Configure PPPoE Interfaces in Concerto

For supported software information, click here.

Point-to-Point Protocol over Ethernet (PPPoE) is a networking protocol that encapsulates Point-to-Point Protocol (PPP) frames inside Ethernet frames to facilitate communication between network endpoints. PPPoE encapsulation provides the benefits of PPP while providing connectivity across Ethernet networks.

You configure PPPoE interfaces on an appliance. A PPPoE interface is a logical interface that is a subcategory of a WAN interface. Because a PPPoE interface is a logical interface, you must specify a VNI interface that is dedicated to carrying PPPoE traffic.

The PPPoE client interface initiates communication with an access concentrator (AC), after which the access concentrator confirms the connection and sends a session ID to the PPPoE client.

You can configure a PPPoE interface in the following ways, as described in this article:

- As a Profile Element
- As part of a Basic Master Profile
- As part of a Standard Master Profile

Configure a PPPoE Interface as a Profile Element

1. In Tenant view, go to Configure > Secure SD-WAN > Profile Elements > Policy Elements > Device > Interface.

2. In the Interfaces screen, click + Interface.

Policy Elements: Device : Interface 3		+ Interface	Search...

L2-6   ⓘ Version 1   ⋮

Interface	Category	Location
Enabled	LAYER 2 | Wired	vni-0/12
Interface Mode	VLAN IDs	
TRUNK	1000, 1001, 2000-2020	

L2-7   ⓘ Version 1   ⋮

Interface	Category	Location
Enabled	LAYER 2 | Wired	vni-0/12
Interface Mode	VLAN ID	
ACCESS	1000	

3. In the Create Interface screen, select the General tab, and then enter information for the following fields.

Create Interface
V1

General | Connection | QoS | Tenants | Permissions

Name

pppoe10   Version 1

Description

Type
Physical ◯— Virtual

Enabled   Block ICMP   Speed Test Server
━◯   ◯—   ◯—

Category   Sub Category

WAN   ∨   PPPoE   ∨

Location   VLAN ID

Select   ∨   0-4094

VNI Location

Select   ∨

Service Name   Access Concentrator

Username   Password

LCP Echo Failure   LCP Echo Interval

Cancel   Next ⋮

Field	Description
Name	Enter a name for the PPPoE interface.
Type	Select Physical.
Enabled	Click the slider to enable the interface.
Category	Select WAN.
Sub Category	Select PPPoE.
Location	Select a PPPoE interface.
VLAN ID	Enter a VLAN ID. *Range*: 0 through 4094 *Default*: None
VNI Location	Select a VNI interface to dedicate to carrying PPPoE traffic
Service Name	Enter the service name. The name can be up to 255 characters.
Access Concentrator	Enter the name of the access concentrator. The name can be up to 31 characters. The access concentrator name on both the client and the server must be the same to establish the PPPoE session.
Username	Enter a username.
Password	Enter a password.
LCP Echo Failure	Enter the number of LCP echo requests to send without receiving a valid LCP echo reply before assuming that the peer is unreachable (dead). *Range*: 1 through 255

Field	Description
	Default: 3
LCP Echo Interval	Enter how often to send LCP echo requests to peer, in seconds. *Range*: 1 through 255 seconds *Default*: 5 seconds

4. Click Next to go to the Connection tab, and then enter information for the following fields.

Create Interface
V1

| General | **Connection** | QoS | Tenants | Permissions |

Connection Type
Broadband ⌄

Connection Name
Internet-1 ⌄

Uplink Bandwidth (Kbps)

Downlink Bandwidth (Kbps)

Address

IPv4 Interfaces   STATIC —● DHCP

IPv4 Address automatically assigned

Add IPv6 Address

> Static Routes

⌄ Monitor

Enable
▬○

Gateway ⌄

Cancel   **Next** ⋮

Field	Description
Connection Type	Select the connection type: ◦ Broadband ◦ MPLS
Connection Name	Select a connection name.
Uplink Bandwidth	Enter the uplink bandwidth for the interface, in kilobits per second. *Range*: 1 through 10000000 *Default*: None
Downlink Bandwidth	Enter the downlink bandwidth for the interface, in kilobits per second. *Range*: 1 through 10000000 *Default*: None
Address	Select the address type. The Static option is disabled for PPPoE interfaces for both IPv4 and IPv6 addresses.
Static Routes	Click Static Routes to configure static routing, and then enter information for the following fields.

Field	Description
	◦ Destination—Enter a valid IPv4 subnet, such as 10.1.1.0/24. ◦ Preference—Enter a preference value. *Range*: 1 through 255 *Default*: 1 ◦ Nex Hop—Enter a valid IPv4 address for the next hop, such as 10.2.1.1. ◦ Add Another—Click to add another IPv4 static route. ◦ Add IPv6 Routing—Click to add an IPv6 static route. Enter the destination address, preference, and next-hop address. Click Add Another to add another IPv6 static address.
Monitor	Select to configure a routing protocol monitor. ◦ Enable—Click the slider to enable the monitor. ◦ Gateway—Select Gateway or Customer Monitor.

5. Click Next to go to the QoS tab. For information about configuring QoS, see Configure QoS Elements on Concerto.

6. Click Next to go to the Tenants tab. By default, all tenants are selected.

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7. To allocate all bandwidth to one tenant:

 a. Click the Specify tenants and bandwidth limits button.

 b. Click the Specify bandwidth limit slider bar.

 c. In the Tenants column, select one tenant to receive all of the bandwidth.

8. To allocate bandwidth among tenants:

    a. Click Specify Tenants and Bandwidth Limits.

    b. Click the Specify bandwidth limits slider bar.

    c. Click the Share Excess Bandwidth slider bar.

    d. In the Tenants field, select two or more tenants.

    e. In the Bandwidth field, enter the bandwidth, in kilobits per second (Kbps), to allocate to each tenant.

9. Click Next, or click the Permissions tab and revise the permissions as desired.
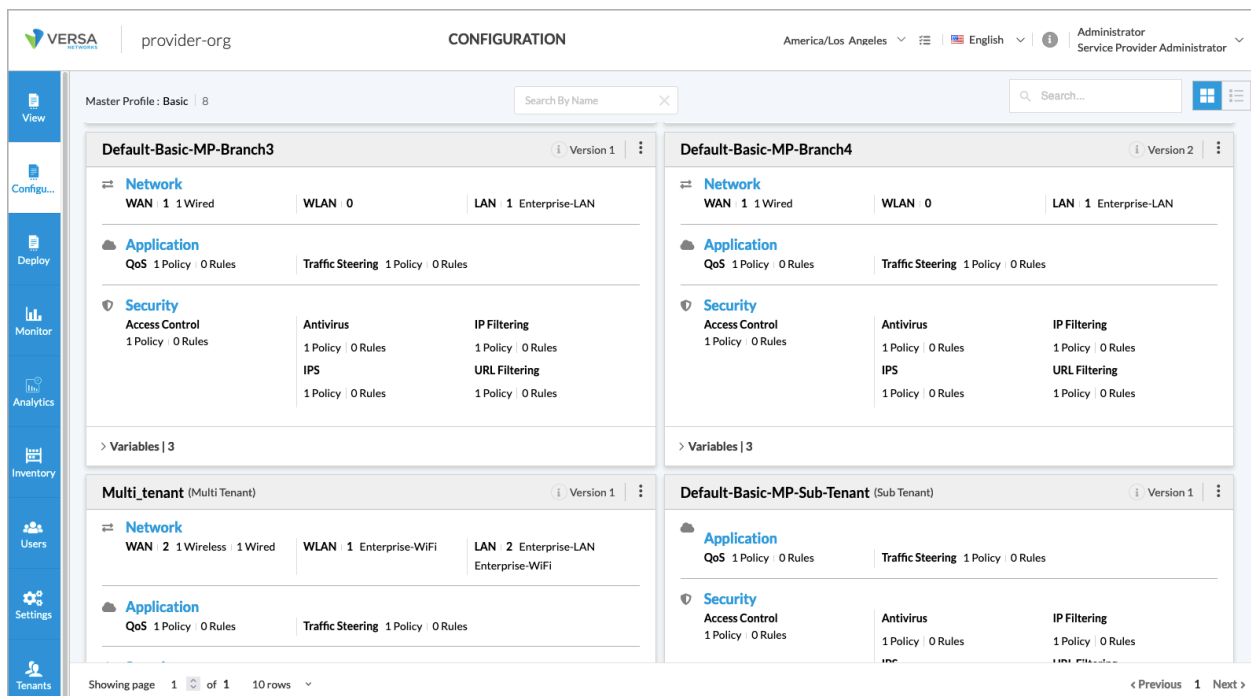
10. Click Save.

Configure a PPPoE Interface in a Basic Master Profile

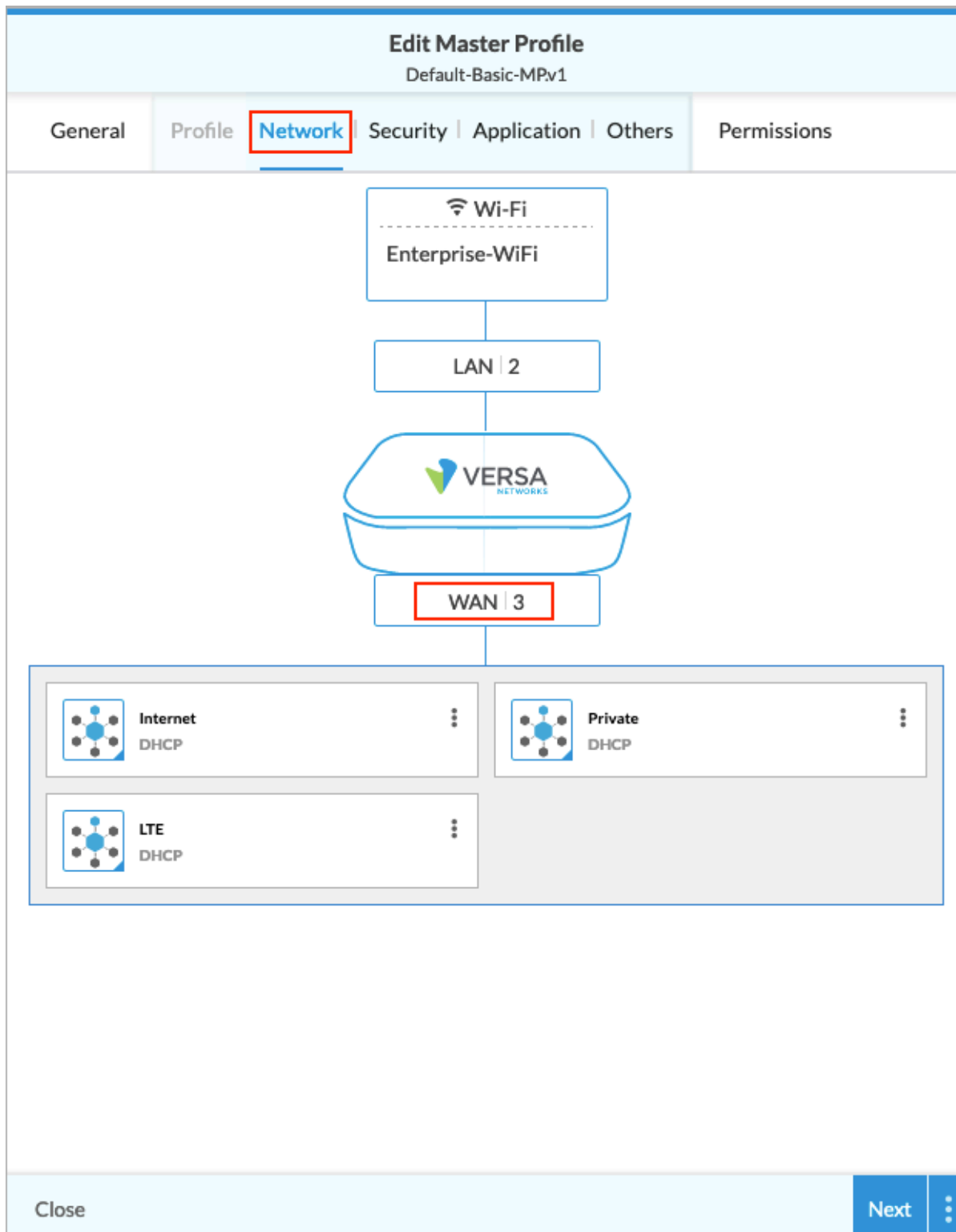To configure a PPPoE interface in a Basic Master Profile:

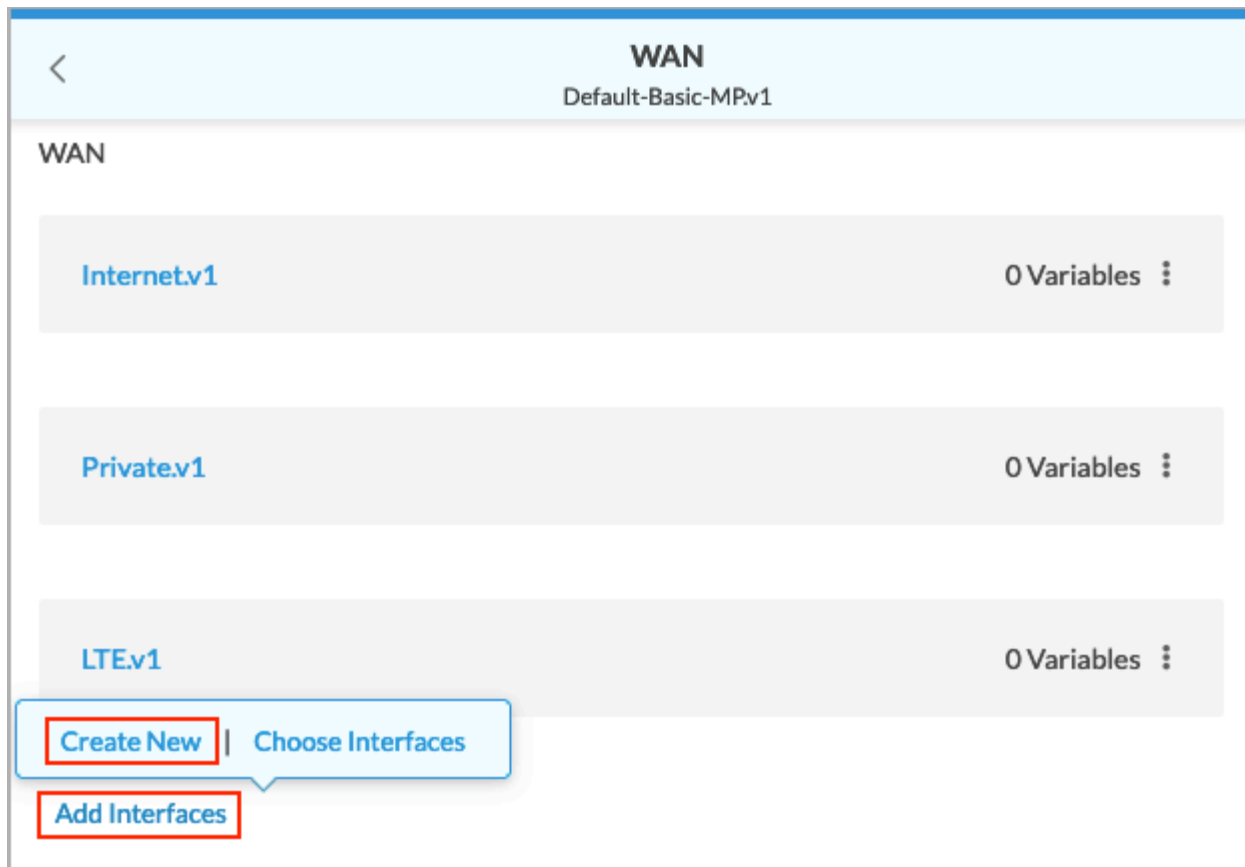1. Go to Configure > Profiles > Master Profiles > Basic.
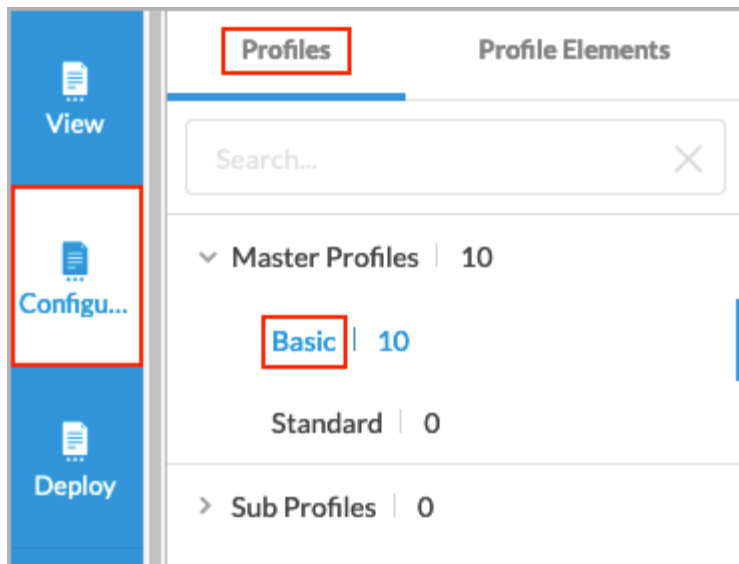
The main screen displays all configured Basic Master Profiles.

2. In the main screen, select the existing Basic Master Profile to which you are adding the PPPoE interface, or clone a Basic Master Profile and configure the PPPoE interface as part of the cloned Basic Master Profile.

3. In the Edit Master Profile screen, select the Profile > Network tab.

Edit Master Profile
Default-Basic-MP.v1

General | Profile | **Network** | Security | Application | Others | Permissions

Wi-Fi
Enterprise-WiFi

LAN 2

VERSA
NETWORKS

WAN 3

Internet		Private	
DHCP		DHCP	
LTE			
DHCP			

Close   Next

4. Click the WAN box. The WAN screen displays.

5. In the WAN screen, click Add Interfaces, and then click Create New.

6. The Create Interface screen displays.

7. To configure the PPPoE interface, follow Steps 3 through 10 in Configure a PPPoE Interface as a Profile Element, above.
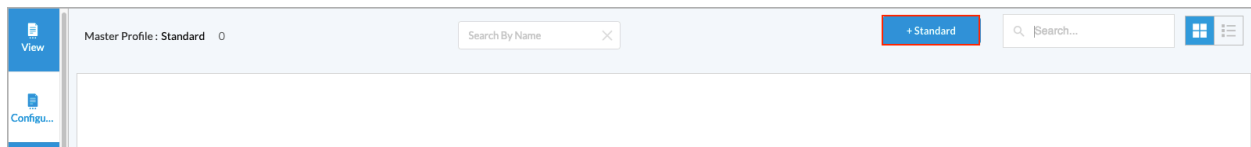

Configure a PPPoE Interface in a Standard Master Profile

To configure a PPPoE interface in a Standard Master Profile:

1. Go to Configure > Profiles > Master Profiles > Standard.
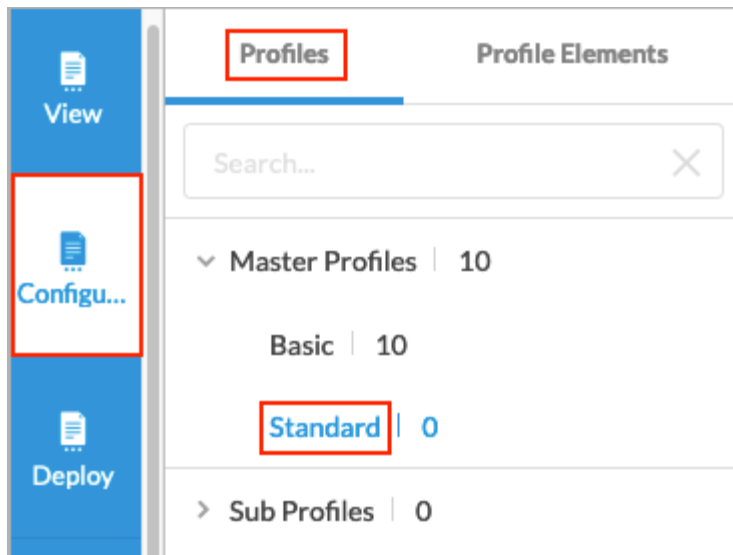
The main Basic Master Profiles screen displays.

2. In the main screen, click +Standard to add a Standard Master Profile, and then configure the PPPoE interface as part of the new Standard Master Profile. The New Master Profile screen displays.

New Master Profile
V1

| General | Sub Profiles | Director Service Templates | Permissions |

Name

Version 1

Description

Type
Standard

Scope
Single Tenant

Solution Tier
Select

Variables | 0

No variables present

Profiles | 0

No Profiles present

Tags
Press Enter to add

Close   Next

3. Select the General tab, and then enter the required information. Then select the Subprofiles tab.

4. Click + Profile. In the popup window, select Device, and then select Create New Profile. The Create Device Subprofile screen displays.

5. Select the General tab, and then enter the required information.

6. Select the Policy tab, and then click + Policy. In the popup window, select Interface, and then select Create New Policy.

The Create Interface Policy screen displays.

Create Interface Policy

General   Interfaces   Permissions

Name

Version 1

Description

Type
Interface

Variables | 0

No variables present

Interfaces | 0

No Interfaces Present

Tags

Press Enter to add

7. Select the General tab, and then enter the required information. Then select the Interface tab and click Add Interfaces. The Create Interface screen displays.

8. To configure the PPPoE interface, follow Steps 3 through 10 in Configure a PPPoE Interface as a Profile Element, above.

Supported Software Information

Releases 11.4.1 and later support all content described in this article.

Additional Information

[Configure QoS Elements on Concerto](#)