

Common CLI Command Descriptions

In This Chapter

This section provides information about common Command Line Interface (CLI) syntax and command usage.

Topics in this chapter include:

- [SAP syntax on page 2570](#)

Common Service Commands

sap

Syntax [no] sap *sap-id*

Description This command specifies the physical port identifier portion of the SAP definition.

Parameters *sap-id* — Specifies the physical port identifier portion of the SAP definition.

The *sap-id* can be configured in one of the following formats:

Type	Syntax	Example
port-id	<i>slot/mda/port[.channel]</i>	1/1/5
null	<i>[port-id bundle-id] bpgrp-id lag-id aps-id</i>	<i>port-id:</i> 1/1/3 <i>bundle-id:</i> bundle-ppp-1/1.1 <i>bpgrp-id:</i> bpgrp-ima-1 <i>lag-id:</i> lag-3 <i>aps-id:</i> aps-1
dot1q	<i>[port-id bundle-id] bpgrp-id lag-id aps-id]:qtag1</i>	<i>port-id:qtag1:</i> 1/1/3:100 <i>bundle-id:</i> bundle-ppp-1/1.1 <i>bpgrp-id:</i> bpgrp-ima-1 <i>lag-id:qtag1:</i> lag-3:102 <i>aps-id:qtag1:</i> aps-1:27
qinq	<i>[port-id bpgrp-id lag-id]:qtag1.qtag2</i>	<i>port-id:qtag1.qtag2:</i> 1/1/3:100.10 <i>bpgrp-id:</i> bpgrp-ima-1 <i>lag-id:qtag1.qtag2:</i> lag-10:
atm	<i>[port-id aps-id bundle-id bpgrp-id][:vpi/vci vpi vpi1.vpi2]</i> <i>[port-id aps-id [:vpi/vci vpi vpi1.vpi2 cp.conn-prof-id]</i>	<i>port-id:</i> 1/1/1 <i>aps-id:</i> aps-1 <i>vpi/vci:</i> 16/26 <i>vpi:</i> 16 <i>vpi1.vpi2:</i> 16.200 <i>cp.conn-prof-id:</i> 1/2/1:cp.2
frame-relay	<i>[port-id aps-id]:dlci</i>	<i>port-id:</i> 1/1/1:100 <i>bundle-id:</i> bundle-fr-3/1.1:100 <i>aps-id:</i> aps-1 <i>dlci:</i> 16
cisco-hdlc	<i>slot/mda/port.channel</i>	<i>port-id:</i> 1/1/3.1

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Values	<i>sap-id</i>		
dot1q	port-id bundle-id bpgrp-id lag-id aps-id pw-id>:qtag1	port-id bundle-id bpgrp-id lag-id aps-id pw-id>:qtag1	
qinq	port-id bundle-id bpgrp-id lag-id pw-id>:qtag1.qtag2	<port-id aps-id>[:vpi/vci vpi vpi1.vpi2 cp.conn-prof-id]	
atm	cp keyword	conn-prof-id 1..8000	
frame	port-id aps-id:dldci		
cisco-hdlc	slot/mda/port.channel		
cem	slot/mda/port.channel		
ima-grp	bundle-id>[:vpi/vci vpi vpi1.vpi2 cp.conn-prof-id]	cp keyword	conn-prof-id 1..8000
port-id	slot/mda/port[.channel]		
bundle-id	bundle-<type>-slot/mda.bundle-num	bundle keyword	type ima, fr, ppp
		bundle-num 1..336	
bpgrp-id	bpgrp-<type>-<bpgrp-num>	bpgrp keyword	type ima, ppp
		bpgrp-num 1..2000	
aps-id	aps-<group-id>[.channel]	aps keyword	group-id 1..64
ccag-id	ccag-id.path-id[cc-type]<cc-id	ccag keyword	id 1..8
		path-id a, b	cc-type .sap-net, .net-sap
		cc-id 0..4094	
eth-tunnel	eth-tunnel-id[:eth-tun-sap-id]	id 1..1024	eth-tun-sap-id 0..4094
lag-id	lag-id	lag keyword	id 1..200
pw-id	pw-id	pw keyword	id 1..10239
qtag1	*, 0..4094		
qtag2	* 0..4094		
vpi	0..4095 (NNI)		0..255 (UNI)
vci	1, 2, 5..65535		
dldci	16..1022		
tunnel-id	tunnel-id.private public:tag	tunnel keyword	

id	1..16
tag	0..4094

bundle-id — Specifies the multilink bundle to be associated with this IP interface. The **bundle** keyword must be entered at the beginning of the parameter.

The command syntax must be configured as follows:

bundle-id: **bundle-type-slot-id/mda-slot.bundle-num**
bundle-id value range: 1 — 336

For example:

```
*A:ALA-12>config# port bundle-ppp-5/1.1
*A:ALA-12>config>port# multilink-bundle
```

bpgrp-id — Specifies the bundle protection group ID to be associated with this IP interface. The **bpgrp** keyword must be entered at the beginning of the parameter.

The command syntax must be configured as follows:

bpgrp-id: **bpgrp-type-bpgrp-num**
type: ima
bpgrp-num value range: 1 — 2000

For example:

```
*A:ALA-12>config# port bpgrp-ima-1
*A:ALA-12>config>service>vpls$ sap bpgrp-ima-1
```

qtag1, qtag2 — Specifies the encapsulation value used to identify the SAP on the port or sub-port. If this parameter is not specifically defined, the default value is 0.

Values qtag1: * | 0 — 4094
qtag2: * | 0 — 4094

The values depends on the encapsulation type configured for the interface. The following table describes the allowed values for the port and encapsulation types.

Port Type	Encap-Type	Allowed Values	Comments
Ethernet	Null	0	The SAP is identified by the port.
Ethernet	Dot1q	0 — 4094	The SAP is identified by the 802.1Q tag on the port. Note that a 0 qtag1 value also accepts untagged packets on the dot1q port.
Ethernet	QinQ	qtag1: 0 — 4094 qtag2: 0 — 4094	The SAP is identified by two 802.1Q tags on the port. Note that a 0 qtag1 value also accepts untagged packets on the Dot1q port.
SONET/SDH	IPCP	-	The SAP is identified by the channel. No BCP is deployed and all traffic is IP.
SONET/SDH TDM	BCP-Null	0	The SAP is identified with a single service on the channel. Tags are assumed to be part of the customer packet and not a service delimiter.

SONET/SDH TDM	BCP-Dot1q	0 — 4094	The SAP is identified by the 802.1Q tag on the channel.
SONET/SDH TDM	Frame Relay	16 — 991	The SAP is identified by the data link connection identifier (DLCI).
SONET/SDH ATM	ATM	vpi (NNI) 0 — 4095 vpi (UNI) 0 — 255 vci 1, 2, 5 — 65535	The SAP is identified by port or by PVPC or PVCC identifier (vpi, vpi/vci, or vpi range)

sap ipsec-*id*.private|public:*tag* — This parameter associates an IPsec group SAP with this interface. This is the public side for an IPsec tunnel. Tunnels referencing this IPsec group in the private side may be created if their local IP is in the subnet of the interface subnet and the routing context specified matches with the one of the interface.

This context will provide a SAP to the tunnel. The operator may associate an ingress and egress QoS policies as well as filters and virtual scheduling contexts. Internally this creates an Ethernet SAP that will be used to send and receive encrypted traffic to and from the MDA. Multiple tunnels can be associated with this SAP. The “tag” will be a dot1q value. The operator may see it as an identifier. The range is limited to 1 — 4095.

pw-id — Specifies the SAP identifier for PW-SAPs,

