YANG Ethernet Interface Modelling updates/questions

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Agenda

To raise/discuss the following:

1. RMON counters

2. Diagnostics

3. 6 other smaller issues

RMON Counters

Defined in RFC 2819:

etherStatsDropEvents	Counter32,
etherStatsOctets	Counter32,
etherStatsPkts	Counter32,
etherStatsBroadcastPkts	Counter32,
etherStatsMulticastPkts	Counter32,
etherStatsCRCAlignErrors	Counter32,
etherStatsUndersizePkts	Counter32,
etherStatsOversizePkts	Counter32,
etherStatsFragments	Counter32,
etherStatsJabbers	Counter32,
etherStatsCollisions	Counter32,
etherStatsPkts64Octets	Counter32,
etherStatsPkts65to127Octets	Counter32,
etherStatsPkts128to255Octets	Counter32,
etherStatsPkts256to511Octets	Counter32,
etherStatsPkts512to1023Octets	Counter32,
etherStatsPkts1024to1518Octets	Counter32,

RMON Counters

- I propose that we should (and want to) include most/all of the RMON counters in Ethernet YANG.

- The references will be back to RFC 2819 rather than Clause 30.

- There is also the option to add these counters into clause 30.

Diagnostics

- I've raise the issue of diagnostics (e.g. clause 45 registers) on the IETF NETMOD WG alias
- No concrete solution
- Quite a lot of discussion, and various ideas:
  - Some have suggested to report like regular operational state (IMO, this would be a mistake)
  - Perhaps put it under a customer RFC operation
  - Using a grouping would allow future flexibility
  - Likely idea is to enumerate registers (by name), but report values as opaque 16 bit numbers.
  - Or perhaps just defer this issue for now.
- A request to perhaps submit an individual draft to the NETMOD WG.

Other issues:

1. YANG 1.0 or YANG 1.1:

   - Plan on using YANG 1.1 (it is now an RFC)

2. Do we put Ethernet interface configuration directly under the "Ethernet interface" container?

   - Other config likely to also go in this container,

   - Makes it hard to just get the Ethernet interface configuration without getting other Ethernet protocols – not sure that this is an issue.

   - Alternative choice would be "Ethernet/phy" or the like.

Other issues (2):

3. Line length:
    - Currently using 69 (which matches RFC YANG models)
    - Are we allowed, or do we want to use a larger value?
4. In Github, should we move drafts under standard/802.3/drafts/?
    - I presume that at this point we don't care, but once we think that we have got them reasonably firm we should move them.
    - Note my Ethernet interface changes are currently on the eth-intf branch while I work on them (latest version pushed today).

Other issues (3):

5. Speed:
   - I've changed from an enum to 64 bit decimal in Mb/s (3 decimal places), this should make it easier to adopt new speeds in future without having to necessary rev the models.

6. Dynamic-rate-control
   - In MIB this was an on/off flag, but I've changed this to list the speeds.
   - Assuming that OC-192 for 10G interfaces is the only current speed supported by dynamic rate control.

Thank you!