



PPPoE Circuit-Id Tag Processing

In an Ethernet access network, there is no unique mapping between the subscriber line identifier and the interface such as there is on a virtual circuit (VC) in an ATM-based network. The PPPoE Circuit-Id Tag Processing feature provides a way to extract a Circuit-Id tag from the digital subscriber line (DSL) as an identifier for the authentication, authorization, and accounting (AAA) access request on an Ethernet interface, thereby simulating ATM-based broadband access, but using cost-effective Ethernet instead. The tag is useful for troubleshooting the network, and is also used in RADIUS authentication and accounting processes.

Configuration Information

Configuration information is included in the “How to Configure PPPoE Circuit Id tag Processing” part of the “PPPoA, PPPoE, PPPoX” module of the *Cisco IOS Broadband and DSL Configuration Guide*, Release 12.4, at the following URL:

- http://www.cisco.com/univercd/cc/td/doc/product/software/ios124/124cg/hbba_c/part02/index.htm

Command Reference Information

This section documents modified commands.

- **vendor-tag circuit-id service**
- **vendor-tag circuit-id strip**

vendor-tag circuit-id service

To enable processing of the PPPoE Vendor-Specific tag in a PPPoE Active Discovery Request (PADR) packet, which extracts the Circuit-Id part of the tag and sends it to a AAA server as the NAS-Port-Id attribute in RADIUS access requests, use the **vendor-tag circuit-id service** command in BBA group configuration mode. To disable the command function (default), use the **no** form of this command.

vendor-tag circuit-id service

no vendor-tag circuit-id service

Syntax Description This command has no argument or keywords.

Command Default This command is disabled.

Command Modes BBA group configuration

Command History	Release	Modification
	12.4(4)T	This command was introduced.
	12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.

Usage Guidelines When this command is not enabled and the Broadband Remote Access Server (BRAS) receives a packet with the Vendor-Specific tag attached, the tag is ignored and the session is allowed to come up. The Vendor-Specific tag is extracted and processed for its Circuit-Id part when the **vendor-tag circuit-id service** command is enabled in BBA group configuration mode. Once the command is configured, the BRAS processes incoming PADR packets and sends the Circuit-Id tag to the AAA server as a NAS-Port-Id RADIUS attribute.

Examples In the following example, outgoing PPPoE Active Discovery Offer (PADO) and PPPoE Active Discovery Session-confirmation (PADS) packets are configured to retain the incoming Vendor-Specific Line-Id tag:

```
bba-group pppoe pppoe-tag
  sessions per-mac limit 50
  vendor-tag circuit-id service

interface FastEthernet0/0.1
  encapsulation dot1Q 120
  pppoe enable group pppoe-tag
```

Related Commands	Command	Description
	vendor-tag circuit-id strip	Removes an incoming Vendor-Specific Line-Id tag from outgoing PADO and PADR packets.

vendor-tag circuit-id strip

To remove the incoming Vendor-Specific Line-Id tag from outgoing PADO and PADR (PPPoE Active Discovery Offer and Request) packets, use the **vendor-tag circuit-id strip** command in BBA group configuration mode. To disable the command function (default), use the **no** form of this command.

vendor-tag circuit-id strip

no vendor-tag circuit-id strip

Syntax Description This command has no arguments or keywords.

Command Default This command is disabled.

Command Modes BBA group configuration mode

Command History	Release	Modification
	12.4(4)T	This command was introduced.
	12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.

Usage Guidelines Outgoing packets from BRAS will have a DSLAM-inserted Line-Id tag when the **vendor-tag circuit-id service** command is configured. DSLAM should strip the tag from the PAD outgoing packets. If the DSLAM cannot strip the tag, the BRAS must remove it before sending out the packets. When the **vendor-tag circuit-id strip** command is configured, the BRAS removes the incoming Vendor-Specific Line-Id tag from the outgoing packets.

Outgoing PADO and PADS packets from the BRAS will have the DSLAM-inserted Circuit-Id tag. DSLAM should strip the tag out of PADO and PADS packets. If the DSLAM cannot strip off the tag, the BRAS should remove it before sending the packets out, and this is accomplished using the **vendor-tag circuit-id strip** command.

Examples In the following example, the BRAS will strip off incoming Vendor-Specific Line-Id tags from outgoing PADO and PADS packets:

```
bba-group pppoe pppoe-rm-tag
 sessions per-mac limit 50
 vendor-tag circuit-id service
 vendor-tag circuit-id strip
```

```
interface FastEthernet0/0.1
 encapsulation dot1Q 120
 pppoe enable group pppoe-tag
```

Related Commands	Command	Description
	vendor-tag circuit-id service	Enables processing of the PPPoE Vendor-Specific tag in a PADR packet so the Circuit-Id part can be sent to a AAA server as the NAS-Port-Id attribute in RADIUS access requests.

■ vendor-tag circuit-id strip