

LISP YANG model

(-08 update)

IETF 102, Montreal

Changes between -07 and -08

- Guidelines draft-ietf-netmod-rfc6087bis:
 - Add some XML examples (validated using yanglint)
 - Change to yang-version 1.1
- Follow RFC8349 (NMDA IETF routing model) guidelines: new identity for lisp control-plane-protocol and augment /routing/control-plane-protocols/control-plane-protocol/. This is similar to what other IETF control-plane protocols are doing (not LISP specific). We can have multiple control-plane-protocol instances of type 'lisp', each uniquely identified by a name.
- Added data which is present in LISP MIB (RFC7052), for example:
 - List which maps VNI to VRF (similar to lidToVrfTable in LISP MIB)
 - Leaf nodes map-cache limit and map-cache size
 - Leaf nodes for timestamps such as first and last registrations for an EID

Tree-diagram -07 v/s -08

```
module: ietf-lisp
  +--rw lisp
    +--rw lisp-router-instances
      +--rw lisp-router-instance*
        +--rw lisp-router-instance-id
          +--rw lisp-role*
            | +--rw lisp-role-type
          +--rw lisp-router-id
            +--rw site-id
            +--rw xtr-id
```

```
module: ietf-lisp
  augment /rt:routing/rt:control-plane-protocols
    /rt:control-plane-protocol:
      +--rw lisp
        +--rw lisp-role*
          | +--rw lisp-role-type
        +--rw lisp-router-id
          | +--rw site-id
          | +--rw xtr-id
        +--rw virtual-networks
          +--rw virtual-network* [vni]
            +--rw vni
            +--rw ni-name?
      ->/ni:network-instances/network-instance/name
```

Example for LISP Protocol Instance and VRF

```
<?xml version="1.0" encoding="UTF-8"?>
<config xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <network-instances xmlns="urn:ietf:params:xml:ns:yang:ietf-network-instance">
    <network-instance>
      <name>VRF-BLUE</name>
      <enabled>true</enabled>
    </network-instance>
  </network-instances>
  <routing xmlns="urn:ietf:params:xml:ns:yang:ietf-routing">
    <control-plane-protocols>
      <control-plane-protocol>
        <type xmlns:lisp="urn:ietf:params:xml:ns:yang:ietf-lisp">
          lisp:lisp </type>
        <name>LISP1</name>
        <lisp xmlns="urn:ietf:params:xml:ns:yang:ietf-lisp">
          <virtual-networks>
            <virtual-network>
              <vni>1000</vni>
              <ni-name>VRF-BLUE</ni-name>
            </virtual-network>
          </virtual-networks>
        </lisp>
      </control-plane-protocol>
    </control-plane-protocols>
  </routing></config>
```

Changes in next revision

- Beef-up Security Considerations as per draft-ietf-netmod-rfc6087bis
- Change VNI in mappings to be a leafref to a VNI in the virtual-network list. Right now, we can have a VNI which is not tied to a VRF
- Make ni-name (i.e. VRF name) mandatory in virtual-network list instance
- After that, ready for WGLC?