

# Show, Clear, Debug, Commands

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## Services Show Commands

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### Service Commands

#### customer

**Syntax** `customer [customer-id] [site customer-site-name]`

**Context** show>service

**Description** This command displays service customer information.

**Parameters** *customer-id* — Displays only information for the specified customer ID.

**Default** All customer IDs display.

**Values** 1 — 2147483647

*site customer-site-name* — Specifies the customer site which is an anchor point for an ingress and egress virtual scheduler hierarchy.

**Output** **Show Customer Command Output** — The following table describes show customer command output fields:

Label	Description
Customer-ID	The ID that uniquely identifies a customer.
Contact	The name of the primary contact person.
Description	Generic information about the customer.
Phone	The phone/pager number to reach the primary contact person.
Total Customers	The total number of customers configured.
Site	Multi-service site name. A multi-service customer site is a group of SAPs with common origination and termination points.
Description	Displays information about a specific customer's multi-service site.
Assignment	The port ID, MDA, or card number, where the SAP's that are members of this multi- service site are defined.
I. Sched Pol	The ingress QoS scheduler policy assigned to this multi-service site.
E. Sched Pol	The egress QoS scheduler policy assigned to this multi-service site.
Service-ID	The ID that uniquely identifies a service.
SAP	Specifies the SAP assigned to the service.

## Show, Clear, Debug Commands

### Sample Output

```
*A:ALA-12# show service customer
```

```
=====
```

```
Customers
```

```
=====
```

```
Customer-ID : 1  
Contact      : Manager  
Description  : Default customer  
Phone       : (123) 555-1212
```

```
Customer-ID : 2  
Contact      : Tech Support  
Description  : TiMetra Networks  
Phone       : (234) 555-1212
```

```
Customer-ID : 3  
Contact      : Test  
Description  : TiMetra Networks  
Phone       : (345) 555-1212
```

```
Customer-ID : 6  
Contact      : Test1  
Description  : Epipe Customer  
Phone       : (456) 555-1212
```

```
Customer-ID : 7  
Contact      : Test2  
Description  : VPLS Customer  
Phone       : (567) 555-1212
```

```
Customer-ID : 8  
Contact      : Customer Service  
Description  : IES Customer  
Phone       : (678) 555-1212
```

```
Customer-ID : 274  
Contact      : TestA  
Description  : ABC Company  
Phone       : 650 123-4567
```

```
Customer-ID : 94043  
Contact      : Test Engineer on Duty  
Description  : TEST Customer  
Phone       : (789) 555-1212
```

```
-----
```

```
Total Customers : 8
```

```
-----
```

```
*A:ALA-12#
```

```
*A:ALA-12# show service customer 274
```

```
=====
```

```
Customer 274
```

```
=====
```

```
Customer-ID : 274  
Contact      : Mssrs. Beaucoup  
Description  : ABC Company  
Phone       : 650 123-4567
```

```
-----
```

```
Multi Service Site
```

```

-----
Site      : west
Description : (Not Specified)
=====
*A:ALA-12#
*A:ALA-12# show service customer 274 site west
=====
Customer  274
=====
Customer-ID : 274
Contact    : Mssrs. Beaucoup
Description : ABC Company
Phone     : 650 123-4567
-----
Multi Service Site
-----
Site      : west
Description : (Not Specified)
Assignment : Card 1
I. Sched Pol: SLA1
E. Sched Pol: (Not Specified)
-----
Service Association
-----
No Service Association Found.
=====
*A:ALA-12#

```

## fdb-mac

**Syntax** **fdb-mac** [*ieee-address*] [**expiry**]

**Context** show>service

**Description** This command displays the FDB entry for a given MAC address.

**Parameters** *ieee-address* — Specifies the 48-bit MAC address in the form aa:bb:cc:dd:ee:ff or aa-bb-cc-dd-ee-ff where aa, bb, cc, dd, ee, and ff are hexadecimal numbers.

**expiry** — shows amount of time until MAC is aged out.

### Sample Output

```

*A:ALA-48# show service fdb-mac
=====
Service Forwarding Database
=====
ServId   MAC                Source-Identifier   Type/Age  Last Change
-----
103      12:34:56:78:90:0f  sap:1/1/7:0        Static    02/02/2009 09:27:57
700      90:30:ff:ff:ff:8f  cpm                 Host      02/02/2009 09:27:57
-----
No. of Entries: 2
=====

```

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```
*A:ALA-48#

*A:ALA-48# show service fdb-mac expiry
=====
Service Forwarding Database
=====
ServId      MAC                Source-Identifier  Type/      Last Change
              MAC                Source-Identifier  Expiry
-----
103         12:34:56:78:90:0f  sap:1/1/7:0       Static     02/02/2009 09:27:57
700         90:30:ff:ff:ff:8f  cpm                Host       02/02/2009 09:27:57
-----
No. of Entries: 2
=====
*A:ALA-48#
```

## isid-using

**Syntax** **isid-using** [/SID]

**Context** show>service

**Description** This command displays services using ISID.

**Parameters** **ISID** — Displays the service using the specified I-component Service ID (ISID).

**Values** 0 — 1677215

**Output**

```
*A:SetupCLI# show service isid-using
=====
Services
=====
SvcId      ISID      Type  b-Vpls  Adm  Opr  SvcMtu  CustId
-----
2001       122      i-VPLS 2002      Up   Down 1514    1
2005       2005     i-mVP* 2004      Down Down 1500    1
-----
Matching Services : 2
=====
*A:SetupCLI#
```

## I2-route-table

**Syntax** **I2-route-table** [detail] [bgp-ad] [multi-homing] [bgp-vpls] [bgp-vpws] [all-routes]

**I2-route-table** [msap]

**I2-route-table** [sap sap-id] [vlan-transaction | anti-spoof]

**I2-route-table** app-profile app-profile name

**I2-route-table** authentication-policy policy-name [msap]

**I2-route-table** encap-type encap-type

**I2-route-table** eth-tunnel [tunnel-id eth-tunnel-id]

**I2-route-table** ingress|egress atm-td-profile td-profile-id

**l2-route-table** *ingress|egress filter filter-id*  
**l2-route-table** *ingress|egress qos-policy qos-policy-id [msap]*  
**l2-route-table interface** *ip-address|ip-int-name [msap]*  
**l2-route-table mc-ring peer** *ip-address ring sync-tag*

**Context** show>service

**Description** This command displays L2 route table information.

**all-routes** — Displays active/inactive routes.

**detail** — Displays detailed information.

## sap-using

**Syntax** **sap-using** [msap]  
**sap-using** [sap *sap-id*] [vlan-translation | anti-spoof]  
**sap-using app-profile** *app-profile-name*  
**sap-using authentication-policy** *policy-name* [msap]  
**sap-using encap-type** *encap-type*  
**sap-using eth-ring** [ring-id *eth-ring-id*]  
**sap-using eth-tunnel** [tunnel-id *eth-tunnel-id*]  
**sap-using ingress|egress atm-td-profile** *td-profile-id*  
**sap-using ingress|egress filter** *filter-id*  
**sap-using ingress|egress qos-policy** *qos-policy-id* [msap]  
**sap-using interface** *ip-address|ip-int-name* [msap]  
**sap-using mc-ring peer** *ip-address ring sync-tag*

**Context** show>service

**Description** This command displays SAP information.

### Sample Output

```
show service sap-using eth-tunnel [tunnel-id ##]
```

```
*A:Dut-C>config>service>epipe# show service sap-using eth-tunnel
```

```
=====
Service Access Points (Ethernet Tunnel)
=====
```

SapId	SvcId	Path	Port	Tag
eth-tunnel-1	50	1	1/1/2	4030
		2	3/1/3	4031
eth-tunnel-2	51	1	3/1/1	100
		2	3/1/3	4032
eth-tunnel-67	52	2	3/1/3	672
		8	1/1/2	678
eth-tunnel-1:3	3133	1	1/1/2	4
		2	3/1/3	4
eth-tunnel-2:3	3233	1	3/1/1	7

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```

eth-tunnel-65:4094          4094      2    3/1/3      7
                           2    -        4094.*
                           3    2/1/4    4094.*
                           8    1/1/3    4094.*
                           16   2/1/3    4094.*
eth-tunnel-1024:4094       4094      1    2/1/1      -
                           2    3/1/2    -
eth-tunnel-1:4             5154      1    1/1/2      5
                           2    3/1/3    5
eth-tunnel-2:4             5254      1    3/1/1      8
                           2    3/1/3    8
eth-tunnel-1:5             6165      1    1/1/2      6
                           2    3/1/3    6
eth-tunnel-2:5             6265      1    3/1/1      9
                           2    3/1/3    9
eth-tunnel-65:3           36533     3    2/1/4      65.10
                           8    1/1/3    65.10
                           16   2/1/3    65.10
eth-tunnel-66:3           36633     2    2/1/4      66.13
                           4    1/1/3    66.13
eth-tunnel-67:3           36733     2    3/1/3      16
                           8    1/1/2    16
eth-tunnel-68:3           36833     2    3/1/3      19
                           3    3/1/1    19
eth-tunnel-65:4           56554     3    2/1/4      65.11
                           8    1/1/3    65.11
                           16   2/1/3    65.11
eth-tunnel-66:4           56654     2    2/1/4      66.14
                           4    1/1/3    66.14
eth-tunnel-67:4           56754     2    3/1/3      17
                           8    1/1/2    17
eth-tunnel-68:4           56854     2    3/1/3      20
                           3    3/1/1    20
eth-tunnel-65:5           66565     3    2/1/4      65.12
                           8    1/1/3    65.12
                           16   2/1/3    65.12
eth-tunnel-66:5           66665     2    2/1/4      66.15
                           4    1/1/3    66.15
eth-tunnel-67:5           66765     2    3/1/3      18
                           8    1/1/2    18
eth-tunnel-68:5           66865     2    3/1/3      21
                           3    3/1/1    21
-----

```

Number of SAPs : 23

This command can also be used to identify SAPs with the “EthTunTagMismatch” flag and can be used to prevent the flag from occurring before activating paths through the following CLI example:

```
*A:Dut-C>config>service>epipe# show service sap-using eth-tunnel | match "-"
```

```

-----
eth-tunnel-1          50      1    1/1/2      4030
eth-tunnel-2          51      1    3/1/1      100
eth-tunnel-67         52      2    3/1/3      672
eth-tunnel-1:3       3133     1    1/1/2       4
eth-tunnel-2:3       3233     1    3/1/1       7
eth-tunnel-65:4094   4094     2    -          4094.*
eth-tunnel-1024:4094 4094     1    2/1/1      -

```



...		2	3/1/2	-
eth-tunnel-65:3	36533	3	2/1/4	65.10
eth-tunnel-66:3	36633	2	2/1/4	66.13
...				

SAP eth-tunnel-1024:4094 does not have the eth-tunnel tags configured for the corresponding paths which causes the SAP to be oper down. Ethernet tunnel 65 does not have path 2 configured. However, SAP eth-tunnel-65:4094 has a tag configured for path 2. This is acceptable and allows the operator to pre-provision tags under the same-fate SAPs before the corresponding path is configured under the Ethernet tunnel. This is the recommended configuration order so that there is no traffic disruption on the same-fate SAPs.

SAP eth-tunnel-65:5 currently has tags configured for paths 3, 8 and 16 and is operationally up.

Note that if path 2 of Ethernet tunnel 65 was properly configured and active, SAP eth-tunnel-65:5 would be operationally down since it does not have a corresponding tag for path 2.

Any other tunnel is fine since it has no dash present in the port or tag location.

'show eth-tunnel status' summarizes the MEP status in one screen and also identifies the ports and tags associated in summary format for all loadsharing tunnels (similar to show eth-tunnel aps for g8031-1 to 1 mode)

## oper-group

**Syntax** `oper-group [group-name]`  
**oper-group [group-name] detail**  
**oper-group [group-name] members [sap] [sdp] [site]**  
**oper-group [group-name] monitoring [sap] [sdp] [site] [mvrp]**

**Context** show>service

**Description** This command displays the oper-group information, member count, monitor-client count, and status in a single line for each of the configured oper-groups.

**Parameters** *group-name* — Displays oper-group information.

**detail** — Displays detailed information for each of the configured oper-groups.

**members** — Displays the members of the specified oper-group, or all oper-groups. A filter can be applied on the output to display only required member type, by specifying an optional parameter.

**Values** sap, sdp, site

**monitoring** — displays the clients that are monitoring the specified oper-group, or all oper-groups. A filter can be applied on the output to display only required client type, by specifying an optional parameter.

**Values** sap, sdp, site, mvrp

### Sample Output

```
*A:Dut-B# show service oper-group
=====
Service Oper Group Information
=====
Name                               Oper   Creation Hold   Hold   Members Monitor
Status Origin  UpTime DnTime
                               (secs) (secs)
-----
og-test                             up     manual    4     0     4     4
-----
Entries found: 1
=====
*A:Dut-B#

*A:Dut-B# show service oper-group detail
=====
Service Oper Group Information
=====
Oper Group           : og-test
Creation Origin      : manual           Oper Status       : up
Hold DownTime       : 0 secs           Hold UpTime       : 4 secs
Members              : 4                Monitoring        : 4
=====
Member SDP-Binds for OperGroup: og-test
=====
SdpId                SvcId   Type IP address   Adm   Opr
-----
```

```

201:1          1          Spok 10.20.1.1      Up    Up
201:2          1          Spok 10.20.1.1      Up    Up
-----
SDP Entries found: 4
=====
Monitoring SDP-Binds for OperGroup: og-test
=====
SdpId          SvcId          Type IP address      Adm    Opr
-----
205:1          1              Spok 10.20.1.5      Up    Up
205:2          1              Spok 10.20.1.5      Up    Up
-----
SDP Entries found: 4
=====
*A:Dut-B#

```

## pw-routing

**Syntax** **pw-routing** {**local-prefix**|**static-route**|**paths**|**all**}  
**pw-routing route-table** [**all-routes**]  
**pw-routing route-table summary**

**Context** show>service

**Description** This command displays PW routing information at this 7x50 node.

**Parameters** **local-prefix**|**static-route**|**paths**|**all** — Shows details of the T-PE prefixes configured on this node, static routes from this node, explicit PW paths configured on this node, or all of these.

**route-table** [**all-routes**] — Displays the PW routing table on this node. If all-routes is specified, then the full routing table is displayed.

**route-table summary** — Displays a summary of the PW routing table for this node.

### Sample Output

```

*A:Dut-C# show service pw-routing local-prefix
=====
Service PW Routing Information
=====
Service PW Routing Local-Prefix RD Information
=====
Local-Prefix          Route-Dist          Community          Adv-Bgp
-----
3:10.20.1.3           100:3               100:3              enabled
                     100:4               100:4              enabled
-----
Local-Prefix Entries found: 1
=====
*A:Dut-C# show service pw-routing static-route
=====

```

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```
Service PW Routing Information
=====
Service PW Routing Static-Route Information
=====
Prefix                Next-Hop
-----
6:10.20.1.6/64        10.20.1.5
-----
Static Route Entries found: 1
=====
```

```
*A:Dut-C# show service pw-routing paths
=====
Service PW Routing Information
=====
Service PW Routing Path Information
=====
Path                Adm    Hop IP Address
-----
path1_to_F          up     1  10.20.1.5
                   2  10.20.1.2
path1_to_F2         up     1  10.20.1.2
                   2  10.20.1.5
-----
Path Entries found: 2
=====
```

```
*A:Dut-C# show service pw-routing all
=====
Service PW Routing Information
=====
SPE-Address       : 3:10.20.1.3
Boot Timer        : 10 secs
Boot Timer Remain : 0 secs
Retry Timer       : 30 secs
Retry Count       : 30
=====
```

```
Service PW Routing Local-Prefix RD Information
=====
Local-Prefix      Route-Dist      Community      Adv-Bgp
-----
3:10.20.1.3      100:3           100:3          enabled
                  100:4           100:4          enabled
-----
Local-Prefix Entries found: 1
=====
```

```
Service PW Routing Static-Route Information
=====
Prefix                Next-Hop
-----
6:10.20.1.6/64        10.20.1.5
-----
```

```

-----
Static Route Entries found: 1
=====
Service PW Routing Path Information
=====
Path                Adm    Hop IP Address
-----
path1_to_F          up     1   10.20.1.5
                   2   10.20.1.2
path1_to_F2         up     1   10.20.1.2
                   2   10.20.1.5
-----
Path Entries found: 2
=====

```

```

*A:Dut-C# show service pw-routing route-table all-routes
=====
Service PW L2 Routing Information
=====
AII-Type2/Prefix-Len      Next-Hop      Owner  Age
Route-Distinguisher      Community     Best
-----
3:10.20.1.3:0/64          10.20.1.3    local  00h32m08s
0:0                       0:0          yes
3:10.20.1.3:1/96         10.20.1.3    host   00h32m08s
0:0                       0:0          yes
3:10.20.1.3:2/96         10.20.1.3    host   00h32m08s
0:0                       0:0          yes
3:10.20.1.3:3/96         10.20.1.3    host   00h32m08s
0:0                       0:0          yes
3:10.20.1.3:4/96         10.20.1.3    host   00h32m08s
0:0                       0:0          yes
3:10.20.1.3:5/96         10.20.1.3    host   00h32m08s
0:0                       0:0          yes
3:10.20.1.3:6/96         10.20.1.3    host   00h32m08s
0:0                       0:0          yes
3:10.20.1.3:7/96         10.20.1.3    host   00h32m08s
0:0                       0:0          yes
3:10.20.1.3:8/96         10.20.1.3    host   00h32m08s
0:0                       0:0          yes
3:10.20.1.3:9/96         10.20.1.3    host   00h32m08s
0:0                       0:0          yes
3:10.20.1.3:10/96        10.20.1.3    host   00h32m07s
0:0                       0:0          yes
6:10.20.1.6:0/64         10.20.1.5    static 00h07m33s
0:0                       0:0          yes
6:10.20.1.6:0/64         10.20.1.5    bgp    00h31m34s
100:6                     100:6        no
-----
Entries found: 13
=====

```

```

*A:Dut-C# show service pw-routing route-table summary
=====
Service PW L2 Routing Summary

```

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```
=====
Source           Active
-----
BGP              1
Static          1
Host            10
Local           3
-----
Total           15
=====
```

## pw-template

**Syntax** pw-template

**Context** show>service

### Sample Output

```
*A:Dut-B# show service pw-template 1
=====
PW Template Information
=====
PW Tmpl Id       : 1
Use Provisioned Sdp : enabled          VcType           : vlan
Acctg Policy     : default             Collect Stats    : disabled
Mac-Learning     : enabled             Mac-Ageing      : enabled
Discard Unkn Src : disabled           Limit MacMove   : blockable
Mac-Pinning      : disabled           Vlan VcTag      : 4095
MAC Address Limit : no limit          Rest Prot Src Mac: disabled
Auto Learn Mac Prot : disabled       RestProtSrcMacAct: disable
Block On Peer Fault : disabled

SHG
Name             :
Description      : (Not Specified)
Rest Prot Src Mac : disabled          Rest Unprot Dst  : disabled
Auto Learn Mac Prot : disabled       RestProtSrcMacAct: disable

Egress
Mac FilterId     : none              Ip FilterId      : none
Ipv6 FilterId    : none              QoS NetPlcyId   : none
Port RedirectQGrp : none                Instance Id     : none

Ingress
Mac FilterId     : none              Ip FilterId      : none
Ipv6 FilterId    : none              QoS NetPlcyId   : none
Fp RedirectQGrp  : none                Instance Id     : none

IGMP
Fast Leave       : disabled          Import Plcy      : none
Last Memb Intvl  : 10 deci-secs      Max Nbr Grps    : 0
Send Queries     : disabled
Version         : 3
```

```

Force VlanVc Fwd      : disabled           Control Word      : disabled
Hash Label           : disabled           Hash Lbl Sig Cap  : disabled
Last Changed         : 02/12/2013 22:11:49
-----
Included SDP-Groups
-----
red
-----

```

## saii-type2-using

**Syntax** **saii-type2-using** *global-id[:prefix[:ac-id]]*

**Context** show>service

**Description** Displays the SDP used by a spoke-sdp-fec with a specified FEC129 Type 2 SAI.

**Parameters** *global-id[:prefix[:ac-id]]* — Specifies the switch-point information using SAII-Type2.

**Values** <global-id[:prefix\*]> : <global-id>[:<prefix>[:<ac-id>]]

global-id	1..4294967295
prefix	a.b.c.d   1..4294967295
ac-id	1..4294967295

### Sample Output

```

*A:Dut-E# show service saii-type2-using 3:10.20.1.3:1
=====
Service Switch-Point Information
=====
SvcId      Oper-SdpBind      SAII-Type2
-----
2147483598 17407:4294967195 3:10.20.1.3:1
-----
Entries found: 1
=====

```

## sdp

**Syntax** **sdp** *sdp-id* **pw-port** [*pw-port-id*]  
**sdp** [**consistent|inconsistent|na**] **egressifs**  
**sdp** *sdp-id* **keep-alive-history**  
**sdp** **far-end** *ip-address* **keep-alive-history**  
**sdp** [*sdp-id*] [**detail**]  
**sdp** **far-end** *ip-address* [**detail**]

**Context** show>service

**Description** This command displays SDP information.

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If no optional parameters are specified, a summary SDP output for all SDPs is displayed.

### Parameters

*sdp-id* — The SDP ID for which to display information.

**Default** All SDPs.

**Values** 1 — 17407

**far-end** *ip-address* — Displays only SDPs matching with the specified far-end IP address.

**Default** SDPs with any far-end IP address.

**detail** — Displays detailed SDP information.

**Default** SDP summary output.

**keep-alive-history** — Displays the last fifty SDP keepalive events for the SDP.

**Default** SDP summary output.

**pw-port** *pw-port-id* — Displays the SAP identifier for PW-SAPs.

### Output

**Show Service SDP** — The following table describes show service SDP output fields.

Label	Description
SDP Id	The SDP identifier.
Description	Displays a text string describing the SDP.
Admin Path MTU	Displays the desired largest service frame size (in octets) that can be transmitted through this SDP to the far-end ESR, without requiring the packet to be fragmented. The default value of zero indicates that the path MTU should be computed dynamically from the corresponding MTU of the tunnel.
Opr Path MTU	Displays the actual largest service frame size (in octets) that can be transmitted through this SDP to the far-end ESR, without requiring the packet to be fragmented. In order to be able to bind this SDP to a given service, the value of this object minus the control word size (if applicable) must be equal to or larger than the MTU of the service, as defined by its service MTU.
Far End	Displays the far end IP address.
Delivery	The type of delivery used by the SDP: GRE or MPLS.
IP address	Specifies the IP address of the remote end of the GRE or MPLS tunnel defined by this SDP.
Adm Admin State	The desired state of the SDP.
Opr Oper State	The operating state of the SDP.
Flags	Specifies all the conditions that affect the operating status of this SDP.



Label	Description (Continued)
Signal Signaling	The signaling protocol used to obtain the ingress and egress labels used in frames transmitted and received on the SDP.
Last Status Change	The time of the most recent operating status change to this SDP.
Adv. NTU Over	Specifies whether the advertised MTU of a VLL spoke SDP bind includes the 14-byte L2 header, so that it is backward compatible with pre-2.0 software.
Last Mgmt Change	The time of the most recent management-initiated change to this SDP.
KeepAlive Information	This section displays Keepalive information.
Hello Time	Specifies how often the SDP echo request messages are transmitted on this SDP.
Hello Msg Len	The length of the SDP echo request messages transmitted on this SDP.
Hello Timeout	The number of seconds to wait for an SDP echo response message before declaring a timeout.
Unmatched Replies	The number of SDP unmatched message replies timer expired.
Max Drop Count	The maximum number of consecutive SDP echo request messages that can be unacknowledged before the keepalive protocol reports a fault.
Hold Down Time	The amount of time to wait before the keepalive operating status is eligible to enter the alive state.
TX Hello Msgs	The number of SDP echo request messages transmitted since the keepalive was administratively enabled or the counter was cleared.
Rx Hello Msgs	The number of SDP echo request messages received since the keepalive was administratively enabled or the counter was cleared.
Associated LSP List	When the SDP type is MPLS, a list of LSPs used to reach the far-end router displays. All the LSPs in the list must terminate at the IP address specified in the far end field. If the SDP type is GRE, then the following message displays: SDP Delivery Mechanism is not MPLS
Lsp Name	Displays the LSP name.
Time Since Last Transaction	Displays the time of the last transaction.
Signaling	Specifies the signaling type.

Label	Description (Continued)
Collect Stats	Specifies whether the agent collects accounting statistics for this SDP. When the value is true the agent collects accounting statistics on this SDP.
VLAN VC Etype	Displays the VLAN VC type.
BW Booking Factor	Specifies the value used to calculate the max SDP available bandwidth. The value specifies the percentage of the SDP max available bandwidth for VLL call admission. When the value of is set to zero (0), no new VLL spoke-sdp bindings with non-zero bandwidth are permitted with this SDP. Overbooking, >100% is allowed.
PBB Etype	Displays the Ethertype used in frames sent out on this SDP when specified as <b>vlan</b> for Provider Backbone Bridging frames.
Oper Max BW (Kbps)	Indicates the operational bandwidth in kilo-bits per seconds (Kbps) available for this SDP. The value is determined by the sum of the bandwidth of all the RSVP LSPs used by the SDP.
Avail BW (Kbps)	Indicates the bandwidth that is still free for booking by the SDP bindings on the SDP.
Net-Domain	Specifies the network-domain name configured on this SDP. The default value of this object is the default'network-domain.
Egr Interface	Indicates whether all the egress network interfaces that can carry traffic on this SDP are associated with the network-domain configured on this SDP. not applicable. indicates that there is no egress network interface that can carry traffic on this SDP. consistent. Indicates that the network-domains for all the egress network interfaces that can carry traffic on this SDP are consistent. inconsistent. indicates that the network-domain for one or more egress network interfaces that can carry traffic on this SDP are inconsistent.
Revert Time	Specifies the time to wait before reverting back from LDP to the configured LSPs, after having failed over to LDP.
Revert Count Down	Indicates the timer countdown before reverting back from LDP on this SDP. The timer countdown begins after the first configured LSP becomes active.
Flags	Displays all the conditions that affect the operating status of this SDP.
Class Forwarding	Indicates the admin state of class-based forwarding on this SDP. When the value is true, class-based forwarding is enabled.
EnforceDSTELspFc	Specifies whether service manager must validate with RSVP the support of the FC by the LSP.
Default LSP	Specifies the LSP ID that is used as a default when class-based forwarding is enabled on this SDP. This object must be set when enabling class-based forwarding.

Label	Description (Continued)
Multicast LSP	Displays the LSP ID that all multicast traffic will be forwarded on when class-based forwarding is enabled on this SDP. When this object has its default value, multicast traffic will be forwarded on an LSP according to its forwarding class mapping.
Number of SDPs	Displays the metric to be used within the Tunnel Table Manager for decision making purposes. When multiple SDPs going to the same destination exist, this value is used as a tie-breaker by Tunnel Table Manager users like MP-BGP to select route with lower value.

### Sample Output

```
*A:Dut-D# show service id 1 sdp 17407:4294967294 detail
```

```
=====
Service Destination Point (Sdp Id : 17407:4294967294) Details
=====
```

```
-----
Sdp Id 17407:4294967294  -(not applicable)
-----
```

```
Description      : (Not Specified)
SDP Id           : 17407:4294967294          Type           : VplsPmsi
Split Horiz Grp  : (Not Specified)
VC Type          : Ether                    VC Tag         : n/a
Admin Path MTU   : 9194                     Oper Path MTU  : 9194
Delivery         : MPLS
Far End          : not applicable
Tunnel Far End   : n/a                      LSP Types      : None
Hash Label       : Disabled                 Hash Lbl Sig Cap : Disabled
Oper Hash Label  : Disabled

Admin State      : Up                      Oper State      : Up
Acct. Pol        : None                    Collect Stats   : Disabled
Ingress Label    : 0                      Egress Label    : 3
Ingr Mac Fltr-Id : n/a                    Egr Mac Fltr-Id : n/a
Ingr IP Fltr-Id  : n/a                    Egr IP Fltr-Id  : n/a
Ingr IPv6 Fltr-Id : n/a                  Egr IPv6 Fltr-Id : n/a
Admin ControlWord : Not Preferred          Oper ControlWord : False
Last Status Change : 12/14/2012 12:42:22    Signaling       : None
Last Mgmt Change  : 12/14/2012 12:42:19    Force Vlan-Vc   : Disabled
Endpoint         : N/A                     Precedence      : 4
PW Status Sig     : Enabled
Class Fwding State : Down
Flags            : None
Time to RetryReset : never                  Retries Left    : 3
Mac Move         : Blockable                Blockable Level  : Tertiary
Local Pw Bits    : None
Peer Pw Bits     : None
Peer Fault Ip    : None
Peer Vccv CV Bits : None
Peer Vccv CC Bits : None
Application Profile: None
Max Nbr of MAC Addr: No Limit              Total MAC Addr  : 0
```

## Show, Clear, Debug Commands

```
Learned MAC Addr      : 0                               Static MAC Addr      : 0
MAC Learning          : Enabled                         Discard Unkwn Srce: Disabled
MAC Aging             : Enabled
BPDU Translation      : Disabled
L2PT Termination      : Disabled
MAC Pinning           : Disabled
Ignore Standby Sig    : False                           Block On Mesh Fail: False
Oper Group            : (none)                          Monitor Oper Grp    : (none)
Rest Prot Src Mac     : Disabled                         RestProtSrcMacAct  : Disable
Auto Learn Mac Prot   : Disabled

Ingress Qos Policy    : (none)                          Egress Qos Policy   : (none)
Ingress FP QGrp       : (none)                          Egress Port QGrp   : (none)
Ing FP QGrp Inst      : (none)                          Egr Port QGrp Inst : (none)

-----
ETH-CFM SDP-Bind specifics
-----
V-MEP Filtering       : Disabled

KeepAlive Information :
Admin State           : Disabled                         Oper State           : Disabled
Hello Time            : 10                              Hello Msg Len        : 0
Max Drop Count        : 3                               Hold Down Time       : 10

Statistics             :
I. Fwd. Pkts.         : 0                            I. Dro. Pkts.        : 0
I. Fwd. Octs.         : 0                            I. Dro. Octs.        : 0
E. Fwd. Pkts.         : 2979761                          E. Fwd. Octets       : 476761760

-----
Control Channel Status
-----
PW Status              : disabled                         Refresh Timer        : <none>
Peer Status Expire    : false                          Clear On Timeout     : true

MCAC Policy Name      :
MCAC Max Unconst BW   : no limit                          MCAC Max Mand BW    : no limit
MCAC In use Mand BW   : 0                                MCAC Avail Mand BW  : unlimited
MCAC In use Opnl BW   : 0                                MCAC Avail Opnl BW  : unlimited

-----
RSVP/Static LSPs
-----
Associated LSP List :
No LSPs Associated

-----
Class-based forwarding :
-----
Class forwarding      : Disabled                         EnforceDSTELspFc   : Disabled
Default LSP           : Uknwn                            Multicast LSP        : None

=====
FC Mapping Table
=====
FC Name               LSP Name
-----
```

No FC Mappings

```
-----
Stp Service Destination Point specifics
-----
```

```
Stp Admin State      : Down                Stp Oper State      : Down
Core Connectivity    : Down
Port Role            : N/A                  Port State          : Forwarding
Port Number          : 0                    Port Priority        : 128
Port Path Cost       : 10                  Auto Edge           : Enabled
Admin Edge           : Disabled             Oper Edge           : N/A
Link Type            : Pt-pt                BPDU Encap         : Dot1d
Root Guard           : Disabled             Active Protocol     : N/A
Last BPDU from       : N/A
Designated Bridge    : N/A                  Designated Port Id : N/A

Fwd Transitions      : 0                    Bad BPDUs rcvd     : 0
Cfg BPDUs rcvd       : 0                    Cfg BPDUs tx       : 0
TCN BPDUs rcvd       : 0                    TCN BPDUs tx       : 0
TC bit BPDUs rcvd    : 0                    TC bit BPDUs tx    : 0
RST BPDUs rcvd       : 0                    RST BPDUs tx       : 0
-----
```

Number of SDPs : 1

```
-----
*A:Dut-B# show service sdp 204 detail
-----
```

```
=====
Service Destination Point (Sdp Id : 204) Details
=====
```

```
Sdp Id 204 -10.20.1.4
-----
```

```
Description          : (Not Specified)
SDP Id                : 204                SDP Source          : manual
Admin Path MTU        : 0                  Oper Path MTU       : 1492
Delivery              : MPLS
Far End                : 10.20.1.4
Tunnel Far End        : n/a                LSP Types           : RSVP

Admin State           : Up                 Oper State           : Up
Signaling              : TLDP              Metric               : 0
Acct. Pol              : None              Collect Stats        : Disabled
Last Status Change    : 02/12/2013 22:10:43 Adv. MTU Over.       : No
Last Mgmt Change      : 02/12/2013 22:09:55 VLAN VC Etype       : 0x8100
Bw BookingFactor       : 100               PBB Etype            : 0x88e7
Oper Max BW(Kbps)     : 0                  Avail BW(Kbps)      : 0
Net-Domain             : default           Egr Interfaces       : Consistent
Flags                  : None
```

```
Mixed LSP Mode Information :
Mixed LSP Mode              : Disabled          Active LSP Type      : RSVP
```

```
KeepAlive Information :
```

## Show, Clear, Debug Commands

```

Admin State      : Disabled          Oper State       : Disabled
Hello Time      : 10                Hello Msg Len   : 0
Hello Timeout   : 5                Unmatched Replies : 0
Max Drop Count  : 3                Hold Down Time  : 10
Tx Hello Msgs   : 0                Rx Hello Msgs   : 0

```

```
-----
SDP-Groups
-----
```

```
red
-----
```

```
-----
RSVP/Static LSPs
-----
```

```

Associated LSP List :
Lsp Name           : lsp-b2d
Admin State        : Up              Oper State         : Up
Time Since Last Tran*: 00h17m33s

```

```
-----
Class-based forwarding :
-----
```

```

Class forwarding    : Disabled          EnforceDSTELspFc : Disabled
Default LSP         : Uknwn            Multicast LSP     : None

```

```
=====
FC Mapping Table
=====
```

```
FC Name           LSP Name
-----
```

```
No FC Mappings

```

```
=====
* indicates that the corresponding row element may have been truncated.
*A:Dut-B#

```

```
*A:ALA-12# show service sdp

```

```
=====
Services: Service Destination Points
=====
```

SdpId	Adm MTU	Opr MTU	IP address	Adm	Opr	Deliver	Signal
10	4462	4462	10.20.1.3	Up	Dn NotReady	MPLS	TLDP
40	4462	1534	10.20.1.20	Up	Up	MPLS	TLDP
60	4462	1514	10.20.1.21	Up	Up	GRE	TLDP
100	4462	4462	180.0.0.2	Down	Down	GRE	TLDP
500	4462	4462	10.20.1.50	Up	Dn NotReady	GRE	TLDP

```
-----
Number of SDPs : 5
-----
```

```
*A:ALA-12#
```

```
*A:Dut-A# show service sdp 1 detail

```

```
=====
Service Destination Point (Sdp Id : 1) Details
-----
```

```
Sdp Id 1 -(10.20.1.3)
-----
```

```

Description          : epipe sdp 1 for lspId 00:00:00:01:00:00:00:00
SDP Id              : 1                SDP Source           : manual
Admin Path MTU     : 0                Oper Path MTU        : 1492
Far End            : 10.20.1.3        Delivery             : MPLS
Admin State        : Up               Oper State           : Up
Signaling          : TLDP            Metric               : 0
Acct. Pol         : None             Collect Stats        : Disabled
Last Status Change : 12/08/2008 22:54:30 Adv. MTU Over.      : No
Last Mgmt Change   : 12/08/2008 22:54:01 VLAN VC Etype       : 0x8100
Bw BookingFactor   : 100             PBB Etype           : 0x88e7
Oper Max BW(Kbps)  : 1000           Avail BW(Kbps)      : 1000
Flags              : None
    
```

```

KeepAlive Information :
Admin State           : Disabled       Oper State           : Disabled
Hello Time           : 10             Hello Msg Len       : 0
Hello Timeout        : 5             Unmatched Replies   : 0
Max Drop Count       : 3             Hold Down Time      : 10
Tx Hello Msgs        : 0             Rx Hello Msgs       : 0
    
```

```

Associated LSP LIST :
Lsp Name             : tof1
Admin State          : Up             Oper State           : Up
Time Since Last Tran*: 00h04m01s
    
```

-----  
Class-based forwarding :  
-----

```

Class forwarding     : disabled       EnforcedDSTELspFc  : disabled
Default LSP         : Uknwn         Multicast LSP       : None
    
```

=====

FC Mapping Table

```

=====
FC Name              LSP Name
-----
    
```

No FC Mappings

```

=====
* indicates that the corresponding row element may have been truncated.
*A:Dut-A>config>service#
    
```

```

*A:ALA-12# show service sdp 8
    
```

```

=====
Service Destination Point (Sdp Id : 8)
    
```

```

=====
SdpId   Adm MTU   Opr MTU   IP address   Adm   Opr       Deliver Signal
-----
8       4462     4462     10.10.10.104   Up   Dn NotReady MPLS   TLDP
    
```

```

*A:ALA-12#
    
```

```

*A:ALA-12#
    
```

```

=====
Service Destination Point (Sdp Id : 8) Details
    
```

```

=====
Sdp Id 8 -(10.10.10.104)
    
```

```

-----
Description          : MPLS-10.10.10.104
SDP Id              : 8
Admin Path MTU     : 0                Oper Path MTU        : 0
    
```

## Show, Clear, Debug Commands

```
Far End          : 10.10.10.104          Delivery         : MPLS
Admin State      : Up                    Oper State       : Down
Flags           : SignalingSessDown TransportTunnDown
Signaling        : TLDP                  VLAN VC Etype   : 0x8100
Last Status Change : 02/01/2007 09:11:39 Adv. MTU Over.  : No
Last Mgmt Change  : 02/01/2007 09:11:46
KeepAlive Information :
Admin State      : Disabled              Oper State       : Disabled
Hello Time       : 10                   Hello Msg Len    : 0
Hello Timeout    : 5                    Unmatched Replies : 0
Max Drop Count   : 3                    Hold Down Time   : 10
Tx Hello Msgs    : 0                    Rx Hello Msgs    : 0
Associated LSP LIST :
Lsp Name         : to-104
Admin State      : Up                    Oper State       : Down
Time Since Last Tran*: 01d07h36m
=====
* indicates that the corresponding row element may have been truncated.
*A:ALA-12#

*A:MV-SR12>config>service>vprn# show service sdp 10 detail
=====
Service Destination Point (Sdp Id : 10) Details
=====
Sdp Id 10  -(200.20.1.201)
-----
Description          : (Not Specified)
SDP Id               : 10                SDP Source        : manual
Admin Path MTU       : 0                Oper Path MTU     : 9182
Far End              : 200.20.1.201      Delivery          : MPLS/LDP
Admin State          : Up                Oper State        : Up
Signaling             : TLDP             Metric            : 0
Acct. Pol            : None              Collect Stats     : Disabled
Last Status Change   : 02/12/2010 22:37:08 Adv. MTU Over.   : No
Last Mgmt Change     : 02/12/2010 22:37:03 VLAN VC Etype    : 0x8100
Bw BookingFactor     : 100              PBB Etype         : 0x88e7
Oper Max BW(Kbps)    : 0                Avail BW(Kbps)   : 0
Net-Domain           : default           Egr Interfaces    : Consistent
Mixed LSP Mode       : Enabled
Revert Time          : 0                Revert Count Down : n/a
Flags                : None

KeepAlive Information :
Admin State          : Disabled              Oper State        : Disabled
Hello Time           : 10                   Hello Msg Len     : 0
Hello Timeout        : 5                    Unmatched Replies : 0
Max Drop Count       : 3                    Hold Down Time    : 10
Tx Hello Msgs        : 0                    Rx Hello Msgs     : 0
-----
LDP Information :
-----
LDP LSP Id           : 65539              LDP Active        : No
-----
RSVP/Static LSPs
-----
Associated LSP LIST :
Lsp Name             : To_7710
Admin State          : Up                    Oper State        : Up
Time Since Last Tran*: 01h20m56s
```



```

-----
Class-based forwarding :
-----
Class forwarding      : Disabled          EnforceDSTELspFc   : Disabled
Default LSP          : Uknwn             Multicast LSP       : None
=====
FC Mapping Table
=====
FC Name              LSP Name
-----
No FC Mappings
=====
* indicates that the corresponding row element may have been truncated.
*A:MV-SR12>config>service>vprn#

```

When network domains are configured, the SDP egress interface state can be verified by using the following command:

```

*A:Dut-T# show service sdp egressifs
=====
SDP Egress Ifs State Table
=====
SDP Id              Network Domain      State
-----
100                 net1                 consistent
-----
SDPs : 1
=====
*A:Dut-Tr#
*A:Dut-C># show service sdp 1 pw-port
=====
Service Destination Point (Sdp Id 1 Pw-Port )
=====
SDP Binding port    : 1/1/3

SDP: 1 Pw-port: 11
-----
VC-Id              : 11                 Admin Status       : up
Encap              : dot1q              Oper Status        : up
VC Type            : vlan                Vlan VC Tag       : 0
Oper Flags         : (Not Specified)

SDP: 1 Pw-port: 44
-----
VC-Id              : 2                 Admin Status       : up
Encap              : dot1q              Oper Status        : up
VC Type            : ether
Oper Flags         : (Not Specified)

-----
Entries found: 2
-----
*A:Dut-C> #

*A:Dut-C> # show service sdp 1 pw-port 44
=====

```

## Show, Clear, Debug Commands

```
Service Destination Point (Sdp Id 1 Pw-Port 44)
=====
SDP Binding port      : 1/1/3
VC-Id                 : 2                               Admin Status      : up
Encap                 : dot1q                         Oper Status       : up
VC Type               : ether
Oper Flags            : (Not Specified)
=====
*A:Dut-C> #
```

## sdp-group

**Syntax** `sdp-group group-name`

**Context** `show>service`

**Description** This show command will display the SDPs and the PW templates that are associated with the group-name.

### Sample Output

```
*A:Dut-B# show service sdp-group

=====
SDP Group Information
=====
Group                               Value
-----
red                                  1
blue                                  2
-----
Entries found: 2
=====
*A:Dut-B#

*A:Dut-B# show service sdp-group "red"

=====
SDP-Group Information
=====
Name           : red           Value           : 1

Associated SDPs
=====
SdpId          : 204           Sdp-Group       : red
SdpId          : 205           Sdp-Group       : red
-----
Number of Entries: 2
=====
Associated pw-template included
=====
Pw-Template    : 1           Sdp-Group       : red
-----
Number of Entries: 1
=====
```

```

Associated pw-template excluded
=====
No Entries found
=====
*A:Dut-B#

```

## sdp-group-using

**Syntax** **sdp-group-using**

**Context** show>service

**Description** This command displays groups using SDP.

### Sample Output

```

*A:Dut-D# show service sdp-group-using
=====
SDP-Group Information
=====
SdpId           : 402           Sdp-Group       : red
SdpId           : 405           Sdp-Group       : red
SdpId           : 4021          Sdp-Group       : blue
SdpId           : 4051          Sdp-Group       : blue

Associated pw-template included
=====
Pw-Template     : 1           Sdp-Group       : red
Pw-Template     : 2           Sdp-Group       : blue

Associated pw-template excluded
=====
No Entries found
=====
*A:Dut-D#

```

## sdp-using

**Syntax** **sdp-using** [*sdp-id*[:*vc-id*] | **far-end** *ip-address*]

**Context** show>service

**Description** This command displays services using SDP or far-end address options.

**Parameters** *sdp-id* — Displays only services bound to the specified SDP ID.

**Values** 1 — 17407

*vc-id* — The virtual circuit identifier.

**Values** 1 — 4294967295

## Show, Clear, Debug Commands

**far-end ip-address** — Displays only services matching with the specified far-end IP address.

**Default** Services with any far-end IP address.

**Output Show Service SDP Using X** — The following table describes show service sdp-using output fields.

Label	Description
Svc ID	The service identifier.
Sdp ID	The SDP identifier.
Type	Type of SDP: spoke or mesh.
Far End	The far end address of the SDP.
Oper State	The operational state of the service.
Ingress Label	The label used by the far-end device to send packets to this device in this service by this SDP.
Egress Label	The label used by this device to send packets to the far-end device in this service by this SDP.

### Sample Output

```
*A:ALA-1# show service sdp-using 300
=====
Service Destination Point (Sdp Id : 300)
=====
SvcId      SdpId      Type Far End      Opr State I.Label  E.Label
-----
1          300:1      Mesh 10.0.0.13    Up       131071  131071
2          300:2      Spok 10.0.0.13     Up       131070  131070
100        300:100    Mesh 10.0.0.13     Up       131069  131069
101        300:101    Mesh 10.0.0.13     Up       131068  131068
-----
Number of SDPs : 4
=====
*A:ALA-1#
```

## service-using

**Syntax** **service-using** [**epipe**] [**ies**] [**vpls**] [**vprn**] [**mirror**] [**b-vpls**] [**i-vpls**] [**m-vpls**] [**apipe**] [**fpipe**] [**ipipe**] [**sdp sdp-id**] [**customer customer-id**]

**Context** show>service

**Description** This command displays the services matching certain usage properties. If no optional parameters are specified, all services defined on the system are displayed.

**Parameters** **epipe** — Displays matching Epipe services.  
**ies** — Displays matching IES instances.  
**vpls** — Displays matching VPLS instances.  
**i-vpls** — Displays matching I-VPLS instances.  
**b-vpls** — Displays matching B-VPLS instances.  
**m-vpls** — Displays matching M-VPLS instances.  
**vprn** — Displays matching VPRN services.  
**mirror** — Displays matching mirror services.  
**apipe** — Displays matching Apipe services.  
**fpipe** — Displays matching Fpipe services.  
**ipipe** — Displays matching Ipipe services.  
**sdp sdp-id** — Displays only services bound to the specified SDP ID.

**Default** Services bound to any SDP ID.

**Values** 1 — 17407

**customer customer-id** — Displays services only associated with the specified customer ID.

**Default** Services associated with a customer.

**Values** 1 — 2147483647

**Output** **Show Service Service-Using** — The following table describes show command output fields.

Label	Description
Service Id	The service identifier.
Type	Specifies the service type configured for the service ID.
Adm	The desired state of the service.
Opr	The operating state of the service.
CustomerID	The ID of the customer who owns this service.

## Show, Clear, Debug Commands

Label	Description (Continued)
Last Mgmt Change	The date and time of the most recent management-initiated change to this service.

### Sample Output

```
*A:ALA-12# show service service-using customer 10
=====
Services
=====
ServiceId   Type      Adm   Opr      CustomerId  Last Mgmt Change
-----
1           VPLS     Up    Up        10           09/05/2006 13:24:15
100        IES      Up    Up        10           09/05/2006 13:24:15
300        Epipe    Up    Up        10           09/05/2006 13:24:15
-----
Matching Services : 3
=====
*A:ALA-12#
*A:ALA-12# show service service-using epipe
=====
Services [epipe]
=====
ServiceId   Type      Adm   Opr      CustomerId  Last Mgmt Change
-----
6           Epipe    Up    Up        6            09/22/2006 23:05:58
7           Epipe    Up    Up        6            09/22/2006 23:05:58
8           Epipe    Up    Up        3            09/22/2006 23:05:58
103        Epipe    Up    Up        6            09/22/2006 23:05:58
-----
Matching Services : 4
=====
*A:ALA-12#

*A:ALA-14# show service service-using
=====
Services
=====
ServiceId   Type      Adm   Opr      CustomerId  Last Mgmt Change
-----
10          mVPLS    Down Down     1            10/26/2006 15:44:57
11          mVPLS    Down Down     1            10/26/2006 15:44:57
100         mVPLS    Up    Up        1            10/26/2006 15:44:57
101         mVPLS    Up    Up        1            10/26/2006 15:44:57
102         mVPLS    Up    Up        1            10/26/2006 15:44:57
-----
Matching Services : 5
=====
*A:ALA-14#

*A:SetupCLI# show service service-using
- service-using [epipe] [ies] [vpls] [mirror] [ipipe] [b-vpls] [i-vpls]
[m-vpls] [sdp <sdp-id>] [customer <customer-id>]
```

```

<epipe>          : keyword - displays epipe services
<ies>           : keyword - displays ies services
<vpls>          : keyword - displays vpls services
<mirror>        : keyword - displays mirror services
<ipipe>         : keyword - displays ipipe services
<sdp-id>        : [1..17407] - display services using this sdp
<customer-id>   : [1..2147483647] - display services using this customer
<b-vpls>        : keyword - displays b-vpls services
<i-vpls>        : keyword - displays i-vpls services
<m-vpls>        : keyword - displays m-vpls services
    
```

```
*A:SetupCLI# show service service-using
```

```
=====
Services
=====
```

ServiceId	Type	Adm	Opr	CustomerId	Last Mgmt	Change
23	mVPLS	Up	Down	2	09/25/2007	21:45:58
100	Epipe	Up	Down	2	09/25/2007	21:45:58
101	Epipe	Up	Down	2	09/25/2007	21:45:58
102	Epipe	Up	Down	2	09/25/2007	21:45:58
105	Epipe	Up	Down	2	09/25/2007	21:45:58
110	Epipe	Up	Down	1	09/25/2007	21:45:58
990	IES	Up	Down	1	09/25/2007	21:45:58
1000	Mirror	Up	Down	1	09/25/2007	21:45:59
1001	Epipe	Up	Down	1	09/25/2007	21:45:58
1002	Epipe	Up	Down	1	09/25/2007	21:45:58
1003	Epipe	Up	Down	1	09/25/2007	21:45:58
1004	Epipe	Up	Down	1	09/25/2007	21:45:58
2000	Mirror	Up	Down	1	09/25/2007	21:45:59
2001	i-VPLS	Up	Down	1	09/25/2007	21:45:59
2002	b-VPLS	Up	Down	1	09/25/2007	21:45:59
2003	i-VPLS	Down	Down	1	09/25/2007	21:45:59
2004	b-mVPLS	Down	Down	1	09/25/2007	21:45:59
2005	i-mVPLS	Down	Down	1	09/25/2007	21:45:59
8787	IES	Up	Down	2	09/25/2007	21:45:58
8888	IES	Up	Down	1	09/25/2007	21:45:58
10000	IES	Down	Down	1	09/25/2007	21:45:59
10001	VPLS	Up	Down	1	09/25/2007	21:45:58
483000	Ipipe	Down	Down	2	09/25/2007	21:45:59
483001	Ipipe	Up	Down	2	09/25/2007	21:45:59
483004	Ipipe	Down	Down	2	09/25/2007	21:45:59
483007	VPLS	Down	Down	2	09/25/2007	21:45:59
483010	Ipipe	Down	Down	1	09/25/2007	21:45:59

```
-----
Matching Services : 27
-----
```

```
*A:ALA-14#
```

## taii-type2-using

**Syntax** taii-type2-using *global-id[:prefix[:ac-id]]*

**Context** show>service

## Show, Clear, Debug Commands

**Description** Displays switch-point information using TAI.

**Parameters** *global-id[:prefix[:ac-id]]* — Specifies the switch-point information using SAI-Type2.

**Values** <global-id[:prefix\*> : <global-id>[:<prefix>[:<ac-id>]]  
global-id 1..4294967295  
prefix a.b.c.d | 1..4294967295  
ac-id 1..4294967295

### Sample Output

```
*A:Dut-E# show service taii-type2-using 6:10.20.1.6:1
=====
Service Switch-Point Information
=====
SvcId      Oper-SqpBind      TAII-Type2
-----
2147483598 17407:4294967195 6:10.20.1.6:1
-----
Entries found: 1
=====
```

## vpls-template

**Syntax** **vpls-template**  
**vpls-template** *template-name*

**Context** show>service>template>vpls-template

**Description** This command displays basic information/summary, template name, etc. for all VPLS templates. When a template name is specified, detailed information for the specified template, VPLS parameters, etc. are displayed.

**Output** **Sample Output**

```
A:Dut-C# show service template vpls-template
=====
Service template
=====
Template      Services      Last Update
-----
test          0             07/26/2010 08:40:01
svctemplate   10            07/26/2010 08:39:51
-----
Entries found: 2
=====
A:Dut-C# show service template vpls-template "svctemplate"
=====
Service template Information
=====
Template      : svctemplate
```



```

MTU Size           : 1514
MAC Aging          : enabled
Discard Unkn Dest : disabled
Per Svc Hashing   : disabled

Customer           : 10
MAC Learning       : enabled
Temp Flood Time   : Disabled

FDB
Local Age Time     : 300 secs
High Watermark     : 95%
Table Size         : 250

Remote Age Time    : 900 secs
Low Watermark      : 90%

STP
Admin State        : disabled
Bridge Max Age     : 20 secs
Bridge Fwd Delay   : 15 secs
Hold Cnt           : 6

Priority           : 32768
Bridge Hello Time : 2 secs
Mode               : rstp

MAC Move
Rate               : 2/sec
Admin State        : disabled
Pri-Ports Cumu Factor: 3

Retry Timeout      : 10 secs
Num Retries        : 3
Sec Cumu Factor    : 2
=====

```

## vpls-template-using

**Syntax** vpls-template-using *template-name*

**Context** show>service>template

**Description** This command displays services instantiated using the VPLS-template.

**Output** **Sample Output**

```

A:Dut-C# show service template vpls-template-using "svctemplate"

=====
Service template 'svctemplate' created Services
=====
SvcId           Creator Svc           Vpls Group
-----
1-10            5000                    1
-----
Entries found: 10
=====
=====

```

## vpls-sap-template

**Syntax** vpls-sap-template  
vpls-sap-template *template-name*

**Context** show>service>template

**Description** This command displays basic information/summary, template name, etc. for all SAP VPLS-templates.

## Show, Clear, Debug Commands

### Output Sample Output

```
A:Dut-C# show service template vpls-sap-template

=====
SAP template
=====
Template                               Saps           Last Update
-----
saptemplate                             30             07/26/2010 08:39:51
-----
Entries found: 1
=====

SAP Template Information
=====
Template           : saptemplate           Discard Unkn Src : disabled
MAC Aging          : enabled                 MAC Learning      : enabled
BPDU Translation   : disabled                 MAC Address Limit: no limit
L2pt Termination   : disabled

STP
Admin Status       : up                 Port Priority     : 128
Port Path Cost     : 10                Admin Edge        : disabled
Link Type          : Pt-pt
Auto Edge          : enabled                 Root Guard        : disabled

MAC Move
Limit              : blockable           Limit Level       : tertiary

Ingress
QoS Policy         : 1                 MAC Fltr         : n/a
IP Fltr           : n/a                QoS Sched Pol    : n/a
Match QinQ Dot1p Bits: default         Shared Q Pol     : n/a
IPv6 Fltr         : n/a
Use Multi-Pt Shared : disabled         Agg Rate Limit   : Max
Policer Pol       : n/a

Egress
QoS Policy         : 1                 MAC Fltr         : n/a
IP Fltr           : n/a                QoS Sched Pol    : n/a
IPv6 Fltr         : n/a                QinQ Mark Top    : disabled
Agg Rate Limit    : Max                 Policer Pol      : n/a
Frame Based Acctg : disabled

Dot1ag CFM MIP     : disabled         Coll Acctg Stats : disabled
CPM Prot Plcy     : def                 CPM Monitor MAC  : disabled
=====
```

### vpls-sap-template-using

**Syntax** vpls-sap-template-using *template-name*

**Context** show>service>template

**Description** This command displays services instantiated using vpls-sap-template.

**Output**      **Sample Output**

```
A:Dut-C# show service template vpls-sap-template-using "saptemplate"

=====
SAP template 'saptemplate' created SAPs
=====
SvcId          Sap                      Creator Svc    Vpls Group
-----
1-10           2/1/2:1-2/1/2:10        5000          1
              2/2/8:1-2/2/8:10
              lag-1:1.*-lag-1:10.*

-----
Entries found: 30
=====
```

**id**

**Syntax**      **id id base**  
**id sap base**  
**id service vpls-group**  
**id service vpls-group vpls-group-id non-template-saps**  
**id mrp**  
**id sap mrp**  
**id mac-notification**  
**id mvrp vlan**  
**id mvrp vlan detailed**

**Context**      show>service

**Description** This command displays vpls-template used to instantiate this service and m-vpls that controls this service.

**Output**      **Sample Output**

```
*A:mlstp-dutA# show service id 1 all

=====
Service Detailed Information
=====
Service Id      : 1                Vpn Id         : 0
Service Type   : Epipe
Name           : (Not Specified)
Description    : (Not Specified)
Customer Id    : 1                Creation Origin : manual
Last Status Change: 12/03/2012 15:26:20
Last Mgmt Change  : 12/03/2012 15:24:57
Admin State    : Up                Oper State     : Up
MTU            : 1514
Vc Switching   : False
SAP Count      : 1                SDP Bind Count : 1
Per Svc Hashing : Disabled
```

## Show, Clear, Debug Commands

```
Force QTag Fwd      : Disabled
-----
ETH-CFM service specifics
-----
Tunnel Faults      : ignore
-----
Service Destination Points(SDPs)
-----
Sdp Id 32:1  -(0.0.3.234:42)
-----
Description        : (Not Specified)
SDP Id             : 32:1                      Type                : Spoke
Spoke Descr       : (Not Specified)
VC Type           : Ether                      VC Tag              : n/a
Admin Path MTU    : 0                          Oper Path MTU       : 9186
Delivery          : MPLS
Far End           : 0.0.3.234:42
Tunnel Far End    : n/a                        LSP Types           : MPLSTP
Hash Label        : Disabled                    Hash Lbl Sig Cap    : Disabled
Oper Hash Label   : Disabled

Admin State       : Up                          Oper State          : Up
Acct. Pol        : None                        Collect Stats       : Disabled
Ingress Label    : 16416                       Egress Label       : 16416
Ingr Mac Fltr-Id : n/a                          Egr Mac Fltr-Id    : n/a
Ingr IP Fltr-Id  : n/a                          Egr IP Fltr-Id     : n/a
Ingr IPv6 Fltr-Id : n/a                       Egr IPv6 Fltr-Id   : n/a
Admin ControlWord : Preferred                    Oper ControlWord    : True
Admin BW(Kbps)   : 0                          Oper BW(Kbps)       : 0
Last Status Change : 12/03/2012 15:26:20          Signaling           : None
Last Mgmt Change  : 12/03/2012 15:24:57          Force Vlan-Vc      : Disabled
Endpoint         : N/A                          Precedence          : 4
PW Status Sig    : Enabled
Class Fwding State : Down
Flags            : None
Local Pw Bits    : None
Peer Pw Bits     : None
Peer Fault Ip    : None
Peer Vccv CV Bits : None
Peer Vccv CC Bits : None
Application Profile: None
Standby Sig Slave : False
Block On Peer Fault: False

Ingress Qos Policy : (none)                       Egress Qos Policy  : (none)
Ingress FP QGrp   : (none)                       Egress Port QGrp   : (none)
Ing FP QGrp Inst  : (none)                       Egr Port QGrp Inst: (none)

Statistics        :
I. Fwd. Pkts.    : 272969957                       I. Dro. Pkts.      : 0
E. Fwd. Pkts.    : 273017433                       E. Fwd. Octets     : 16381033352
-----
Control Channel Status
-----
```

```
PW Status          : enabled          Refresh Timer      : 66 secs
Peer Status Expire : false           Clear On Timeout   : true
```

-----  
SDP-BIND PW Path Information  
-----

```
AGI                : 1:1
SAII Type2         : 42:0.0.3.234:1
TAII Type2         : 42:0.0.3.233:1
```

-----  
RSVP/Static LSPs  
-----

```
Associated LSP List :
Lsp Name           : lsp-32
Admin State        : Up                Oper State         : Up
```

```
*A:mlstp-dutA# show service id [1..4] all | match "Control Channel" pre-lines 1 post-lines 5
```

-----  
Control Channel Status  
-----

```
PW Status          : enabled          Refresh Timer      : 66 secs
Peer Status Expire : false           Clear On Timeout   : true
```

-----  
Control Channel Status  
-----

```
PW Status          : enabled          Refresh Timer      : 66 secs
Peer Status Expire : false           Clear On Timeout   : true
```

-----  
Control Channel Status  
-----

```
PW Status          : enabled          Refresh Timer      : 66 secs
Peer Status Expire : false           Clear On Timeout   : true
```

-----  
Control Channel Status  
-----

```
PW Status          : enabled          Refresh Timer      : 66 secs
Peer Status Expire : false           Clear On Timeout   : true
```

```
*A:mlstp-dutA# show service id [1..4] all | match SDP-BIND pre-lines 1 post-lines 5
```

-----  
SDP-BIND PW Path Information  
-----

```
AGI                : 1:1
```

## Show, Clear, Debug Commands

```
SAII Type2      : 42:0.0.3.234:1
TAII Type2      : 42:0.0.3.233:1
```

```
-----
SDP-BIND PW Path Information
-----
```

```
AGI             : 1:2
SAII Type2      : 42:0.0.3.234:2
TAII Type2      : 42:0.0.3.233:2
```

```
-----
SDP-BIND PW Path Information
-----
```

```
AGI             : 1:3
SAII Type2      : 42:0.0.3.234:3
TAII Type2      : 42:0.0.3.233:3
```

```
-----
SDP-BIND PW Path Information
-----
```

```
AGI             : 1:4
SAII Type2      : 42:0.0.3.234:4
TAII Type2      : 42:0.0.3.233:4
```

```
A:Dut-C# show service id 1 mac-notification
```

```
=====
Service MAC-Notification Information
=====
```

```
Service Id      : 1                MAC-Notification : Disabled
MAC-Notif Count : 3 (default)      MAC-Notif Interval: 1 (default)
MAC-Notif Renotify: disabled (default)
```

```
*A:Dut-C#
```

```
A:Dut-C# show service id 1 base
```

```
=====
Service Basic Information
=====
```

```
Service Id      : 1                Vpn Id          : 0
Service Type    : uVPLS
Name            : VPLS-5000-VLAN-1
Description     : MVRP Ctrlld Svc 1 created by Ctrl Svc 5000
Customer Id    : 10
Last Status Change: 07/26/2010 08:39:51
Last Mgmt Change : 07/26/2010 08:39:51
Admin State     : Up                Oper State      : Up
MTU             : 1514              Def. Mesh VC Id : 1
SAP Count       : 4                SDP Bind Count  : 0
Snd Flush on Fail : Disabled        Host Conn Verify : Disabled
Propagate MacFlush: Disabled        Per Svc Hashing : Disabled
Allow IP Intf Bind: Disabled
Def. Gateway IP : None
Def. Gateway MAC : None
Temp Flood Time : Disabled          Temp Flood      : Inactive
Temp Flood Chg Cnt: 0
Template Used    : svctemplate
Controlling Svc : 5000
```

```

-----
Service Access & Destination Points
-----
Identifier                               Type           AdmMTU  OprMTU  Adm  Opr
-----
sap:2/1/1:1                             q-tag         1518    1518    Up   Up
sap:{2/1/2:1}                           q-tag         1518    1518    Up   Prun
sap:{2/2/8:1}                           q-tag         1518    1518    Up   Up
sap:{lag-1:1.*}                         qinq          1522    1522    Up   Up
-----

Number of instantiated SAPs : 3 indicated by {<sap-id>}
=====
A:Dut-C# show service id 1 sap 2/1/2:1 base
A:Dut-C#
=====
Service Access Points(SAP)
=====
Service Id          : 1
SAP                 : 2/1/2:1           Encap              : q-tag
Description         : MVRP Ctrlrd Sap 2/1/2:1 created by Ctrl Svc 5000
Admin State         : Up              Oper State         : Up
Flags               : None
Multi Svc Site      : None
Last Status Change : 07/26/2010 08:28:24
Last Mgmt Change   : 07/26/2010 08:39:51
Sub Type            : regular
Dot1Q Ethertype     : 0x8100           QinQ Ethertype     : 0x8100
Split Horizon Group: (Not Specified)

Managed by Service : 5000              Managed by MSTI    : CIST
Managed by Sap     : 2/1/2:0           Prune State       : Pruned
Max Nbr of MAC Addr: No Limit          Total MAC Addr    : 0
Learned MAC Addr   : 0                 Static MAC Addr   : 0
Admin MTU           : 1518             Oper MTU          : 1518
Ingr IP Fltr-Id    : n/a              Egr IP Fltr-Id   : n/a
Ingr Mac Fltr-Id   : n/a              Egr Mac Fltr-Id  : n/a
Ingr IPv6 Fltr-Id  : n/a              Egr IPv6 Fltr-Id : n/a
tod-suite           : None              qinq-pbit-marking : both
Ing Agg Rate Limit : max                Egr Agg Rate Limit: max
Q Frame-Based Acct : Disabled
ARP Reply Agent     : Disabled          Host Conn Verify  : Disabled
Mac Learning        : Enabled           Discard Unkwn Srce: Disabled
Mac Aging           : Enabled           Mac Pinning       : Disabled
BPDU Translation    : Disabled
L2PT Termination    : Disabled
Vlan-translation    : None

Acct. Pol           : None              Collect Stats     : Disabled

Anti Spoofing       : None              Avl Static Hosts  : 0
                                      Tot Static Hosts  : 0

Calling-Station-Id : n/a
Application Profile: None

Template Used        : saptemplate
Restr MacProt Src    : Disabled          Restr MacUnpr Dst : Disabled
Time to RetryReset   : never             Retries Left      : 3
Mac Move             : Blockable         Blockable Level   : Tertiary
Egr MCast Grp       :

```

## Show, Clear, Debug Commands

```
Auth Policy          : none
=====
A:Dut-C#
A:Dut-C# show service id 5000 vpls-group
=====
Service VPLS Group Information
=====
Service              : 5000                VPLS Group          : 1
-----
Admin Status         : enabled              Oper Status          : up
Svc Start            : 1                    Svc End              : 10
Svc Template         : svctemplate          Sap Template         : saptemplate
Vlan Start           : 1                    Control               : MVRP
Last Error           : (Not Specified)
-----
=====
A:Dut-C#
A:Dut-C# show service id 5000 vpls-group 1 non-template-saps
=====
NON-TEMPLATE SAP Table
=====
Svc      SAP
-----
1        2/1/1:1
2        2/1/1:2
3        2/1/1:3
4        2/1/1:4
5        2/1/1:5
6        2/1/1:6
7        2/1/1:7
8        2/1/1:8
9        2/1/1:9
10       2/1/1:10
-----
Entries found: 10
=====
A:Dut-C#
*A:Dut-D# show service id 1 mrp
=====
Service MRP Information
=====
Admin State          : enabled
-----
MMRP
-----
Admin Status         : disabled              Oper Status          : down
Register Attr Cnt    : 0                    Declared Attr Cnt   : 0
Max Attributes       : 1023                  Attribute Count      : 0
Hi Watermark         : 95%                    Low Watermark        : 90%
Failed Registers     : 3553                  Flood Time           : Off
-----
MVRP
-----
Admin Status         : enabled              Oper Status          : up
Max Attr             : 4095                  Failed Register      : 3553
Register Attr Count  : 0                    Declared Attr        : 4
Hi Watermark         : 95%                    Low Watermark        : 90%
Hold Time            : disabled              Attr Count           : 0
-----
```



```

=====
MRP SAP Table
=====
SAP                               Join      Leave      Leave All  Periodic
                                Time(sec) Time(sec)  Time(sec) Time(sec)
-----
1/3/8:0.*                         0.2       3.0       10.0      1.0
1/5/6:0.*                         0.2       3.0       10.0      1.0
=====

```

\*A:Dut-D#

\*A:Dut-D# show service id 1 mvrp vlan

```

-----
SAP                               Status  VLANs
-----
1/3/8:0.*                         Reg     None

                                Decl   2-5

                                EndSt  None
-----

```

\*A:Dut-D#

\*A:Dut-D# show service id 1 mvrp vlan detail

```

-----
SAP                               VLANs    Registered  Declared  EndStations
-----
sap:1/3/8:0.*                     2        No          Yes       No
sap:1/3/8:0.*                     3        No          Yes       No
sap:1/3/8:0.*                     4        No          Yes       No
sap:1/3/8:0.*                     5        No          Yes       No
-----

```

\*A:Dut-D#

\*A:Dut-B# show service id 1 sap 1/8/4:0.\* mrp

Service Access Points(SAP)

```

=====
Service Id       : 1
SAP              : 1/8/4:0.*           Encap           : qinq
QinQ Dot1p     : Default
Description     : Default sap description for service id 1
Admin State     : Up                   Oper State      : Up
Flags           : None
Multi Svc Site  : None
Last Status Change : 07/26/2010 23:35:45
Last Mgmt Change  : 07/26/2010 20:09:36
-----

```

SAP MRP Information

```

-----
Join Time       : 0.2 secs                Leave Time      : 3.0 secs
Leave All Time  : 10.0 secs               Periodic Time   : 1.0 secs
Periodic Enabled : false
Mrp Policy     : N/A
Rx Pdus        : 4                       Tx Pdus        : 3
Dropped Pdus   : 0                       Tx Pdus        : 3
Rx New Event   : 20                      Rx Join-In Event : 20
-----

```

## Show, Clear, Debug Commands

```
Rx In Event      : 0                Rx Join Empty Evt : 0
Rx Empty Event   : 0                Rx Leave Event    : 0
Tx New Event     : 20               Tx Join-In Event  : 10
Tx In Event      : 0                Tx Join Empty Evt : 0
Tx Empty Event   : 0                Tx Leave Event    : 0
-----
SAP MMRP Information
-----
MAC Address      Registered      Declared
-----
Number of MACs=0 Registered=0 Declared=0
-----
SAP MVRP Information
-----
Admin Status     : enabled          Oper Status      : enabled
Data SAP Instant. : complete
-----
SAP End-station group information
-----
Group Id         Start Vlan Tag   End Vlan Tag
-----
1                2                11
-----
Entries found: 1
-----
VLAN             Registered     Declared       EndStations
-----
2                Yes           Yes            Yes
3                Yes           Yes            Yes
4                Yes           Yes            Yes
5                Yes           Yes            Yes
6                Yes           Yes            Yes
7                Yes           Yes            Yes
8                Yes           Yes            Yes
9                Yes           Yes            Yes
10               Yes           Yes            Yes
11               Yes           Yes            Yes
-----
Number of VLANs=10 Registered=10 Declared=10 EndStations=10
=====
*A:Dut-B#
```

## provider-tunnel

**Syntax** provider-tunnel

**Context** show>service>id

**Description** This command displays provider tunnel information.

**Output** \*A:Dut-B# show service id 1 provider-tunnel

```

=====
Service Provider Tunnel Information
=====
Type           : inclusive           Root and Leaf      : enabled
Admin State    : inService          Data Delay Intvl   : 3 secs
PMSI Type      : ldp                 LSP Template       :
Remain Delay Intvl : 0 secs          LSP Name used      : 8193
=====
*A:Dut-B# /tools dump service id 1 provider-tunnels type originating
=====
VPLS 1 Inclusive Provider Tunnels Originating
=====
ipmsi (LDP)                    P2MP-ID  Root-Addr
-----
8193                            8193     10.20.1.2
-----

-----
*A:Dut-B# /tools dump service id 1 provider-tunnels type terminating
=====
VPLS 1 Inclusive Provider Tunnels Terminating
=====
ipmsi (LDP)                    P2MP-ID  Root-Addr
-----
                                8193     10.20.1.3
                                8193     10.20.1.4
                                8193     10.20.1.6
                                8193     10.20.1.7
-----

-----
*A:Dut-B# /tools dump service id 1 provider-tunnels
=====
VPLS 1 Inclusive Provider Tunnels Originating
=====
ipmsi (LDP)                    P2MP-ID  Root-Addr
-----
8193                            8193     10.20.1.2
-----

-----
VPLS 1 Inclusive Provider Tunnels Terminating
=====
ipmsi (LDP)                    P2MP-ID  Root-Addr
-----
                                8193     10.20.1.3
                                8193     10.20.1.4
                                8193     10.20.1.6
                                8193     10.20.1.7
-----

```

sdp

## Show, Clear, Debug Commands

**Syntax**    **sdp**

**Context**    show>service>id

**Description**    This command displays SDPs associated with this service.

**Output**

```
*A:Dut-C# show service id 1001 sdp 17407:4294967295 detail
=====
Service Destination Point (Sdp Id : 17407:4294967295) Details
=====
-----
Sdp Id 17407:4294967295  -(0.0.0.0)
-----
Description      : (Not Specified)

SDP Id           : 17407:4294967295           Type           : VplsPmsi

Split Horiz Grp  : (Not Specified)

VC Type          : Ether                       VC Tag         : n/a

Admin Path MTU   : 9194                          Oper Path MTU  : 9194

Far End          : not applicable              Delivery       : MPLS

Tunnel Far End   : n/a                          LSP Types     : None

Hash Label       : Disabled                    Hash Lbl Sig Cap : Disabled

Oper Hash Label  : Disabled

Admin State      : Up                          Oper State     : Up

Acct. Pol        : None                       Collect Stats  : Disabled

Ingress Label    : 0                          Egress Label   : 3

Ingr Mac Fltr-Id : n/a                          Egr Mac Fltr-Id : n/a

Ingr IP Fltr-Id  : n/a                          Egr IP Fltr-Id  : n/a

Ingr IPv6 Fltr-Id : n/a                          Egr IPv6 Fltr-Id : n/a

Admin ControlWord : Not Preferred                    Oper ControlWord : False

Last Status Change : 01/31/2012 00:51:46              Signaling      : None

Last Mgmt Change  : 01/31/2012 00:49:58              Force Vlan-Vc  : Disabled

Endpoint         : N/A                          Precedence     : 4

PW Status Sig    : Enabled

Class Fwding State : Down

Flags            : None

Time to RetryReset : never                          Retries Left   : 3
```

## Service Commands

```

Mac Move          : Blockable          Blockable Level : Tertiary
Local Pw Bits     : None
Peer Pw Bits      : None
Peer Fault Ip     : None
Application Profile: None
Max Nbr of MAC Addr: No Limit          Total MAC Addr   : 0
Learned MAC Addr  : 0                  Static MAC Addr  : 0
MAC Learning      : Enabled            Discard Unkwn Srce: Disabled
MAC Aging         : Enabled
BPDU Translation  : Disabled
L2PT Termination  : Disabled
MAC Pinning       : Disabled
Ignore Standby Sig : False              Block On Mesh Fail: False
Oper Group        : (none)              Monitor Oper Grp  : (none)
Rest Prot Src Mac : Disabled
Auto Learn Mac Prot: Disabled           RestProtSrcMacAct : Disable
Ingress Qos Policy : (none)             Egress Qos Policy : (none)
Ingress FP QGrp   : (none)             Egress Port QGrp  : (none)
Ing FP QGrp Inst  : (none)             Egr Port QGrp Inst: (none)
-----
ETH-CFM SDP-Bind specifics
-----
V-MEP Filtering   : Disabled

KeepAlive Information :
Admin State       : Disabled            Oper State        : Disabled
Hello Time        : 10                  Hello Msg Len     : 0
Max Drop Count    : 3                   Hold Down Time    : 10
Statistics        :
I. Fwd. Pkts.     : 0                   I. Dro. Pkts.    : 0
I. Fwd. Octs.     : 0                   I. Dro. Octs.    : 0
E. Fwd. Pkts.     : 5937639             E. Fwd. Octets   : 356258340
MCAC Policy Name  :

```

## Show, Clear, Debug Commands

```
MCAC Max Unconst BW: no limit                MCAC Max Mand BW : no limit
MCAC In use Mand BW: 0                       MCAC Avail Mand BW: unlimited
MCAC In use Opnl BW: 0                       MCAC Avail Opnl BW: unlimited
-----
RSVP/Static LSPs
-----
Associated LSP List :

No LSPs Associated
-----
Class-based forwarding :
-----
Class forwarding      : Disabled                EnforceDSTELspFc   : Disabled
Default LSP          : Uknwn                    Multicast LSP      : None
=====
FC Mapping Table
=====
FC Name              LSP Name
-----
No FC Mappings
-----
Stp Service Destination Point specifics
-----
Stp Admin State      : Down                    Stp Oper State      : Down
Core Connectivity    : Down
Port Role            : N/A                    Port State          : Forwarding
Port Number          : 0                    Port Priority        : 128
Port Path Cost       : 10                   Auto Edge           : Enabled
Admin Edge           : Disabled                Oper Edge           : N/A
Link Type            : Pt-pt                    BPDU Encap          : Dot1d
Root Guard           : Disabled                Active Protocol     : N/A
Last BPDU from       : N/A
Designated Bridge    : N/A                    Designated Port Id: N/A
Fwd Transitions      : 0                    Bad BPDUs rcvd     : 0
Cfg BPDUs rcvd       : 0                    Cfg BPDUs tx        : 0
TCN BPDUs rcvd       : 0                    TCN BPDUs tx        : 0
TC bit BPDUs rcvd    : 0                    TC bit BPDUs tx     : 0
RST BPDUs rcvd       : 0                    RST BPDUs tx        : 0
-----
Number of SDPs : 1
-----
```

=====

\*A: Dut-C#

## ETH-CFM Show Commands

### eth-cfm

**Syntax** eth-cfm

**Context** show

**Description** This command enables the context to display eth-cfm information.

### eth-tunnel

**Syntax** eth-tunnel  
**eth-tunnel** {aps|status}  
**eth-tunnel** *tunnel-index* [*path path-index*] [*detail*]

**Context** show

**Description** This command displays ethernet tunnel information. Any data SAP missing a tag for a defined path has the EthTunTagMismatch flag generated. In the example provided below, SAP eth-tunnel-1:1 does not have the tag for path 2 configured. Therefore, it is operationally down with the reason indicated by the EthTunTagMismatch flag.

**Parameters** *tunnel-index* — Specifies the tunnel index.

**Values** 1..1024

*path-index* — Specifies the path index.

**Values** 1..16

**detail** — Keyword; displays detailed information

**status** — Keyword; displays ethernet tunnel status information.

**aps** — Keyword; displays APS ethernet tunnel information.

#### Sample Output

```
*A:Dut-C>show>service>id# show eth-tunnel status
=====
Ethernet Tunnel Groups (Status information)
=====
```

Tunnel ID	Admin State	Oper State	Member Information		State	MEP Information		
			Path	Tag		Ctrl-MEP	CC-Intvl	Defects
1	Up	Up	1 - 1/1/2	4030	Up	Yes	1	-----
			2 - 3/1/3	4031	Up	Yes	1	-----
2	Up	Up	1 - 3/1/1	100	Up	Yes	1	-----
			2 - 3/1/3	4032	Up	Yes	1	-----
65	Up	Up	3 - 2/1/4	65.4003	Up	-	-	-----



```

      8 - 1/1/3    65.4008  Up    -    -    -----
     16 - 2/1/3    65.4016  Up    -    -    -----
66      Up      Up      2 - 2/1/4    66.4002  Up    -    -    -----
      4 - 1/1/3    66.4004  Up    -    -    -----
67      Up      Up      2 - 3/1/3    672      Up    Yes    1    -----
      8 - 1/1/2    678      Up    Yes    1    -----
68      Up      Up      2 - 3/1/3    682      Up    -    -    -----
      3 - 3/1/1    683      Up    -    -    -----
1024    Up      Up      1 - 2/1/1    1024     Up    -    -    -----
      2 - 3/1/2    1024     Up    -    -    -----

```

=====  
Ethernet Tunnel MEP Defect Legend:

R = Rdi, M = MacStatus, C = RemoteCCM, E = ErrorCCM, X = XconCCM

\*A:TOP\_NODE# show eth-tunnel aps

=====  
Ethernet Tunnel APS Groups

```

=====
Tunnel Admin Oper Working Path Path Active Rx PDU
ID State State Protecting Path State Path Tx PDU
-----
1 Up Up 1 - 5/1/14 3070 Up Yes 0F000000 ( NR)
  2 - 2/1/9 3070 Up No 0F000000 ( NR)
2 Up Up 1 - 5/1/6 3071 Up Yes 0F000000 ( NR)
  2 - 2/1/13 3071 Up No 0F000000 ( NR)
3 Up Up 1 - 5/1/6 3072 Up Yes 0F000000 ( NR)
  2 - 2/1/13 3072 Up No 0F000000 ( NR)
4 Up Up 1 - 2/1/10 4.3073 Up Yes 0F000000 ( NR)
  2 - 2/1/4 4.3073 Up No 0F000000 ( NR)
5 Up Up 1 - 2/1/16 5.3074 Up Yes 0F000000 ( NR)

```

show service id 3131 sap eth-tunnel-1:1

Flags : EthTunTagMismatch

-----  
SAP eth-tunnel-1:1

```

-----
Service Id      : 3131
SAP             : eth-tunnel-1:1          Encap           : q-tag
Description     : (Not Specified)
Admin State     : Up                     Oper State       : Down
Flags           : EthTunTagMismatch
Multi Svc Site : None
Last Status Change : 01/13/2010 19:05:05
Last Mgmt Change  : 01/13/2010 17:01:33
Sub Type        : regular
Split Horizon Group: (Not Specified)

Admin MTU       : 2023                    Oper MTU         : 2023
Ingr IP Fltr-Id : n/a                     Egr IP Fltr-Id  : n/a
Ingr Mac Fltr-Id : n/a                    Egr Mac Fltr-Id : n/a
Ingr IPv6 Fltr-Id : n/a                  Egr IPv6 Fltr-Id : n/a
tod-suite       : None                     qinq-pbit-marking : both
Ing Agg Rate Limit : max                    Egr Agg Rate Limit: max
Endpoint        : N/A
Vlan-translation : None

```

## Show, Clear, Debug Commands

```
Acct. Pol          : None                Collect Stats      : Disabled
Application Profile: None
```

```
-----
Eth-Tunnel Data Information
-----
```

```
Path              : 2                    Tag               : 1
```

## association

**Syntax** **association** [*ma-index*] [*detail*]

**Context** show>eth-cfm

**Description** This command displays eth-cfm association information.

**Parameters** *ma-index* — Specifies the maintenance association (MA) index.

**Values** 1— 4294967295

**detail** — Displays detailed information for the eth-cfm association.

**Output** **Show eth-cfm Association Command Output** — The following table describes show eth-cfm association command output fields:

Label	Description
Md-index	Displays the the maintenance domain (MD) index.
Ma-index	Displays the the maintenance association (MA) index.
Name	Displays the part of the maintenance association identifier which is unique within the maintenance domain name.
CCM-interval	Displays the CCM transmission interval for all MEPs in the association.
Bridge-id	Displays the bridge-identifier value for the domain association.
MHF Creation	Displays the MIP half function (MHF) for the association.
Primary VLAN	Displays the primary bridge-identifier VLAN ID.
Num Vids	Displays the number of VIDs associated with the VLAN.
Remote Mep Id	Displays the remote maintenance association end point (MEP) identifier

### Sample Output

```
*A:node-1# show eth-cfm association
=====
eth-cfm CFM Association Table
=====
Md-index  Ma-index  Name                CCM-interval Bridge-id
```

```

-----
1          1          test-ma-1          10          2
1          2          2          10          20
=====
*A:node-1#

*A:node-1# show eth-cfm association 1 detail
-----
Domain 1 Associations:
-----
Md-index           : 1                Ma-index           : 1
Name Format         : charString       CCM-interval       : 10
Name               : test-ma-1
Bridge-id          : 2                MHF Creation       : defMHFnone
PrimaryVlan        : 0                Num Vids           : 0
Remote Mep Id      : 1
Remote Mep Id      : 4
Remote Mep Id      : 5
-----
*A:node-1#

```

## cfm-stack-table

**Syntax** **cfm-stack-table**  
**cfm-stack-table** **[{all-ports|all-sdps|all-virtuals}]** **[level 0..7]** **[direction up|down]**  
**cfm-stack-table port** **port-id** **[vlan qtag[.qtag]]** **[level 0..7]** **[direction up|down]**  
**cfm-stack-table sdp** **sdp-id[:vc-id]** **[level 0..7]** **[direction up|down]**  
**cfm-stack-table virtual** **service-id** **[level 0..7]**  
**cfm-stack-table facility** **[{all-ports|all-lags|all-lag-ports|all-tunnel-meps|all-router-interfaces}]**  
**[level 0..7]** **[direction up|down]**  
**cfm-stack-table facility lag** **id** **[tunnel 1..4094]** **[level 0..7]** **[direction up|down]**  
**cfm-stack-table facility port** **id** **[level 0..7]** **[direction up|down]**  
**cfm-stack-table facility router-interface** **ip-int-name** **[level 0..7]** **[direction up|down]**

**Context** show>eth-cfm

**Description** This command displays stack-table information. This stack-table is used to display the various management points MEPs and MIPs that are configured on the system. These can be Service based or facility based. The various option allow the operator to be specific. If no parameters are include then the entire stack-table will be displayed.

**Parameters** **port** *port-id* — Displays the bridge port or aggregated port on which MEPs or MHFs are configured.

**vlan** *vlan-id* — Displays the associated VLAN ID.

**sdp** *sdp-id[:vc-id]* — Displays the SDP binding for the bridge.

**level** — Display the MD level of the maintenance point.

**Values** 0 — 7

**direction up | down** — Displays the direction in which the MP faces on the bridge port.

**facility** — Displays the CFM stack table information for facility MEPs. The base command will display all

## Show, Clear, Debug Commands

the facility MEPs. Options may be included in order to further parse the table for specific facility MEP information.

**virtual *service-id*** — Displays CFM stack table information for the specified SDP.

**Output** **Show eth-cfm CFM Stack Table Command Output** — The following table describes show eth-cfm CFM stack table command output fields:

Label	Description
Sap	Displays associated SAP IDs.
Sdp	Displays the SDP binding for the bridge.
Level Dir	Displays the MD level of the maintenance point.
Md-index	Displays the the maintenance domain (MD) index.
Ma-index	Displays the the maintenance association (MA) index.
Mep-id	Displays the integer that is unique among all the MEPs in the same MA.
Mac-address	Displays the MAC address of the MP.

### Sample Output

```
# show eth-cfm cfm-stack-table
=====
CFM Stack Table Defect Legend:
R = Rdi, M = MacStatus, C = RemoteCCM, E = ErrorCCM, X = XconCCM, A = AisRx

=====
CFM SAP Stack Table
=====
Sap                Lvl Dir  Md-index  Ma-index  MepId  Mac-address  Defect
-----
lag-1:100.100      3 Down   3         1 101 d0:0d:1e:00:01:01 -----
=====

CFM Ethernet Tunnel Stack Table
=====
Eth-tunnel         Lvl Dir  Md-index  Ma-index  MepId  Mac-address  Defect
-----
No Matching Entries
=====

CFM Ethernet Ring Stack Table
=====
Eth-ring           Lvl Dir  Md-index  Ma-index  MepId  Mac-address  Defect
-----
No Matching Entries
=====
```

```

=====
CFM Facility Port Stack Table
=====
Port      Tunnel    Lvl Dir  Md-index  Ma-index  MepId  Mac-address  Defect
-----
1/1/10    0          0 Down    10         1         6 90:f4:01:01:00:0a  --C---
=====

=====
CFM Facility LAG Stack Table
=====
Lag       Tunnel    Lvl Dir  Md-index  Ma-index  MepId  Mac-address  Defect
-----
No Matching Entries
=====

=====
CFM Facility Interface Stack Table
=====
Interface          Lvl Dir  Md-index  Ma-index  MepId  Mac-address  Defect
-----
No Matching Entries
=====

=====
CFM SDP Stack Table
=====
Sdp              Lvl Dir  Md-index  Ma-index  MepId  Mac-address  Defect
-----
No Matching Entries
=====

=====
CFM Virtual Stack Table
=====
Service          Lvl Dir  Md-index  Ma-index  MepId  Mac-address  Defect
-----
No Matching Entries
=====

```

## domain

**Syntax** `domain [md-index] [association ma-index | all-associations] [detail]`

**Context** `show>eth-cfm`

**Description** This command displays domain information.

**Parameters**

- md-index* — Displays the index of the MD to which the MP is associated, or 0, if none.
- association** *ma-index* — Displays the index to which the MP is associated, or 0, if none.
- all-associations** — Displays all associations to the MD.
- detail** — Displays detailed domain information.

**Output** **Show eth-cfm Domain Command Output** — The following table describes show eth-cfm domain command output fields:

Label	Description
Md-index	Displays the Maintenance Domain (MD) index value.
Level	Displays an integer identifying the Maintenance Domain Level (MD Level). Higher numbers correspond to higher Maintenance Domains, those with the greatest physical reach, with the highest values for customers' CFM PDUs. Lower numbers correspond to lower Maintenance Domains, those with more limited physical reach, with the lowest values for CFM PDUs protecting single bridges or physical links.
Name	Displays a generic Maintenance Domain (MD) name.
Format	Displays the type of the Maintenance Domain (MD) name. Values include <b>dns</b> , <b>mac</b> , and <i>string</i> .

**Sample Output**

```
*A:node-1# show eth-cfm domain
=====
eth-cfm CFM Domain Table
=====
Md-index   Level Name                                     Format
-----
1          4    test-1                                       charString
7          4    AA:BB:CC:DD:EE:FF-0                         macAddressAndUint
=====
*A:node-1#

*A:node-1# show eth-cfm domain 1 detail
=====
Domain 1
Md-index      : 1                               Level           : 4
Permission    : sendIdNone                       MHF Creation    : defMHFnone
Name Format    : charString                         Next Ma Index   : 3
Name          : test-1
=====
*A:node-1#
```

## mep

**Syntax** **mep** *mep-id* **domain** *md-index* **association** *ma-index* [**loopback**] [**linktrace**]  
**mep** *mep-id* **domain** *md-index* **association** *ma-index* **remote-mepid** *mep-id* | **all-remote-mepids**  
**mep** *mep-id* **domain** *md-index* **association** *ma-index* **eth-test-results** [**remote-peer** *mac-address*]  
**mep** *mep-id* **domain** *md-index* **association** *ma-index* **one-way-delay-test** [**remote-peer** *mac-address*]  
**mep** *mep-id* **domain** *md-index* **association** *ma-index* **two-way-delay-test** [**remote-peer** *mac-address*]  
**mep** *mep-id* **domain** *md-index* **association** *ma-index* **two-way-slm-test** [**remote-peer** *mac-address*]

**Context** show>eth-cfm

**Description** This command displays Maintenance Endpoint (MEP) information.

**Parameters** *mep-id* — Displays the integer that is unique among all the MEPs in the same MA.  
**domain** *md-index* — Displays the index of the MD to which the MP is associated, or 0, if none.  
**association** *ma-index* — Displays the index to which the MP is associated, or 0, if none.  
**loopback** — Displays loopback information for the specified MEP.  
**linktrace** — Displays linktrace information for the specified MEP.  
**remote-mepid** *mep-id* — Includes specified remote mep-id information for specified the MEP.  
**all-remote-mepids** — Includes all remote mep-id information for the specified MEP.  
**eth-test-results** — Includes eth-test-result information for the specified MEP.  
**one-way-delay-test** — Includes one-way-delay-test information for the specified MEP.  
**two-way-delay-test** — Includes two-way-delay-test information for the specified MEP.  
**two-way-slm-test** — Includes two-way-slm-test information for the specified MEP.  
**remote-peer** *mac-address* — Includes specified remote mep-id information for the specified MEP.

**Sample Output**

```
# show eth-cfm mep 101 domain 3 association 1
=====
Eth-Cfm MEP Configuration Information
=====
Md-index           : 3                Direction         : Down
Ma-index           : 1                Admin             : Enabled
MepId              : 101             CCM-Enable       : Enabled
IfIndex            : 1342177281        PrimaryVid       : 6553700
Description        : (Not Specified)
FngState           : fngReset          ControlMep       : False
LowestDefectPri    : macRemErrXcon        HighestDefect    : none
Defect Flags       : None
Mac Address        : d0:0d:1e:00:01:01    ControlMep      : False
```

## Show, Clear, Debug Commands

```

CcmLtmPriority      : 7
CcmTx              : 19886
Fault Propagation  : disabled
MA-CcmInterval     : 1
Eth-1Dm Threshold : 3(sec)
Eth-Ais:           : Enabled
Eth-Ais Tx Priorit*: 7
Eth-Ais Tx Interva*: 1
Eth-Ais Tx Levels  : 5
Eth-Tst:           : Disabled
CcmSequenceErr     : 0
FacilityFault      : n/a
MA-CcmHoldTime     : 0ms
MD-Level           : 3
Eth-Ais Rx Ais:    : No
Eth-Ais Rx Interv*: 1
Eth-Ais Tx Counte*: 388

```

```

Redundancy:
  MC-LAG State   : active

```

```

CcmLastFailure Frame:
  None

```

```

XconCcmFailure Frame:
  None

```

```

=====
show eth-cfm mep 607 domain 6 association 607
=====

```

### Eth-Cfm MEP Configuration Information

```

=====
Md-index           : 6
Ma-index           : 607
MepId              : 607
IfIndex            : 1342177283
Description        : (Not Specified)
FngState           : fngReset
LowestDefectPri    : macRemErrXcon
Defect Flags       : None
Mac Address        : 8c:d3:ff:00:01:43
CcmLtmPriority     : 7
CcmTx              : 78122
Fault Propagation  : useIfStatusTLV
MA-CcmInterval     : 1
Eth-1Dm Threshold : 3(sec)
Eth-Ais:           : Disabled
Eth-Tst:           : Disabled
Direction          : Down
Admin              : Enabled
CCM-Enable         : Enabled
PrimaryVid         : 268369927
ControlMep         : False
HighestDefect      : none
ControlMep         : False
CcmSequenceErr    : 0
FacilityFault      : n/a
MA-CcmHoldTime    : 0ms
MD-Level           : 6

```

```

Redundancy:
  MC-LAG State   : n/a

```

```

CcmLastFailure Frame:
  None

```

```

XconCcmFailure Frame:
  None

```

```

=====
show eth-cfm association
=====

```

### CFM Association Table

```

=====
Md-index  Ma-index  Name                               CCM-intrvl Hold-time Bridge-id
-----
2         106       MA-0000000106                    1          n/a       none
2         207       MA-0000000207                    1          n/a       none

```



```

2          308          MA-0000000308          1          n/a          none
3          1          ma-0000000001          1          n/a          none
3          2          ma-0000000002          1          n/a          none
3          3          ma-0000000003          1          n/a          none
3          4          ma-0000000004          1          n/a          none
3          5          ma-0000000005          1          n/a          none
5          555         MA-0000000555          10         n/a          47
6          607         MA-0000000607          1          n/a          207
7          707         MA-0000000707          1          n/a          207
=====

```

```

*A:sr7_A# show eth-cfm mep 1 domain 103 association 99 all-remote-mepids
=====
Eth-CFM Remote-Mep Table
=====
R-mepId Rx CC  Rx Rdi Port-Tlv If-Tlv peer Mac Addr      CCM status since
-----
2      True  False Up      Up      8a:d9:ff:00:00:00 02/17/2009 16:27:48
3      True  False Up      Up      8a:da:01:01:00:02 02/17/2009 16:27:48
=====
*A:sr7_A#

```

```

*A:sr7_A# show eth-cfm mep 1 domain 103 association 99 remote-mepid 3
=====
Eth-CFM Remote-Mep Table
=====
R-mepId Rx CC  Rx Rdi Port-Tlv If-Tlv peer Mac Addr      CCM status since
-----
3      True  False Up      Up      8a:da:01:01:00:02 02/17/2009 16:27:48
=====
*A:sr7_A#

```

```

*A:7710_C# show eth-cfm mep 1 domain 103 association 99 eth-test-results
=====
Eth CFM ETH-Test Result Table
=====
Peer Mac Addr      FrameCount      Current      Accumulate
                   ByteCount       ErrBits     ErrBits
                   CrcErrs        CrcErrs
-----
22:34:56:78:9a:bc 1                0            0
                   100             0            0
32:34:56:78:9a:bc 1                0            0
                   100             0            0
42:34:56:78:9a:bc 1                0            0
                   100             0            0
52:34:56:78:9a:bc 1                0            0
                   100             0            0
62:34:56:78:9a:bc 1                0            0
                   100             0            0
72:34:56:78:9a:bc 1                0            0
                   100             0            0
82:34:56:78:9a:bc 1                0            0
                   100             0            0
92:34:56:78:9a:bc 1                0            0
                   100             0            0

```

## Show, Clear, Debug Commands

```
c2:34:56:78:9a:bc 1          0          0
                   100         0          0
d2:34:56:78:9a:bc 1          0          0
                   100         0          0
=====
*A:7710_C#

*A:7710_C# show eth-cfm mep 1 domain 103 association 99 eth-test-results remote-peer
22:34:56:78:9a:bc
=====
Eth CFM ETH-Test Result Table
=====
Peer Mac Addr      FrameCount      Current          Accumulate
                   ByteCount       ErrBits         ErrBits
                   ByteCount       CrcErrs        CrcErrs
-----
22:34:56:78:9a:bc 1          0          0
                   100         0          0
=====
*A:7710_C#

*A:7710_C# show eth-cfm mep 1 domain 103 association 99 one-way-delay-test
=====
Eth CFM One-way Delay Test Result Table
=====
Peer Mac Addr      Delay (us)      Delay Variation (us)
-----
8a:d8:01:01:00:01  759606         2840
aa:bb:cc:dd:ee:ff  760256         760256
=====
*A:7710_C#

*A:7710_C# show eth-cfm mep 1 domain 103 association 99 one-way-delay-test remote-peer
8a:d8:01:01:00:01
=====
Eth CFM One-way Delay Test Result Table
=====
Peer Mac Addr      Delay (us)      Delay Variation (us)
-----
8a:d8:01:01:00:01  759606         2840
=====
*A:7710_C#

*A:sim_B# show eth-cfm mep 2 domain 103 association 99 two-way-delay-test
=====
Eth CFM Two-way Delay Test Result Table
=====
Peer Mac Addr      Delay (us)      Delay Variation (us)
-----
00:16:4d:54:49:db  10190          13710
=====
*A:sim_B#

*A:sim_B# show eth-cfm mep 2 domain 103 association 99 two-way-delay-test remote-peer
```

```

00:16:4D:54:49:DB
=====
Eth CFM Two-way Delay Test Result Table
=====
Peer Mac Addr          Delay (us)          Delay Variation (us)
-----
00:16:4d:54:49:db     10190              13710
=====
*A:sim_B#

```

## mip

**Syntax** **mip**

**Context** show>eth-cfm

**Description** This command displays SAPs/bindings provisioned for allowing the default MIP creation.

## sdp

**Syntax** **sdp** [*sdp-id* | **far-end** *ip-address*] [**detail** | **keep-alive-history**]

**Context** show>service

**Description** This command displays SDP information.

**Parameters** *sdp-id* — Specifies the SDP ID.

**Values** 1..17407

*ip-address* — Specifies the IP address (a.b.c.d).

**detail** — Adds details to the display

**keep-alive-history** — Displays the keep-alive-history

### Sample Output

```

*A:Dut-A# show service sdp 1 detail
=====
Service Destination Point (Sdp Id : 1) Details
-----
Sdp Id 1  -(10.20.1.3)
-----
Description          : epipe sdp 1 for lspId 00:00:00:01:00:00:00:00
SDP Id               : 1                      SDP Source          : manual
Admin Path MTU      : 0                      Oper Path MTU       : 1492
Far End             : 10.20.1.3              Delivery            : MPLS
Admin State         : Up                     Oper State          : Up
Signaling           : TLDP                   Metric              : 0
Acct. Pol           : None                   Collect Stats       : Disabled
Last Status Change  : 12/08/2008 22:54:30   Adv. MTU Over.     : No

```

## Show, Clear, Debug Commands

```
Last Mgmt Change      : 12/08/2008 22:54:01   VLAN VC Etype       : 0x8100
Bw BookingFactor      : 100                   PBB Etype           : 0x88e7
Oper Max BW(Kbps)     : 1000                  Avail BW(Kbps)      : 1000
Flags                  : None

KeepAlive Information :
Admin State           : Disabled                Oper State          : Disabled
Hello Time            : 10                      Hello Msg Len       : 0
Hello Timeout         : 5                       Unmatched Replies   : 0
Max Drop Count        : 3                       Hold Down Time      : 10
Tx Hello Msgs         : 0                       Rx Hello Msgs       : 0

Associated LSP LIST :
Lsp Name              : tofl
Admin State            : Up                      Oper State          : Up
Time Since Last Tran* : 00h04m01s

-----
Class-based forwarding :
-----
Class forwarding      : disabled                EnforceDSTELspFc   : disabled
Default LSP          : Uknwn                    Multicast LSP       : None
=====
FC Mapping Table
=====
FC Name              LSP Name
-----
No FC Mappings
=====
* indicates that the corresponding row element may have been truncated.
```

## system-config

**Syntax** system-config

**Context** show>eth-cfm

**Description** This command shows various system level configuration parameters. These global eth-cfm commands are those which are configured directly under the config>eth-cfm context.

### Sample Output

```
# show eth-cfm system-config
=====
CFM System Configuration
=====
Redundancy
  MC-LAG Standby MEP Shutdown: true
  MC-LAG Hold-Timer           : 1 second(s)

Synthetic Loss Measurement
  Inactivity Timer           : 100 second(s)
=====
```