VLAN sub-interface YANG
Status update

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

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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

```xml
<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.