Managing the Configuration

This chapter contains the following sections:

Information About Configuration Management

The Cisco Nexus 1000V enables you 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.

If the VSM is connected to the OpenStack controller, then this procedure also changes the Dynamic Vectoring and Streaming (DVS) engine that the VSM is managing. If you make an error when renaming the DVS, a syslog is generated and the DVS on the OpenStack controller continues to use the old DVS name.

Before You Begin

Before beginning this procedure, you must be logged in to the CLI in configuration mode.

Procedure

	Command or Action	Purpose
Step 1	switch(config)# **switchname**	Changes the switch prompt.

```
switch(config)# switchname metro
metro(config)# exit
metro#
```

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.

- 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.

Before You Begin

Before beginning this procedure, you must be logged in to the CLI in configuration mode.

Procedure

	Command or Action	Purpose
Step 1	switch(config)# **banner motd** [*delimiting-character message delimiting-character*]	Configures a banner message of the day with the following features: • 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	switch(config)# **show banner motd**	Displays the configured banner message.

```
switch(config)# banner motd #April 16, 2011 Welcome to the svs#
switch(config)# show banner motd
April 16, 2011 Welcome to the Switch
```

Verifying the Configuration

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

- Verifying the Software and Hardware Versions

- Verifying the Running Configuration

- Comparing the Startup and Running Configurations

- Verifying the Interface Configuration

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 beginning this procedure, you must be logged in to the CLI EXEC mode.

Procedure

	Command or Action	Purpose
Step 1	swtich# **show version**	Displays the versions of system software and hardware that are currently running on the switch,

```
switch# 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")
  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 procedure to view the configuration currently running on the system.

Before You Begin

Before beginning this procedure, you must be logged in to the CLI in any command mode.

Procedure

	Command or Action	**Purpose**
Step 1	switch# **show running-config**	Displays the versions of system software and hardware that are currently running on the switch.

```
switch# 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 switch 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 switch
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
  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

switch#
```

Comparing the Startup and Running Configurations

Before You Begin

Before beginning this procedure, you must be logged in to the CLI in any command mode.

Procedure

	Command or Action	**Purpose**
Step 1	swtich# **show running-config diff**	Displays the difference between the startup configuration and the running configuration currently on the switch.

```
switch# 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

+ 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

switch#
```

Verifying the Interface Configuration

This section includes the following procedures:

- Verifying a Brief Version of an Interface Configuration
- Verifying a Detailed Version of an Interface Configuration
- Verifying a Brief Version of all Interfaces

> • Verifying the Running Configuration for all Interfaces

Verifying the Interface Configuration in a Brief Version

Before You Begin

Before beginning this procedure, you must be logged in to the CLI in any command mode.

Procedure

	Command or Action	**Purpose**
Step 1	switch# **show interface** {*type*} {*name*} **brief**	Displays a brief version of information about the specified interface configuration.

```
switch# show interface mgmt 0 brief

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

Verifying an Interface Configuration in a Detailed Version

Before You Begin

Before beginning this procedure, you must be logged in to the CLI in any command mode.

Procedure

	Command or Action	**Purpose**
Step 1	switch# **show interface** {*type*} {*name*}	Displays details about the specified interface configuration.

```
switch# 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
```

Verifying All Interfaces in a Brief Version

Before You Begin

Before beginning this procedure, you must be logged in to the CLI in any command mode.

Procedure

	Command or Action	Purpose
Step 1	switch# **show interface brief**	Displays a brief version of all interface configurations on your system.

```
switch# 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                                                                  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
switch#
```

Verifying the Running Configuration for all Interfaces

The output for the command, **show running-config interface** differs from the output of the **show interface** command.

Before You Begin

Before beginning this procedure, you must be logged in to the CLI in any command mode.

Procedure

	Command or Action	Purpose
Step 1	switch# **show running-config interface**	Displays the running configuration for all interfaces on your system.

```
switch# 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

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

switch#
```

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 beginning this procedure, you must be logged in to the CLI in any command mode.

Procedure

	Command or Action	Purpose
Step 1	switch# **copy running-config startup-config**	(Optional) Saves the change persistently through reboots and restarts by copying the running configuration to the startup configuration.

```
switch# copy run start
[#########################################] 100%
switch#
```

Erasing a Configuration

Use this procedure to erase a startup configuration.

⚠️

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

Before You Begin

Before beginning this procedure, you must be logged in to the CLI in any command mode.

Procedure

	Command or Action	**Purpose**
Step 1	switch# **write erase** [**boot**	**debug**]	The existing startup configuration is completely erased and all settings revert to their factory defaults. The running configuration is not affected. The following parameters are used with this command: • boot: Erases the boot variables and the mgmt0 IP configuration. • debug: Erases the debug configuration.

```
switch# write erase debug
```

Feature History for Configuration Management

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