

VLAN sub-interface YANG Status update

draft-ietf-netmod-sub-intf-vlan-model-04

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Presenting on behalf of Rob Wilton (Cisco), draft author

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Presentation aims

- Rob Wilton has previously presented an earlier version of this YANG model to the IEEE 802.1 WG
- There was some friction due to obvious overlap with IEEE 802.1Q
- But agreement was reached that this model could progress in IETF as an informational draft
- Due to NETMOD WG feedback, part of the model structure has been slightly simplified
- Draft is now ready for NETMOD WG last call (except to fix a small issue raised by William Zhao)
- But we want to ensure updated model structure is still acceptable to the IEEE 802.1 WG

Side by side comparison (old vs new)

Old structure

(seen by 802.1 WG previously)

```
if-cmn:encaps-type:
  +--:(vlan)
    +--rw vlan
      +--rw tags
        +--rw tag* [index]
          +--rw index          uint8
        +--rw dot1q-tag
          +--rw tag-type       dot1q-tag-type
          +--rw vlan-id        dot1q-vlan-id
```

Current structure in draft -04

```
if-cmn:encaps-type:
  +--:(dot1q-vlan)
    +--rw dot1q-vlan
      +--rw outer-tag!
        | +--rw tag-type       dot1q-tag-type
        | +--rw vlan-id        ieee:vlanid
      +--rw second-tag!
        +--rw tag-type       dot1q-tag-type
        +--rw vlan-id        ieee:vlanid
```

Summary of changes

- Simplified, more concise, structure
- **Keeps exactly the same restrictions to conform with 802.1Q:**
 - If classifying on two tags, outer tag **MUST** be S-VLAN (88a8), inner tag **MUST** be C-VLAN (8100), enforced by YANG 'must' statement
 - If classifying on one tag, **MUST** classify on the outermost tag only
- I.e. **no change in what can be classified by the model**, the only change is to the structure
- Arguably it binds the model more strongly to only classifying on two tags.

Instance data examples

- Old and new YANG instance data examples follow (i.e. a snippet of a NETCONF request)
- Only provided to help to illustrate the benefits of the simplified structure

Using the old module structure

```
<if-cmn:encapsulation>
  <vlan>
    <tags>
      <tag>
        <index>0</index>
        <dot1q-tag>
          <tag-type>dot1q-types:s-vlan</tag-type>
          <vlan-id>10</vlan-id>
        </dot1q-tag>
      </tag>
      <tag>
        <index>1</index>
        <dot1q-tag>
          <tag-type>dot1q-types:c-vlan</tag-type>
          <vlan-id>20</vlan-id>
        </dot1q-tag>
      </tag>
    </tags>
  </vlan>
</if-cmn:encapsulation>
```

Using the new module structure

```
<if-cmn:encapsulation>  
  <dot1q-vlan>  
    <outer-tag>  
      <tag-type>dot1q-types:s-vlan</tag-type>  
      <vlan-id>10</vlan-id>  
    </outer-tag>  
    <second-tag>  
      <tag-type>dot1q-types:c-vlan</tag-type>  
      <vlan-id>20</vlan-id>  
    </second-tag>  
  </dot1q-vlan>  
</if-cmn:encapsulation>
```

Any concerns?

- If easier, comments can also be made on thread “[802.1 - 12915] IETF Sub-interface VLAN YANG Data Models - draft-ietf-netmod-sub-intf-vlan-model-04” on 802.1 WG email reflector
- Or could be made directly to the IETF NETMOD WG alias (netmod@ietf.org), but would need to sign up to send.