Cisco EMF v 3.2-SP4 included with Cisco DSL Manager)
- Supports up to *500 chassis and 120,000 lines* per server (configuration dependent)
- Supports the features of Cisco IOS 12.2(7)DA through Cisco IOS 12.2(12)DA
- Supports only the NI2-based Cisco 6160, 6015, 6015 OSP, and 6260 chassis



- Supports the following four- and eight-port line cards:
 - 4xFlexi - 8xIDSL
 - 4xSDSL - 8xDMT
 - 4xDMT - 8xG.shdsl
 - 4xDMT/ISDN - 8xDMT/ISDN
- Supports the *Solaris 2.8* operating system

Cisco Service Management System

The Cisco DSL Manager is an integral part of Cisco's Internet OSS, which offers provisioning and management tools for service provider and large enterprise networks. Cisco DSL Manager utilizes the Common Object Request Broker Architecture (CORBA) gateway to interact and integrate with other products in the Cisco Internet OSS or with customer OSS applications that enable customer-focused service management and advanced service provisioning.

The CORBA gateway adds increased flexibility because it provides Cisco DSL Manager the capability to:

- Support flow-through provisioning via the Cisco Provisioning Center
- Send fault management data to the Cisco Information Center
- Supply performance management data to third-party applications (such as Concord Network Health)
- Allow service providers to develop specific applications for their own use (via direct communication to the interface)

Cisco DSL Manager supports end-to-end service-oriented DSL deployments. These deployments consist of IP DSL and remote DSL modems, as well as numerous other internetworking components and servers that all come together to provide a seamless service offering.

Professional Services

With respect to the delivery of products and services, each customer's requirements are unique. To complement the services associated with the supply and support of the Cisco DSL Manager, Cisco offers professional services to address the complete design and implementation of large, and often complex, network management integration projects.

Technical Specifications

Cisco DSL Manager can be deployed on a variety of hardware platforms, ranging from the low-cost Sun Ultra 5 workstations (for small deployments) to Sun Enterprise 4500s operating as large-scale multiprocessor servers with fault-tolerant hardware.



Typical Configuration

The following configuration is recommended for deployments of 500 chassis or fewer:

- Cisco DSL Manager servers:
 - Two 480-MHz processors
 - Sun Enterprise Ultra 450
 - Four 10,000- rpm hot-plug drives, 9 GB each
 - 1.5-GB RAM
 - 5-GB swap space
 - 17-inch color monitor
 - Solaris 2.6 operating system
- Cisco DSL Manager clients:
 - Sun Ultra 5/10 workstation
 - 256-MB RAM
 - 2-GB swap space
 - Support for one local session
 - 17-inch color monitor
 - Sun Ultra 60
 - 2 CPUs
 - 512-MB RAM
 - 2-GB swap space
 - 17-inch color monitor
 - Support for four to seven X-Terminal Sessions

For More Information

For more information on system requirements, see:

http://www.cisco.com/warp/public/756/partnership/sun/products/Cisco_RefModel_Descriptions_CEM.pdf
for detailed server specifications.

For more information on Cisco Element Managers and Cisco DSL Manager, visit:

<http://www.cisco.com/en/US/products/sw/netmgts/ps829/index.html>

and

<http://www.cisco.com/en/US/products/sw/netmgts/ps826/index.html>



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