

Configuring VLAN Dynamic Profiles

Creating dynamic single-tag VLANs or stacked (dual-tag) VLANs requires the use of dynamic profiles. The dynamic profile automatically references the VLAN interface and creates the interface unit and the necessary VLAN IDs for each new single-tag VLAN or stacked VLAN.



CAUTION: VLAN dynamic profiles do not support user-defined variables. Use only JUNOS VLAN predefined variables when configuring VLAN dynamic profiles. See Dynamic Variables Overview for information about dynamic variables.

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Configuring a VLAN Dynamic Profile for Creating Single-Tag VLANs Using Standard TPID Values

You can configure a VLAN dynamic profile to create single-tag VLANs that accept only standard TPID values (a TPID value of 0x8100) by using the `vlan-id` statement and the `$junos-vlan-id` variable.



CAUTION: This procedure configures a dynamic profile that accepts only TPID values of 0x8100. To configure a VLAN dynamic profile for creating VLANs using any TPID values, see “Configuring a VLAN Dynamic Profile for Creating Single-Tag VLANs Using Any TPID Values” on page 3.

Before you begin:

- Configure the dynamic profile.

See Configuring a Basic Dynamic Profile.

To configure a dynamic VLAN profile:

1. Ensure that the VLAN dynamic profile uses the `$junos-interface-ifd-name` variable for the dynamic interface and the `$junos-interface-unit` variable for the interface unit.
2. (Optional) To support dynamic demux interfaces, enable them using the `demux-source` statement.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit  
"$junos-interface-unit"]  
user@host# set demux-source inet
```

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

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit"]
user@host# set proxy-arp
```

4. Specify that you want to use dynamic VLAN IDs in the dynamic profile.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit"]
user@host# set vlan-id $junos-vlan-id
```

When the dynamic profile is instantiated, the variable is dynamically replaced with a VLAN ID within the VLAN range specified at the [interfaces] hierarchy level.

5. Define the unit family.

- a. Specify the family type.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit"]
user@host# set family inet
```

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

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit" family inet]
user@host# set mac-validate strict
```

- c. Specify the unnumbered address.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit" family inet]
user@host# set unnumbered-address lo.0
```

- d. Specify the preferred source address.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit" family inet]
user@host# set preferred-source-address 192.0.16.1
```

Configuring a VLAN Dynamic Profile for Creating Single-Tag VLANs Using Any TPID Values

You can configure a VLAN dynamic profile to create single-tag VLANs that accept any TPID values by configuring the `vlan-tags` statement and the `$junos-vlan-id` variable.



NOTE: For procedures to configure a VLAN dynamic profile for creating single-tag VLANs that use only standard TPID values (a TPID value of 0x8100), see “Configuring a VLAN Dynamic Profile for Creating Single-Tag VLANs Using Standard TPID Values” on page 1.

Before you begin:

- Configure the dynamic profile.

See Configuring a Basic Dynamic Profile.

To configure a dynamic VLAN profile:

1. Ensure that the VLAN dynamic profile uses the `$junos-interface-ifd-name` variable for the dynamic interface and the `$junos-interface-unit` variable for the interface unit.
2. (Optional) To support dynamic demux interfaces, enable them using the `demux-source` statement.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit"]
user@host# set demux-source inet
```

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

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit"]
user@host# set proxy-arp
```

4. Specify that you want to use dynamic VLAN IDs in the dynamic profile.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit"]
user@host# set vlan-tags outer $junos-vlan-id
```

The variable is dynamically replaced with both the TPID value and a VLAN ID within the VLAN range specified at the `[interfaces]` hierarchy level.

5. Define the unit family.
 - a. Specify the family type.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit"]
user@host# set family inet
```

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

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit" family inet]
user@host# set mac-validate strict
```

- c. Specify the unnumbered address.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit" family inet]
user@host# set unnumbered-address lo.0
```

- d. Specify the preferred source address.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit" family inet]
user@host# set preferred-source-address 192.0.16.1
```

Configuring a Stacked VLAN Dynamic Profile

You can configure a dynamic profile for creating stacked 802.1Q VLANs.

Before you begin:

- Configure the dynamic profile.

See Configuring a Basic Dynamic Profile.

To configure a stacked VLAN dynamic profile:

1. Ensure that the VLAN dynamic profile uses the `$junos-interface-ifd-name` variable for the dynamic interface and the `$junos-interface-unit` variable for the interface unit.
2. (Optional) To support dynamic demux interfaces, enable them using the `demux-source` statement.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit"]
user@host# set demux-source inet
```

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

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit"]
user@host# set proxy-arp
```

4. Specify the outer VLAN ID variable.

```
[edit dynamic-profiles STACKED-VLAN-PROF1 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 [interfaces] hierarchy level.

5. Specify the inner VLAN ID variable.

```
[edit dynamic-profiles STACKED-VLAN-PROF1 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 [interfaces] hierarchy level.

6. Define the unit family.

- a. Specify the family type.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit"]
user@host# set family inet
```

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

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit" family inet]
user@host# set mac-validate strict
```

- c. Specify the unnumbered address.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit" family inet]
user@host# set unnumbered-address lo.0
```

- d. Specify the preferred source address.

```
[edit dynamic-profiles VLAN-PROF1 interfaces "$junos-interface-ifd-name" unit
"$junos-interface-unit" family inet]
user@host# set preferred-source-address 192.0.16.1
```

