



# PPPoE - Session Limit Local Override

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The PPP over Ethernet (PPPoE) Session Limit Local Override feature enables the session limit configured locally on the broadband remote access server (BRAS) or Layer2 Tunneling Protocol (L2TP) access concentrator (LAC) to override the per-NAS-port session limit downloaded from the RADIUS server when the preauthorization is enabled.

- [Finding Feature Information, page 1](#)
- [Information About PPPoE Session Limit Local Override, page 1](#)
- [How to Configure PPPoE Session Limit Local Override, page 2](#)
- [Configuration Examples for PPPoE Session Limit Local Override, page 4](#)
- [Additional References, page 4](#)
- [Feature Information for PPPoE Session Limit Local Override, page 5](#)

## Finding Feature Information

Your software release may not support all the features documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the Feature Information Table at the end of this document.

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## Information About PPPoE Session Limit Local Override

- [How PPPoE Session Limit Local Override Works, page 1](#)

## How PPPoE Session Limit Local Override Works

PPPoE session limits are downloaded from the RADIUS server when you enable preauthorization on the LAC using the **subscriber access pppoe pre-authorize nas-port-id** command. By enabling preauthorization, you limit the number of PPPoE sessions on a specific permanent virtual circuit (PVC) or



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VLAN; that is, the PPPoE per-NAS-port session limit downloaded from the RADIUS server takes precedence over locally configured (port-based) session limits, such as per-VC and per-VLAN session limits.

The PPPoE Session Limit Local Override feature enables the local session limit configured at the BRAS to override the per-NAS-port session limit configured at the RADIUS server when preauthorization is configured.

**Note**


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The PPPoE Session Limit Local Override feature is useful only when you have configured preauthorization on the BRAS or LAC.

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To enable the PPPoE Session Limit Local Override feature, configure the **sessions pre-auth limit ignore** command under the broadband access (BBA) group associated with the interface. When the PPPoE Session Limit Local Override feature is enabled, the locally configured session limit is applied before PPP is started; that is before the BRAS sends out a PPPoE Active Discovery Offer (PADO) packet to the client, advertising a list of available services.

When preauthorization is configured without the PPPoE Session Limit Local Override feature enabled, the client receives an authentication failure response from the BRAS when there is no session limit downloaded from the RADIUS server and the locally configured session limit is exceeded. The BRAS waits to apply locally configured limits until PPP negotiation is completed. When a call is finally rejected, the client receives the authentication failure response, resulting in session failure, with no ability to distinguish whether the session failure results from a Challenge Handshake Authentication Protocol (CHAP) authentication failure or a PPPoE session limit having been exceeded. The PPPoE Session Limit Local Override feature allows for differentiation between the handling of per-NAS-port failures and session limiting failures.

If you enable the PPPoE Session Limit Local Override feature, but there are no locally configured per-port session limits, then per-NAS-port session limits downloaded from the RADIUS server are applied.

For more information on how to configure preauthorization and per-NAS-port session limit, see the [Establishing PPPoE Session Limit per NAS Port](#) document.

## How to Configure PPPoE Session Limit Local Override

- [Enabling PPPoE Session Limit Local Override, page 2](#)

### Enabling PPPoE Session Limit Local Override

Enable the PPPoE Session Limit Local Override feature to allow the local session limit configured on the BRAS to override the per-NAS-port session limit downloaded from the RADIUS server.

The **sessions pre-auth limit ignore** command should have been configured under the broadband access (BBA) group associated with the interface.

**Note**


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If there are no locally configured per-port session limits, then per-NAS port session limits downloaded from the RADIUS server are applied.

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**SUMMARY STEPS**

1. **enable**
2. **configure terminal**
3. **bba-group pppoe** *group-name*
4. **sessions per-vc limit** *per-vc-limit*
5. **sessions pre-auth limit ignore**
6. **end**

**DETAILED STEPS**

Command or Action	Purpose
<p><b>Step 1</b> <b>enable</b></p> <p><b>Example:</b></p> <pre>Router&gt; enable</pre>	<p>Enables privileged EXEC mode.</p> <ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>
<p><b>Step 2</b> <b>configure terminal</b></p> <p><b>Example:</b></p> <pre>Router# configure terminal</pre>	<p>Enters global configuration mode.</p>
<p><b>Step 3</b> <b>bba-group pppoe</b> <i>group-name</i></p> <p><b>Example:</b></p> <pre>Router(config)# bba-group pppoe test</pre>	<p>Creates a PPPoE profile and enters BBA group configuration mode.</p> <ul style="list-style-type: none"> <li>• <i>group-name</i> --Name of the PPPoE profile.</li> </ul>
<p><b>Step 4</b> <b>sessions per-vc limit</b> <i>per-vc-limit</i></p> <p><b>Example:</b></p> <pre>Router(config-bba-group)# sessions per-vc limit 3</pre>	<p>Limits the number of PPPoE sessions per VC in a PPPoE profile.</p> <ul style="list-style-type: none"> <li>• <i>per-vc-limit</i> --Maximum number of PPPoE sessions that can be established over an ATM PVC. The default is 100.</li> </ul>
<p><b>Step 5</b> <b>sessions pre-auth limit ignore</b></p> <p><b>Example:</b></p> <pre>Router(config-bba-group)# sessions pre-auth limit ignore</pre>	<p>Enables the PPPoE Session Limit Local Override feature. The locally configured limit overrides the per-NAS-port session limit configured at the RADIUS server.</p>

Command or Action	Purpose
<b>Step 6</b> end  <b>Example:</b>  Router(config-bba-group)# end	(Optional) Exits BBA group configuration mode and returns to privileged EXEC mode.

## Configuration Examples for PPPoE Session Limit Local Override

- [Enabling PPPoE Session Limit Local Override Example, page 4](#)
- [Enabling PPPoE Session Limit Local Override Example, page 4](#)

### Enabling PPPoE Session Limit Local Override Example

The following example creates a PPPoE group named test, configures a limit of three sessions per VC, and enables the PPPoE Session Limit Local Override feature in bba-group configuration mode. The running configuration shows that the **sessions pre-auth limit ignore** command was used to enable this feature.

```
Router(config)# bba-group pppoe test
Router(config-bba-group)# sessions per-vc limit 3
Router(config-bba-group)# sessions pre-auth limit ignore

.
.
!
bba-group pppoe test
virtual-template 2
sessions per-vc limit 3
sessions pre-auth limit ignore
!
.
```

## Additional References

The following sections provide references related to the PPPoE Session Limit Local Override feature.

### Related Documents

Related Topic	Document Title
Establishing PPPoE Session Limits per NAS Port	Cisco IOS Broadband Access Aggregation and DSL Configuration Guide

**Standards**

Standard	Title
None	--

**MIBs**

MIB	MIBs Link
None	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: <a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a>

**Technical Assistance**

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	<a href="http://www.cisco.com/techsupport">http://www.cisco.com/techsupport</a>

## Feature Information for PPPoE Session Limit Local Override

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

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**Table 1**      **Feature Information for PPPoE Session Limit Local Override**

Feature Name	Releases	Feature Information
PPPoE Session Limit Local Override	12.4(15)T 12.2(33)SB 15.0(1)M 12.2(33)SRE	<p>The PPPoE Session Limit Local Override feature enables the local session limit configured on the BRAS or LAC to override the per-NAS-port session limit downloaded from the RADIUS server when preauthorization is configured.</p> <p>The following command was introduced by this feature: <b>sessions pre-auth limit ignore</b></p> <p>In Cisco IOS Release 12.2(33)SB, support was added for the Cisco 10000 router.</p>

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