

# **Configuring Traffic Test**

The Traffic Test feature available on the ME 1200 Web GUI allows you to configure Traffic Test Loop instances for the ME 1200 switch.

- Y.1564, page 1
- RFC2544, page 3
- TT-LOOP, page 4

## **Y.1564**

### Y.1564 Profile Overview

Y.1564 is an Ethernet service activation to test Ethernet Virtual Connections (EVCs). One single EVC is a collection of one or more ordered set of rules, known as ECEs. Each ECE describes matching criteria for traffic arriving at the UNI. For example, an Ethernet Virtual Private Line (EVPL) ECE matches a particular VLAN ID.

The ECE defines a set of actions. In relation to Y.1564, the most important action is the policer it maps to. Policers are configured separately, and multiple ECEs may point to the same physical policer, sharing the bandwidth set by the policer. Policers can also be attached to an EVC, and the ECE can be configured to use the EVC policer.

To execute a Y.1564 test, a set of Y.1564-specific configuration along with information about which EVC or ECE to test is needed. The Y.1564-specific configuration is independent of the EVC/ECE to test, and is called a **profile**. The profile can be used multiple times as input configuration to test EVCs/ECEs as they are created. The result of executing a profile is called a **report**. Up to 16 profiles and 10 reports can be stored on the switch.

cisco		ME1200™ GigaBit Ethernet Switch 🎧 🚱 🧟
Configuration     System     Green Ethernet     Thermal Protection     Ports     DHCP     Security     Aggregation     Link OAM	Y.1564 Profile Overview     Delete Name Description <no profiles="">       Add New Profile</no>	409620

This option provides an overview of the defined profiles along with options for editing and deleting them and creating new profiles. If no profiles are currently defined, the table contains one line stating **<No profiles>**. Otherwise there is a table row for each defined profile with these three elements:

- Delete: Click Delete to delete the profile in question.
- Name: A unique name identifying the profile. Click the name to edit the profile.
- **Description**: The profile's description as entered in the profile editor, which is activated by clicking the name of the profile.
- Add New Profile: This button is grayed out if the maximum number of profiles is already defined.

#### Y.1564 Report Overview

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Configuration     System     Green Ethernet     Thermal Protection	Y.1564 Report Overview Action Save Name Description Created State	us	Auto-refresh
Ports     DHCP     Security     Aggregation     Link OAM	<ro reports="" test=""></ro>		409622

This option provides an overview of the stored reports along with options for deleting, downloading, and viewing them. Initiation of execution of an EVC is also handled through this option. If no reports are currently stored, the table contains one line stating *<No test reports>*. Otherwise, there is a table row for each test report, each containing these elements:

• Action: If a test is executed, a Stop button is shown. Clicking Stop causes a request to be sent to cancel the execution. During this cancellation, the button is disabled. At most one test can be executed at a time.

Once execution of a test is complete, the resulting report is persisted to non-volatile memory. Up to 10 reports can be persisted. New reports will replace the oldest. Only reports stored in non-volatile memory can be erased. This is done with the **Delete** button.

- Save: Test reports can be downloaded and stored on the local computer with the use of the Save button. The suggested file name will be the report name concatenated with .txt.
- Name: A unique name identifying the report.
- **Description**: The description assigned to the report as entered on the test execution page, invoked with **Start New Test**.
- Created: The date and time at which execution started.

- Status: The current status of executing a test:
  - Inactive: Test just initiated, but not started. This is a transitional state that is unlikely to be noticed.
  - *Executing*: Test is currently executing. At most one test can execute at a time.
  - *Cancelling*: Test has just been stopped by the user. This is a transitional state that is unlikely to be noticed.
  - Cancelled: Test was stopped by the user and report is stored in non-volatile memory.
  - Passed: Test passed successfully and report is stored in non-volatile memory.
  - *Failed*: Test failed execution and report is stored in non-volatile memory. Details as to why the test failed are embedded in the report.

### **RFC2544**

### **RFC2544 Profile Overview**

RFC2544 is a benchmark testing tool that allows for testing an ethernet service connection end-to-end w.r.t. various key parameters. Each test configuration is called a **profile**, and each result of executing the profile is called a **report**. You can store up to 16 profiles and 10 reports. Executing a profile causes the switch (near end) to generate and transmit frames at certain rates on the configured egress port. The remote end is supposed to loop these frames while swapping source and destination MAC addresses. The looped frames are then expected to arrive at the same port as they egressed at the near end. The switch that generated the frames can therefore assess whether an ethernet service connection meets the SLA.

Note

This switch supports the near-end functionality only (generation + check of frames). Remote end functionality (loop + MAC address swap) is not supported.



This option provides an overview of the defined profiles along with options for editing and deleting them and creating new. If no profiles are currently defined, the table contains one line stating *No profiles*. Otherwise there is a table row for each defined profile with these three elements:

- Delete: Delete the profile in question.
- Name: A unique name identifying the profile.
- **Description**: The profile's description as entered in the profile editor, which is activated by clicking the name of the profile.

• Add New Profile: This button is grayed out if the maximum number of profiles is already defined.

#### **RFC2544 Report Overview**

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Configuration     System     Green Ethernet	^	RFC254	4 Repo	ort Over	view	Created	Status		Auto-refresh	Refresh	
Thermal Protection     Ports     DHCP     Security     Aggregation		<no of<br="" test="">Start New</no>	reports> w Test	Name	Description	Created	Status				09618
Link OAM											4

This option provides an overview of the stored reports along with options for deleting, downloading, and viewing them. Initiation of execution of a profile is also handled through this option. If no reports are currently stored, the table contains one line stating *<No test reports>*. Otherwise there is a table row for each test report, each containing these elements:

- Action: If a test is currently being executed, a **Stop** button is shown. Clicking **Stop** cancel the execution of the test. During this cancellation, the button will be disabled. At the most, one test can execute at a time.
- Save: Test reports can be downloaded and stored on the local computer. The suggested file name will be the report name concatenated with ".txt".
- Name: A unique name identifying the report.
- **Description**: The description assigned to the report as entered on the test execution page, invoked with the **Start New test** button.
- Created: The date and time at which execution started.
- Status: The current status of executing a test:
  - Inactive: Test just initiated, but not started. This is a transitional state that is unlikely to be noticed.
  - Executing: Test is currently executing. At most one test can execute at a time.
  - *Cancelling*: Test has just been stopped by the user. This is a transitional state that is unlikely to be noticed.
  - · Cancelled: Test was stopped by the user and report is stored in non-volatile memory.
  - Passed: Test passed successfully and reports is stored in non-volatile memory.
  - *Failed*: Test failed execution and report is stored in non-volatile memory. Details as to why the test failed are embedded in the report.

### TT-LOOP

This option allows you to create the Traffic Test Loop (TT-LOOP) instances.

ME1200™ GigaBit Ethernet Switch								ff (} ?			
`	Traffic Test Loop									Refresh	
	Delete	Instance	Name	Domain	Flow	Туре	Direction	Residence	Port	Operational State	
	Delete Add New	TT-LOOP	Save	Port V	1	Mac-Loop ¥	Facility 💙	1	]		109615
		Contraction Contra	Delete         Instance           Delete         1           Add New TT-LOOP	Delete         Instance         Name           Delete         1            Add New TT-LOOP         Save	Delete     Instance     Name     Domain       Delete     1     Port        Add New TT-LOOP     Save     Reset	Delete     Instance     Name     Domain     Flow       Delete     1     Port      1       Add New TT-LOOP     Save     Reset	ME1200 Traffic Test Loop Delete Instance Name Domain Flow Type Delete 1 Port 1 Mac-Loop Add New TT-LOOP Seve Reset	ME1200 <sup>™</sup> Giga Traffic Test Loop Delete Instance Name Domain Flow Type Direction Delete 1 Port 1 Mac-Loop ✓ Facility ✓ Add New TT-LOOP Save Reset	ME1200™ GigaBit Ethe         Traffic Test Loop         Delete       Instance       Name       Domain       Flow       Type       Direction       Residence         Delete       1       Port ♥       1       Mac-Loop ♥       Facility ♥       1         Add New TT-LOOP       Save       Reset       Image: Content of the second s	ME1200™ GigaBit Ethernet         Traffic Test Loop         Delete       Instance       Name       Domain       Flow       Type       Direction       Residence Port         Delete       1       Port ✓       1       Mec-Loop ✓       Facility ✓       1         Add New TT-LOOP       Seve       Reset	ME1200™ GigaBit Ethernet Switch         Traffic Test Loop         Delete       Instance       Name       Domain       Flow       Type       Direction       Residence Port       Operational State         Delete       1       Port ✓       1       Mec-Loop ✓       Facility ✓       1         Add New TT-LOOP       Save       Reset

- Delete: This box is used to mark a TT-LOOP for deletion in next Save operation.
- Instance: The ID of the TT-LOOP. Click on the ID of a TT-LOOP to enter the configuration page.
- Name: This is a configurable name of the instance.
- Domain: Currently VLAN domain is not supported.
  - Port: This is a TT-LOOP in the Port Domain.
  - Evc: This is a TT-LOOP in the EVC Domain. 'Flow' is an EVC. The EVC must be created.
  - *VLAN*: This is a TT-LOOP in the VLAN Domain. 'Flow' is a VLAN. In case of Up-TT-LOOP the VLAN must be created.
- Flow: The flow instance number related to this TT-LOOP instance depending on the 'Domain'.
- Type: Currently OAM Loop is only supported in EVC domain.
  - *Mac-loop*: This TT-LOOP is the MAC looping type. All frames in the flow is looped with MAC swap.
  - *Oam-loop*: This TT-LOOP is the OAM looping type. Is Y.1731 OAM aware and is looping LBM->LBR and DMM->DMR.
- Direction: Currently Terminal Loop is only supported in EVC domain.
  - Facility: This TT-LOOP is pointing out to the port. Looping is done from ingress to egress.
  - *Terminal*: This TT-LOOP is pointing into the forwarding plane. Looping is done from egress to ingress.
- **Residence Port**: The port where TT-LOOP is resident see 'Direction'. For an EVC TT-LOOP the port must be a port in the EVC. For a VLAN TT-LOOP the port must be a VLAN member.
- Operational State
  - Up: Instance Operational State is UP all resources are available and allocated.
  - *Down*: Instance Operational State is DOWN not all resources are available or administrative state is disabled.

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Cisco ME 1200 Series Carrier Ethernet Access Device Web Interface User Guide, Cisco IOS 15.6(1)SN and Later Releases