6

F Commands

This chapter describes the Cisco Nexus 1000V commands that begin with the letter F.

feature dhcp

To enable the Dynamic Host Configuration Protocol (DHCP) feature globally, use the **feature dhcp** command. To disable DHCP, use the **no** form of this command.

feature dhcp

no feature dhcp

Syntax Description	This command has no arguments or keywords.

Defaults	None

Command Modes	Global configuration (config)

SupportedUserRoles	network-admin

Command History

Release	Modification
5.2(1)SK1(1.1)	This command was introduced.

Usage Guidelines

Examples   This example shows how to enable DHCP globally:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# feature dhcp
n1000v(config)#
```

This example shows how to disable DHCP globally:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# no feature dhcp
n1000v(config)#
```

Related Commands

Command	Description
show feature	Displays the features available, such as DHCP, and whether they are enabled.

feature http-server

To enable the HTTP server, use the **feature http-server** command. To disable the HTTP server, use the **no** form of this command.

feature http-server

no feature http-server

Syntax Description   This command has no arguments or keywords.

Defaults   Enabled

Command Modes   Global configuration (config)

SupportedUserRoles   network-admin

Command History

Release	Modification
5.2(1)SK1(1.1)	This command was introduced.

Usage Guidelines   • The vCenter Update Manager (VUM) will not install the Virtual Ethernet Module (VEM) if the HTTP server is disabled.

• The HTTP server must be enabled in order to get the Cisco Nexus 1000V XML plugin from the Virtual Supervisor Module (VSM).

Examples   This example shows how to enable the HTTP server:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# feature http-server
```

This example shows how to disable the HTTP server:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# no feature http-server
```

Related Commands

Command	Description
show feature	Displays the features available, such as LACP, and whether they are enabled.
show http-server	Displays the HTTP server configuration.

feature lacp

To enable the Link Aggregation Control Protocol (LACP) support for port channels, use the **feature lacp** command. To disable it, use the **no** form of this command.

> **feature lacp**

> **no feature lacp**

Syntax Description   This command has no arguments or keywords.

Defaults   LACP is disabled.

Command Modes   Global configuration (config)

SupportedUserRoles   network-admin

Command History

Release	Modification
5.2(1)SK1(1.1)	This command was introduced.

Usage Guidelines   LACP bundles a number of physical ports together to form a single logical channel.

You cannot configure LACP for a port channel without first enabling LACP using the command, **feature lacp**.

Examples   This example shows how to turn on LACP for port channels:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# feature lacp
```

This example shows how to turn off LACP for port channels:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# no feature lacp
```

Related Commands

Command	Description
channel-group	Configures a channel group on an interface.
channel-group auto	Configures a channel group on a port profile.
interface	Configures an interface.
port-profile	Configures a port profile.
show feature	Displays the features available and whether they are enabled.
show port-channel summary	Displays a summary for the port channel interfaces.

feature netflow

To enable the NetFlow, use the **feature netflow** command. To disable the feature, use the **no** form of this command.

feature netflow

no feature netflow

Syntax Description   This command has no arguments or keywords.

Defaults   Disabled

Command Modes   Global configuration (config)

SupportedUserRoles   network-admin

Command History

Release	Modification
5.2(1)SK1(1.1)	This command was introduced.

Usage Guidelines
- Be aware of resource requirements since NetFlow consumes additional memory and CPU resources.
- Memory and CPU resources are provided by the Virtual Ethernet Module (VEM) hosting the flow monitor interface. Resources are limited by the number of CPU cores present on the VEM.

Examples   This example shows how to enable NetFlow:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# feature netflow
```

This example shows how to disable NetFlow:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# no feature netflow
```

Related Commands

Command	Description
flow exporter	Creates a NetFlow flow exporter.
flow monitor	Creates a NetFlow flow monitor.
flow record	Creates a NetFlow flow record.
show flow exporter	Displays information about NetFlow flow exporters.

Command	Description
show flow monitor	Displays information about NetFlow flow monitors.
show flow record	Displays information about NetFlow flow records.
show ssh server	Displays the SSH server configuration.

feature network-segmentation-manager

To enable the network segmentation manager (NSM) feature, use the **feature network-segmentation-manager** command. To disable the feature, use the **no** form of this command.

feature network-segmentation-manager

no feature network-segmentation-manager

Syntax Description	This command has no arguments or keywords.
Defaults	Disabled
Command Modes	Global configuration (config)
SupportedUserRoles	network-admin

Command History

Release	Modification
5.2(1)SK1(1.1)	This command was introduced.

Examples

This example shows how to enable the NSM feature:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# feature network-segmentation-manager
n1000v#
```

This example shows how to disable the NSM feature:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# no feature network-segmentation-manager
n1000v#
```

Related Commands

Command	Description
nsm network segment policy	Creates a NSM network segmentation policy.
show nsm network segment manager switch	Displays the Cisco Nexus 1000V configured with NSM.
show nsm	Displays NSM information.

feature segmentation

To enable the segmentation feature, use the **feature segmentation** command. To disable the segmentation feature, use the **no** form of this command.

> **feature segmentation**

> **no feature segmentation**

Syntax Description   This command has no arguments or keywords.

Defaults   Enabled

Command Modes   Global configuration (config)

SupportedUserRoles   network-admin

Command History

Release	Modification
5.2(1)SK1(2.1)	This command was introduced.

Examples   This example shows how to enable segmentation:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# feature segmentation
```

This example shows how to disable segmentation:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# no feature segmentation
```

Related Commands

Command	Description
show feature	Displays the available features and whether the feature is enabled or disabled.
show bridge-domain	Displays bridge-domain configurations.

feature ssh

To enable the secure shell (SSH) server, use the **feature ssh** command. To disable the server, use the **no** form of this command.

feature ssh

no feature ssh

Syntax Description This command has no arguments or keywords.

Defaults Enabled

Command Modes Global configuration (config)

SupportedUserRoles network-admin

Command History

Release	Modification
5.2(1)SK1(1.1)	This command was introduced.

Usage Guidelines Before enabling SSH, you must configure IP on a Layer 3 interface, out-of-band on the mgmt 0 interface.

Examples This example shows how to enable the SSH server:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# feature ssh
```

This example shows how to disable the SSH server:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# no feature ssh
```

Related Commands

Command	Description
show feature	Displays the features available, such as the SSH server, and whether they are enabled.
show ssh server	Displays the SSH server configuration.
ssh	Creates and starts an SSH server session.
ssh key	Generates an SSH server key.

feature tacacs+

To enable the Terminal Access Controller Access Control System Plus (TACACS+) server, use the **feature tacacs+** command. To disable the server, use the **no** form of this command.

> **feature tacacs+**

> **no feature tacacs+**

Syntax Description   This command has no arguments or keywords.

Defaults   Disabled

Command Modes   Global configuration (config)

SupportedUserRoles   network-admin

Command History

Release	Modification
5.2(1)SK1(1.1)	This command was introduced.

Examples   This example shows how to enable TACACS+:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# feature tacacs+
```

This example shows how to disable TACACS+:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# no feature tacacs+
```

Related Commands

Command	Description
show feature	Displays the features available, such as TACACS+, and whether they are enabled.
show tacacs-server	Displays the TACACS+ server configuration.
tacacs-server host	Designates the key shared between the Cisco Nexus 1000V and this specific TACACS+ server host.
tacacs-server key	Designates the global key shared between the Cisco Nexus 1000V and the TACACS+ server hosts.

feature telnet

To enable the Telnet server, use the **feature telnet** command. To disable the Telnet server, use the **no** form of this command.

feature telnet

no feature telnet

Syntax Description	This command has no arguments or keywords.

Defaults	Enabled

Command Modes	Global configuration (config)

SupportedUserRoles	network-admin

Command History

Release	Modification
5.2(1)SK1(1.1)	This command was introduced.

Usage Guidelines

- Before enabling Telnet, you must configure IP on a Layer 3 interface, out-of-band on the mgmt 0 interface, or inband on an Ethernet interface.

Examples

This example shows how to enable the Telnet server:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# feature telnet
```

This example shows how to disable the Telnet server:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# no feature telnet
```

Related Commands

Command	Description
show telnet server	Displays the Telnet server configuration.
telnet	Creates and configures a telnet session.
show feature	Displays the features available, such as the Telnet server, and whether they are enabled.

find

To find filenames beginning with a character string, use the **find** command.

> **find** *filename-prefix*

Syntax Description		
	filename-prefix	First part or all of a filename. The filename prefix is case-sensitive and can be up to 28 characters.

Defaults   None

Command Modes   Any

SupportedUserRoles   network-admin

Command History	Release	Modification
	5.2(1)SK1(1.1)	This command was introduced.

Usage Guidelines   The **find** command searches all subdirectories under the current working directory. You can use the **cd** and **pwd** commands to navigate to the starting directory.

Examples   This example shows how to display filenames beginning with ospf:

```
n1000v# find ospf
/usr/bin/find: ./lost+found: Permission denied
./ospf-gr.cfg
./ospfgrconfig
./ospf-gr.conf
```

Related Commands	Command	Description
	cd	Changes the current working directory.
	pwd	Displays the name of the current working directory.

flow exporter

To create or modify a Flexible NetFlow flow exporter that defines where and how Flow Records are exported to the NetFlow Collector Server, use the **flow exporter** command. To remove a flow exporter, use the **no** form of this command.

flow exporter *exporter-name*

no flow exporter *exporter-name*

Syntax Description	*exporter-name*	Flow exporter name that is created or modified.

Defaults   Flow exporters are not present in the configuration until you create them.

Command Modes   Global configuration (config)

SupportedUserRoles   network-admin

Command History	**Release**	**Modification**
	5.2(1)SK1(1.1)	This command was introduced.

Examples   This example shows how to create and configure FLOW-EXPORTER-1:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# flow exporter FLOW-EXPORTER-1
n1000v(config-flow-exporter)# description located in Pahrump, NV
n1000v(config-flow-exporter)# destination A.B.C.D
n1000v(config-flow-monitor)# dscp 32
n1000v(config-flow-monitor)# source mgmt0
n1000v(config-flow-monitor)# transport udp 59
n1000v(config-flow-monitor)# version 9
```

This example shows how to remove FLOW-EXPORTER-1:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# no flow exporter FLOW-EXPORTER-1
n1000v(config)#
```

Related Commands	**Command**	**Description**
	clear flow exporter	Clears the flow monitor.
	show flow exporter	Displays flow monitor status and statistics.
	description	Adds a description to a flow record, flow monitor, or flow exporter.

Command	Description
destination	Adds a destination IP address to a NetFlow flow exporter.
dscp	Adds a DSCP to a flow exporter.
source lc-exp	Adds an IP address to a flow exporter designating it as the source for NetFlow flow records.
transport udp	Adds a destination UDP port used to reach the NetFlow collector to a flow exporter.
version 9	Designates NetFlow export version 9 in the NetFlow exporter.

flow monitor

To create a Flexible NetFlow flow monitor, or to modify an existing Flexible NetFlow flow monitor, and enter Flexible NetFlow flow monitor configuration mode, use the **flow monitor** command. To remove a Flexible NetFlow flow monitor, use the **no** form of this command.

flow monitor *monitor-name*

no flow monitor *monitor-name*

Syntax Description	*monitor-name*	Flow monitor name that is created or modified. The range is from 1 to 63, case-sensitive, alphanumeric characters.

Defaults   Flow monitors are not present in the configuration until you create them.

Command Modes   Global configuration (config)

SupportedUserRoles   network-admin

Command History

Release	Modification
5.2(1)SK1(1.1)	This command was introduced.

Usage Guidelines   Flow monitors are the Flexible NetFlow component that is applied to interfaces to perform network traffic monitoring. Flow monitors consist of a record that you add to the flow monitor after you create the flow monitor and a cache that is automatically created at the time the flow monitor is applied to the first interface. Flow data is collected from the network traffic during the monitoring process based on the key and nonkey fields in the record that is configured for the flow monitor and stored in the flow monitor cache.

Once you enter the flow monitor configuration mode, the prompt changes to the following:

```
n1000v(config-flow-monitor)#
```

Within the flow monitor configuration mode, the following keywords and arguments are available to configure the flow monitor:

- **cache**—Specifies the cache size, from 256 to 16384 entries.
- **description** *description*—Provides a description for this flow monitor. The argument has a maximum of 63, case-sensitive, alphanumeric characters.
- **exit**—Exits from the current configuration mode.
- **exporter** *name*—Specifies the name of an exporter to export records.
- **no**—Negates a command or sets its defaults.

- **record** {*record-name* | **netflow ipv4** *collection-type* | **netflow-original**}—Specifies a flow record to use as follows:

    – *record-name*—Name of a record.

    – **netflow ipv4** *collection-type*—Specifies the traditional IPv4 NetFlow collection schemes as follows:

      original-input—Specifies the traditional IPv4 input NetFlow.

      original-output—Specifies the traditional IPv4 output NetFlow

      protocol-port—Specifies the protocol and ports aggregation scheme.

    – **netflow-original**—Specifies the traditional IPv4 input NetFlow with origin autonomous systems.

- **timeout** {**active** | **inactive**}—Specifies a flow timeout period as follows:

    – **active**—Specifies an active or long timeout in the range of 60 to 4092 seconds.

    – **inactive**—Specifies an inactive or normal timeout in the range of 15 to 4092 seconds.

The **netflow-original** and **original-input** keywords are the same and are equivalent to the following commands:

- **match ipv4 source address**
- **match ipv4 destination address**
- **match ip tos**
- **match ip protocol**
- **match transport source-port**
- **match transport destination-port**
- **match interface input**
- **collect counter bytes**
- **collect counter packet**
- **collect timestamp sys-uptime first**
- **collect timestamp sys-uptime last**
- **collect interface output**
- **collect transport tcp flags**

The **original-output** keywords are the same as **original-input** keywords except for the following:

- **match interface output** (instead of **match interface input**)
- **collect interface input** (instead of **collect interface output**)

Examples   This examples shows how to create and configure a flow monitor named FLOW-MONITOR-1:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# flow monitor FLOW-MONITOR-1
n1000v(config-flow-monitor)# description monitor location las vegas, NV
n1000v(config-flow-monitor)# exporter exporter-name1
n1000v(config-flow-monitor)# record test-record
n1000v(config-flow-monitor)# netflow ipv4 original-input
```

Related Commands

Command	Description
clear flow monitor	Clears the flow monitor.
show flow monitor	Displays the flow monitor status and statistics.

flow record

To create a Flexible NetFlow flow record, or to modify an existing Flexible NetFlow flow record, and enter Flexible NetFlow flow record configuration mode, use the **flow record** command. To remove a Flexible NetFlow flow record, use the **no** form of this command.

flow record *record-name*

no flow record *record-name*

Syntax Description

record-name	Flow record name that is created or modified. The range is from 1 to 63, case-sensitive, alphanumeric characters.

Defaults   Flow records are not present in the configuration until you create them.

Command Modes   Global configuration (config)

SupportedUserRoles   network-admin

Command History

Release	Modification
5.2(1)SK1(1.1)	This command was introduced.

Usage Guidelines   Flexible NetFlow uses key and nonkey fields just as original NetFlow does to create and populate flows in a cache. In Flexible NetFlow, a combination of key and nonkey fields is called a record. Original NetFlow and Flexible NetFlow both use the values in key fields in IP datagrams, such as the IP source or destination address and the source or destination transport protocol port, as the criteria for determining when a new flow must be created in the cache while network traffic is being monitored. A flow is defined as a stream of packets between a given source and a given destination. New flows are created whenever NetFlow analyzes a packet that has a unique value in one of the key fields.

Once you enter the flow record configuration mode, the prompt changes to the following:

```
n1000v(config-flow-record)#
```

Within the flow record configuration mode, the following keywords and arguments are available to configure the flow record:

- **collect**—Specifies a nonkey field. See the **collect** command for additional information.
- **description** *description*—Provides a description for this flow record. The argument has a range that is from 1 to 63, case-sensitive, alphanumeric characters.
- **exit**—Exits from the current configuration mode.
- **match**—Specifies a key field. See the **match** command for additional information.
- **no**—Negates a command or sets its defaults.

Cisco NX-OS enables the following match fields by default when you create a flow record:

- **match interface input**

- **match interface output**

- **match flow direction**

Examples   This example shows how to create a flow record named FLOW-RECORD-1 and enter Flexible NetFlow flow record configuration mode:

```
n1000v# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
n1000v(config)# flow record FLOW-RECORD-1
n1000v(config-flow-record)#
```

Related Commands

Command	Description
clear flow monitor	Clears the flow monitor.
flow monitor	Creates a flow monitor.
show flow monitor	Displays flow monitor status and statistics.