Class Map Configuration Mode Commands

To configure an AppNav or optimization class map, use the **class-map** global configuration command. To unconfigure settings, use the **no** form of this command.

class-map type {**appnav** | **waas**} [**match-all** | **match-any**] *classmap-name* [**rename** *new-name*]

no class-map type {**appnav** | **waas**} [**match-all** | **match-any**] *classmap-name*

Syntax Description

appnav	Configures an AppNav class map.
waas	Configures a WAAS optimization class map.
match-all	(Optional) Specifies that all match conditions must be satisfied to consider the class map matched (logical AND). Valid only on AppNav class maps.
match-any	(Optional) Specifies that any match condition must be satisfied to consider the class map matched (logical OR).
classmap-name	Class map name (up to 40 alpha-numeric characters and hyphen, beginning with a letter).
rename *new-name*	(Optional) Renames the class map with the specified new name.

Defaults

For AppNav class maps, match-all is the default when multiple match criteria exist.

Command Modes

global configuration

Device Modes

application-accelerator

appnav-controller

Usage Guidelines

Use the **class-map** command to add or modify class maps and match conditions to identify specific types of traffic for use in policies. This command invokes the Class Map configuration mode, which is indicated by a different prompt (config-cmap). To return to global configuration mode, enter the **exit** command.

You can delete a class map by using the **no** form of this command. You cannot delete a class map if any policies are using it.

When creating a new class map, you must add at least one condition. If any of the conditions specified match an already existing condition in the class-map, no action is taken.

Note You cannot have more than 512 different class maps and 1024 total match conditions.

The WAAS software comes with many class maps and policy rules that help your WAAS system classify and optimize some of the most common traffic on your network. Before you create a new class map or policy rule, we recommend that you review the default class map and policy rules and modify them as appropriate. It is usually easier to modify an existing class map or policy rule than to create a new one. For a list of the default applications, class maps, and policy rules, see the *Cisco Wide Area Application Services Configuration Guide*.

Note We strongly recommend that you use the WAAS Central Manager GUI to centrally configure class maps for your WAAS devices. For more information, see the *Cisco Wide Area Application Services Configuration Guide*.

Examples

The following example shows how to configure a WAAS optimization class map:

```
wae(config)# class-map type waas myclass1
wae(config-cmap)# description My class number one
wae(config-cmap)# match protocol mapi tcp source ip 10.10.10.35
wae(config-cmap)# exit
```

The following example shows how to configure an AppNav class map:

```
wae(config)# class-map type appnav myclass1
wae(config-cmap)# match peer 50:3d:e5:9c:8f:aa description SanJose_branch
wae(config-cmap)# exit
```

Related Commands

(config-cmap) description

(config-cmap) match peer

(config-cmap) match protocol

(config-cmap) match tcp

(config-cmap) description

To configure the class map description, use the **description** class map configuration command. To unconfigure the description, use the **no** form of this command.

description *description*

no description *description*

Syntax Description

description	Specifies a description of the class map with up to 200 alphanumeric and space characters.

Defaults

No default behavior or values.

Command Modes

Class map configuration

Device Modes

application-accelerator

appnav-controller

Examples

The following example shows how to configure a class map description:

```
wae(config)# class-map type waas myclass1
wae(config-cmap)# description My class number one
```

Related Commands

(config-cmap) match peer

(config-cmap) match protocol

(config-cmap) match tcp

(config-cmap) match peer

To configure a match condition based on peer ID for the class map, use the **match peer** class map configuration command. To unconfigure a match condition, use the **no** form of this command.

match peer *peer-ID* [**description** *description*]

no match peer *peer-ID* [**description** *description*]

Syntax Description

peer *peer-ID*	Specifies matching based on the device ID of the peer device that is the source or destination of the traffic. The device ID is specified as six hexadecimal bytes separated by colons (aa:bb:cc:dd:ee:ff).
description *description*	Specifies a description of the peer with up to 32 characters.

Defaults

No default behavior or values.

Command Modes

Class map configuration

Device Modes

appnav-controller

Usage Guidelines

This command is available only for configuring AppNav class maps.

Examples

The following example shows how to configure a peer match condition for a class map:

```
wae(config)# class-map type appnav myclass1
wae(config-cmap)# match peer 50:3d:e5:9c:8f:aa description SanJose_branch
```

Related Commands

(config-cmap) description

(config-cmap) match protocol

(config-cmap) match tcp

(config-cmap) match protocol

To configure a match condition based on layer 7 protocol for the class map, use the **match protocol** class map configuration command. To unconfigure a match condition, use the **no** form of this command. The options for this command differ depending on what type of class map you are configuring.

For an AppNav class map:

match protocol {**mapi** | **ms-ad-rep** | **ms-exch-nspi** | **ms-frs** | **ms-frs-api** | **ms-rfr** | **ms-sql** | **msn-messenger** | **netlogon**} [**tcp source** [**ip** *ip_address* [*wildcard_mask*]]

no match protocol {**mapi** | **ms-ad-rep** | **ms-exch-nspi** | **ms-frs** | **ms-frs-api** | **ms-rfr** | **ms-sql** | **msn-messenger** | **netlogon**} [**tcp source** [**ip** *ip_address* [*wildcard_mask*]]

For a WAAS optimization class map:

match protocol {**epm-uuid** *uuid* | **mapi** | **ms-ad-rep** | **ms-exch-nspi** | **ms-frs** | **ms-frs-api** | **ms-rfr** | **ms-sql** | **msn-messenger** | **netlogon**} [**tcp source** [**ip** *ip_address* [*wildcard_mask*]] [**port** *begin* [*end*]]

no match protocol {**epm-uuid** *uuid* | **mapi** | **ms-ad-rep** | **ms-exch-nspi** | **ms-frs** | **ms-frs-api** | **ms-rfr** | **ms-sql** | **msn-messenger** | **netlogon**} [**tcp source** [**ip** *ip_address* [*wildcard_mask*]] [**port** *begin* [*end*]]

Syntax Description

epm-uuid *uuid*	Specifies a custom EndPoint Mapper (EPM) service by its Universal Unique ID (UUID). Available only for WAAS optimization class maps.
	Microsoft RPC application keywords:
mapi	Microsoft Exchange MAPI (Exchange Server Store EMSMDB),
ms-ad-rep	Microsoft Active Directory Replication (drsuapi),
ms-exch-nspi	Microsoft Active Directory Name Service Provider (NSP),
ms-frs	Microsoft File Replication Services (FRS),
ms-frs-api	Microsoft File Replication API,
ms-rfr	Microsoft Exchange Directory RFR interface,
ms-sql	Microsoft SQL,
msn-messenger	Microsoft Messenger Service,
netlogon	Netlogon RPC
tcp source	Specifies the criteria for matching source TCP packets.
ip *ip_address*	Specifies the IP address of the system that is the source of the traffic.
wildcard_mask	A wildcard subnet mask, which matches a range of source IP addresses. Use dotted decimal notation (such as 0.0.0.255 for /24).
port *begin* [*end*]	Specifies the criteria for identifying the port or ports used by the source host. Specify a single port or a begin and end port for a range. Available only for WAAS optimization class maps.

Defaults

No default behavior or values.

Command Modes

Class map configuration

Device Modes

application-accelerator

appnav-controller

Examples

The following example shows how to configure a protocol match condition for a class map:

```
wae(config)# class-map type waas myclass1
wae(config-cmap)# match protocol mapi tcp source ip 10.10.10.35
```

Related Commands

(config-cmap) description

(config-cmap) match peer

(config-cmap) match tcp

(config-cmap) match tcp

To configure a match condition based on source and/or destination IP address and port for the class map, use the **match tcp** class map configuration command. To unconfigure a match condition, use the **no** form of this command. The options for this command differ depending on what type of class map you are configuring.

For an AppNav class map:

match tcp {**any** |
destination [**ip** *ip_address* [*wildcard_mask*]] [**port** *begin* [*end*]] [**source ip** *ip_address* [*wildcard_mask*] [**port** *begin* [*end*]] |
source ip *ip_address* [*wildcard_mask*] [**destination ip** *ip_address* [*wildcard_mask*] [**port** *begin* [*end*]] [**protocol** {**mapi** | **ms-ad-rep** | **ms-exch-nspi** | **ms-frs** | **ms-frs-api** | **ms-rfr** | **ms-sql** | **msn-messenger** | **netlogon**}]}

no match {**any** |
destination [**ip** *ip_address* [*wildcard_mask*]] [**port** *begin* [*end*]] [**source ip** *ip_address* [*wildcard_mask*] [**port** *begin* [*end*]] |
source ip *ip_address* [*wildcard_mask*] [**destination ip** *ip_address* [*wildcard_mask*] [**port** *begin* [*end*]] [**protocol** {**mapi** | **ms-ad-rep** | **ms-exch-nspi** | **ms-frs** | **ms-frs-api** | **ms-rfr** | **ms-sql** | **msn-messenger** | **netlogon**}]}

For a WAAS optimization class map:

match tcp {**any** |
destination [**ip** *ip_address* [*wildcard_mask*]] [**port** *begin* [*end*]] [**source ip** *ip_address* [*wildcard_mask*] [**port** *begin* [*end*]] |
source [**ip** *ip_address* [*wildcard_mask*]] [**port** *begin* [*end*]] [**destination ip** *ip_address* [*wildcard_mask*] [**port** *begin* [*end*]] [**protocol** {**epm-uuid** *uuid* | **mapi** | **ms-ad-rep** | **ms-exch-nspi** | **ms-frs** | **ms-frs-api** | **ms-rfr** | **ms-sql** | **msn-messenger** | **netlogon**}]}

no match tcp {**any** |
destination [**ip** *ip_address* [*wildcard_mask*]] [**port** *begin* [*end*]] [**source ip** *ip_address* [*wildcard_mask*] [**port** *begin* [*end*]] |
source [**ip** *ip_address* [*wildcard_mask*]] [**port** *begin* [*end*]] [**destination ip** *ip_address* [*wildcard_mask*] [**port** *begin* [*end*]] [**protocol** {**epm-uuid** *uuid* | **mapi** | **ms-ad-rep** | **ms-exch-nspi** | **ms-frs** | **ms-frs-api** | **ms-rfr** | **ms-sql** | **msn-messenger** | **netlogon**}]}

Syntax Description

any	Matches any TCP packets.
destination	Specifies the destination criteria for matching TCP packets.
ip *ip_address*	Specifies the IP address of the system that is the source or destination of the traffic.
wildcard_mask	A wildcard subnet mask, which matches a range of IP addresses. Use dotted decimal notation (such as 0.0.0.255 for /24).
port *begin* [*end*]	Specifies the criteria for identifying the port or ports used by the source or destination host. Specify a single port or a begin and end port for a range.
source	Specifies the source criteria for matching TCP packets.
protocol	Specifies the criteria for matching TCP packets based on layer 7 protocol.

epm-uuid *uuid*	Specifies a custom EndPoint Mapper (EPM) service by its Universal Unique ID (UUID). Available only for WAAS optimization class maps.
	Microsoft RPC application keywords:
mapi	Microsoft Exchange MAPI (Exchange Server Store EMSMDB),
ms-ad-rep	Microsoft Active Directory Replication (drsuapi),
ms-exch-nspi	Microsoft Active Directory Name Service Provider (NSP),
ms-frs	Microsoft File Replication Services (FRS),
ms-frs-api	Microsoft File Replication API,
ms-rfr	Microsoft Exchange Directory RFR interface,
ms-sql	Microsoft SQL,
msn-messenger	Microsoft Messenger Service,
netlogon	Netlogon RPC

Defaults

No default behavior or values.

Command Modes

Class map configuration

Device Modes

application-accelerator

appnav-controller

Examples

The following example shows how to configure a TCP match condition for a class map:

```
wae(config)# class-map type appnav myclass2
wae(config-cmap)# match tcp source port 4000 4004 destination ip 10.10.20.50
```

Related Commands

(config-cmap) description

(config-cmap) match peer

(config-cmap) match protocol