Update on L2/L3 VPN YANG Modules

draft-ietf-opsawg-l3sm-l3nm
draft-ietf-opsawg-l2nm

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https://github.com/IETF-OPSAWG-WG/l3nm
https://github.com/IETF-OPSAWG-WG/l2nm
draft-ietf-opsawg-l3sm-l3nm: Changes (1/2)

• Yang doctor’s review comments addressed
  – Editorial issues: e.g., add NMDA compliance sentence, fix revision dates
  – Clarified use of appendix A (implementations) as per RFC6982
  – Cleanup of reusable groupings (only 1 grouping now in L3NM)

• The new YANG module uses the VPN common module
  – Relation with common module explained in the draft

• Added a section on Sample Uses of the L3NM Data Model
  – Enterprise Layer 3 VPN Services
  – Multi-Domain Resource Management

• VPN profiles explained

• Added “vpn-type” to Indicate the VPN service signaling type

• Multicast explanation updated
draft-ietf-opsawg-l3sm-l3nm: Changes (2/2)

• Explained Underlay Transport (TE, LDP)
• RD assignment/auto-assignment solved based on choice (defined in common module)

```plaintext
-   | +--rw ie-profile* [ie-profile-id]
-     |   | +--rw ie-profile-id string
-     |   | +--rw (rd-choice)?
-     |   |   | +--:(directly-assigned)
-     |   |   |   | +--rw rd? rt-types:route-distinguisher
-     |   |   | +--:(pool-assigned)
-     |   |   |   | +--rw rd-pool-name? string
-     |   |   |   | +--ro rd-assign? rt-types:route-distinguisher
-     |   | +--:(full-autoassigned)
-     |   |   | +--rw auto? empty
-     |   |   | +--ro rd-assigned? rt-types:route-distinguisher
-     |   | +--:(no-rd)
-     |   |   | +--rw no-rd? empty
```
draft-ietf-opsawg-l3sm-l3nm: Open Issues

• Editorial issues
  – Draft related: #198 Review trees in the document, #197 update text on RD autoasignment)
  – In the yang module: Review the order inside the module for better readability (#188) and Review all BGP-related descriptions (#183)
• Evaluate Service feasibility only request (now CRUD operations are supported) (issue #196)
• Clean up service type and signaling option type and avoid content overlapping (issue #195)
• Security: Review PE-CE security section (issue #192)
• Static routes: additional static routes attributes (issue #191)
• Decide whether we need to cover access to CSP (RFC8299) (issue #189)
• Use documentation IPv4 addresses in the examples + Add IPv6 Examples (#187)
draft-ietf-opsawg-l3sm-l3nm: Next Steps

• Current version has solved all issues raised in the mailing list and in github issue tracker
  – Including the common module issue

• Authors consider that current version is stable

• Almost ready for the WGLC (minor issues only, waiting for “vpn-common” and l2nm)

• Reviews and comments are welcomed
draft-ietf-opsawg-l2nm: Changes

• Yang module update: The new version uses the VPN common module groupings
  – The relation with common module is explained in the draft
  – Examples: admin-status, underlay transport and multicast groupings

• Editorial improvements:
  – Add subsections explaining VPN profiles, signaling options (service type), VPN network access, connection, etc.
  – Removed full tree (too long) and dissected into subtrees for better readability
draft-ietf-opsawg-l2nm: Open issues (1/2): EVPN Support

- Several GAPS detected to support the EVPN creation:
  - **Service Type:**
    - PBB-EVPN, VXLAN-EVPN, EVPN
  - Ethernet Segment Identifier (**ESI**)  
  - **Specific service parameters:**
    - ingress-replication
    - arp-proxy
    - arp-suppression
    - nd-proxy
    - nd-suppression
    - flood-unknown-unicast-suppression
  - **PBB service parameter:**
    - RD, RT assignment (*re-used from the VPN common*)
    - as-value (*re-used from the VPN common*)
    - bridge-domain
    - mode-type
    - I,B identifiers
draft-ietf-opsawg-l2nm: Open issues (2/2)

- EVPN issues:
  - Issue #25 EVPN: Missing validation for dot1q
  - Issue #23 EVPN: t-ldp with static label
  - Issue #22 EVPN: Add support for dot1q push/pop/translate options
  - Issue #21 EVPN: ESI missing for multi-homed evpn-vpws
  - Issue #20 EVPN: Control-word missing
  - Issue #19 EVPN: Vpws-evpn IDs missing

- Issue #5 how precedence-type is different from access-priority under availability question

- Add examples (issue #11) and section on Sample Uses of the L2NM Data Model

- Issue #26 Node list: Limit elements for Point-to-point services
draft-ietf-opsawg-l2nm: Next Steps

• Complete EVPN support
• Solve all open issues in github
• Reviews and comments are welcome
• Next version with EVPN & Issues fixed will be hopefully suitable for last call