

Cisco Prime Data Center Network Manager 6.1

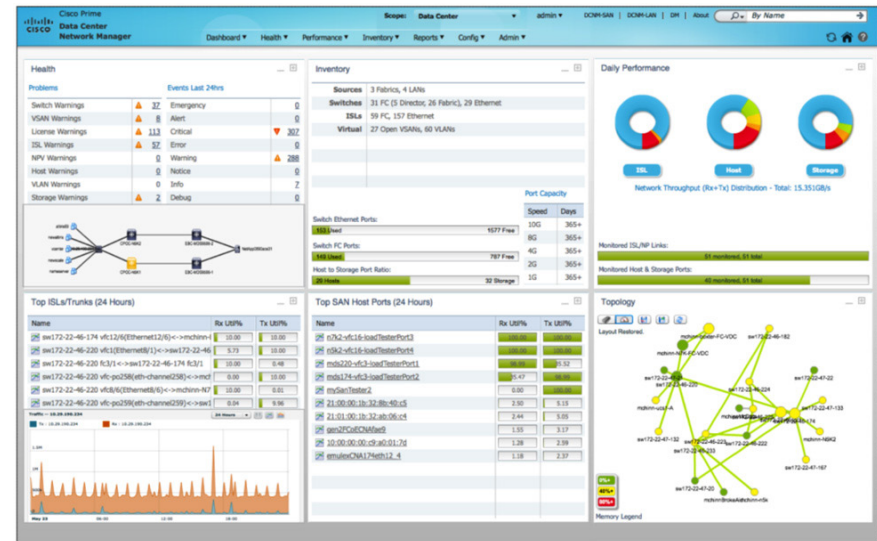


With increase in virtualization, Data Centers are being transformed and IT departments must be empowered to effectively manage this transformation. The Virtualization is adding management complexity while increasing demands on the network bandwidth and scalability. Contributing to this evolution is Cisco® Unified Fabric that brings LAN and SAN networks together to reduce total cost of ownership (TCO) through cutting the amount of network infrastructure needed to support mission critical applications. In the past managing these physically siloed networks has required multiple management tools to maintain network uptime and resiliency. While virtualization and convergence of these complex networks reduced physical deployment costs, it did not translate into similar savings when it came to managing them from a single integrated product portfolio until now.

The new release of Data Center Network Manager joins Cisco Prime Infrastructure family of management products on the journey to unify management of Cisco Data Center, Campus, and Collaboration-driven networks. Cisco Prime is an innovative strategy and portfolio of management products that empower IT departments to more effectively manage their networks and the services they deliver. Cisco Prime is built upon a network services management foundation and a set of common attributes. It delivers an intuitive workflow-oriented user experience across Cisco architectures, technologies, and networks. Cisco Prime simplifies network management, improves operations efficiency, reduces errors, and makes the delivery of network services more predictable.

Cisco Prime™ Data Center Network Manager (DCNM) support Unified Fabric by combining management of both Ethernet and storage networks in a single dashboard (Figure 1). The dashboard enables network and storage administrators to troubleshoot health and performance across the whole range of Cisco NX-OS capable platforms, including the Cisco Nexus® and Cisco MDS 9000 Families.

Figure 1. Cisco Prime DCNM



Features and Benefits of Cisco Prime DCNM

Cisco DCNM provides a robust framework and comprehensive feature set that meets the routing, switching, and storage administration needs of present and future virtualized data centers. Cisco Prime DCNM offers visibility into the virtualized hosts by integrating with industry standard hypervisors and provides host-tracking capability to easily manage and diagnose virtual and physical servers. Cisco DCNM streamlines the provisioning of the unified fabric and proactively monitors the LAN and SAN components. Offering an exceptional level of visibility and control through a single management pane for the Cisco Nexus®, Cisco Unified Computing System™, and Cisco MDS 9000 Family products, Cisco DCNM is the Cisco recommended solution for managing mission-critical data centers. See Table 1 for a summary of features and benefits.



Table 1. Features and Benefits of Cisco Prime DCNM

Feature	Benefit
Operations	
Event Management	<ul style="list-style-type: none"> Provides real-time network health summary with detailed view of individual network components, enabling operations staff to respond quickly to events based on their severity Ability to Acknowledge working on the alert and when resolved delete it Forward syslog alerts based on monitored facility
Web Templates	<ul style="list-style-type: none"> Pre-built Templates for provisioning LAN and SAN components Pre-built Template deployment scheduler and rollback mechanism Customizable Templates with conditional statements Create new templates using template editor Import configuration script and turn it into Template
Dashboards	<ul style="list-style-type: none"> Provides operational monitoring views of SAN, LAN and Server environments Domain driven dashboards for host, storage and switch Context driven searches launch within domain dashboards
Performance and Capacity	<ul style="list-style-type: none"> Provides detailed visibility into real-time and historical performance statistics in the data center Provides insight into port and bandwidth utilization, error count, traffic statistics, etc. Includes scheduled custom reports that can be offloaded for postprocessing
Capacity Manager	<ul style="list-style-type: none"> Track port utilization by port tier and predict when an individual tier pool will be consumed Chart view of port consumption based on custom groupings
VMpath Analysis for LAN and SAN	<ul style="list-style-type: none"> Provides view of virtual machine path through physical network to storage array and to the data store Provides capability to view performance for every switch hop all the way to the individual VMware ESX server and virtual machine
Topology Views	<ul style="list-style-type: none"> Displays real-time operationally focused topology of the data center infrastructure Offers Layer 2 overlay topology maps to streamline the troubleshooting process and reduce the mean time to repair; roll the cursor over the topology to view detailed information about paths and switch attributes

Feature	Benefit
Reports	<ul style="list-style-type: none"> Lets you build custom reports from predefined templates Provides easy-to-schedule reports that can be exported for postprocessing or sent by email
Automated Discovery	<ul style="list-style-type: none"> Using automated network discovery, provides up-to-date physical and logical inventory information Tracks inventory and performance information in real time; information can be used as a source of truth for asset tracking or as a data source for a configuration management database (CMDB)
Configuration and Change Management	<ul style="list-style-type: none"> Provides predeployment validation of configuration changes, reducing opportunities for human error Using historical configuration archive coupled with configuration comparison, enables you to identify the last-known good state if configuration problems occur Provides capability to back up configuration files from all switches
Image Management	<ul style="list-style-type: none"> Enables easy-to-perform, nondisruptive (In-Service Software Upgrade [ISSU]) mass deployment of Cisco NX-OS Software images, which can be scheduled or run on demand
Integration with Enterprise Systems	
Web Services APIs	<ul style="list-style-type: none"> Abstracts the network to implement an IT service management framework (Information Technology Infrastructure Library [ITIL]) with a CMDB at its center as well as to integrate with business intelligence reporting solutions Enables easy integration with third-party applications, allowing accurate flow-through provisioning and data mining Enables integration into enterprise storage management systems through Storage Management Initiative Specification (SMI-S)-based APIs
Event Forwarding	<ul style="list-style-type: none"> Enables integration with enterprise operations console (NOC) for alerts and events Uses email and traps to notify operations staff of service disruptions Add context to path alert by identifying name of host, ISL and storage entity



Who Should Migrate to Cisco DCNM?

Organizations that are currently using Cisco DCNM 5.2 and below or Cisco Fabric Manager Server (FMS) 5.0 and below are encouraged to migrate to Cisco Prime DCNM 6.1. Cisco Prime DCNM 6.1 is intended to be a transparent upgrade for customers who are using either of the two existing products.

Ordering Options

Cisco Prime™ DCNM is available with multiple licensing options for a wide range of data center deployments. Cisco Prime™ DCNM can be licensed for SAN and LAN environments separately or together. An important change in the licensing model with Cisco Prime™ DCNM (compared to Cisco Fabric Manager) is that licenses are hosted on the server and not the switch. All prior Cisco Fabric Manager licenses will be accepted for this model, and customers do not need to order or deploy any additional licenses to manage their existing Cisco MDS 9000 Family switches (see the Q&A document at <http://www.cisco.com/go/dcnm>).

The Cisco Prime™ DCNM Essentials Features are available as part of the software image. To unlock the advanced features purchase the DCNM Advanced Edition licenses in Table 2 below.

Table 2. Cisco DCNM Ordering Information

Product Name	Electronic Part Numbers	Physical Part Numbers	Chassis Part Numbers
DCNM for SAN Advanced Edition for MDS 9100	L-DCNM-S-M91-K9=	DCNM-SAN-M91-K9=	DCNM-SAN-M91-K9
DCNM for SAN Advanced Edition for MDS 9200	L-DCNM-S-M92-K9=	DCNM-SAN-M92-K9=	DCNM-SAN-M92-K9
DCNM for SAN Advanced Edition for MDS 9500	L-DCNM-S-M95-K9=	DCNM-SAN-M95-K9=	DCNM-SAN-M95-K9
DCNM for SAN Advanced Edition for Nexus 7000	L-DCNM-S-N7K-K9=	DCNM-SAN-N7K-K9=	DCNM-SAN-N7K-K9
DCNM for SAN Advanced Edition for Nexus 5000	L-DCNM-S-N5K-K9=	DCNM-SAN-N5K-K9=	DCNM-SAN-N5K-K9
DCNM for LAN Advanced Edition for Nexus 5000	L-DCNM-L-N5K-K9=	DCNM-LAN-N5K-K9=	DCNM-LAN-N5K-K9
DCNM for LAN Advanced Edition for Nexus 3000	L-DCNM-L-N3K-K9=	DCNM-LAN-N3K-K9=	DCNM-LAN-N3K-K9
DCNM for LAN Advanced Edition for Nexus 7000	L-DCNM-N7K-K9=	DCNM-N7K-K9=	DCNM-N7K-K9

For More Information

For more information about the Cisco DCNM software, send an email to ask-dcnm@cisco.com, visit the product homepage at www.cisco.com/go/dcnm, or contact your local account representative.