show protocols

To display the configured protocols, use the **show protocols** command in user EXEC or privileged EXEC mode.

show protocols [*interface-name interface-number*]

Syntax Description

interface-name	(Optional) The type of interfaces. It can be one of the following values: • **ATM**—ATM interface • **Async**—Async interface • **Auto-Template**—Auto-Template interface • **BVI**—Bridge-Group Virtual Interface • **CDMA-Ix**—CDMA Ix interface • **Container**—Container interface • **CTunnel**—CTunnel interface • **Dialer**—Dialer interface • **Ethernet**—Institute of Electrical Electronics Engineers (IEEE) 802.3 • **FastEthernet**—FastEthernet IEEE 802.3 • **EsconPhy**—ESCON interface • **fcpa**—Fiber Channel • **Filter**—Filter interface • **multiservice**—Multiservice interface • **Pos-channel**—POS Channel interfaces • **SBC**—Session Border Controller • **SYSCLOCK**—Telecom-Bus Clock Controller • **Tunnel**—Tunnel interface • **Vif**—PGM Multicast Host interface • **Virtual-Access**—Virtual access interface • **Virtual-PPP**—Virtual PPP interface • **Virtual-Template**—Virtual template interface • **Virtual-TokenRing**—Virtual TokenRing • **Vlan**—Catalyst VLANs • **vmi**—Virtual Multipoint Interface

	• **voaBypassIn**—VOA-Bypass-In interface • **voaBypassOut**—VOA-Bypass-Out interface • **voaFilterIn**—VOA-Filter-In interface • **voaFilterOut**—VOA-Filter-Out interface • **voaIn**—VOA-In interface • **voaOut**—VOA-Out interface
interface-number	(Optional) Interface number.

Command Modes

User EXEC (>)
Privileged EXEC (#)

Command History

Release	Modification
10.0	This command was introduced.
12.0(3)T	The command was integrated in a release earlier than Cisco IOS Release 12.0(3)T.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
Cisco IOS XE Release 2.1	This command was integrated into Cisco IOS XE Release 2.1.

Usage Guidelines

The **show protocols** command shows the global and interface-specific status of any configured Level 3 protocol.

Examples

The following is sample output from the **show protocols** command. The field names are self-explanatory.

```
Router# show protocols

Global values:
  Internet Protocol routing is enabled
FastEthernet0/0 is up, line protocol is up
  Internet address is 10.4.9.14/24
vmi1 is down, line protocol is down
FastEthernet0/1 is up, line protocol is up
  Internet address is 10.4.8.14/24
ATM2/0 is administratively down, line protocol is down
ATM2/0.1 is administratively down, line protocol is down
ATM2/0.2 is administratively down, line protocol is down
ATM2/0.200 is administratively down, line protocol is down
Ethernet3/0 is administratively down, line protocol is down
Ethernet3/0.1 is administratively down, line protocol is down
Ethernet3/1 is administratively down, line protocol is down
Ethernet3/2 is administratively down, line protocol is down
Ethernet3/3 is administratively down, line protocol is down
ATM6/0 is administratively down, line protocol is down
SSLVPN-VIF0 is up, line protocol is up
  Interface is unnumbered. Using address of SSLVPN-VIF0 (0.0.0.0)
Virtual-Access1 is down, line protocol is down
```

```
Virtual-Template1 is down, line protocol is down
Virtual-Access2 is up, line protocol is up
Port-channel5 is down, line protocol is down
Port-channel5.1 is down, line protocol is down
Port-channel15 is down, line protocol is down
Virtual-Template100 is down, line protocol is down
  Interface is unnumbered. Using address of vmi1 (0.0.0.0)
Dialer3 is up, line protocol is up
```

For more information on the parameters or protocols shown in this sample output, see the *Cisco IOS IP Addressing Services Configuration Guide* and the *Cisco IOS IP Routing Protocols Configuration Guide*.

show region

To display valid memory regions (memory mapping) in use on your system, use the **show region** command in privileged EXEC mode.

show region [**address** *hex-address*]

Syntax Description

address *hex-address*	(Optional) If a hexadecimal address is specified, this command will search the region list for the specified address.

Command Default

All memory regions are displayed.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(13)	This command was introduced.
12.0(23)S	This command was integrated into Cisco IOS Release 12.0(23)S.
12.2(25)S	This command was modified. The command output was updated to display information about free regions.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SRE	This command was modified. The output was updated to display heap region memory size in chunks of 16 MB.

Usage Guidelines

This command can be useful for troubleshooting system bus errors. The system encounters a bus error when the processor tries to access a memory location that either does not exist (a software error) or does not respond properly (a hardware problem).

To use the **show region** command to troubleshoot a bus error, note the memory location address from the **show version** command, the **show context** command, or from the system error message that alerted you to the bus error. The **show region** command can then be used to determine if that address is a valid memory location.

For example, in the output of the **show version** command after a system restart caused by a bus error, you will see output similar to "System restarted by bus error at PC 0x30EE546, address 0xBB4C4." In this case, the memory location that the router tried to access is 0xBB4C4. If the address falls within one of the ranges in the **show region** output, it means that the router was accessing a valid memory address, but the hardware corresponding to that address is not responding properly. This indicates a hardware problem.

If the address reported by the bus error does not fall within the ranges displayed in the **show region** output, this error means that the router was trying to access an address that is not valid, which indicates that it is a Cisco IOS software problem.

More detailed information is available on Cisco.com in Tech Note #7949, *Troubleshooting Bus Error Crashes*.

Transient Memory Allocation

The Transient Memory Allocation feature is enabled on platforms like the Cisco 7200 series router and the Cisco 10000 series router. This feature allocates all transient memory in a separate memory address space (separate region), so that there is no interleaving of static and transient memory blocks. Hence, the output of the **show region** command will have heap region memory size in chunks of 16 MB.

Examples

The following is sample output from the **show region** command:

```
Router# show region

Region Manager:

      Start         End      Size(b)  Class  Media  Name
 0x0C000000  0x0FFFFFFF    67108864  Iomem  R/W    iomem
 0x20000000  0x2FFFFFFF   268435456  Local  R/W    extended_2
 0x50000000  0x5FFFFFFF   268435456  Local  R/W    extended_1
 0x60000000  0x7BFFFFFF   469762048  Local  R/W    main
 0x600090F8  0x6200A807    33560336  IText  R/O    main:text
 0x62014C50  0x62F5B1EF    16016800  IData  R/W    main:data
 0x62F5B1F0  0x6333500F     4038176  IBss   R/W    main:bss
 0x63335010  0x6359A0D3     2511044  Local  R/W    main:saved-data
 0x6359A0D4  0x6459A0D3    16777216  Local  R/W    main:heap
 0x7B000000  0x7BFFFFFF    16777216  Local  R/W    main:heap
 0x80000000  0x8BFFFFFF   201326592  Local  R/W    main:(main_k0)
 0xA0000000  0xABFFFFFF   201326592  Local  R/W    main:(main_k1)

Free Region Manager:

      Start         End      Size(b)  Class  Media  Name
 0x6459A12C  0x7AFFFFA7   380001916  Local  R/W    heap
```

Table 151 describes the significant fields shown in the display.

Table 151 show region Field Descriptions

Field	Description
Start	Start address of the memory block.
End	End address of the memory block.
Size(b)	Size of the memory block.
Class	Class of the memory.
Media	Type of the region media. Read-only (R/O), read-write (R/W), and so on.
Name	Name of the region.
Iomem	Input/output (I/O) memory. It is a type of packet memory.
Local	Local memory.
IText	Image text memory.
IData	Image data memory.
IBss	Image blind source separation (BSS) memory.
R/W	Read and write memory.
R/O	Read-only memory.

Related Commands

Command	Description
show context	Displays information stored in NVRAM when an unexpected system reload (system exception) occurs.
show memory	Displays detailed memory statistics for the system.
show version	Shows hardware and software information for the system.

show registry

To display the function registry information when Cisco IOS or Cisco IOS Software Modularity images are running, use the **show registry** command in user EXEC or privileged EXEC mode.

Cisco IOS Software

show registry [*registry-name* [*registry-number*]] [**brief** | **statistics**]

Cisco IOS Software Modularity

show registry [**name** [*registry-name* [*registry-number*]]] [**brief** [**name** [*registry-name* [*registry-number*]]] | **preemptions** | **rpcp status** | **statistics** [**brief**] [**name** [*registry-name* [*registry-number*]]] [**remote**]] [**process** {*process-name* | *process-id*}]

Syntax Description

Cisco IOS Software Syntax	
registry-name	(Optional) Name of the registry to display.
registry-number	(Optional) Number of the registry to display.
brief	(Optional) Displays limited functions and services information.
statistics	(Optional) Displays function registry statistics.
Cisco IOS Software Modularity Syntax	
name	(Optional) Displays information about a specific registry.
registry-name	(Optional) Name of the registry to examine.
registry-number	(Optional) Number of the registry to examine.
brief	(Optional) Displays limited functions and services information.
preemptions	(Optional) Displays registry preemptions information.
rpcp status	(Optional) Displays status of remote procedure call (RPC) proxy.
statistics	(Optional) Displays function registry statistics.
remote	(Optional) Displays name server interactions and call statistics.
process	(Optional) Displays process-specific information.
process-name	(Optional) Process name.
process-id	(Optional) Process ID. Number in range from 1 to 4294967295.

Command Default

If no options are specified, registry information is displayed for all registries.

Command Modes

User EXEC (>)
Privileged EXEC (#)

Command History

Release	Modification
11.1	This command was introduced.
12.2(18)SXF4	Keywords and arguments were added to support Software Modularity images and this command was integrated into Cisco IOS Release 12.2(18)SXF4.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Examples

Example output varies between Cisco IOS software images and Cisco IOS Software Modularity software images. To view the appropriate output, choose one of the following sections:

- Cisco IOS Software
- Cisco IOS Software Modularity

Cisco IOS Software

The following is sample output from the **show registry** command using the **brief** keyword:

```
Router# show registry atm 3/0/0 brief

Registry objects: 1799  bytes: 213412

--
Registry 23: ATM Registry
  Service 23/0:
  Service 23/1:
  Service 23/2:
  Service 23/3:
  Service 23/4:
  Service 23/5:
  Service 23/6:
  Service 23/7:
  Service 23/8:
  Service 23/9:
  Service 23/10:
  Service 23/11:
  Service 23/12:
  Service 23/13:
  Service 23/14:
.
.
.
Registry 25: ATM routing Registry
  Service 25/0:
```

Table 152 describes the significant fields shown in the display.

Table 152 show registry brief (Cisco IOS) Field Descriptions

Field	Description
Registry objects	Number of objects in the registry.
bytes	Registry size, in bytes.
Registry	Displays the specified registry service number and type of registry service.

Cisco IOS Software Modularity

The following is partial sample output from the **show registry** command when running a software Modularity image:

```
Router# show registry

Registry information for ios-base:1:
=====================================================

----------------------------
AAA_ACCOUNTING :   11 services
               /    1 :  List    list[000]
               /    2 :  List    list[000]
               /    3 :  Case    size[020] list[000] default=0x7267C5D0  returnd
               /    4 :  Case    size[020] list[000] default=0x7267C5D0  returnd
                           16  0x72779400
               /    5 :  Case    size[020] list[000] default=0x7267C5D0  returnd
               /    6 :  Case    size[020] list[000] default=0x7267C5D0  returnd
                           16  0x7277915C
               /    7 :  Retval  size[020] list[000] default=0x7267C5E4  returno
               /    8 :  Retval  size[020] list[000] default=0x7267C5E4  returno
               /    9 :  Retval  size[020] list[000] default=0x7267C5E4  returno
               /   10 :  Stub    0x7267C5E4  return_zero
               /   11 :  Stub    0x76545BA0
AAA_ACCOUNTING :   11 services,   140 global bytes,   160 heap bytes
.
.
.
```

Table 153 describes the significant fields shown in the display.

Table 153 show registry (Software Modularity) Field Descriptions

Field	Description
Registry information	Displays the registry information by process name.
services	Number of services displayed.
global bytes	Number of bytes for the service,
heap bytes	Size of the service heap, in bytes,

show reload

To display the reload status on the router, use the **show reload** command in EXEC mode.

show reload

Syntax Description

This command has no arguments or keywords.

Command Modes

EXEC

Command History

Release	Modification
11.2	This command was introduced.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Usage Guidelines

You can use the **show reload** command to display a pending software reload. To cancel the reload, use the **reload cancel** privileged EXEC command.

Examples

The following sample output from the **show reload** command shows that a reload is schedule for 12:00 a.m. (midnight) on Saturday, April 20:

```
Router# show reload

Reload scheduled for 00:00:00 PDT Sat April 20 (in 12 hours and 12 minutes)
Router#
```

Related Commands

Command	Description
reload	Reloads the operating system.

show resource-pool queue

To display resource pool and queue information about the router, use the **show resource-pool queue** command in user EXEC or privileged EXEC mode.

show resource-pool queue {**description** | **statistics**}

Syntax Description

description	Displays information about the resource-pool queue description.
statistics	Displays information about the resource-pool queue statistics.

Command Modes

User EXEC (>)
Privileged EXEC (#)

Command History

Release	Modification
15.0(1)M	This command was introduced in a release earlier than Cisco IOS Release 15.0(1)M.

Usage Guidelines

Use the **show resource-pool queue** command to display the resource pool and queue information on the router.

Examples

The following is sample output from the **show resource-pool queue description** command. The field descriptions are self-explanatory.

```
Router# show resource-pool description

Resource-management call state description

State Description

--------------------------- -----------
RM_DNIS_AUTHOR : Waiting for DNIS author
RM_DNIS_AUTH_SUCCEEDED : Waiting for resource alloc
RM_DNIS_RES_ALLOCATED : Call established
RM_DNIS_REQ_IDLE : Disc while in RM_DNIS_AUTHOR/RM_DNIS_AUTH_SUCCEEDED
/RM_DNIS_REQ_IDLE_AUTHOR
RM_DNIS_REQ_IDLE_AUTHOR : New call while in RM_DNIS_REQ_IDLE
RM_RPM_RES_AUTHOR : Waiting for RPM author
RM_RPM_RES_ALLOCATING : Waiting for resource alloc
RM_RPM_RES_ALLOCATED : RPM call established
RM_RPM_AUTH_REQ_IDLE : Disc while in RM_RPM_RES_AUTHOR
/RM_RPM_AUTH_REQ_IDLE_AUTHOR
RM_RPM_RES_REQ_IDLE : Disc while in RM_RPM_RES_ALLOCATING
/RM_RPM_RES_REQ_IDLE_AUTHOR
RM_RPM_AUTH_REQ_IDLE_AUTHOR: New call while in RM_RPM_AUTH_REQ_IDLE
RM_RPM_RES_REQ_IDLE_AUTHOR : New call while in RM_RPM_RES_REQ_IDLE
RM_RPM_DISCONNECTING : RPM initiates disconnect and is waiting for ack
RM_RPM_DISCONNECTING_AUTHOR: New call while in RM_RPM_DISCONNECTING
5400-XM-1#sh resource-pool queue stat
```

The following is sample output from the **show resource-pool queue statistics** command:

```
Router# show resource-pool statistics

Resource-management event queue information (queue depth 0)
Event In queue Total
-------------------------- ---------- ----------
DIALER_INCALL : 0 0
DIALER_DISCON : 0 0
GUARDTIMER_EXPIRY_EVENT : 0 0
RM_DNIS_AUTHOR_SUCCESS : 0 0
RM_DNIS_AUTHOR_FAIL : 0 0
RM_DNIS_RES_ALLOC_SUCCESS : 0 0
RM_DNIS_RES_ALLOC_FAIL : 0 0
RM_DNIS_RPM_REQUEST : 0 0
RM_RPM_RES_AUTHOR_SUCCESS : 0 0
RM_RPM_RES_AUTHOR_FAIL : 0 0
RM_RPM_RES_ALLOC_SUCCESS : 0 0
RM_RPM_RES_ALLOC_FAIL : 0 0
RM_RPM_DISC_ACK : 0 0
-------------------------- ---------- ----------
SUM : 0 0
Resource-management call information (0 active calls)
State Active Total
-------------------------- ---------- ----------
RM_DNIS_AUTHOR : 0 0
RM_DNIS_AUTH_SUCCEEDED : 0 0
RM_DNIS_RES_ALLOCATED : 0 0
RM_DNIS_REQ_IDLE : 0 0
RM_DNIS_REQ_IDLE_AUTHOR : 0 0
RM_RPM_RES_AUTHOR : 0 0
RM_RPM_RES_ALLOCATING : 0 0
RM_RPM_RES_ALLOCATED : 0 0
RM_RPM_AUTH_REQ_IDLE : 0 0
RM_RPM_RES_REQ_IDLE : 0 0
RM_RPM_AUTH_REQ_IDLE_AUTHOR: 0 0
RM_RPM_RES_REQ_IDLE_AUTHOR : 0 0
RM_RPM_DISCONNECTING : 0 0
RM_RPM_DISCONNECTING_AUTHOR: 0 0
-------------------------- ---------- ----------
SUM : 0 0
00:03:34 since last clear command
Other resource-management info:
Active Processes 4
Throttle limit 4 (0 calls rejected)
Event queue depth 0 (peak 0)
Pending calls 0 (peak 0)
Buffer queue depth 648 (low watermark 648)
```

show rhosts

To display information about current remote hosts, use the **show rhosts** command in privileged EXEC mode.

show rhosts

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.4(22)T	This command was introduced in a release earlier than Cisco IOS Release 12.4(22)T.
12.2(33)SRC	This command was integrated into a release earlier than Cisco IOS Release 12.2(33)SRC.
12.2(33)SXI	This command was integrated into a release earlier than Cisco IOS Release 12.2(33)SXI.
Cisco IOS 2.1 XE	This command was integrated into Cisco IOS XE Release 2.1.

Examples

The following is sample output from the **show rhosts** command.

```
Router# show rhosts

Local user      Host/Access list      Remote user
tcp-scale-mcp1      12                tcp-scale-mcp2
tcp-scale-mcp1      12                tcp-scale-3
```

Table 154 describes the significant fields shown in the display.

Table 154 show rhosts Field Descriptions

Field	Description
Local user	Displays the name of the user on the local router. This name gets communicated to the network administrator or to the user on the remote system.
Host/Access list	Displays the name or the IP address of the remote host from which the local router will accept remotely executed commands.
Remote user	Displays the name of the user on the remote host from which the router will accept remotely executed commands.

Related Commands

Command	Description
ip rcmd remote-host	Creates an entry for the remote user in a local authentication database so that remote users can execute commands on the router using RSH or RCP.

show rom-monitor

To show both the read-only and the upgrade ROM monitor (ROMMON) image versions and also the ROMMON image running on the Cisco 7200 VXR or Cisco 7301 router, use the **show rom-monitor** command in user EXEC, privileged EXEC, or diagnostic mode.

Supported Platforms Other than the Cisco ASR1000 Series Routers

show rom-monitor

Cisco ASR 1000 Series Routers

show rom-monitor *slot*

Syntax Description

slot	Specifies the slot that contains the ROMMON. Options include: • *number*—The number of the SIP slot that requires the ROMMON upgrade • **F0**—Embedded Service Processor slot 0. • **F1**—Embedded Service Processor slot 1. • **FP active**—Active Embedded Service Processor. • **FP standby**—Sstandby Embedded Service Processor. • **R0**—Route Processor slot 0. • **R1**—Route Processor slot 1. • **RP active**—Active Route Processor. • **RP standby**—Standby Route Processor.

Command Modes

User EXEC (>)
Privileged EXEC (#)
Diagnostic (diag)

Command History

Release	Modification
12.0(28)S	This command was introduced on the Cisco 7200 VXR router.
12.3(9)	This command was integrated into Cisco IOS Release 12.3(9) and implemented on the Cisco 7301 router.
12.3(8)T	This command was integrated into Cisco IOS Release 12.3(8)T.
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.

Release	Modification
Cisco IOS XE Release 2.1	This command was introduced on the Cisco ASR 1000 Series Routers and the following enhancements were introduced: • This command was introduced in diagnostic mode. The command can be entered in both privileged EXEC and diagnostic mode on the Cisco ASR 1000 Series Routers. • The *slot* argument was introduced.
15.0(1)M	The command was modified on Cisco 1800 series routers. The output of the command was modified to let you know that the upgradable ROMMON version is not visible due to the license activity and reload is required.

Usage Guidelines

Use the **show rom-monitor** command when the router boots a Cisco IOS software iamge. In this case, the device prompt will be something like “Router>” where “Router” is the hostname of the device. Use the **showmon** command when the device boot to Rom Monitor mode instead of booting a Cisco IOS image. In this case, the device prompt will be something like “rommon n >” where "n" is a number.

Note On Cisco 1800 series routers, the **show rom-monitor** command does not show the version of the upgradable ROMMON.

To view the version of the upgradable ROMMON, you may need to reload the router while using the upgradable ROMMON image. If you are using the read-only ROMMON, then the upgradable ROMMON disappears. You need to run the **upgrade rom-monitor file** command for the upgradable ROMMON. Otherwise, the **upgrade rom-monitor preference upgrade** command is rejected with the message “No Upgrade ROMMON present, cannot select it.” During ROMMON bootup, if you are running upgradable ROMMON, then the ROMMON first displays the read-only ROMMON message, “Running new upgrade for first time.” This message is followed by the upgradable ROMMON message.

Examples

The following sample output from the **show rom-monitor** command, applicable to both the Cisco 7200 VXR and Cisco 7301 routers, displays both the ROMMON images and verifies that the upgrade ROMMON image is running:

```
Router> show rom-monitor

ReadOnly ROMMON version:

System Bootstrap, Version 12.2(20031011:151758)
Copyright (c) 2004 by Cisco Systems, Inc.

Upgrade ROMMON version:

System Bootstrap, Version 12.2(20031011:151758)
Copyright (c) 2004 by Cisco Systems, Inc.

Currently running ROMMON from Upgrade region
ROMMON from Upgrade region is selected for next boot
```

The following is sample output from the **show rom-monitor** command in on Cisco 1800 series routers. To view the version of the upgradable ROMMON, you may need to reload the router while using the upgradable ROMMON image.

```
Router# show rom-monitor

ReadOnly ROMMON version:

System Bootstrap, Version 12.3(8r)YH3, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 2005 by cisco Systems, Inc.

Upgrade ROMMON version is not visible due to recent license activity,
such as license installation, removal, or the use of evaluation license
Reload is required to show the upgrade ROMMON version

Currently running ROMMON from Upgrade region
ROMMON from Upgrade region is selected for next boot

Router# reload

Proceed with reload? [confirm]

*Apr 13 18:44:08.583: %SYS-5-RELOAD: Reload requested  by console. Reload Reason: Reload
Command.
System Bootstrap, Version 12.3(8r)YH3, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 2005 by cisco Systems, Inc.

 Running new upgrade for first time

System Bootstrap, Version 12.3(8r)YH13, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 2008 by cisco Systems, Inc.
C1800 platform with 262144 Kbytes of main memory with parity disabled

Upgrade ROMMON initialized
```

In the following example, the ROMMON image in RP 0 of a Cisco ASR 1006 router is verified using the **show rom-monitor** command:

```
Router# show rom-monitor r0

System Bootstrap, Version 12.2(33r)XN1, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 2007 by cisco Systems, Inc.
```

The fields in the examples are self-explanatory.

show rom-monitor slot

To display the ROM monitor (ROMMON) status, use the **show rom-monitor** command in user EXEC or privileged EXEC mode.

show rom-monitor slot *num* {**sp** | **rp**}

Syntax Description

num	Displays the slot number of the ROMMON for which the status is to be displayed.
sp	Displays the ROMMON status of the switch processor.
rp	Displays the ROMMON status of the route processor.

Command Modes

User EXEC
Privileged EXEC

Command History

Release	Modification
12.2(14)SX	Support for this command was introduced on the Supervisor Engine 720.
12.2(17d)SXB	Support for this command on the Supervisor Engine 2 was integrated into Release 12.2(17d)SXB.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Usage Guidelines

When you enter the **show rom-monitor slot** command, the output displays the following:

- Region region1 and region2—Displays the status of the ROMMON image and the order of preference from which the region1 or region2 images should be booted. The ROMMON image status values are as follows:
  - First run—Indicates that a check of the new image is being run.
  - Invalid—Indicates that the new image has been checked and the upgrade process has started.
  - Approved—Indicates that the ROMMON field upgrade process has completed.
- Currently running—This field displays the currently running image and the region.

The **sp** or **rp** keyword is required only if a supervisor engine is installed in the specified slot.

Examples

This example shows how to display ROMMON information:

```
Router# show rom-monitor slot 1 sp

   Region F1:APPROVED
   Region F2:FIRST_RUN, preferred
   Currently running ROMMON from F1 region
Router#
```

Related Commands

Command	Description
upgrade rom-monitor	Sets the execution preference on a ROMMON.

show running identity policy

To display identity policy information, use the **show running identity policy** command in privileged EXEC mode.

show running identity policy [*name*]

Syntax Description

name	(Optional) Name of the identity policy.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(18)SX	This command was introduced.

Examples

The following is output from the **show running identity policy** command:

```
Router# show running identity policy
Building configuration...
Current configuration:
identity policy p1
  access-group some-acl
identity policy p2
  access-group another-acl
  redirect url http://www.foo.com/bar.html match redirect-acl
end
```

Related Commands

Command	Description
show running-configuration	Displays the running configuration for a router.

show running identity profile

To display identity profile information, use the **show running identity profile** command in privileged EXEC mode.

show running identity profile [**default** | **dot1x** | **eapoudp**]

Syntax Description

default	(Optional) Displays default identity profile information.
dot1x	(Optional) Displays 802.1x identity profile information.
eapoudp	(Optional) Displays EAPoUDP identity profile information.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(18)SX	This command was introduced.

Examples

The following is output from the **show running identity profile** command:

```
Router# show running identity profile
Building configuration...
Current configuration:
identity profile default
  device authorize type cisco ip phone
identity profile eapoudp
  device authorize ip-address 10.0.0.0 255.0.0.0 policy p1
identity profile dot1x
  device authorize mac-address 0001.0203.0405 ffff.ffff.ffff policy p2
end
```

Related Commands

Command	Description
show running-configuration	Displays the running configuration for a router.

show running-config

To display the contents of the current running configuration file or the configuration for a specific module, Layer 2 VLAN, class map, interface, map class, policy map, or virtual circuit (VC) class, use the **show running-config** command in privileged EXEC mode.

show running-config [*options*]

Syntax Description

options	(Optional) Keywords and arguments used to customize output. You can enter more than one keyword. • **all**—Expands the output to include the commands that are configured with default parameters. If the **all** keyword is not used, the output does not display commands configured with default parameters. • **brief**—Displays the configuration without certification data and encrypted filter details. The **brief** keyword can be used with the **linenum** keyword. • **class-map** [*name*] [**linenum**]—Displays class map information. The **linenum** keyword can be used with the **class-map** *name* keyword and argument. • **control-plane**—Displays control-plane information. • **cef-exception**—Displays information about control plane Cisco Express Forwarding exceptions. • **host**—Displays information about the control plane host. • **transit**—Displays information about the control plane transit. • **flow** {**exporter** | **monitor** | **record**}—Displays global flow configuration commands. The **exporter**, **monitor**, and **record** keywords can be used with the **flow** keyword. • **full**—Displays the full configuration. • **interface** *type number*—Displays interface-specific configuration information. If you use the **interface** keyword, you must specify the interface type and the interface number (for example, **interface ethernet 0**). Keywords for common interfaces include **async**, **ethernet**, fastethernet, group-a**sync**, **loopback**, **null**, **serial**, and **virtual-template**. Use the **show run interface ?** command to determine the interfaces available on your system. • **linenum**—Displays line numbers in the output. The **brief** or **full** keyword can be used with the **linenum** keyword. The **linenum** keyword can be used with the **class-map**, **interface**, **map-class**, **policy-map**, and **vc-class** keywords. • **map-class** [**atm** | **dialer** | **frame-relay**] [**name**] [**linenum**]—Displays map class information. These keywords are described separately; see the **show running-config map-class** command page. • **partition types**—Displays the configuration corresponding to a partition. • **policy-map** [*name*] [**linenum**]—Displays policy map information. The **linenum** keyword can be used with the **policy-map** *nam*e keyword and argument pair. • **vc-class** [*name*] [**linenum**]—Displays VC-class information (the display is available only on certain routers such as the Cisco 7500 series routers). The **linenum** keyword can be used with the **vc-class** *nam*e keyword and argument pair. • **view full**—Enables the display of a full running configuration. This display is for view-based users who typically can only view the configuration commands that they are entitled to access for that particular view. • **vrf** *name*—Displays the virtual routing and forwarding (VRF)-aware configuration module number. • **vlan** [*vlan-id*]—Displays the specific VLAN information; valid values are from 1 to 4094.

Command Default

The default syntax, **show running-config**, displays the contents of the running configuration file, except commands configured using the default parameters.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.0	This command was introduced.
12.0	This command was replaced by the **more system:running-config** command.
12.0(1)T	This command was integrated into Cisco IOS Release 12.0(1)T, and the output modifier (|) was added.
12.2(4)T	This command was modified. The **linenum** keyword was added.
12.3(8)T	This command was modified. The **view full** keywords were added.
12.2(14)SX	This command was modified. The **module** *number* and **vlan** *vlan-id* keywords and arguments were added for the Supervisor Engine 720.
12.2(17d)SXB	This command was integrated into Cisco IOS Release 12.2(17d)SXB and implemented on the Supervisor Engine 2.
12.2(33)SXH	This command was modified. The **all** keyword was added.
12.2(31)SB2	This command was integrated into Cisco IOS Release 12.2(31)SB2. This command was enhanced to display the configuration information for traffic shaping overhead accounting for ATM and was implemented on the Cisco 10000 series router for the PRE3.
12.2(33)SRC	This command was integrated into Cisco IOS Release 12.2(33)SRC.
12.2(33)SB	This command was modified. Support for the Cisco 7300 series router was added.
12.4(24)T	This command was modified in a release earlier than Cisco IOS Release 12.4(24)T. The **partition** and **vrf** keywords were added. The **module** and **vlan** keywords were removed.
15.0(1)M	This command was modified. The output was modified to include encrypted filter information.
12.2(33)SXI	This command was modified. The output was modified to display access control list (ACL) information.
15.1(1)S	This command was modified. The output was modified to display **police rate (control plane)** configuration parameters in a single line if the parameters have been entered that way during the configuration.

Usage Guidelines

The **show running-config** command is technically a command alias (substitute or replacement syntax) of the **more system:running-config** command. Although the use of more commands is recommended (because of their uniform structure across platforms and their expandable syntax), the **show running-config** command remains enabled to accommodate its widespread use, and to allow typing shortcuts such as **show run**.

The **show running-config interface** command is useful when there are multiple interfaces and you want to look at the configuration of a specific interface.

The **linenum** keyword causes line numbers to be displayed in the output. This keyword is useful for identifying a particular portion of a very large configuration.

You can enter additional output modifiers in the command syntax by including a pipe character (|) after the optional keyword. For example, **show running-config interface serial 2/1 linenum | begin 3**. To display the output modifiers that are available for a keyword, enter **| ?** after the keyword. Depending on the platform you are using, the keywords and the arguments for the *options* argument may vary.

Prior to Cisco IOS Release 12.2(33)SXH, the **show running-config** command output omitted configuration commands set with default values. Effective with Cisco IOS Release 12.2(33)SXH, the **show running-config all** command displays complete configuration information, including the default settings and values. For example, if the Cisco Discovery Protocol (abbreviated as CDP in the output) hold-time value is set to its default of 180:

- The **show running-config** command does not display this value.
- The **show running-config all** displays the following output: `cdp holdtime 180.`

If the Cisco Discovery Protocol holdtime is changed to a nondefault value (for example, 100), the output of the **show running-config** and **show running-config all** commands is the same; that is, the configured parameter is displayed.

Note In Cisco IOS Release 12.2(33)SXH, the **all** keyword expands the output to include some of the commands that are configured with default values. In subsequent Cisco IOS releases, additional configuration commands that are configured with default values will be added to the output of the **show running-config all** command.

Effective with Cisco IOS Release 12.2(33)SXI, the **show running-config** command displays ACL information. To exclude ACL information from the output, use the **show running | section exclude ip access | access list** command.

Prior to Cisco IOS Release 15.1(1)S, the following single-line configuration entry of the **police rate (control plane)** command:

```
police rate 44000 conform-action transmit exceed-action drop
```

would result in this multiple-line output of the **show running-config** command:

```
police rate 44000
   conform-action transmit
  exceed-action drop
```

Effective with Cisco IOS Release 15.1(1)S, the **show running-config** command output displays the configuration parameters of the **police rate (control plane)** command in a single line if the entries are configured in a single line:

```
police rate 44000 conform-action transmit exceed-action drop
```

Note If the configuration parameters are entered in separate lines, the output of the **show running-config** command still appears in multiple lines.

Cisco 7600 Series Router

In some cases, you might see a difference in the duplex mode that is displayed between the **show interfaces** command and the **show running-config** command. The duplex mode that is displayed in the **show interfaces** command is the actual duplex mode that the interface is running. The **show interfaces** command displays the operating mode of an interface, and the **show running-config** command displays the configured mode of the interface.

The **show running-config** command output for an interface might display the duplex mode but no configuration for the speed. This output indicates that the interface speed is configured as auto and that the duplex mode that is displayed becomes the operational setting once the speed is configured to something other than auto. With this configuration, it is possible that the operating duplex mode for that interface does not match the duplex mode that is displayed with the **show running-config** command.

Examples

The following example shows the configuration for serial interface 1. The fields are self-explanatory.

```
Router# show running-config interface serial 1

Building configuration...

Current configuration:
!
interface Serial1
 no ip address
 no ip directed-broadcast
 no ip route-cache
 no ip mroute-cache
 shutdown
end
```

The following example shows the configuration for Ethernet interface 0/0. Line numbers are displayed in the output. The fields are self-explanatory.

```
Router# show running-config interface ethernet 0/0 linenum

Building configuration...

Current configuration : 104 bytes
 1 : !
 2 : interface Ethernet0/0
 3 :  ip address 10.4.2.63 255.255.255.0
 4 :  no ip route-cache
 5 :  no ip mroute-cache
 6 : end
```

The following example shows how to set line numbers in the command output and then use the output modifier to start the display at line 10. The fields are self-explanatory.

```
Router# show running-config linenum | begin 10

   10 : boot-start-marker
   11 : boot-end-marker
   12 : !
   13 : no logging buffered
   14 : enable password #####
   15 : !
   16 : spe 1/0 1/7
   17 :  firmware location bootflash:mica-modem-pw.172.16.0.0.bin
   18 : !
   19 : !
   20 : resource-pool disable
```

```
   21 : !
   22 : no aaa new-model
   23 : ip subnet-zero
   24 : ip domain name cisco.com
   25 : ip name-server 172.16.11.48
   26 : ip name-server 172.16.2.133
   27 : !
   28 : !
   29 : isdn switch-type primary-5ess
   30 : !
   .
   .
   .
   126 : end
```

The following example shows how to display the module and status configuration for all modules on a Cisco 7600 series router. The fields are self-explanatory.

```
Router# show running-config

Building configuration...

Current configuration:
!
version 12.0
service timestamps debug datetime localtime
service timestamps log datetime localtime
no service password-encryption
!
hostname Router
!
boot buffersize 126968
boot system flash slot0:7600r
boot bootldr bootflash:c6msfc-boot-mz.120-6.5T.XE1.0.83.bin
enable password lab
!
clock timezone Pacific -8
clock summer-time Daylight recurring
redundancy
 main-cpu
  auto-sync standard
!
ip subnet-zero
!
ip multicast-routing
ip dvmrp route-limit 20000
ip cef
mls flow ip destination
mls flow ipx destination
cns event-service server
!
spanning-tree portfast bpdu-guard
spanning-tree uplinkfast
spanning-tree vlan 200 forward-time 21
port-channel load-balance sdip
!
!
!
 shutdown
!
!
.
.
```

.

In the following sample output from the **show running-config** command, the **shape average** command indicates that the traffic shaping overhead accounting for ATM is enabled. The BRAS-DSLAM encapsulation type is QinQ and the subscriber line encapsulation type is SNAP-RBE based on the ATM adaptation layer 5 (AAL5) service. The fields are self-explanatory

```
Router# show running-config
.
.
.
subscriber policy recording rules limit 64
no mpls traffic-eng auto-bw timers frequency 0
call rsvp-sync
!
controller T1 2/0
    framing sf
    linecode ami
!
controller T1 2/1
    framing sf
    linecode ami
!
!
policy-map unit-test
    class class-default
        shape average percent 10 account qinq aal5 snap-rbe
!
```

The following is sample output from the **show running-config class-map** command. The fields in the display are self-explanatory.

```
Router# show running-config class-map

Building configuration...

Current configuration : 2910 bytes
!
class-map type stack match-all ip_tcp_stack
 match field IP protocol eq 0x6 next TCP
class-map type access-control match-all my
 match field UDP dest-port eq 1111
 match encrypted
  filter-version 0.1, Dummy Filter 2
  filter-id      123
  filter-hash    DE0EB7D3C4AFDD990038174A472E4789
  algorithm      aes256cbc
  cipherkey      realm-cisco.sym
  ciphervalue    #
oeahb4L6JK+XuC0q8k9AqXvBeQWzVfdg8WV67WEXbiWdXGQs6BEXqQeb4Pfow570zM4eDw0gxlp/Er8w
/lXsmolSgYpYuxFMYb1KX/H2iCXvA76VX7w5TElb/+6ekgbfP/d5ms6DEzKa8DlOpl+Q95lP194PsIlU
wCyfVCwLS+T8p3RDLi8dKBgQMcDW4Dha1ObBJTpV4zpwhEdMvJDu5PATtEQhFjhN/UYeyQiPRthjbkJn
LzT8hQFxwYwVW8PCjkyqEwYrr+R+mFG/C7tFRiooaW9MU9PCpFd95FARvlU=#
  exit
class-map type stack match-all ip_udp_stack
 match field IP protocol eq 0x11 next UDP
class-map type access-control match-all psirt1
 match encrypted
  filter-version 0.0_DummyVersion_20090101_1830
  filter-id      cisco-sa-20090101-dummy_ddts_001
  filter-hash    FC50BED10521002B8A170F29AF059C53
  algorithm      aes256cbc
  cipherkey      realm-cisco.sym
```

```
  ciphervalue    #
DkGbVq0FPAsVJKguU15lQPDfZyTcHUXWsj8+tD+dCSYW9cjkRU9jyST4vO4u69/L62QlbyQuKdyQmb10
6sAeY5vDsDfDV05k4o5eD+j8cMt78iZT0Qg7uGiBSYBbak3kKn/5w2gDd1vnivyQ7g4Ltd9+XM+GP6XL
27RrXeP5A5iGbzC7KI9t6riZXk0gmR/vFw1a5wck0D/iQHIlFa/yRPoKMSFlqfIlLTe5NM7JArSTKET2
pu7wZammTz4FF6rY#
  exit
 match start TCP payload-start offset 0 size 10 regex "abc.*def"
 match field TCP source-port eq 1234
class-map type access-control match-all psirt2
 match encrypted
  filter-version 0.0_DummyVersion_20090711_1830
  filter-id      cisco-sa-20090711-dummy_ddts_002
  filter-hash    DE0EB7D3C4AFDD990038174A472E4789
  algorithm      aes256cbc
  cipherkey      realm-cisco.sym
```

Related Commands

Command	Description
bandwidth	Specifies or modifies the bandwidth allocated for a class belonging to a policy map, and enables ATM overhead accounting.
boot config	Specifies the device and filename of the configuration file from which the router configures itself during initialization (startup).
configure terminal	Enters global configuration mode.
copy running-config startup-config	Copies the running configuration to the startup configuration. (Command alias for the **copy system:running-config nvram:startup-config** command.)
police rate (control plane)	Configures traffic policing for traffic that is destined for the control plane.
shape	Shapes traffic to the indicated bit rate according to the algorithm specified, and enables ATM overhead accounting.
show interfaces	Displays statistics for all interfaces configured on the router or access server.
show policy-map	Displays the configuration of all classes for a specified service policy map or all classes for all existing policy maps, and displays ATM overhead accounting information, if configured.
show startup-config	Displays the contents of NVRAM (if present and valid) or displays the configuration file pointed to by the CONFIG_FILE environment variable. (Command alias for the **more:nvram startup-config** command.)

show running-config control-plane

To display the control plane information for the running configuration, use the **show running-config control-plane** command in privileged EXEC mode.

show running-config control-plane [**cef-exception** | **host** | **transit**]

Syntax Description

cef-exception	(Optional) Displays information about control plane Cisco Express Forwarding exceptions.
host	(Optional) Displays information about the control plane host.
transit	(Optional) Displays information about control plane transit.

Command Default

If no keyword is specified, all information about the control plane is displayed.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.4(24)T	This command was introduced in a release earlier than Cisco IOS Release 12.4(24)T.

Examples

The following is sample output from the **show running-config control-plane** command. The field descriptions are self-explanatory.

```
Router# show running-config control-plane

Building configuration...

Current configuration : 14 bytes
!
control-plane
!
end
```

Related Commands

Command	Description
show running-config	Displays the contents of the current running configuration file or the configuration for a specific module.

show running-config map-class

To display only map-class configuration information from the running configuration file, use the **show running-config map-class** command in privileged EXEC mode.

show running-config map-class [**atm** [*map-class-name*] | **dialer** [*map-class-name*] | **frame-relay** [*map-class-name*]] [**linenum**]

Syntax Description

atm	(Optional) Displays only ATM map-class configuration lines.
dialer	(Optional) Displays only dialer map-class configuration lines.
frame-relay	(Optional) Displays only Frame Relay map-class configuration lines.
map-class-name	(Optional) Displays only configuration lines for the specified map-class.
linenum	(Optional) Displays line numbers in the output.

Defaults

Displays all map-class configuration in the running configuration file.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.1	The **map-class** extension to the **show running-config** command was introduced to show only lines pertaining to dialer or Frame Relay map classes.
12.1(2)T	The **atm**, **dialer**, and **frame-relay** keywords and *map-class-name* argument were introduced.
12.2(4)T	The **linenum** keyword was added.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Usage Guidelines

Use the **show running-config map-class** command to display the following information from the running configuration file:

- All map classes configured on the router.
- Map classes configured specifically for ATM, Frame Relay, or dialer.
- A specific ATM, Frame Relay, or dialer map class.

Use the **linenum** keyword to display line numbers in the output. This option is useful for identifying a particular portion of a very large configuration.

Examples

All Map Classes Configured on the Router Example

The following example displays all map classes configured on the router:

```
Router# show running-config map-class
```

```
Building configuration...
Current configuration:
!
map-class frame-relay cir60
 frame-relay bc 16000
 frame-relay adaptive-shaping becn
!
map-class frame-relay cir70
 no frame-relay adaptive-shaping
 frame-relay priority-group 2
!
map-class atm vc100
 atm aal5mux
!
map-class dialer dialer1
 dialer idle-timeout 10
end
```

All Frame Relay Map Classes Example

The following example displays all Frame Relay map classes on the router:

```
Router# show running-config map-class frame-relay

Building configuration...
Current configuration:
!
map-class frame-relay cir60
 frame-relay bc 16000
 frame-relay adaptive-shaping becn
!
map-class frame-relay cir70
 no frame-relay adaptive-shaping
 frame-relay priority-group 2
end
```

A Specific Map Class and Display of Line Numbers Example

The following example displays a specific map class called class1. Line numbers are displayed in the output.

```
Router# show running-config map-class frame-relay class1 linenum

Building configuration...

Current configuration:
1 : !
2 : map-class frame-relay boy
3 :  no frame-relay adaptive-shaping
4 :  frame-relay cir 1000
5 : end
```

Related Commands

Command	Description
map-class atm	Specifies the ATM map class for an SVC.
map-class dialer	Defines a class of shared configuration parameters associated with the dialer map command for outgoing calls from an ISDN interface and for PPP callback.

Command	Description
map-class frame-relay	Specifies a map class to define QoS values for a Frame Relay VC.
more system:running-config	Displays contents of the currently running configuration file (equivalent to the **show running-config** command.)

show running-config partition

To display the list of commands that make up the current running configuration for a specific part of the system's global running configuration, use the **show running-config partition** command in privileged EXEC mode.

show running-config partition *part*

Syntax Description

part	The *part* argument will consist of one or more keyword options. These keywords represent a partition of the system's running configuration state, as a major-descriptor and, in some cases, one or more minor-descriptors. For example, in the command **show running-config partition router eigrp 1**, the major-descriptor for the *part* argument is the **router** keyword, and the minor-descriptors for the *part* argument are the **eigrp 1** keywords. The actual list of *part* keyword options will depend on your system hardware, what feature set you are running, and what features are currently configured on your system. Some examples of command *part* keyword options are provided here for reference. Use the **show running-config partition ?** command on your system to view the list of command options available on your system. • **access-list**—Displays all running configuration commands that make up the access-list configuration partition. • **boot**—Displays all running configuration commands that make up the boot configuration partition. • **class-map**—Displays all running configuration commands that make up the class-map configuration partition. • **global-cdp**—Displays all running configuration commands that make up the global CDP configuration partition. • **interface** [**type** *slot*/*port*/*number*]—Displays all running configuration commands that make up the interfaces configuration partition or the configuration commands that are applied to the specified interface. • **line**—Displays all running configuration commands that make up the line command configuration partition. • **policy-map**—Displays all running configuration commands that make up the policy-map configuration partition. • **route-map**—Displays all running configuration commands that make up the route-map configuration partition. • **router** [*protocol*]—Displays all running configuration commands that make up the router configuration partition, or the configuration commands for the specified routing protocol. • **service**—Displays all running configuration commands that make up the services (small server) configuration partition. • **snmp**—Displays all running configuration commands that make up the SNMP configuration partition. • **| –** Allows for the addition of output modifiers.

Command Default None

Command Modes Privileged EXEC (#)

Command History

Release	Modification
12.2(33)SRB	This command was introduced for Cisco 7600 series images in Cisco IOS Release 12.2SR as part of the "Configuration Partitioning" feature.
12.2(33)SB	This command was integrated into Cisco IOS Release 12.2(33)SB and implemented on the Cisco 10000 series.
12.2(33)SXI	This command was integrated into Cisco IOS Release 12.2(33)SXI.

Usage Guidelines When the Configuration Partitioning feature is enabled, the system groups the configuration state of the device into parts (called "partitions") for the purpose of generating the virtual running configuration file (the list of configuration commands). The selective processing of the system's configuration state for the purpose of generating a partial running configuration is called "configuration partitioning."

Note This command is not related to hard drive or flash drive partitioning.

This granular access to configuration information offers important performance benefits for high-end routing platforms with very large configuration files, as the system wide generation of a complete virtual configuration file from all components on systems with large and complex configurations can become overly resource intensive and be unacceptably slow.

The **show running-config partition** command allows you to display only the part of the running configuration that you want to examine, while also allowing the system to process only the collection of system components (such as specific interfaces) that you need to display. This is in contrast to other existing extensions to the **show running-config** command, which only *filter* the generated list after all system components have been processed.

The Configuration Partitioning feature is enabled by default in Cisco IOS software images that support the feature. To disable the feature, use the **no parser config partition** command.

Examples In the following example, the system generates a view of the running configuration by polling only the components associated with the access-list parts of the running configuration state, and then displays only those access-list-related configuration commands.

```
Router# show running-config partition access-list
        Building configuration...

Current configuration : 127 bytes
!
Configuration of Partition access-list
!
access-list 90 permit 0.0.0.0 1.2.3.5
access-list 100 permit 10 any any
!
end
```

In the following example, only the main configuration partition associated with the interface configuration is queried, and only the configuration commands associated with Fast Ethernet interface 0/1 are displayed.

```
Router# show running-config partition interface fastethernet0/1
Building configuration...

Current configuration : 213 bytes
!
Configuration of Partition interface FastEthernet0/1
!
!
interface FastEthernet0/1
 ip address 10.4.2.39 255.255.255.0
 no ip route-cache cef
 no ip route-cache
 duplex half
 ipv6 enable
 no cdp enable
!
!
end
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the default startup configuration file.
show interfaces	Displays statistics for all interfaces configured on the router or access server.
show running-config	Generates and displays a virtual configuration file that lists all configuration commands that are in effect on the system.
show startup-config	Displays the contents of NVRAM (if present and valid) or displays the configuration file pointed to by the CONFIG_FILE environment variable. (Command alias for the **more:nvram startup-config** command.)

show scp

To display Switch-Module Configuration Protocol (SCP) information, use the **show scp** in privileged EXEC mode on the Switch Processor.

show scp {**accounting** | **counters** | **linecards** [**details**] | **mcast** {**group** *group-id* | **inst**} | **process** *id* | **status**}

Syntax Description

accounting	Displays information about the SCP accounting.
counters	Displays information about the SCP counter.
linecards	Displays information about the Optical Services Module (OSM) wide area network (WAN) modules in the chassis.
details	(Optional) Displays detailed information about the OSM WAN module.
mcast	Displays information about the SCP multicast.
group *group-id*	(Optional) Displays information for a specific group and group ID; valid values are from 1 to 127.
inst	(Optional) Displays information for an instance.
process *id*	Displays all the processes that have registered an SAP with SCP.
status	Displays information about the local SCP server status.

Defaults

This command has no default settings.

Command Modes

Privileged EXEC on the Switch Processor

Command History

Release	Modification
12.2(14)SX	Support for this command was introduced on the Supervisor Engine 720.
12.2(17d)SXB	Support for this command on the Supervisor Engine 2 was extended to Release 12.2(17d)SXB.
12.2(18)SXE	The output of the **show scp process** command was changed to display all the processes that have registered an SAP with SCP on the Supervisor Engine 720 only.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Examples

This example shows how to display all the processes that have registered an SAP with SCP:

```
Router# show module

Mod Ports Card Type                                Model              Serial No.
--- ----- ---------------------------------------- ------------------ -----------
  1   48  48-port 10/100 mb RJ45                   WS-X6148-RJ-45     SAL091800RY
  2    0  2 port adapter Enhanced FlexWAN         WS-X6582-2PA       JAE0940MH7Z
  3    8  8 port 1000mb GBIC Enhanced QoS         WS-X6408A-GBIC     SAL09391KZH
  5    2  Supervisor Engine 720 (Active)          WS-SUP720-3BXL     SAL09337UE6
```

```
  6    2  Supervisor Engine 720 (Hot)            WS-SUP720-3BXL     SAL09148P59

Mod MAC addresses                       Hw    Fw           Sw           Status
--- ----------------------------------- ------ ------------ ------------ -------
  1  0013.c3f8.d2c4 to 0013.c3f8.d2f3   5.0   8.3(1)       8.6(0.366)TA Ok
  2  0015.2bc3.5b40 to 0015.2bc3.5b7f   2.1   12.2(nightly 12.2(nightly Ok
  3  0015.6324.ed48 to 0015.6324.ed4f   3.1   5.4(2)       8.6(0.366)TA Ok
  5  0014.a97d.b0ac to 0014.a97d.b0af   4.3   8.4(2)       12.2(nightly Ok
  6  0013.7f0d.0660 to 0013.7f0d.0663   4.3   8.4(2)       12.2(nightly Ok

Mod  Sub-Module                  Model              Serial       Hw     Status
---- --------------------------- ------------------ ------------ ------- -------
  5  Policy Feature Card 3       WS-F6K-PFC3BXL     SAL09337NVE  1.6    Ok
  5  MSFC3 Daughterboard         WS-SUP720          SAL09327AU6  2.3    Ok
  6  Policy Feature Card 3       WS-F6K-PFC3BXL     SAL1033Y0YK  1.8    Ok
  6  MSFC3 Daughterboard         WS-SUP720          SAL09158XB3  2.3    Ok

Mod  Online Diag Status
---- -------------------
  1  Pass
  2  Pass
  3  Pass
  5  Pass
  6  Pass


Router# attach 5

Trying Switch ...
Entering CONSOLE for Switch
Type "^C^C^C" to end this session

Switch-sp# show scp process

Sap Pid Name
=== === ====
0 180 CWAN-RP SCP Input Process
18 42 itasca
20 3 Exec
21 3 Exec
22 180 CWAN-RP SCP Input Process
Total number of SAP registered = 5
Router#
```

show slot

To display information about the PCMCIA flash memory cards file system, use the **show slot** command in user EXEC or privileged EXEC mode.

show slot [**all** | **chips** | **detailed** | **err** | **summary**]

Syntax Description

all	(Optional) Displays all possible flash system information for all PCMCIA flash cards in the system.
chips	(Optional) Displays flash chip information.
detailed	(Optional) Displays the flash detailed directory.
err	(Optional) Displays the flash chip erase and write retries.
summary	(Optional) Displays the flash partition summary.

Command Modes

User EXEC
Privileged EXEC

Command History

Release	Modification
12.0	This command was introduced.

Usage Guidelines

Use the **show slot** command to display details about the files in a particular linear PCMCIA flash memory card of less than 20 MB and some 32 MB linear PCMCIA cards.

Note Use the **show disk** command for ATA PCMCIA cards. Other forms of this commands are **show disk0:** and **show disk1:**.

For more information regarding file systems and flash cards, access the *PCMCIA Filesystem Compatibility Matrix and Filesystem Information* document at the following URL:

http://www.cisco.com/en/US/partner/products/hw/routers/ps341/products_tech_note09186a00800a7515.shtml

To see which flash cards are used in your router, use the **show version** command and look at the bottom portion of the output.

The following display indicates an ATA PCMCIA flash disk.

```
Router# show version
.
.
46976K bytes of ATA PCMCIA card at slot 0 (Sector size 512 bytes).
```

The following display indicates a linear PCMCIA flash card with 20480K bytes of flash memory in card at slot 1 with a sector size of 128K.

```
Router# show version
.
.
20480K bytes of Flash PCMCIA card at slot 1 (Sector size 128K).
```

Note In some cases the **show slot** command will not display the file systems, use **show slot0:** or **show slot1:**.

Examples

The following example displays information about slot 0. The output is self-explanatory.

```
Router# show slot

PCMCIA Slot0 flash directory:
File  Length   Name/status
  1   11081464  c3660-bin-mz.123-9.3.PI5b
[11081528 bytes used, 9627844 available, 20709372 total]
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)
```

The following example shows all possible flash system information for all PCMCIA flash cards in the system.

```
Router# show slot all
Partition   Size    Used      Free      Bank-Size  State          Copy Mode
  1        20223K  10821K     9402K     4096K      Read/Write     Direct

PCMCIA Slot0 flash directory:
File  Length   Name/status
        addr      fcksum  ccksum
  1   11081464  c3660-bin-mz.123-9.3.PI5b
        0x40      0x5EA3  0x5EA3
[11081528 bytes used, 9627844 available, 20709372 total]
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)

   Chip    Bank    Code      Size      Name
    1      1       89A0      2048KB    INTEL 28F016SA
    2      1       89A0      2048KB    INTEL 28F016SA
    1      2       89A0      2048KB    INTEL 28F016SA
    2      2       89A0      2048KB    INTEL 28F016SA
    1      3       89A0      2048KB    INTEL 28F016SA
    2      3       89A0      2048KB    INTEL 28F016SA
    1      4       89A0      2048KB    INTEL 28F016SA
    2      4       89A0      2048KB    INTEL 28F016SA
    1      5       89A0      2048KB    INTEL 28F016SA
    2      5       89A0      2048KB    INTEL 28F016SA


The following example shows flash chip information

Router# show slot chips
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)

   Chip    Bank    Code      Size      Name
    1      1       89A0      2048KB    INTEL 28F016SA
    2      1       89A0      2048KB    INTEL 28F016SA
    1      2       89A0      2048KB    INTEL 28F016SA
    2      2       89A0      2048KB    INTEL 28F016SA
    1      3       89A0      2048KB    INTEL 28F016SA
    2      3       89A0      2048KB    INTEL 28F016SA
    1      4       89A0      2048KB    INTEL 28F016SA
    2      4       89A0      2048KB    INTEL 28F016SA
    1      5       89A0      2048KB    INTEL 28F016SA
    2      5       89A0      2048KB    INTEL 28F016SA
```

The following example show the flash detailed directory.

```
Router# show slot detailed

PCMCIA Slot0 flash directory:
File  Length   Name/status
        addr      fcksum  ccksum
  1   11081464  c3660-bin-mz.123-9.3.PI5b
        0x40      0x5EA3  0x5EA3
[11081528 bytes used, 9627844 available, 20709372 total]
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)
```

The following example shows the flash chip erase and write retries.

```
Router# show slot err

PCMCIA Slot0 flash directory:
File  Length   Name/status
  1   11081464  c3660-bin-mz.123-9.3.PI5b
[11081528 bytes used, 9627844 available, 20709372 total]
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)

   Chip    Bank    Code      Size      Name               erase  write
    1      1       89A0      2048KB    INTEL 28F016SA     0      0
    2      1       89A0      2048KB    INTEL 28F016SA     0      0
    1      2       89A0      2048KB    INTEL 28F016SA     0      0
    2      2       89A0      2048KB    INTEL 28F016SA     0      0
    1      3       89A0      2048KB    INTEL 28F016SA     0      0
    2      3       89A0      2048KB    INTEL 28F016SA     0      0
    1      4       89A0      2048KB    INTEL 28F016SA     0      0
    2      4       89A0      2048KB    INTEL 28F016SA     0      0
    1      5       89A0      2048KB    INTEL 28F016SA     0      0
    2      5       89A0      2048KB    INTEL 28F016SA     0      0
```

The following example shows the flash partition summary.

```
Router# show slot summary
Partition   Size    Used      Free      Bank-Size  State          Copy Mode
  1        20223K  10821K     9402K     4096K      Read/Write     Direct
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)
```

Related Commands

Command	Description
dir slot0:	Directory listing of files on a PCMCIA Flash card located in slot0.
dir slot1:	Directory listing of files on a PCMCIA Flash card located in slot1.
show slot0:	Displays information about the PCMCIA flash memory card's file system located in slot 0.
show slot1:	Displays information about the PCMCIA flash memory card's file system located in slot 1.

show slot0:

To display information about the PCMCIA flash memory card's file system located in slot 0, use the **show slot0:** command in user EXEC or privileged EXEC mode.

show slot0: [**all** | **chips** | **detailed** | **err** | **summary**]

Syntax Description

all	(Optional) Displays all possible flash system information for all PCMCIA flash cards in the system.
chips	(Optional) Displays flash chip information.
detailed	(Optional) Displays the flash detailed directory.
err	(Optional) Displays the flash chip erase and write retries.
summary	(Optional) Displays the flash partition summary.

Command Modes

User EXEC
Privileged EXEC

Command History

Release	Modification
12.0	This command was introduced.
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.

Usage Guidelines

Use the **show slot0:** command to display details about the files in a particular linear PCMCIA flash memory card of less than 20 MB and some 32 MB linear PCMCIA cards.

Note Use the **show disk** command for ATA PCMCIA cards. Other forms of this commands are **show disk0:** and **show disk1:**.

For more information regarding file systems and flash cards, access the *PCMCIA Filesystem Compatibility Matrix and Filesystem Information* document at the following URL:

http://www.cisco.com/en/US/partner/products/hw/routers/ps341/products_tech_note09186a00800a7515.shtml

To see which flash cards are used in your router, use the **show version** command and look at the bottom portion of the output.

The following display indicates an ATA PCMCIA flash disk.

```
Router# show version
.
.
46976K bytes of ATA PCMCIA card at slot 0 (Sector size 512 bytes).
```

The following display indicates a linear PCMCIA flash card with 20480K bytes of flash memory in card at slot 1 with a sector size of 128K.

```
Router# show version
.
.
20480K bytes of Flash PCMCIA card at slot 1 (Sector size 128K).
```

Note In some cases the **show slot** command will not display the file systems, use **show slot0:** or **show slot1:**.

Examples

The following example displays information about slot 0. The output is self-explanatory.

```
Router# show slot0:

PCMCIA Slot0 flash directory:
File  Length   Name/status
  1   11081464  c3660-bin-mz.123-9.3.PI5b
[11081528 bytes used, 9627844 available, 20709372 total]
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)

Router# show slot0: all
Partition   Size    Used      Free      Bank-Size  State          Copy Mode
  1        20223K  10821K     9402K     4096K      Read/Write     Direct

PCMCIA Slot0 flash directory:
File  Length   Name/status
        addr      fcksum  ccksum
  1   11081464  c3660-bin-mz.123-9.3.PI5b
        0x40      0x5EA3  0x5EA3
[11081528 bytes used, 9627844 available, 20709372 total]
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)

   Chip    Bank    Code      Size      Name
    1      1       89A0      2048KB    INTEL 28F016SA
    2      1       89A0      2048KB    INTEL 28F016SA
    1      2       89A0      2048KB    INTEL 28F016SA
    2      2       89A0      2048KB    INTEL 28F016SA
    1      3       89A0      2048KB    INTEL 28F016SA
    2      3       89A0      2048KB    INTEL 28F016SA
    1      4       89A0      2048KB    INTEL 28F016SA
    2      4       89A0      2048KB    INTEL 28F016SA
    1      5       89A0      2048KB    INTEL 28F016SA
    2      5       89A0      2048KB    INTEL 28F016SA

The following example shows flash chip information.

Router# show slot0: chips
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)

   Chip    Bank    Code      Size      Name
    1      1       89A0      2048KB    INTEL 28F016SA
    2      1       89A0      2048KB    INTEL 28F016SA
    1      2       89A0      2048KB    INTEL 28F016SA
    2      2       89A0      2048KB    INTEL 28F016SA
    1      3       89A0      2048KB    INTEL 28F016SA
    2      3       89A0      2048KB    INTEL 28F016SA
    1      4       89A0      2048KB    INTEL 28F016SA
    2      4       89A0      2048KB    INTEL 28F016SA
    1      5       89A0      2048KB    INTEL 28F016SA
    2      5       89A0      2048KB    INTEL 28F016SA
```

The following example show the flash detailed directory.

```
Router# show slot0: detailed
```

```
PCMCIA Slot0 flash directory:
File  Length   Name/status
        addr      fcksum  ccksum
  1   11081464  c3660-bin-mz.123-9.3.PI5b
        0x40      0x5EA3  0x5EA3
[11081528 bytes used, 9627844 available, 20709372 total]
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)
```

The following example shows the flash chip erase and write retries.

```
Router# show slot0: err

PCMCIA Slot0 flash directory:
File  Length   Name/status
  1   11081464  c3660-bin-mz.123-9.3.PI5b
[11081528 bytes used, 9627844 available, 20709372 total]
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)

   Chip    Bank    Code      Size      Name               erase  write
    1      1       89A0      2048KB    INTEL 28F016SA     0      0
    2      1       89A0      2048KB    INTEL 28F016SA     0      0
    1      2       89A0      2048KB    INTEL 28F016SA     0      0
    2      2       89A0      2048KB    INTEL 28F016SA     0      0
    1      3       89A0      2048KB    INTEL 28F016SA     0      0
    2      3       89A0      2048KB    INTEL 28F016SA     0      0
    1      4       89A0      2048KB    INTEL 28F016SA     0      0
    2      4       89A0      2048KB    INTEL 28F016SA     0      0
    1      5       89A0      2048KB    INTEL 28F016SA     0      0
    2      5       89A0      2048KB    INTEL 28F016SA     0      0
```

The following example shows the flash partition summary.

```
Router# show slot0: summary
Partition   Size    Used      Free      Bank-Size  State          Copy Mode
  1         20223K  10821K    9402K     4096K      Read/Write     Direct
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)
```

Related Commands

Command	Description
dir slot0:	Directory listing of files on a PCMCIA Flash card located in slot0.
dir slot1:	Directory listing of files on a PCMCIA Flash card located in slot1.
show slot1:	Displays information about the PCMCIA flash memory card's file system located in slot 1.
show slot	Displays information about the PCMCIA flash memory cards.

show slot1:

To display information about the PCMCIA flash memory card's file system located in slot 1, use the **show slot1:** command in user EXEC or privileged EXEC mode.

show slot1: [**all** | **chips** | **detailed** | **err** | **summary**]

Syntax Description

all	(Optional) Displays all possible flash system information for all PCMCIA flash cards in the system.
chips	(Optional) Displays flash chip information.
detailed	(Optional) Displays the flash detailed directory.
err	(Optional) Displays the flash chip erase and write retries.
summary	(Optional) Displays the flash partition summary.

Command Modes

User EXEC
Privileged EXEC

Command History

Release	Modification
12.0	This command was introduced.

Usage Guidelines

Use the **show slot1:** command to display details about the files in a particular linear PCMCIA flash memory card of less than 20 MB and some 32 MB linear PCMCIA cards located in slot 1.

Note Use the **show disk** command for ATA PCMCIA cards. Other forms of this commands are **show disk0:** and **show disk1:**.

For more information regarding file systems and flash cards, access the *PCMCIA Filesystem Compatibility Matrix and Filesystem Information* document at the following URL:

http://www.cisco.com/en/US/partner/products/hw/routers/ps341/products_tech_note09186a00800a7515.shtml

To see which flash cards are used in your router, use the **show version** command and look at the bottom portion of the output.

The following display indicates an ATA PCMCIA flash disk.

```
Router# show version
.
.
46976K bytes of ATA PCMCIA card at slot 0 (Sector size 512 bytes).
```

The following display indicates a linear PCMCIA flash card with 20480K bytes of flash memory in card at slot 1 with a sector size of 128K.

```
Router# show version
.
.
20480K bytes of Flash PCMCIA card at slot 1 (Sector size 128K).
```

Note In some cases the **show slot** command will not display the file systems. Use **show slot0:** or **show slot1:**.

Examples

The following example displays information about slot 0 using the **slot0:** command form. The output is self-explanatory.

```
Router# show slot1:

PCMCIA Slot1 flash directory:
File  Length   Name/status
  1   10907068  c3660-bin-mz.123-7.9.PI4
[10907132 bytes used, 5739008 available, 16646140 total]
16384K bytes of processor board PCMCIA Slot1 flash (Read/Write)

Router# show slot1: all
Partition   Size    Used      Free      Bank-Size  State          Copy Mode
  1        20223K  10821K     9402K     4096K      Read/Write     Direct

PCMCIA Slot0 flash directory:
File  Length   Name/status
        addr      fcksum  ccksum
  1   11081464  c3660-bin-mz.123-9.3.PI5b
        0x40      0x5EA3  0x5EA3
[11081528 bytes used, 9627844 available, 20709372 total]
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)

   Chip    Bank    Code      Size      Name
    1      1       89A0      2048KB    INTEL 28F016SA
    2      1       89A0      2048KB    INTEL 28F016SA
    1      2       89A0      2048KB    INTEL 28F016SA
    2      2       89A0      2048KB    INTEL 28F016SA
    1      3       89A0      2048KB    INTEL 28F016SA
    2      3       89A0      2048KB    INTEL 28F016SA
    1      4       89A0      2048KB    INTEL 28F016SA
    2      4       89A0      2048KB    INTEL 28F016SA
    1      5       89A0      2048KB    INTEL 28F016SA
    2      5       89A0      2048KB    INTEL 28F016SA
```

The following example shows flash chip information.

```
Router# show slot1: chips
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)

   Chip    Bank    Code      Size      Name
    1      1       89A0      2048KB    INTEL 28F016SA
    2      1       89A0      2048KB    INTEL 28F016SA
    1      2       89A0      2048KB    INTEL 28F016SA
    2      2       89A0      2048KB    INTEL 28F016SA
    1      3       89A0      2048KB    INTEL 28F016SA
    2      3       89A0      2048KB    INTEL 28F016SA
    1      4       89A0      2048KB    INTEL 28F016SA
    2      4       89A0      2048KB    INTEL 28F016SA
    1      5       89A0      2048KB    INTEL 28F016SA
    2      5       89A0      2048KB    INTEL 28F016SA
```

The following example show the flash detailed directory.

```
Router# show slot1: detailed

PCMCIA Slot0 flash directory:
```

```
File  Length   Name/status
        addr      fcksum  ccksum
  1   11081464  c3660-bin-mz.123-9.3.PI5b
        0x40      0x5EA3  0x5EA3
[11081528 bytes used, 9627844 available, 20709372 total]
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)
```

The following example shows the flash chip erase and write retries.

```
Router# show slot1: err

PCMCIA Slot0 flash directory:
File  Length   Name/status
  1   11081464  c3660-bin-mz.123-9.3.PI5b
[11081528 bytes used, 9627844 available, 20709372 total]
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)

   Chip    Bank    Code      Size      Name                erase  write
    1      1       89A0      2048KB    INTEL 28F016SA      0      0
    2      1       89A0      2048KB    INTEL 28F016SA      0      0
    1      2       89A0      2048KB    INTEL 28F016SA      0      0
    2      2       89A0      2048KB    INTEL 28F016SA      0      0
    1      3       89A0      2048KB    INTEL 28F016SA      0      0
    2      3       89A0      2048KB    INTEL 28F016SA      0      0
    1      4       89A0      2048KB    INTEL 28F016SA      0      0
    2      4       89A0      2048KB    INTEL 28F016SA      0      0
    1      5       89A0      2048KB    INTEL 28F016SA      0      0
    2      5       89A0      2048KB    INTEL 28F016SA      0      0
```

The following example shows the flash partition summary.

```
Router# show slot1: summary
Partition   Size    Used      Free      Bank-Size  State          Copy Mode
  1        20223K  10821K     9402K     4096K      Read/Write     Direct
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)
```

Related Commands

Command	Description
dir slot0:	Directory listing of files on a PCMCIA Flash card located in slot0.
dir slot1:	Directory listing of files on a PCMCIA Flash card located in slot1.
show slot0:	Displays information about the PCMCIA flash memory card's file system located in slot 0.
show slot	Displays information about the PCMCIA flash memory cards.

show software authenticity file

To display information related to software authentication for a specific image file, use the **show software authenticity file** command in privileged EXEC mode.

show software authenticity file {**flash0:***filename* | **flash1:***filename* | **flash:***filename* | **nvram:***filename* | **usbflash0:***filename* | **usbflash1:***filename*}

Syntax Description

flash0:	Displays information related to software authentication for flash 0 resources.
filename	Name of the filename in memory.
flash1:	Displays information related to software authentication for flash 1 resources.
flash:	Displays information related to software authentication for flash resources.
nvram:	Displays information related to software authentication for NVRAM resources.
usbflash0:	Displays information related to software authentication for Universal Serial Bus (USB) flash 0 resources.
usbflash1:	Displays information related to software authentication for USB flash 1 resources.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.0(1)M	This command was introduced for the Cisco 1941, 2900sm, 2901, and 3900 routers.

Usage Guidelines

The **show software authenticity file** command allows you to display software authentication related information that includes image credential information, key type used for verification, signing information, and other attributes in the signature envelope, for a specific image file. The command handler will extract the signature envelope and its fields from the image file and dump the required information.

Examples

The following example displays software authentication related information for an image file named c3900-universalk9-mz.SSA:

```
Router# show software authenticity file flash0:c3900-universalk9-mz.SSA

File Name                     : flash0:c3900-universalk9-mz.SSA
Image type                    : Development
    Signer Information
        Common Name           : CiscoSystems
        Organization Unit     : C3900
        Organization Name     : CiscoSystems
    Certificate Serial Number : 4A9F507F
    Hash Algorithm            : SHA512
Signature Algorithm       : 2048-bit RSA
```

```
Key Version                 : A
```

Table 155 describes the significant fields shown in the display.

Table 155 show software authenticity file Field Descriptions

Field	Description
File Name	Name of the filename in the memory. For example, flash0:c3900-universalk9-mz.SSA refers to filename c3900-universalk9-mz.SSA in flash memory (flash0:).
Image type	Displays the type of image.
Signer Information	Signature information.
Common Name	Displays the name of the software manufacturer.
Organization Unit	Displays the hardware the software image is deployed on.
Organization Name	Displays the owner of the software image.
Certificate Serial Number	Displays the certificate serial number for the digital signature.
Hash Algorithm	Displays the type of hash algorithm used in digital signature verification.
Signature Algorithm	Displays the type of signature algorithm used in digital signature verification.
Key Version	Displays the key version used for verification.

Related Commands

Command	Description
show software authenticity keys	Displays the software public keys that are in the storage with the key types.
show software authenticity running	Displays information related to software authentication for the current ROMMON, monitor library (monlib), and Cisco IOS image used for booting.

show software authenticity keys

To display the software public keys that are in the storage with the key types, use the **show software authenticity keys** command in privileged EXEC mode.

show software authenticity keys

Syntax Description

This command has no argument or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.0(1)M	This command was introduced for the Cisco 1941, 2900sm, 2901, and 3900 routers.

Usage Guidelines

The display from this command includes the public keys that are in the storage with the key types.

Examples

The following is sample output from the **show software authenticity keys** command:

```
Router# show software authenticity keys

Public Key #1 Information
-------------------------
Key Type             : Release  (Primary)
Public Key Algorithm : RSA
Modulus (256 bytes)   :
        CC:CA:40:55:8C:71:E2:4A:3A:B6:9D:5C:94:1D:02:BA:
        63:CD:F0:20:2F:C6:CB:C1:D7:3E:8F:27:E3:DA:6D:C6:
        15:EB:2F:D0:A6:66:43:D8:00:2B:E1:7F:3C:E8:5F:28:
        DF:CE:D2:99:FE:02:AB:9E:4E:E2:90:08:F7:1B:BB:AD:
        68:96:20:9C:D6:54:DA:E3:90:61:B0:F9:57:04:FC:DC:
        2F:63:61:E0:6F:2B:23:9B:75:97:0A:E9:D7:9E:39:9A:
        21:FD:AD:52:F9:DC:B4:A8:66:0F:7F:81:EA:7B:24:8A:
        F1:98:39:8C:66:49:5A:C5:F5:D2:67:25:17:FA:FB:17:
        8B:90:D0:5D:4A:0E:B6:76:3B:9F:AD:DE:0A:B5:34:AC:
        40:C2:2D:58:8D:CE:59:C4:5D:B9:21:8E:31:0E:D9:9F:
        92:A4:7A:E5:13:59:55:C5:8B:16:43:20:B9:25:60:8D:
        A4:00:2B:75:FB:01:EF:EC:26:91:B1:88:D6:FB:2E:3A:
        FE:8F:45:38:88:FE:06:3B:43:04:DD:C2:0E:B2:5B:EF:
        8A:E1:97:F5:F5:23:76:9F:47:3E:3B:F7:2E:47:C1:01:
        CE:70:3A:8C:11:02:43:2B:5B:26:49:6D:15:42:2E:F5:
        26:04:6B:33:EB:70:2B:18:24:C7:D9:31:3E:77:24:85
Exponent (4 bytes)   : 10001
Key Version          : A
Public Key #2 Information
-------------------------
Key Type             : Development  (Primary)
Public Key Algorithm : RSA
Modulus (256 bytes)   :
        CC:CA:40:55:8C:71:E2:4A:3A:B6:9D:5C:94:1D:02:BA:
```

```
        63:CD:F0:20:2F:C6:CB:C1:D7:3E:8F:27:E3:DA:6D:C6:
        15:EB:2F:D0:A6:66:43:D8:00:2B:E1:7F:3C:E8:5F:28:
        DF:CE:D2:99:FE:02:AB:9E:4E:E2:90:08:F7:1B:BB:AD:
        68:96:20:9C:D6:54:DA:E3:90:61:B0:F9:57:04:FC:DC:
        2F:63:61:E0:6F:2B:23:9B:75:97:0A:E9:D7:9E:39:9A:
        21:FD:AD:52:F9:DC:B4:A8:66:0F:7F:81:EA:7B:24:8A:
        F1:98:39:8C:66:49:5A:C5:F5:D2:67:25:17:FA:FB:17:
        8B:90:D0:5D:4A:0E:B6:76:3B:9F:AD:DE:0A:B5:34:AC:
        40:C2:2D:58:8D:CE:59:C4:5D:B9:21:8E:31:0E:D9:9F:
        92:A4:7A:E5:13:59:55:C5:8B:16:43:20:B9:25:60:8D:
        A4:00:2B:75:FB:01:EF:EC:26:91:B1:88:D6:FB:2E:3A:
        FE:8F:45:38:88:FE:06:3B:43:04:DD:C2:0E:B2:5B:EF:
        8A:E1:97:F5:F5:23:76:9F:47:3E:3B:F7:2E:47:C1:01:
        CE:70:3A:8C:11:02:43:2B:5B:26:49:6D:15:42:2E:F5:
        26:04:6B:33:EB:70:2B:18:24:C7:D9:31:3E:77:24:85
Exponent (4 bytes)   : 10001
Key Version          : A
```

Table 156 describes the significant fields shown in the display.

Table 156 show software authenticity running Field Descriptions

Field	Description
Public Key #	Public key number.
Key Type	Displays the key type used for image verification.
Public Key Algorithm	Displays the name of the algorithm used for public key cryptography.
Modulus	Modulus of the public key algorithm.
Exponent	Exponent of the public key algorithm
Key Version	Displays the key version used for verification.

Related Commands

Command	Description
show software authenticity file	Displays information related to software authentication for the loaded image file.
show software authenticity running	Displays information related to software authentication for the current ROM monitor (ROMMON), monitor library (monlib), and Cisco IOS image used for booting.

show software authenticity running

To display information related to software authentication for the current ROM monitor (ROMMON), monitor library (monlib), and Cisco IOS image used for booting, use the **show software authenticity running** command in privileged EXEC mode.

show software authenticity running

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.0(1)M	This command was introduced for the Cisco 1941, 2900sm, 2901, and 3900 routers.

Usage Guidelines

The information displayed by the **show software authenticity running** command about the current ROMMON, monlib and Cisco IOS image used for booting includes:

- Image credential information
- Key type used for verification
- Signing information
- Any other attributes in the signature envelope

Examples

The following example displays software authentication related information for the current ROM monitor (ROMMON), monitor library (monlib), and Cisco IOS image used for booting:

```
Router(mode-prompt)# show software authenticity running

SYSTEM IMAGE
--------------------
Image type : Development
Signer Information
Common Name : CiscoSystems
Organization Unit : C2900
Organization Name : CiscoSystems
Certificate Serial Number : 4A64A00E
Hash Algorithm : SHA512
Signature Algorithm : 2048-bit RSA
Key Version : A
Verifier Information
Verifier Name : ROMMON 2
Verifier Version : System Bootstrap, Version 12.4(20090409:084310)
[BLD-xformers_dev.XFR_20090409-20090409_0101-24 103], DEVELOPMENT SOFTWARE
ROMMON 2
---------------
Image type : Development
Signer Information
```

```
Common Name : CiscoSystems
Organization Unit : C2900
Organization Name : CiscoSystems
Certificate Serial Number : 49DE2B5D
Hash Algorithm : SHA512
Signature Algorithm : 2048-bit RSA
Key Version : A
Verifier Information
Verifier Name : ROMMON 2
Verifier Version : System Bootstrap, Version 12.4(20090409:084310)
[BLD-xformers_dev.XFR_20090409-20090409_0101-24 103], DEVELOPMENT SOFTWARE
```

Table 157 describes the significant fields shown in the display.

Table 157 show software authenticity running Field Descriptions

Field	Description
SYSTEM IMAGE	Section of the output displaying the system image information.
Image type	Displays the type of image.
Common Name	Displays the name of the software manufacturer.
Organization Unit	Displays the hardware the software image is deployed on.
Organization Name	Displays the owner of the software image.
Certificate Serial Number	Displays the certificate serial number for the digital signature.
Hash Algorithm	Displays the type of hash algorithm used in digital signature verification.
Signature Algorithm	Displays the type of signature algorithm used in digital signature verification.
Key Version	Displays the key version used for verification.
Verifier Name	Name of the program responsible for performing the digital signature verification.
Verifier Version	Version of the program responsible for performing the digital signature verification.
ROMMON 2	Section of the output displaying the current ROM monitor (ROMMON) information.

Related Commands

Command	Description
show software authenticity file	Displays the software authenticity related information for the loaded image file.
show software authenticity keys	Displays the software public keys that are in the storage with the key types.

show stacks

To monitor the stack usage of processes and interrupt routines, use the **show stacks** command in EXEC mode.

show stacks

Syntax Description

This command has no arguments or keywords.

Command Modes

EXEC

Command History

Release	Modification
10.0	This command was introduced.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Usage Guidelines

The display from this command includes the reason for the last system reboot. If the system was reloaded because of a system failure, a saved system stack trace is displayed. This information is of use only to your technical support representative in analyzing crashes in the field. It is included here in case you need to read the displayed statistics to an engineer over the phone.

Examples

The following is sample output from the **show stacks** command following a system failure:

```
Router# show stacks

Minimum process stacks:
Free/Size  Name
 652/1000  Router Init
 726/1000  Init
 744/1000  BGP Open
 686/1200  Virtual Exec

Interrupt level stacks:
Level    Called Free/Size  Name
  1           0 1000/1000  env-flash
  3         738  900/1000  Multiport Communications Interfaces
  5         178  970/1000  Console UART
System was restarted by bus error at PC 0xAD1F4, address 0xD0D0D1A
GS Software (GS3), Version 9.1(0.16), BETA TEST SOFTWARE
Compiled Tue 11-Aug-92 13:27 by jthomas
Stack trace from system failure:
FP: 0x29C158, RA: 0xACFD4
FP: 0x29C184, RA: 0xAD20C
FP: 0x29C1B0, RA: 0xACFD4
FP: 0x29C1DC, RA: 0xAD304
FP: 0x29C1F8, RA: 0xAF774
FP: 0x29C214, RA: 0xAF83E
FP: 0x29C228, RA: 0x3E0CA
FP: 0x29C244, RA: 0x3BD3C
```

Related Commands

Command	Description
show processes	Displays information about the active processes.

show startup-config

The **more nvram:startup-config** command has been replaced by the **show startup-config** command. See the description of the **more** command in the "Cisco IOS File System Commands" chapter for more information.

show subsys

To display the subsystem information, use the **show subsys** command in privileged EXEC mode.

show subsys [**class** *class* | **name** *name*]

Syntax Description

class *class*	(Optional) Displays the subsystems of the specified class. Valid classes are **driver**, **ehsa**, **ifs**, **kernel**, **library**, **license**, **management**, **microcode**, **pre-ehsa**, **predriver**, **protocol**, **registry**, and **sysinit**.
name *name*	(Optional) Displays the specified subsystem. Use the asterisk character (*) as a wildcard at the end of the name to list all subsystems, starting with the specified characters.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.1	This command was introduced.
12.3	The following classes were added: **ehsa**, **ifs**, **microcode**, **predriver**, and **sysinit**.
12.3T	The **pre-ehsa** class was added.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.The following classes were supported: **driver**, **ehsa**, **kernel**, **library**, **management**, **pre-driver**, **pre-ehsa**, **protocol**, and **registry**.
12.2(35)SE2	This command was integrated into Cisco IOS Release 12.2(35)SE2. The following classes were supported: **driver**, **ehsa**, **kernel**, **library**, **license**, **management**, **pre-driver**, **pre-ehsa**, **protocol**, and **registry**.

Usage Guidelines

Use the **show subsys** command to confirm that all required features are in the running image.

Examples

The following is sample output from the **show subsys** command:

```
Router# show subsys

Name                Class       Version
static_map          Kernel      1.000.001
arp                 Kernel      1.000.001
ether               Kernel      1.000.001
compress            Kernel      1.000.001
alignment           Kernel      1.000.002
monvar              Kernel      1.000.001
slot                Kernel      1.000.001
oir                 Kernel      1.000.001
atm                 Kernel      1.000.001
ip_addrpool_sys     Library     1.000.001
chat                Library     1.000.001
dialer              Library     1.000.001
```

```
flash_services      Library     1.000.001
ip_localpool_sys    Library     1.000.001
nvram_common        Driver      1.000.001
ASP                 Driver      1.000.001
sonict              Driver      1.000.001
oc3suni             Driver      1.000.001
oc12suni            Driver      1.000.001
ds3suni             Driver      1.000.001
```

The following is sample output from the **show subsys** command that includes the **license** class:

```
Router# show subsys name license

Name                Class       Version
license_mgmt_local  Management  1.000.001
license_admin_local Management  1.000.001
license_debug_core  Management  1.000.001
license_test_ui     Management  1.000.001
test_license_parser Management  1.000.001
license_ui          Management  1.000.001
license_parser      Management  1.000.001
license_registry    Registry    1.000.001
license_client      License     1.000.001
```

Table 158 describes the fields shown in the display.

Table 158 show subsys Field Descriptions

Field	Description
Name	Name of the subsystem.
Class	Class of the subsystem. Possible classes include Driver, Ehsa, Ifs, Kernel, Library, License, Management, Microcode, Pre-Ehsa, Pre-driver, Protocol, Registry, and Sysinit.
Version	Version of the subsystem.

show sup-bootflash

To display information about the sup-bootflash file system, use the **show sup-bootflash** command in privileged EXEC mode.

show sup-bootflash [**all** | **chips** | **filesys**]

Syntax Description

all	(Optional) Displays all possible Flash information.
chips	(Optional) Displays information about the Flash chip.
filesys	(Optional) Displays information about the file system.

Defaults

This command has no default settings.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(14)SX	Support for this command was introduced on the Supervisor Engine 720.
12.2(17d)SXB	Support for this command on the Supervisor Engine 2 was extended to Release 12.2(17d)SXB.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Examples

This example shows how to display a summary of bootflash information:

```
Router# show sup-bootflash

-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time------ name
1   .. image    EBC8FC4D  A7487C    6 10700796 Nov 19 1999 07:07:37 halley
2   .. unknown  C7EB077D  EE2620   25  4644130 Nov 19 1999 07:50:44 cat6000-sup_
5-3-3-CSX.bin

645600 bytes available (15345184 bytes used)
Router#
```

This example shows how to display all bootflash information:

```
Router# show sup-bootflash all

-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time------ name
1   .. image    EBC8FC4D  A7487C    6 10700796 Nov 19 1999 07:07:37 halley
2   .. unknown  C7EB077D  EE2620   25  4644130 Nov 19 1999 07:50:44 cat6000-sup_
5-3-3-CSX.bin

645600 bytes available (15345184 bytes used)

-------- F I L E   S Y S T E M   S T A T U S --------
  Device Number = 2
DEVICE INFO BLOCK: bootflash
  Magic Number          = 6887635   File System Vers = 10000    (1.0)
```

```
  Length                = 1000000   Sector Size      = 40000
  Programming Algorithm = 19        Erased State     = FFFFFFFF
  File System Offset    = 40000     Length = F40000
  MONLIB Offset         = 100       Length = F568
  Bad Sector Map Offset = 3FFF8     Length = 8
  Squeeze Log Offset    = F80000    Length = 40000
  Squeeze Buffer Offset = FC0000    Length = 40000
  Num Spare Sectors     = 0
    Spares:
STATUS INFO:
  Writable
  NO File Open for Write
  Complete Stats
  No Unrecovered Errors
  No Squeeze in progress
USAGE INFO:
  Bytes Used     = EA2620  Bytes Available = 9D9E0
  Bad Sectors    = 0       Spared Sectors  = 0
  OK Files       = 2       Bytes = EA2520
  Deleted Files  = 0       Bytes = 0
  Files w/Errors = 0       Bytes = 0

******** Intel SCS Status/Register Dump ********

COMMON MEMORY REGISTERS: Bank 0
  Intelligent ID Code  : 890089
  Compatible Status Reg: 800080

DEVICE TYPE:
  Layout                 : Paired x16 Mode
  Write Queue Size       : 64
  Queued Erase Supported : No

Router#
```

This example shows how to display information about the Flash chip:

```
Router# show sup-bootflash chips

******** Intel SCS Status/Register Dump ********

COMMON MEMORY REGISTERS: Bank 0
  Intelligent ID Code  : 890089
  Compatible Status Reg: 800080

DEVICE TYPE:
  Layout                 : Paired x16 Mode
  Write Queue Size       : 64
  Queued Erase Supported : No

Router#
```

This example shows how to display information about the file system:

```
Router# show sup-bootflash filesys

-------- F I L E   S Y S T E M   S T A T U S --------
  Device Number = 2
DEVICE INFO BLOCK: bootflash
  Magic Number          = 6887635   File System Vers = 10000    (1.0)
  Length                = 1000000   Sector Size      = 40000
  Programming Algorithm = 19        Erased State     = FFFFFFFF
  File System Offset    = 40000     Length = F40000
  MONLIB Offset         = 100       Length = F568
```

```
  Bad Sector Map Offset = 3FFF8     Length = 8
  Squeeze Log Offset    = F80000    Length = 40000
  Squeeze Buffer Offset = FC0000    Length = 40000
  Num Spare Sectors     = 0
    Spares:
STATUS INFO:
  Writable
  NO File Open for Write
  Complete Stats
  No Unrecovered Errors
  No Squeeze in progress
USAGE INFO:
  Bytes Used     = EA2620  Bytes Available = 9D9E0
  Bad Sectors    = 0       Spared Sectors  = 0
  OK Files       = 2       Bytes = EA2520
  Deleted Files  = 0       Bytes = 0
  Files w/Errors = 0       Bytes = 0

Router#
```

show sysctrl

To display system controller information, use the **show sysctrl** command in user EXEC or privileged EXEC mode.

show sysctrl

Syntax Description

This command has no arguments or keywords.

Command Modes

User EXEC (>)
Privileged EXEC (#)

Command History

Release	Modification
12.4(24)T	This command was introduced in a release earlier than Cisco IOS Release 12.4(24)T on the Cisco 3845 series router.

Examples

The following is sample output from the **show sysctrl** command:

```
Router# show sysctrl

BCM1250 HT Host Bridge, handle=0
BCM bridge, config=0x0
(0x00):dev, vendor id               = 0x0002166D
(0x04):status, command              = 0x00100107
(0x08):class code, revid            = 0x06000003
(0x0C):hdr, lat timer, cls          = 0x00010000
(0x18):bus id registers             = 0x00250100
(0x1C):secondary status             = 0x00000141
(0x20):mem base/limit               = 0x5DF05000
(0x30):io upper limit/base          = 0x00010001
(0x34):capabilities ptr             = 0x00000040
(0x38):expansion rom bar            = 0x00000000
(0x3C):bridge ctrl                  = 0x00020000
(0x40):LDT cmd, cap id,             = 0x20000008
(0x44):Link config/control          = 0x00000020
(0x48):Link frequency               = 0x801F0423
(0x50):SRIcmd, srirxden, sritxden   = 0x50211010
(0x54):SRI tx numerator             = 0x0000FFFF
(0x58):SRI rx numerator             = 0x0000FFFF
(0x68):Error status/control         = 0x00009A49
(0x6C):Tx ctrl, databufalloc        = 0x00041515
(0xC8):Tx buffer count max          = 0x00FFFFFF
(0xDC):Rx CRC expected              = 0xFB5FF7F7
(0xF0):Rx CRC received              = 0xEDDF7FE3

BCM PCI Host Bridge:
bus_no=0, device_no=0
DeviceID=0x0001, VendorID=0x166D, Cmd=0x0146, Status=0x02A0
Cls=0x06/0x00/0x00, Rev=0x03, LatencyTimer=0x2C, CacheLineSize=0x10
BaseAddr0=0x60000008, BaseAddr1=0x00000000, MaxLat=0x00, MinGnt=0x00
SubsysDeviceID=0x0000, SubsysVendorID=0xFFFF, ErrorAddr=0x2E173900
Additional Status = 0x00000020
```

```
Bus Watcher Counters
cor_l2cache_data_ecc_count = 0
bad_l2cache_data_ecc_count = 0
cor_l2cache_tag_ecc_count  = 0
bad_l2cache_tag_ecc_count  = 0
cor_memory_data_ecc_count  = 0
bad_memory_data_ecc_count  = 0
bus_errors                 = 0

BCM Status Registers
A_SCD_BUS_ERR_STATUS  = 0000000080000000
A_BUS_ERR_DATA_0      = FFFDFFD7B3FB3FFF
A_BUS_ERR_DATA_1      = BF6CF8DF3FBFBFBE
A_BUS_ERR_DATA_2      = DFDF1F7B3DFDCB7C
A_BUS_ERR_DATA_3      = FF7FF7CFCBFF7DEE
A_SCD_SYSTEM_REVISION = 00000001112423FF
A_IO_INTERRUPT_STATUS = 0000000000000000
A_IO_INTERRUPT_ADDR0  = 0000000000000000
A_IO_INTERRUPT_ADDR1  = 0000000000000000

Data Mover Channel 1 (Packet moving DMA engine 1):
 channel=0x6860D0E4, ring=0x2D200080, context=0x7004BC84, entries=1024
 dma_used=0, dma_head=0, dma_tail=0 exhausted_dma_entries=0

Data Mover Channel 2 (Packet moving DMA engine 2):
 channel=0x6860D158, ring=0x2D2040C0, context=0x6860E968, entries=1024
 dma_used=0, dma_head=0, dma_tail=0 exhausted_dma_entries=0
```

Table 151 describes the significant fields shown in the display.

Table 159 show sysctlr Field Descriptions

Field	Description
bus id registers	Location of the bus ID registers.
secondary status	Location where the secondary status is available.
mem base/limit	Memory limit.
io upper limit/base	Upper limit of the input output.
capabilities ptr	Location of the capabilities pointer.
bridge ctrl	Location of the bridge control.
SRI tx numerator	SRI transmitter numerator.
SRI rx numerator	SRI receiver numerator.
Tx buffer count max	Maximum transmitter buffer count.
Rx CRC expected	Number of cyclic redundancy checks (CRC) expected on a receiver.
Rx CRC received	Number of CRCs received on a receiver.
bus_no	Identification number of the bus.
device_no	Identification number of the device.
DeviceID	Identification number of the device.
VendorID	Identification number of the vendor.
Cmd	Location where the command details are stored.

Table 159 show sysctlr Field Descriptions (continued)

Field	Description
Status	Location where the status is stored.
Cls	Location of the call details.
LatencyTimer	Location of the Latency timer.
BaseAddr0	Base address 0 pointer.
BaseAddr1	Base address 1 pointer.
MaxLat	Maximum latency.
SubsysDeviceID	Identification number of the subsystem device.
SubsysVendorID	Identification number of the subsystem vendor.
ErrorAddr	Location where the error message is stored.
Additional Status	Location where additional status information is stored.
bus_errors	Number of errors related to the bus.
A_SCD_BUS_ERR_STATUS	Error status of the SCD bus.
A_IO_INTERRUPT_STATUS	Input output interruption status.
A_IO_INTERRUPT_ADDR0	Input output interruption address 0.
A_IO_INTERRUPT_ADDR1	Input output interruption address 1.
channel	Location of the channel.
ring	Location of the ring.
entries	Total number of entries.
dma_used	Total number of Data Migration Assistant (DMA) entries used.
exhausted_dma_entries	Total number of DMA entries exhausted.

Related Commands

Command	Description
syscon monitor	Specifies attributes for the health monitor on the system controller to monitor.

show system jumbomtu

To display the global maximum transmission unit (MTU) setting, use the **show system jumbomtu** command in privileged EXEC mode.

show system jumbomtu

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(17d)SXB	Support for this command on the Supervisor Engine 2 was extended to Release 12.2(17d)SXB.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Examples

This example shows how to display the global MTU setting:

```
Router# show system jumbomtu

Global Ethernet MTU is 1550 bytes.
Router#
```

Related Commands

Command	Description
system jumbomtu	Sets the maximum size of the Layer 2 and Layer 3 packets.

show tech-support

To display general information about the router when it reports a problem, use the **show tech-support** command in privileged EXEC mode.

show tech-support [**page**] [**password**] [**cef** | **ipc** | **ipmulticast** [**vrf** *vrf-name*] | **isis** | **mpls** | **ospf** [*process-id* | **detail**] | **rsvp** | **voice** | **wccp**]

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show tech-support [**cef** | **ipmulticast** [**vrf** *vrf-name*] | **isis** | **password** [**page**] | **platform** | **page** | **rsvp**]

Syntax Description

page	(Optional) Causes the output to display a page of information at a time.
password	(Optional) Leaves passwords and other security information in the output.
cef	(Optional) Displays **show** command output specific to Cisco Express Forwarding.
ipc	(Optional) Displays **show** command output specific to Inter-Process Communication (IPC).
ipmulticast	(Optional) Displays **show** command output related to the IP Multicast configuration, including Protocol Independent Multicast (PIM) information, Internet Group Management Protocol (IGMP) information, and Distance Vector Multicast Routing Protocol (DVMRP) information.
vrf *vrf-name*	(Optional) Specifies a multicast Virtual Private Network (VPN) routing and forwarding instance (VRF).
isis	(Optional) Displays **show** command output specific to Connectionless Network Service (CLNS) and Intermediate System-to-Intermediate System Protocol (IS-IS).
mpls	(Optional) Displays **show** command output specific to Multiprotocol Label Switching (MPLS) forwarding and applications.
ospf [*process-id* | **detail**]	(Optional) Displays **show** command output specific to Open Shortest Path First Protocol (OSPF) networking.
rsvp	(Optional) Displays **show** command output specific to Resource Reservation Protocol (RSVP) networking.
voice	(Optional) Displays **show** command output specific to voice networking.
wccp	(Optional) Displays **show** command output specific to Web Cache Communication Protocol (WCCP).
platform	(Optional) Displays platform-specific **show** command output.

Defaults

The output scrolls without page breaks.
Passwords and other security information are removed from the output.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.2	This command was introduced.
11.3(7), 11.2(16)	The output for this command was expanded to show additional information for **boot**, **bootflash**, **context**, and **traffic** for all enabled protocols.
12.0	The output for this command was expanded to show additional information for **boot**, **bootflash**, **context**, and **traffic** for all enabled protocols. The **cef**, **ipmulticast**, **isis**, **mlps**, and **ospf** keywords were added to this command.
12.2(13)T	Support for AppleTalk EIGRP, Apollo Domain, Banyan VINES, Novell Link-State Protocol, and XNS was removed from Cisco IOS software.
12.2(14)SX	Support for this command was added for the Supervisor Engine 720.
12.3(4)T	The output of this command was expanded to include the output from the **show inventory** command.
12.2(17d)SXB	Support for this command on the Supervisor Engine 2 was extended to Release 12.2(17d)SXB.
12.2(30)S	The **show tech-support ipmulticast** command was changed as follows: • Support for bidirectional PIM and Multicast VPN (MVPN) was added. • The **vrf** *vrf-name* option was added. The output of the **show tech-support ipmulticast** command (without the **vrf** *vrf-name* keyword and argument) was changed to include the output from these commands: • **show ip pim int df** • **show ip pim mdt** • **show ip pim mdt bgp** • **show ip pim rp metric**
12.3(16)	This command was integrated into Cisco IOS Release 12.3(16).
12.2(18)SXF	The **show tech-support ipmulticast** command was changed as follows: • Support for bidirectional PIM and MVPN was added. • The **vrf** *vrf-name* option was added. The output of the **show tech-support ipmulticast vrf** command was changed to include the output from these commands: • **show mls ip multicast rp-mapping gm-cache** • **show mmls gc process** • **show mmls msc rpdf-cache** The output of the **show tech-support ipmulticast** command (without the **vrf** *vrf-name* keyword and argument) was changed to include the output from these commands: • **show ip pim int df** • **show ip pim mdt** • **show ip pim mdt bgp** • **show ip pim rp metric** Support to interrupt and terminate the **show tech-support** output was added.

Release	Modification
12.4(4)T	This command was integrated into Cisco IOS Release 12.4(4)T.
12.4(7)	This command was integrated into Cisco IOS Release 12.4(7).
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.4(9)T	The output of this command was expanded to include partial **show dmvpn details** command output.
15.0(1)M	This command was modified. The **wccp** and **voice** keywords were added.
12.2(33)SRE	This command was modified. The **wccp** keyword was added.

Usage Guidelines

To interrupt and terminate the **show tech-support** output, simultaneously press and release the **CTRL**, **ALT**, and **6** keys.

Press the **Return** key to display the next line of output, or press the **Spacebar** to display the next page of information. If you do not enter the **page** keyword, the output scrolls (that is, it does not stop for page breaks).

If you do not enter the **password** keyword, passwords and other security-sensitive information in the output are replaced with the label "<removed>."

The **show tech-support** command is useful for collecting a large amount of information about your routing device for troubleshooting purposes. The output of this command can be provided to technical support representatives when reporting a problem.

Note This command can generate a very large amount of output. You may want to redirect the output to a file using the **show inventory | redirect** *url* command syntax extension. Redirecting the output to a file also makes sending this output to your technical support representative easier. See the command documentation for **show <command> | redirect** for more information on this option.

The **show tech-support** command displays the output of a number of **show** commands at once. The output from this command varies depending on your platform and configuration. For example, access servers display voice-related **show** command output. Additionally, the **show** *protocol* **traffic** commands are displayed for only the protocols enabled on your device. For a sample display of the output of the **show tech-support** command, see the individual **show** command listed.

If you enter the **show tech-support** command without arguments, the output displays, but is not limited to, the equivalent of these **show** commands:

- **show appletalk traffic**
- **show bootflash**
- **show bootvar**
- **show buffers**
- **show cdp neighbors**
- **show cef**
- **show clns traffic**
- **show context**
- **show controllers**
- **show decnet traffic**

- **show disk0: all**
- **show dmvpn details**
- **show environment**
- **show fabric channel-counters**
- **show file systems**
- **show interfaces**
- **show interfaces switchport**
- **show interfaces trunk**
- **show ip interface**
- **show ip traffic**
- **show logging**
- **show mac-address-table**
- **show module**
- **show power**
- **show processes cpu**
- **show processes memory**
- **show running-config**
- **show spanning-tree**
- **show stacks**
- **show version**
- **show vlan**

Note Crypto information is not duplicated by the **show dmvpn details** command output.

When the **show tech-support** command is entered on a virtual switch (VS), the output displays the output of the **show module** command and the **show power** command for both the active and standby switches.

Use of the optional **cef**, **ipc**, **ipmulticast**, **isis**, **mpls**, **ospf**, or **rsvp** keywords provides a way to display a number of **show** commands specific to a particular protocol or process in addition to the **show** commands listed previously.

For example, if your Technical Assistance Center (TAC) support representative suspects that you may have a problem in your Cisco Express Forwarding (CEF) configuration, you may be asked to provide the output of the **show tech-support cef** command. The **show tech-support** [**page**] [**password**] **cef** command will display the output from the following commands in addition to the output for the standard **show tech-support** command:

- **show adjacency summary**
- **show cef drop**
- **show cef events**
- **show cef interface**
- **show cef not-cef-switched**

- **show cef timers**
- **show interfaces stats**
- **show ip cef events summary**
- **show ip cef inconsistency records detail**
- **show ip cef summary**

If you enter the **ipmulticast** keyword, the output displays, but is not limited to, these **show** commands:

- **show ip dvmrp route**
- **show ip igmp groups**
- **show ip igmp interface**
- **show ip mcache**
- **show ip mroute**
- **show ip mroute count**
- **show ip pim interface**
- **show ip pim interface count**
- **show ip pim interface df**
- **show ip pim mdt**
- **show ip pim mdt bgp**
- **show ip pim neighbor**
- **show ip pim rp**
- **show ip pim rp metric**
- **show mls ip multicast rp-mapping gm-cache**
- **show mmls gc process**
- **show mmls msc rpdf-cache**

If you enter the **wccp** keyword, the output displays, but is not limited to, these **show** commands:

- **show ip wccp** *service-number*
- **show ip wccp interfaces cef**

Examples

For a sample display of the output from the **show tech-support** command, refer to the documentation for the **show** commands listed in the "Usage Guidelines" section.

Related Commands

Command	Description
dir	Displays a list of files on a file system.
show appletalk traffic	Displays statistics about AppleTalk traffic, including MAC IP traffic.
show bootflash	Displays the contents of boot flash memory.
show bootvar	Displays the contents of the BOOT environment variable, the name of the configuration file pointed to by the CONFIG_FILE environment variable, the contents of the BOOTLDR environment variable, and the configuration register setting.

Command	Description
show buffers	Displays statistics for the buffer pools on the network server.
show cdp neighbors	Displays detailed information about neighboring devices discovered using Cisco Discovery Protocol.
show cef	Displays information about packets forwarded by Cisco Express Forwarding.
show clns traffic	Displays a list of the CLNS packets this router has seen.
show <*command***> | redirect**	Redirects the output of any **show** command to a file.
show context	Displays context data.
show controllers	Displays information that is specific to the hardware.
show controllers tech-support	Displays general information about a VIP card for problem reporting.
show decnet traffic	Displays the DECnet traffic statistics (including datagrams sent, received, and forwarded).
show disk:0	Displays flash or file system information for a disk located in slot 0:
show dmvpn details	Displays detail DMVPN information for each session, including Next Hop Server (NHS) and NHS status, crypto session information, and socket details.
show environment	Displays temperature, voltage, and blower information on the Cisco 7000 series routers, Cisco 7200 series routers, Cisco 7500 series routers, Cisco 7600 series routers, Cisco AS5300 series access servers, and the Gigabit Switch Router.
show fabric channel counters	Displays the fabric channel counters for a module.
show file system	Lists available file systems.
show interfaces	Displays statistics for all interfaces configured on the router or access server.
show interfaces switchport	Displays the administrative and operational status of a switching (nonrouting) port.
show interfaces trunk	Displays the interface-trunk information.
show inventory	Displays the product inventory listing and UDI of all Cisco products installed in the networking device.
show ip interface	Displays the usability status of interfaces configured for IP.
show ip traffic	Displays statistics about IP traffic.
show ip wccp	Displays global statistics related to WCCP.
show logging	Displays the state of syslog and the contents of the standard system logging buffer.
show mac-address table	Displays the MAC address table.
show module	Displays module status and information.
show power	Displays the current power status of system components.
show processes cpu	Displays information about the active processes.
show processes memory	Displays the amount of memory used.
show running-config	Displays the current configuration of your routing device.
show spanning-tree	Displays information about the spanning tree state.
show stacks	Displays the stack usage of processes and interrupt routines.

Command	Description
show version	Displays the configuration of the system hardware, the software version, the names and sources of configuration files, and the boot images.
show vlan	Displays VLAN information.

show template

To display template information, use the **show template** command in user EXEC or privileged EXEC mode.

show template [*template-name*]

Syntax Description

template-name	(Optional) The template name.

Command Modes

User EXEC (>)
Privileged EXEC (#)

Command History

Release	Modification
12.2(33)SRE	This command was introduced in a release earlier than Cisco IOS Release 12.2(33)SRE.
12.2(33)SXI	This command was introduced in a release earlier than Cisco IOS Release 12.2(33)SXI.
12.4(24)T	This command was introduced in a release earlier than Cisco IOS Release 12.4(24)T.
Cisco IOS 2.1 XE	This command was integrated into Cisco IOS XE Release 2.1 on the Cisco ASR 1000 Series Aggregation Services Router.

Examples

The following is sample output from the **show template** command displaying template information. The fields are self-explanatory.

```
Router# show template

Template class/type Component(s)
template1 owner ppp peer dialer
```

Related Commands

Command	Description
template	Configures a particular customer profile template.

show usb controllers

To display USB host controller information, use the **show usb controllers** command in privileged EXEC mode.

show usb controllers [*controller-number*]

Syntax Description

controller-number	(Optional) Displays information only for the specified controller.

Defaults

Information about all controllers on the system are displayed.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(14)T	This command was introduced.
12.4(11)T	This command was integrated into the Cisco 7200VXR NPE-G2 platform.

Usage Guidelines

Use the **show usb controllers** command to display content such as controller register specific information, current asynchronous buffer addresses, and period scheduling information. You can also use this command to verify that copy operations are occurring successfully onto a USB flash module.

Examples

The following example is sample output from the **show usb controllers** command:

```
Router# show usb controllers

Name:1362HCD
Controller ID:1
Controller Specific Information:
    Revision:0x11
    Control:0x80
    Command Status:0x0
    Hardware Interrupt Status:0x24
    Hardware Interrupt Enable:0x80000040
    Hardware Interrupt Disable:0x80000040
    Frame Interval:0x27782EDF
    Frame Remaining:0x13C1
    Frame Number:0xDA4C
    LSThreshold:0x628
    RhDescriptorA:0x19000202
    RhDescriptorB:0x0
    RhStatus:0x0
    RhPort1Status:0x100103
    RhPort2Status:0x100303
    Hardware Configuration:0x3029
    DMA Configuration:0x0
    Transfer Counter:0x1
    Interrupt:0x9
```

```
    Interrupt Enable:0x196
    Chip ID:0x3630
    Buffer Status:0x0
    Direct Address Length:0x80A00
    ATL Buffer Size:0x600
    ATL Buffer Port:0x0
    ATL Block Size:0x100
    ATL PTD Skip Map:0xFFFFFFFF
    ATL PTD Last:0x20
    ATL Current Active PTD:0x0
    ATL Threshold Count:0x1
    ATL Threshold Timeout:0xFF

Int Level:1
Transfer Completion Codes:
         Success              :920             CRC              :0
         Bit Stuff            :0               Stall            :0
         No Response          :0               Overrun          :0
         Underrun             :0               Other            :0
         Buffer Overrun       :0               Buffer Underrun :0
Transfer Errors:
         Canceled Transfers   :2               Control Timeout :0
Transfer Failures:
         Interrupt Transfer   :0               Bulk Transfer   :0
         Isochronous Transfer :0               Control Transfer:0
Transfer Successes:
         Interrupt Transfer   :0               Bulk Transfer   :26
         Isochronous Transfer :0               Control Transfer:894

USBD Failures:
         Enumeration Failures :0               No Class Driver Found:0
         Power Budget Exceeded:0

USB MSCD SCSI Class Driver Counters:
         Good Status Failures :3               Command Fail    :0
         Good Status Timed out:0               Device not Found:0
         Device Never Opened  :0               Drive Init Fail :0
         Illegal App Handle   :0               Bad API Command :0
         Invalid Unit Number  :0               Invalid Argument:0
         Application Overflow :0               Device in use   :0
         Control Pipe Stall   :0               Malloc Error    :0
         Device Stalled       :0               Bad Command Code:0
         Device Detached      :0               Unknown Error   :0
         Invalid Logic Unit Num:0

USB Aladdin Token Driver Counters:
         Token Inserted       :1               Token Removed   :0
         Send Insert Msg Fail :0               Response Txns   :434
         Dev Entry Add Fail   :0               Request Txns    :434
         Dev Entry Remove Fail:0               Request Txn Fail:0
         Response Txn Fail    :0               Command Txn Fail:0
         Txn Invalid Dev Handle:0

USB Flash File System Counters:
         Flash Disconnected   :0               Flash Connected :1
         Flash Device Fail    :0               Flash Ok        :1
         Flash startstop Fail :0               Flash FS Fail   :0

USB Secure Token File System Counters:
         Token Inserted       :1               Token Detached  :0
         Token FS success     :1               Token FS Fail   :0
         Token Max Inserted   :0               Create Talker Failures:0
         Token Event          :0               Destroy Talker Failures:0
         Watched Boolean Create Failures:0
```

show usb device

To display USB device information, use the **show usb device** command in privileged EXEC mode.

show usb device [*controller-ID* [*device-address*]]

Syntax Description

controller-ID	(Optional) Displays information only for the devices under the specified controller.
device-address	(Optional) Displays information only for the device with the specified address.

Defaults

Information for all devices attached to the system are displayed.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(14)T	This command was introduced.
12.4(11)T	This command was integrated into the Cisco 7200VXR NPE-G2 platform.

Usage Guidelines

Use the **show usb device** command to display information for either a USB flash drive or a USB eToken, as appropriate.

Examples

The following example is sample output from the **show usb device** command:

```
Router# show usb device

Host Controller:1
Address:0x1
Device Configured:YES
Device Supported:YES
Description:DiskOnKey
Manufacturer:M-Sys
Version:2.0
Serial Number:0750D84030316868
Device Handle:0x1000000
USB Version Compliance:2.0
Class Code:0x0
Subclass Code:0x0
Protocol:0x0
Vendor ID:0x8EC
Product ID:0x15
Max. Packet Size of Endpoint Zero:64
Number of Configurations:1
Speed:Full
Selected Configuration:1
Selected Interface:0
```

```
Configuration:
    Number:1
    Number of Interfaces:1
    Description:
    Attributes:None
    Max Power:140 mA

    Interface:
        Number:0
        Description:
        Class Code:8
        Subclass:6
        Protocol:80
        Number of Endpoints:2

        Endpoint:
            Number:1
            Transfer Type:BULK
            Transfer Direction:Device to Host
            Max Packet:64
            Interval:0

        Endpoint:
            Number:2
            Transfer Type:BULK
            Transfer Direction:Host to Device
            Max Packet:64
            Interval:0

Host Controller:1
Address:0x11
Device Configured:YES
Device Supported:YES
Description:eToken Pro 4254
Manufacturer:AKS
Version:1.0
Serial Number:
Device Handle:0x1010000
USB Version Compliance:1.0
Class Code:0xFF
Subclass Code:0x0
Protocol:0x0
Vendor ID:0x529
Product ID:0x514
Max. Packet Size of Endpoint Zero:8
Number of Configurations:1
Speed:Low
Selected Configuration:1
Selected Interface:0

Configuration:
    Number:1
    Number of Interfaces:1
    Description:
    Attributes:None
    Max Power:60 mA

    Interface:
        Number:0
        Description:
        Class Code:255
        Subclass:0
        Protocol:0
        Number of Endpoints:0
```

Table 160 describes the significant fields shown in the display.

Table 160 show usb device Field Descriptions

Field	Description
Device handle	Internal memory handle allocated to the device.
Device Class code	The class code supported by the device. This number is allocated by the USB-IF. If this field is reset to 0, each interface within a configuration specifies its own class information, and the various interfaces operate independently. If this field is set to a value between 1 and FEH, the device supports different class specifications on different interfaces, and the interfaces may not operate independently. This value identifies the class definition used for the aggregate interfaces. If this field is set to FFH, the device class is vendor-specific.
Device Subclass code	The subclass code supported by the device. This number is allocated by the USB-IF.
Device Protocol	The protocol supported by the device. If this field is set to 0, the device does not use class-specific protocols on a device basis. If this field is set to 0xFF, the device uses a vendor-specific protocol on a device basis.
Interface Class code	The class code supported by the interface. If the value is set to 0xFF, the interface class is vendor specific. All other values are allocated by the USB-IF.
Interface Subclass code	The subclass code supported by the interface. All values are allocated by the USB-IF.
Interface Protocol	The protocol code supported by the interface. If this field is set to 0, the device does not use a class-specific protocol on this interface. If this field is set to 0xFF, the device uses a vendor-specific protocol for this interface.
Max Packet	Maximum data packet size, in bytes.

show usb driver

To display information about registered USB class drivers and vendor-specific drivers, use the **show usb driver** command in privileged EXEC mode.

show usb driver [*index*]

Syntax Description

index	(Optional) Displays information only for drivers on the specified index.

Defaults

Information about all drivers is displayed.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(14)T	This command was introduced.
12.4(11)T	This command was integrated into the Cisco 7200VXR NPE-G2 platform.

Examples

The following example is sample output for the **show usb driver** command:

```
Router# show usb driver

Index:0
Owner Mask:0x6
Class Code:0x0
Subclass Code:0x0
Protocol:0x0
Interface Class Code:0x8
Interface Subclass Code:0x6
Interface Protocol Code:0x50
Product ID:0x655BD598
Vendor ID:0x64E90000
Attached Devices:
    Controller ID:1, Device Address:1

Index:1
Owner Mask:0x1
Class Code:0x0
Subclass Code:0x0
Protocol:0x0
Interface Class Code:0x0
Interface Subclass Code:0x0
Interface Protocol Code:0x0
Product ID:0x514
Vendor ID:0x529
Attached Devices:
    Controller ID:1, Device Address:17

Index:2
Owner Mask:0x5
Class Code:0x9
```

```
Subclass Code:0x6249BD58
Protocol:0x2
Interface Class Code:0x5DC0
Interface Subclass Code:0x5
Interface Protocol Code:0xFFFFFFFF
Product ID:0x2
Vendor ID:0x1
Attached Devices:
    None

Index:3
Owner Mask:0x10
Class Code:0x0
Subclass Code:0x0
Protocol:0x0
Interface Class Code:0x0
Interface Subclass Code:0x0
Interface Protocol Code:0x0
Product ID:0x0
Vendor ID:0x0
Attached Devices:
    None
```

Table 161 describes the significant field shown in the display.

Table 161 show usb driver Field Descriptions

Field	Description
Owner Mask	Indicates the fields that are used in enumeration comparison. The driver can own different devices on the basis of their product or vendor IDs and device or interface class, subclass, and protocol codes.

show usb port

To sisplay USB root hub port information, use the **show usb port** command in privileged EXEC mode.

show usb port [*port-number*]

Syntax Description

port-number	(Optional) Displays information only for a specified. If the *port-number* is not issued, information for all root ports will be displayed.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(14)T	This command was introduced.

Examples

The following sample from the **show usb port** command shows the status of the port 1 on the router:

```
Router# show usb port

Port Number:0
Status:Enabled
Connection State:Connected
Speed:Full
Power State:ON

Port Number:1
Status:Enabled
Connection State:Connected
Speed:Low
Power State:ON
```

show usb tree

To display information about the port state and all attached devices, use the **show usb tree** command in privileged EXEC mode.

show usb tree

Syntax Description

This command has no arguments or keywords.

Command Modes

EXEC

Command History

Release	Modification
12.3(14)T	This command was introduced.

Examples

The following example is sample output from the **show usb tree** command. This output shows that both a USB flash module and a USB eToken are currently enabled.

```
Router# show usb tree

[Host Id:1, Host Type:1362HCD, Number of RH-Port:2]
<Root Port0:Power=ON      Current State=Enabled>
  Port0:(DiskOnKey) Addr:0x1 VID:0x08EC PID:0x0015 Configured (0x1000000)
<Root Port1:Power=ON      Current State=Enabled>
  Port1:(eToken Pro 4254) Addr:0x11 VID:0x0529 PID:0x0514 Configured (0x1010000)
```

show usbtoken

To display information about the USB eToken (such as the eToken ID), use the **show usbtoken** command in privileged EXEC mode.

show usbtoken[**0-9**]**:**[**all** | *filesystem*]

Syntax Description

0-9	(Optional) One of the ten available flash drives you can choose from; valid values: 0-9. If you do not specify a number, 0 is used by default
all	(Optional) All configuration files stored on the eToken.
filesystem	(Optional) Name of a configuration file.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(14)T	This command was introduced.
12.4(11)T	This command was integrated into the Cisco 7200VXR NPE-G2 platform.

Usage Guidelines

Use the **show usbtoken** command to verify whether a USB eToken is inserted in the router.

Examples

The following example is sample output from the **show usbtoken** command:

```
Router# show usbtoken0

Token ID           :43353334
Token device name  : token0
Vendor name        : Vendor34
Product Name       :Etoken Pro
Serial number      : 22273a334353
Firmware version   :   4.1.3.2
Total memory size  : 32 KB
Free memory size   : 16 KB
FIPS version       :  Yes/No
Token state        :  "Active" | "User locked" | "Admin locked" | "System Error" |
"Uknown"
ATR (Answer To Reset) :"3B F2 98 0  FF C1 10 31 FE 55 C8 3"
```

Table 162 describes the significant fields shown in the display.

Table 162 show usbtoken Field Descriptions

Field	Description
Token ID	Token identifier.

Table 162 show usbtoken Field Descriptions (continued)

Field	Description
Token device name	A unique name derived by the token driver.
ATR (Answer to Reset)	Information replied by Smart cards when a reset command is issued.

show version

To display information about the currently loaded software along with hardware and device information, use the **show version** command in user EXEC, privileged EXEC, or diagnostic mode.

show version

Cisco ASR 1000 Series Routers

show version [*rp-slot*] [**installed** [**user-interface**] | **provisioned** | **running**]

Cisco Catalyst 6500 Series Routers

show version [**epld** *slot*]

Syntax Description

rp-slot	Specifies the software of the RP in a specific RP slot of a Cisco ASR 1000 Series Router. Options include: • **r0**—the RP in RP slot 0. • **r1**—the RP in RP slot 1. • **rp active**—the active RP. • **rp standby**—the standby RP.
installed	Specifies information on the software installed on the RP
user-interface	Specifies information on the files related to the user-interface.
provisioned	Specifies information on the software files that are provisioned.
running	Specifies information on the files currently running.
epld *slot*	(Optional) Specifies the software of the EPLD slot of a Cisco Catalyst 6500 Series Router.

Defaults

No default behavior or values.

Command Modes

User EXEC (>)
Privileged EXEC (#)
Diagnostic (diag)—Cisco ASR 1000 Series Routers only

Command History

Release	Modification
9.0	This command was introduced.
12.1EC	This command was integrated into Cisco IOS Release 12.1EC.
12.1(1a)T1	This command was modified to include information about the clock card on CMTS routers.
12.3BC	This command was integrated into Cisco IOS Release 12.3BC.
12.3(4)T	The output format of this command was updated.
12.2(14)SX	Support for this command was introduced on the Supervisor Engine 720.

Release	Modification
12.2(17d)SXB	Support for this command on the Supervisor Engine 2 was extended to 12.2(17d)SXB.
12.2(25)S	The output format of this command was updated.
12.2(33)SCA	This command was integrated into Cisco IOS Release 12.2(33)SCA. Support for the Cisco uBR7225VXR router was added.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
Cisco IOS XE Release 2.1	This command was introduced on the Cisco ASR 1000 Series Routers, and the following enhancements were introduced: • the command became available in diagnostic mode. • the *rp-slot*, **installed**, **user-interface**, **provisioned**, and **running** options all became available for the first time.
12.2(18)SX	Added ELPD keyword and output for the Cisco Catalyst 6500 Series Router.

Usage Guidelines

This command displays information about the Cisco IOS software version currently running on a routing device, the ROM Monitor and Bootflash software versions, and information about the hardware configuration, including the amount of system memory. Because this command displays both software and hardware information, the output of this command is the same as the output of the **show hardware** command. (The **show hardware** command is a command alias for the **show version** command.)

Specifically, the **show version** command provides the following information:

- Software information
  - Main Cisco IOS image version
  - Main Cisco IOS image capabilities (feature set)
  - Location and name of bootfile in ROM
  - Bootflash image version (depending on platform)
- Device-specific information
  - Device name
  - System uptime
  - System reload reason
  - Config-register setting
  - Config-register settings for after the next reload (depending on platform)
- Hardware information
  - Platform type
  - Processor type
  - Processor hardware revision
  - Amount of main (processor) memory installed
  - Amount I/O memory installed
  - Amount of Flash memory installed on different types (depending on platform)
  - Processor board ID

The output of this command uses the following format:

```
Cisco IOS Software, <platform> Software (<image-id>), Version <software-version>,
<software-type>
Technical Support: http://www.cisco.com/techsupport
Copyright (c) <date-range> by Cisco Systems, Inc.
Compiled <day> <date> <time> by <compiler-id>

ROM: System Bootstrap, Version <software-version>,  <software-type>
BOOTLDR: <platform> Software (image-id), Version <software-version>,  <software-type>

<router-name> uptime is <w> weeks, <d> days, <h> hours, <m> minutes
System returned to ROM by reload at <time> <day> <date>
System image file is "<filesystem-location>/<software-image-name>"
Last reload reason: <reload-reason>

Cisco <platform-processor-type> processor (revision <processor-revision-id>) with
<free-DRAM-memory>K/<packet-memory>K bytes of memory.
Processor board ID <ID-number>
<CPU-type> CPU at <clock-speed>Mhz, Implementation <number>, Rev <Revision-number>,
<kilobytes-Processor-Cache-Memory>KB <cache-Level> Cache
```

See the Examples section for descriptions of the fields in this output.

Cisco ASR 1000 Series Routers

Entering **show version** without any of the options on the Cisco ASR 1000 Series Router will generate output similar to **show version** on other Cisco routers.

In order to understand the **show version** output on Cisco ASR 1000 Series Routers, it is important to understand that the individual sub-packages run the processes on the router. Among other things, the output of this command provides information on where various individual sub-packages are stored on the router, and which processes these individual sub-packages are and are not currently running.

More specifically, the **show version installed** command displays each individual sub-package file on the router, the hardware where the sub-package could be running, and whether the sub-package is currently being run on that hardware.

The **show version provisioned** command displays only the individual sub-packages that can be provisioned, which are the RP-specific sub-packages (RP Access, RP Base, RP Control, and RP IOS) and the provisioning file. The output includes the individual sub-package file, the hardware where the sub-package could be running, and whether the sub-package is currently being run on that hardware.

The **show version running** command displays only the individual sub-packages that are currently active. The output includes the individual sub-package file and the hardware where the sub-package is running.

Examples

Cisco 3660 Router

The following is sample output from the **show version** command issued on a Cisco 3660 running Cisco IOS Release 12.3(4)T:

```
Router# show version

Cisco IOS Software, 3600 Software (C3660-I-M), Version 12.3(4)T
TAC Support: http://www.cisco.com/tac
Copyright (c) 1986-2003 by Cisco Systems, Inc.
Compiled Thu 18-Sep-03 15:37 by ccai

ROM: System Bootstrap, Version 12.0(6r)T, RELEASE SOFTWARE (fc1)
ROM:

C3660-1 uptime is 1 week, 3 days, 6 hours, 41 minutes
System returned to ROM by power-on
```

```
System image file is "slot0:tftpboot/c3660-i-mz.123-4.T"

Cisco 3660 (R527x) processor (revision 1.0) with 57344K/8192K bytes of memory.
Processor board ID JAB055180FF
R527x CPU at 225Mhz, Implementation 40, Rev 10.0, 2048KB L2 Cache


3660 Chassis type: ENTERPRISE
2 FastEthernet interfaces
4 Serial interfaces
DRAM configuration is 64 bits wide with parity disabled.
125K bytes of NVRAM.
16384K bytes of processor board System flash (Read/Write)

Flash card inserted. Reading filesystem...done.
20480K bytes of processor board PCMCIA Slot0 flash (Read/Write)

Configuration register is 0x2102
```

Cisco 7200 Router

The following is sample output from the **show version** command issued on a Cisco 7200 router running Cisco IOS Release 12.4(4)T. This output shows the total bandwidth capacity and the bandwith capacity that is configured on the Cisco 7200. Displaying bandwidth capacity is available in Cisco IOS Release 12.2 and later releases.

```
Router# show version

Cisco IOS Software, 7200 Software (C7200-JS-M), Version 12.4(4)T, RELEASE SOFTW)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2005 by Cisco Systems, Inc.
Compiled Thu 27-Oct-05 05:58 by ccai

ROM: System Bootstrap, Version 12.1(20000710:044039) [nlaw-121E_npeb 117], DEVEE
BOOTLDR: 7200 Software (C7200-KBOOT-M), Version 12.3(16), RELEASE SOFTWARE (fc4)

router uptime is 5 days, 18 hours, 2 minutes
System returned to ROM by reload at 02:45:12 UTC Tue Feb 14 2006
System image file is "disk0:c7200-js-mz.124-4.T"
Last reload reason: Reload Command


Cisco 7206VXR (NPE400) processor (revision A) with 491520K/32768K bytes of memo.
Processor board ID 26793934
R7000 CPU at 350MHz, Implementation 39, Rev 3.2, 256KB L2 Cache
6 slot VXR midplane, Version 2.6

Last reset from power-on

PCI bus mb0_mb1 (Slots 0, 1, 3 and 5) has a capacity of 600 bandwidth points.
Current configuration on bus mb0_mb1 has a total of 440 bandwidth points.
This configuration is within the PCI bus capacity and is supported.

PCI bus mb2 (Slots 2, 4, 6) has a capacity of 600 bandwidth points.
Current configuration on bus mb2 has a total of 390 bandwidth points
This configuration is within the PCI bus capacity and is supported.

Please refer to the following document "Cisco 7200 Series Port Adaptor
Hardware Configuration Guidelines" on Cisco.com <http://www.cisco.com>
for c7200 bandwidth points oversubscription and usage guidelines.


4 Ethernet interfaces
```

```
2 FastEthernet interfaces
2 ATM interfaces
125K bytes of NVRAM.

62976K bytes of ATA PCMCIA card at slot 0 (Sector size 512 bytes).
125952K bytes of ATA PCMCIA card at slot 1 (Sector size 512 bytes).
8192K bytes of Flash internal SIMM (Sector size 256K).
Configuration register is 0x2002

Router#
```

For information about PCI buses and bandwidth calculation, go to http://www.cisco.com/univercd/cc/td/doc/product/core/7206/port_adp/config/3875in.htm#wp1057192.

Table 163 describes the significant fields shown in the display.

Table 163 show version Field Descriptions

Field	Description
Cisco IOS Software, *platform* Software (*image-id*), Version *software-version*, *release-type* For example: Cisco IOS Software, 7200 Software (C7200-G4JS-M), Version 12.3(4)T	*platform*—Cisco hardware device name. *image-id*—The coded software image identifier, in the format *platform-features-format* (for example, "c7200-g4js-mz". *software-version*—The Cisco IOS software release number, in the format *x.y*(*z*)*A*, where *x.y* is the main release identifier, *z* is the maintenance release number, and *A*, where applicable, is the special release train identifier. For example, 12.3(4)T indicates the fourth maintenance release of the 12.3T special technology release train. **Note** In the full software image filename, 12.3(4)T appears as 123-4.T. In the IOS Upgrade Planner, 12.3(4)T appears as 12.3.4T (ED). *release-type*—The description of the release type. Possible values include MAINTENANCE [for example, 12.3(3)] or INTERIM [for example, 12.3(3.2)]. **Tip** Refer to "The ABC's of Cisco IOS Networking" (available on Cisco.com) for more information on Cisco IOS software release numbering and software versions. Cisco IOS is a registered trademark (R) of Cisco Systems, Inc.
Technical Support: http://www.cisco.com/techsupport Copyright (c) *date-range* by Cisco Systems, Inc.	The Cisco Technical Support & Documentation website contains thousands of pages of searchable technical content, including links to products, technologies, solutions, technical tips, and tools. Registered Cisco.com users can log in from this page to access even more content. Cisco IOS software, including the source code, user-help, and documentation, is copyrighted by Cisco Systems, Inc. It is Cisco's policy to enforce its copyrights against any third party who infringes on its copyright.
ROM: System Bootstrap, Version 12.0(6r)T, RELEASE SOFTWARE (fc1)	The system "bootstrap" software, stored in ROM memory.

Table 163 show version Field Descriptions (continued)

Field	Description
BOOTFLASH:	The system "bootflash" software, stored in Flash memory (if applicable).
device uptime is ... For example: C3660-1 uptime is 1 week, 3 days, 6 hours, 41 minutes	The amount of time the system has been up and running.
System returned to ROM by *reload-reason* at *time day date* For example: System returned to ROM by reload at 20:56:53 UTC Tue Nov 4 2003	Shows the last recorded reason for a system reload, and time of last reload.
Last reload reason: *reload-reason* For example: Last reload reason: Reload command	Shows the last recorded reason for a system reload.
Last reset from *reset-reason* For example: Last reset from power-on	Shows the last recorded reason for a system reset. Possible *reset-reason* values include: • power-on—System was reset with the initial power on or a power cycling of the device. • s/w peripheral—System was reset due to a software peripheral. • s/w nmi—System was reset by a nonmaskable interrupt (NMI) originating in the system software. For example, on some systems, you can configure the device to reset automatically if two or more fans fail. • push-button—System was reset by manual activation of a RESET push-button (also called a hardware NMI). • watchdog—System was reset due to a watchdog process. • unexpected value—May indicate a bus error, such as for an attempt to access a nonexistent address (for example, "System restarted by bus error at PC 0xC4CA, address 0x210C0C0"). (This field was formerly labeled as the "System restarted by" field.")
System image file is "*file-location/file-name*" For example: System image file is "slot0:tftpboot/c3660-i-mz.123-3.9.T2"	Displays the file location (local or remote filesystem) and the system image name.

Table 163 show version Field Descriptions (continued)

Field	Description
Cisco *platform* (*processor-type*) processor (revision *processor-revision-id*) with *free-DRAM-memory* K/ *packet-memory* K bytes of memory. Example—Separate DRAM and Packet Memory: Cisco RSP4 (R5000) processor with 65536K/2072K bytes of memory Example—Combined DRAM and Packet Memory: Cisco 3660 (R527x) processor (revision 1.0) with 57344K/8192K bytes of memory.	This line can be used to determine how much Dynamic RAM (DRAM) is installed on your system, in order to determine if you meet the "Min. Memory" requirement for a software image. DRAM (including SDRAM) is used for system processing memory and for packet memory. Two values, separated by a slash, are given for DRAM: The first value tells you how DRAM is available for system processing, and the second value tells you how much DRAM is being used for Packet memory. The first value, Main Processor memory, is either: • The amount of DRAM available for the processor, or • The total amount of DRAM installed on the system. The second value, Packet memory, is either: • The total physical input/output (I/O) memory (or "Fast memory") installed on the router (Cisco 4000, 4500, 4700, and 7500 series), or • The amount of "shared memory" used for packet buffering. In the shared memory scheme (Cisco 2500, 2600, 3600, and 7200 Series), a percentage of DRAM is used for packet buffering by the router's network interfaces. **Note** The terms "I/O memory" or "iomem"; "shared memory"; "Fast memory" and "PCI memory" all refer to "Packet Memory". Packet memory is either separate physical RAM or shared DRAM. **Separate DRAM and Packet Memory** The 4000, 4500, 4700, and 7500 series routers have separate DRAM and Packet memory, so you only need to look at the first number to determine total DRAM. In the example to the left for the Cisco RSP4, the first value shows that the router has 65536K (65,536 kilobytes, or 64 megabytes) of DRAM. The second value, 8192K, is the Packet memory. **Combined DRAM and Packet Memory** The 2500, 2600, 3600, and 7200 series routers require a minimum amount of I/O memory to support certain interface processors. The 1600, 2500, 2600, 3600, and 7200 series routers use a fraction of DRAM as Packet memory, so you need to add both numbers to find out the real amount of DRAM. In the example to the left for the Cisco 3660, the router has 57,344 kilobytes (KB) of free DRAM and 8,192 KB dedicated to Packet memory. Adding the two numbers together gives you 57,344K + 8,192K = 65,536K, or 64 megabytes (MB) of DRAM.

Table 163 show version Field Descriptions (continued)

Field	Description
	For more details on memory requirements, see the document "How to Choose a Cisco IOS® Software Release" on Cisco.com.
Configuration register is *value* For example: Configuration register is 0x2142 (will be 0x2102 at next reload)	Shows the current configured hex value of the software configuration register. If the value has been changed with the **config-register** command, the register value that will be used at the next reload is displayed in parenthesis. The boot field (final digit) of the software configuration register dictates what the system will do after a reset. For example, when the boot field of the software configuration register is set to 00 (for example, 0x0), and you press the NMI button on a Performance Route Processor (PRP), the user-interface remains at the ROM monitor prompt (rommon>) and waits for a user command to boot the system manually. But if the boot field is set to 01 (for example, 0x1), the system automatically boots the first Cisco IOS image found in the onboard Flash memory SIMM on the PRP. The factory-default setting for the configuration register is 0x2102. This value indicates that the router will attempt to load a Cisco IOS software image from Flash memory and load the startup configuration file.

Catalyst 6500 Series Switches and Cisco 7600 Series Routers

This example shows how to display the configuration of the system hardware, the software version, the names and sources of configuration files, and the boot images:

```
Router# show version
Cisco Internetwork Operating System Software
IOS (tm) c6sup2_rp Software (c6sup2_rp-JSV-M), Version 12.1 (nightly.E020626) NIG
HTLY BUILD
Copyright (c) 1986-2002 by cisco Systems, Inc.
Compiled Wed 26-Jun-02 06:20 by
Image text-base: 0x40008BF0, data-base: 0x419BA000

ROM: System Bootstrap, Version 12.1(11r)E1, RELEASE SOFTWARE (fc1)

Router uptime is 2 weeks, 8 hours, 48 minutes
Time since Router switched to active is 1 minute
System returned to ROM by power-on (SP by power-on)
System image file is "sup-bootflash:c6sup22-jsv-mz"

cisco Catalyst 6000 (R7000) processor with 112640K/18432K bytes of memory.
Processor board ID SAD06210067
R7000 CPU at 300Mhz, Implementation 39, Rev 3.3, 256KB L2, 1024KB L3 Cache
Last reset from power-on
Bridging software.
X.25 software, Version 3.0.0.
SuperLAT software (copyright 1990 by Meridian Technology Corp).
TN3270 Emulation software.
3 Virtual Ethernet/IEEE 802.3  interface(s)
48 FastEthernet/IEEE 802.3 interface(s)
381K bytes of non-volatile configuration memory.

16384K bytes of Flash internal SIMM (Sector size 512K).
```

```
Configuration register is 0x2102
Router#
```

Table 164 describes the fields that are shown in the example.

Table 164 show version Field Descriptions

Field	Description
IOS (tm) c6sup2_rp Software (c6sup2_rp-JSV-M), Version 12.1(nightly.E020626) NIGHTLY BUILD	Version number. Always specify the complete version number when reporting a possible software problem. In the example output, the version number is 12.1.
ROM: System Bootstrap, Version 12.1(11r)E1, RELEASE SOFTWARE (fc1)	Bootstrap version string.
BOOTFLASH: 7200 Software (C7200-BOOT-M), Version 11.1(472), RELEASE SOFTWARE	Boot version string.
Router uptime is	Amount of time that the system has been up and running.
Time since Router switched to active	Amount of time since switchover occurred.
System restarted by	Log of how the system was last booted, both as a result of normal system startup and of system error. For example, information can be displayed to indicate a bus error that is typically the result of an attempt to access a nonexistent address, as follows: System restarted by bus error at PC 0xC4CA, address 0x210C0C0
System image file is	If the software was booted over the network, the Internet address of the boot host is shown. If the software was loaded from onboard ROM, this line reads “running default software.”
cisco Catalyst 6000 (R7000) processor with 112640K/18432K bytes of memory.	Remaining output in each display that shows the hardware configuration and any nonstandard software options.
Configuration register is	Configuration register contents that are displayed in hexadecimal notation.

The output of the **show version** EXEC command can provide certain messages, such as bus error messages. If such error messages appear, report the complete text of this message to your technical support specialist.

This example shows how to display the ELPD version information of a slot:

```
Router# show version epld 4
Module 4 EPLD's:
Number of EPLD's: 6
EPLD A : 0x5
EPLD B : 0x2
EPLD C : 0x1
EPLD D : 0x1
EPLD E : 0x1
Router#
```

Cisco uBR7246VXR Router

The following is sample output from the **show version** command for a Cisco uBR7246 VXR with the cable clock card installed:

```
Router# show version

Cisco Internetwork Operating System Software
IOS (tm) 7200 Software (UBR7200-P-M), Version 12.1(10)EC, RELEASE SOFTWARE
TAC Support: http://www.cisco.com/tac
Copyright (c) 1986-2000 by cisco Systems, Inc.
Compiled Wed 02-Feb-00 16:49 by ccai
Image text-base:0x60008900, data-base:0x61192000

ROM:System Bootstrap, Version 12.0(15)SC, RELEASE SOFTWARE

VXR1 uptime is 2 days, 1 hour, 24 minutes
System returned to ROM by power-on at 10:54:38 PST Sat Feb 5 2000
System restarted at 11:01:08 PST Sat Feb 5 2000
System image file is "slot1:ubr7200-p-mz.121-0.8.T"

cisco uBR7246VXR (NPE300) processor (revision B) with 122880K/40960K bytes of memory.
Processor board ID SAB0329005N
R7000 CPU at 262Mhz, Implementation 39, Rev 1.0, 256KB L2, 2048KB L3 Cache
6 slot VXR midplane, Version 2.0

Last reset from power-on
X.25 software, Version 3.0.0.
National clock card with T1 controller
1 FastEthernet/IEEE 802.3 interface(s)
2 Cable Modem network interface(s)
125K bytes of non-volatile configuration memory.

16384K bytes of Flash PCMCIA card at slot 0 (Sector size 128K).
20480K bytes of Flash PCMCIA card at slot 1 (Sector size 128K).
4096K bytes of Flash internal SIMM (Sector size 256K).
Configuration register is 0x0

Router#
```

Table 0-165 describes significant fields shown in these displays.

Table 0-165 show version Field Descriptions

Field	Description
IOS (tm) 7200 Software (UBR7200-P-M), Version xx.x	Always specify the complete version number when reporting a possible software problem. In the example, the version number is Cisco IOS Release 12.1(10)EC.
ROM: System Bootstrap	Bootstrap version string.
Router uptime is	The amount of time the system has been up and running.
System restarted at	Also displayed is a log of how the system was last booted, as a result of normal system startup or system error.
System image file is	If the software was booted over the network, the Internet address of the boot host is shown. If the software was loaded from onboard ROM, this line reads “running default software.”

Table 0-165 show version Field Descriptions

Field	Description
cisco uBR7246VXR (NPE300) processor	The remaining output in each display shows the hardware configuration and any nonstandard software options.
Configuration register is	The configuration register contents, displayed in hexadecimal notation.

The output of the **show version** command can also provide certain messages, such as bus error messages. If such error messages appear, report the complete text of this message to your technical support specialist.

Cisco uBR10012 Router

The following example shows sample output from the show version command on a Cisco uBR10012 universal broadband router running Cisco IOS Release 12.3(17b)BC4:

```
Router> show version
Cisco Internetwork Operating System Software
IOS (tm) 10000 Software (UBR10K2-K9P6U2-M), Version 12.3(17b)BC4, RELEASE SOFTWA
RE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2006 by cisco Systems, Inc.
Compiled Wed 22-Nov-06 11:41 by tinhuang
Image text-base: 0x60010F0C, data-base: 0x62480000

ROM: System Bootstrap, Version 12.0(20020314:211744) [REL-pulsar_sx.ios-rommon 1
12], DEVELOPMENT SOFTWARE

ubr10k uptime is 2 days, 22 hours, 13 minutes
System returned to ROM by reload at 01:34:58 UTC Sun Jun 8 2008
System image file is "disk0:ubr10k2-k9p6u2-mz.123-17b.BC4"
Last reload reason: Reload command



This product contains cryptographic features and is subject to United
States and local country laws governing import, export, transfer and
use. Delivery of Cisco cryptographic products does not imply
third-party authority to import, export, distribute or use encryption.
Importers, exporters, distributors and users are responsible for
compliance with U.S. and local country laws. By using this product you
agree to comply with applicable laws and regulations. If you are unable
to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at:
http://www.cisco.com/wwl/export/crypto/tool/stqrg.html

If you require further assistance please contact us by sending email to
export@cisco.com.

cisco uBR10000 (PRE2-RP) processor with 946175K/98304K bytes of memory.
Processor board ID TBA05380380
R7000 CPU at 500MHz, Implementation 39, Rev 4.1, 256KB L2, 8192KB L3 Cache
Backplane version 1.1, 8 slot

Last reset from register reset
PXF processor tmc0 is running.
PXF processor tmc1 is running.
PXF processor tmc2 is running.
```

```
PXF processor tmc3 is running.
1 TCCplus card(s)
1 FastEthernet/IEEE 802.3 interface(s)
3 Gigabit Ethernet/IEEE 802.3 interface(s)
24 Cable Modem network interface(s)
2045K bytes of non-volatile configuration memory.

125440K bytes of ATA PCMCIA card at slot 0 (Sector size 512 bytes).
125440K bytes of ATA PCMCIA card at slot 1 (Sector size 512 bytes).
65536K bytes of Flash internal SIMM (Sector size 512KB).
Secondary is up.
Secondary has 1044480K bytes of memory.

Configuration register is 0x2102
```

Cisco ASR 1000 Series Routers

In the following example, the **show version installed** command is entered on a Cisco ASR 1000 Series Router in diagnostic mode. Note that the output shows what every file that can be found in the consolidated package is or is not currently running (provisioning file, RP Access, RP Base, RP Control, RP IOS, ESP Base, SIP Base, SIP SPA).

```
Router#show version installed
Package: Provisioning File, version: n/a, status: active
  File: bootflash:packages.conf, on: RP0
  Built: n/a, by: n/a
  File SHA1 checksum: 0b9f2c7c3d81d8455a918f285c078463c04a0cab

Package: rpbase, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-rpbase.v122_33_xn_asr_rls0_throttle.pkg, on: RP0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 193c4810becc2a6097645f0b68f5684004bd3ab3

Package: rpaccess-k9, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-rpaccess-k9.v122_33_xn_asr_rls0_throttle.pkg, on: RP0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 328c3d1e10f006304ce9543ab68e914b43c41b1e

Package: rpcontrol, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-rpcontrol.v122_33_xn_asr_rls0_throttle.pkg, on: RP0/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: e4152b7fe3c2b8aca07ce1e8ad6d5a54d6d20689

Package: rpios-advipservicesk9, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-rpios-advipservicesk9.v122_33_xn_asr_rls0_throttle.pkg, on:
RP0/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 7f7f87f2c198c38e7b58214478c5b28ee3c7b567

Package: rpcontrol, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpcontrol.v122_33_xn_asr_rls0_throttle.pkg, on: RP0/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: e4152b7fe3c2b8aca07ce1e8ad6d5a54d6d20689

Package: rpios-advipservicesk9, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpios-advipservicesk9.v122_33_xn_asr_rls0_throttle.pkg, on:
RP0/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 7f7f87f2c198c38e7b58214478c5b28ee3c7b567

Package: rpbase, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpbase.v122_33_xn_asr_rls0_throttle.pkg, on: RP1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 193c4810becc2a6097645f0b68f5684004bd3ab3
```

```
Package: rpaccess-k9, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpaccess-k9.v122_33_xn_asr_rls0_throttle.pkg, on: RP1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 328c3d1e10f006304ce9543ab68e914b43c41b1e

Package: rpcontrol, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpcontrol.v122_33_xn_asr_rls0_throttle.pkg, on: RP1/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: e4152b7fe3c2b8aca07ce1e8ad6d5a54d6d20689

Package: rpios-advipservicesk9, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpios-advipservicesk9.v122_33_xn_asr_rls0_throttle.pkg, on:
RP1/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 7f7f87f2c198c38e7b58214478c5b28ee3c7b567

Package: rpcontrol, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpcontrol.v122_33_xn_asr_rls0_throttle.pkg, on: RP1/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: e4152b7fe3c2b8aca07ce1e8ad6d5a54d6d20689

Package: rpios-advipservicesk9, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpios-advipservicesk9.v122_33_xn_asr_rls0_throttle.pkg, on:
RP1/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 7f7f87f2c198c38e7b58214478c5b28ee3c7b567

Package: espbase, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-espbase.v122_33_xn_asr_rls0_throttle.pkg, on: FP0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: b1c004ed151cf60f0ce250f6ea710f43707fb010

Package: espbase, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-espbase.v122_33_xn_asr_rls0_throttle.pkg, on: FP1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: b1c004ed151cf60f0ce250f6ea710f43707fb010

Package: sipbase, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipbase.v122_33_xn_asr_rls0_throttle.pkg, on: CC0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: bd34a8a23d001f9cefcac8853a31b62ffd8272a4

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC0/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC0/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC0/2
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC0/3
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipbase, version: v122_33_xn_asr_rls0_throttle, status: active
```

```
  File: bootflash:asr1000rp1-sipbase.v122_33_xn_asr_rls0_throttle.pkg, on: CC1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: bd34a8a23d001f9cefcac8853a31b62ffd8272a4

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC1/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC1/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC1/2
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC1/3
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipbase, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-sipbase.v122_33_xn_asr_rls0_throttle.pkg, on: CC2
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: bd34a8a23d001f9cefcac8853a31b62ffd8272a4

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC2/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC2/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC2/2
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC2/3
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Router#
```

In the following example, the **show version provisioned** command is entered to gather information on which sub-packages are provisioning which components on the router.

```
Router#show version provisioned
Package: Provisioning File, version: n/a, status: active
  File: bootflash:packages.conf, on: RP0
  Built: n/a, by: n/a
  File SHA1 checksum: 0b9f2c7c3d81d8455a918f285c078463c04a0cab

Package: rpbase, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-rpbase.v122_33_xn_asr_rls0_throttle.pkg, on: RP0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 193c4810becc2a6097645f0b68f5684004bd3ab3
```

```
Package: rpaccess-k9, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-rpaccess-k9.v122_33_xn_asr_rls0_throttle.pkg, on: RP0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 328c3d1e10f006304ce9543ab68e914b43c41b1e

Package: rpcontrol, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-rpcontrol.v122_33_xn_asr_rls0_throttle.pkg, on: RP0/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: e4152b7fe3c2b8aca07ce1e8ad6d5a54d6d20689

Package: rpios-advipservicesk9, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-rpios-advipservicesk9.v122_33_xn_asr_rls0_throttle.pkg, on:
RP0/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 7f7f87f2c198c38e7b58214478c5b28ee3c7b567

Package: rpcontrol, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpcontrol.v122_33_xn_asr_rls0_throttle.pkg, on: RP0/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: e4152b7fe3c2b8aca07ce1e8ad6d5a54d6d20689

Package: rpios-advipservicesk9, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpios-advipservicesk9.v122_33_xn_asr_rls0_throttle.pkg, on:
RP0/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 7f7f87f2c198c38e7b58214478c5b28ee3c7b567

Package: rpbase, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpbase.v122_33_xn_asr_rls0_throttle.pkg, on: RP1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 193c4810becc2a6097645f0b68f5684004bd3ab3

Package: rpaccess-k9, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpaccess-k9.v122_33_xn_asr_rls0_throttle.pkg, on: RP1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 328c3d1e10f006304ce9543ab68e914b43c41b1e

Package: rpcontrol, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpcontrol.v122_33_xn_asr_rls0_throttle.pkg, on: RP1/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: e4152b7fe3c2b8aca07ce1e8ad6d5a54d6d20689

Package: rpios-advipservicesk9, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpios-advipservicesk9.v122_33_xn_asr_rls0_throttle.pkg, on:
RP1/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 7f7f87f2c198c38e7b58214478c5b28ee3c7b567

Package: rpcontrol, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpcontrol.v122_33_xn_asr_rls0_throttle.pkg, on: RP1/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: e4152b7fe3c2b8aca07ce1e8ad6d5a54d6d20689

Package: rpios-advipservicesk9, version: v122_33_xn_asr_rls0_throttle, status: inactive
  File: bootflash:asr1000rp1-rpios-advipservicesk9.v122_33_xn_asr_rls0_throttle.pkg, on:
RP1/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 7f7f87f2c198c38e7b58214478c5b28ee3c7b567

Package: rpios-advipservicesk9, version: unknown, status: active
  File: unknown, on: FP0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown
```

```
Package: rpios-advipservicesk9, version: unknown, status: inactive
  File: unknown, on: FP1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: active
  File: unknown, on: CC0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: active
  File: unknown, on: CC0/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: active
  File: unknown, on: CC0/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: active
  File: unknown, on: CC0/2
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: inactive
  File: unknown, on: CC0/3
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: active
  File: unknown, on: CC1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: active
  File: unknown, on: CC1/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: active
  File: unknown, on: CC1/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: active
  File: unknown, on: CC1/2
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: inactive
  File: unknown, on: CC1/3
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: inactive
  File: unknown, on: CC2
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: inactive
  File: unknown, on: CC2/0
  Built: 2007-11-11_17.16, by: mcpre
```

```
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: inactive
  File: unknown, on: CC2/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: inactive
  File: unknown, on: CC2/2
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Package: rpios-advipservicesk9, version: unknown, status: inactive
  File: unknown, on: CC2/3
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: unknown

Router#
```

In the following example, the **show version running** command is entered to view which sub-packages are active on which hardware elements on the router.

```
Router#show version running
Package: Provisioning File, version: n/a, status: active
  File: bootflash:packages.conf, on: RP0
  Built: n/a, by: n/a
  File SHA1 checksum: 0b9f2c7c3d81d8455a918f285c078463c04a0cab

Package: rpbase, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-rpbase.v122_33_xn_asr_rls0_throttle.pkg, on: RP0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 193c4810becc2a6097645f0b68f5684004bd3ab3

Package: rpaccess-k9, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-rpaccess-k9.v122_33_xn_asr_rls0_throttle.pkg, on: RP0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 328c3d1e10f006304ce9543ab68e914b43c41b1e

Package: rpcontrol, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-rpcontrol.v122_33_xn_asr_rls0_throttle.pkg, on: RP0/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: e4152b7fe3c2b8aca07ce1e8ad6d5a54d6d20689

Package: rpios-advipservicesk9, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-rpios-advipservicesk9.v122_33_xn_asr_rls0_throttle.pkg, on:
RP0/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 7f7f87f2c198c38e7b58214478c5b28ee3c7b567

Package: espbase, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-espbase.v122_33_xn_asr_rls0_throttle.pkg, on: FP0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: b1c004ed151cf60f0ce250f6ea710f43707fb010

Package: sipbase, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipbase.v122_33_xn_asr_rls0_throttle.pkg, on: CC0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: bd34a8a23d001f9cefcac8853a31b62ffd8272a4

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC0/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897
```

```
Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC0/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC0/2
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipbase, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipbase.v122_33_xn_asr_rls0_throttle.pkg, on: CC1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: bd34a8a23d001f9cefcac8853a31b62ffd8272a4

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC1/0
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC1/1
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Package: sipspa, version: v122_33_xn_asr_rls0_throttle, status: active
  File: bootflash:asr1000rp1-sipspa.v122_33_xn_asr_rls0_throttle.pkg, on: CC1/2
  Built: 2007-11-11_17.16, by: mcpre
  File SHA1 checksum: 6ad199569dad7d8b35beac2c8a72b080f9662897

Router#
```

Table 166 show version installed, provisioned, and running Field Descriptions

Field	Description
`Package:`	The individual sub-package name.
`version:`	The consolidated package version of the individual sub-package.
`status:`	Reveals if the sub-package is active or inactive for the specific hardware component only.
`File:`	The location and filename of the individual sub-package file.
`on:`	The hardware component.
`Built:`	The date the individual sub-package was built.
`File SHA1 checksum:`	The SHA1 sum for the file. This sum can be compared against a SHA1 sum generated by any SHA1 sum-generating tool.

Related Commands

Command	Description
show diag	Displays hardware and diagnostic information for a networking device, a line card, a processor, a jacket card, a chassis, or a network module.
show inventory	Displays the Cisco Unique Device Identifier information, including the Product ID, the Version ID, and the Serial Number, for the hardware device and hardware components.

show warm-reboot

To display the statistics for attempted warm reboots, use the **show warm-reboot** command in privileged EXEC mode.

show warm-reboot

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(2)T	This command was introduced.
12.2(18)S	This command was integrated into Cisco IOS Relase 12.2(18)S.
12.2(28)SB	This command was integrated into Cisco IOS Relase 12.2(28)SB.

Usage Guidelines

Use the **show warm-reboot** command to see if warm rebooting is enabled, and, if so, how many warm reloads have occurred and how much space in kilobytes (KB) is consumed by warm-reboot storage, which is the RAM area used to store the data segment that enables warm reloading to function.

Examples

The following example is sample output from the **show warm-reboot** command:

```
Router# show warm-reboot

Warm Reboot is enabled

Statistics:
10 warm reboots have taken place since the last cold reboot
XXX KB taken up by warm reboot storage
```

Related Commands

Command	Description
warm-reboot	Enables a router to warm-reboot.

show wiretap

To display the intercept status, use the **show wiretap** command in privileged EXEC mode.

show wiretap [*id* [*stream-id*] | **idbs**]

Syntax Description

id	(Optional) CCC ID number. The CCC ID value range is from 1 to 2147483647.
stream-id	(Optional) The ID value range is from 1to 2147483647.
idbs	(Optional) Displays the Interface Descriptive Block (IDB) to which the Access Control List (ACL) is applied.

Command Default

If the id is not specified , information for all wiretap configurations and IDBs is displayed.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.0(1)M	This command was introduced in a release earlier than Cisco IOS Release 15.0(1)M.
12.2 (33)SXI	This command was integrated into a release earlier than Cisco IOS Release 12.2(33)SXI.

Usage Guidelines

Use the **show wiretap** command to display the intercept status.

Examples

The following is sample output from the **show wiretap** command. The field descriptions are self-explanatory.

```
Router# show wiretap

Mediation Device 0x00000001
  TTl   = 3130
  Time left = 3127 minutes
  MD IP Address = 6.6.6.12
  MD SNMP IF index = 0
  MD HW IF index = 0
  MD Source IP address = 6.6.6.14
  MD UDP port = 7777
  DSCP value = af41
  Platform data = 0x00000000
  Stream count = 1
  Streams associated with MD
  Generic stream 0x00000002
    Status = 1
    Packets intercepted = 0
    Packets dropped = 0
```

```
Type = Session
  Index    0x00000002
  Acnt ID  0x00000001
  SNMP provisioned intercept
  Status   0
```

show whoami

To display information about the terminal line of the current user, including host name, line number, line speed, and location, use the **show whoami** command in EXEC mode.

show whoami [*text*]

Syntax Description

text	(Optional) Additional data to print to the screen.

Command Modes

EXEC

Command History

Release	Modification
10.0	This command was introduced.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Usage Guidelines

If text is included as an argument in the command, that text is displayed as part of the additional data about the line.

To prevent the information from being lost if the menu display clears the screen, this command always displays a --More-- prompt before returning. Press the space bar to return to the prompt.

Examples

The following example is sample output from the **show whoami** command:

```
Router> show whoami


Comm Server "Router", Line 0 at 0bps.  Location "Second floor, West"

--More--
Router>
```

showmon

To show both the ReadOnly and the Upgrade ROMmon image versions when you are in ROMmon mode, as well as which ROMmon image is running on the Cisco 7200 VXR or Cisco 7301 router, use the **showmon** command in ROM monitor mode.

showmon

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

ROM monitor mode

Command History

Release	Modification
12.0(28)S	This command was introduced on the Cisco 7200 VXR router. It was introduced in ROMmon version 12.3(4r)T1 for the Cisco 7200 VXR router.
12.3(8)T	This command was integrated into Cisco IOS Release 12.3(8)T and supported on the Cisco 7200 VXR router and Cisco 7301 router. It was introduced in ROMmon version 12.3(4r)T2 for the Cisco 7301 router.
12.3(9)	This command was integrated into Cisco IOS Release 12.3(9) and supported on the Cisco 7200 VXR router and Cisco 7301 router.

Usage Guidelines

Use the **showmon** command when you are in ROM monitor mode. Use the **show rom-monitor** command when you are in Cisco IOS.

Examples

The following example, applicable to both the Cisco 7200 VXR and Cisco 7301 routers, uses the **showmon** command in ROMmon to display both ROMmon images and to verify that the Upgrade ROMmon image is running:

```
rommon 1 > showmon

ReadOnly ROMMON version is:
System Bootstrap, Version 12.2(20031011:151758) [biff]
Copyright (c) 2004 by Cisco Systems, Inc.


Upgrade ROMMON version is:
System Bootstrap, Version 12.2(20031011:151758) [biff]
Copyright (c) 2004 by Cisco Systems, Inc.

Upgrade ROMMON currently running
Upgrade ROMMON is selected for next boot
rommon 2 >
```

Related Commands

Command	Description
rommon-pref	Selects a ReadOnly or Upgrade ROMmon image to be booted on the next reload of a Cisco 7200 VXR or Cisco 7301 when you are in ROMmon.