

Class Map Configuration Mode Commands

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

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

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

Syntax Description

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).
<i>classmap-name</i>	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.

Command Modes

global configuration

Device Modes

application-accelerator

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
```

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	<i>description</i>	Specifies a description of the class map with up to 200 alphanumeric and space characters.
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Defaults	No default behavior or values.
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Command Modes	Class map configuration
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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 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 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	<p>epm-uuid <i>uuid</i> Specifies a custom EndPoint Mapper (EPM) service by its Universal Unique ID (UUID). Available only for WAAS optimization class maps.</p> <p> Note If you try to create a class map with an EPM UUID match condition that is already being used, an error message is displayed and the new class map is not created.</p>
	<p>mapi Microsoft RPC application keywords: ms-ad-rep Microsoft Exchange MAPI (Exchange Server Store EMSMDB), ms-exch-nspi Microsoft Active Directory Replication (drsuapi), ms-frs Microsoft Active Directory Name Service Provider (NSP), ms-frs-api Microsoft File Replication Services (FRS), ms-rfr Microsoft File Replication API, ms-sql Microsoft Exchange Directory RFR interface, msn-messenger Microsoft SQL, netlogon Microsoft Messenger Service, Netlogon RPC</p>
	<p>tcp source Specifies the criteria for matching source TCP packets.</p>
	<p>ip <i>ip_address</i> Specifies the IP address of the system that is the source of the traffic.</p>
	<p><i>wildcard_mask</i> A wildcard subnet mask, which matches a range of source IP addresses. Use dotted decimal notation (such as 0.0.0.255 for /24).</p>
	<p>port <i>begin</i> [<i>end</i>] 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.</p>

Defaults No default behavior or values.

Command Modes Class map configuration

Device Modes application-accelerator

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 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 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.
<i>wildcard_mask</i>	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.
mapi	Microsoft RPC application keywords:
ms-ad-rep	Microsoft Exchange MAPI (Exchange Server Store EMSMDB),
ms-exch-nspi	Microsoft Active Directory Replication (drsuapi),
ms-frs	Microsoft Active Directory Name Service Provider (NSP),
ms-frs-api	Microsoft File Replication Services (FRS),
ms-rfr	Microsoft File Replication API,
ms-sql	Microsoft Exchange Directory RFR interface,
msn-messenger	Microsoft SQL,
netlogon	Microsoft Messenger Service, Netlogon RPC

Defaults No default behavior or values.

Command Modes Class map configuration

Device Modes application-accelerator

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 protocol](#)

■ (config-cmap) match tcp