



# Configuring Ethernet Services

The Ethernet Services feature available on the ME 1200 Web GUI allows you to configure the EVC port, EVC L2CP, EVC bandwidth, and EVC Control List.

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## EVC Port Configuration

This option displays current EVC port configurations. The settings can also be configured here.

Port	Basic Lookup		Advanced Lookup	
	Key Type	Address Mode	Key Type	Address Mode
*	<>	<>	<>	<>
1	Double Tag	Destination	Double Tag	Destination
2	Double Tag	Destination	Double Tag	Destination
3	Double Tag	Destination	Double Tag	Destination
4	Double Tag	Destination	Double Tag	Destination
5	Double Tag	Destination	Double Tag	Destination
6	Double Tag	Destination	Double Tag	Destination

- **Port:** The logical port for the settings contained in the same row.
- **Basic Key Type:** The key type specifying the key generated for frames received on the port. The allowed values are:
  - *Normal:* Half key, matches outer tag, SIP/DIP and SMAC/DMAC.
  - *Double Tag:* Quarter key, matches inner and outer tag.

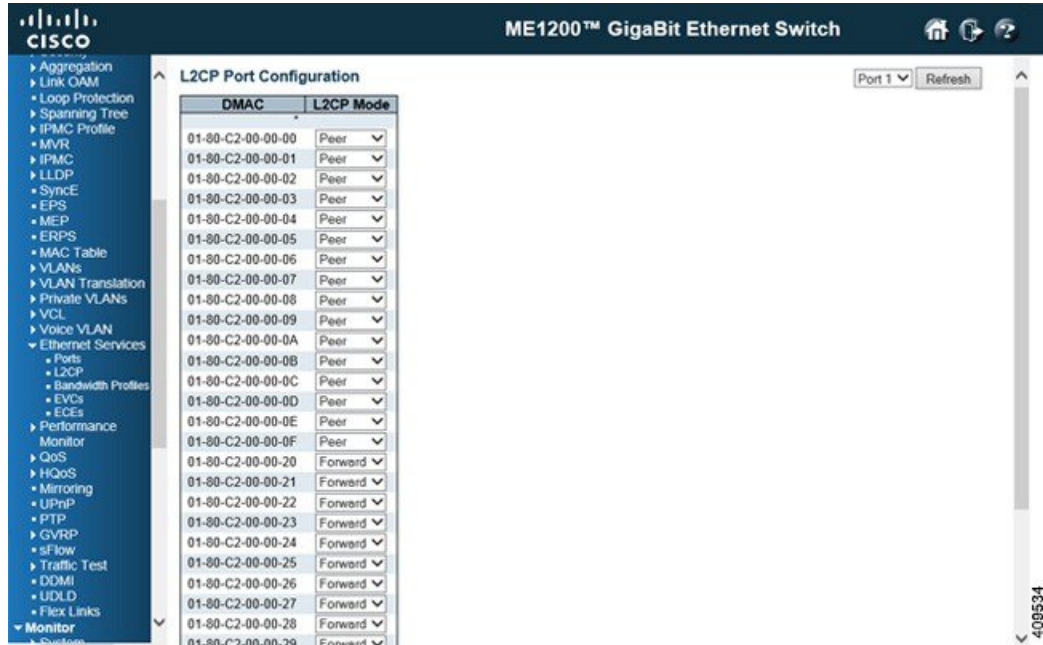
- *IP Address*: Half key, matches inner and outer tag, SIP and DIP. For non-IP frames, match outer tag only.
- *MAC and IP Address*: Full key, matches inner and outer tag, SMAC, DMAC, SIP, and DIP.  
Filtering on DMAC type (unicast or multicast or broadcast) is supported for any key type.
- **Basic Address Mode**: The IP/MAC address mode that specifies whether the EVC classification must be based on source (SMAC/SIP) or destination (DMAC/DIP) addresses. This parameter is only used when the key type is Normal. The allowed values are:
  - *Source*: Enables SMAC/SIP matching.
  - *Destination*: Enables DMAC/DIP matching.
- **Advanced Key Type**: The advanced key type specifying the key generated for the second lookup. The allowed values are:
  - *Normal*: Half key, match outer tag, SIP/DIP and SMAC/DMAC.
  - *Double Tag*: Quarter key, match inner and outer tag.
  - *IP Address*: Half key, match inner and outer tag, SIP, and DIP. For non-IP frames, match outer tag only.
  - *MAC and IP Address*: Full key, match inner and outer tag, SMAC, DMAC, SIP and DIP.  
Filtering on DMAC type (unicast/multicast/broadcast) is supported for any key type.
- **Advanced Address Mode**: The advanced IP/MAC address mode specifying for the second lookup. This parameter is only used when the key type is Normal. The allowed values are:
  - *Source*: Enables SMAC/SIP matching.
  - *Destination*: Enables DMAC/DIP matching.

### Related Topics

- [Port Configuration](#)
- [Monitoring Ethernet Services](#)

## EVC L2CP Configuration

This option displays current EVC L2CP configurations. The settings can also be configured here.



- **DMAC:** The destination BPDU MAC addresses (01-80-C2-00-00-0X) and GARP (01-80-C2-00-00-2X) MAC addresses for the settings contained in the same row.
- **L2CP Mode:** The L2CP mode for the specific port. The possible values are:
  - *Peer:* Redirects to CPU to allow 18 peering/tunneling/discard depending on ECE and protocol configuration.
  - *Forward:* Allows to 20 peer/forward/tunnel/discard depending on ECE and protocol configuration.
  - *Discard:* Drops frame.

**Related Topics**

[Monitoring Ethernet Services](#)

# EVC Bandwidth Profile Configuration

This page displays current EVC ingress bandwidth profile configurations. These policers may be used to limit the traffic received on UNI ports. The settings can also be configured here.

ME1200™ GigaBit Ethernet Switch

Bandwidth Profiles Configuration

Start from Policer ID 1 with 20 entries per page.

Policer ID	State	Type	Policer Mode	Rate Type	CIR (kbps)	CBS (bytes)	EIR (kbps)	EBS (bytes)
1	Disabled	MEF	Aware	Data	0	0	0	0
2	Disabled	MEF	Aware	Data	0	0	0	0
3	Disabled	MEF	Aware	Data	0	0	0	0
4	Disabled	MEF	Aware	Data	0	0	0	0
5	Disabled	MEF	Aware	Data	0	0	0	0
6	Disabled	MEF	Aware	Data	0	0	0	0
7	Disabled	MEF	Aware	Data	0	0	0	0
8	Disabled	MEF	Aware	Data	0	0	0	0
9	Disabled	MEF	Aware	Data	0	0	0	0
10	Disabled	MEF	Aware	Data	0	0	0	0
11	Disabled	MEF	Aware	Data	0	0	0	0
12	Disabled	MEF	Aware	Data	0	0	0	0
13	Disabled	MEF	Aware	Data	0	0	0	0
14	Disabled	MEF	Aware	Data	0	0	0	0
15	Disabled	MEF	Aware	Data	0	0	0	0
16	Disabled	MEF	Aware	Data	0	0	0	0
17	Disabled	MEF	Aware	Data	0	0	0	0
18	Disabled	MEF	Aware	Data	0	0	0	0
19	Disabled	MEF	Aware	Data	0	0	0	0
20	Disabled	MEF	Aware	Data	0	0	0	0

Save Reset

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- **Start Policer ID:** The start Policer ID for displaying the table entries. The allowed range is from 1 through 1022.
- **Number of Entries:** The number of entries per page. The allowed range is from 2 through 1022.
- **Policer ID:** The Policer ID is used to identify one of the 1022 policers.
- **State:** The administrative state of the bandwidth profile. The allowed values are:
  - **Enabled:** The bandwidth profile enabled.
  - **Disabled:** The bandwidth profile is disabled.
- **Type:** The policer type of the bandwidth profile. The allowed values are:
  - **MEF:** MEF ingress bandwidth profile.
  - **Single:** Single bucket policer.
- **Policer Mode:** The color mode of the bandwidth profile. The allowed values are:
  - **Coupled:** Color-aware mode with coupling enabled.
  - **Aware:** Color-aware mode with coupling disabled.
- **Rate Type:** The rate type of the bandwidth profile. The allowed values are:
  - **Data:** Specifies that this bandwidth profile operates on data rate.
  - **Line:** Specifies that this bandwidth profile operates on line rate.
- **CIR:** The Committed Information Rate of the bandwidth profile. The allowed range is from 0 through 10000000 kilobit per second.
- **CBS:** The Committed Burst Size of the bandwidth profile. The allowed range is from 0 through 100000 bytes.

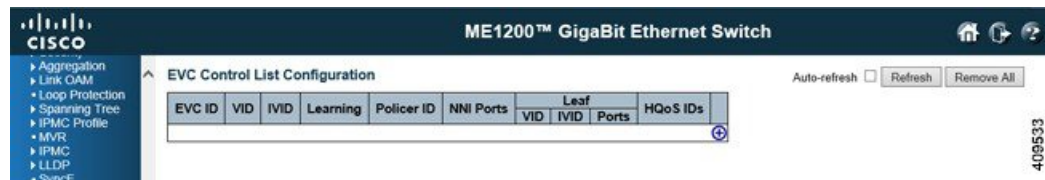
- **EIR:** The Excess Information Rate for MEF type bandwidth profile. The allowed range is from 0 through 10000000 kilobit per second.
- **EBS:** The Excess Burst Size for MEF type bandwidth profile. The allowed range is from 0 through 100000 bytes.

### Related Topics

- [Bandwidth Profiles Configuration](#)
- [Monitoring Ethernet Services](#)

## EVC Control List Configuration

This option displays current EVC configurations. On this system, only Provider Bridge based EVCs are supported.



- **EVC ID:** The EVC ID identifies the EVC. The range is from 1 through 1024.
- **VID:** The VLAN ID in the PB network. It may be inserted in a C-tag, S-tag, or S-custom tag depending on the NNI port VLAN configuration. The range is from 0 through 4095.
- **IVID:** The internal or classified VLAN ID in the PB network. The range is from 1 through 4095
- **Learning:** The learning mode for the EVC controls whether source MAC addresses are learned for frames matching the EVC. Learning may be disabled if the EVC only includes two UNI or NNI ports. The possible values are:
  - *Enabled:* Learning is enabled (MAC addresses are learned).
  - *Disabled:* Learning is disabled (MAC addresses are not learned).
- **Policer ID:** The ingress bandwidth profile mode for the EVC. The possible values are:
  - *Specific:* The range is from 1 through 1022.
  - *Discard:* All received frames are discarded for the EVC.
  - *None:* None bandwidth profile for the EVC.
- **NNI Ports:** The list of Network to Network Interfaces for the EVC.
- **Leaf VID:** The leaf VLAN ID used in the outer tag for the EVC.
- **Leaf IVID:** The leaf internal classified VLAN ID for the EVC.
- **Leaf Ports:** The list of leaf ports for the EVC.
- **HQoS IDs:** The list of HQoS entries mapped to the EVC ports and a link to configure the mappings.

- Modification icons: You can modify each EVC in the table using the following icons:
  - **Edit EVC** icon: Edits the EVC row.
  - **Delete EVC** icon: Deletes the EVC.
  - **Add New EVC** icon: Adds a new EVC.

## Related Topics

[Monitoring Ethernet Services](#)

# ECE Control List Configuration

This option displays the current EVC Control Entries (ECEs). The settings can also be configured here.

ECE ID	UNI Ports	Ingress Matching					Actions				Egress Outer Tag					
		Tag Type	VID	PCP	DEI	Frame Type	Direction	EVC ID	Policier ID	Tag Pop Count	Policy ID	Mode	VID	PCP	DEI	Conflict

**ECE ID:** The ECE ID identifies the ECE. Unique ECE IDs are automatically assigned to ECEs added. The range is from 1 through 1024.

## Ingress Matching

- **UNI Ports:** The list of User Network Interfaces for the ECE.
- **Tag Type:** The tag type for the ECE. The possible values are:
  - *Any*: The ECE matches both tagged and untagged frames.
  - *Untagged*: The ECE matches untagged frames only.
  - *C-Tagged*: The ECE matches custom tagged frames only.
  - *S-Tagged*: The ECE matches service tagged frames only.
  - *Tagged*: The ECE matches tagged frames only.
- **VID:** The VLAN ID for the ECE. It is only significant if the tag type *Tagged* is selected. The possible values are:
  - *Specific*: The range is from 1 through 4095.
  - *Any*: The ECE matches any VLAN ID.
- **PCP:** The PCP value for the ECE. It is only significant if the tag type *Tagged* is selected. The possible values are:
  - *Specific*: The ECE matches a specific PCP in the range 0 through 7.
  - *Range*: The ECE matches PCP values in the selected range 0-1, 2-3, 4-5, 6-7, 0-3 or 4-7.

- *Any*: The ECE matches any PCP value.
- **DEI**: The DEI value for the ECE. It is only significant if the tag type *Tagged* is selected. The possible values are: 0, 1, or Any.
- **Frame Type**: The frame type for the ECE. The possible values are:
  - *Any*: The ECE matches any frame type.
  - *IPv4*: The ECE matches IPv4 frames only.
  - *IPv6*: The ECE matches IPv6 frames only.
  - *Ethernet Type*: The ECE matches Ethernet type frames only.
  - *LLC*: The ECE matches LLC frames only.
  - *SNAP*: The ECE matches SNAP frames only.
  - *L2CP*: The ECE matches L2CP frames only.

### Actions

- **Direction**: The EVCs and ECEs are used to setup flows in one or both directions as determined by the ECE Direction parameter. If the ECE is bidirectional, the ingress rules of the NNI ports is set up to match the traffic being forwarded to NNI ports. Possible values are:
  - *Both*: Bidirectional.
  - *UNI-to-NNI*: Unidirectional from UNI to NNI.
  - *NNI-to-UNI*: Unidirectional from NNI to UNI.
- **EVC ID**: The EVC ID for the ECE. The ECE is only active when mapping to an existing EVC. Possible values are:
  - *Specific*: The range is from 1 through 1024.
  - *None*: The ECE does not map to an EVC.
- **Policer ID**: The ingress bandwidth profile mode for the ECE. The possible values are:
  - *Specific*: The range is from 1 through 1022.
  - *Discard*: All received frames are discarded for the ECE.
  - *None*: All received frames are forwarded for the ECE.
- **Tag Pop Count**: The ingress tag pop count for the ECE. The possible range is from 0 through 2.
- **Policy ID**: The ACL Policy ID for the ECE. The range is from 0 through 63.

### Egress Outer Tag

- **Outer Tag Mode**: The outer tag for nni-to-uni direction for the ECE. The possible values are:
  - *Enable*: Enable outer tag for nni-to-uni direction for the ECE.
  - *Disable*: Disable outer tag for nni-to-uni direction for the ECE.

- **Outer Tag VID:** The EVC outer tag VID for UNI ports. The range is from 0 through 4095.
- **Outer Tag PCP:** The outer tag PCP mode for the ECE. The possible values are:
  - *Classified:* The outer tag PCP Mode is classified.
  - *Mapped:* The outer tag PCP Mode is based on mapped (QOS, DP) or the fixed PCP value from 0 through 7.
- **Outer Tag DEI:** The outer tag DEI mode for the ECE. The possible values are:
  - *Classified:* The outer tag DEI mode is classified.
  - *Drop Precedence:* The outer tag DEI mode is drop precedence or the fixed DEI value 0 or 1.
- **Conflict:** Indicates the hardware status of the specific ECE. The specific ECE is not applied to the hardware due to hardware limitations.
- **Modification icons:** You can modify each EVC Control Entry (ECE) in the table using the following icons:
  - **Insert new ECE before this ECE** icon: Inserts a new ECE before the current row.
  - **Edit ECE** icon: Edits the ECE row.
  - **Move ECE up** icon: Moves the ECE up the list.
  - **Move ECE down** icon: Moves the ECE down the list.
  - **Delete ECE** icon: Deletes the ECE.
  - **Add ECE to end of list** icon: The lowest plus sign adds a new entry at the bottom of the ECE listings.

## Related Topics

[Monitoring Ethernet Services](#)