# download vmps

Use the **download vmps** command to download VMPS database information from a TFTP server.

**download vmps** *mod* [**rcp**]

## Syntax Description

| | |
|---|---|
| *mod* | Number of the module to receive downloaded image. |
| **rcp** | (Optional) Keyword to copy an image from a specified host to Flash using rcp. |

## Defaults

This command has no default settings.

## Command Types

Switch command.

## Command Modes

Privileged.

## Usage Guidelines

Before you can execute the **download vmps** command successfully, you must use the **set vmps downloadserver** command to configure the IP address of the TFTP server and the name of the VMPS configuration file on that server. If the IP address of the TFTP server is not configured, the **download vmps** command reports an error. If the configuration filename is not configured, the **download vmps** command uses the default filename vmps-config-database.1.

After a successful download, the new VMPS information replaces any existing information. If there are not enough resources to build the new configuration database, the VMPS is made inactive.

## Examples

This example shows the **download vmps** command and typical system responses:

```
Console> (enable) download vmps
Re-initialization of Vlan Membership Policy Server with the downloaded
configuration file is in progress.
6/14/1998,17:37:29:VMPS-2:PARSER: 82 lines parsed, Errors 0
```

## Related Commands

**set vtp**
**show vmps**

# enable

Use the **enable** command to activate privileged mode. In privileged mode, additional commands are available, and certain commands display additional information.

**enable**

## Syntax Description

This command has no arguments or keywords.

## Defaults

This command has no default settings.

## Command Types

Switch command.

## Command Modes

Normal.

## Usage Guidelines

The `(enable)` in the prompt indicates that privileged commands can be entered.

## Examples

This example shows how to enter privileged mode:

```
Console> enable
Enter password:
Console> (enable)
```

## Related Commands

**disable**

# format

Use the **format** command to command to format bootflash or a Flash PC card (a Flash device must be formatted before it can be used).

**format** [**spare** *spare_num*] [*m/*]*device1:* [[*device2:][monlib_filename*]]

## Syntax Description

| | |
|---|---|
| **spare** *spare_num* | (Optional) Number of spare sectors to reserve for use if other sectors fail; valid values are **0** to **16**. |
| *m/* | (Optional) Module number of the supervisor engine containing the Flash device. |
| *device1:* | Flash device to be formatted. A colon (:) is required after the specified device. |
| *device2:* | (Optional) Flash device that contains the monitor library file to be used to format *device1*:. A colon (:) is required after the specified device. |
| *monlib_filename* | (Optional) Name of the monitor library file to be used to format *device 1:*. |

## Defaults

The default number of spare sectors is 0.

## Command Types

Switch command.

## Command Modes

Privileged.

## Usage Guidelines

This command is not supported on the Supervisor Engine II G and III G.

You can reserve up to 16 spare sectors for use when other sectors fail. If you do not reserve spare sectors and later some sectors on the device fail, you will have to reformat the entire Flash device, which will erase all existing data.

The *monlib* file is the ROM monitor library used by the ROM monitor to access files in the Flash file system. The file is also compiled into the system image. In the command syntax, *device1***:** is the device to format and *device2***:** contains the *monlib* file to use.

When you omit the [*device2***:**][*monlib_filename*]] argument, the system formats *device1***:** using the *monlib* that is bundled with the system software.

When you omit *device2***:** from the [[*device2***:**][*monlib_filename*]] argument, the system formats *device1***:** using the named *monlib* file from the default Flash device (specified by the **cd** command).

When you omit *monlib_filename* from the [[*device2***:**][*monlib_filename*]] argument, the system formats *device1***:** using the *monlib* file from *device2***:**. When you specify the whole [[*device2***:**][*monlib_filename*]] argument, the system formats *device1***:** using the specified *monlib* file from the specified device.

You can also specify *device1:monlib_filename* as the device and filename to be used, as follows:

**format device1:** [**device1:** [*monlib_filename*]]

If *monlib_filename* is omitted, the system formats *device1*: using the built-in *monlib* file on the device.

**Note** When the system cannot find a *monlib* file, the system terminates the formatting process.

**Note** If the Flash device has a volume ID, you must enter the volume ID to format the device. The volume ID is displayed using the **show flash** *m/device:* **filesys** command

## Examples

This example shows how to format a Flash device (Flash PC card in slot1):

```
Console> (enable) format slot1:
All sectors will be erased, proceed (y/n) [n]?y
Enter volume id (up to 31 characters):
Formatting sector 1
Format device slot1 completed.
Console> (enable)
```

# history—ROM monitor

Use the **history** command to display the command history (the last 16 commands executed in the ROM monitor environment).

**history**

## Syntax Description

This command has no arguments or keywords.

## Defaults

This command has no default settings.

## Command Types

ROM monitor command.

## Command Modes

Normal.

## Usage Guidelines

This command is aliased to **h** by the ROM monitor for convenience.

## Examples

This example shows how to use the **history** command:

```
rommon 13 > history

1   help
2   break -s 0x20090
3   break -s 10090
4   break -s 0xa0001000
5   cont
6   help
7   dev
8   dir
9   dir bootflash:
10  dis
11  dis 0xa0001000
12  dis 0xbe000000
13  history
================================================================================
```

# history—switch

Use the **history** command to show the contents of the command history buffer.

**history**

## Syntax Description

This command has no arguments or keywords.

## Defaults

This command has no default settings.

## Command Types

Switch command.

## Command Modes

Normal.

## Usage Guidelines

The history buffer size is fixed at 20 commands. See the "Command-Line Interfaces" chapter for detailed information about the command history feature.

## Examples

This example shows how to display the command history and execute the second entry in the command history buffer:

```
Console> history
       1 help
       2 history
Console> !2
history
       1 help
       2 history
       3 history
Console>
```

# l2trace

Use the **l2trace** command to display the Layer 2 path taken by the packets that start at a specified source address and end at a specified destination address.

**l2trace** *src_mac_addr dest_mac_addr* [*vlan*] [**detail**]

**l2trace** *src_ip_addr dest_ip_addr* [**detail**]

## Syntax Description

| | |
|---|---|
| *src_mac_addr* | Source MAC address. |
| *dest_mac_addr* | Destination MAC address. |
| *vlan* | (Optional) Number of the VLAN. |
| *src_ip_addr* | Source IP address or alias. |
| *dest_ip_addr* | Destination IP address or alias. |
| **detail** | (Optional) Keyword to specify detailed information. |

## Defaults

This command has no default settings.

## Command Types

Switch command.

## Command Types

Privileged.

## Usage Guidelines

All the intermediate devices should be Catalyst 5000 or Catalyst 6000 family switches running supervisor engine software release 6.1 or later. Catalyst 4000 family switches must be running supervisor engine software release 6.2 or later.

You must enable CDP on all Catalyst 4000, Catalyst 5000, and Catalyst 6000 family switches in the network.

When the Catalyst 5000 family switch detects a device (in the Layer 2 path) that does not belong to the Catalyst 4000, Catalyst 5000, or Catalyst 6000 family switch, the Catalyst 5000 family switch continues to send Layer 2 trace queries and lets them time out.

This command is rejected if you enter a multicast source or destination MAC address.

The Layer 2 trace feature is not supported on token ring VLANs.

If a source or the destination address belongs to multiple VLANs, you must specify the VLAN to be used for determining the Layer 2 path.

The Layer 2 trace feature is not supported when multiple devices are attached to one port through hubs (for example, multiple CDP neighbors detected on a port). When more than one CDP neighbor is detected on the port, Layer 2 trace is aborted.

If you specify the IP address of the source and destination systems instead of specifying the MAC addresses, the switch determines the IP address-to-MAC address mapping of the source and destination systems by looking at the ARP table. If an ARP entry exists for the specified IP address, the corresponding MAC address is used. If no matching ARP entry exists, the system does an ARP query and tries to resolve the IP address. If this is the case, a restriction is imposed that requires the source and destination systems to be in the same subnet as the switch in order for the ARP query to be resolved.

## Examples

This example shows how to display the Layer 2 packet path for a specified source and destination MAC address:

```
Console> (enable) l2trace 00-01-22-33-44-55 10-22-33-44-55-66 detail
l2trace vlan number is 10.

00-01-22-33-44-55 found in C5500 named wiring-1 on port 4/1 10Mb half duplex
C5500: wiring-1: 192.168.242.10: 4/1 10Mb half duplex -> 5/2 100MB full duplex
C5000: backup-wiring-1: 192.168.242.20: 1/1 100Mb full duplex -> 3/1-4 FEC attached
C5000: backup-core-1: 192.168.242.30: 4/1-4 FEC attached -> 1/1-2 GEC attached
C6000: core-1: 192.168.242.40: 1/1-2 GEC attached -> 2/1 10MB half duplex.
10-22-33-44-55-66 found in C6000 named core-1 on port 2/1 10MB half duplex.
Console> (enable)
```

This example shows how to display the Layer 2 packet path for a specified source and destination IP alias:

```
Console> (enable) l2trace user-1-pc user-2-pc detail
Mapping IP address to MAC Address
user-1-pc -> 00-01-22-33-44-55
user-2-pc -> 10-22-33-44-55-66
l2trace vlan number is 10

00-01-22-33-44-55 found in C5500 named wiring-1 on port 4/1 10Mb half duplex
C5500: wiring-1: 192.168.242.10: 4/1 10Mb half duplex -> 5/2 100MB full duplex
C5000: backup-wiring-1: 192.168.242.20: 1/1 100Mb full duplex -> 3/1-4 FEC attached
C5000: backup-core-1: 192.168.242.30: 4/1-4 FEC attached -> 1/1-2 GEC attached
C6000: core-1: 192.168.242.40: 1/1-2 GEC attached -> 2/1 10MB half duplex.
10-22-33-44-55-66 found in C6000 named core-1 on port 2/1 10MB half duplex.
Console> (enable)
```

This example shows how to display a summary of Layer 2 packet path information for a specified source and destination IP address:

```
Console> (enable) l2trace 9.7.0.7 9.7.0.6
Starting L2 Trace
sc0 :9.7.0.7 : 3/7
4/16 :9.7.0.2 : 4/10
Console> (enable)
```

This example shows how to display a summary of Layer 2 packet path information for a specified source and destination MAC address:

```
Console> (enable) l2trace 00-01-22-33-44-55 10-22-33-44-55-66
Starting L2 Trace
sc0 :9.7.0.7 : 3/7
4/16 :9.7.0.2 : 4/10
Console> (enable)
```