

## Configuring Dynamic Customer VLANs for the Broadband Subscriber Management Solution

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In this example configuration, the access interface (`ge-1/3/0`) connects to a device (that is, a DSLAM) on the access side of the network. This procedure enables the dynamic creation of up to five customer VLANs (C-VLANs) for use by the access network subscribers.



**NOTE:** Dynamic customer VLAN configuration is currently not supported for PPPoE. You must configure static VLANs for PPPoE. For an example of how to configure static customer VLANs for PPPoE, see [Configuring Static Customer VLANs for the PPPoE Layer 3 Wholesale Network Solution](#).

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To configure dynamic VLANs for the solution:

1. Configure a dynamic profile for dynamic VLAN creation.
  - a. Name the profile.

```
[edit]
user@host# edit dynamic-profiles VLAN-PROF
```

- b. Define the `interface-name` statement with the internal `$junos-interface-ifd-name` variable used by the router to match the interface name of the receiving interface.

```
[edit dynamic-profiles VLAN-PROF]
user@host# edit interfaces $junos-interface-ifd-name
```

- c. Define the unit statement with the predefined `$junos-interface-unit` variable:

```
[edit dynamic-profiles VLAN-PROF]
user@host# set unit $junos-interface-unit
```

- d. (Optional) To configure the router to respond to any ARP request, specify the `proxy-arp` statement.

```
[edit dynamic-profiles VLAN-PROF interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit"]
user@host# set proxy-arp
```

- e. Specify that you want to create IPv4 demux interfaces.

```
[edit dynamic-profiles VLAN-PROF interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit"]
user@host# set demux-source inet
```

- f. Specify the VLAN ID variable.

```
[edit dynamic-profiles VLAN-PROF interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit"]
```

```
user@host# set vlan-tags outer $junos-stacked-vlan-id
```

The variable is dynamically replaced with an outer VLAN ID within the VLAN range specified at the [edit interfaces] hierarchy level.

- g. Specify the inner VLAN ID variable.

```
[edit dynamic-profiles VLAN-PROF interfaces "$junos-interface-ifd-name" unit "$junos-interface-unit"]
user@host# set vlan-tags inner $junos-vlan-id
```

The variable is dynamically replaced with an inner VLAN ID within the VLAN range specified at the [edit interfaces] hierarchy level.

- h. Specify the family type.

```
[edit dynamic-profiles VLAN-PROF interfaces "$junos-interface-ifd-name" unit "$junos-interface-unit"]
user@host# set family (Logical Interface) inet
```

- i. (Optional) Enable IP and MAC address validation for dynamic IP demux interfaces in a dynamic profile.

```
[edit dynamic-profiles VLAN-PROF interfaces "$junos-interface-ifd-name" unit "$junos-interface-unit" family inet]
user@host# set mac-validate (Dynamic IP Demux Interface) strict
```

- j. Specify the unnumbered address and preferred source address.

```
[edit dynamic-profiles VLAN-PROF interfaces "$junos-interface-ifd-name" unit "$junos-interface-unit" family inet]
user@host# set unnumbered-address lo.0 preferred-source-address 33.33.0.1
```

- 2. Associate the dynamic profile with the VLAN interface.

- a. Access the interface that you want to use for creating VLANs.

```
[edit interfaces]
user@host# edit interfaces ge-1/3/0
```

- b. Specify that you want to automatically configure VLAN interfaces.

```
[edit interfaces ge-1/3/0]
user@host# edit auto-configure
```

- c. Specify that you want to configure stacked VLANs.

```
[edit interfaces ge-1/3/0 auto-configure]
user@host# edit stacked-vlan-ranges
```

- d. Specify the dynamic VLAN profile that you want the interface to use.

```
[edit interfaces ge-1/3/0 auto-configure stacked-vlan-ranges]
```

```
user@host# set dynamic-profile (Stacked VLAN) VLAN-PROF
```

3. Specify the Ethernet packet type that the VLAN dynamic profile can accept.

```
[edit interfaces ge-1/3/0 auto-configure stacked-vlan-ranges VLAN-PROF]  
user@host# set accept inet
```



**NOTE:** This release supports only INET (IPv4) Ethernet packet types.

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4. Define VLAN ranges for use by the dynamic profile when dynamically creating VLAN IDs. For this solution, specify the outer and inner stacked VLAN ranges that you want the dynamic profile to use. To mimic the static VLAN configuration, the following example specifies an outer stacked VLAN ID range of 3–3 (enabling only the outer range of 3) and an inner stacked VLAN ID range of 1–5 (enabling a range from 1 through 5 for the inner stacked VLAN ID).

```
[edit interfaces ge-0/0/0 auto-configure vlan-ranges]  
user@host# set ranges (Dynamic Stacked VLAN) 3-3,1-5
```

- Related Topics**
- [Configuring Top-Level Broadband Subscriber Management Elements](#)
  - [Broadband Subscriber Management VLAN Architecture Overview](#)
  - [Dynamic 802.1Q VLAN Overview](#)
  - [Configuring VLAN Dynamic Profiles](#)
  - [Configuring VLAN Interfaces to Use Dynamic Profiles](#)
  - [Configuring Which VLAN Ethernet Packet Types Dynamic Profiles Can Accept](#)
  - [Configuring VLAN Ranges for Use with Dynamic Profiles](#)
  - [JUNOS Network Interfaces Configuration Guide](#)

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