

Ethernet Service Activation Test Commands

This chapter describes commands used in Ethernet Service Activation Tests.

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ethernet service-activation-test profile

To configure test parameters for a service activation test, use the **ethernet service-activation-test profile** command in XR Config mode.

ethernet service-activation-test profile *name* [**apply-group** *text* | **color-aware** [**cir** *cir-value* | **eir-color** [**cos** *cos-value* | **set-dei**]] | **description** *text* | **duration** *time-duration* | **ethertype** *value* | **exclude-group** *text* | **frame-delay bins** *number-of-aggregation-bins* **width** *width-of-aggregation-bins* | **usec** *microseconds* | **[minimum-delay** *width-of-first-aggregation-bin* | **frame-delay-range-percentile** *percentile* **]** | **oam-level** *value* | **outer-cos** *cos-value* | **packet-format lbm** | **packet-size** *value* | **information-rate** [**bs** *burst-size-value* | **ir** *value*] | **measurement-combined** | **mode two-way** | **oam-level** *value* | **outer-cos** *cos-value* | **packet-format lbm** | **packet-size [** *value* | **emix sequence h]**]

Syntax Description

apply-group *text*	(Optional) Apply configuration from a group.
eir-color	(Optional) Specifies configuration for excess information rate (EIR) packets.
cir *cir-value*	(Optional) Specifies the color-aware configuration. The permitted values are in `kbps|mbps|gbps`. The range is `1 to 4294967295`.
cos *cos-value*	(Optional) Specifies the CoS value for EIR packets. The range is `0 to 7`
set-dei	(Optional) Specifies the drop-eligibility-indicator (DEI) bit for EIR packets.
description *text*	(Optional) Specifies the description or identifier for the test.
duration *time-duration*	(Optional) Specifies the duration for which the SAT needs to be performed. The permitted values are in `minutes|hours`. The range is `1 to 1440`.
ethertype *value*	(Optional) Specifies the ethertype to use in test packets. The permitted values are MSRP | STP | PFC | LACP | Link-OAM | ESMC | PNAC | LLDP | E-LMI | MVRP | MMRP | PTP | MIRP | VDP | PE-CSP | value <hex value>.

exclude-group *text*	(Optional) Specifies the apply-group configuration which needs to be excluded from a group.
bin *value*	(Optional) Specifies the number of aggregation bins. The range is `0 to 200`.
frame-delay-range-percentile *percentile*	(Optional) Specifies the percentile for frame delay range. The permitted values are in `per-million|percent`. The range is `1 to 99999` for per-million and `1 to 99` for percent.
minimum-delay *width-of-first-aggregation-bin*	(Optional) Specifies the frame delay of reporting configuration. The permitted values are in `milliseconds` . The range is `1 to 10000000`.
bs *burst-size-value*	(Optional) Specifies the burst size to be use in tests. Entered in `GB|KB|MB`. The range is `1 to 1024`.
ir *value*	(Optional) Specifies the information rate to be use in tests. The permitted values are in `kbps|mbps|gbps`. The range is `1 to 4294967295`.
measurement-combined	(Optional) Displays the calculated frame loss and frame delay for SAT.
mode two-way	(Optional) Specifies the mode for tests.
oam-level *value*	(Optional) Specifies OAM level of the packets sent during the test. The range is `0 to 7`.
outer-cos *cos-value*	(Optional) Sets the CoS to use in test packets. The range is `0 to 7`.
packet-format lbm	(Optional) Enables the destination router to sends back the test traffic to the source router.
packet-size *value*	(Optional) Specifies the packet size and pattern to use for tests. Entered in bytes. The range is `64 to 10236`.

profile *name*	(Optional) Specifies the profile where the SAT needs to be performed.
width *miliseconds*	(Optional) Specifies the width of each aggregation bin in milliseconds. The range is `1 to 10000`. Or specifies the width of each aggregation bin in microseconds if usec is selected. Usec interprets the width in microseconds.
usec *microseconds*	Specifies the width of each aggregation bin in microseconds. The range is `1 to 10000000`.
emix sequence h	Specifies the packet size as sequence h.

Command Default

Disabled, by default

Command Modes

XR Config mode

Command History

Release	Modification
Release 24.2.1	The command was modified to include **emix sequence h** keyword.
Release 24.2.1	The command was modified to include **bins, width, minimum- delay, and frame-delay-range percentile** keywords.
Release 24.1.1	The command was modified to include **measurement combined** and **packet-format lbm** keywords.
Release 7.1.1	The command was introduced.

Usage Guidelines

No specific guidelines impact the use of this command.

Task ID

Task ID	Operation
config-services	read, write

This example shows how to configure **measurement combined** for the SAT test profile **p1** using the **ethernet service-activation-test profile** command:

```
Router(config)#ethernet service-activation-test profile
Router(config-ethsat)#profile p1
Router(config-ethsat-prf)#outer-cos 2
Router(config-ethsat-prf)#duration 1 minutes
```

```
Router(config-ethsat-prf)#measurement combined
Router(config-ethsat-prf)#packet-size 1024
Router(config-ethsat-prf)#information-rate 1 gbps
Router(config-ethsat-prf)#commit
```

The following example shows how you can configure **bins, width, minimum-delay,frame-delay-range percentile** for measuring frame-delay range for SAT profile.

```
Router(config)#ethernet service-activation-test profile p1
Router(config-ethsat-prf)#frame-delay bins 4 width 24 minimum-delay 2 frame-delay-range
percentile percent 99
Router(config-ethsat-prf)#commit
```

The following example demonstrates how you can configure the **packet-size emix sequence h** command.

```
Router#configure
Router(config)#ethernet service activation test profile p1
Router(config-ethsat-prf)#packet-size emix sequence h
Router(config-ethsat-prf)#commit
```

ethernet service-activation-test

To test service turn-up, installation, and troubleshooting of Ethernet-based services, execute the **ethernet-service-activation-test** command in XR EXEC mode.

ethernet-service-activation-test { **start** { **interface** *interface-name* **profile** *profile-name* **duration** *value* **destination** *mac-address* **direction** { **internal** | **external** } [**source** *mac-address*] } | **stop** { **all** | **interface** } }

Syntax Description

destination *mac-address*	Specifies the destination MAC address for SAT. Entered in H.H.H MAC address format.
direction	Specifies the direction to be internal or external.
interface *interface-name*	Specifies interface where SAT needs to be performed.
profile *profile-name*	Specifies the profile where the SAT needs to be performed.
source *mac-address*	(Optional) Specifies the source MAC address. Entered in H.H.H MAC address format.
start	Starts the SAT.
stop	Stops the SAT.

Command Default

Disabled, by default

Command Modes

XR EXEC mode

Command History

Release	Modification
Release 24.1.1	The command was modified to include **source** keyword.
Release 7.1.1	The command was introduced.

Usage Guidelines

No specific guidelines impact the use of this command.

Task ID

Task ID	Operation
config-services	read, write

This example shows how to specify the source MAC address while executing SAT

```
Router# ethernet service-activation-test start interface TenGigE0/0/0/1 profile
prof1 destination 00ab.6009.9c3c source 0000.1000.001d direction external
```

show ethernet service-activation-test

To view statistics collected for a test, use the **show ethernet service-activation-test** command in EXEC mode.

show ethernet service-activation-test [**in-progress | completed**] [**interface** *interface-name*]

Syntax Description

in-progress	(Optional) Specifies statistics collected for a test which is in-progress.
completed	(Optional) Specifies statistics collected for a test which is completed.
interface *interface-name*	(Optional) Specifies interface where SAT needs to be performed.

Command Default

Enabled, by default

Command Modes

EXEC mode

Command History

Release	Modification
Release 7.1.1	The command was introduced.

Usage Guidelines

No specific guidelines impact the use of this command.

Task ID

Task ID	Operation
config-services	read

The **show ethernet service-activation-test** command displays the test statistics for an ITU-T Y.1564 SAT.

```
Router#show ethernet service-activation-test
Interface TenGigE0/0/0/19
Service activation tests permitted
Test in progress, 179 minute(s) remaining:
Duration 2 minute(s)
Information rate 5 Gbps
Color-blind
External, Two-way, Destination 0A:AA:0B:BB:0C:CC
Packet size 512, Pattern hex 0x00
Packet format: Y.1731 LBM
CoS not set
```