Ethernet Performance Monitoring on Untagged EFPs

The Ethernet Performance Monitoring on untagged EFPs feature enables sessions to run on untagged Ethernet flow points (EFPs).

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Information about Ethernet Performance Monitoring on Untagged EFPs

Untagged EFPs

The Ethernet Performance Monitoring on untagged EFPs feature enables sessions to run on untagged Ethernet flow points (EFPs). If an EFP is configured as untagged, then the EFP handles any frames without a dot1q tag, that it receives. Any frames sent using this EFP do not have a dot1q tag.

The dot1q tag contains class of service (CoS) bits, which are used by EPM to test delay or loss of packets with a specific CoS. This support is unavailable when using EPM over untagged EFPs but all other performance monitoring functionality is supported.

How to Configure Ethernet Performance Monitoring on Untagged EFPs

Configuring Ethernet Performance Monitoring on Untagged EFPs

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **interface** *type/number*
4. **service instance** *ID* **ethernet***evc-id*
5. **encapsulation untagged**
6. **end**
7. **configure terminal**
8. **ip sla** *operation-number*
9. **ethernet y1731** {**delay** | **loss**} *type* **domain** *domain-name* {**evc** *evc-id* | **vlan** *vlan-id*} {**mpid** *target-mp-id* | *mac-address target-address*} **cos** *cos-value* {**source** {**mpid** *source-mp-id* | *mac-address tsource-address*}}
10. **exit**
11. **ip sla schedule** *operation-number* **start-time** *time* **life** *life*
12. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Device> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 3	**interface** *type/number* **Example:** `Device(config)# interface GigabitEthernet0/0`	Configures an interface and enters interface configuration mode.
Step 4	**service instance** *ID* **ethernet***evc-id* **Example:** `Device(config-if)# service instance 1 ethernet 50`	Configures a service instance and enters service instance configuration mode.

	Command or Action	Purpose
Step 5	**encapsulation untagged** **Example:** `Device(config-if-srv)# encapsulation untagged`	Sets the encapsulation as untagged.
Step 6	**end** **Example:** `Device(config-if-srv)# end`	Returns to privileged EXEC mode.
Step 7	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 8	**ip sla** *operation-number* **Example:** `Device(config)# ip sla 501`	Configures a Cisco IOS IP Service Level Agreements (SLAs) operation and enter IP SLA configuration mode.
Step 9	**ethernet y1731** {**delay** | **loss**} *type* **domain** *domain-name* {**evc** *evc-id* | **vlan** *vlan-id*} {**mpid** *target-mp-id* | *mac-address target-address*} **cos** *cos-value* {**source** {**mpid** *source-mp-id* | *mac-address tsource-address*}} **Example:** `Device (config-ip-sla)# ethernet y1731 delay DMM domain domain1 evc evc1 mpid 101 cos 0 source mpid 100`	Begins configuring the receiver on the responder and enters IP SLA Y.1731 delay configuration mode. • The source-mp-id or source-address configured by this command corresponds to that of the MEP being configured. **Note** The type argument in the above command syntax takes the following values: DMM, SLM.
Step 10	**exit** **Example:** `Device (config-ip-sla)# exit`	Exits IP SLA configuration mode and returns to privileged EXEC mode.
Step 11	**ip sla schedule** *operation-number* **start-time** *time* **life** *life* **Example:** `Device(config-sla-y1731-delay)# ip sla schedule 501 start-time now life forever`	Begins a probe with a specified operation number starting at the specified timestamp (or 'now' for immediately) for the specified lifetime in seconds (or 'forever' to run until the configuration is removed).
Step 12	**end** **Example:** `Device(config-sla-y1731-delay)# end`	Returns to privileged EXEC mode.

Verifying Ethernet Performance Monitoring on Untagged EFPs

Perform the following task to verify the Ethernet Performance Monitoring on Untagged EFPs

SUMMARY STEPS

1. Enter the **show ip sla statistics** to display performance monitoring sessions with untagged EFPs.

DETAILED STEPS

Enter the **show ip sla statistics** to display performance monitoring sessions with untagged EFPs.

Example:

```
Device# show ip sla statistics
IPSLAs Latest Operation Statistics

IPSLA operation id: 5
Loss Statistics for Y1731 Operation 5
Type of operation: Y1731 Loss Measurement
Latest operation start time: *09:08:29.825 PST Wed Jun 11 2014
Latest operation return code: OK
Distribution Statistics:

Interval
 Start time:  *09:08:29.825 PST Wed Jun 11 2014
 Elapsed time: 9 seconds
 Number of measurements initiated: 8
 Number of measurements completed: 8
 Flag: OK
```

Example for Configuring Ethernet Performance Monitoring on Untagged EFPs

Example: Example for Configuring EPM Untagged EFPs

```
Device> enable
Device# configure terminal
Device(config)# interface GigabitEthernet0/0
Device(config-if)# service instance 1 ethernet
Device(config-if-srv)# encapsulation untagged
Device(config-if-srv)# end
Device# configure terminal
Device(config)# ip sla 501
Device(config-ip-sla)# ethernet y1731 delay DMM domain domain1 evc evc1 mpid 101 cos 0
source mpid 100
Device(config-sla-y1731-delay)# exit
Device(config)# ip sla schedule 501 start-time now life forever
```

```
Device(config)# end
```

Additional References for Ethernet Performance Monitoring on Untagged EFPs

Related Documents

Related Topic	Document Title
Carrier Ethernet Command Reference	*Cisco IOS Carrier Ethernet Command Reference*
Cisco IOS Master Command List	Cisco IOS Master Command List, All Releases
Configuring Ethernet connectivity fault management in a service provider network (Cisco pre-Standard CFM Draft 1)	"Configuring Ethernet Connectivity Fault Management in a Service Provider Network" module in the *Cisco IOS Carrier Ethernet Configuration Guide*
IP SLAs for Metro Ethernet	"IP SLAs for Metro Ethernet"

Technical Assistance

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	http://www.cisco.com/cisco/web/support/index.html

Feature Information for Ethernet Performance Monitoring on Untagged EFPs

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Table 1: Feature Information for Ethernet Performance Monitoring on Untagged EFPs

Feature Name	Releases	Feature Information
Ethernet Performance Monitoring on Untagged EFPs	Cisco IOS Release15.5(2)S	The Ethernet Performance Monitoring on untagged EFPs feature enables sessions to run on untagged Ethernet flow points (EFPs). This feature is enabled on Cisco Aggregation Services ASR 903 Series Routers. No commands were introduced or modified.