

# Base YANG Data Model for NVO3 Protocols

draft-ietf-nvo3-yang-cfg-01.txt

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# Introduction

- Motivation
  - To fill in the gap of the IETF NVO3 YANG
  - A base YANG that is common and reusable for NVO3 technologies, e.g. VXLAN, NVGRE, GENEVE, VXLAN-GPE, etc.
  - Compliant to the NVO3 architecture
- Current Status
  - Working group document since Sept. 27, 2019
  - Version 00: upload as a WG document
  - Version 01: cleaning some grammar errors

# Overview of NVO3 base YANG

NVE as an interface

```

module: ietf-nvo3-base
  +--rw nvo3
    +--rw vni-instances
      +--rw vni-instance* [vni-id]
        +--rw vni-id          uint32
        +--rw vni-mode       enumeration
        +--rw source-nve     if:interface-ref
        +--rw protocol-bgp?  boolean
        +--ro status?       vni-status-type
        +--rw static-ipv4-peers
          +--rw static-peer* [peer-ip]
            +--rw peer-ip      inet:ipv4-address-no-zone
            +--rw out-vni-id?  uint32
        +--rw static-ipv6-peers
          +--rw static-ipv6-peer* [peer-ip]
            +--rw peer-ip      inet:ipv6-address-no-zone
        +--rw flood-proxys
          +--rw flood-proxy* [peer-ip]
            +--rw peer-ip      inet:ipv4-address-no-zone
        +--rw mcast-groups
          +--rw mcast-group* [mcast-ip]
            +--rw mcast-ip     inet:ipv4-address-no-zone
        +--rw statistic
  
```

**BGP control plane enabler** → `protocol-bgp?`

**Peer NVEs configured statically** → `static-ipv4-peers` / `static-ipv6-peers`

**Multicast service node (RFC8293)** → `flood-proxys`

**Multicast group per VNI basis** → `mcast-groups`

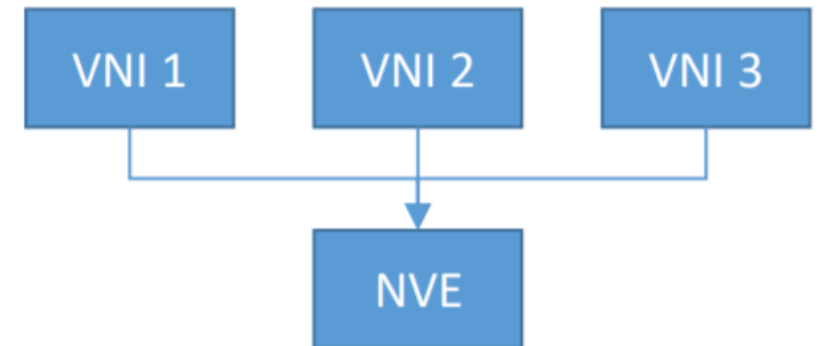
**Statistic per VNI basis** → `statistic`

**Name of the NVE interface to which the vni-instance is attached** → `source-nve`

```

augment /if:interfaces/if:interface:
  +--rw nvo3-nve
    +--rw nvo3-config
      +--rw source-vtep-ip?    inet:ipv4-address-no-zone
      +--rw source-vtep-ipv6?  inet:ipv6-address-no-zone
      +--rw bypass-vtep-ip?    inet:ipv4-address-no-zone
      +--rw statistics
  
```

Multiple vni-instances can be attached to the same NVE interface



# YANG validator Result

Yang Validation 🚫 [6 errors, 2 warnings.](#)

```
ietf-nvo3-base@2019-11-04.yang:3: warning: RFC 8407: 4.9: namespace value should be
"urn:ietf:params:xml:ns:yang:ietf-nvo3-base"
ietf-nvo3-base@2019-11-04.yang:22: error: module "ietf-bgp-l3vpn" not found in search path
ietf-nvo3-base@2019-11-04.yang:28: warning: RFC 8407: 3.1: The IETF Trust Copyright statement seems
to be missing (see pyang --ietf-help for details).
ietf-nvo3-base@2019-11-04.yang:165: error: keyword "must" not in canonical order (see RFC 6020,
Section 12)
ietf-nvo3-base@2019-11-04.yang:506: error: keyword "when" not in canonical order (see RFC 6020,
Section 12)

yanglint 0.14.80: yanglint --verbose -p {rfclib} -p {draftlib} -p {tmplib} {model} -i:
err : Data model "ietf-bgp-l3vpn" not found.
err : Importing "ietf-bgp-l3vpn" module into "ietf-nvo3-base" failed.
err : Module "ietf-nvo3-base" parsing failed.
```

- Errors

- Keywords: Not at the right place, will update them in the version 02
- ietf-bgp-l3vpn: Not an RFC yet, but we augmented it in NVO3 based YANG. The draft is expired for now

# Next steps

- Will contact the ietf-bgp-l3vpn authors to verify if they will keep working on the draft. If not, we will have to decouple from it.
- Comments are always welcome