
PBB Show Commands

eth-cfm

Syntax	eth-cfm
Context	show
Description	This command displays 802.1ag CFM information.

association

Syntax	association [<i>ma-index</i>] [detail]
Context	show>eth-cfm
Description	Shows association information.
Parameters	<i>ma-index</i> — Specifies the MA index value.

Values 1 — 4294967295

detail — Displays all association detail.

Output

```
*A:alcag1-R6# show eth-cfm association
=====
CFM Association Table
=====
Md-index  Ma-index  Name                CCM-interval  Bridge-id
-----
1          1          ivpls                1              5000
=====
*A:alcag1-R6#
```

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-imm-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.
level — Display the MD level of the maintenance point.
Values 0 — 7

direction up (U)| down (D) — 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.

sdp *sdp-id*[:*vc-id*] — Displays CFM stack table information for the specified SDP.

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

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, L = CSF LOS Rx, F = CSF AIS/FDI rx, r = CSF RDI rx
=====
CFM SAP Stack Table
=====
```

Sap	Lvl	Dir	Md-index	Ma-index	MepId	Mac-address	Defect
1/1/6:20.0	4	B	14	803	MIP	d8:1c:01:01:00:06	-----
1/1/6:3000.1001	4	B	14	800	MIP	00:00:00:00:00:28	-----
1/1/6:2000.1002	4	B	14	802	MIP	d8:1c:01:01:00:06	-----
1/1/6:0.*	4	B	14	805	MIP	d8:1c:01:01:00:06	-----
1/1/9:300	2	U	12	300	28	00:00:00:00:00:28	-----
1/1/9:401	2	U	12	401	28	00:00:00:00:00:28	-----
1/1/9:600	2	U	12	600	28	00:00:00:00:00:28	-----

```

1/1/9:600          5 B      15      666 MIP 00:10:11:00:00:1c -----
1/1/10:4.*        2 U      12      4   28 00:00:00:00:00:28 --C----
1/1/10:1000.*     5 U      15     1000 28 00:00:00:00:00:28 -----
1/1/10:1001.*     5 U      15     1001 28 00:00:00:00:00:28 -----
=====

```

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
-----

```

```

1/2/4     0         0 D      10         1   28 00:00:00:00:00:28 -----
=====

```

CFM Facility LAG Stack Table

```

Lag      Tunnel  Lvl Dir Md-index  Ma-index  MepId  Mac-address  Defect
-----

```

No Matching Entries

CFM Facility Tunnel Stack Table

```

Port/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
-----

```

```

v28-v33        1 D      11         1   28 00:00:00:00:00:28 -----
=====

```

CFM SAP Primary VLAN Stack Table

```

Sap
  Primary VlanId  Lvl Dir Md-index  Ma-index  MepId  Mac-address  Defect
-----

```

```

1/1/6:20.*

```

PBB Show Commands

```

                21                4 B                14                804 MIP d8:1c:01:01:00:06 -----
=====

CFM SDP Stack Table
=====
Sdp                Lvl Dir Md-index    Ma-index  MepId  Mac-address    Defect
-----
1:1000            4 D                14        1000   28 00:00:00:00:00:28 -----
2:777             4 D                14        777    28 d8:1c:ff:00:00:00 -----
400:800          4 B                14        800    MIP 00:00:00:00:01:28 -----
=====

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>domain`
- Description** This command displays domain information.
- Parameters**
- md-index* — Specifies the maintenance domain (MD) index value.
 - Values** 1 — 4294967295
 - ma-index* — Specifies the MA index value.
 - Values** 1 — 4294967295
 - all-associations** — Displays information all maintenance associations.
 - detail** — Displays detailed information.

Sample Output

```

*A:alcag1-R6# show eth-cfm domain
=====
CFM Domain Table
=====
Md-index  Level Name                Format
-----
1         4      ivpls                    charString
=====
*A:alcag1-R6#

*A:alcag1-R6# show eth-cfm mep 51 domain 1 association 1
-----
Mep Information
-----
Md-index      : 1                Direction        : Up

```

PBB Show Commands

```
Ma-index          : 1
MepId            : 51
IfIndex          : 38043648
EngState         : fngReset
LowestDefectPri  : allDef
Defect Flags     : None
Mac Address      : 00:ae:ae:ae:ae:ae
CcmTx            : 775
CcmLastFailure  Frame:
                  None
XconCcmFailure  Frame:
                  None
*A:alcag1-R6#
Admin            : Enabled
CCM-Enable      : Enabled
PrimaryVid      : 5
HighestDefect   : none
CcmLtmPriority   : 7
CcmSequenceErr  : 0
```

mep

- Syntax** `mep mep-id domain md-index association ma-index [loopback] [linktrace]`
- Context** `show>eth-cfm>domain`
- Description** This command displays Maintenance Endpoint (MEP) information.
- Parameters**
- mep-id* — Specifies the maintenance association end point identifier.
 - Values** 1 — 8191
 - md-index* — Specifies the maintenance domain (MD) index value.
 - Values** 1 — 4294967295
 - ma-index* — Specifies the MA index value.
 - Values** 1 — 4294967295
 - loopback** — Displays loopback information for the specified MEP.
 - linktrace** — Displays linktrace information for specified MEP.

Sample Output

```
*A:alcag1-R6# oam eth-cfm loopback 00:af:af:af:af:af mep 51 domain 1 association 1
eth-cfm Loopback Test Initiated: Mac-Address: 00:af:af:af:af:af, out sap: 1/2/9:5
Sent 1 packets, received 1 packets [0 out-of-order, 0 Bad Msdu] -- OK
*A:alcag1-R6#

*A:alcag1-R6# oam eth-cfm linktrace 00:af:af:af:af:af mep 51 domain 1 association 1
Index Ingress Mac          Egress Mac          Relay          Action
-----
1      00:00:00:00:00:00      00:AF:AF:AF:AF:AF  rlyHit        terminate
-----
No more responses received in the last 5 seconds.
*A:alcag1-R6#
```

i-vpls

- Syntax** `i-vpls`
- Context** `show>service>id`
- Description** Displays I-VPLS services associated with the B-VPLS service. This command only applies when the service is a B-VPLS.

Sample Output

```
*A:SetupCLI# show service id 2002 i-vpls
=====
Related iVpls services for bVpls service 2002
=====
iVpls SvcId          Oper ISID          Admin          Oper
```

```

-----
2001                122                Up                Down
-----
Number of Entries : 1
-----
*A:alcag1-R6#
*A:term17>show>service>id# i-vpls
=====
Related iVpls services for bVpls service 2000
=====
iVpls SvcId        Oper ISID          Admin              Oper
-----
2100                2100              Up                 Up
2110                123               Up                 Up
-----
Number of Entries : 2
-----
*A:SetupCLI#

```

base

Syntax **base**
Context **show>service>pbb**

Sample

```

*A:Dut-B# show service pbb base
=====
PBB MAC Information
=====
MAC-Notif Count : 3
MAC-Notif Interval : 1
Source BMAC : Default
=====

```

mac-name

Syntax **mac-name [detail]**
Context **show>service>pbb**
Description This command displays information on a specific MAC name.

Sample

```

*A:Dut-B# show service pbb mac-name
=====
MAC Name Table
=====
MAC-Name MAC-Address
-----
test 00:03:03:03:03:02

```

PBB Show Commands

```
=====
*A:Dut-B# show service pbb mac-name test detail
=====
Services Using MAC name='test' addr='00:03:03:03:03:02'
=====
Svc-Id ISID
-----
501 501
-----
Number of services: 1
=====
*A:Dut-B#
```

id

Syntax	id service-id
Context	show>service
Description	This command displays information on a specific service ID.

Sample

```
*A:Dut-B# show service id 1 all
=====
Service Detailed Information
=====
Service Id : 1 Vpn Id : 0
Service Type : b-VPLS
Description : (Not Specified)
Customer Id : 1
Last Status Change: 05/17/2009 19:33:11
Last Mgmt Change : 05/17/2009 19:31:59
Admin State : Up Oper State : Up
MTU : 2000 Def. Mesh VC Id : 1
SAP Count : 1 SDP Bind Count : 0
Snd Flush on Fail : Disabled Host Conn Verify : Disabled
Propagate MacFlush: Disabled
Oper Backbone Src : 00:03:00:00:04:01 Use SAP B-MAC : enabled
i-Vpls Count : 0
Epipe Count : 900
*A:Dut-B# show service id 501 all
=====
Service Detailed Information
=====
Service Id : 501 Vpn Id : 0
Service Type : Epipe
Description : (Not Specified)
Customer Id : 1
Last Status Change: 05/17/2009 19:41:32
Last Mgmt Change : 05/17/2009 19:40:03
Admin State : Up Oper State : Up
MTU : 1514
Vc Switching : False
SAP Count : 1 SDP Bind Count : 0
-----
PBB Tunnel Point
```



```

-----
B-vpls Backbone-dest-MAC Isid AdmMTU OperState Flood Oper-dest-MAC
-----
1 test 501 2000 Up Yes 00:03:03:03:03:02
-----
*A:Dut-B#

```

mrp

Syntax `mrp`

Context `show>service>id`

Description This command displays information on a per service MRP configuration.

Output `*A:PE-A# show service id 10 mrp`

```

-----
MRP Information
-----
Admin State           : Up                Failed Register Cnt: 0
Max Attributes        : 2048              Attribute Count     : 10
Flood Time            : Off
-----
*A:PE-A#

```

mrp-policy

Syntax `mrp-policy [mrp-policy]`
`mrp-policy mrp-policy [association]`
`mrp-policy mrp-policy [entry entry-id]`

Context `show>service`

Description This command displays MRP policy information.

Parameters *mrp-policy* — Specifies the MRP policy.

Values 32 chars max

entry-id — Specifies the entry ID.

Values 1..65535

mmp

Syntax `mmp mac [ieee-address]`

Context `show>service>id`

Description This command displays information on MACs. If a MAC address is specified, information will be displayed relevant to the specific group. No parameter will display information on all group MACs on a server.

PBB Show Commands

Parameters *ieee-address* — Hex string: xx:xx:xx:xx:xx:xx. OR xx-xx-xx-xx-xx-xx

Output

```
*A:PE-A# show service id 10 mmrp mac 01:1E:83:00:00:65
```

SAP/SDP	MAC Address	Registered	Declared
sap:1/1/4:10	01:1e:83:00:00:65	No	Yes
sap:1/2/2:10	01:1e:83:00:00:65	No	Yes
sap:2/2/5:10	01:1e:83:00:00:65	Yes	Yes

```
*A:PE-A#
```

```
*A:PE-A# show service id 10 mmrp mac
```

SAP/SDP	MAC Address	Registered	Declared
sap:1/1/4:10	01:1e:83:00:00:65	No	Yes
sap:1/1/4:10	01:1e:83:00:00:66	No	Yes
sap:1/1/4:10	01:1e:83:00:00:67	No	Yes
sap:1/1/4:10	01:1e:83:00:00:68	No	Yes
sap:1/1/4:10	01:1e:83:00:00:69	No	Yes
sap:1/1/4:10	01:1e:83:00:00:6a	No	Yes
sap:1/1/4:10	01:1e:83:00:00:6b	No	Yes
sap:1/1/4:10	01:1e:83:00:00:6c	No	Yes
sap:1/1/4:10	01:1e:83:00:00:6d	No	Yes
sap:1/1/4:10	01:1e:83:00:00:6e	No	Yes
sap:1/2/2:10	01:1e:83:00:00:65	No	Yes
sap:1/2/2:10	01:1e:83:00:00:66	No	Yes
sap:1/2/2:10	01:1e:83:00:00:67	No	Yes
sap:1/2/2:10	01:1e:83:00:00:68	No	Yes
sap:1/2/2:10	01:1e:83:00:00:69	No	Yes
sap:1/2/2:10	01:1e:83:00:00:6a	No	Yes
sap:1/2/2:10	01:1e:83:00:00:6b	No	Yes
sap:1/2/2:10	01:1e:83:00:00:6c	No	Yes
sap:1/2/2:10	01:1e:83:00:00:6d	No	Yes
sap:1/2/2:10	01:1e:83:00:00:6e	No	Yes
sap:2/2/5:10	01:1e:83:00:00:65	Yes	Yes
sap:2/2/5:10	01:1e:83:00:00:66	Yes	Yes
sap:2/2/5:10	01:1e:83:00:00:67	Yes	Yes
sap:2/2/5:10	01:1e:83:00:00:68	Yes	Yes
sap:2/2/5:10	01:1e:83:00:00:69	Yes	Yes
sap:2/2/5:10	01:1e:83:00:00:6a	Yes	Yes
sap:2/2/5:10	01:1e:83:00:00:6b	Yes	Yes
sap:2/2/5:10	01:1e:83:00:00:6c	Yes	Yes
sap:2/2/5:10	01:1e:83:00:00:6d	Yes	Yes
sap:2/2/5:10	01:1e:83:00:00:6e	Yes	Yes

```
*A:PE-A#
```

spb

Syntax **spb**

Context clear>service>id

Description This command clears STP related data.

adjacency

Syntax	adjacency [detail]
Context	show>service>id>spb
Description	This command displays SPB adjacency information.
Parameters	<i>detail</i> — Show detailed information.
Output	Sample Ouput

```

=====
ISIS Adjacency
=====
System ID                Usage State Hold Interface                MT Enab
-----
Dut-B                    L1    Up    19    sap:1/2/2:1.1                No
Dut-C                    L1    Up    21    sap:1/2/3:1.1                No
-----
Adjacencies : 2
=====

```

base

Syntax	base
Context	show>service>id>spb
Description	This command displays SPB base information.
Output	Sample Ouput

```

*A:Dut-A# show service id 100001 spb base
=====
Service SPB Information
=====
Admin State      : Up                Oper State      : Up
ISIS Instance    : 1024              FID             : 1
Bridge Priority  : 8                Fwd Tree Top Ucast : spf
Fwd Tree Top Mcast : st
Bridge Id        : 80:00.00:10:00:01:00:01
Mcast Desig Bridge : 80:00.00:10:00:01:00:01
=====
ISIS Interfaces
=====
Interface                Level CircID Oper State  L1/L2 Metric
-----
sap:1/2/2:1.1            L1    65536  Up         10/-
sap:1/2/3:1.1            L1    65537  Up         10/-
-----
Interfaces : 2
=====
FID ranges using ECT Algorithm
-----
1-99    low-path-id

```

PBB Show Commands

```
100-100 high-path-id
101-4095 low-path-id
=====
```

database

Syntax **database**

Context show>service>id>spb

Description This command displays SPB database information.

Output **Sample Ouput**

```
*A:Dut-A# show service id 100001 spb database
=====
ISIS Database
=====
LSP ID                               Sequence  Checksum Lifetime Attributes
-----
Displaying Level 1 database
-----
Dut-A.00-00                          0xc      0xbaba   1103    L1
Dut-B.00-00                          0x13     0xe780   1117    L1
Dut-C.00-00                          0x13     0x85a    1117    L1
Dut-D.00-00                          0xe      0x174a   1119    L1
Level (1) LSP Count : 4
=====
```

fate-sharing

Syntax **fate-sharing**

Context show>service>id>spb

Description This command displays SPB fate-sharing information on User B-VPLS service, in correspond to associated Control B-VPLS service.

Output **Sample Ouput**

```
*A:Dut-A# Node show service id spb fate-sharing
=====
User service fate-shared sap/sdp-bind information
=====
Control  Control Sap/      FID      User      User Sap/
SvcId    SdpBind            SvcId    SvcId     SdpBind
-----
500      1/1/20:500        502      502      1/1/20:502
=====
```

fdb

Syntax	fdb
Context	show>service>id>spb
Description	This command displays SPB Forwarding database information.
Output	Sample Ouput

```
*A:Dut-A# show service id 100001 spb fdb
=====
User service FDB information
=====
MacAddr           UCast Source           State   MCast Source           State
-----
00:10:00:01:00:02 1/2/2:1.1              ok      1/2/2:1.1              ok
00:10:00:01:00:03 1/2/3:1.1              ok      1/2/3:1.1              ok
00:10:00:01:00:04 1/2/2:1.1              ok      1/2/2:1.1              ok
-----
Entries found: 3
=====
```

fid

Syntax	fid [<i>fid</i>] fate-sharing fid [<i>fid</i>] user-service fid [<i>fid</i>] fdb fid [<i>fid</i>] mfib [group-mac <i>ieee-address</i>] fid [<i>fid</i>] mfib [isid <i>isid</i>]
Context	show>service>id>spb
Description	This command displays SPBcontrol service FID information.
Parameters	<i>fid</i> — A user service FID may be specified. All user service FIDs are displayed if the FID is not specified. user-service — Specifies user VPLS information for each control VPLS per forwarding data-base identifier. A user service FID may be specified. All user service FIDs are displayed if the FID is not specified. fdb — Specifies user VPLS Shortest Path Bridging (SPB) multicast forwarding data-base (Mfib) information. mfib group-mac <i>ieee-address</i> — Specifies the 48-bit IEEE 802.3 group MAC address. isid <i>isid</i> — Specifies the value of ISID of the group MAC address of this entry.
Output	Sample Ouput

```
*A:Dut-A# show service id 100001 spb fid fate-sharing
=====
Control service fate-shared sap/sdp-bind information
=====
Control   Control Sap/           FID       User       User Sap/
SvcId     SdpBind                User      SvcId     SdpBind
-----

```

PBB Show Commands

```
-----  
500      1/1/20:500                502      502      1/1/20:502  
-----  
  
*A:Dut-A# show service id 100001 spb fid fdb  
-----  
Control service FDB information  
-----  
Fid      MacAddr      UCast Source      MCast Source  
          Last Update      Last Update  
-----  
1        00:10:00:01:00:01  local             local  
          04/04/2012 15:11:24  04/04/2012 15:11:24  
1        00:10:00:01:00:02  1/2/2:1.1        1/2/2:1.1  
          04/04/2012 15:51:45  04/04/2012 15:51:45  
1        00:10:00:01:00:03  1/2/3:1.1        1/2/3:1.1  
          04/04/2012 15:51:56  04/04/2012 15:51:56  
1        00:10:00:01:00:04  1/2/2:1.1        1/2/2:1.1  
          04/04/2012 15:52:11  04/04/2012 15:52:11  
-----  
Entries found: 4  
-----  
  
*A:Dut-A# show service id 100001 spb fid mfib  
-----  
Control service MFIB information  
-----  
FID      MacAddr      ISID      Source      Last Update  
-----  
1        01:1E:83:00:27:11 10001     1/2/2:1.1   04/04/2012 15:51:45  
          1/2/3:1.1        04/04/2012 15:51:56  
          local          04/04/2012 15:42:44  
100     01:1E:83:00:27:12 10002     1/2/2:1.1   04/04/2012 15:51:45  
          1/2/3:1.1        04/04/2012 15:51:56  
          local          04/04/2012 15:43:09  
-----  
Entries found: 6  
-----
```

hostname

- Syntax** hostname
- Context** show>service>id>spb
- Description** This command displays SPB system-id to hostname mapping.
- Output** Sample Output

```
*A:Dut-A# show service id 100001 spb hostname  
-----  
Hosts  
-----  
System Id      Hostname  
-----  
0000.00AA.AAAA      cses-B02  
0000.00BB.BBBB      cses-B07  
-----
```

interface

Syntax	interface
Context	show>service>id>spb
Description	This command displays SPB interfaces.
Output	Sample Ouput

```
*A:Dut-A# show service id 100001 spb interface
=====
ISIS Interfaces
=====
Interface                               Level CircID  Oper State  L1/L2 Metric
-----
sap:1/1/20:500                          L1      65536    Up          10/-
-----
Interfaces : 1
=====
```

mfib

Syntax	mfib [group-mac <i>ieee-address</i>][<i>isis isid</i>]
Context	show service id <svclid> spb
Description	This command displays multicast forwarding data-base information.
Parameters	<p><i>group-mac</i> — Optional IEEE group MAC format: mac-address: xx:xx:xx:xx:xx:xx or xx-xx-xx-xx-xx-xx</p> <p><i>isid</i> — Optional I-SID. Format: 0..16777215</p>
Output	Sample Ouput

```
*A:Dut-A# show service id 100001 spb mfib
=====
User service MFIB information
=====
MacAddr          ISID      Status
-----
01:1E:83:00:27:11 10001    Ok
-----
Entries found: 1
=====
```

routes

Syntax	routes
Context	show>service>id>spb

PBB Show Commands

Description This command displays SPB route information.

Output **Sample Ouput**

```
*A:Dut-A# show service id 100001 spb routes
=====
MAC Route Table
=====
Fid  MAC                               NextHop If                               SysID                               Ver.  Metric
-----
Fwd Tree: unicast
-----
1    00:10:00:01:00:02                 sap:1/2/2:1.1                           Dut-B                               10   10
1    00:10:00:01:00:03                 sap:1/2/3:1.1                           Dut-C                               10   10
1    00:10:00:01:00:04                 sap:1/2/2:1.1                           Dut-B                               10   20
100  00:10:00:02:00:02                 sap:1/2/2:1.1                           Dut-B                               10   10
100  00:10:00:02:00:03                 sap:1/2/3:1.1                           Dut-C                               10   10
100  00:10:00:02:00:04                 sap:1/2/3:1.1                           Dut-C                               10   20

Fwd Tree: multicast
-----
1    00:10:00:01:00:02                 sap:1/2/2:1.1                           Dut-B                               10   10
1    00:10:00:01:00:03                 sap:1/2/3:1.1                           Dut-C                               10   10
1    00:10:00:01:00:04                 sap:1/2/2:1.1                           Dut-B                               10   20
100  00:10:00:02:00:02                 sap:1/2/2:1.1                           Dut-B                               10   10
100  00:10:00:02:00:03                 sap:1/2/3:1.1                           Dut-C                               10   10
100  00:10:00:02:00:04                 sap:1/2/3:1.1                           Dut-C                               10   20

-----
No. of MAC Routes: 12
=====

ISID Route Table
=====
Fid  ISID                               NextHop If                               SysID                               Ver.
-----
1    10001                              sap:1/2/2:1.1                           Dut-B                               10
      sap:1/2/3:1.1                           Dut-C
100  10002                              sap:1/2/2:1.1                           Dut-B                               10
      sap:1/2/3:1.1                           Dut-C

-----
No. of ISID Routes: 2
=====
A:Dut-A# show service id spb fate-sharing
```



```
=====
User service fate-shared sap/sdp-bind information
=====
```

Control SvcId	Control Sap/SdpBind	FID	User SvcId	User Sap/SdpBind
500	1/1/20:500	502	502	1/1/20:502

```
=====
```

spf

Syntax **spf**

Context **show>service>id>spb**

Description This command displays SPF information.

Output **Sample Ouput**

```
A:cses-B01# show service id spb spf
```

```
=====
Path Table
=====
```

Node	Interface	Nexthop

```
Fwd Tree: unicast,    ECT Alg: low-path-id
-----
```

cses-B07.00	sap:1/1/20:500	cses-B07
cses-B01.00	sap:1/1/20:500	cses-B07
cses-B07.00	sap:1/1/20:500	cses-B07

```
Fwd Tree: unicast,    ECT Alg: high-path-id
-----
```

cses-B07.00	sap:1/1/20:500	cses-B07
cses-B01.00	sap:1/1/20:500	cses-B07
cses-B07.00	sap:1/1/20:500	cses-B07

```
Fwd Tree: multicast,    ECT Alg: low-path-id
-----
```

cses-B07.00	sap:1/1/20:500	cses-B07
cses-B01.00	sap:1/1/20:500	cses-B07
cses-B07.00	sap:1/1/20:500	cses-B07

```
Fwd Tree: multicast,    ECT Alg: high-path-id
-----
```

cses-B07.00	sap:1/1/20:500	cses-B07
cses-B01.00	sap:1/1/20:500	cses-B07
cses-B07.00	sap:1/1/20:500	cses-B07

```
=====
```

spf-log

Syntax **spf-log**

PBB Show Commands

- Context** show>service>id>spb
- Description** This command displays SPF Log information.
- Output** **Sample Ouput**

```
A:cses-B01# show service id spb spf-log
=====
ISIS SPF Log
=====
When                Duration          L1 Nodes   L2 Nodes   Event Count   Type
-----
07/23/2012 16:01:13 <0.01s       1          0          1             Reg
07/23/2012 16:01:19 <0.01s       1          0          4             Reg
07/23/2012 16:01:24 <0.01s       3          0          2             Reg
07/23/2012 16:01:29 <0.01s       4          0          1             Reg
-----
Log Entries : 4
-----
```

statistics

- Syntax** **statistics**
- Context** show>service>id>spb
- Description** This command displays SPB statistics.
- Output** **Sample Ouput**

```
A:cses-B01# show service id spb statistics
=====
ISIS Statistics
=====
ISIS Instance       : 1024                SPF Runs           : 4
Purge Initiated    : 0                  LSP Regens.       : 11

CSPF Statistics
Requests           : 0                  Request Drops     : 0
Paths Found        : 0                  Paths Not Found   : 0

-----
PDU Type   Received   Processed   Dropped    Sent       Retransmitted
-----
LSP        31         31         0          9          0
IIH        532        532        0          533        0
CSNP       479        479        0          479        0
PSNP        9          9          0          27         0
Unknown    0          0          0          0          0
=====
```

status

- Syntax** **status**

Context	show>service>id>spb
Description	This command displays SPB status.
Output	Sample Ouput

```
A:cses-B01# show service id spb status
=====
ISIS Status
=====
System Id           : 0000.00AA.AAAA
Admin State         : Up
Oper State          : Up
SPB Routing         : Enabled
Last Enabled        : 07/23/2012 16:01:06
Level Capability    : L1
Authentication Check : True
Authentication Type : None
CSNP-Authentication : Enabled
HELLO-Authentication : Enabled
PSNP-Authentication : Enabled
Overload-On-Boot Tim*: 0
LSP Lifetime        : 1200
LSP Wait            : 5 sec (Max)  0 sec (Initial)  1 sec (Second)
LSP MTU Size        : 1492 (Config) 1492 (Oper)
Adjacency Check     : loose
L1 Auth Type        : none
L1 CSNP-Authenticati*: Enabled
L1 HELLO-Authenticat*: Enabled
L1 PSNP-Authenticati*: Enabled
L1 Preference       : 15
L1 Ext. Preference  : 160
L1 Wide Metrics     : Enabled
L1 LSDB Overload    : Disabled
L1 LSPs             : 4
L1 Default Metric   : 10
L1 IPv6 Def Metric  : 10
Last SPF            : 07/23/2012 16:01:29
SPF Wait            : 10 sec (Max)  1000 ms (Initial)  1000 ms (Second)
Multi-topology      : Disabled
Area Addresses      : 00
Total Exp Routes(L1) : 0
IID TLV             : Disabled
All-L1-MacAddr      : 01:80:c2:00:00:14
=====
```

PBB Clear Commands

counters

Syntax	counters
Context	clear>service>statistics>id
Description	This command clears all traffic queue counters associated with the service ID.

mesh-sdp

Syntax	mesh-sdp <i>sdp-id[:vc-id]</i> { all counters stp mrp }
Context	clear>service>statistics>id
Description	This command clears the statistics for a particular mesh SDP bind.
Parameters	<p><i>sdp-id</i> — Specifies the SDP ID for which to display information.</p> <p>Default All SDPs.</p> <p>Values 1 — 17407</p> <p><i>vc-id</i> — Displays information about the virtual circuit identifier.</p> <p>Values 1 — 4294967295</p> <p>all — Clears all queue statistics and STP statistics associated with the SDP.</p> <p>counters — Clears all queue statistics associated with the SDP.</p> <p>stp — Clears all STP statistics associated with the SDP.</p> <p>mrp — Clears all MRP statistics associated with the SDP.</p>

mrp

Syntax	mrp
Context	clear>service>statistics>id
Description	This command clears all MRP statistics for the service ID.

spoke-sdp

Syntax	spoke-sdp <i>sdp-id[:vc-id]</i> { all counters stp l2pt mrp }
Context	clear>service>statistics>id

Description	This command clears statistics for the spoke SDP bound to the service.
Parameters	<i>sdp-id</i> — The spoke SDP ID for which to clear statistics. Values 1 — 17407 <i>vc-id</i> — The virtual circuit ID on the SDP ID to be reset. Values 1 — 4294967295 all — Clears all queue statistics and STP statistics associated with the SDP. counters — Clears all queue statistics associated with the SDP. stp — Clears all STP statistics associated with the SDP. l2pt — Clears all L2PT statistics associated with the SDP. mrp — Clears all MRP statistics associated with the SDP.

sap

Syntax	sap <i>sap-id</i> {all counters stp l2pt mrp}
Context	clear>service>statistics>id
Description	This command clears statistics for the SAP.
Parameters	<i>sap-id</i> — The SAP ID for which to clear statistics. all — Clears all queue statistics and STP statistics associated with the SAP. counters — Clears all queue statistics associated with the SAP. stp — Clears all STP statistics associated with the SAP. l2pt — Clears all L2PT statistics associated with the SAP. mrp — Clears all MRP statistics associated with the SAP.

stp

Syntax	stp
Context	clear>service>statistics>id
Description	Clears all spanning tree statistics for the service ID.

PBB Debug Commands

mrp

Syntax	[no] mrp
Context	debug>service>id
Description	This command enables and configures MRP debugging.

all-events

Syntax	all-events
Context	debug>service>id>mrp
Description	This command enables MRP debugging for the applicant, leave all, periodic and registrant state machines and enables debugging of received and transmitted MRP PDUs.

applicant-sm

Syntax	[no] applicant-sm
Context	debug>service>id>mrp
Description	This command enables debugging of the applicant state machine. The no form of the command disables debugging of the applicant state machine.

leave-all-sm

Syntax	[no] leave-all-sm
Context	debug>service>id>mrp
Description	This command enables debugging of the leave all state machine. The no form of the command disables debugging of the leave all state machine.

mmp-mac

Syntax	[no] mmp-mac <i>ieee-address</i>
Context	debug>service>id>mrp

Description This command filters debug events and only shows events related to the MAC address specified. The **no** form of the command removes the debug filter.

Parameters *ieee-address* — xx:xx:xx:xx:xx:xx or xx-xx-xx-xx-xx-xx (cannot be all zeroes)

mrpdu

Syntax **[no] mrpdu**

Context debug>service>id>mrp

Description This command enables debugging of the MRP PDUs that are received or transmitted. The **no** form of the command disables debugging of MRP PDUs.

periodic-sm

Syntax **[no] periodic-sm**

Context debug>service>id>mrp

Description This command enables debugging of the periodic state machine. The **no** form of the command disables debugging of the periodic state machine.

registrant-sm

Syntax **[no] registrant-sm**

Context debug>service>id>mrp

Description This command enables debugging of the registrant state machine. The **no** form of the command disables debugging of the registrant state machine.

sap

Syntax **[no] sap sap-id**

Context debug>service>id>mrp

Description This command filters debug events and only shows events for the particular SAP. The **no** form of the command removes the debug filter.

Parameters *sap-id* — See [Common CLI Command Descriptions on page 1469](#) for command syntax.

sdp

Syntax	<code>[no] sdp sdp-id:vc-id</code>
Context	debug>service>id>mrp
Description	This command filters debug events and only shows events for the particular SDP. The no form of the command removes the debug filter.
Parameters	<i>sdp-id</i> — Specifies the SDP ID for which to display information. Default All SDPs. Values 1 — 17407 <i>vc-id</i> — Displays information about the virtual circuit identifier. Values 1 — 4294967295