F Commands

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

Feature cts

To enable the Cisco TrustSec feature on Cisco Nexus 1000V, use the **feature cts** command. To disable the Cisco TrustSec feature, use the **no** form of this command.

feature cts

no feature cts

Syntax Description

This command has no arguments or keywords.

Defaults

Disabled

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1)SV2(1.1)	This command was introduced.

Usage Guidelines

Enabling this feature requires an Advanced License. See the Cisco Nexus 1000V License Configuration Guide, Release 4.2(1)SV2(1.1) for more information on the licensing requirements for Cisco Nexus 1000V.

Examples

This example shows how to enable the Cisco TrustSec feature:

n1000v# configure terminal
n1000v(config)# feature cts

This example shows how to disable the Cisco TrustSec feature:

n1000v# configure terminal
n1000v(config)# no feature cts

Command	Description
show cts	Displays Cisco TrustSec configuration.
show feature	Displays the features available, such as CTS, and whether they are enabled.

feature dhcp

To enable the 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
4.2(1)SV1(4)	This command was introduced.

Usage Guidelines

Starting with Release 4.2(1)SV2(1.1), a tier-based Licensing approach is adopted for the Cisco Nexus 1000V. The Cisco Nexus 1000V is shipped in two editions: Essential and Advanced. When the switch edition is configured as the Advanced edition, DHCP Snooping, Dynamic ARP Inspection (DAI), and IP Source Guard (IPSG) are available as advanced features that require licenses.

See the *Cisco Nexus 1000V License Configuration Guide* for more information on the licensing requirements for Cisco Nexus 1000V.

Examples

This example shows how to enable DHCP globally:

```
n1000v# configure terminal
n1000v(config)# feature dhcp
n1000v(config)#
```

This example shows how to disable DHCP globally:

```
n1000v# configure terminal
n1000v(config) # no feature dhcp
n1000v(config) #
```

Command	Description
show feature	Displays the features available, such as DHCP, and whether they are enabled.
ip dhcp snooping trust	Configures an interface as a trusted source of DHCP messages.
ip dhcp snooping vlan	Enables DHCP snooping on the specified VLANs.
show ip dhcp snooping	Displays general information about DHCP snooping.

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
4.2(1)SV1(4)	This command was introduced.

Usage Guidelines

- VUM will not install VEMs if the HTTP server is disabled.
- The HTTP server must be enabled in order to get the Cisco Nexus 1000V XML plugin from the VSM.

Examples

This example shows how to enable the HTTP server:

```
n1000v# config t
n1000v(config)# feature http-server
```

This example shows how to disable the HTTP server:

```
n1000v# config t
n1000v(config)# no feature http-server
```

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

feature lacp

To enable 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

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1)SV1(4)	This command was introduced.

Usage Guidelines

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# config t
n1000v(config)# feature lacp

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

n1000v(config) # no feature lacp

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

Command	Description
channel-group auto	Configures a channel group on a port profile.
lacp offload	Offloads LACP management from the VSM to the VEMs.

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
4.2(1)SV1(4)	This command was introduced.

Usage Guidelines

- VUM will not install VEMs if the HTTP server is disabled.
- The HTTP server must be enabled in order to get the Cisco Nexus 1000V XML plugin from the VSM.

Examples

This example shows how to enable the HTTP server:

```
n1000v# config t
n1000v(config)# feature http-server
```

This example shows how to disable the HTTP server:

```
n1000v# config t
n1000v(config)# no feature http-server
```

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

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
4.2(1)SV1(4)	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 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# config t
n1000v(config)# feature netflow
```

This example shows how to disable NetFlow:

```
n1000v# config t
n1000v(config)# no feature netflow
```

Command	Description	
show ssh server	Displays the SSH server configuration.	
flow record	Creates a NetFlow flow record.	
flow exporter	Creates a NetFlow flow exporter.	
flow moniter	Creates a NetFlow flow monitor.	
show flow record	Displays information about NetFlow flow records.	

Command	Description
show flow exporter	Displays information about NetFlow flow exporters.
show flow monitor	Displays information about NetFlow flow monitors.

feature network-segmentation-manager

To enable the network segmentation manager 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

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Release	Modification
4.2(1)SV1(5.1)	This command was introduced.

Usage Guidelines

Examples

This example shows how to enable the network segmentation manager feature:

```
n1000v# configure terminal
n1000v(config) # feature network-segmentation-manager
n1000v(config) #
```

This example shows how to disable the network segmentation manager feature:

```
n1000v# configure terminal
n1000v(config)# no feature network-segmentation-manager
n1000v(config)#
```

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

feature port-profile-roles

To enable port profile roles to restrict user and group access, use the **feature port-profile-roles** command. To disable it, use the **no** form of this command.

feature port-profile-roles

no feature port-profile-roles

Syntax Description

This command has no arguments or keywords.

Defaults

Disabled

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1)SV1(4)	This command was introduced.

Usage Guidelines

When the port profile roles feature is disabled, all users on vCenter lose access to the port groups.

Examples

This example shows how to enable the port profile roles feature to restrict visibility to specific port groups:

```
n1000v(config)# feature port-profile-roles
n1000v(config)#
```

This example shows how to disable the port profile roles feature:

```
n1000v(config) # no feature port-profile-roles
n1000v(config) #
```

Command	Description	
show port-profile-role	Displays the port profile role configuration, including role names, descriptions, assigned users, and assigned groups.	
show port-profile-role users	Displays available users and groups.	
show port-profile	Displays the port profile configuration, including roles assigned to them.	
show feature	Displays features available, such as LACP or Port Profile Roles and whether they are enabled.	

Command	Description
port-profile-role	Creates a port profile role.
user	Assigns a user to a port profile role.
group	Assigns a group to a port profile role.
assign port-profile-role	Assigns a port profile role to a specific port profile.
feature port-profile-role	Enables support for the restriction of port profile roles.

feature private-vlan

To enable the private VLAN feature, use the **feature private-vlan** command. To disable the feature, use the **no** form of this command.

feature private-vlan

no feature private-vlan

Syntax Description

This command has no arguments or keywords.

Defaults

Disabled

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1)SV1(4)	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 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 the private VLAN feature:

```
n1000v# config t
n1000v(config)# feature private-vlan
```

This example shows how to disable the private VLAN feature:

```
n1000v# config t
n1000v(config)# no feature private-vlan
```

Command	Description	
show vlan private-vlan	Displays the private VLAN configuration.	
private-vlan	Configures a VLAN as a private VLAN.	

feature segmentation

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

feature segmentation

no feature segmentation

Syntax Description

This command has no arguments or keywords.

Defaults

Disabled

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1)SV1(5.1)	This command was introduced.

Examples

This example shows how to enable the VXLAN feature:

n1000v# configure terminal
n1000V(config) # feature segmentation
n1000v(config) #

Command	Description
show feature	Displays the features available and whether they are enabled.

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
4.2(1)SV1(4)	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, or inband on an Ethernet interface.

Examples

This example shows how to enable the SSH server:

n1000v# config t
n1000v(config)# feature ssh

This example shows how to disable the SSH server:

n1000v# config t
n1000v(config)# no feature ssh

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

feature tacacs+

To enable the 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
4.2(1)SV1(4)	This command was introduced.

Examples

This example shows how to enable TACACS+:

n1000v# config t
n1000v(config)# feature tacacs+

This example shows how to disable TACACS+:

n1000v# config t

n1000v(config) # no feature tacacs+

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

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
4.2(1)SV1(4)	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# config t
n1000v(config)# feature telnet

This example shows how to disable the Telnet server:

n1000v# config t
n1000v(config)# no feature telnet

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.

filter vlan

To configure a filter from the source VLANs for a specified Switch Port Analyzer (SPAN) session, use the **filter vlan** command. To remove the filter, use the **no** form of this command.

filter vlan {number | range}

no filter vlan {number | range}

Syntax Description

number	Number of the VLAN associated with this filter.
range	Range of VLANs associated with this filter.

Defaults

None

Command Modes

CLI monitor configuration (config-monitor)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Examples

This example shows how to configure the filter for VLAN IDs, 3, 4, 5, and 7:

```
n1000v# config t
n1000v(config)# monitor session 3
n1000v(config-monitor)# filter vlan 3-5, 7
n1000v(config-monitor)#
```

This example shows how to remove the filter for VLAN ID 7:

```
n1000v# config t
n1000v(config)# monitor session 3
n1000v(config-monitor)# no filter vlan 7
n1000v(config-monitor)#
```

Command	Description
monitor session	Creates a session with the given session number and places you in the CLI monitor configuration mode to further configure the session.
description	For the specified SPAN session, adds a description.
source	For the specified session, configures the sources and the direction of traffic to monitor.

Command	Description
destination interface	Configures the ports, for the specified session, to act as destinations for copied source packets.
no shut	Enables the SPAN session.
interface ethernet	Places you in CLI interface configuration mode for the specified interface.
switchport trunk allowed vlan	For the specified interface, configures the range of VLANs that are allowed on the interface.
show interface ethernet	Displays the interface trunking configuration for the selected slot and port or range of ports.

feature vtracker

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

feature vtracker

no feature vtracker

Syntax Description

This command has no arguments or keywords.

Defaults

Disabled

Command Modes

Global configuration (config)

EXEC

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1)SV2(1.1)	This command was introduced.

Usage Guidelines

vTracker can be configured globally, not per interface.

Examples

This example shows how to enable vTracker:

n1000v# config t

n1000v(config)# feature vtracker

This example shows how to disable vTracker:

n1000v(config)# no feature vTracker

Command	Description
show vtracker upstream view	Displays all the available virtual Ethernet interfaces for which traffic can flow through the upstream physical switch.
show vtracker vm-view vnic	Displays all the virtual network interface cards (vNICs) that run on the VMs with the adapter and pinning details.
show vtracker vm-view info	Displays all the Virtual Machines (VMs) that run on each server module.

Command	Description
show vtracker module-view pnic	Displays the physical network interface cards (pNICs) that are connected to each Virtual Ethernet Module (VEM) server module in the network.
show vtracker vlan-view	Displays all the VMs that are connected to a specific VLAN or a range of VLANs.
show vtracker vmotion-view	Displays all the ongoing (if any) as well as previous VM migration events.

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	ve.

Defaults

None

Command Modes

Any

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(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

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 defining 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 Name of the flow exporter that is created or modi

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
4.0(4)SV1(1)	This command was introduced.

Examples

The following example shows how to create and configure FLOW-EXPORTER-1:

```
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
```

The following example shows how to remove FLOW-EXPORTER-1:

```
n1000v(config)# no flow exporter FLOW-EXPORTER-1
n1000v(config)#
```

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.
destination	Adds a destination IP address to a NetFlow flow exporter.
dscp	Adds a differentiated services codepoint (DSCP) to a flow exporter.

Command	Description
source mgmt	Adds the management interface 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

Name of the flow monitor that is created or modified.

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
4.0(4)SV1(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 non-key fields in the record which 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; maximum of 63 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

The following examples creates and configures a flow monitor named FLOW-MONITOR-1:

```
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
```

Command	Description
clear flow monitor	Clears the flow monitor.
show flow monitor	Displays 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	Name of the	flow record	that is created	l or modified.

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
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

Flexible NetFlow uses key and non-key fields just as original NetFlow does to create and populate flows in a cache. In Flexible NetFlow a combination of key and non-key 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 non-key field. See the **collect** command for additional information.
- **description** description—Provides a description for this flow record; maximum of 63 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

The following example creates a flow record named FLOW-RECORD-1, and enters Flexible NetFlow flow record configuration mode:

n1000v(config)# flow record FLOW-RECORD-1
n1000v(config-flow-record)#

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

from (table map)

To map input field values to output field values in a QoS table map, use the from command.

from source-value to dest-value

Syntax Description

source-value	Specifies the source value in the range from 0 to 63.
dest-value	Specifies the destination value in the range from 0 to 63.

Defaults

None

Command Modes

Table map configuration (config-tmap)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Examples

This example shows how to create a mapping from three source values to the corresponding destination values:

```
n1000v(config)# table-map cir-markdown-map
n1000v(config-tmap)# from 0 to 7
n1000v(config-tmap)# from 1 to 6
n1000v(config-tmap)# from 2 to 5
```

Command	Description
show table-map	Displays QoS table maps.
table-map	Creates or modifies a QoS table map.

from (table map)