



## **mls ip install-threshold through platform trace runtime process forwarding-manager module wccp**

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# mls ip install-threshold

To install the configured ACL thresholds, use the **mls ip install-threshold** command in global configuration mode.

**mls ip install-threshold** *acl-num*

## Syntax Description

<i>acl-num</i>	Reflective ACL number; valid values are from 1 to 10000.
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## Command Default

This command has no default settings.

## Command Modes

Global configuration (config)

## Command History

Release	Modification
12.2(14)SX	Support for this command was introduced on the Supervisor Engine 720.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

## Usage Guidelines

This command is not supported on Cisco 7600 series routers that are configured with a Supervisor Engine 2. The **mls ip install-threshold** command is active only when you enable the **mls ip reflexive ndr-entry tcam** command.

## Examples

This example shows how to install an ACL threshold:

```
Router(config)# mls ip install-threshold 123
```

## Related Commands

Command	Description
<b>mls ip delete-threshold</b>	Deletes configured ACL thresholds.
<b>mls ip reflexive ndr-entry tcam</b>	Enables the shortcuts in TCAM for the reflexive TCP/UDP entries when installed by the NDR.

# mls ip reflexive ndr-entry tcam

To enable the shortcuts in TCAM for the reflexive TCP/UDP entries when installed by the NDR, use the **mls ip reflexive ndr-entry tcam** command in global configuration mode. To disable the shortcuts in TCAM for the reflexive TCP/UDP entries when installed by the NDR, use the **no** form of this command.

**mls ip reflexive ndr-entry tcam**

**no mls ip reflexive ndr-entry tcam**

**Syntax Description** This command has no arguments or keywords.

**Command Default** Reflexive TCP/UDP shortcuts in TCAM are not enabled.

**Command Modes** Global configuration (config)

Command History	Release	Modification
	12.2(14)SX	Support for this command was introduced on Cisco 7600 series routers that are configured with a Supervisor Engine 720.
	12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

**Usage Guidelines** This command is not supported on Cisco 7600 series routers that are configured with a Supervisor Engine 2. When you enter the **mls ip reflexive ndr-entry tcam** command, the reflexive ACL dynamic entries are installed in TCAM instead of in NetFlow.

**Examples** This example shows how to enable the shortcuts in TCAM for the reflexive TCP/UDP entries when installed by the NDR:

```
Router(config)# mls ip reflexive ndr-entry tcam
```

This example shows how to disable the shortcuts in TCAM for the reflexive TCP/UDP entries when installed by the NDR:

```
Router(config)# no mls ip reflexive ndr-entry tcam
```

## Related Commands

Command	Description
<b>mls ip delete-threshold</b>	Deletes configured ACL thresholds.
<b>mls ip install-threshold</b>	Installs the configured ACL thresholds.



## object (tracking)

To specify an object for a tracked list, use the **object** command in tracking configuration mode. To remove the object from the tracked list, use the **no** form of this command.

**object** *object-number* [**not**] [**weight** *weight-number*]

**no object** *object-number* [**not**] [**weight** *weight-number*]

### Syntax Description

<i>object-number</i>	Object in a tracked list of objects. The range is from 1 to 1000.
<b>not</b>	(Optional) Negates the state of an object.  <b>Note</b> The <b>not</b> keyword cannot be used in a weight or percentage threshold list. It can only be used in a Boolean list.
<b>weight</b> <i>weight-number</i>	(Optional) Specifies a threshold weight for each object.

### Command Default

The object is not included in the tracked list.

### Command Modes

Tracking configuration (config-track)

### Command History

Release	Modification
12.3(8)T	This command was introduced.
12.2(25)S	This command was integrated into Cisco IOS Release 12.2(25)S.
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.
15.1(3)T	This command was modified. The valid range of the <i>object-number</i> argument increased to 1000.
15.1(1)S	This command was modified. The valid range for the <i>object-number</i> argument increased to 1000.
12.2(50)SY	This command was modified. The valid range for the <i>object-number</i> argument increased to 1000.

**Usage Guidelines**

As of Cisco IOS Release 15.1(3)T, 15.1(1)S and 12.2(50)SY, a maximum of 1000 objects can be tracked. Although 1000 tracked objects can be configured, each tracked object uses CPU resources. The amount of available CPU resources on a router is dependent upon variables such as traffic load and how other protocols are configured and run. The ability to use 1000 tracked objects is dependent upon the available CPU. Testing should be conducted on site to ensure that the service works under the specific site traffic conditions.

**Examples**

The following example shows two serial interfaces (objects) that are in tracked list 100. The Boolean “not” negates the state of object 2, resulting in the tracked list regarding object 2 as down when it is up.

```
Router(config)# track 1 interface serial2/0 line-protocol
Router(config)# track 2 interface serial2/1 line-protocol
Router(config-track)# exit
Router(config)# track 100 list boolean and
Router(config-track)# object 1
Router(config-track)# object 2 not
```

**Related Commands**

Command	Description
<b>show track</b>	Displays tracking information.
<b>threshold weight</b>	Specifies a threshold weight for a tracked list.
<b>track list threshold percentage</b>	Tracks a list of objects as to the up and down object states using a threshold percentage.
<b>track list threshold weight</b>	Tracks a list of objects as to the up and down object states using a threshold weight.

## platform trace runtime process forwarding-manager module wccp

To enable Forwarding Manager Route Processor and Embedded-Service-Processor trace messages for the Web Cache Communication Protocol (WCCP) process, use the **platform trace runtime process forwarding-manager module wccp** command in global configuration mode. To disable debug messages, use the **no** form of this command.

**platform trace runtime slot *slot* bay *bay* process forwarding-manager module wccp level *level***

**no platform trace runtime slot *slot* bay *bay* process forwarding-manager module wccp**

### Syntax Description

<i>slot</i>	Shared Port Adapter (SPA) Interprocessor, Embedded Service Processor or Route Processor slot. Valid options are: <ul style="list-style-type: none"><li>• <b>F0</b> --Embedded Service Processor slot 0</li><li>• <b>R0</b> --Route Processor slot 0</li><li>• <b>F1</b> --Embedded Service Processor slot 1</li><li>• <b>R1</b> --Route Processor slot 1</li></ul>
<i>bay</i>	Chassis bay to configure. Valid options are: <ul style="list-style-type: none"><li>• <b>0</b></li><li>• <b>1</b></li></ul>

<b>level</b> <i>level</i>	<p>Selects the trace level. The trace level determines how much information about a module should be stored in the trace buffer or file.</p> <p>Valid options are:</p> <ul style="list-style-type: none"> <li>• <b>debug</b> --Provides debug-level output.</li> <li>• <b>emergency</b> --Provides information about an issue that makes the system unusable.</li> <li>• <b>error</b> --Provides information about a system error.</li> <li>• <b>info</b> --Informational purposes only.</li> <li>• <b>noise</b> --All possible trace messages for the module are logged. The noise level is always equal to the highest possible tracing level.</li> <li>• <b>notice</b> --Provides information regarding a significant issue, but the router is still working normally.</li> <li>• <b>verbose</b> --All possible tracing messages are sent.</li> <li>• <b>warning</b> --Provides information about a system warning.</li> </ul>
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**Command Default**

The default tracing level for every module on the Cisco ASR 1000 Series Routers is notice.

**Command Modes**

Global configuration (config)

**Command History**

Release	Modification
Cisco IOS XE Release 3.1S	This command was introduced.

**Usage Guidelines**

Trace level settings are leveled: every setting will contain all messages from the lower setting plus the messages from its own setting. For instance, setting the trace level to 3 (error) ensures that the trace file contains all output for the 0 (emergencies), 1 (alerts), 2 (critical), and 3 (error) settings. Setting the trace level to 4 (warning) ensures that all trace output for the specific module is included in that trace file.

All trace levels are not user-configurable. Specifically, the alert, critical, and notice tracing levels cannot be set by users. If you wish to trace these messages, set the trace level to a higher level that will collect these messages.

When setting trace levels, it is also important to remember that the setting is not done in a configuration mode, so trace level settings are returned to their defaults after every router reload.



**Caution**

Setting tracing of a module to the debug level or higher can have a negative performance impact. Setting tracing to the debug level or higher should be done with discretion.

**Caution**

Setting a large number of modules to high tracing levels can severely degrade performance. If a high level of tracing is needed in a specific context, it is almost always preferable to set a single module on a higher tracing level rather than setting multiple modules to high tracing levels.

**Examples**

In the following example, the trace level for the WCCP module in the Forwarding Manager of the ESP processor in slot 0 is set to the informational tracing level (info):

```
Router(config)# platform trace runtime slot F0 bay 0 process forwarding-manager module wccp  
level info
```

**Related Commands**

Command	Description
<b>show platform software trace level</b>	Displays trace levels for specified modules.
<b>show platform software trace message</b>	Displays trace messages.

