PBB Show Commands

eth-cfm

Syntax **eth-cfm**

Context show

Description This command displays 802.1ag CFM information.

association

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

Context show>eth-cfm

Description Shows association information.

Parameters *ma-index* — 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 port [*port-id*> [**vlan** *vlan-id*]] [**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*]

Context show>eth-cfm

Description Summarizes all MEPs/MIPs.

Parameters *port-id* — Displays information about the specified port.

Values

port-id	slot/mda/port[.channel]	
lag-id	lag-*id*	
	lag	keyword
	id	1 — 200

sdp-id[:*vc-id*] — Specfies an existing SDP and VC ID.

Values 1 — 17407

vlan-id — Specifies te VLAN ID.

Values 0 — 4094

level — Specifies the level.

Values 0 — 7

direction up | down — Indicates the direction in which the maintenance association (MEP or MIP) faces on the bridge port.

down — Displays continuity check information configured away from the MAC relay entity.

up — Displays continuity check information configured toward the MAC relay entity.

service-id — Specifies information about the specified service ID.

Values 1 — 2147483648

Sample Output

```
*A:alcag1-R6# show eth-cfm cfm-stack-table
===============================================================================
CFM SAP Stack Table
===============================================================================
Sap            Level Dir  Md-index   Ma-index   Mep-id Mac-address
-------------------------------------------------------------------------------
1/2/9:5        4     Up   1          1          51     00:ae:ae:ae:ae:ae
===============================================================================
CFM SDP Stack Table
===============================================================================
Sdp            Level Dir  Md-index   Ma-index   Mep-id Mac-address
-------------------------------------------------------------------------------
No Matching Entries
===============================================================================
*A:alcag1-R6#
```

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

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
```

```
===============================================================================
*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 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

mmrp

Syntax **mmrp 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.

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 *detail* — 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
```

```
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     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** [*fid*] **fate-sharing**
fid [*fid*] **user-service**
fid [*fid*] **fdb**
fid [*fid*] **mfib** [**group-mac** *ieee-address*]
fid [*fid*] **mfib** [**isid** *isid*]

Context show>service>id>spb

Description This command displays SPBcontrol service FID information.

Parameters *fid* — 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 identfier. 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 *ieee-addre***ss —** Specifies the 48-bit IEEE 802.3 group MAC address.

isid isid — 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                            SvcId     SdpBind
```

```
-------------------------------------------------------------------------------
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 Ouput**

```
*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** *ieee-address*][**isid** *isid*]

Context show service id <svcId> spb

Description This command displays multicast forwarding data-base information.

Parameters *group-mac* — Optional IEEE group MAC format:

mac-address: xx:xx:xx:xx:xx:xx or xx-xx-xx-xx-xx-xx

isid — Optional I-SID.

Format: 0..16777215

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

Description This command displays SPB route information.

Output **Sample Ouput**

```
*A:Dut-A# show service id 100001 spb routes
===============================================================
MAC Route Table
===============================================================
Fid  MAC                                          Ver.   Metric
      NextHop If                    SysID
---------------------------------------------------------------

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

Fwd Tree: multicast
---------------------------------------------------------------
1    00:10:00:01:00:02                           10     10
      sap:1/2/2:1.1                Dut-B
1    00:10:00:01:00:03                           10     10
      sap:1/2/3:1.1                Dut-C
1    00:10:00:01:00:04                           10     20
      sap:1/2/2:1.1                Dut-B
100  00:10:00:02:00:02                           10     10
      sap:1/2/2:1.1                Dut-B
100  00:10:00:02:00:03                           10     10
      sap:1/2/3:1.1                Dut-C
100  00:10:00:02:00:04                           10     20
      sap:1/2/3:1.1                Dut-C
---------------------------------------------------------------
No. of MAC Routes: 12
===============================================================

===============================================================
ISID Route Table
===============================================================
Fid  ISID                                       Ver.
      NextHop If                    SysID
---------------------------------------------------------------
1    10001                                       10
      sap:1/2/2:1.1                Dut-B
      sap:1/2/3:1.1                Dut-C
100  10002                                       10
      sap:1/2/2:1.1                Dut-B
      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   Control Sap/             FID       User      User Sap/
SvcId     SdpBind                            SvcId     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**

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** *sdp-id[:vc-id]* {**all | counters |stp | mrp**}

Context clear>service>statistics>id

Description This command clears the statistics for a particular mesh SDP bind.

Parameters *sdp-id* — Specifies the SDP ID for which to display information.

Default All SDPs.

Values 1 — 17407

vc-id — Displays information about the virtual circuit identifier.

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.

mrp — Clears all MRP statistics associated with the SDP.

mrp

Syntax **mrp**

Context clear>service>statistics>id

Description This command clears all MRP statistics for the service ID.

spoke-sdp

Syntax **spoke-sdp** *sdp-id*[**:***vc-id*] {**all** | **counters** | **stp| l2pt | mrp**}

Context clear>service>statistics>id

Description This command clears statistics for the spoke SDP bound to the service.

Parameters *sdp-id* — The spoke SDP ID for which to clear statistics.

Values 1 — 17407

vc-id — 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** *sap-id* {**all** | **counters** | **stp| l2pt | mrp**}

Context clear>service>statistics>id

Description This command clears statistics for the SAP.

Parameters *sap-id* — 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 transmutted 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.

mmrp-mac

Syntax [**no**] **mmrp-mac** *ieee-address*

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 [**no**] **sdp** *sdp-id:vc-id*

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

Default All SDPs.

Values 1 — 17407

vc-id — Displays information about the virtual circuit identifier.

Values 1 — 4294967295