

VLL Show Commands

egress-label

Syntax `egress-label egress-label1 [egress-label2]`

Context `show>service`

Description This command displays services using the range of egress labels. If only the mandatory *egress-label1* parameter is specified, only services using the specified label are displayed. If both *egress-label1* and *egress-label2* parameters are specified, the services using the range of labels X where $egress-label1 \leq X \leq egress-label2$ are displayed.

Use the **show router ldp bindings** command to display dynamic labels.

Parameters *egress-label1* — The starting egress label value for which to display services using the label range. If only *egress-label1* is specified, services only using *egress-label1* are displayed.

Values 0, 2049 — 131071

egress-label2 — The ending egress label value for which to display services using the label range.

Default The *egress-label1* value.

Values 2049 — 131071

Output **Show Service Egress Command Output** — The following table describes show service egress label output fields.

Table 8: Show Service Egress Label Output Fields

Label	Description
Svc Id	The ID that identifies a service.
Sdp Id	The ID that identifies an SDP.
Type	Indicates whether the SDP binding is spoke or mesh.
I. Lbl	The VC label used by the far-end device to send packets to this device in this service by the SDP.
E. Lbl	The VC label used by this device to send packets to the far-end device in this service by the SDP.
Number of bindings found	The total number of SDP bindings that exist within the specified egress label range.

Sample Output

```
*A:ALA-12# show service egress-label 0 10000
=====
Martini Service Labels
=====
Svc Id      Sdp Id          Type I.Lbl      E.Lbl
-----
1           10:1            Mesh 0        0
1           20:1            Mesh 0        0
1           30:1            Mesh 0        0
1           100:1           Mesh 0        0
...
1           107:1           Mesh 0        0
1           108:1           Mesh 0        0
1           300:1           Mesh 0        0
1           301:1           Mesh 0        0
1           302:1           Mesh 0        0
1           400:1           Mesh 0        0
1           500:2           Spok 131070    2001
1           501:1           Mesh 131069    2000
100         300:100         Spok 0         0
200         301:200         Spok 0         0
300         302:300         Spok 0         0
400         400:400         Spok 0         0
-----
Number of Bindings Found : 23
=====
*A:ALA-12#
```

ingress-label

- Syntax** **ingress-label** *start-label* [*end-label*]
- Context** show>service
- Description** This command displays services using the range of ingress labels. If only the mandatory *start-label* parameter is specified, only services using the specified label are displayed.
If both *start-label* and *end-label* parameters are specified, the services using the range of labels X where *start-label* <= X <= *end-label* are displayed.
Use the **show router vprn-service-id ldp bindings** command to display dynamic labels.
- Parameters** *start-label* — The starting ingress label value for which to display services using the label range. If only *start-label* is specified, services only using *start-label* are displayed.
 - Values** 0, 2048 — 131071*end-label* — The ending ingress label value for which to display services using the label range.
 - Default** The *start-label* value.
 - Values** 2049 — 131071
- Output** **Show Service Ingress-Label** — The following table describes show service ingress-label output fields:

Label	Description
Svc ID	The service identifier.
SDP Id	The SDP identifier.
Type	Indicates whether the SDP is a spoke or a mesh.
I.Lbl	The ingress label used by the far-end device to send packets to this device in this service by the SDP.
E.Lbl	The egress label used by this device to send packets to the far-end device in this service by the SDP.
Number of Bindings Found	The number of SDP bindings within the label range specified.

Sample Output

```
*A:ALA-12# show service ingress-label 0
=====
Martini Service Labels
=====
Svc Id      Sdp Id      Type I.Lbl      E.Lbl
-----
1           10:1        Mesh 0         0
1           20:1        Mesh 0         0
1           30:1        Mesh 0         0
1           50:1        Mesh 0         0
1           100:1       Mesh 0         0
1           101:1       Mesh 0         0
1           102:1       Mesh 0         0
1           103:1       Mesh 0         0
1           104:1       Mesh 0         0
1           105:1       Mesh 0         0
1           106:1       Mesh 0         0
1           107:1       Mesh 0         0
1           108:1       Mesh 0         0
1           300:1       Mesh 0         0
1           301:1       Mesh 0         0
1           302:1       Mesh 0         0
1           400:1       Mesh 0         0
100         300:100     Spok 0         0
200         301:200     Spok 0         0
300         302:300     Spok 0         0
400         400:400     Spok 0         0
-----
Number of Bindings Found : 21
-----
*A:ALA-12#
```

sap-using

Syntax **sap-using [msap] [dyn-script] [description]**

sap-using [**sap** *sap-id*] [**vlan-translation** | **anti-spoof**] [**description**]
sap-using interface [*ip-address* | *ip-int-name*]
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*
sap-using authentication-policy *policy-name*

Context show>service

Description This command displays SAP information.
 If no optional parameters are specified, the command displays a summary of all defined SAPs.
 The optional parameters restrict output to only SAPs matching the specified properties.

Parameters **ingress** — Specifies matching an ingress policy.
ingress — Specifies matching an ingress policy.
ingress — Specifies matching an ingress policy.
egress — Specifies matching an egress policy.
qos-policy *qos-policy-id* — The ingress or egress QoS Policy ID for which to display matching SAPs.
Values 1 — 65535
atm-td-profile *td-profile-id* — Displays SAPs using this traffic description.
filter *filter-id* — The ingress or egress filter policy ID for which to display matching SAPs.
Values 1 — 65535
sap *sap-id* — Specifies the physical port identifier portion of the SAP definition. See Common CLI Command Descriptions on page 1271 for command syntax.
interface *ip-address* — The IP address of the interface for which to display matching SAPs.
Values 1.0.0.0 — 223.255.255.255
interface *ip-int-name* — The IP interface name for which to display matching SAPs.
authentication-policy *policy name* — Specifies an existing authentication policy.
dyn-script — Displays dynamic service SAPs information.

Output **Show Service SAP** — The following table describes show service SAP output fields:

Label	Description
Port ID	The ID of the access port where the SAP is defined.
Svc ID	The service identifier.
Sap MTU	The SAP MTU value.
Ing. QoS	The SAP ingress QoS policy number specified on the ingress SAP.
Ing Fltr	The MAC or IP filter policy ID applied to the ingress SAP.

Label	Description (Continued)
Egr. QoS	The SAP egress QoS policy number specified on the egress SAP.
Egr. Fltr	The MAC or IP filter policy ID applied to the egress SAP.
Adm	The administrative state of the SAP.
Opr	The operational state of the SAP.

Sample Output

```
*A:Dut-A# show service sap-using
```

```
=====
Service Access Points
=====
```

PortId	SvcId	Ing. QoS	Ing. Fltr	Egr. QoS	Egr. Fltr	Adm	Opr
1/1/1:1	1	1	none	1	none	Up	Up
2/1/2:10/11	1	1	none	1	none	Up	Up
2/1/2:10/12	1	1	none	1	none	Up	Up
2/1/2:20/11	1	1	none	1	none	Up	Up
2/1/2:20/12	1	1	none	1	none	Up	Up
2/1/4:cp.10	10	1	none	1	none	Up	Up
2/1/4:cp.20	20	1	none	1	none	Up	Up

```
-----
Number of SAPs : 7
-----
=====
```

```
A:ALA-42# show service sap-using
```

```
=====
Service Access Points
=====
```

PortId	SvcId	Ing. QoS	Ing. Fltr	Egr. QoS	Egr. Fltr	Adm	Opr
1/1/2:100	1	1	none	1	none	Up	Down
1/1/4:0	2	1	none	1	none	Up	Down
1/2/9:0	6	1	none	1	none	Up	Down
1/1/3:0	88	1	none	1	none	Up	Down
1/1/5:0	88	1	none	1	none	Up	Down
1/1/2:0	218	1	none	1	none	Up	Down
1/1/9:0	700	1	none	1	none	Up	Down
1/1/9:10	1000	1	none	1	none	Up	Down
1/1/12:11	1000	1	none	1	none	Up	Down
1/1/13:10.20	1000	1	none	1	none	Up	Down

```
-----
Number of SAPs : 10
-----
=====
```

```
A:ALA-42#
```

```
*A:ALA-48# show service sap-using sap 1/1/21:0
```

```
=====
Service Access Points Using Port 1/1/21:0
=====
```

Show, Clear, Debug Commands

```
=====
PortId                SvcId      Ing.   Ing.   Egr.  Egr.   Anti  Adm  Opr
                    QoS      QoS   Fltr   QoS   Fltr   Spoof
-----
1/1/21:0              1          1     none   1     none   none  Up   Down
-----
Number of SAPs : 1
=====
*A:ALA-48#
*A:ALA-12#  show service sap-using egress atm-td-profile 2
=====
Service Access Point Using ATM Traffic Profile 2
=====
PortId      SvcId      I.QoS I.Fltr E.QoS E.Fltr A.Pol Adm Opr
-----
5/1/1:0/11 511111     2     none   2     none   none  Up  Up
5/1/1:0/12 511112     2     none   2     none   none  Up  Up
5/1/1:0/13 511113     2     none   2     none   none  Up  Up
5/1/1:0/14 511114     2     none   2     none   none  Up  Up
5/1/1:0/15 511115     2     none   2     none   none  Up  Up
5/1/1:0/16 511116     2     none   2     none   none  Up  Up
5/1/1:0/17 511117     2     none   2     none   none  Up  Up
5/1/1:0/18 511118     2     none   2     none   none  Up  Up
5/1/1:0/19 511119     2     none   2     none   none  Up  Up
5/1/1:0/20 511120     2     none   2     none   none  Up  Up
5/1/1:0/21 511121     2     none   2     none   none  Up  Up
5/1/1:0/22 511122     2     none   2     none   none  Up  Up
5/1/1:0/23 511123     2     none   2     none   none  Up  Up
5/1/1:0/24 511124     2     none   2     none   none  Up  Up
5/1/1:0/25 511125     2     none   2     none   none  Up  Up
...
=====
*A:ALA-12#
```

sdp

- Syntax** `sdp [[sdp-id[:vc-id] | far-end ip-address] [detail]]`
`sdp sdp-id:vc-id mrp`
- 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* — Specifies the SDP ID.
Values 1 — 17407
- vc-id* — The virtual circuit ID on the SDP ID to be reset.
Values 1 — 4294967295
- far-end ip-address** — Displays only SDPs matching with the specified far-end IP address.
Default SDPs with any far-end IP address.
- mrp** — Specifies to display Multiple Registration Protocol (MRP) information.
- detail** — Displays detailed SDP information.
Default SDP summary output.
- **Show Service SDP** — The following table describes show service SDP output fields:

Label	Description
SDP Id	The SDP identifier.
Adm MTU	Specifies the desired largest service frame size (in octets) that can be transmitted through this SDP to the far-end router, without requiring the packet to be fragmented.
Opr MTU	Specifies the actual largest service frame size (in octets) that can be transmitted through this SDP to the far-end router, without requiring the packet to be fragmented.
IP address	Specifies the IP address of the remote end of the GRE or MPLS tunnel defined by this SDP.
Adm Admin State	Specifies the desired state of the SDP.
Opr Oper State	Specifies the operating state of the SDP.
Deliver Delivery	Specifies the type of delivery used by the SDP: GRE or MPLS.
Flags	Specifies all the conditions that affect the operating status of this SDP.
Signal Signaling	Specifies the signaling protocol used to obtain the ingress and egress labels used in frames transmitted and received on the SDP.

Label	Description (Continued)
Last Status Change	Specifies the time of the most recent operating status change to this SDP.
Last Mgmt Change	Specifies the time of the most recent management-initiated change to this SDP.
Number of SDPs	Specifies the total number of SDPs displayed according to the criteria specified.
Hello Time	Specifies how often the SDP echo request messages are transmitted on this SDP.
Number of SDPs	Specifies the total number of SDPs displayed according to the criteria specified.
Hello Time	Specifies how often the SDP echo request messages are transmitted on this SDP.
Hello Msg Len	Specifies the length of the SDP echo request messages transmitted on this SDP.
Hello Timeout	Specifies the number of seconds to wait for an SDP echo response message before declaring a timeout.
Unmatched Replies	Specifies the number of SDP unmatched message replies.
Max Drop Count	Specifies the maximum number of consecutive SDP echo request messages that can be unacknowledged before the keepalive protocol reports a fault.
Hold Down Time	Specifies the amount of time to wait before the keepalive operating status is eligible to enter the alive state.
TX Hello Msgs	Specifies the number of SDP echo request messages transmitted since the keepalive was administratively enabled or the counter was cleared.
Rx Hello Msgs	Specifies the number of SDP echo request messages received since the keepalive was administratively enabled or the counter was cleared.
Ingress Cookie1 Ingress Cookie2	Specifies the ingress cookies configured for an L2TPv3 spoke-SDP binding for an Epipe service. One or two L2TPv3 ingress cookies may be configured.
Egress Cookie	Specifies the egress cookies configured for an L2TPv3 spoke-SDPs for an Epipe service.
Session Mismatch	Specifies a mismatch detected between the configured (far-end binding) cookie to what is received by the local IP address of the L2TPv3 SDP. The flag is set when a mismatch is detected and must be manually cleared by an operator.

Label	Description (Continued)
Associated LSP List	When the SDP type is MPLS, a list of LSPs used to reach the far-end router displays. All the LSPs in the list must terminate at the IP address specified in the far end field. If the SDP type is GRE, then the following message displays: SDP Delivery Mechanism is not MPLS

Sample Output

```
*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:ALA-12# show service sdp 2 detail
=====
Service Destination Point (Sdp Id : 2) Details
=====
Sdp Id 2  -(10.10.10.104)
-----
Description      : GRE-10.10.10.104
SDP Id           : 2
Admin Path MTU   : 0
Far End          : 10.10.10.104
Admin State      : Up
Flags            : SignalingSessDown TransportTunnDown
Signaling        : TLDP
Last Status Change : 02/01/2007 09:11:39
Last Mgmt Change  : 02/01/2007 09:11:46
Oper Path MTU    : 0
Delivery         : GRE
Oper State       : Down
VLAN VC Etype   : 0x8100
Adv. MTU Over.  : No

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

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

L2TPv3 Information
-----
Ingress Cookie      : AB:BA:BA:BB:A0:00:00:00
```

Show, Clear, Debug Commands

```
Ingress Cookie2      : BA:BA:BA:BA:BA:BA:BA:BA
Egress Cookie       : AB:BA:BA:BB:A0:00:00:00
Session Mismatch    : false
Sess Mismatch Clrd  : 06/19/2014 17:23:21

Associated LSP LIST :
SDP Delivery Mechanism is not MPLS
=====
*A:ALA-12#
*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# show service sdp 8 detail
=====
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#
```

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#

```

sdp-using

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

Context show>service

Description Display 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.

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

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

Sample Output

```

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

```

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```

100          300:100          Mesh 10.0.0.13      Up      131069  131069
101          300:101          Mesh 10.0.0.13      Up      131068  131068
102          300:102          Mesh 10.0.0.13      Up      131067  131067
-----
Number of SDPs : 5
-----
*A:ALA-1#

```

service-using

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

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 [*service*] — Displays information for the specified service type.

b-vpls — Specifies the B-component instance of the Provider Backbone Bridging (PBB/IEEE 802.1ah) feature. It represents the multi-point tunneling component that multiplexes multiple customer VPNs (ISIDs) together. It is similar to a regular VPLS instance that operates on the backbone MAC addresses.

i-vpls — Specifies the I-component instance of the Provider Backbone Bridging (PBB/IEEE 802.1ah) feature. It identifies the specific VPN entity associated to a customer multipoint (ELAN) service. It is similar to a regular VPLS instance that operates on the customer MAC addresses.

m-vpls — Specifies the M-component (managed VPLS) instance of the Provider Backbone Bridging (PBB/IEEE 802.1ah) feature.

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 any customer.

Values 1 — 2147483647

Output **Show service-using output** — The following table describes the 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.

Label	Description
CustomerID	The ID of the customer who owns this service.
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
=====
Services
=====
ServiceId   Type      Adm   Opr      CustomerId  Last Mgmt Change
-----
1           uVPLS    Up    Up        1           10/26/2006 15:44:57
2           Epipe    Up    Down      1           10/26/2006 15:44:57
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
999         uVPLS    Down  Down      1           10/26/2006 16:14:33
-----
Matching Services : 8
-----
*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           06/22/2006 23:05:58
7           Epipe    Up    Up        6           06/22/2006 23:05:58
8           Epipe    Up    Up        3           06/22/2006 23:05:58
103         Epipe    Up    Up        6           06/22/2006 23:05:58
-----
Matching Services : 4
=====
*A:ALA-12#

*A:ALU-76# show service service-using cpipe
```

Show, Clear, Debug Commands

```
=====
Services [cpipe]
=====
ServiceId   Type      Adm   Opr      CustomerId  Last Mgmt Change
-----
100         Cpipe    Up    Up        1            09/10/2008 19:51:06
200         Cpipe    Down  Down      1            09/10/2008 19:51:06
210         Cpipe    Up    Up        1            09/10/2008 19:51:06
220         Cpipe    Down  Down      1            09/10/2008 19:51:06
300         Cpipe    Down  Down      1            09/10/2008 19:51:06
400         Cpipe    Down  Down      1            09/10/2008 19:51:06
444         Cpipe    Down  Down      1            09/10/2008 19:51:06
455         Cpipe    Up    Up        1            09/10/2008 19:51:06
-----
Matching Services : 8
-----
*A:ALU-76#
```

spoke-sdp-fec-using

- Syntax** `spoke-sdp-fec-using [spoke-sdp-fec-id spoke-sdp-fec-id] [saii-type2 global-id:prefix:ac-id] [taii-type2 global-id:prefix:ac-id] [path name]`
- Context** `show>service`
- Description** Displays the SDPs used by spoke-sdp-fecs at this node.

Sample Output

```
*A:Dut-C# show service spoke-sdp-fec-using
=====
Service Spoke-SDP-Fec Information
=====
SvcId      SpokeSdpFec  Oper-SdpBind  SAII-Type2
Path      Path
-----
1          1             17407:4294967245 3:10.20.1.3:1
n/a       n/a           n/a            6:10.20.1.6:1
2          2             17407:4294967247 3:10.20.1.3:2
n/a       n/a           n/a            6:10.20.1.6:2
3          3             17407:4294967248 3:10.20.1.3:3
n/a       n/a           n/a            6:10.20.1.6:3
4          4             17407:4294967249 3:10.20.1.3:4
n/a       n/a           n/a            6:10.20.1.6:4
5          5             17407:4294967250 3:10.20.1.3:5
n/a       n/a           n/a            6:10.20.1.6:5
6          6             17407:4294967251 3:10.20.1.3:6
n/a       n/a           n/a            6:10.20.1.6:6
7          7             17407:4294967252 3:10.20.1.3:7
n/a       n/a           n/a            6:10.20.1.6:7
8          8             17407:4294967253 3:10.20.1.3:8
n/a       n/a           n/a            6:10.20.1.6:8
9          9             17407:4294967254 3:10.20.1.3:9
n/a       n/a           n/a            6:10.20.1.6:9
10         10            17407:4294967255 3:10.20.1.3:10
n/a       n/a           n/a            6:10.20.1.6:10
-----
Entries found: 10
```

vccv-bfd

Syntax	vccv-bfd session [detail] [sdp sdp-id[:vc-id]] vccv-bfd session [detail]
Context	show>service>id
Description	<p>This command shows whether VCCV BFD is configured for a particular service and information about the VCCV session state.</p> <p>The show>service>id>vccv-bfd session command gives a summary of all the VCCV sessions. Using both the sdp-id and the vc-id parameters gives VCCV BFD session information about a specific spoke-SDP.</p> <p>For services where auto-discovery and signaling are used (for example, BGP VPWS, VPLS, and BGP-AD VPLS), use the show>service>id>detail command to determine the sdp-id and vc-id parameters allocated by the system.</p>
Parameters	<p><i>service-id</i> — The identification number of the specific service.</p> <p>Values service-id: 1 — 214748364</p> <p><i>sdp-id</i> — Specifies the SDP ID.</p> <p>Values 1 — 17407</p> <p><i>vc-id</i> — The virtual circuit ID on the SDP.</p> <p>Values 1 — 4294967295</p>

Sample Output

```
*A:Dut-C# show service id 1000 vccv-bfd session
=====
BFD Session
=====
Interface/Lsp Name          State          Tx Intvl  Rx Intvl  Multipl
Remote Address/Info        Protocols      Tx Pkts   Rx Pkts   Type
LAG port/sdp-id:vc-id     LAG ID/SvcId
-----
N/A                          Up (3)         1000      1000      3
N/A                          vccv           152       151       central
100:100                       1000
-----
No. of BFD sessions: 1
=====

A:bksim1611>show>service# id 1000 sdp 25:105 vccv-bfd session detail
=====
BFD Session
=====
Svc-id : 1000
sdp-id:vc-id : 25:105  sdpBindInstanceId : 100
Admin State  : Up           Oper State      : Up (3)
Up Time      : 0d 00:00:27  Up Transitions : 1
Down Time    : None        Down Transitions : 0
Version Mismatch : 0
```

Show, Clear, Debug Commands

Forwarding Information

Local Discr	: 4002	Local State	: Up (3)
Local Diag	: 0 (None)	Local Mode	: Async
Local Min Tx	: 1000	Local Mult	: 3
Last Sent	: 12/06/2013 19:38:13	Local Min Rx	: 1000
Type	: central		
Remote Discr	: 4001	Remote State	: Up (3)
Remote Diag	: 0 (None)	Remote Mode	: Async
Remote Min Tx	: 1000	Remote Mult	: 3
Last Recv	: 12/06/2013 19:38:12	Remote Min Rx	: 1000

=====

id

Syntax	id <i>service-id</i> { all arp base endpoint fdb interface labels sap sdp split-horizon-group stp }
Context	show>service
Description	This command displays information for a particular service-id.
Parameters	<i>service-id</i> — The service identification number that identifies the service in the domain.
	<p>Values service-id: 1 — 214748364 svc-name: A string up to 64 characters in length.</p> <p>all — Display detailed information about the service.</p> <p>arp — Display ARP entries for the service.</p> <p>base — Display basic service information.</p> <p>endpoint — Display service endpoint information.</p> <p>interface — Display service interfaces.</p> <p>labels — Display labels being used by this service.</p> <p>sap — Display SAPs associated to the service.</p> <p>sdp — Display SDPs associated with the service.</p> <p>split-horizon-group — Display split horizon group information.</p> <p>stp — Display STP information.</p>

Sample Output

```
A:bkxsim1611>config>service>ipipe# show service id 1009 all
=====
Service Detailed Information
=====
Service Id       : 1009                Vpn Id           : 0
Service Type    : Ipipe
Name            : (Not Specified)
Description     : (Not Specified)
Customer Id     : 1
Last Status Change: 09/15/2010 13:06:46 Last Mgmt Change : 09/15/2010 13:06:02
Admin State     : Up                  Oper State       : Up
MTU             : 1500
Vc Switching    : False
SAP Count       : 1                  SDP Bind Count   : 1
CE IPv4 Discovery : Enabled          CE IPv6 Discovery : Enabled
-----
Service Destination Points (SDPs)
-----
Sdp Id 5:1009  -(5.5.5.5)
-----
Description     : (Not Specified)
SDP Id          : 5:1009                Type             : Spoke
Spoke Descr     : (Not Specified)
Split Horiz Grp : (Not Specified)
```

Show, Clear, Debug Commands

```
VC Type           : Ipipe           VC Tag           : 0
Admin Path MTU    : 0               Oper Path MTU    : 1568
Far End          : 5.5.5.5         Delivery         : MPLS
Tunnel Far End   : n/a
Hash Label       : Disabled

Admin State       : Up              Oper State       : Up
Acct. Pol        : None            Collect Stats    : Disabled
Ingress Label    : 131048          Egress Label    : 131053
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 : 09/15/2010 13:06:46  Signaling       : TLDP
Last Mgmt Change  : 09/15/2010 13:06:02
Endpoint         : N/A             Precedence      : 4
PW Status Sig    : Enabled
Class Fwding State : Down
Flags            : None
Peer Pw Bits     : None
Peer Fault Ip    : None
Peer Vccv CV Bits : lspPing
Peer Vccv CC Bits : mplsRouterAlertLabel

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.      : 15             I. Dro. Pkts.    : 0
I. Fwd. Octs.      : 1460           I. Dro. Octs.    : 0
E. Fwd. Pkts.      : 17             E. Fwd. Octets   : 1604

-----
RSVP/Static LSPs
-----
Associated LSP LIST :
Lsp Name           : to-bksim180-1
Admin State        : Up              Oper State         : Up
Time Since Last Tr* : 16h07m44s

Lsp Name           : to-bksim180-2
Admin State        : Up              Oper State         : Up
Time Since Last Tr* : 16h07m45s

-----
Class-based forwarding :
-----
Class forwarding   : Enabled          EnforceDSTELspFc : Disabled
Default LSP       : to-bksim180-1    Multicast LSP     : None

=====
FC Mapping Table
=====
FC Name           LSP Name
-----
ef                 to-bksim180-2
=====
```

IPIPE Service Destination Point specifics

Configured CE IP Addr : n/a Peer CE IP Addr : 0.0.0.0

Peer IPv6 Capability : No
Peer IPv6 LL Addr : FE80::2009:2009:2
Peer IPv6 Global Addr : 3FFE:1200:2009:2009:9:9:9:8
-----Number of SDPs : 1
-----Service Access Points
-----SAP 1/7/3:1009
-----Service Id : 1009
SAP : 1/7/3:1009 Encap : q-tag
Description : (Not Specified)
Admin State : Up Oper State : Up
Flags : None
Multi Svc Site : None
Last Status Change : 09/15/2010 13:06:21
Last Mgmt Change : 09/15/2010 13:06:02
Sub Type : regular
Dot1Q Ethertype : 0x8100 QinQ Ethertype : 0x8100
Split Horizon Group: (Not Specified)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
Endpoint : N/A
Q Frame-Based Acct : Disabled

Acct. Pol : None Collect Stats : Disabled

Oper Group : (none) Monitor Oper Grp : (none)
-----ETH-CFM SAP specifics
-----Tunnel Faults : n/a CFM Hold-Timer : n/a
-----Ipipe SAP Configuration Information
-----Configured CE IP : n/a Discovered CE IP : 209.1.1.1
SAP MAC Address : ac:55:01:07:00:03 Mac Refresh Inter*: 14400
-----Ipipe SAP IPv4 ARP Entry Info
-----209.1.1.1 00:11:22:33:44:55 dynamic
-----Ipipe SAP IPv6 Neighbor Entry Info

Show, Clear, Debug Commands

FE80::2009:2009:1

00:11:22:33:44:55 dynamic

QoS

```
Ingress qos-policy : 1                      Egress qos-policy : 1
Shared Q plcy      : n/a                    Multipoint shared  : Disabled
I. Sched Pol      : (Not Specified)
E. Sched Pol      : (Not Specified)
I. Policer Ctl Pol : (Not Specified)
E. Policer Ctl Pol : (Not Specified)
```

Sap Statistics

Last Cleared Time : N/A

	Packets	Octets
Forwarding Engine Stats		
Dropped	: 2	172
Off. HiPrio	: 0	0
Off. LowPrio	: 17	1978
Off. Uncolor	: 0	0

Queueing Stats (Ingress QoS Policy 1)		
Dro. HiPrio	: 0	0
Dro. LowPrio	: 0	0
For. InProf	: 0	0
For. OutProf	: 17	1978

Queueing Stats (Egress QoS Policy 1)		
Dro. InProf	: 0	0
Dro. OutProf	: 0	0
For. InProf	: 0	0
For. OutProf	: 15	1790

Sap per Queue stats

	Packets	Octets
Ingress Queue 1 (Unicast) (Priority)		
Off. HiPrio	: 0	0
Off. LoPrio	: 17	1978
Dro. HiPrio	: 0	0
Dro. LoPrio	: 0	0
For. InProf	: 0	0
For. OutProf	: 17	1978

Egress Queue 1		
For. InProf	: 0	0
For. OutProf	: 15	1790
Dro. InProf	: 0	0
Dro. OutProf	: 0	0

Service Endpoints

No Endpoints found.

```

VPLS Sites
=====
Site                Site-Id  Dest                Mesh-SDP  Admin  Oper  Fwdr
-----
No Matching Entries
=====
show service id x all
-----
SAP 1/1/4:500
-----
Service Id          : 500
SAP                 : 1/1/4:500          Encap                : q-tag
Description         : (Not Specified)
Admin State         : Up                Oper State           : Down
Flags               : PortOperDown
Multi Svc Site      : None
Last Status Change : 09/19/2013 11:43:04
Last Mgmt Change   : 09/19/2013 11:43:05
Sub Type            : regular
Dot1Q Ethertype     : 0x8100          QinQ Ethertype      : 0x8100
Split Horizon Group: (Not Specified)

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
Egr Agg Rate Limit: max

Endpoint           : N/A
Q Frame-Based Acct : Disabled
Vlan-translation   : None

Acct. Pol          : None          Collect Stats        : Disabled

Application Profile: None
Transit Policy     : None

Oper Group         : (none)          Monitor Oper Grp    : (none)
Host Lockout Plcy  : n/a
Ignore Oper Down   : Disabled
Lag Link Map Prof  : (none)
Cflowd            : Disabled
-----
ETH-CFM SAP specifics
-----
Tunnel Faults      : n/a          AIS                  : Disabled
MC Prop-Hold-Timer: n/a
Squelch Levels     : 0 1 2 3 4 5 6 7
-----
QOS
-----
Ingress qos-policy : 1          Egress qos-policy   : 1
.
.
.
-----
Service Destination Points (SDPs)
-----

```

Show, Clear, Debug Commands

```

-----
Sdp Id 1:2  -(1.1.1.1)
-----
Description      : (Not Specified)
SDP Id           : 1:2                               Type           : Spoke
Spoke Descr     : (Not Specified)
Split Horiz Grp : (Not Specified)
VC Type         : Ether                               VC Tag         : n/a
Admin Path MTU  : 0                                   Oper Path MTU  : 0
Delivery        : GRE
Far End         : 1.1.1.1
Tunnel Far End  : n/a                               LSP Types      : n/a
Hash Label      : Disabled                           Hash Lbl Sig Cap : Disabled
Oper Hash Label : Disabled

Admin State      : Up                               Oper State     : Down
Acct. Pol       : None                             Collect Stats  : Disabled
Ingress Label   : 0                               Egress Label  : 0
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 : 09/11/2013 20:02:40         Signaling     : TLDP
Last Mgmt Change  : 09/15/2013 13:56:56         Force Vlan-Vc : Disabled
Endpoint        : N/A                             Precedence    : 4
PW Status Sig    : Enabled
Class Fwding State : Down
Flags           : SdpOperDown
                  NoIngVCLabel NoEgrVCLabel
                  PathMTUTooSmall

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
Transit Policy    : None
Max Nbr of MAC Addr: No Limit                       Total MAC Addr : 0
Learned MAC Addr  : 0                               Static MAC Addr : 0
OAM MAC Addr      : 0                               DHCP MAC Addr  : 0
Host MAC Addr     : 0                               Intf MAC Addr  : 0
SPB MAC Addr      : 0                               Cond 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
E. Fwd. Pkts.        : 0                  E. Fwd. Octets       : 0

Squelch Levels       : 0 1 2 3 4 5 6 7

```

authentication

- Syntax** authentication
- Context** show>service>id
- Description** This command enables the context to display subscriber authentication information.

statistics

- Syntax** **statistics** [*policy name*] [*sap sap-id*]
- Context** show>service>id>authentication
- Description** This command displays session authentication statistics for this service.
- Parameters** **policy name** — Specifies the subscriber authentication policy statistics to display.
- sap sap-id** — Specifies the SAP ID statistics to display. See Common CLI Command Descriptions on page 1271 for command syntax.

Sample Output

```

*A:ALA-1# show service id 11 authentication statistics
=====
Authentication statistics
=====
Interface / SAP                Authentication Successful  Authentication Failed
-----
vpls-11-90.1.0.254             1582                      3
-----
Number of entries: 1
=====
*A:ALA-1#

```

all

- Syntax** **all**
- Context** show>service>id
- Description** This command displays detailed information for all aspects of the service.
- Output** **Show service ID Output** — The following table describes the output fields when the **all** option is specified:

Label	Description
Service Id	The service identifier.
VPN Id	The number which identifies the VPN.
Service Type	Specifies the type of service.
VLL Type	Specifies the VLL type.
SDP Id	The SDP identifier.
Description	Generic information about the service.
Customer Id	The customer identifier.
Last Mgmt Change	The date and time of the most recent management-initiated change.
Endpoint	Specifies the name of the service endpoint.
Flags	Specifies the conditions that affect the operating status of this SAP. Display output includes: ServiceAdminDown, SapAdminDown, InterfaceAdminDown, PortOperDown, PortMTUTooSmall, L2OperDown, SapIngressQoSMismatch, SapEgressQoSMismatch, RelearnLimitExceeded, RxProtSrcMac, ParentIfAdminDown, NoSapIpipeCeIpAddr, TodResourceUnavail, TodMssResourceUnavail, SapParamMismatch, CemSapNoEcidOrMacAddr, StandByForMcRing, ServiceMTUTooSmall, SapIngressNamedPoolMismatch, SapEgressNamedPoolMismatch, NoSapEpipeRingNode.
SAP Count	The number of SAPs specified for this service.
SDP Bind Count	The number of SDPs bound to this service.
Split Horizon Group specifics	
Split Horizon Group	Name of the split horizon group for this VPLS.
Description	Description of the split horizon group.
Last Changed	The date and time of the most recent management-initiated change to this split horizon group.
Service Destination Points (SDPs)	
SDP Id	The SDP identifier.

Label	Description (Continued)
Type	Indicates whether this Service SDP binding is a spoke or a mesh.
Admin Path MTU	The desired largest service frame size (in octets) that can be transmitted through this SDP to the far-end router, without requiring the packet to be fragmented.
Oper Path MTU	The actual largest service frame size (in octets) that can be transmitted through this SDP to the far-end router, without requiring the packet to be fragmented.
Delivery	Specifies the type of delivery used by the SDP: GRE or MPLS.
Admin State	The administrative state of this SDP.
Oper State	The operational state of this SDP.
Jitter Buffer (packets)	Indicates the jitter buffer length in number of packet buffers.
Playout Threshold (packets)	Indicates the playout buffer packets threshold in number of packet buffers.
Playout Threshold (packets)	Indicates the current packet depth of the jitter buffer.
Peer Pw Bits	Indicates the bits set by the LDP peer when there is a fault on its side of the pseudowire. LAC failures occur on the SAP that has been configured on the pipe service, PSN bits are set by SDP-binding failures on the pipe service. The pwNotForwarding bit is set when none of the above failures apply, such as an MTU mismatch failure. This value is only applicable if the peer is using the pseudowire status signalling method to indicate faults. pwNotForwarding — Pseudowire not forwarding lacIngressFault Local — Attachment circuit RX fault lacEgressFault Local — Attachment circuit TX fault psnIngressFault Local — PSN-facing PW RX fault psnEgressFault Local — PSN-facing PW TX fault pwFwdingStandby — Pseudowire in standby mode
Signaling Override	Indicates the overriding signaled pseudowire type, as configured under the signaled-vc-type-override option for Apipes. This field is only displayed if signaled-vc-type-override is configured.

Sample Output

```
A:SR12# show service id 10 all
=====Service
Detailed Information
=====Service Id
: 10                Vpn Id          : 0
Service Type       : Apipe           VLL Type         : ATMCell
Name                : (Not Specified)
Description         : (Not Specified)
```

Show, Clear, Debug Commands

```
Customer Id      : 2
Last Status Change: 10/07/2010 05:03:47 Last Mgmt Change : 10/07/2010 05:03:51
Admin State      : Up                               Oper State       : Down
MTU              : 1508                             Signaling Override: ATMVCC
Vc Switching     : False
SAP Count        : 1                               SDP Bind Count   : 1
```

..... (No change to SDP description)

```
----- SAP 2/1/4:cp.10
```

```
-----Service Id : 10
```

```
SAP              : 2/1/4:cp.10           Encap            : atm
Description      : (Not Specified)
Admin State      : Up                     Oper State       : Up
Flags           : None
Multi Svc Site   : None
Last Status Change : 10/16/2010 06:58:41
Last Mgmt Change  : 10/16/2010 06:58:41
Sub Type         : regular
Split Horizon Group: (Not Specified)
```

```
Admin MTU        : 1524                   Oper MTU         : 1524
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
```

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

```
Oper Group       : (none)                   Monitor Oper Grp : (none)
```

```
*B:ALA-Dut-H# show service id 100 all
```

```
=====
Service Detailed Information
=====
```

```
Service Id      : 100                       Vpn Id          : 100
Service Type     : Epipe
Description      : Default epipe description for service id 100
Customer Id     : 100
Last Status Change: 02/06/2007 10:03:11
Last Mgmt Change  : 02/06/2007 09:43:27
Admin State      : Up                       Oper State       : Up
MTU              : 1514
Vc Switching     : False
SAP Count        : 1                       SDP Bind Count   : 4
```

```
-----
Service Destination Points (SDPs)
-----
```

```
Sdp Id 1:10100  -(10.20.1.7)
```

```
-----
SDP Id          : 1:10100                     Type            : Spoke
VC Type         : Ether                       VC Tag          : n/a
Admin Path MTU  : 1560                         Oper Path MTU   : 1560
Far End         : 10.20.1.7                     Delivery        : MPLS

Admin State     : Up                           Oper State      : Up
Acct. Pol       : None                         Collect Stats    : Disabled
```

```

Ingress Label      : 130065
Ing mac Fltr      : n/a
Ing ip Fltr       : n/a
Ing ipv6 Fltr     : n/a
Admin ControlWord : Not Preferred
Last Status Change : 02/06/2007 10:03:24
Last Mgmt Change  : 02/06/2007 09:43:27
Endpoint          : y
Flags             : SapOperDown
Peer Pw Bits      : None
Peer Fault Ip     : None
Peer Vccv CV Bits : lspPing
Peer Vccv CC Bits : mplsRouterAlertLabel
MAC Pinning       : Disabled
Egress Label      : 130368
Egr mac Fltr     : n/a
Egr ip Fltr      : n/a
Egr ipv6 Fltr    : n/a
Oper ControlWord  : False
Signaling         : TLDP
Precedence        : 4

```

KeepAlive Information :

```

Admin State      : Enabled
Hello Time       : 10
Max Drop Count   : 3
Oper State       : Alive
Hello Msg Len    : 0
Hold Down Time   : 10

```

Statistics :

```

I. Fwd. Pkts.   : 0
E. Fwd. Pkts.   : 0
I. Dro. Pkts.   : 0
E. Fwd. Octets  : 0

```

Associated LSP LIST :

```

Lsp Name        : lsp1_G
Admin State     : Up
Oper State      : Up
Time Since Last Tr*: 01h40m15s

```

```
-----
Sdp Id 2:100  -(10.20.1.4)
-----
```

```

SDP Id          : 2:100
VC Type         : Ether
Admin Path MTU  : 1560
Far End         : 10.20.1.4
Admin State     : Up
Acct. Pol      : None
Ingress Label   : 130671
Ing mac Fltr   : n/a
Ing ip Fltr     : n/a
Ing ipv6 Fltr   : n/a
Admin ControlWord : Not Preferred
Last Status Change : 02/06/2007 10:03:11
Last Mgmt Change  : 02/06/2007 09:43:27
Endpoint       : y
Flags          : None
Peer Pw Bits   : pwFwdingStandby
Peer Fault Ip  : None
Peer Vccv CV Bits : lspPing
Peer Vccv CC Bits : mplsRouterAlertLabel
MAC Pinning    : Disabled
Type           : Spoke
VC Tag         : n/a
Oper Path MTU  : 1560
Delivery       : MPLS
Oper State     : Up
Collect Stats  : Disabled
Egress Label   : 130367
Egr mac Fltr  : n/a
Egr ip Fltr   : n/a
Egr ipv6 Fltr : n/a
Oper ControlWord : False
Signaling      : TLDP
Precedence     : 0

```

KeepAlive Information :

```

Admin State      : Enabled
Hello Time       : 10
Max Drop Count   : 3
Oper State       : Alive
Hello Msg Len    : 0
Hold Down Time   : 10

```

Statistics :

```

I. Fwd. Pkts.   : 0
E. Fwd. Pkts.   : 0
I. Dro. Pkts.   : 0
E. Fwd. Octets  : 0

```

Show, Clear, Debug Commands

```
Associated LSP LIST :
Lsp Name       : lsp2_D
Admin State    : Up
Oper State     : Up
Time Since Last Tr*: 01h40m16s
-----
Sdp Id 3:100  -(10.20.1.5)
-----
SDP Id         : 3:100
VC Type        : Ether
Admin Path MTU : 1560
Far End        : 10.20.1.5
Type           : Spoke
VC Tag         : n/a
Oper Path MTU  : 1560
Delivery       : MPLS

Admin State    : Up
Acct. Pol      : None
Ingress Label  : 130971
Ing mac Fltr   : n/a
Ing ip Fltr    : n/a
Ing ipv6 Fltr  : n/a
Admin ControlWord : Not Preferred
Last Status Change : 02/06/2007 10:03:17
Last Mgmt Change : 02/06/2007 09:43:27
Endpoint       : y
Flags          : None
Peer Pw Bits   : None
Peer Fault Ip  : None
Peer Vccv CV Bits : lspPing
Peer Vccv CC Bits : mplsRouterAlertLabel
MAC Pinning    : Disabled

Oper State     : Up
Collect Stats  : Disabled
Egress Label   : 130368
Egr mac Fltr   : n/a
Egr ip Fltr    : n/a
Egr ipv6 Fltr  : n/a
Oper ControlWord : False
Signaling      : TLDP
Precedence     : 4

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

Statistics      :
I. Fwd. Pkts.  : 0
E. Fwd. Pkts.  : 0
I. Dro. Pkts.  : 0
E. Fwd. Octets : 0

Associated LSP LIST :
Lsp Name       : lsp3_E
Admin State    : Up
Oper State     : Up
Time Since Last Tr*: 01h40m16s
-----
...
=====
*B:ALA-Dut-H#

A:SR12# show service id 20 all
=====
Service Detailed Information
=====
Service Id      : 20
Service Type    : Apipe
Name            : (Not Specified)
Description     : (Not Specified)
Customer Id     : 2
Last Status Change: 10/07/2010 05:03:47
Admin State     : Up
MTU             : 1508
Vc Switching   : False
SAP Count       : 1
Vpn Id         : 0
VLL Type       : ATMCell
Last Mgmt Change : 10/07/2010 05:03:51
Oper State      : Down
Signaling Override: ATMVCC
SDP Bind Count  : 1
```

```
-----
APIPE SDU-mode specifics
-----
```

```
Interworking      : None
-----
```

```
Service Destination Points (SDPs)
-----
```

```
Sdp Id 3:1  -(1.1.1.1)
-----
```

```
Description      : Default sdp description
```

```
SDP Id           : 3:1                               Type           : Spoke
VC Type          : AAL5SSDU                          VC Tag         : 0
Admin Path MTU   : 1600                              Oper Path MTU  : 1600
Far End          : 1.1.1.1                          Delivery       : GRE

Admin State      : Up                               Oper State     : Up
Acct. Pol       : None                             Collect Stats  : Disabled
Ingress Label   : 119665                          Egress Label   : 103665
Ing mac Fltr    : n/a                             Egr mac Fltr  : n/a
Ing ip Fltr     : n/a                             Egr ip Fltr   : n/a
Admin ControlWord : Preferred                       Oper ControlWord : True
Last Status Change : 04/04/2007 20:52:24          Signaling      : TLDP
Last Mgmt Change  : 04/04/2007 20:48:24
Endpoint        : N/A                               Precedence     : 4
Flags           : None
Peer Pw Bits    : None
Peer Fault Ip   : None
Peer Vccv CV Bits : lspPing
Peer Vccv CC Bits : pwe3ControlWord
MAC Pinning     : 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
E. Fwd. Pkts.   : 0                               E. Fwd. Octets : 0
```

```
Associated LSP LIST :
```

```
SDP Delivery Mechanism is not MPLS
-----
```

```
Sdp Id 6:2  -(4.4.4.4)
-----
```

```
Description      : Default sdp description
```

```
SDP Id           : 6:2                               Type           : Spoke
VC Type          : AAL5SSDU                          VC Tag         : 0
Admin Path MTU   : 1600                              Oper Path MTU  : 1600
Far End          : 4.4.4.4                          Delivery       : GRE

Admin State      : Up                               Oper State     : Up
Acct. Pol       : None                             Collect Stats  : Disabled
Ingress Label   : 103664                          Egress Label   : 119665
Ing mac Fltr    : n/a                             Egr mac Fltr  : n/a
Ing ip Fltr     : n/a                             Egr ip Fltr   : n/a
Admin ControlWord : Preferred                       Oper ControlWord : True
Last Status Change : 04/04/2007 20:53:13          Signaling      : TLDP
Last Mgmt Change  : 04/04/2007 20:48:24
Endpoint        : N/A                               Precedence     : 4
Flags           : None
Peer Pw Bits    : None
```

Show, Clear, Debug Commands

```
Peer Fault Ip      : None
Peer Vccv CV Bits : lspPing
Peer Vccv CC Bits : pwe3ControlWord mplsRouterAlertLabel
MAC Pinning       : 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
E. Fwd. Pkts.      : 0                E. Fwd. Octets   : 0
Associated LSP LIST :
SDP Delivery Mechanism is not MPLS
```

```
-----
Number of SDPs : 2
-----
```

```
Service Access Points
-----
```

```
No Sap Associations
-----
```

```
Service Endpoints
-----
```

```
No Endpoints found.
```

```
=====
*A:ALA-DutC>config>service#
```

```
*A:ALU-76# show service id 200 all
```

```
-----
Service Detailed Information
=====
```

```
Service Id      : 200                Vpn Id          : 0
Service Type     : Cpipe              VLL Type        : CESoPSN
Customer Id      : 1
Last Status Change: 09/11/2008 19:05:29
Last Mgmt Change  : 09/10/2008 19:51:06
Admin State      : Up                 Oper State       : Up
MTU              : 1400
Vc Switching     : False
SAP Count        : 1                 SDP Bind Count   : 1
```

```
-----
Service Destination Points (SDPs)
-----
```

```
Sdp Id 5:200  -(5.5.5.5)
```

```
-----
SDP Id          : 5:200                Type            : Spoke
VC Type         : CESoPSN              VC Tag          : 0
Admin Path MTU  : 0                    Oper Path MTU   : 1568
Far End         : 5.5.5.5              Delivery        : MPLS

Admin State      : Up                 Oper State       : Up
Acct. Pol       : None                Collect Stats    : Disabled
Ingress Label    : 131061              Egress Label    : 131066
Ing mac Fltr    : n/a                 Egr mac Fltr    : n/a
Ing ip Fltr     : n/a                 Egr ip Fltr     : n/a
Admin ControlWord : Preferred          Oper ControlWord : True
Admin BW(Kbps)  : 0                    Oper BW(Kbps)   : 0
Last Status Change : 09/11/2008 19:05:29
Last Mgmt Change  : 09/10/2008 19:51:06
Signaling       : TLDP
```

```

Endpoint          : N/A                      Precedence       : 4
Class Fwding State : Down
Flags             : None
Peer Pw Bits     : None
Peer Fault Ip    : None
Peer Vccv CV Bits : lspPing
Peer Vccv CC Bits : pwe3ControlWord mplsRouterAlertLabel

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

Associated LSP LIST :
Lsp Name          : to-ALU-80-1
Admin State       : Up                      Oper State       : Up
Time Since Last Tr*: 03d21h52m

-----
Class-based forwarding :
-----
Class forwarding   : disabled                EnforceDSTELspFc : disabled
Default LSP       : Uknwn                   Multicast LSP     : None
=====
FC Mapping Table
=====
FC Name           LSP Name
-----
No FC Mappings
-----
CPIPE Service Destination Point specifics
-----
Local Bit-rate    : 12                      Peer Bit-rate     : 12
Local Payload Size : 192                    Peer Payload Size : 192
Local Sig Pkts    : No Sig.                 Peer Sig Pkts     : No Sig.
Local CAS Framing : No CAS                  Peer CAS Framing  : No CAS
Local RTP Header  : No                      Peer RTP Header   : No
Local Differential : No                     Peer Differential  : No
Local Timestamp   : 0                      Peer Timestamp    : 0
-----
Number of SDPs : 1
-----
Service Access Points
-----
SAP 1/5/1.1.1.1
-----
Service Id       : 200
SAP              : 1/5/1.1.1.1             Encap            : cem
Admin State      : Up                      Oper State       : Up
Flags           : None
Multi Svc Site   : None
Last Status Change : 09/10/2008 19:51:27
Last Mgmt Change  : 09/10/2008 19:51:06
Sub Type         : regular

Admin MTU        : 1578                    Oper MTU         : 1578
Ingr IP Fltr-Id : n/a                     Egr IP Fltr-Id  : n/a

```

Show, Clear, Debug Commands

```
Ingr Mac Fltr-Id   : n/a
Ingr IPv6 Fltr-Id : n/a
tod-suite         : None
Ing Agg Rate Limit : max
Endpoint          : N/A
Egr Mac Fltr-Id   : n/a
Egr IPv6 Fltr-Id : n/a
qing-pbit-marking : both
Egr Agg Rate Limit : max
```

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

QOS

```
Ingress qos-policy : 1
Shared Q plcy      : n/a
Egress qos-policy  : 1
Multipoint shared  : Disabled
```

Sap Statistics

```
Last Cleared Time : N/A
                  Packets
Forwarding Engine Stats
Dropped           : 0
Off. HiPrio       : 0
Off. LowPrio      : 0
Off. Uncolor      : 0
Queueing Stats(Ingress QoS Policy 1)
Dro. HiPrio       : 0
Dro. LowPrio      : 0
For. InProf       : 0
For. OutProf      : 0
Queueing Stats(Egress QoS Policy 1)
Dro. InProf       : 0
Dro. OutProf      : 0
For. InProf       : 0
For. OutProf      : 0
                  Octets
```

Sap per Queue stats

```
                  Packets
Ingress Queue 1 (Unicast) (Priority)
Off. HiPrio       : 0
Off. LoPrio       : 0
Dro. HiPrio       : 0
Dro. LoPrio       : 0
For. InProf       : 0
For. OutProf      : 0
                  Octets

Ingress Queue 11 (Multipoint) (Priority)
Off. HiPrio       : 0
Off. LoPrio       : 0
Dro. HiPrio       : 0
Dro. LoPrio       : 0
For. InProf       : 0
For. OutProf      : 0

Egress Queue 1
For. InProf       : 0
For. OutProf      : 0
Dro. InProf       : 0
Dro. OutProf      : 0
                  Octets
```

CEM SAP Configuration Information

VLL Show Commands

```

Endpoint Type      : NxDSO          Bit-rate           : 12
Payload Size      : 192             Jitter Buffer (ms)  : 8
Jitter Buffer (packets): 4          Playout Threshold (packets): 3
Use RTP Header    : No             Differential        : No
Timestamp Freq    : 0              CAS Framing        : No CAS
  
```

```

Cfg Alarm      : stray malformed pktloss overrun underrun
Alarm Status   :
  
```

CEM SAP Statistics

	Packets	Seconds	Events
Egress Stats			
Forwarded	: 0		
Dropped	: 0		
Missing	: 0		
Reordered Forwarded	: 0		
Underrun	: 0		0
Overrun	: 0		0
Misordered Dropped	: 0		
Malformed Dropped	: 0		
LBit Dropped	: 0		
Multiple Dropped	: 0		
Error	:	0	
Severely Error	:	0	
Unavailable	:	0	
Failure Count	:		0
Jitter Buffer Depth	: 0		
Ingress Stats			
Forwarded	: 0		
Dropped	: 0		

Service Endpoints

No Endpoints found.

*A:ALU-76#

*A:bksim180# show service id 1000 all

Service Detailed Information

```

Service Id      : 1000          Vpn Id           : 0
Service Type    : Ipipe
Customer Id     : 1
Last Status Change: 03/11/1973 10:20:24
Last Mgmt Change  : 03/11/1973 10:20:23
Admin State     : Up           Oper State        : Up
MTU             : 1400
Vc Switching    : False
SAP Count       : 1           SDP Bind Count    : 1
CE Addr Discovery : enabled
  
```

Service Destination Points (SDPs)

Sdp Id 22:1000 -(2.2.2.2)

```

SDP Id      : 22:1000          Type             : Spoke
VC Type     : Ipipe          VC Tag           : 0
Admin Path MTU : 0           Oper Path MTU    : 1568
  
```

Show, Clear, Debug Commands

```
Far End          : 2.2.2.2                Delivery         : MPLS

Admin State      : Up                    Oper State       : Up
Acct. Pol       : None                  Collect Stats    : Disabled
Ingress Label   : 131070                Egress Label    : 131062
Ing mac Fltr    : n/a                   Egr mac Fltr    : n/a
Ing ip Fltr     : n/a                   Egr ip Fltr     : n/a
Admin ControlWord : Not Preferred       Oper ControlWord : False
Admin BW(Kbps)  : 0                     Oper BW(Kbps)    : 0
Last Status Change : 03/11/1973 10:20:24 Signaling        : TLDP
Last Mgmt Change  : 03/11/1973 10:19:21
Endpoint        : N/A                   Precedence      : 4
Class Fwding State : Down
Flags           : None
Time to RetryReset : 1999616832 seconds Retries Left     : 2984947
Mac Move        : Ukwn                  Blockable Level  : Unknown
Peer Pw Bits    : None
Peer Fault Ip   : None
Peer Vccv CV Bits : lspPing
Peer Vccv CC Bits : mplsRouterAlertLabel

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

Associated LSP LIST :
Lsp Name        : to-bksim176-1
Admin State     : Up                    Oper State       : Up
Time Since Last Tr* : 00h01m28s

-----
Class-based forwarding :
-----
Class forwarding   : disabled
Default LSP       : Uknwn                Multicast LSP    : None
=====
FC Mapping Table
=====
FC Name           LSP Name
-----
No FC Mappings
-----
IPIPE Service Destination Point specifics
-----
Configured CE IP Addr : n/a                Peer CE IP Addr  : 1.1.1.2
-----
Number of SDPs : 1
-----
Service Access Points
-----
SAP 1/7/1
-----
Service Id        : 1000
SAP               : 1/7/1                Encap            : null
Admin State      : Up                    Oper State       : Up
Flags           : None
```

```

Multi Svc Site      : None
Last Status Change : 03/11/1973 10:20:23
Last Mgmt Change   : 03/11/1973 10:19:21
Sub Type           : regular
Dot1Q Ethertype    : 0x8100
QinQ Ethertype     : 0x8100

Admin MTU          : 1514
Oper MTU           : 1514
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
    
```

Q Frame-Based Acct : Disabled \

Acct. Pol : None Collect Stats : Disabled

Ipipe SAP Info

```

Configured CE IP : n/a           Discovered CE IP : 1.1.1.1
SAP MAC Address  : 8c:c7:01:07:00:01   Mac Refresh Inter*: 14400
    
```

Ipipe SAP ARP Entry Info

```

1.1.1.1      8c:c7:01:07:00:03  dynamic  04h00m00s
    
```

QoS

```

Ingress qos-policy : 1           Egress qos-policy : 1
Shared Q plcy      : n/a         Multipoint shared : Disabled
    
```

Sap Statistics

```

Last Cleared Time : N/A
                  Packets           Octets
Forwarding Engine Stats
Dropped           : 0               0
Off. HiPrio       : 0               0
Off. LowPrio      : 0               0
Off. Uncolor      : 0               0
    
```

Queueing Stats(Ingress QoS Policy 1)

```

Dro. HiPrio       : 0               0
Dro. LowPrio      : 0               0
For. InProf       : 0               0
For. OutProf      : 0               0
    
```

Queueing Stats(Egress QoS Policy 1)

```

Dro. InProf       : 0               0
Dro. OutProf      : 0               0
For. InProf       : 0               0
For. OutProf      : 0               0
    
```

Sap per Queue stats

```

                  Packets           Octets
Ingress Queue 1 (Unicast) (Priority)
Off. HiPrio       : 0               0
Off. LoPrio       : 0               0
    
```

Show, Clear, Debug Commands

```
Dro. HiPrio      : 0          0
Dro. LoPrio     : 0          0
For. InProf    : 0          0
For. OutProf   : 0          0

Ingress Queue 11 (Multipoint) (Priority)
Off. HiPrio    : 0          0
Off. LoPrio    : 0          0
Dro. HiPrio    : 0          0
Dro. LoPrio    : 0          0
For. InProf    : 0          0
For. OutProf   : 0          0

Egress Queue 1
For. InProf    : 0          0
For. OutProf   : 0          0
Dro. InProf    : 0          0
Dro. OutProf   : 0          0
-----
Service Endpoints
-----
No Endpoints found.
=====
*A:bksim180#

*A:ces-A# show service id 1 all
=====
Service Detailed Information
=====
Service Id      : 1          Vpn Id          : 0
Service Type    : Cpipe     VLL Type       : SAToPT1
Description     : (Not Specified)
Customer Id     : 1
Last Status Change: 07/06/2010 19:21:14
Last Mgmt Change : 07/06/2010 19:21:14
Admin State     : Up        Oper State      : Up
MTU             : 1514
Vc Switching    : False
SAP Count       : 1          SDP Bind Count  : 1
-----
Service Destination Points (SDPs)
-----
Sdp Id 12:1 - (2.2.2.2)
-----
Description     : (Not Specified)
SDP Id         : 12:1          Type            : Spoke
VC Type        : SAToPT1      VC Tag          : 0
Admin Path MTU : 0           Oper Path MTU   : 9190
Far End        : 2.2.2.2      Delivery        : MPLS

Admin State     : Up        Oper State      : Up
Acct. Pol      : None       Collect Stats   : Disabled
Ingress Label   : 131064     Egress Label    : 131064
Admin ControlWord : Preferred Oper ControlWord : True
Admin BW(Kbps)  : 0         Oper BW(Kbps)   : 0
Last Status Change: 07/06/2010 19:21:14 Signaling       : TLDP
Last Mgmt Change : 07/06/2010 19:21:14
Endpoint       : N/A        Precedence      : 4
Flags          : None
Peer Pw Bits    : None
```

```

Peer Fault Ip      : None
Peer Vccv CV Bits : lspPing
Peer Vccv CC Bits : pwe3ControlWord mplsRouterAlertLabel

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

Statistics         :
I. Fwd. Pkts.     : 141578                I. Fwd. Octets.   : 31430316
E. Fwd. Pkts.     : 141583                E. Fwd. Octets.   : 31431426

Associated LSP LIST :
Lsp Name          : to_b_1_2
Admin State       : Up                    Oper State        : Up
Time Since Last Tr*: 04h08m22s

```

```
*A:Dut-B# 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: 01/28/2015 22:05:35
Last Mgmt Change  : 01/28/2015 22:05:22
Test Service    : No
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

```

```
-----
BGP Information
-----
```

```
-----
ETH-CFM service specifics
-----
```

```
Tunnel Faults      : ignore
```

```
-----
Service Destination Points (SDPs)
-----
```

```
Sdp Id 230:1  -(10.20.1.3)
```

```

Description      : (Not Specified)
SDP Id           : 230:1                Type             : Spoke
Spoke Descr     : (Not Specified)
VC Type         : Ether                VC Tag           : n/a
Admin Path MTU  : 0                    Oper Path MTU    : 1582
Delivery        : MPLS
Far End         : 10.20.1.3

```

Show, Clear, Debug Commands

```
Tunnel Far End      : n/a
Hash Label          : Disabled
Oper Hash Label     : Disabled

Admin State         : Up
Acct. Pol           : None
Ingress Label       : 262135
Ingr Mac Fltr-Id   : n/a
Ingr IP Fltr-Id    : n/a
Ingr IPv6 Fltr-Id  : n/a
Admin ControlWord   : Not Preferred
Admin BW(Kbps)      : 0
BFD Template        : None
BFD-Enabled         : no
Last Status Change  : 01/28/2015 22:05:35
Last Mgmt Change    : 01/28/2015 22:05:22
Endpoint            : N/A
PW Status Sig       : Enabled
Force Vlan-Vc       : Disabled
Class Fwding State  : Down
Flags               : None
Local Pw Bits       : None
Peer Pw Bits        : None
Peer Fault Ip       : None
Peer Vccv CV Bits   : lspPing bfdFaultDet
Peer Vccv CC Bits   : mplsRouterAlertLabel

LSP Types           : SR-ISIS
Hash Lbl Sig Cap    : Disabled

Oper State          : Up
Collect Stats       : Disabled
Egress Label        : 262135
Egr Mac Fltr-Id    : n/a
Egr IP Fltr-Id     : n/a
Egr IPv6 Fltr-Id   : n/a
Oper ControlWord    : False
Oper BW(Kbps)       : 0

BFD-Encap           : ipv4
Signaling            : TLDP

Precedence          : 4

Force Qinq-Vc       : Disabled

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

Ingress Qos Policy  : (none)
Ingress FP QGrp     : (none)
Ing FP QGrp Inst    : (none)

Egress Qos Policy   : (none)
Egress Port QGrp    : (none)
Egr Port QGrp Inst : (none)

KeepAlive Information :
Admin State         : Disabled
Hello Time          : 10
Max Drop Count      : 3

Oper State          : Disabled
Hello Msg Len       : 0
Hold Down Time      : 10

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

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

Refresh Timer       : <none>

-----
ETH-CFM SDP-Bind specifics
-----
Squelch Levels      : None
-----
```

```

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

-----

Number of SDPs : 1
-----

Service Access Points
-----

SAP 1/1/8:1.1
-----
Service Id          : 1
SAP                 : 1/1/8:1.1          Encap               : qinq
QinQ Dot1p         : Default
Description         : (Not Specified)
Admin State         : Up              Oper State          : Up
Flags               : None
Multi Svc Site     : None
Last Status Change : 01/28/2015 22:05:22
Last Mgmt Change   : 01/28/2015 22:05:22
Sub Type            : regular
Dot1Q Ethertype    : 0x8100          QinQ Ethertype     : 0x8100
Split Horizon Group: (Not Specified)

Admin MTU           : 1522          Oper MTU            : 1522
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
Egr Agg Rate Limit: max

Endpoint           : N/A
Q Frame-Based Acct : Disabled       Limit Unused BW    : Disabled
Vlan-translation   : None

Acct. Pol          : None          Collect Stats      : Disabled

Application Profile: None
Transit Policy     : None

Oper Group         : (none)          Monitor Oper Grp   : (none)
Host Lockout Plcy : n/a
Ignore Oper Down   : Disabled
Lag Link Map Prof  : (none)
Cflowd            : Disabled

```

Show, Clear, Debug Commands

```
-----  
ETH-CFM SAP specifics  
-----  
Tunnel Faults      : accept                AIS                : Disabled  
MC Prop-Hold-Timer : n/a  
Squelch Levels    : None  
-----
```

QoS

```
-----  
Ingress qos-policy : 2                      Egress qos-policy : 2  
Ingress FP QGrp    : (none)                 Egress Port QGrp  : (none)  
Ing FP QGrp Inst   : (none)                 Egr Port QGrp Inst: (none)  
Shared Q plcy      : n/a                    Multipoint shared  : Disabled  
I. Sched Pol       : (Not Specified)  
E. Sched Pol       : (Not Specified)  
I. Policer Ctl Pol : (Not Specified)  
E. Policer Ctl Pol : (Not Specified)  
-----
```

Sap Statistics

```
-----  
Last Cleared Time : N/A  
-----
```

	Packets	Octets
CPM Ingress	: 0	0

Forwarding Engine Stats

Dropped	: 0	0
Received Valid	: 0	0
Off. HiPrio	: 0	0
Off. LowPrio	: 0	0
Off. Uncolor	: 0	0
Off. Managed	: 0	0

Queueing Stats(Ingress QoS Policy 2)

Dro. HiPrio	: 0	0
Dro. LowPrio	: 0	0
For. InProf	: 0	0
For. OutProf	: 0	0

Queueing Stats(Egress QoS Policy 2)

Dro. InProf	: 0	0
Dro. OutProf	: 0	0
For. InProf	: 0	0
For. OutProf	: 0	0

Sap per Queue stats

```
-----  
Packets      Octets  
-----  
Ingress Queue 1 (Unicast) (Priority)  
Off. HiPrio  : 0      0  
Off. LowPrio : 0      0  
Dro. HiPrio  : 0      0  
Dro. LowPrio : 0      0  
For. InProf  : 0      0  
For. OutProf : 0      0  
  
Egress Queue 1  
For. InProf  : 0      0  
-----
```



```
For. OutProf      : 0          0
Dro. InProf       : 0          0
Dro. OutProf      : 0          0
```

Service Endpoints

No Endpoints found.

=====
VLL Sites
=====

Site	Site-Id	Dest	Admin	Oper	Fwdr
------	---------	------	-------	------	------

No Matching Entries
=====

*A:Dut-B#

*A:Dut-B>config>service>sdp# 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: 05/27/2015 03:08:37
Last Mgmt Change : 05/27/2015 02:56:37
Test Service    : No
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
```

BGP Information

ETH-CFM service specifics

Tunnel Faults : ignore

Service Destination Points (SDPs)

Sdp Id 230:1 - (10.20.1.3)

```
Description      : (Not Specified)
SDP Id           : 230:1          Type             : Spoke
Spoke Descr     : (Not Specified)
VC Type         : Ether          VC Tag           : n/a
```

Show, Clear, Debug Commands

```
Admin Path MTU      : 0                      Oper Path MTU      : 1582
Delivery           : MPLS
Far End           : 10.20.1.3
Tunnel Far End    : n/a
Hash Label        : Disabled
Oper Hash Label   : Disabled

Admin State        : Up
Acct. Pol         : None
Ingress Label     : 262142
Ingr Mac Fltr-Id  : n/a
Ingr IP Fltr-Id   : n/a
Ingr IPv6 Fltr-Id : n/a
Admin ControlWord : Not Preferred
Admin BW(Kbps)    : 0
BFD Template      : None
BFD-Enabled       : no
Last Status Change : 05/27/2015 03:08:37
Last Mgmt Change  : 05/27/2015 02:56:37
Endpoint          : N/A
PW Status Sig     : Enabled
Force Vlan-Vc    : Disabled
Class Fwding State : Down
Flags             : None
Local Pw Bits     : None
Peer Pw Bits      : None
Peer Fault Ip     : None
Peer Vccv CV Bits : lspPing bfdFaultDet
Peer Vccv CC Bits : mplsRouterAlertLabel

Admin Path MTU      : 0                      Oper Path MTU      : 1582
LSP Types         : SR-OSPF
Hash Lbl Sig Cap  : Disabled

Admin State        : Up
Collect Stats     : Disabled
Egress Label     : 262141
Egr Mac Fltr-Id  : n/a
Egr IP Fltr-Id   : n/a
Egr IPv6 Fltr-Id : n/a
Oper ControlWord  : False
Oper BW(Kbps)    : 0
BFD-Encap        : ipv4
Signaling         : TLDP
Precedence       : 4
Force Qinq-Vc    : Disabled

Application Profile: None
Transit Policy    : None
Eth Seg Name     : <none>
Standby Sig Slave : False
Block On Peer Fault: False
Use SDP B-MAC    : False

Ingress Qos Policy : (none)
Ingress FP QGrp   : (none)
Ing FP QGrp Inst  : (none)

Egress Qos Policy : (none)
Egress Port QGrp  : (none)
Egr Port QGrp Inst: (none)

KeepAlive Information :
Admin State          : Disabled
Hello Time          : 10
Max Drop Count      : 3

Oper State          : Disabled
Hello Msg Len       : 0
Hold Down Time      : 10

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

-----
Control Channel Status
-----
PW Status           : disabled
Peer Status Expire : false
Request Timer       : <none>
Acknowledgement     : false
Refresh Timer       : <none>
-----
ETH-CFM SDP-Bind specifics
```

```
-----
Squelch Levels      : None
-----
```

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

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

```
-----
Service Access Points
-----
```

```
-----
SAP 1/1/8:1.1
-----
```

```
Service Id           : 1
SAP                  : 1/1/8:1.1          Encap                : qinq
QinQ Dot1p          : Default
Description          : (Not Specified)
Admin State          : Up                Oper State            : Up
Flags                : None
Multi Svc Site       : None
Last Status Change   : 05/27/2015 02:56:37
Last Mgmt Change     : 05/27/2015 02:56:37
Sub Type             : regular
Dot1Q Ethertype      : 0x8100            QinQ Ethertype       : 0x8100
Split Horizon Group  : (Not Specified)

Eth Seg Name         : <none>
Admin MTU            : 1522              Oper MTU              : 1522
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
Egr Agg Rate Limit  : max

Endpoint             : N/A
Q Frame-Based Acct   : Disabled          Limit Unused BW      : Disabled
Vlan-translation     : None
-----
```

Show, Clear, Debug Commands

```

Acct. Pol          : None                      Collect Stats     : Disabled

Application Profile: None
Transit Policy     : None

Oper Group         : (none)                   Monitor Oper Grp  : (none)
Host Lockout Plcy  : n/a
Ignore Oper Down   : Disabled
Lag Link Map Prof  : (none)
Cflowd            : Disabled
  
```

ETH-CFM SAP specifics

```

Tunnel Faults      : accept                    AIS               : Disabled
MC Prop-Hold-Timer : n/a
Squelch Levels     : None
  
```

QOS

```

Ingress qos-policy : 2                       Egress qos-policy : 2
Ingress FP QGrp    : (none)                   Egress Port QGrp  : (none)
Ing FP QGrp Inst   : (none)                   Egr Port QGrp Inst: (none)
Shared Q plcy      : n/a                       Multipoint shared  : Disabled
I. Sched Pol       : (Not Specified)
E. Sched Pol       : (Not Specified)
I. Policer Ctl Pol : (Not Specified)
E. Policer Ctl Pol : (Not Specified)
  
```

Sap Statistics

```
Last Cleared Time : N/A
```

	Packets	Octets
CPM Ingress	: 0	0

Forwarding Engine Stats

Dropped	: 0	0
Received Valid	: 0	0
Off. HiPrio	: 0	0
Off. LowPrio	: 0	0
Off. Uncolor	: 0	0
Off. Managed	: 0	0

Queueing Stats(Ingress QoS Policy 2)

Dro. HiPrio	: 0	0
Dro. LowPrio	: 0	0
For. InProf	: 0	0
For. OutProf	: 0	0

Queueing Stats(Egress QoS Policy 2)

Dro. InProf	: 0	0
Dro. OutProf	: 0	0
For. InProf	: 0	0
For. OutProf	: 0	0

Sap per Queue stats

	Packets	Octets
--	---------	--------

```

Sap per Policer stats
-----
                Packets                Octets

Ingress Policer 1 (Stats mode: minimal)
Off. All        : 0                    0
Dro. All        : 0                    0
For. All        : 0                    0

Egress Policer 1 (Stats mode: minimal)
Off. All        : 0                    0
Dro. All        : 0                    0
For. All        : 0                    0

-----

Service Endpoints
-----
No Endpoints found.
-----

=====
VLL Sites
=====
Site            Site-Id  Dest            Admin    Oper  Fwdr
-----
No Matching Entries
=====
*A:Dut-B>config>service>sdp#

```

base

- Syntax** **base**
- Context** show>service>id
- Description** Displays basic information about the service ID including service type, description, SAPs and SDPs.
- Output** **Show Service-ID Base** — The following table describes show service-id base output fields:

Label	Description
Service Id	The service identifier.
Vpn Id	Specifies the VPN ID assigned to the service.
Service Type	The type of service: Epipe, Apipe, Fpipe, Ipipe, VPLS, IES, VPRN.
Description	Generic information about the service.
Customer Id	The customer identifier.
Last Mgmt Change	The date and time of the most recent management-initiated change to this customer.
Adm	The desired state of the service.
Oper	The operating state of the service.
Mtu	The largest frame size (in octets) that the service can handle.
Def. Mesh VC Id	This object is only valid in services that accept mesh SDP bindings. It is used to validate the VC ID portion of each mesh SDP binding defined in the service.
SAP Count	The number of SAPs defined on the service.
SDP Bind Count	The number of SDPs bound to the service.
Identifier	Specifies the service access (SAP) and destination (SDP) points.
Type	Specifies the signaling protocol used to obtain the ingress and egress labels used in frames transmitted and received on the SDP.
AdmMTU	Specifies 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.
PBB Tunnel Point	Specifies the endpoint in the B-VPLS environment where the Epipe terminates.
Admin MTU	Specifies the B-VPLS admin MTU.
Backbone-Flooding	Specifies whether or not the traffic is flooded in the B-VPLS for the destination instead of unicast. If the backbone destination MAC is in the B-VPLS FDB, then it will be unicast.

Label	Description (Continued)
ISID	The 24 bit field carrying the service instance identifier associated with the frame. It is used at the destination PE as a demultiplexor field.

Sample Output

```
*A:ALA-48>config>service>epipe>sap# show service id 6 base
=====
Service Basic Information
=====
Service Id       : 6                Vpn Id           : 6
Service Type    : Epipe
Description     : Distributed Epipe service to east coast
Customer Id     : 6
Last Status Change: 02/02/2009 09:27:55
Last Mgmt Change : 02/02/2009 09:27:57
Admin State     : Up                Oper State       : Down
MTU             : 1514
Vc Switching   : False
SAP Count      : 1                SDP Bind Count   : 1

-----
Service Access & Destination Points
-----
Identifier                                     Type           AdmMTU  OprMTU  Adm  Opr
-----
sap:1/2/9:0                                   q-tag         1518    1518    Up   Down
sdp:2:6 S(10.10.10.104)                       n/a           0        0        Up   Down
=====
*A:ALA-48>config>service>epipe>sap#
```

bgp-vpws

Syntax	bgp-vpws
Context	show>service>id
Description	This command displays BGP VPWS related information for the service.

Sample Output

```
*A:cses-E11>config>service>epipe>bgp-vpws# show service id 2 bgp-vpws
=====
BGP VPWS Information
=====
Admin State      : Enabled
VE Name         : PE1                VE Id           : 1
PW Template     : 2
Route Dist      : 65536:3
Rte-Target Import : 65536:2                Rte-Target Export: 65536:2

PW-Template Id  : 2
Import Rte-Tgt  : None
=====
```

Show, Clear, Debug Commands

```
Remote-Ve Information
-----
Remote VE Name      : PE2                Remote VE Id      : 2
=====
*A:cses-E11>config>service>epipe>bgp-vpws#
```

endpoint

- Syntax** `endpoint [endpoint-name]`
- Context** `show>service>id`
- Description** This command displays service endpoint information.
- Parameters** *endpoint-name* — Specifies the name of an existing endpoint for the service.

Sample Output

```
*A:ALA-48>config>service>epipe# show service id 6 endpoint
=====
Service 6 endpoints
=====
Endpoint name      : x
Revert time        : 0
Act Hold Delay     : 0
Tx Active          : none
-----
Members
-----
No members found.
=====
Endpoint name      : y
Revert time        : 0
Act Hold Delay     : 0
Tx Active          : none
-----
Members
-----
No members found.
=====
*A:ALA-48>config>service>epipe#
```

labels

- Syntax** `labels`
- Context** `show>service>id`
- Description** Displays the labels being used by the service.

Output **Show Service-ID Labels** — The following table describes show service-id labels output fields:

Label	Description
Svc Id	The service identifier.
Sdp Id	The SDP identifier.
Type	Indicates whether the SDP is a spoke or a mesh.
I. Lbl	The VC label used by the far-end device to send packets to this device in this service by the SDP.
E. Lbl	The VC label used by this device to send packets to the far-end device in this service by the SDP.

Sample Output

```
*A:ALA-12# show service id 1 labels
=====
Martini Service Labels
=====
Svc Id      Sdp Id      Type I.Lbl      E.Lbl
-----
1           10:1        Mesh 0        0
1           20:1        Mesh 0        0
1           30:1        Mesh 0        0
1           40:1        Mesh 130081   131061
1           60:1        Mesh 131019   131016
1           100:1       Mesh 0        0
-----
Number of Bound SDPs : 6
-----
*A:ALA-12#
```

retailers

Syntax	retailers
Context	show>service>id
Description	This command displays the service ID of the retailer subscriber service to which this DHCP lease belongs.

wholesalers

Syntax	wholesalers
Context	show>service>id
Description	This command displays service wholesaler information.

connection-profile

- Syntax** `connection-profile [conn-prof-id]`
- Context** `show`
- Description** This command displays connection profile information.
- Parameters** *conn-prof-id* — Specifies the connection profile ID.
- Values** 1 — 8000

Sample Output

```
*A:Dut-A# show connection-profile
=====
Connection Profile Summary Information
=====
CP Index  Number of
          Members
-----
10         2
20         2
=====
*A:Dut-A#

*A:Dut-A# show connection-profile 10
=====
Connection Profile 10 Information
=====
Description : (Not Specified)
Last Change : 10/16/2010 06:53:30
-----
VPI/VCI
-----
10/11
10/12
=====
*A:Dut-A#

*A:Dut-A#
*A:bksim2801# show connection-profile
=====
Connection Profile Summary Information
=====
CP Index  Number of
          Members
-----
5000      0
=====
*A:bksim2801#

*A:bksim2801# show connection-profile 2
=====
Connection Profile 2 Information
=====
```

Description : (Not Specified)
Last Change : 09/09/2010 07:55:28

VPI/VCI

2/102
10/100

=====
*A:bksim2801#

sap

- Syntax** `sap sap-id [detail]`
- Context** `show>service>id`
- Description** This command displays information for the SAPs associated with the service. If no optional parameters are specified, a summary of all associated SAPs is displayed.
- Parameters** *sap-id* — The ID that displays SAPs for the service in the form *slot/mdalport[.channel]*. See Common CLI Command Descriptions on page 1271 for command syntax.
- interface interface-name* — Displays information for the specified IP interface.
- ip-address ip-address* — Displays information associated with the specified IP address.
- detail** — Displays detailed information.
- wholesaler service-id** — The VPRN service ID of the wholesaler. When specified in this context, SAP, SDP, interface, IP address and MAC parameters are ignored.
- Values** 1 — 2147483648
- detail** — Displays detailed information for the SAP.
- Output** **Show Service-ID SAP** — The following table describes show service SAP fields:

Label	Description
Service Id	The service identifier.
SAP	The SAP and qtag.
Encap	The encapsulation type of the SAP.
Ethertype	Specifies an Ethernet type II Ether type value.
Admin State	The administrative state of the SAP.
Oper State	The operating state of the SAP.
Flags	Specifies the conditions that affect the operating status of this SAP. Display output includes: ServiceAdminDown, SapAdminDown, InterfaceAdminDown, PortOperDown, PortMTUTooSmall, L2OperDown, SapIngressQoSMismatch, SapEgressQoSMismatch, RelearnLimitExceeded, RxProtSrcMac, ParentIfAdminDown, NoSapIpipeCelpAddr, TodResourceUnavail, TodMssResourceUnavail, SapParamMismatch, CemSapNoEcidOrMacAddr, StandByForMcRing, ServiceMTUTooSmall, SapIngressNamedPoolMismatch, SapEgressNamedPoolMismatch, NoSapEpipeRingNode.
Last Status Change	The time of the most recent operating status change to this SAP.
Last Mgmt Change	The time of the most recent management-initiated change to this SAP.

Label	Description (Continued)
Admin MTU	The desired largest service frame size (in octets) that can be transmitted through the SAP to the far-end router, without requiring the packet to be fragmented.
Oper MTU	The actual largest service frame size (in octets) that can be transmitted through the SAP to the far-end router, without requiring the packet to be fragmented.
Ingress qos-policy	The ingress QoS policy ID assigned to the SAP.
Egress qos-policy	The egress QoS policy ID assigned to the SAP.
Ingress Filter-Id	The ingress filter policy ID assigned to the SAP.
Egress Filter-Id	The egress filter policy ID assigned to the SAP.
Acct. Pol	The accounting policy ID assigned to the SAP.
Collect Stats	Specifies whether collect stats is enabled.
LLF Admin State	Displays the Link Loss Forwarding administrative state.
LLF Oper State	Displays the Link Loss Forwarding operational state.
pw-port	pw-id[:qtag1[.qtag2]] pw-id[:qtag1[.qtag2]] pw-2:1.1

Sample Output

```
*B:Dut-A# show service id 10 sap 2/1/4:cp.10
=====
Service Access Points(SAP)
=====
Service Id      : 10
SAP             : 2/1/4:cp.10          Encap           : atm
Description     : Default sap description for service id 10
Admin State     : Up                  Oper State      : Up
Flags           : None
Multi Svc Site  : None
Last Status Change : 11/01/2010 11:33:16
Last Mgmt Change  : 11/01/2010 13:46:15
=====

A:SR12# configure service apipe 1 sap
- no sap <sap-id>
- sap <sap-id> [create] [no-endpoint]
- sap <sap-id> [create] endpoint <endpoint-name>

<sap-id>      : null          - <port-id|bundle-id|bpggrp-id|lag-id|
                        aps-id>
...
                        atm          - <port-id|aps-id>[:vpi/vci|vpi|
                        vpi1.vpi2|
...
                        ima-grp      - <bundle-id>[:vpi/vci|vpi|vpi1.vpi2|
```

Show, Clear, Debug Commands

```
A:ALA-48>config>service>epipe# show service id 8 sap 881/1/2:4094
=====
Service Access Points (SAP)
=====
Service Id      : 8
SAP             : 8/1/2:4094          Encap           : bcpDot1q
Admin State    : Up                  Oper State      : Down
Flags          : ServiceAdminDown
                PortOperDown
Last Status Change : 02/06/2007 12:01:14
Last Mgmt Change  : 02/06/2007 12:01:17
Admin MTU       : 1522              Oper MTU        : 1522
Ingress qos-policy : 1              Egress qos-policy : 1
Shared Q plcy   : n/a              Multipoint shared : Disabled
Ingress Filter-Id : n/a            Egress Filter-Id  : n/a
tod-suite      : None

Multi Svc Site  : None
Acct. Pol       : None              Collect Stats    : Disabled
=====
A:ALA-48>config>service>epipe#
*A:bksim2801# config>service>apipe>sap$ show service id 1 sap 1/1/1:cp.2
=====
Service Access Points (SAP)
=====
Service Id      : 1
SAP : 1/1/1:cp.2 Encap      : atm
Description     : (Not Specified)
Admin State    : Up          Oper State : Down
Flags          : ServiceAdminDown
                PortOperDown

Multi Svc Site  : None
Last Status Change : 09/09/2010 07:55:28
Last Mgmt Change  : 09/09/2010 08:02:44
=====
*A:bksim2801#

A:ALA-48>config>service>epipe# show service id 8 sap 881/1/2:4094 detail
=====
Service Access Points (SAP)
=====
Service Id      : 8
SAP             : 8/1/2:4094          Encap           : bcpDot1q
Admin State    : Up                  Oper State      : Down
Flags          : ServiceAdminDown
                PortOperDown
Last Status Change : 02/06/2007 12:01:14
Last Mgmt Change  : 02/06/2007 12:01:17
Admin MTU       : 1522              Oper MTU        : 1522
Ingress qos-policy : 1              Egress qos-policy : 1
Shared Q plcy   : n/a              Multipoint shared : Disabled
Ingress Filter-Id : n/a            Egress Filter-Id  : n/a
tod-suite      : None

Multi Svc Site  : None
Acct. Pol       : None              Collect Stats    : Disabled
-----
Sap Statistics
-----
Packets          Octets
```

```

Forwarding Engine Stats
Dropped          : 0
Off. HiPrio      : 0
Off. LowPrio     : 0
Off. Uncolor     : 0
Queueing Stats(Ingress QoS Policy 1)
Dro. HiPrio      : 0
Dro. LowPrio     : 0
For. InProf      : 0
For. OutProf     : 0
Queueing Stats(Egress QoS Policy 1)
Dro. InProf      : 0
Dro. OutProf     : 0
For. InProf      : 0
For. OutProf     : 0
-----
Sap per Queue stats
-----
                Packets          Octets
Ingress Queue 1 (Unicast) (Priority)
Off. HiPrio      : 0
Off. LoPrio      : 0
Dro. HiPrio      : 0
Dro. LoPrio      : 0
For. InProf      : 0
For. OutProf     : 0
Egress Queue 1
For. InProf      : 0
For. OutProf     : 0
Dro. InProf      : 0
Dro. OutProf     : 0
=====
A:ALA-48>config>service>epipe#

```

If a TOD Suite is configured on a SAP, the name of the suite is shown in the show command output. The values of the policies may be different from those configured on the SAP, because the configured policy assignments may have been overruled by policy assignments of the TOD Suite.

Sample Output

```

A:ALA-48# show service id 1 sap 1/1/1:2
=====
Service Access Points(SAP)
=====
Service Id       : 1
SAP              : 1/1/1:5
Dot1Q Ethertype : 0x8100
Encap            : q-tag
QinQ Ethertype  : 0x8100

Admin State      : Up
Flags            : None
Oper State       : Up
Last Status Change : 10/05/2006 17:06:03
Last Mgmt Change  : 10/05/2006 22:30:03
Max Nbr of MAC Addr: No Limit
Learned MAC Addr : 0
Admin MTU        : 1518
Ingress qos-policy : 1190
Shared Q plcy    : n/a
Ingr IP Fltr-Id  : n/a
Ingr Mac Fltr-Id : n/a
Total MAC Addr   : 0
Static MAC Addr  : 0
Oper MTU         : 1518
Egress qos-policy : 1190
Multipoint shared : Disabled
Egr IP Fltr-Id   : n/a
Egr Mac Fltr-Id  : n/a

```

Show, Clear, Debug Commands

```
Ingr IPv6 Fltr-Id : n/a                      Egr IPv6 Fltr-Id : n/a
tod-suite       : suite_sixteen           qinq-pbit-marking : both
Egr Agg Rate Limit : max
ARP Reply Agent   : Unknown                  Host Conn Verify  : Disabled
Mac Learning     : Enabled                   Discard Unkwn Srce: Disabled
Mac Aging        : Enabled                   Mac Pinning       : Disabled
L2PT Termination : Disabled                 BPDU Translation  : Disabled
Multi Svc Site   : None
I. Sched Pol     : SchedPolCust1_Night
E. Sched Pol     : SchedPolCust1Egress_Night
Acct. Pol        : None                      Collect Stats     : Disabled
Anti Spoofing    : None                      Nbr Static Hosts : 0
```

```
=====
A:ALA-48#
```

```
A:kerckhot_4# show service id 1 sap 1/1/1:6
```

```
=====
Service Access Points (SAP)
=====
```

```
Service Id      : 1
SAP             : 1/1/1:6                      Encap           : q-tag
Dot1Q Ethertype : 0x8100                       QinQ Ethertype  : 0x8100
Admin State     : Up                           Oper State      : Down
Flags         : TodResourceUnavail
Last Status Change : 12/01/2006 09:59:42
Last Mgmt Change  : 12/01/2006 09:59:45
...
```

```
A:kerckhot_4#
```


sdp

Syntax	sdp [[<i>sdp-id</i> [: <i>vc-id</i>] far-end <i>ip-address</i>] [detail] sdp <i>sdp-id</i> [: <i>vc-id</i>] mrp
Context	show>service>id
Description	This command displays information for the SDPs associated with the service. If no optional parameters are specified, a summary of all associated SDPs is displayed.
Parameters	<p><i>sdp-id</i> — Displays only information for the specified SDP ID.</p> <p>Default All SDPs.</p> <p>Values 1 — 17407</p> <p>far-end <i>ip-address</i> — Displays only SDPs matching the specified far-end IP address.</p> <p>Default SDPs with any far-end IP address.</p> <p>detail — Displays detailed SDP information.</p>
Output	Show Service-ID SDP — The following table describes show service-id SDP output fields.

Label	Description
Sdp Id	The SDP identifier.
Type	Indicates whether the SDP is a spoke or a mesh.
Split Horizon Group	Name of the split horizon group that the SDP belongs to.
VC Type	The VC type, ether, vlan, or vpls.
VC Tag	The explicit dot1Q value used when encapsulating to the SDP far end.
I. Lbl	The VC label used by the far-end device to send packets to this device in this service by the SDP.
Admin Path MTU	The operating path MTU of the SDP is equal to the admin path MTU (when one is set) or the dynamically computed tunnel MTU, when no admin path MTU is set (the default case).
Oper Path MTU	The actual largest service frame size (in octets) that can be transmitted through this SDP to the far-end router, without requiring the packet to be fragmented.
Far End	Specifies the IP address of the remote end of the GRE or MPLS tunnel defined by this SDP.
Delivery	Specifies the type of delivery used by the SDP: GRE or MPLS.
Admin State	The administrative state of this SDP.
Oper State	The current state of this SDP.

Label	Description (Continued)
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 the SDP.
Last Changed	The date and time of the most recent change to the SDP.
Signaling	Specifies the signaling protocol used to obtain the ingress and egress labels used in frames transmitted and received on this SDP.
Admin State	The administrative state of the Keepalive process.
Oper State	The operational state of the Keepalive process.
Hello Time	Transmission frequency of the SDP echo request messages.
Max Drop Count	Specifies the maximum number of consecutive SDP echo request messages that can be unacknowledged before the keepalive protocol reports a fault.
Hello Msg Len	The length of the SDP echo request messages transmitted on this SDP.
Hold Down Time	Specifies the amount of time to wait before the keepalive operating status is eligible to enter the alive state.
I. Fwd. Pkts.	Specifies the number of forwarded ingress packets.
I. Dro. Pkts	Specifies the number of dropped ingress packets.
E. Fwd. Pkts.	Specifies the number of forwarded egress packets.
Associated LSP List	When the SDP type is MPLS, a list of LSPs used to reach the far-end router displays. All the LSPs in the list must terminate at the IP address specified in the Far End field. If the SDP type is GRE, then the following message displays: SDP delivery mechanism is not MPLS.
Ingress Cookie1 Ingress Cookie2	Specifies the ingress cookies configured for an L2TPv3 spoke-SDP binding for an Epipe service. One or two L2TPv3 ingress cookies may be configured.
Egress Cookie	Specifies the egress cookies configured for an L2TPv3 spoke-SDPs for an Epipe service.
Session Mismatch	Specifies a mismatch detected between the configured (far-end binding) cookie to what is received by the local IP address of the L2TPv3 SDP. The flag is set when a mismatch is detected and must be manually cleared by an operator.

Sample Output

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

```

=====
Services: Service Destination Points Details
=====
  Sdp Id 1:1  -(10.20.1.2)
-----
Description      : Default sdp description
SDP Id           : 1:1                               Type           : Spoke
VC Type          : Ether                             VC Tag         : n/a
Admin Path MTU   : 0                                 Oper Path MTU  : 9186
Far End          : 10.20.1.2                         Delivery       : MPLS

Admin State      : Up                               Oper State     : Up
Acct. Pol       : None                             Collect Stats  : Disabled
Ingress Label   : 2048                             Egress Label  : 2048
Ing mac Fltr    : n/a                               Egr mac Fltr  : n/a
Ing ip Fltr     : n/a                               Egr ip Fltr   : n/a
Ing ipv6 Fltr   : n/a                               Egr ipv6 Fltr : n/a
Admin ControlWord : Not Preferred                   Oper ControlWord : False
Last Status Change : 05/31/2007 00:45:43          Signaling     : None
Last Mgmt Change  : 05/31/2007 00:45:43

Class Fwding State : Up
Flags             : None
Peer Pw Bits     : None
Peer Fault Ip    : None
Peer Vccv CV Bits : None
Peer Vccv CC Bits : 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
L2PT Termination : Disabled                       BPDU Translation : Disabled
MAC Pinning      : 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.    : 0                               E. Fwd. Octets : 0
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
Associated LSP LIST :
Lsp Name         : A_B_1
Admin State      : Up                               Oper State     : Up
Time Since Last Tr*: 00h26m35s

Lsp Name         : A_B_2
Admin State      : Up                               Oper State     : Up
Time Since Last Tr*: 00h26m35s

Lsp Name         : A_B_3
Admin State      : Up                               Oper State     : Up
Time Since Last Tr*: 00h26m34s

Lsp Name         : A_B_4

```

Show, Clear, Debug Commands

```
Admin State      : Up                               Oper State      : Up
Time Since Last Tr*: 00h26m34s

Lsp Name        : A_B_5
Admin State     : Up                               Oper State     : Up
Time Since Last Tr*: 00h26m34s

Lsp Name        : A_B_6
Admin State     : Up                               Oper State     : Up
Time Since Last Tr*: 00h26m34s

Lsp Name        : A_B_7
Admin State     : Up                               Oper State     : Up
Time Since Last Tr*: 00h26m34s

Lsp Name        : A_B_8
Admin State     : Up                               Oper State     : Up
Time Since Last Tr*: 00h26m35s

Lsp Name        : A_B_9
Admin State     : Up                               Oper State     : Up
Time Since Last Tr*: 00h26m34s

Lsp Name        : A_B_10
Admin State     : Up                               Oper State     : Up
Time Since Last Tr*: 00h26m34s
-----
Class-based forwarding :
-----
Class forwarding      : enabled
Default LSP          : A_B_10                    Multicast LSP      : A_B_9
=====
FC Mapping Table
=====
FC Name              LSP Name
-----
af                   A_B_3
be                   A_B_1
ef                   A_B_6
h1                   A_B_7
h2                   A_B_5
l1                   A_B_4
l2                   A_B_2
nc                   A_B_8
=====
Stp Service Destination Point specifics
-----
Mac Move             : Blockable
Stp Admin State     : Up                               Stp Oper State    : Down
Core Connectivity   : Down
Port Role           : N/A                             Port State        : Forwarding
Port Number         : 2049                             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: 0
Fwd Transitions     : 0                               Bad BPDUs rcvd   : 0
Cfg BPDUs rcvd     : 0                               Cfg BPDUs tx     : 0
TCN BPDUs rcvd     : 0                               TCN BPDUs tx     : 0
```

```

RST BPDUs rcvd      : 0                      RST BPDUs tx       : 0
-----
Number of SDPs : 1
-----
* indicates that the corresponding row element may have been truncated.
-----
A:Dut-A#

```

The following examples show both sides (PE nodes) when control word is enabled:

```

*A:ALA-Dut-B>config>service>epipe# show service id 2100 sdp detail
=====
Services: Service Destination Points Details
-----
  Sdp Id 1:2001  -(1.1.1.1)
-----
Description      : Default sdp description
SDP Id           : 1:2001                      Type              : Spoke
VC Type          : Ether                       VC Tag            : n/a
Admin Path MTU   : 1600                       Oper Path MTU     : 1600
Far End          : 1.1.1.1                     Delivery          : GRE

Admin State      : Up                          Oper State        : Up
Acct. Pol       : None                        Collect Stats    : Disabled
Ingress Label   : 115066                      Egress Label     : 119068
Ing mac Fltr    : n/a                         Egr mac Fltr    : n/a
Ing ip Fltr     : n/a                         Egr ip Fltr     : n/a
Ing ipv6 Fltr   : n/a                         Egr ipv6 Fltr   : n/a
Admin ControlWord : Preferred                Oper ControlWord : True
Last Status Change : 02/05/2007 16:39:22      Signaling        : TLDP
Last Mgmt Change  : 02/05/2007 16:39:22
Class Fwding State : Up
Endpoint        : N/A                          Precedence       : 4
Flags           : None
Peer Pw Bits    : None
Peer Fault Ip   : None
Peer Vccv CV Bits : None
Peer Vccv CC Bits : 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
L2PT Termination : Disabled                   BPDU Translation : Disabled
MAC Pinning     : 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
E. Fwd. Pkts.   : 0                          E. Fwd. Octets   : 0

Associated LSP LIST :
SDP Delivery Mechanism is not MPLS
-----
Number of SDPs : 1
=====
*A:ALA-Dut-B>config>service>epipe#

```

Show, Clear, Debug Commands

The following is an example when one side (PE) has the control word enabled (the pipe will be down):

This is the side with control word disabled:

```
*A:ALA-Dut-B>config>service>epipe# show service id 2100 sdp detail
=====
Services: Service Destination Points Details
=====
Sdp Id 1:2001  -(1.1.1.1)
-----
Description      : Default sdp description
SDP Id           : 1:2001                               Type           : Spoke
VC Type          : Ether                               VC Tag         : n/a
Admin Path MTU   : 1600                               Oper Path MTU  : 1600
Far End          : 1.1.1.1                             Delivery       : GRE

Admin State      : Up                                  Oper State     : Down
Acct. Pol        : None                               Collect Stats  : Disabled
Ingress Label    : 115066                             Egress Label   : 119068
Ing mac Fltr     : n/a                                Egr mac Fltr   : n/a
Ing ip Fltr      : n/a                                Egr ip Fltr    : n/a
Ing ipv6 Fltr    : n/a                                Egr ipv6 Fltr  : n/a
Admin ControlWord : Not Preferred                 Oper ControlWord : False
Last Status Change : 02/05/2007 16:47:54             Signaling      : TLDP
Last Mgmt Change  : 02/05/2007 16:47:54
Flags            : None
Peer Pw Bits     : None
Peer Fault Ip    : None
Peer Vccv CV Bits : None
Peer Vccv CC Bits : 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
L2PT Termination : Disabled                           BPDU Translation : Disabled
MAC Pinning      : 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
E. Fwd. Pkts.    : 0                                 E. Fwd. Octets : 0
Associated LSP LIST :
SDP Delivery Mechanism is not MPLS
-----
Number of SDPs : 1
=====
*A:ALA-Dut-B>config>service>epipe#
```

This is the side with control word enabled:

```
*A:ALA-B# show service id 2100 sdp detail
=====
Services: Service Destination Points Details
=====
Sdp Id 1:12000  -(3.3.3.3)
-----
```

```

Description      : Default sdp description
SDP Id          : 1:12000
VC Type         : Ether
Admin Path MTU  : 1600
Far End         : 3.3.3.3
Admin State     : Up
Acct. Pol      : None
Ingress Label   : 119066
Ing mac Fltr   : n/a
Ing ip Fltr    : n/a
Ing ipv6 Fltr  : n/a
Admin ControlWord : Preferred
Last Status Change : 02/04/2007 22:52:43
Last Mgmt Change  : 02/04/2007 02:06:08
Flags          : None
Peer Pw Bits    : None
Peer Fault Ip   : None
Peer Vccv CV Bits : None
Peer Vccv CC Bits : None
Max Nbr of MAC Addr: No Limit
Learned MAC Addr : 0
MAC Learning    : Enabled
MAC Aging       : Enabled
L2PT Termination : Disabled
MAC Pinning     : Disabled
KeepAlive Information :
Admin State     : Disabled
Hello Time      : 10
Max Drop Count  : 3

Type            : Spoke
VC Tag         : n/a
Oper Path MTU  : 1600
Delivery       : GRE
Oper State     : Down
Collect Stats  : Disabled
Egress Label   : 0
Egr mac Fltr  : n/a
Egr ip Fltr   : n/a
Egr ipv6 Fltr : n/a
Oper ControlWord : True
Signaling      : TLDP

Total MAC Addr : 0
Static MAC Addr : 0
Discard Unkwn Srce: Disabled
BPDU Translation : Disabled
Oper State      : Disabled
Hello Msg Len   : 0
Hold Down Time  : 10

Statistics      :
I. Fwd. Pkts.  : 0
E. Fwd. Pkts.  : 0
I. Dro. Pkts.  : 0
E. Fwd. Octets : 0
Associated LSP LIST :
SDP Delivery Mechanism is not MPLS

```

Number of SDPs : 1
=====

*A:ALA-B#

The following is an example when both sides have control word disabled:

*A:ALA-Dut-B>config>service>epipe# show service id 2100 sdp detail

Services: Service Destination Points Details

Sdp Id 1:2001 -(1.1.1.1)

```

Description      : Default sdp description
SDP Id          : 1:2001
VC Type         : Ether
Admin Path MTU  : 1600
Far End         : 1.1.1.1
Admin State     : Up
Acct. Pol      : None
Ingress Label   : 115066
Ing mac Fltr   : n/a
Ing ip Fltr    : n/a
Ing ipv6 Fltr  : n/a
Admin ControlWord : Not Preferred

Type            : Spoke
VC Tag         : n/a
Oper Path MTU  : 1600
Delivery       : GRE
Oper State     : Up
Collect Stats  : Disabled
Egress Label   : 119068
Egr mac Fltr  : n/a
Egr ip Fltr   : n/a
Egr ipv6 Fltr : n/a
Oper ControlWord : False

```

Show, Clear, Debug Commands

```

Last Status Change : 02/05/2007 16:49:05      Signaling      : TLDP
Last Mgmt Change   : 02/05/2007 16:47:54
Flags              : None
Peer Pw Bits       : None
Peer Fault Ip      : None
Peer Vccv CV Bits  : None
Peer Vccv CC Bits  : 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
L2PT Termination   : Disabled               BPDU Translation : Disabled
MAC Pinning        : 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
E. Fwd. Pkts.     : 0                    E. Fwd. Octets  : 0
Associated LSP LIST :
SDP Delivery Mechanism is not MPLS
-----
Number of SDPs : 1
=====
*A:ALA-Dut-B>config>service>epipe#

*A:SetupCLI>config>service>epipe>spoke-sdp# show service id 2 sdp 2000:1 detail
=====
Service Destination Point (Sdp Id : 2000:1) Details
=====
-----
Sdp Id 2000:1 -(101.101.101.101)
-----
Description      : (Not Specified)
SDP Id           : 2000:1                    Type             : Spoke
Spoke Descr      : (Not Specified)
VC Type          : Ether                    VC Tag           : n/a
Admin Path MTU   : 1500                    Oper Path MTU    : 1500
Far End          : 101.101.101.101         Delivery         : MPLS
Hash Label       : Enabled
Admin State      : Up                      Oper State       : Down
Acct. Pol        : None                    Collect Stats    : Disabled
Ingress Label    : 0                      Egress Label     : 0
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 : 10/08/2009 06:55:54   Signaling        : TLDP
Last Mgmt Change  : 10/08/2009 07:04:27   Force Vlan-Vc    : Disabled
Endpoint         : N/A                    Precedence       : 4
Class Fwding State : Down
Flags            : SvcAdminDown SdpOperDown
                  NoIngVCLabel NoEgrVCLabel
                  PathMTUTooSmall
Peer Pw Bits     : None
Peer Fault Ip    : None
Peer Vccv CV Bits : None
Peer Vccv CC Bits : None

```


Application Profile: None

KeepAlive Information :

Admin State	: Enabled	Oper State	: No response
Hello Time	: 600	Hello Msg Len	: 1500
Max Drop Count	: 3	Hold Down Time	: 10

Statistics :

I. Fwd. Pkts.	: 0	I. Dro. Pkts.	: 0
E. Fwd. Pkts.	: 0	E. Fwd. Octets	: 0

-----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

Number of SDPs : 1

*A:SetupCLI>config>service>epipe>spoke-sdp#

Sample Output for L2TPv3 SDP binding

This is sample output for L2TPv3 SDP binding, (not an MPLS or GRE SDP binding)

*A:cses-V36# show service id 999 sdp detail

Services: Service Destination Points Details

Sdp Id 999:999 - (2001:db8::1)

Description	: (Not Specified)		
SDP Id	: 999:999	Type	: Spoke
Spoke Descr	: (Not Specified)		
VC Type	: Ether	VC Tag	: n/a
Admin Path MTU	: 0	Oper Path MTU	: 8890
Delivery	: L2TPv3		
Far End	: 2001:db8::1		
Local End	: 2001:db8:aaab::36		
Tunnel Far End	: n/a	LSP Types	: n/a
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	: 0

Show, Clear, Debug Commands

```
Ingr Mac Fltr-Id : n/a
Ingr IP Fltr-Id : n/a
Ingr IPv6 Fltr-Id : n/a
Admin ControlWord : Not Preferred
Admin BW(Kbps) : 0
BFD Template : None
BFD-Enabled : no
Last Status Change : 06/19/2014 17:31:16
Last Mgmt Change : 06/19/2014 17:23:47
Endpoint : N/A
PW Status Sig : Disabled
Force QinQ-Vc : Disabled
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

Egr Mac Fltr-Id : n/a
Egr IP Fltr-Id : n/a
Egr IPv6 Fltr-Id : n/a
Oper ControlWord : False
Oper BW(Kbps) : 0
BFD-Encap : ipv4
Signaling : None
Force Vlan-Vc : Disabled
Precedence : 4

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

Ingress Qos Policy : (none)
Ingress FP QGrp : (none)
Ing FP QGrp Inst : (none)

Egress Qos Policy : (none)
Egress Port QGrp : (none)
Egr Port QGrp Inst: (none)

KeepAlive Information :
Admin State : Disabled
Hello Time : 10
Max Drop Count : 3

Oper State : Disabled
Hello Msg Len : 0
Hold Down Time : 10

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

-----
L2TPv3 Information
-----
Ingress Cookie : AB:BA:BA:BB:A0:00:00:00
Ingress Cookie2 : BA:BA:BA:BA:BA:BA:BA:BA
Egress Cookie : AB:BA:BA:BB:A0:00:00:00
Session Mismatch : false
Sess Mismatch Clrd : 06/19/2014 17:23:21

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

-----
ETH-CFM SDP-Bind specifics
-----
Squelch Levels : None
```

```

-----
MPLS-TP 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

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

```

spoke-sdp-fec

- Syntax** `spoke-sdp-fec` [[1..4294967295]
- Context** `show>service>id`
- Description** This command displays spoke-SDP FEC information.
- Parameters** `detail` — Displays detailed information.

Sample Output

```

=====
Service Spoke-SDP FEC Information
=====
Spoke-Sdp-Fec-Id      : 1                Admin State      : enabled
FEC Type              : 129             AII Type        : 2
Standby Sig Slave     : disabled        ICB              : disabled
Signaling             : auto            Auto Config     : disabled
PW Template Id       : (none)          Precedence      : 4
Retry Timer           : 10 secs         Retry Count     : 10
Retry Timer Remaining: 0 secs       Retries Remaining: 0
SAII Type2           : 3:10.20.1.3:1
TAII Type2           : 6:10.20.1.6:1
Path                  : n/a
Endpoint              : n/a
Oper SDP-Bind         : 17407:4294967246
Last Error            : <none>

=====
Entries found: 1
=====

```

Show, Clear, Debug Commands

stp

Syntax	stp [detail]
Context	show>service>id
Description	This command displays information for the spanning tree protocol instance for the service.
Parameters	detail — Displays detailed information.

spoke-sdp-fec

Syntax	spoke-sdp-fec [[1..4294967295]
Context	show>service>id
Description	This command displays the details of a spoke-sdp-fec spoke-sdp.

Sample Output

```
=====
Service Spoke-SDP FEC Information
=====
Spoke-Sdp-Fec-Id      : 1                Admin State      : enabled
FEC Type              : 129              AII Type        : 2
Standby Sig Slave    : disabled          ICB              : disabled
Signaling             : auto              Auto Config     : disabled
PW Template Id       : (none)           Precedence      : 4
Retry Timer           : 10 secs          Retry Count     : 10
Retry Timer Remaining: 0 secs          Retries Remaining: 0
SAII Type2            : 3:10.20.1.3:1
TAII Type2           : 6:10.20.1.6:1
Path                  : n/a
Endpoint              : n/a
Oper SDP-Bind         : 17407:4294967246
Last Error            : <none>
=====
Entries found: 1
=====
```

sdp

Syntax	sdp sdp-id pw-port [pw-port-id] sdp sdp-id pw-port sdp sdp-id pw-port [pw-port-id] [statistics] sdp [consistent inconsistent na] egressifs sdp sdp-id keep-alive-history sdp far-end ip-address ipv6-address keep-alive-history sdp [sdp-id] detail sdp far-end ip-address ipv6-address detail
Context	show>service>sdp

- Description** Displays information for the SDPs associated with the service.
If no optional parameters are specified, a summary of all associated SDPs is displayed.
- Parameters**
- sdp-id* — Specifies the SDP ID for which to display information.
 - Default** All SDPs.
 - Values** 1 — 17407
 - pw-port-id* — Specifies the pseudo-wire port identifier.
 - Values** 1 — 10239
 - 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.

Sample Output

```
*A:ALA-12>config>service# show service sdp 1 pw-port
=====
Service Destination Point (sdp Id 1 Pw-Port)
=====
Pw-port   VC-Id   Adm     Encap    Opr     VC Type   Egr      Monitor
          Shaper  Oper
          VPort  Group
-----
1         1       up      dot1q    up      ether
2         2       up      qinq     up      ether
3         3       up      dot1q    up      ether
4         4       up      qinq     up      ether
-----
Entries found : 4
=====

*A:ALA-12>config>service# show service sdp 1 pw-port 3
=====
Service Destination Point (Sdp Id 1 Pw-Port 3)
=====
SDP Binding port      : lag-1
VC-Id                 : 3
Encap                 : dot1q
VC Type               : ether
Oper Flags            : (Not Specified)
Monitor Oper-Group    : (Not Specified)
=====

*A:ALA-12>config>service# show service sdp 1 pw-port 3 statistics
=====
Service Destination Point (Sdp Id 1 Pw-Port 3)
=====
```

Show, Clear, Debug Commands

```
SDP Binding port      : lag-1
VC-Id                 : 3
Encap                 : dot1q
VC Type               : ether
Oper Flags             : (Not Specified)
Monitor Oper-Group   : (Not Specified)

Admin Status          : up
Oper Status           : up

Statistics            :
I. Fwd. Pkts.         : 0
I. Fwd. Octs.         : 0
E. Fwd. Pkts.         : 0
I. Dro. Pkts.         : 0
I. Dro. Octs.         : 0
E. Fwd. Octets        : 0
=====
```

pw-port

Syntax **pw-port** [*pw-port-id*] [**detail**]
pw-port sdp *sdp-id*
pw-port sdp none

Context show>pw-port

Description Displays pseudo-wire port information.
If no optional parameters are specified, the command displays a summary of all defined PW ports. The optional parameters restrict output to only ports matching the specified properties.

Parameters *pw-port-id* — Specifies the pseudo-wire port identifier.

Values 1 — 10239

detail — Displays detailed port information that includes all the **pw-port** output fields.

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

Values 1 — 17407

Output **Show PW-Port** — The following table describes **show pw-port** output fields:

Label	Description
PW Port	The PW Port identifier.
Encap	The encapsulation type of the PW Port.
SDP	The SDP identifier.
IfIndex	The interface index used for the PW Port.
VC-Id	The Virtual Circuit identifier.
Description	The description string for the PW Port.

Sample Output

```
*A:ALA-48>config>service# show pw-port
```

```

=====
PW Port Information
=====
PW Port   Encap      SDP      IfIndex      VC-Id
-----
1         dot1q      1        1526726657   1
2         qinq      1        1526726658   2
3         dot1q      1        1526726659   3
4         qinq      1        1526726660   4
=====

```

```
*A:ALA-48>config>service# show pw-port 3
```

```

=====
PW Port Information
=====
PW Port   Encap      SDP      IfIndex      VC-Id
-----
3         dot1q      1        1526726659   3
=====

```

```
*A:ALA-48>config>service# show pw-port 3 detail
```

```

=====
PW Port Information
=====
PW Port      : 3
Encap        : dot1q
SDP          : 1
IfIndex      : 1526726659
VC-Id       : 3
Description  : 1-Gig Ethernet dual fiber
=====

```

```
*A:ALA-48>config>pw-port$ show pw-port sdp none
```

```

=====
PW Port Information
=====
PW Port   Encap      SDP      IfIndex      VC-Id
-----
5         dot1q      1        1526726661
=====

```

```
*A:ALA-48>config>pw-port$ show pw-port sdp 1
```

```

=====
PW Port Information
=====
PW Port   Encap      SDP      IfIndex      VC-Id
-----
1         dot1q      1        1526726657   1
2         qinq      1        1526726658   2
3         dot1q      1        1526726659   3
4         qinq      1        1526726660   4
=====

```

VLL Clear Commands

id

Syntax	id <i>service-id</i> <i>service-name</i> neighbor		
Context	clear>service clear>service>statistics		
Description	It clears the discovered IPv6 address of the neighboring CE associated with an iPipe SAP. Note that when IPv6CP comes back up following the execution of this command on an IPv6CP SAP, the 7x50 will check to see if an IPv6 address has been learned for the remote CE attached to the ipipe service. If one has been learned, then this is used to bring up IPv6CP. This command clears commands for a specific service.		
Parameters	<i>service-id</i> — The ID that uniquely identifies a service. <table> <tr> <td>Values</td> <td>service-id: 1 — 214748364 svc-name: A string up to 64 characters in length.</td> </tr> </table> <i>service-name</i> — Neighboring IPv6 address.	Values	service-id: 1 — 214748364 svc-name: A string up to 64 characters in length.
Values	service-id: 1 — 214748364 svc-name: A string up to 64 characters in length.		

arp

Syntax	arp
Context	clear>service>id
Description	This command clears all ARP entries. This command is only valid for Ipipe services.

neighbor

Syntax	neighbor
Context	clear>service>id
Description	Clears the discovered IPv6 address of the neighboring CE associated with an iPipe SAP.

host-tracking

Syntax	host-tracking [sap <i>sap-id</i>] [host <i>ip-address</i>]
Context	clear>service>id
Description	This command clears host tracking data.

mesh-sdp

Syntax	mesh-sdp <i>sdp-id</i> [: <i>vc-id</i>] ingress-vc-label
Context	clear>service>id
Description	This command clears and reset sthe mesh SDP binding.
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 ingress-vc-label — Specifies to clear the ingress VC label.

spoke-sdp

Syntax	spoke-sdp <i>sdp-id:vc-id</i> [ingress-vc-label] [lt2pv3]
Context	clear>service>id
Description	This command clears and resets the spoke SDP bindings for the service.
Parameters	<i>sdp-id</i> — The spoke SDP ID to be reset. Values 1 — 17407 <i>vc-id</i> — The virtual circuit ID on the SDP ID to be reset. Values 1 — 4294967295 ingress-vc-label — Specifies to clear the ingress VC label. lt2pv3 — Specifies to clear the session mismatch flag on the spoke-SDP binding after the flag was set to true by a detected mismatch between the configured parameters and the received parameters.

sap

Syntax	sap <i>sap-id</i> { all counters stp }
Context	clear>service>statistics
Description	This command clears SAP statistics for a SAP.
Parameters	<i>sap-id</i> — Specifies the physical port identifier portion of the SAP definition. See Common CLI Command Descriptions on page 1271 for command syntax. all — Clears all SAP queue statistics and STP statistics. counters — Clears all queue statistics associated with the SAP. stp — Clears all STP statistics associated with the SAP.

sdp

Syntax	sdp <i>sdp-id</i> keep-alive
Context	clear>service>statistics
Description	This command clears keepalive statistics associated with the SDP ID.
Parameters	<i>sdp-id</i> — The SDP ID for which to clear keepalive statistics. Values 1 — 17407

counters

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

spoke-sdp

Syntax	spoke-sdp <i>sdp-id</i>[:<i>vc-id</i>] {all counters stp}
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.

stp

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

VLL Debug Commands

id

Syntax	id <i>service-id</i>
Context	debug>service
Description	This command debugs commands for a specific service.
Parameters	<i>service-id</i> — The ID that uniquely identifies a service.
Values	service-id: 1 — 214748364 svc-name: A string up to 64 characters in length.

sap

Syntax	[no] sap <i>sap-id</i>
Context	debug>service>id
Description	This command enables debugging for a particular SAP.
Parameters	<i>sap-id</i> — Specifies the SAP ID.

event-type

Syntax	[no] event-type {arp config-change neighbor-discovery oper-status-change}
Context	debug>service>id
Description	This command enables a particular debugging event type. The no form of the command disables the event type debugging.
Parameters	arp — Displays ARP events. config-change — Debugs configuration change events. svc-oper-status-change — Debugs service operational status changes. neighbor-discovery — displays the status of IPv6 neighbour discovery for the sap or the spoke-sdp.

Sample Output

```
A:bksim180# debug service id 1000 sap 1/7/1 event-type arp
DEBUG OUTPUT show on CLI is as follows:
3 2008/11/17 18:13:24.35 UTC MINOR: DEBUG #2001 Base Service 1000 SAP 1/7/1 "Service
1000 SAP 1/7/1:
RX: ARP_REQUEST (0x0001)
```

Show, Clear, Debug Commands

```
hwType      : 0x0001
prType      : 0x0800
hwLength    : 0x06
prLength    : 0x04
srcMac      : 8c:c7:01:07:00:03
destMac     : 00:00:00:00:00:00
srcIp       : 200.1.1.2
destIp      : 200.1.1.1
"

4 2008/11/17 18:13:24.35 UTC MINOR: DEBUG #2001 Base Service 1000 SAP 1/7/1 "Service
1000 SAP 1/7/1:
TX: ARP_RESPONSE (0x0002)
hwType      : 0x0001
prType      : 0x0800
hwLength    : 0x06
prLength    : 0x04
srcMac      : 00:03:0a:0a:0a:0a
destMac     : 8c:c7:01:07:00:03
srcIp       : 200.1.1.1
destIp      : 200.1.1.2
"
```

sdp

Syntax	[no] sdp <i>sdp-id:vc-id</i>
Context	debug>service>id
Description	This command enables debugging for a particular SDP.
Parameters	<i>sdp-id</i> — Specifies the SDP ID.

VLL Tools Commands

epipe-map-access-to-egress-port

Syntax	epipe-map-access-to-egress-port { service <i>target-svc-id</i> [end-service <i>end-svc-id</i>]} lag <i>lag-id</i>
Context	tools>dump
Description	<p>This command will display the egress port that will be used to transmit traffic associated with the displayed Epipe service(s). The information displayed shows the egress port for traffic travelling from SAP to egress SDP or SAP.</p> <p>This command will support Epipe services with the following combinations:</p> <ul style="list-style-type: none"> - SAP to SDP (with no endpoint configuration) - SAP to SAP (with or without an ICB) - SAP to SDP using endpoints with 1 or 2 SDPs <p>The command can be executed by specifying either a service ID, service-ID range or an ingress LAG ID.</p> <p>This command will not display the egress port for traffic traveling from the SDP to egress SAP. This command also does not work with services that use policers or shared queues and also does not support PBB services.</p> <p>This command replaces the command tools dump epipe-map-to-network, which has been deprecated.</p>
Parameters	<p><i>target-svc-id</i> — Identifies the service ID for which the command will return the egress port. If used in conjunction with the end-service parameter, this value represent the beginning of the service ID range for which the command will be executed against.</p> <p><i>end-svc-id</i> — This parameter is used to identify the end of the service ID range for which the command will be executed against.</p> <p><i>lag-id</i> — This parameter caused the command to return the egress port for all service with SAPs associated with the specified LAG ID.</p>

Show, Clear, Debug Commands