Configure NPU Platform Options
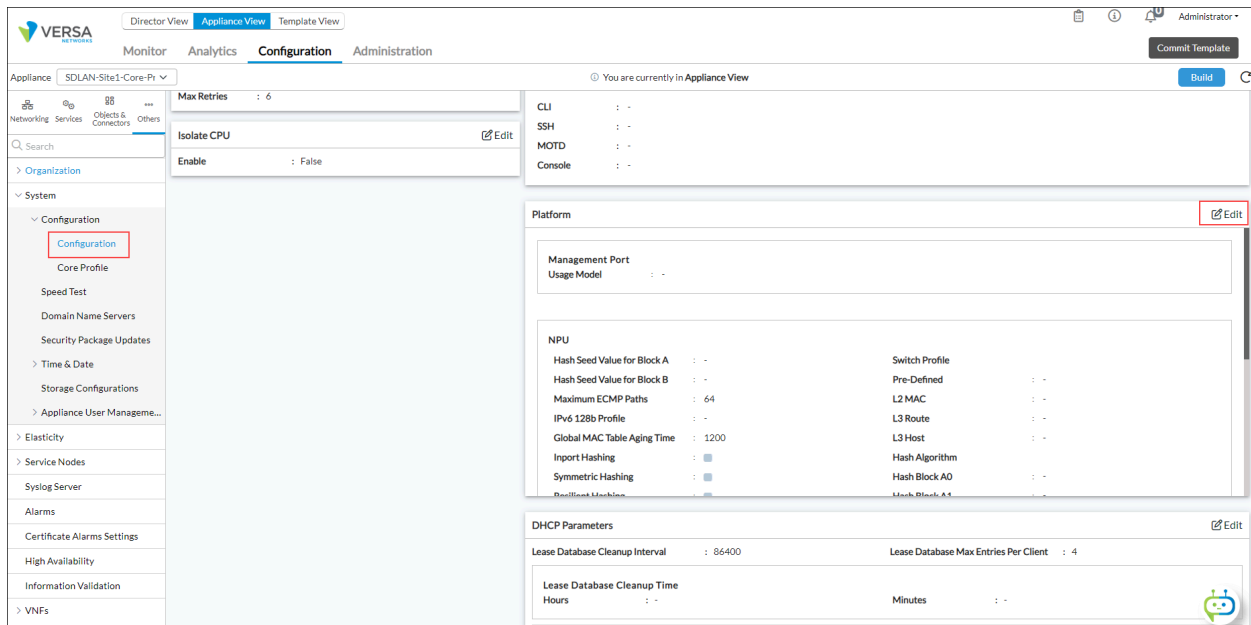
For supported software information, click here.

For Versa Networks appliances that use network processing unit (NPU) switching hardware, you can configure platform-specific NPU options, including switch profiles, hash information, egress interface and object profiles, and port groups. For CSX8300 switches, you can configure the port speed.

Configure Hash Information

To configure hash information for an NPU platform:

1. In Director view:
    1. Select the Configuration tab in the top menu bar.
    2. Select Devices > Devices in the horizontal menu bar.
    3. Select an organization in the left menu bar.
    4. Select a hardware device in the main pane. The view changes to Appliance view.
2. Select the Configuration tab in the top menu bar.
3. Select Others > System > Configuration > Configuration in the left menu bar.
4. In the main pane, locate the Platform pane.

5. In the Platform pane, click the ✎ Edit icon. The Edit Platform popup window displays.
6. Select the NPU tab, and then enter the information for the following fields.

Field	Description
Hash Seed Value for Block A	Enter the hash seed value for block A, in bytes. *Range:* 1 through 4294967295 bytes *Default:* 4 bytes
Hash Seed Value for Block B	Enter the hash seed value for block B, in bytes. *Range:* 1 through 4294967295 bytes Default: 1011 bytes
Maximum ECMP Paths	Enter the maximum number of equal-cost multipath (ECMP) paths. *Range:* 2 through 128 paths Default: None
Global MAC Table Aging Time	Enter the systemwide MAC table aging timer for the NPU platform. *Range:* 10 through 3600 seconds Default: 300 seconds
Hash Algorithm (Group of Fields)	
◦ Hash Block A0	Select the hash block A0 value to use for the hash algorithm. *Default:* Koopman CRC32 16-LSBs
◦ Hash Block A1	Select the hash block A1 value to use for the hash algorithm. *Default:* Koopman CRC32 16-MSBs
◦ Hash Block B0	Select the hash block B0 value to use for the hash

Field	Description
	algorithm. *Default:* Ethernet CRC32 16-LSBs
◦ Hash Block B1	Select the hash block B1 value to use for the hash algorithm. *Default:* Ethernet CRC32 16-MSBs

Hash MAC Fields	Click the ＋ Add icon, and then select the Layer 2 hash MAC fields:
	
	  ◦ Destination MAC (dst-mac)
	  ◦ Ethernet type (ethertype)
	  ◦ Source MAC (src-mac)
	  ◦ VLAN

Hash IPv4 Fields	Click the ＋ Add icon, and then select the IPv4 hash fields:
	
	  ◦ Destination IP (dst-ip)
	  ◦ IP protocol
	  ◦ Layer 4 destination port (l4dstport)
	  ◦ Layer 4 source port (l4srcport)
	  ◦ Source IP (src-ip)
	  ◦ VLAN

Hash IPv6 Fields	Click the ＋ Add icon, and then select the IPv6 hash fields:
	
	  ◦ Destination IP (dst-ipv6)
	  ◦ Flow label
	  ◦ IP protocol
	  ◦ Layer 4 source port (l4srcport)
	  ◦ Layer 4 destination port (l4dstport)

Field	Description
	◦ Source IP (src-ipv6) ◦ VLAN
In-Port Hashing	Click to enable inclusion of the incoming port for hashing. By default, in-port hashing is disabled.
Symmetric Hashing	Click to enable symmetric hashing. By default, symmetric hashing is disabled.
Resilient Hashing	Click to enable resilient hashing. By default, resilient hashing is disabled.

7. Click OK.

Configure Switch and Object Profiles

To configure switch and object profiles for an NPU platform:

1. In Director view:
   a. Select the Configuration tab in the top menu bar.
   b. Select Devices > Devices in the horizontal menu bar.
   c. Select an organization in the left menu bar.
   d. Select a hardware device in the main pane. The view changes to Appliance view.
2. Select the Configuration tab in the top menu bar.
3. Select Others > System > Configuration > Configuration in the left menu bar.

4. In the Platform pane in the main pane, click the Edit icon. The Edit Platform popup window displays.
5. Select the Switch Profile tab, and then enter information for the following fields.

Edit Platform

Management Port   NPU   Platform GPS   Bluetooth Service

Hash Seed Value for Block A	Hash Seed Value for Block B	Maximum ECMP Paths	Global MAC Table Aging Time

Hash Algorithm

Hash Block A0	Hash Block A1	Hash Block B0	Hash Block B1
--Select--	--Select--	--Select--	--Select--

☐ Hash MAC Fields + 🗑 ⤢	☐ Hash IPv4 Fields + 🗑 ⤢	☐ Hash IPv6 Fields + 🗑 ⤢
Hash MAC Fields Not Configured	Hash IPv4 Fields Not Configured	Hash IPv6 Fields Not Configured

☐ Inport Hashing   ☐ Symmetric Hashing   ☐ Resilient Hashing

Switch Profile | Egress Interface Profile | Egress Object Profile | Port Group

☐ **Pre-Defined**	☐ **User-Defined**		
Pre-Defined	L2 MAC	L3 Route	L3 Host
--Select--			

OK   Cancel

Field	Description
Predefined	Click, and then select a predefined profile. These profiles allocate predefined UFT CAM shared banks that are available on the NPU switch to any of the following route tables: ◦ scaled-L2-mac—Layer 2 MAC route table. ◦ scaled-L3-host—Layer 3 host entries. ◦ scaled-L3-routes—Layer 3 route table. ◦ scaled-ztna-default—Default route table used for ZTNA. ◦ scaled-ztna-routes—Route table used ZTNA.
User-Defined (Group of Fields)	Click to configure a user-defined switching profile, and then enter values to allocate the shared banks for Layer 2 MAC, Layer 3 host, and Layer 3 route tables for the user-defined profile as percentages of the bank size. The three values must add up to 100 percent.
◦ Layer 2 MAC (Required)	Enter a value for the Layer 2 MAC entries, as a percentage.
◦ Layer 3 Route (Required)	Enter a value for the number of Layer 3 routes, as a percentage.
◦ Layer 3 Host (Required)	Enter a value for the Layer 3 host entries as a percentage.

6. Select the Egress Interface Profile tab, and then enter information for the following fields.

Field	Description
Predefined	Click, and then select a predefined egress interface. ◦ Balanced—This is the default. ◦ Overlay ◦ Underlay
User-Defined (Group of Fields)	Click to configure a user-defined egress interface allocation, and then enter the sizes of overlay and underlay egress interfaces, as percentages. The two values must add up to 100 percent.
◦ Underlay (Required)	Enter a value for the number of underlay entries, as a percentage.
◦ Overlay (Required)	Enter a value for the number of overlay entries, as a percentage.

7. Select the Egress Object Profile tab, and then enter information for the following fields.

Field	Description
Predefined	Click, and then select a predefined egress object between the overlay and underlay networks: ◦ Balanced ◦ Overlay ◦ Underlay—This is the default.
User Defined (Group of Fields)	Click to configure a custom allocation of egress objects, and then enter the sizes of overlay and underlay egress objects. The two values must add up to 100 percent.
◦ Underlay (Required)	Enter a value for the number of egress objects to be allocated for underlay entries, as a percentage.

Field	Description
◦ Overlay (Required)	Enter a value for the number of egress objects to be allocated for overlay entries, as a percentage.

Configure the Port Speed on CSX8300 Switches

For Releases 22.1.4 and later.

1. In Director view:
    a. Select the Configuration tab in the top menu bar.
    b. Select Devices > Devices in the horizontal menu bar.
    c. Select an organization in the left menu bar.
    d. Select a physical device in the main pane. The view changes to Appliance view.
2. Select the Configuration tab in the top menu bar.
3. Select Others > System > Configuration > Configuration in the left menu bar.

4. In the Platform pane in the main pane, click the Edit icon. The Edit Platform popup window displays.
5. Select the NPU tab > Port Group tab, and then click the Add icon.

6. In the Add Port Group popup window, enter information for the following fields.

Field	Description
Port Group ID (Required)	Enter the port group ID in the format group-*port number*.

Field	Description
	Range: 0 through 17
Speed	Select the port speed: ◦ 4x10G ◦ 4x25G

7. Click OK.

Supported Software Information

Releases 22.1.3 and later support all content described in this article, except:

- Release 22.1.4 adds support for port group for CSX8300 switches.

Additional Information

[Cloud Services Switch 8000 Series](#)
[Configure Device Location Tracking](#)
[Configure Interfaces](#)
[Configure Service and Session Options](#)