

Configuring System Information on Catalyst Switches

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Introduction

Catalyst switches allow you to configure several descriptive system parameters to ease in the administration of internetworking equipment. The ability to document and identify networking equipment will make it easier for network administrators to manage and maintain their network. There are two ways that system information can be viewed or used.

1. Via Simple Network Management Protocol (SNMP) using an SNMP management station.
2. Via the command prompt on the switch.

This document describes how to set the system parameters on Catalyst switches running CatOS and Catalyst 6000 Series switches, which can run either CatOS on the Supervisor and Cisco IOS on the MSFC or Cisco IOS® on the Supervisor and MSFC. System parameters can then be queried by SNMP management stations. This document also shows you how to set the switch's date, time, and command prompt. Below are the tasks that are performed in this document.

1. Connect a terminal to the switch
2. Set the system name
3. Set the system prompt
4. Set the system location
5. Set the system contact
6. Set the system time and date
7. View the system information
8. View the date and time
9. Set the IP address on the switch
10. View the IP configuration on the switch

Before You Begin

Conventions

For more information on document conventions, see the Cisco Technical Tips Conventions.

Prerequisites

There are no specific prerequisites for this document.

Components Used

The information in this document is based on the software and hardware versions below.

- PC running Hyper Terminal Software
- Catalyst 5509 switch running Catalyst software version 6.4(2)
- Catalyst 6000 switch running Cisco IOS software version 12.1(11b)

Note: For CatOS, any Catalyst 4000, 5000, or Catalyst 6000 family member could have been used in this scenario to obtain the same results.

The information presented in this document was created from devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. Failure to do this may cause some or all of the steps in this document to fail. If you are working in a live network, ensure that you understand the potential impact of any command before using it.

Use the **clear config all** command on switches with CatOS software and **write erase** command on switches running Cisco IOS to ensure that the switches have a default configuration.

Step-by-Step Procedure

Perform the following to set the system parameters on Catalyst switches running CatOS and Catalyst 6000 Series switches in order for them to run either CatOS on the Supervisor and Cisco IOS on the MSFC or Cisco IOS® on the Supervisor and MSFC

1. Connect a terminal to the console ports of the switches. For details on how to connect to the Console ports of the Catalyst Switches, refer to Connecting a Terminal to the Console Port on Catalyst Switches.
2. Use the **set system name** command to set the name of the switch in CatOS. Use the **hostname** command to set the name of the switch in Cisco IOS.

CatOS:

```
Console> (enable) set system name Switch-A-SJ1  
System name set.  
Switch-A-SJ1> (enable)
```

Cisco IOS:

```
Router(config)#hostname Switch-A-SJ1  
Switch-A-SJ1(config)
```

Note: When beginning from a clean configuration in CatOS, the prompt will automatically include a ">" symbol when you execute the set system name command. In Cisco IOS, the prompt will automatically include "Router>" in user exec mode. To change the hostname, you must be in the global configuration mode. Refer to Cisco IOS Command Modes for more information.

3. Set the system prompt using the **set prompt** command in CatOS. Set the prompt using the **prompt** command from global config mode in Cisco IOS.

CatOS:

```
Switch-A-SJ1> (enable) set prompt Switch-A>
Switch-A> (enable)
```

Cisco IOS:

```
Switch-A-SJ1(config)#prompt Switch-A>
Switch-A-SJ1(config)#exit
Switch-A>
```

Note: When setting the prompt with the **set prompt** command in CatOS or the **prompt** command in global configuration mode in Cisco IOS, include the ">" symbol if you would like it to appear as part of the system prompt. In Cisco IOS, to remove the new prompt and return the prompt to its default, use the **no prompt** command.

4. Use the **set system location** command to set the location information for the switch in CatOS. There is no equivalent command for Cisco IOS. You can, however, use the **banner motd** global configuration command to set location information..

CatOS:

```
Switch-A> (enable) set system location 170 West Tasman Drive, San Jose, CA
System location set.
Switch-A> (enable)
```

Cisco IOS:

```
Switch-A(config)#banner motd ?
  LINE  c banner-text c, where 'c' is a delimiting character

Switch-A(config)#banner motd c 170 West Tasman Drive, San Jose, CA c
```

Note: Note that the text between the letter "c" will be displayed during the next login.

5. Set the system contact using the **set system contact** command in CatOS. In Cisco IOS, use the **banner motd** global configuration command.

CatOS:

```
Switch-A> (enable) set system contact Tech Support 408 123 4567
System contact set.
Switch-A> (enable)
```

Cisco IOS:

```
Switch-A(config)#banner motd ?
  LINE  c banner-text c, where 'c' is a delimiting character
Switch-A(config)#banner motd c 170 West Tasman Drive, San Jose, CA; Tech
Support 408 123 4567 c
```

6. Set the system date and time using the **set time** command in CatOS. For Cisco IOS, use the **clock set** command in privileged EXEC mode.

CatOS:

```
Switch-A> (enable) set time Thursday 04/03/2003 17:32:40
Thu Apr 3 2003, 17:32:40
Switch-A> (enable)
```

Cisco IOS:

```
Switch-A#clock set 20:09:01 3 Apr 2003
```

7. For CatOS, view the system information by entering the **show system** command at the prompt and note the information in the fields for System Name, System Location and System Contact. There is no equivalent command in Cisco IOS. Use the **show environment** command. **Show run** can be used to verify system location, system contact, etc.

CatOS:

```
Switch-A> (enable) show system
```

```
PS1-Status PS2-Status Fan-Status Temp-Alarm Sys-Status Uptime d,h:m:s Logout
-----
ok          none        OK          off         OK          14,04:32:32  20 min

PS1-Type   PS2-Type   Modem   Baud   Traffic Peak Peak-Time
-----
WS-C5508   WS-C5518   disable 9600   0%      0% Thu Apr 3 2003, 00:25:07

System Name                System Location                System Contact                CC
-----
Switch-A-SJ1              170 West Tasman Drive, S Tech Support 408 123 456
```

```
Switch-A> (enable)
```

Cisco IOS:

```
Switch-A#show environment status
```

```
backplane:
  operating clock count: 2
  operating VTT count: 3
fan-tray:
  fantray fan operation sensor: OK
```

!--- Output suppressed.

```
Switch-A#show run
```

```
!
hostname Switch-A-SJ1
!
banner motd ^C
170 West Tasman Drive, San Jose, CA ^C
!
```

!--- Output suppressed.

8. Display the system date and time by entering the **show time** command at the prompt for CatOS. For Cisco IOS, use the **show clock** command.

CatOS:

```
Switch-A> (enable) show timeThu Apr 3 2003, 17:52:44
Switch-A> (enable)
```

Cisco IOS:

```
Switch-A#show clock20:09:06.079 UTC Thu Apr 3 2003
```

9. For CatOS, use **set interface sc0** and **set ip route** commands to set the IP address and default gateway on the switch (for management purposes). For Cisco IOS, use the **interface vlan**, **interface mod/port**, **switchport** and the **ip route** commands to set up access to the switch. You will enter both global and global interface mode.

CatOS:

```
Switch-A> (enable) set interface sc0 172.16.80.83 255.255.255.0
Interface sc0 IP address and netmask set.
```

!--- Setting the default gateway on the switch

```
Switch-A> (enable) set ip route 0.0.0.0 172.16.80.1
```

```
Route added.
Switch-A> (enable)
```

OR

!--- Alternate command to set the default gateway on the switch

```
Switch-A> (enable) set ip route default 172.16.80.1
Route added.
Switch-A> (enable)
```

Cisco IOS:

```
Switch-A(config)#interface vlan 1
Switch-A(config-if)#ip address 172.16.1.2 255.255.255.0
Switch-A(config-if)#no shut
```

```
Switch-A(config)#interface fastEthernet 3/1
Switch-A(config-if)#switchport
Switch-A(config-if)#switchport access vlan 1
Switch-A(config-if)#no shut
```

Now, set the default gateway of the switch. Other types of techniques may be used in setting default gateways and routing in general. The following example is one method:

```
Switch-A(config)#ip route 0.0.0.0 0.0.0.0 172.16.1.1
```

10. Verify the IP information on the switch by using **show interface** and **show ip route** commands in CatOS. Verify the ip information in Cisco IOS by using the **show ip interface brief** and **show ip route** commands.

CatOS:

```
Switch-A> (enable) show interface
sl0: flags=50 <DOWN,POINTOPOINT ,RUNNING>
      slip 0.0.0.0 dest 0.0.0.0
sc0: flags=63 <UP,BROADCAST ,RUNNING>
      vlan 1 inet 172.16.80.83 netmask 255.255.255.0 broadcast 172.16.80.255
```

```
Switch-A> (enable) show ip route
Fragmentation  Redirect  Unreachable
-----
enabled        enabled  enabled
```

The primary gateway: 172.16.80.1

Destination	Gateway	RouteMask	Flags	Use	Interface
default	172.16.80.1	0x0	UG	193	sc0
172.16.80.0	172.16.80.83	0xfffff00	U	690	sc0

```
Switch-A> (enable)
```

Cisco IOS:

```
Switch-A#show ip interface brief
```

Interface	IP-Address	OK?	Method	Status	Protocol
Vlan1	172.16.1.2	YES	manual	up	up
FastEthernet3/1	unassigned	YES	unset	up	up

!--- Output suppressed.

```
Switch-A#show ip route
```

```
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
```

N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
 E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
 i - IS-IS, L1 - ISIS level-1, L2 - ISIS level-2, ia - ISIS inter area
 * - candidate default, U - per-user static route, o - ODR
 P - periodic downloaded static route

Gateway of last resort is 172.16.1.1 to network 0.0.0.0

```

172.16.0.0/24 is subnetted, 1 subnets
C       172.16.1.0 is directly connected, Vlan1
S*    0.0.0.0/0 [1/0] via 172.16.1.1
Switch-A#

```

For further details on how to set up the IP address on Catalyst switches, refer to the Configuring an IP Address on Catalyst Switches Running CatOS document.

Commands for Verifying System Information

Use the following commands to verify system information:

- **show system** – To view the current system settings.
- **show time** – To view the system's date and time.
- **show interface** – To view the configured IP address on the switch
- **show ip route** – To view the default gateway configured on the switch

Command Summary

The following are the various commands referenced in this document:

CatOS (from enable mode)	Cisco IOS (from global config mode)
set system name	<i>hostname</i>
set prompt	<i>prompt</i>
set system location	<i>banner motd</i>
set system contact	<i>banner motd</i>
set time	<i>clock</i>
set int sc0	<i>interface vlan, interface mod/port, switchport</i>
set ip route	<i>ip route</i>
CatOS (from enable mode)	Cisco IOS (from enable mode)
show system	<i>show environment, show run</i>
show time	<i>show clock</i>
show interface	<i>show ip interface brief</i>
show ip route	<i>show ip route</i>

Related Information

- **Configuring an IP Address on Catalyst Switches Running CatOS**
 - **Configuring the Switch for the First Time – Cisco IOS**
 - **Working with Configuration Files on Catalyst Switches**
 - **LAN Product Support**
 - **LAN Switching Technology Support**
 - **Technical Support & Documentation – Cisco Systems**
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