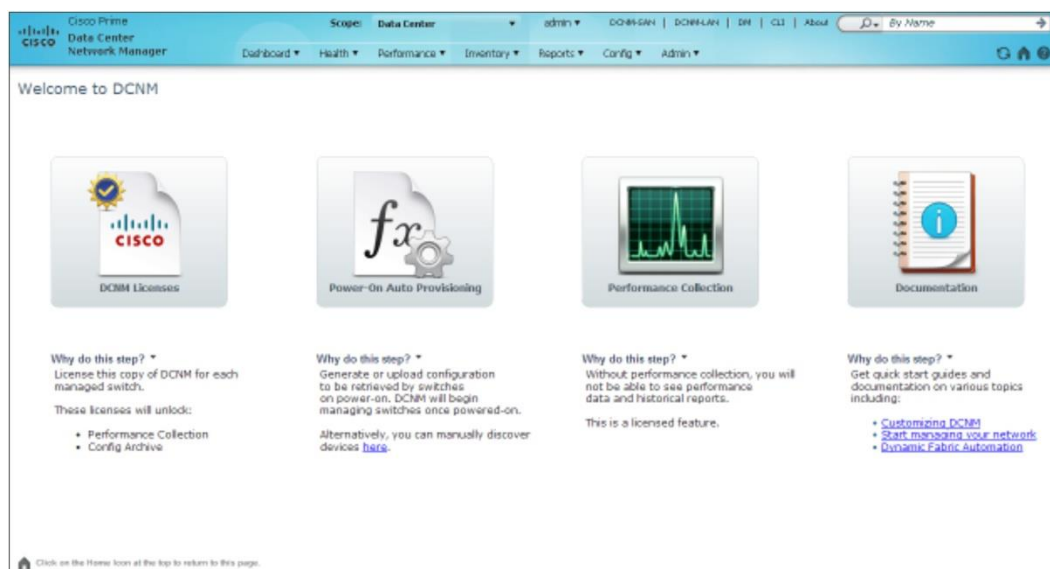


Cisco Prime Data Center Network Manager Release 7.2

PB735417



Cisco Prime™ Data Center Network Manager (DCNM) software provides an advanced network management system (NMS) for storage, LAN, and programmable fabrics. Cisco Prime DCNM Release 7.2 updates the previous release with Fibre Channel over Ethernet (FCoE), slow-drain analysis, network-attached storage (NAS) filer discovery, and topology view enhancements.

DCNM 7.2 continues to support multitenant cloud deployments and scalable fabric management by integrating with popular hypervisor solutions such as VMware vCloud Director and OpenStack alongside orchestration mechanisms such as Cisco UCS® Director. DCNM 7.2 provides a virtual appliance form factor to simplify deployment and reduce labor and operating expenses (OpEx).

New Features

DCNM 7.2 offers these enhancements:

- FCoE over fabric extenders:** To cost effectively provide FCoE for host connections, DCNM 7.2 supports FCoE over fabric extender (FEX) ports. This approach reduces the per-port cost for FCoE and helps position Cisco Nexus® 7000 Series Switches at the network edge. To allow FCoE support over fabric extenders, a FEX port that is part of an Ethernet virtual device context (VDC) is shared with the storage VDC. The FEX is connected to the Cisco Nexus 7000 Series Switches through a fabric PortChannel (FPC).

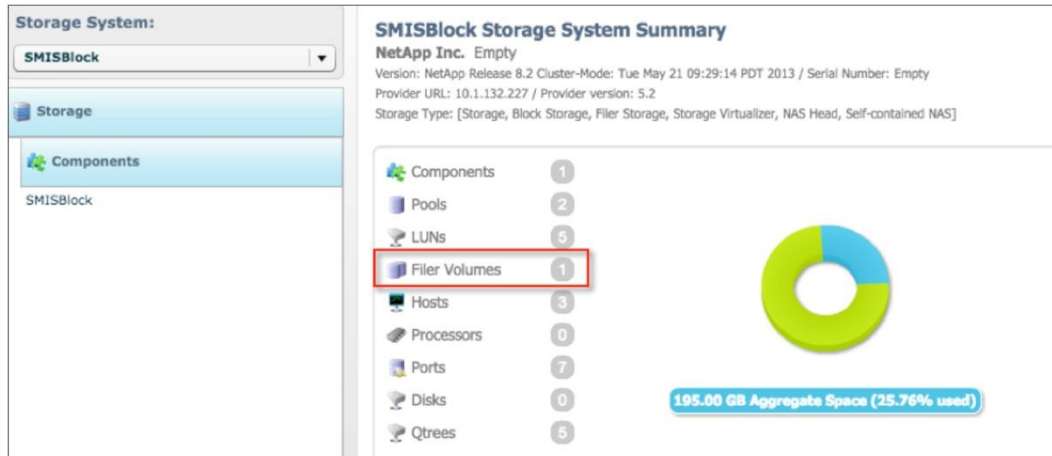
- Slow-drain storage analysis updates: DCNM 7.2 updates the slow-drain storage analysis function, which helps automate the process of troubleshooting the user's storage fabric. This feature significantly reduces the effort needed to troubleshoot slow-drain issues (Figure 1). Host, storage, and switch ports are included in the analysis. DCNM 7.2 enhances slow-drain storage analysis by adding transmit buffer-to-buffer (TxB2B) and transmit wait (TxWait) fields color coded to indicate performance. In addition, the function now allows longer polling intervals, and users can now view results during data collection.

Figure 1. Cisco Prime DCNM 7.2(1) Slow-Drain Analysis Function with TxB2B and TxWait Enhancements

Switch Name	Interface	Speed	ConnectTo	Type	TxCreditLoss	TxLinkReset	RxLinkReset	TxTimeoutDiscard	TxDiscard	TxWaitAvg100ms	RxB2Bto0	TxB2Bto0	TxWait(2.5s)
emc-9396	fc1/96	16Gb	emc-9250h-1 fc1/40	Switch	0	0	0	0	0	0	0	0	0
fab-sw3	fc1/1	4Gb	fab-sw2 fc10/1	Switch	0	0	0	0	0	0	0	0	0
emc-9250h-1	fc1/38	8Gb	fab-sw1 fc2/47	Switch	0	0	0	0	0	0	25	0	0
emc-9396	fc1/1	8Gb	fab-sw1 fc3/31	Switch	0	0	0	0	0	0	0	0	0
fab-sw1	fc2/1	8Gb	emc-9710-fcp fc1/35	Switch	0	0	0	0	0	0	0	0	0
fab-sw3	fc1/2	2Gb	d8300-0	Host	0	0	0	0	0	0	0	0	0
fab-sw2	fc2/37	8Gb	emc-9706-fcp fc2/37	Switch	0	0	0	0	0	0	0	0	0
fab-sw2	fc2/4	8Gb	VNXS300_1887_portA2	Storage	0	0	0	0	0	0	0	7434	15
emc-9250h-1	fc1/39	16Gb	emc-9250h-2 fc1/39	Switch	0	0	0	0	0	0	0	50577684	32880572
fab-9148	fc1/36	4Gb	VNXS300_1886_portA1	Storage	0	0	0	0	0	0	0	0	0
fab-sw1	fc2/48	8Gb	emc-ddr-win1	Host	0	0	0	0	0	0	0	0	0
emc-9396	fc1/93	8Gb	VNXS300_1886_portA0	Storage	0	0	0	0	0	0	0	0	0
emc-9250h-1	fc1/27	2Gb	sol-d1	Host	0	0	0	0	0	0	0	11126	3008
fab-sw1	fc2/47	8Gb	emc-9250h-1 fc1/38	Switch	0	0	0	0	0	0	0	28	0
fab-sw2	fc2/23	8Gb	emc-ddr-win2	Host	0	0	0	0	0	0	0	0	0
emc-9250h-1	fc1/19	16Gb	emc-9710-fcp fc1/40	Switch	0	0	0	0	0	0	0	0	0
emc-9706-fcp	fc2/37	8Gb	fab-sw2 fc2/37	Switch	0	0	0	0	0	0	0	0	0
emc-mirishan	fc1/35	8Gb	VMAX_3741_BH_LRA	Storage	0	0	0	0	0	0	0	0	0
emc-mirishan	fc1/17	4Gb	VNXS300_1886_portB1	Storage	0	0	0	0	0	0	0	2362	1
emc-9706-fcp	fc2/47	8Gb	VMAX_5099_BGA_FC	Storage	0	0	0	0	0	0	0	529406	166720
fab-sw2	fc2/39	8Gb	emc-9250h-2 fc1/15	Switch	0	0	0	0	0	0	0	0	0
emc-9710-fcp	fc1/35	8Gb	fab-sw1 fc2/1	Switch	0	0	0	0	0	0	0	0	0
emc-9710-fcp	fc1/37	16Gb	emc-9250h-1 fc1/4	Switch	0	0	0	0	0	0	0	0	0
emc-9396	fc1/62	8Gb	DD670-b_port5b	Storage	0	0	0	0	0	0	0	0	0

- FCoE over Cisco Nexus F3-Series switches: DCNM 7.2(1) supports T11 FC-BB_E standard FCoE over lossless Ethernet on Cisco Nexus F3-Series line cards for Cisco Nexus 7000 Series and 7700 platforms in storage VDCs.
- Topology views and overlays: DCNM 7.2(1) allows you to view the LAN topology on the basis of the virtual PortChannel (vPC) and overlay transport virtualization (OTV).
- Event suppression: DCNM 7.2(1) allows you to suppress specified events on the basis of user-specified suppressor rules from the web client. Such events will not be displayed on the DCNM web client or SAN client. The events will neither persist in the DCNM database nor be forwarded through email or Simple Network Management Protocol (SNMP) trap.
- Filer NAS discovery: NAS is similar to block storage. DCNM 7.2 includes filer NAS discovery. This capability discovers filer components for the NetApp filer, including filer volumes, Qtrees, quotas, local file system, exported shares, storage ports, and permissions. Data is consolidated and displayed in the storage dashboard (Figure 2).

Figure 2. Cisco Prime DCNM Filer Storage Management Initiative Specification (SMI-S) System Summary



Targeted Users

DCNM 7.2 is a general-purpose release for Cisco Nexus switches and Cisco® MDS 9000 Family storage switches running Cisco NX-OS Software. Cisco customers using SAN, LAN, or programmable fabrics should consider deploying DCNM 7.2.

Existing DCNM users also should consider deploying Release 7.2. Customers who want GUI management capabilities for Cisco Nexus 9000 Series Switches in standalone mode also should consider deploying Release 7.2.

Customers deploying the DCNM 7.2 virtual appliance form factor (either the ISO or OVA version) should follow the instructions provided in the installation guide with regard to virtual machine host requirements. The DCNM 7.2 virtual appliance form factor requires a suitable hypervisor or specified bare-metal server host.

Ordering Information

Cisco Prime DCNM 7.2 software is offered for order at no charge; however, additional functions are enabled with the purchase of an Advanced feature license for a given device type. You can download software at the [Cisco Download Software](#) webpage. Support for baseline Cisco programmable fabric automation, including Cisco Dynamic Fabric Automation (DFA), is included without additional per-device licensing.

DCNM 7.2 is available for Microsoft Windows Server, Red Hat Enterprise Linux, and (as an ISO or OVA file) VMware vSphere deployments.

Base server software without advanced feature licenses is available using the part numbers listed in Table 1. Ordering the base server software allows customers without advanced feature licenses to purchase software application support for the DCNM server software.

Table 1. Ordering Information

Product Name	Part Number	Description
Cisco Prime Data Center Networking Manager	DCNM-SVR-70-K9=	DCNM Server Spare Physical Delivery [DVD media]
	R-DCNM-SVR-70-K9=	DCNM Server 7 Spare Electronic Delivery

For More Information

For more information about Cisco Prime DCNM, visit <http://www.cisco.com/go/DCNM> or contact your local account representative.




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