IEEE P802.1 Qcw/D0.1
YANG Data Models for TSN

Status Report
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9/3/2018
IEEE P802.1Qcw / D0.1

New draft available
http://ieee802.org/1/files/private/cw-drafts/d0/802-1Qcw-d0-1.pdf

**SCHEDULED TRAFFIC:**
- ✓ UML model
- ✓ YANG module
- ✓ YANG tree

**FRAME PREEMPTION:**
- ✓ UML model
- ✓ YANG module
- ✓ YANG tree

**PER-STREAM FILTERING POLICING:**
- ✓ UML model
- ✓ YANG module
- ✓ YANG tree
Scheduled Traffic (updated)
https://github.com/YangModels/yang/blob/master/standard/ieee/802.1/draft/ieee802-dot1q-sched.yang

Frame Preemption (updated)
https://github.com/YangModels/yang/blob/master/standard/ieee/802.1/draft/ieee802-dot1q-preemption.yang

Per-Stream Filtering and Policing
Johannes Specht’s Contribution
- Stream Filter and Stream Gate (currently in Qcr)
- PSFP (added to the draft branch)
  https://github.com/YangModels/yang/blob/master/standard/ieee/802.1/draft/ieee802-dot1q-psfp.yang
Changes in Scheduled Traffic model

- Corrected permissions of several objects
- Added Frame Preemption operations

```plaintext
13 import iee802-dot1q-preemption {
14    prefix preemption;
15 }
58 identity set-and-hold-mac {
59    base type-of-operation;
60    description
61    "Operation to set set and hold mac."
62 }
145 container shm-params {
146    when ".//operation-name = 'set-and-hold-mac'"
147    description
148    "Applies to the Set-And-Hold-MAC operation."
149 }
150 if-feature "preemption:frame-preemption";
```
## Changes in Frame Preemption Model

- Corrected permissions of several objects

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### Frame Preemption Parameters

<table>
<thead>
<tr>
<th>Type</th>
<th>Field</th>
<th>Access</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>uint32</td>
<td>hold-advance</td>
<td>r</td>
<td>Preemption hold advance</td>
</tr>
<tr>
<td>uint32</td>
<td>release-advance</td>
<td>r</td>
<td>Preemption release advance</td>
</tr>
<tr>
<td>boolean</td>
<td>preemption-active</td>
<td>r</td>
<td>Preemption active status</td>
</tr>
<tr>
<td>enum</td>
<td>hold-request</td>
<td>r</td>
<td>Preemption hold request</td>
</tr>
</tbody>
</table>

### Frame Preemption Status Table

<table>
<thead>
<tr>
<th>Type</th>
<th>Field</th>
<th>Access</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>enumeration</td>
<td>frame-preemption-status</td>
<td>r-w</td>
<td>Preemption status</td>
</tr>
</tbody>
</table>

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### Interfaces

<table>
<thead>
<tr>
<th>Type</th>
<th>Field</th>
<th>Access</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>string</td>
<td>name</td>
<td>r-w</td>
<td>Interface name</td>
</tr>
</tbody>
</table>

---

### Traffic Classes

Below is a table representing the traffic classes supported by the frame preemption model:

<table>
<thead>
<tr>
<th>Traffic Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1..num</td>
<td>Traffic Class</td>
</tr>
</tbody>
</table>

---

### Preemption Model

Changes in Frame Preemption Model

9/6/2018

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**Notes:**

- *Italic text* indicates emphasis.
- **Bold text** highlights key terms or concepts.
- **Underlined text** draws attention to important points.
- **Code snippets** are presented in a monospace font.
Based on Johannes Specht's contribution and moved to the draft github branch.

**PSFP Model**

- Model added to the draft
  - and corrected some permissions

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<table>
<thead>
<tr>
<th>Vienna, Austria (Headquarters)</th>
<th>USA</th>
<th>Japan</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone +43 1 585 34 34-0</td>
<td>Phone +1 978 933 7979</td>
<td>Phone +81 52 485 5898</td>
<td>Phone +86 21 5015 2925-0</td>
</tr>
<tr>
<td><a href="mailto:office@tttech.com">office@tttech.com</a></td>
<td><a href="mailto:usa@tttech.com">usa@tttech.com</a></td>
<td><a href="mailto:office@tttech.jp">office@tttech.jp</a></td>
<td><a href="mailto:china@tttech.com">china@tttech.com</a></td>
</tr>
</tbody>
</table>

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