



CHAPTER 5

Managing the Configuration

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Information About Configuration Management

The Cisco Nexus 1000V provides you with the capability to change the switch name, configure messages of the day, and display, save, and erase configuration files.

Changing the Switch Name

Use this procedure to change the switch name or prompt from the default (switch#) to another character string.

BEFORE YOU BEGIN

Before beginning this procedure, you must know or do the following:

- You are logged in to the CLI in configuration mode.
- If the VSM is connected to vCenter Server then this procedure also changes the DVS the VSM is managing. In case of error in renaming the DVS, a syslog is generated and the DVS on vCenter Server will continue using the old DVS name.

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DETAILED STEPS

Command	Purpose
Step 1 switchname Example: n1000v(config)# switchname metro metro(config)# exit metro#	Changes the switch prompt.

Configuring a Message of the Day

Use this procedure to configure a message of the day (MOTD) to display before the login prompt on the terminal when a user logs in.

BEFORE YOU BEGIN

Before beginning this procedure, you must know or do the following:

- You are logged in to the CLI in configuration mode.
- The banner message can be up to 40 lines with up to 80 characters per line.
- Use the following guidelines when choosing your delimiting character:
 - Do not use the *delimiting-character* in the *message* string.
 - Do not use " and % as delimiters.
- The following tokens can be used in the the message of the day:
 - \$(hostname) displays the host name for the switch.
 - \$(line) displays the vty or tty line or name.

DETAILED STEPS

Command	Purpose
Step 1 banner motd [<i>delimiting-character message delimiting-character</i>] Example: n1000v(config)# banner motd #April 16, 2008 Welcome to the svcs# n1000v(config)#	Configures a banner message of the day. <ul style="list-style-type: none"> • up to 40 lines • up to 80 characters per line • enclosed in delimiting character, such as # • can span multiple lines • can use tokens
Step 2 show banner motd Example: n1000v(config)# show banner motd April 16, 2008 Welcome to the Switch	Displays the configured banner message.

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Verifying the Configuration

Use this section to view the switch configuration. This section includes the following topics:

- [Verifying the Software and Hardware Versions, page 5-3](#)
- [Verifying the Running Configuration, page 5-4](#)
- [Comparing the Startup and Running Configurations, page 5-6](#)
- [Verifying the Interface Configuration, page 5-7](#)

Verifying the Software and Hardware Versions

Use this command to view the versions of software and hardware on your system, for example, to verify the version before and after an upgrade.

BEFORE YOU BEGIN

Before using this command, you must know or do the following:

- You are logged in to the CLI in any command mode.

DETAILED STEPS

	Command	Description
Step 1	show version Example: n1000v# show version	Displays the versions of system software and hardware that are currently running on the switch,

```

Example:
n1000v# show version
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2009, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained in this software are
owned by other third parties and used and distributed under
license. Certain components of this software are licensed under
the GNU General Public License (GPL) version 2.0 or the GNU
Lesser General Public License (LGPL) Version 2.1. A copy of each
such license is available at
http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php

Software
  loader:      version 1.2(2)
  kickstart:   version 4.0(4)SV1(1)
  system:      version 4.0(4)SV1(1)
  kickstart image file is:
  kickstart compile time:  4/2/2009 23:00:00
  system image file is:    bootflash:/svs.bin
  system compile time:     4/2/2009 23:00:00 [04/23/2009 09:55:29]

Hardware
  Cisco Nexus 1000V Chassis ("Virtual Supervisor Module")

```

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```
Intel(R) Xeon(R) CPU          with 1034780 kB of memory.
Processor Board ID T5056893321
```

```
Device name: n1000v
bootflash:   3897832 kB
```

```
Kernel uptime is 0 day(s), 0 hour(s), 2 minute(s), 55 second(s)
```

```
plugin
Core Plugin, Ethernet Plugin
```

Verifying the Running Configuration

Use this section to view the configuration currently running on the system.

BEFORE YOU BEGIN

Before using this command, you must know or do the following:

- You are logged in to the CLI in any command mode.

DETAILED STEPS

Command	Description
Step 1 <code>show running-config</code> Example: n1000v# show running-config	Displays the versions of system software and hardware that are currently running on the switch,

```
Example:
n1000v# show running-config
version 4.0(4)SV1(1)
username admin password 5 $1$ouYE/pRM$/j4/2lg3RmD4PhE.1Z1S.0 role network-admin
telnet server enable
ip domain-lookup
ip host n1000v 172.23.232.141
kernel core target 0.0.0.0
kernel core limit 1
system default switchport
vem 3
 host vmware id 89130a67-e66b-3e57-ad25-547750bcfc7e
snmp-server user admin network-admin auth md5 0xb64ad6879970f0e57600c443287a79f0 priv
0xb64ad6879970f0e57600c443287a79f0 localizedkey
snmp-server enable traps license
vrf context management
 ip route 0.0.0.0/0 172.23.232.1
switchname n1000v
vlan 1,260-269
vdc n1000v id 1
 limit-resource vlan minimum 16 maximum 513
 limit-resource monitor-session minimum 0 maximum 64
 limit-resource vrf minimum 16 maximum 8192
 limit-resource port-channel minimum 0 maximum 256
 limit-resource u4route-mem minimum 32 maximum 80
 limit-resource u6route-mem minimum 16 maximum 48
port-profile Unused_Or_Quarantine_Uplink
```

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```
description "Port-group created for Nexus1000V internal usage. Do not use."
capability uplink
vmware port-group
shutdown
state enabled
port-profile Unused_Or_Quarantine_Veth
description "Port-group created for Nexus1000V internal usage. Do not use."
vmware port-group
shutdown
state enabled
port-profile system-uplink
capability uplink
vmware port-group
switchport mode trunk
switchport trunk allowed vlan 260-261
no shutdown
system vlan 260-261
state enabled
port-profile vm-uplink
capability uplink
vmware port-group
switchport mode access
switchport access vlan 262
no shutdown
state enabled
port-profile data262
vmware port-group
switchport access vlan 262
no shutdown
state enabled

interface Ethernet3/2
inherit port-profile system-uplink

interface Ethernet3/3
inherit port-profile vm-uplink

interface mgmt0
ip address 172.23.232.141/24

interface control0
line vty
session-limit 32
boot kickstart bootflash:/kick.bin sup-1
boot system bootflash:/svs.bin sup-1
boot kickstart bootflash:/kick.bin sup-2
boot system bootflash:/svs.bin sup-2
svs-domain
domain id 141
control vlan 260
packet vlan 261
svs mode L2
svs connection vc
protocol vmware-vim
remote hostname 172.23.231.201
vmware dvs uuid "2c 6f 3d 50 62 f3 7f 4d-dc 00 70 e2 52 77 ca 15" datacenter-name
HamiltonDC
connect

n1000v#
```

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Comparing the Startup and Running Configurations

Use this procedure to view the difference between the startup and running configurations.

BEFORE YOU BEGIN

Before using this command, you must know or do the following:

- You are logged in to the CLI in any command mode.

DETAILED STEPS

Command	Description
Step 1 show running-config diff Example: n1000v# show running-config diff	Displays the difference between the startup configuration and the running configuration currently on the switch.

Example 5-1 Command output, show running-config diff

```
n1000v# show running-config diff
*** Startup-config
--- Running-config
*****
*** 1,7 ***
  version 4.0(1)
- system mem-thresholds minor 0 severe 0 critical 0
  vrf context management
    ip route 0.0.0.0/0 10.78.1.1
  switchname DCOS-112-S10
  vlan 80,110-111,150,160,170
  vdc DCOS-112-S10 id 1
--- 1,6 ---
*****
*** 116,131 ***
  ip address 10.78.1.112/24
  interface Vethernet49
    inherit port-profile vlan160
- interface Vethernet65
-   inherit port-profile vlan170
  interface Vethernet50
    inherit port-profile vlan160
  interface Vethernet66
    inherit port-profile vlan170
  ip route 0.0.0.0/0 10.78.1.1
  vlan 80-80, 110-110, 111-111, 150-150, 160-160, 170-170

--- 115,130 ---
  ip address 10.78.1.112/24

  interface Vethernet49
    inherit port-profile vlan160

  interface Vethernet50
    inherit port-profile vlan160
```

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```
+ interface Vethernet65
+   inherit port-profile vlan170
+
+   interface Vethernet66
+     inherit port-profile vlan170
+     ip route 0.0.0.0/0 10.78.1.1
+     vlan 80-80, 110-110, 111-111, 150-150, 160-160, 170-170

n1000v#
```

Verifying the Interface Configuration

This section includes the following procedures:

- [Verifying a Brief Version of an Interface Configuration, page 5-7](#)
- [Verifying a Detailed Version of an Interface Configuration, page 5-8](#)
- [Verifying a Brief Version of all Interfaces, page 5-8](#)
- [Verifying the Running Configuration for all Interfaces, page 5-9](#)

For more information about displaying interfaces, see the document, *Cisco Nexus 1000V Interface Configuration Guide, Release 4.2(1)SV1(5.1)*

Verifying a Brief Version of an Interface Configuration

Use this procedure to view a brief version of an interface configuration.

BEFORE YOU BEGIN

Before using this procedure, you must know or do the following:

- You are logged in to the CLI in any command mode.

DETAILED STEPS

Command	Description
Step 1 <code>show interface {type} {name} brief</code>	Displays a brief version of information about the specified interface configuration,

Example:

```
n1000v# show interface mgmt 0 brief
```

```
-----
Port    VRF      Status IP Address      Speed    MTU
-----
mgmt0   --      up      10.78.1.63      1000    1500
n1000v#
```

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Verifying a Detailed Version of an Interface Configuration

Use this procedure to view a detailed version of an interface configuration.

BEFORE YOU BEGIN

Before using the commands in this section, you must know or do the following:

- You are logged in to the CLI in any command mode.

DETAILED STEPS

Command	Description
Step 1 <code>show interface {type} {name}</code>	Displays details about the specified interface configuration,

Example:

```
n1000v# show interface mgmt 0
mgmt0 is up
  Hardware: Ethernet, address: 0050.5689.3321 (bia 0050.5689.3321)
  Internet Address is 172.23.232.141/24
  MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA
  full-duplex, 1000 Mb/s
  Auto-Negotiation is turned on
    4961 packets input, 511995 bytes
    0 multicast frames, 0 compressed
    0 input errors, 0 frame, 0 overrun, 0 fifo
    245 packets output, 35853 bytes
    0 underrun, 0 output errors, 0 collisions
    0 fifo, 0 carrier errors

n1000v#
```

Verifying a Brief Version of all Interfaces

Use this procedure to view a brief version of all interfaces configured on your system.

BEFORE YOU BEGIN

Before using this procedure, you must know or do the following:

- You are logged in to the CLI in any command mode.

DETAILED STEPS

Command	Description
Step 1 <code>show interface brief</code>	Displays a brief version of all interface configurations on your system,

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Example:

```
n1000v# show interface brief
```

```
-----
Port      VRF      Status IP Address      Speed      MTU
-----
mgmt0     --       up      172.23.232.141  1000      1500
-----

Ethernet  VLAN   Type Mode   Status Reason      Speed      Port
Interface                               Speed      Ch #
-----
Eth3/2    1      eth trunk up      none      1000 (D) --
Eth3/3    262    eth access up    none      1000 (D) --
-----

Interface  VLAN   Type Mode   Status Reason      MTU
-----
Veth81     630    virt access up    none      1500
Veth82     630    virt access up    none      1500
Veth224    631    virt access up    none      1500
Veth225    1      virt access nonPcpt nonParticipating 1500
n1000v#
```

Verifying the Running Configuration for all Interfaces

Use this procedure to view the running configuration for all interfaces on your system.

BEFORE YOU BEGIN

Before using this procedure, you must know or do the following:

- You are logged in to the CLI in any command mode.
- The output for the command, **show running-config interface** differs from that of the command, **show interface**.

DETAILED STEPS

Command	Description
Step 1 show running-config interface	Displays the running configuration for all interfaces on your system,

Example:

```
n1000v# show running-config interface
version 4.0(1)

interface Ethernet3/2
  switchport
  inherit port-profile sftrunk

interface Ethernet3/6
  switchport
  inherit port-profile vmuplink

interface Ethernet6/2
  switchport
  inherit port-profile alluplink
```

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```
interface mgmt0
  ip address 10.78.1.63/24

interface Vethernet81
  inherit port-profile vm630

interface Vethernet82
  inherit port-profile vm630

interface Vethernet224
  inherit port-profile vm631

interface Vethernet225

n1000v#
```

Saving a Configuration

Use this procedure to save the running configuration to the startup configuration so that your changes are retained in the configuration file the next time you start the system.

BEFORE YOU BEGIN

Before using this command, you must know or do the following:

- You are logged in to the CLI in any command mode.

DETAILED STEPS

Command	Description
Step 1 <code>copy running-config startup-config</code>	Saves the new configuration into nonvolatile storage, after which the running and the startup copies of the configuration are identical.

```
Example:
n1000v(config)# copy run start
[#####] 100%
n1000v(config)#
```

Erasing a Configuration

Use this procedure to erase a startup configuration.

BEFORE YOU BEGIN

Before using this command, you must know or do the following:



Caution

The **write erase** command erases the entire startup configuration with the exception of loader functions, the license configuration, and the certificate extension configuration.

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- You are logged in to the CLI.
- The following parameters are used with this command:
 - boot: Erases the boot variables and the mgmt0 IP configuration.
 - debug: Erases the debug configuration.

DETAILED STEPS

Command	Description
Step 1 <code>write erase</code> [boot debug]	The existing startup configuration is completely erased and all settings revert to their factory defaults. The running configuration is not affected.

Feature History for Configuration Management

This section provides the configuration management feature release history.

Feature Name	Releases	Feature Information
Configuration Management	4.0(4)SV1(1)	This feature was introduced.

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