Show, Clear, Debug, Commands

In This Chapter

This section provides show command descriptions and output.

Note: For VLL and VPLS show, clear, and debug commands, refer to the *Layer 2 Services Guide*. For IES and VPRN show, clear, and debug commands, refer to the *Layer 3 Services Guide*. For PBB show, clear, and debug commands, refer to the *IEEE 802.1ah PBB Guide*.

Services Show Commands

Service Commands

bgp-auto-rd

Syntax **bgp-auto-rd**

Context show>service>system

Description This command displays service customer information.

Sample Output

```
*A:Dut#show service system bgp-auto-rd

===============================================================================
Service BGP Auto Route Distinguisher Information
===============================================================================
IP address         : 192.0.2.69
Comm Val Start     : 1200                         End           : 1300
In Use             : 1
===============================================================================
```

bgp-route-distinguisher

Syntax **bgp-route-distinguisher** [vprn] [vpls] [epipe]

Context show>service>system

Description This command displays the bgp operational route-distinguishers used by all the bgp-enabled services in the system and if a given route-distinguisher. The information can be filtered by service: vprn, vpls or epipe.

Sample Output

```
*A:Dut# show service system bgp-route-distinguisher
===============================================================================
Service Route Distinguishers
===============================================================================
Svc Id     Type  Oper Route-Distinguisher         Route-Distinguisher
-------------------------------------------------------------------------------
20         vprn  192.0.2.69:20                    configured
10         vprn  192.0.2.69:10                    configured
1200       vpls  192.0.2.69:1200                  auto
-------------------------------------------------------------------------------
Number of RD Entries: 3
===============================================================================
```

```
*A:Dut# show service system bgp-route-distinguisher vpls
===============================================================================
Service Route Distinguishers
===============================================================================
Svc Id     Type  Oper Route-Distinguisher         Route-Distinguisher
-------------------------------------------------------------------------------
1200       vpls  192.0.2.69:1200                 auto
-------------------------------------------------------------------------------
Number of RD Entries: 1
===============================================================================
```

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.

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
===============================================================================
*A:ALA-48#


*A:ALA-48# show service fdb-mac expiry
===============================================================================
Service Forwarding Database
===============================================================================
ServId    MAC               Source-Identifier     Type/     Last Change
                                                  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** [*ISID*]

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 — 16777215

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#
```

l2-route-table

Syntax **l2-route-table** [**detail**] [**bgp-ad**] [**multi-homing**] [**bgp-vpls**] [**bgp-vpws**] [**all-routes**]
l2-route-table [**msap**]
l2-route-table [**sap** *sap-id*] [**vlan-transaction | anti-spoof**]

l2-route-table app-profile *app-profile name*
l2-route-table authentication-policy *policy-name* [**msap**]
l2-route-table encap-type *encap-type*
l2-route-table eth-tunnel [**tunnel-id** *eth-tunnel-id*]
l2-route-table *ingress*|*egress* **atm-td-profile** *td-profile-id*
l2-route-table *ingress*|*egress* **filter** *filter-id*
l2-route-table *ingress*|*egress* **qos-polify** *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**] [**dyn-script**] [**description**]
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-cfm collect-lmm-stats [**sap** *sap-id*]
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># 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
                                                     2    3/1/3           7
eth-tunnel-65:4094                        4094       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> 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 because it has no dash present in the port or tag location.

The ‘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 g8031-1to1 mode)

```
show service sap-using eth-cfm squelch-ingress-levels [sap sap-id]
<sap-id>                    : null             - <port-id|lag-id>
                              dot1q            - <port-id|lag-id>:qtag1
                              qinq             - <port-id|lag-id>:qtag1.qtag2
                              port-id          - slot/mda/port
                              eth-tunnel       - eth-tunnel-<id>[:<eth-tun-sap-id>]
                               id              - [1..1024]
                               eth-tun-sap-id  - [0..4094]
                              lag-id           - lag-<id>
                               lag             - keyword
                               id              - [1..800]
                              qtag1            - [0..4094
                              qtag2            - [*|0..4094]

show service sap-using squelch-ingress-levels
===============================================================================
ETH-CFM Squelching
===============================================================================
SapId              SvcId      Squelch Level
-------------------------------------------------------------------------------
6/1/1:100.*        1          0 1 2 3 4 5 6 7
lag-1:100.*        1          0 1 2 3 4
6/1/1:200.*        2          0 1 2
lag-1:200.*        2          0 1 2 3 4 5
-------------------------------------------------------------------------------
Number of SAPs: 4
```

```
-------------------------------------------------------------------------------
===============================================================================

show service sdp-using eth-cfm squelch-ingress-levels [<sdp-id[:vc-id]>]
   <sdp-id[:vc-id]>     : sdp-id - [1..17407]
                          vc-id  - [1..4294967295]

show service sdp-using squelch-ingress-levels
===============================================================================
ETH-CFM Squelching
===============================================================================
SdpId              SvcId        Type Far End                 Squelch Level
-------------------------------------------------------------------------------
12345:4000000000   2147483650   Spok 1.1.1.1               0 1 2 3 4 5 6 7
===============================================================================

show service sap-using eth-cfm collect-lmm-stats
=========================================================
ETH-CFM SAPs Configured to Collect LMM Statistics
=========================================================
SapId                                       SvcId
---------------------------------------------------------
1/1/10:1000.*                               1000
---------------------------------------------------------
No. of SAPs: 1
=========================================================
```

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
===============================================================================
```

```
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
```

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

pw-sap-using

Syntax **pw-sap-using**

Context show>service

Sample Output

```
===============================================================================
Service Access Points
===============================================================================
PortId                          SvcId      Ing.  Ing.    Egr.  Egr.   Adm  Opr
                                           QoS   Fltr    QoS   Fltr
-------------------------------------------------------------------------------
pw-1:0                          1          1     none    1     none   Up   Up
pw-1:1                          1          1     none    1     none   Up   Up
pw-2:2.1                        2          1     none    1     none   Up   Up
pw-2:0.*                        2          1     none    1     none   Up   Up
pw-2:1.*                        2          1     none    1     none   Up   Up
pw-3:3                          3          1     none    1     none   Up   Up
pw-4:4.*                        4          1     none    1     none   Up   Up
-------------------------------------------------------------------------------
Number of SAPs : 7
-------------------------------------------------------------------------------
===============================================================================
```

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 SAII.

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.

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.

Label	Description (Continued)
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.
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.

Label	Description (Continued)
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, 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.
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 specfied as **vlan** 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.

Label	Description (Continued)
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.
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
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.      : 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 :
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:Dut-B# show service sdp

===============================================================================
Services: Service Destination Points
===============================================================================
SdpId  AdmMTU  OprMTU  Far End          Adm  Opr          Del     LSP   Sig
-------------------------------------------------------------------------------
230    0       1582    10.20.1.3        Up   Up           MPLS    I     TLDP
-------------------------------------------------------------------------------
Number of SDPs : 1
-------------------------------------------------------------------------------
Legend: R = RSVP, L = LDP, B = BGP, M = MPLS-TP, n/a = Not Applicable
===============================================================================
*A:Dut-B#
*A:Dut-B# show service sdp detail

===============================================================================
Services: Service Destination Points Details
===============================================================================
-------------------------------------------------------------------------------
 Sdp Id 230  -10.20.1.3
-------------------------------------------------------------------------------
Description           : (Not Specified)
SDP Id                : 230                   SDP Source         : manual
Admin Path MTU        : 0                     Oper Path MTU      : 1582
Delivery              : MPLS
Far End               : 10.20.1.3
Tunnel Far End        : n/a                   LSP Types          : SR-ISIS

Admin State           : Up                    Oper State         : Up
Signaling             : TLDP                  Metric             : 0
Acct. Pol             : None                  Collect Stats      : Disabled
Last Status Change    : 01/28/2015 22:00:07   Adv. MTU Over.     : No
Last Mgmt Change      : 01/28/2015 21:59:53   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    : SR-ISIS

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

Src B-MAC LSB         : <none>                Ctrl PW VC ID      : <none>
Ctrl PW Active        : n/a
```

```
-------------------------------------------------------------------------------
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

-------------------------------------------------------------------------------
Segment Routing
-------------------------------------------------------------------------------
ISIS                 : enabled               LSP Id             : 524289
Oper Instance Id     : 0
-------------------------------------------------------------------------------
Number of SDPs : 1
-------------------------------------------------------------------------------
===============================================================================
*A:Dut-B#


*A:Dut-B> show service sdp

===============================================================================
Services: Service Destination Points
===============================================================================
SdpId  AdmMTU  OprMTU  Far End          Adm  Opr          Del     LSP   Sig
-------------------------------------------------------------------------------
230    0       1582    10.20.1.3        Up   Up           MPLS    O     TLDP
-------------------------------------------------------------------------------
Number of SDPs : 1
-------------------------------------------------------------------------------
Legend: R = RSVP, L = LDP, B = BGP, M = MPLS-TP, n/a = Not Applicable
        I = SR-ISIS, O = SR-OSPF
===============================================================================
*A:Dut-B> show service sdp 230 detail

===============================================================================
Service Destination Point (Sdp Id : 230) Details
===============================================================================
-------------------------------------------------------------------------------
 Sdp Id 230  -10.20.1.3
-------------------------------------------------------------------------------
Description           : (Not Specified)
SDP Id               : 230                   SDP Source         : manual
Admin Path MTU       : 0                     Oper Path MTU      : 1582
Delivery             : MPLS
Far End              : 10.20.1.3
```

```
Tunnel Far End       : n/a                    LSP Types          : SR-OSPF

Admin State          : Up                     Oper State         : Up
Signaling            : TLDP                   Metric             : 0
Acct. Pol            : None                   Collect Stats      : Disabled
Last Status Change   : 05/27/2015 03:08:37    Adv. MTU Over.     : No
Last Mgmt Change     : 05/27/2015 03:05:36    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    : SR-OSPF

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

Src B-MAC LSB        : <none>                 Ctrl PW VC ID      : <none>
Ctrl PW Active       : n/a

-------------------------------------------------------------------------------
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

-------------------------------------------------------------------------------
Segment Routing
-------------------------------------------------------------------------------
OSPF                 : enabled                LSP Id             : 524289
Oper Instance Id     : 0
===============================================================================
*A:Dut-B>config>service>sdp#
```

```
*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              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-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
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> 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
===============================================================================
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> #
```

The following show output gives the source-bmac-lsb and control PW used for a given SDP.

```
A:bksim1613# show service sdp 1 detail

===============================================================================
Service Destination Point (Sdp Id : 1) Details
===============================================================================
-------------------------------------------------------------------------------
Sdp Id 1  -2.2.2.2
-------------------------------------------------------------------------------
Description           : (Not Specified)
SDP Id               : 1                    SDP Source         : manual
Admin Path MTU       : 0                    Oper Path MTU      : 1556
Delivery             : MPLS
Far End              : 2.2.2.2
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   : 08/12/2013 06:33:57  Adv. MTU Over.     : No
Last Mgmt Change     : 08/12/2013 06:32:47  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 :
Admin State          : Disabled              Oper State          : Disabled
Hello Time           : 10                    Hello Msg Len       : 0
Hello Timeout        : 3                     Unmatched Replies   : 0
Max Drop Count       : 3                     Hold Down Time      : 10
Tx Hello Msgs        : 0                     Rx Hello Msgs       : 0
Src B-MAC LSB        : 00-13                 Ctrl PW VC ID       : 550
```

The following show output indicates whether use-sdp-bmac is applied to a given PW.

```
A:bksim1613# show service id 550 sdp 1:550 detail

===============================================================================
Service Destination Point (Sdp Id : 1:550) Details
===============================================================================
-------------------------------------------------------------------------------
Sdp Id 1:550  -(2.2.2.2)
-------------------------------------------------------------------------------
Description     : (Not Specified)
SDP Id            : 1:550                   Type              : Spoke
Spoke Descr     : (Not Specified)
VC Type           : Ether                   VC Tag            : n/a
Admin Path MTU    : 0                       Oper Path MTU     : 1556
Delivery          : MPLS
Far End           : 2.2.2.2
Tunnel Far End    : n/a                     LSP Types         : RSVP
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     : 131048                  Egress Label      : 131063
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
Admin BW(Kbps)    : 0                       Oper BW(Kbps)     : 0
Last Status Change: 08/12/2013 06:33:57     Signaling         : TLDP
Last Mgmt Change  : 08/12/2013 06:32:47     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 : lspPing
Peer Vccv CC Bits : mplsRouterAlertLabel

Application Profile: None
Transit Policy    : None
Standby Sig Slave : False
Block On Peer Fault: False
Use sdp B-MAC     : True

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)

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.      : 0                       E. Fwd. Octets    : 0

-------------------------------------------------------------------------------
Control Channel Status
-------------------------------------------------------------------------------
PW Status          : disabled                Refresh Timer     : <none>
Peer Status Expire : false
Request Timer      : <none>
Acknowledgement    : false

-------------------------------------------------------------------------------
RSVP/Static LSPs
-------------------------------------------------------------------------------
Associated LSP List :
Lsp Name           : to-bksim1611-1
Admin State        : Up                      Oper State        : Up
Time Since Last Tr*: 05h44m54s

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

===============================================================================
FC Mapping Table
===============================================================================
FC Name             LSP Name
-------------------------------------------------------------------------------
No FC Mappings

-------------------------------------------------------------------------------
Number of SDPs : 1
-------------------------------------------------------------------------------
===============================================================================
```

* indicates that the corresponding row element may have been truncated.

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*]
sdp-using *sdp-id*[:*vc-id*] **eth-cfm collect-lmm-stats**

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

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

Default Services with any far-end IP address.

eth-cfm collect-lmm-stats — Displays the LMM statistics for the specified MPLS SDP binding

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.

Label	Description (Continued)
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#

show service sap-using eth-cfm squelch-ingress-levels [sap <sap-id>]

<sap-id>                    : null             - <port-id|lag-id>
                              dot1q            - <port-id|lag-id>:qtag1
                              qinq             - <port-id|lag-id>:qtag1.qtag2
                              port-id          - slot/mda/port
                              eth-tunnel       - eth-tunnel-<id>[:<eth-tun-sap-id>]
                               id              - [1..1024]
                               eth-tun-sap-id  - [0..4094]
                              lag-id           - lag-<id>
                               lag             - keyword
                               id              - [1..800]
                              qtag1            - [0..4094
                              qtag2            - [*|0..4094]


show service sap-using squelch-ingress-levels
===============================================================================
ETH-CFM Squelching
===============================================================================
SapId              SvcId      Squelch Level
-------------------------------------------------------------------------------
6/1/1:100.*        1          0 1 2 3 4 5 6 7
lag-1:100.*        1          0 1 2 3 4
6/1/1:200.*        2          0 1 2
lag-1:200.*        2          0 1 2 3 4 5
-------------------------------------------------------------------------------
Number of SAPs: 4
-------------------------------------------------------------------------------
===============================================================================

show service sdp-using eth-cfm squelch-ingress-levels [<sdp-id[:vc-id]>]
   <sdp-id[:vc-id]>     : sdp-id - [1..17407]
                          vc-id  - [1..4294967295]

show service sdp-using squelch-ingress-levels
===============================================================================
ETH-CFM Squelching
===============================================================================
SdpId              SvcId        Type Far End                 Squelch Level
-------------------------------------------------------------------------------
12345:4000000000   2147483650   Spok 1.1.1.1               0 1 2 3 4 5 6 7
```

```
===============================================================================

show service sdp-using eth-cfm collect-lmm-stats
===============================================================================
ETH-CFM SDPs Configured to Collect LMM Statistics
===============================================================================
SdpId               SvcId       Type    Far End
-------------------------------------------------------------------------------
1:1000              1000        spoke   1.1.1.31
-------------------------------------------------------------------------------
No. of SDPs: 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.

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

Description Displays switch-point information using TAII.

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 taii-type2-using 6:10.20.1.6:1
===============================================================================
Service Switch-Point Information
===============================================================================
SvcId      Oper-SdpBind      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                Customer         : 10
MAC Aging           : enabled             MAC Learning     : enabled
```

```
Discard Unkn Dest    : disabled            Temp Flood Time  : Disabled
Per Svc Hashing      : disabled

FDB
Local Age Time       : 300 secs            Remote Age Time  : 900 secs
High Watermark       : 95%                 Low Watermark    : 90%
Table Size           : 250

STP
Admin State          : disabled            Priority         : 32768
Bridge Max Age       : 20 secs             Bridge Hello Time: 2 secs
Bridge Fwd Delay     : 15 secs             Mode             : rstp
Hold Cnt             : 6

MAC Move
Rate                 : 2/sec               Retry Timeout    : 10 secs
Admin State          : disabled            Num Retries      : 3
Pri-Ports Cumu Factor: 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.

Output Sample Output

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

===============================================================================
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

CPM Prot Plcy        : def                  CPM Monitor MAC  : disabled
Coll Acctg Stats     : disabled

ETH-CFM MIP          : disabled
ETH-CFM Squelch Level: 0 1 2 3 4 5
===============================================================================
```

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
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
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 Ctrld 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 Ctrld 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      :
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
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#
```

bgp

Syntax **bgp**

Context show>service>id

Description This command displays the bgp information for a given service. The command is available for vpls and epipe services.

Output **Sample Output**

The following command corresponds to a VPLS service:

```
*A:Dut# show service id 1200 bgp
===============================================================================
BGP Information
===============================================================================
Vsi-Import           : None
Vsi-Export           : None
Route Dist           : auto-rd
Oper Route Dist      : 192.0.2.69:1200
Oper RD Type         : auto
Rte-Target Import    : 65000:1200         Rte-Target Export: 65000:1200
Oper RT Imp Origin   : configured         Oper RT Import   : 65000:1200
Oper RT Exp Origin   : configured         Oper RT Export   : 65000:1200
PW-Template Id       : None
-------------------------------------------------------------------------------
===============================================================================
```

The following command corresponds to an epipe service:

```
*A:Dut# show service id 4096 bgp
===============================================================================
BGP Information
===============================================================================
Route Dist           : auto-rd
Oper Route Dist      : 192.0.2.69:1201
Oper RD Type         : auto
Rte-Target Import    : 65000:4096         Rte-Target Export: 65000:4096
PW-Template Id       : None
-------------------------------------------------------------------------------
===============================================================================
```

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

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
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   :

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 Admin  Oper       Member Information             MEP Information
ID     State  State  Path          Tag       State  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
```

```
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 collect-lmm-stats
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 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 **dns**, **mac**, and *string*.

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
```

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

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

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
===============================================================
                                  Current        Accumulate
                   FrameCount     ErrBits        ErrBits
Peer Mac Addr      ByteCount      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
```

```
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
===============================================================
                                 Current        Accumulate
                  FrameCount     ErrBits        ErrBits
Peer Mac Addr     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#

domain 14 format none level 4
            association 1 format icc-based name "test000000001"
                bridge-identifier 3
                exit
                auto-mep-discovery
                ccm-interval 1
                remote-mepid 409
            exit
        exit

show eth-cfm mep 28 domain 14 association 2 all-remote-mepids

===============================================================================
Eth-CFM Remote-Mep Table
===============================================================================
R-mepId AD Rx CC RxRdi Port-Tlv If-Tlv Peer Mac Addr     CCM status since
-------------------------------------------------------------------------------
30      T  True  False Up       Up     00:00:00:00:00:30 02/03/2014 21:05:01
32         True  False Up       Up     00:00:00:00:00:32 02/03/2014 21:04:32
===============================================================================
Entries marked with a 'T' under the 'AD' column have been auto-discovered.


show eth-cfm domain 14 association 2 detail
===============================================================================
Domain 14
Md-index          : 14                        Level             : 4
                                              MHF Creation      : defMHFnone
Name Format       : none                      Next Ma Index     : 1
Name              : (Not Specified)
Creation Origin   : manual
-------------------------------------------------------------------------------
Domain 14 Associations:

Md-index          : 14                        Ma-index          : 2
Name Format       : icc-based                 CCM-interval      : 1
Auto Discover     : True                      CCM-hold-time     : n/a
Name              : epipe00000005
Permission        : sendIdNone
Bridge-id         : 5                         MHF Creation      : defMHFnone
PrimaryVlan       : 0                         Num Vids          : 0
MIP LTR Priority  : 7
Total MEP Count   : 3
Remote Mep Id     : 30   (AutoDiscovered)    Remote MAC Addr   : default
Remote Mep Id     : 32                        Remote MAC Addr   : default

===============================================================================
```

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
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               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)
===============================================================================
```