

# NSX-T Terraform Provider 3.3.0 Release Notes

NSX-T Terraform Provider 3.3.0 | February 2023

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## What is New

This release of the NSX-T Terraform Provider is a major release adding data-sources and resources to support IPsec VPN and L2 VPN in addition to other minor improvements like Bridging support on segments plus fixing bugs.

The certified provider can be downloaded from Hashicorp directly via Terraform or found at: <https://github.com/vmware/terraform-provider-nsxt>

For all the features available in Federation this is described in detail in the provider documentation under **Guides** :

<https://registry.terraform.io/providers/vmware/nsxt/latest/docs/guides/federation>

For all the features available on VMConAWS this is described in detail in the provider documentation under **Guides**:

<https://registry.terraform.io/providers/vmware/nsxt/latest/docs/guides/vmc>

All these resources and data sources are fully documented on the NSX-T Terraform Provider page:

- <https://www.terraform.io/docs/providers/nsxt/index.html>

For more details on the NSX-T Policy API usage, please look at NSX-T documentation.

## What is There

As in Terraform 3.3.0 the following are supported:

Additions are marked in green (like **nsxt\_policy\_dhcp\_server**). The number of new resources / datasources is limited since we have enhanced existing ones to support Federation.

### Data Sources

#### *Federation*

- nsxt\_policy\_site

#### *Policy API data sources*

- nsxt\_policy\_certificate
- nsxt\_policy\_edge\_cluster
- nsxt\_policy\_edge\_node
- nsxt\_policy\_ip\_discovery\_profile
- nsxt\_policy\_ipv6\_dad\_profile
- nsxt\_policy\_ipv6\_ndra\_profile
- nsxt\_policy\_lb\_app\_profile
- nsxt\_policy\_lb\_client\_ssl\_profile
- nsxt\_policy\_lb\_monitor
- nsxt\_policy\_lb\_persistence\_profile
- nsxt\_policy\_lb\_server\_ssl\_profile
- nsxt\_policy\_mac\_discovery\_profile
- nsxt\_policy\_qos\_profile
- nsxt\_policy\_realization\_info
- nsxt\_policy\_segment\_security\_profile
- nsxt\_policy\_segment\_realization
- nsxt\_policy\_service
- nsxt\_policy\_spoofguard\_profile
- nsxt\_policy\_tier0\_gateway
- nsxt\_policy\_tier1\_gateway
- nsxt\_policy\_transport\_zone
- nsxt\_policy\_vm
- nsxt\_policy\_vni\_pool
- nsxt\_policy\_security\_policy
- nsxt\_policy\_gateway\_policy
- nsxt\_policy\_group
- nsxt\_policy\_context\_profile
- nsxt\_management\_cluster
- nsxt\_policy\_bfd\_profile
- nsxt\_policy\_intrusion\_service\_profile (Local Manager only)
- nsxt\_policy\_lb\_service
- nsxt\_policy\_dhcp\_server
- nsxt\_policy\_ip\_block
- **nsxt\_policy\_gateway\_locale\_service**
- **nsxt\_policy\_bridge\_profile**

- **nsxt\_policy\_l2\_vpn\_service**
- **nsxt\_policy\_ipsec\_vpn\_service**
- **nsxt\_policy\_ipsec\_vpn\_local\_endpoint**

#### *Imperative API data sources*

- nsxt\_edge\_cluster
- nsxt\_logical\_tier0\_router
- nsxt\_ns\_service
- nsxt\_switching\_profile
- nsxt\_transport\_zone
- nsxt\_certificate
- nsxt\_mac\_pool
- nsxt\_ns\_group
- nsxt\_ns\_service

#### *Beta - Experimental Data sources*

- nsxt\_policy\_vms.
- nsxt\_policy\_lb\_service
- nsxt\_ns\_groups
- nsxt\_ns\_services

### Resources

#### *Policy API Resources – Segments*

- nsxt\_policy\_segment
- nsxt\_policy\_vlan\_segment
- nsxt\_policy\_fixed\_segment (VMC only).
- nsxt\_policy\_qos\_profile

#### *Policy API Resources – Gateways & Routing*

- nsxt\_policy\_tier0\_gateway
- nsxt\_policy\_tier0\_gateway\_interface
- nsxt\_policy\_tier1\_gateway
- nsxt\_policy\_tier1\_gateway\_interface
- nsxt\_policy\_static\_route
- nsxt\_policy\_bgp\_neighbor
- nsxt\_policy\_bgp\_config
- nsxt\_policy\_ospf\_config
- nsxt\_policy\_ospf\_area
- nsxt\_policy\_nat\_rule
- nsxt\_policy\_gateway\_prefix\_list
- nsxt\_policy\_tier0\_gateway\_ha\_vip\_config
- nsxt\_policy\_gateway\_community\_list
- nsxt\_policy\_gateway\_route\_map
- nsxt\_policy\_static\_route\_bfd\_peer
- nsxt\_policy\_gateway\_redistribution\_config

- nsxt\_policy\_predefined\_gateway\_policy

#### *Policy API Resources – EVPN*

- nsxt\_policy\_evpn\_tenant
- nsxt\_policy\_evpn\_config
- nsxt\_policy\_evpn\_tunnel\_endpoint

#### *Policy API Resources – Firewall (Centralized and Distributed)*

- nsxt\_policy\_gateway\_policy
- nsxt\_policy\_security\_policy
- nsxt\_policy\_service
- nsxt\_policy\_context\_profile
- nsxt\_policy\_predefined\_security\_policy

#### *Policy API Resources – IDS/IPS*

- nsxt\_policy\_intrusion\_service\_profile
- nsxt\_policy\_intrusion\_service\_policy

#### *Policy API Resources – Grouping & Tagging*

- nsxt\_policy\_group
- nsxt\_policy\_vm\_tags

#### *Policy API Resources – Load Balancer*

- nsxt\_policy\_lb\_pool
- nsxt\_policy\_lb\_service
- nsxt\_policy\_lb\_virtual\_server

#### *Policy API Resources – DNS Forwarder*

- nsxt\_policy\_dns\_forwarder\_zone
- nsxt\_policy\_gateway\_dns\_forwarder

#### *Policy API Resources – DHCP*

- nsxt\_policy\_ip\_address\_allocation
- nsxt\_policy\_ip\_block

#### *Policy API Resources – IP allocation*

- nsxt\_policy\_ip\_address\_allocation
- nsxt\_policy\_ip\_block

- nsxt\_policy\_ip\_pool
- nsxt\_policy\_ip\_pool\_block\_subnet
- nsxt\_policy\_ip\_pool\_static\_subnet
- nsxt\_policy\_ip\_pool\_test

### *Policy API Resources – VPN*

- nsxt\_policy\_ipsec\_vpn\_dpd\_profile
- nsxt\_policy\_ipsec\_vpn\_ike\_profile
- nsxt\_policy\_ipsec\_vpn\_local\_endpoint
- nsxt\_policy\_ipsec\_vpn\_service
- nsxt\_policy\_ipsec\_vpn\_session
- nsxt\_policy\_ipsec\_vpn\_tunnel\_profile
- nsxt\_policy\_l2\_vpn\_service
- nsxt\_policy\_l2\_vpn\_session

### *Imperative API logical port and switching profile*

- nsxt\_logical\_port
- nsxt\_mac\_management\_switching\_profile
- nsxt\_ip\_discovery\_switching\_profile
- nsxt\_qos\_switching\_profile
- nsxt\_spoofguard\_switching\_profile
- nsxt\_switch\_security\_switching\_profile

### *Imperative API logical Switch (L2)*

- nsxt\_logical\_switch
- nsxt\_vlan\_logical\_switch

### *Imperative API logical Router (L3)*

- nsxt\_logical\_tier0\_router
- nsxt\_logical\_tier1\_router
- nsxt\_logical\_router\_downlink\_port
- nsxt\_logical\_router\_link\_port\_on\_tier0
- nsxt\_logical\_router\_link\_port\_on\_tier1
- nsxt\_logical\_router\_centralized\_service\_port
- nsxt\_nat\_rule
- nsxt\_static\_route

### *Imperative API DHCP and DHCP relay*

- nsxt\_logical\_dhcp\_port
- nsxt\_logical\_dhcp\_server
- nsxt\_dhcp\_server\_ip\_pool
- nsxt\_dhcp\_server\_profile
- nsxt\_dhcp\_relay\_profile
- nsxt\_dhcp\_relay\_service

### *Imperative API load Balancer*

- nsxt\_lb\_service
- nsxt\_lb\_pool
- nsxt\_lb\_tcp\_virtual\_server
- nsxt\_lb\_udp\_virtual\_server
- nsxt\_lb\_http\_virtual\_server
- nsxt\_lb\_fast\_tcp\_application\_profile
- nsxt\_lb\_fast\_udp\_application\_profile
- nsxt\_lb\_http\_application\_profile
- nsxt\_lb\_client\_ssl\_profile
- nsxt\_lb\_http\_request\_rewrite\_rule
- nsxt\_lb\_http\_response\_rewrite\_rule
- nsxt\_lb\_http\_forwarding\_rule
- nsxt\_lb\_cookie\_persistence\_profile
- nsxt\_lb\_server\_ssl\_profile
- nsxt\_lb\_source\_ip\_persistence\_profile
- nsxt\_lb\_http\_monitor
- nsxt\_lb\_https\_monitor
- nsxt\_lb\_icmp\_monitor
- nsxt\_lb\_passive\_monitor
- nsxt\_lb\_tcp\_monitor
- nsxt\_lb\_udp\_monitor

### *Imperative API firewall and grouping objects*

- nsxt\_firewall\_section
- nsxt\_ip\_set
- nsxt\_ns\_group
- nsxt\_ns\_service\_group
- nsxt\_vm\_tags
- nsxt\_ip\_block
- nsxt\_ip\_block\_subnet

### *Imperative API NS Service Resources*

- nsxt\_algorithm\_type\_ns\_service
- nsxt\_ether\_type\_ns\_service
- nsxt\_icmp\_type\_ns\_service
- nsxt\_igmp\_type\_ns\_service
- nsxt\_ip\_protocol\_ns\_service
- nsxt\_l4\_port\_set\_ns\_service
- nsxt\_igmp\_type\_ns\_service

### *Beta - Experimental Resources*

- nsxt\_policy\_mac\_discovery\_profile
- policy\_ip\_discovery\_profile

## Bug Fixes

- resource/nsxt\_policy\_gateway\_route\_map: Fix issues around local\_preference and med attributes in route map set clause. Those values were assigned incorrect default value when not specified by terraform user ([#818](#))

## Deprecations

In this release we deprecate non-policy data sources and resources. Please use corresponding policy resources instead.

## System Requirements

The NSX-T Terraform Provider 3.3.0 supports fully NSX version 3.2.x and 4.0.x and Terraform 0.12 onward or above. The recommended vSphere provider to be used in conjunction with the NSX-T Terraform Provider is 1.3.3 or above.

The NSX-T Terraform Provider 3.3.0 is backward compatible with NSX-T 3.1.x and 3.0.x and will work with previous versions except otherwise indicated on the resource.

## Installation

### Automated Installation (Recommended)

Download and initialization of Terraform providers is with the “terraform init” command. This applies to the NSX-T provider as well. Once the provider block for the NSX-T provider is specified in your .tf file, “terraform init” will detect a need for the provider and download it to your environment. You can list versions of providers installed in your environment by running “terraform version” command:

```
$ ./terraform version
Terraform v0.13.0
+ provider.nsxt v3.2.5
+ provider.vsphere v1.5.0
```

### Manual Installation

**NOTE:** Unless you are developing or require a pre-release bugfix or feature, you will want to use the officially released version of the provider (see the section above).

**NOTE:** Note that if the provider is manually copied to your running folder (rather than fetched with the “terraform init” based on provider block), Terraform is not aware of the version of the provider you’re running. It will appear as “unversioned”:

```
$ ./terraform version
Terraform v0.13.0
+ provider.nsxt (unversioned)
+ provider.vsphere v1.5.0
```

Since Terraform has no indication of version, it cannot upgrade in a native way, based on the “version” attribute in provider block. In addition, this may cause difficulties in housekeeping and issue reporting.

## Cloning the Project

First, you will want to clone the repository to `$GOPATH/src/github.com/vmware/terraform-provider-nsxt`:

```
mkdir -p $GOPATH/src/github.com/vmware
cd $GOPATH/src/github.com/vmware
git clone https://github.com/vmware/terraform-provider-nsxt.git
```

## Building and Installing the Provider

After the clone has been completed, you can enter the provider directory and build the provider.

```
cd $GOPATH/src/github.com/terraform-providers/terraform-provider-nsxt
make
```

After the build is complete, if your terraform running folder does not match your GOPATH environment, you need to copy the terraform-provider-nsxt executable to your running folder and re-run terraform init to make terraform aware of your local provider executable.

After this, your project-local `.terraform/plugins/ARCH/lock.json` (where ARCH matches the architecture of your machine) file should contain a SHA256 sum that matches the local plugin. Run `shasum -a 256` on the binary to verify the values match.

## Known Issues

### Functional Issues

- In the Imperative API backend does not allow changing a Tiers-1 edge cluster with single update call.  
It requires to disable firewall first, then disassociate the cluster and associate the new one. For now `edge_cluster_id` was marked as ForceNew attribute, meaning if `edge_cluster_id` is changed, the router would be recreated on backend.
- The Policy API can take some time to realize an intent. This can cause an issue when an existing entry hasn't been fully deleted and the same `nsx_id` is reused.  
The solution is to let the platform fully delete the object and reapply the Terraform configuration.