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CCAMP-Q6/15 Questions

WSON Impairments

- What impairment data are relevant/stable for control plane to collect for its path computation

  – Are the computational approaches defined in G.680 a reasonable basis for our work?

  – Is our use of G.680 /G.697 Appendix V defined parameters reasonable?

  – What other documents should we be referencing?

G.698.2 Related

- Are the currently identified set of managed parameters
    - Reasonable?
    - Sufficient?

Managed parameters

```
+-------------------------------+---------+-----------------+
| PARAMETERS                    | Get/Set |    Reference    |
+-------------------------------+---------+-----------------+
| Minimum channel spacing       |    G    | G.698.2 S.7.1.1 |
| Bit rate/line coding of opt. trib. |  G,S | G.698.2 S.7.1.2 |
| signals                       |         |                 |
| FEC Coding                    |   G,S   |     G.975       |
| Maximum bit error ratio (BER) |    G    | G.698.2 S.7.1.3 |
| Fiber type                    |   G,S   | G.698.2 S.7.1.4 |
| Wavelength Range              |    G    |   G.694.1 S.6   |
| Wavelength Value              |   G,S   |   G.694.1 S.6   |
| Vendor Transceiver Class      |    G    |     N.A.        |
| Single-channel application codes |  G   | G.698.2 S.5.3   |
+-------------------------------+---------+-----------------+
```

Table 1: General parameters

```
+-------------------------------------+---------+-----------------+
| PARAMETERS                          | Get/Set |    Reference    |
+-------------------------------------+---------+-----------------+
| MAX and min mean channel output power |  G,S  | G.698.2 S.7.2.1 |
| Min and MAX central frequency       |    G    | G.698.2 S.7.2.2 |
| MAX spectral excursion              |    G    | G.698.2 S.7.2.3 |
| MAX transmitter (residual) disper.  |    G    | G.698.2 S.7.2.7 |
| OSNR penalty                        |         |                 |
| MAX side mode suppression ratio, min|    G    | G.698.2 S.7.2.6 |
| channel extinction ratio, Eye mask  |         |                 |
| Current Laser Output power          |   G,S   |     N.A.        |
+-------------------------------------+---------+-----------------+
```

Table 2: parameters at Ss

Managed parameters

```
+-------------------------------------+---------+-----------------+
| PARAMETERS                          | Get/Set |    Reference    |
+-------------------------------------+---------+-----------------+
| MAX and min (residual) chromatic    |    G    | G.698.2 S.7.3.2 |
| dispersion                          |         |                 |
| Min optical return loss at Ss       |    G    | G.698.2 S.7.3.3 |
| MAX discrete reflectance between Ss |    G    | G.698.2 S.7.3.4 |
| and Rs                              |         |                 |
| MAX differential group delay        |    G    | G.698.2 S.7.3.5 |
| MAX polarization dependent loss     |    G    | G.698.2 S.7.3.6 |
| MAX inter-channel crosstalk         |    G    | G.698.2 S.7.3.7 |
| MAX interferometric crosstalk       |    G    | G.698.2 S.7.3.8 |
| MAX optical path OSNR penalty       |    G    | G.698.2 S.7.3.9 |
| MAX ripple                          |    G    | G.698.2 S.7.3.1 |
+-------------------------------------+---------+-----------------+
```

Table 3: parameters between Ss and Rs

```
+-------------------------------------+---------+-----------------+
| PARAMETERS                          | Get/Set |    Reference    |
+-------------------------------------+---------+-----------------+
| MAX and min mean input power        |    G    | G.698.2 S.7.4.1 |
| Min optical signal-to-noise ratio   |    G    | G.698.2 S.7.4.2 |
| (OSNR)                              |         |                 |
| Receiver OSNR tolerance             |    G    | G.698.2 S.7.4.3 |
| MAX reflectance at receiver         |    G    | G.698.2 S.7.4.4 |
+-------------------------------------+---------+-----------------+
```
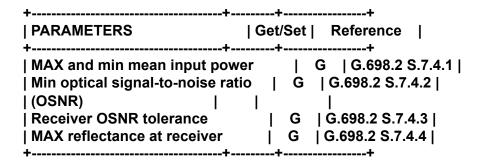
Table 4: mandatory parameters at Rs

G.698.2 Related (cont)

- Can Q6 provide guidance on which parameters is work ongoing: 10G, 40G, 100G, 400G, 1T?

- How will transceivers that meet a set of application codes be represented?
  - E.g. A receiver that can operate under over an extended range?

- What future management parameters will be introduced to support:
  - Colourless/Directionless/Contentionless ROADMs?
  - Flex Spectrum, Super Channel, full coherent networks?

Flexi-Grid Related

- Four Questions (see slides-86-ccamp-29)
    - What is the relation between optical signal layer (OCh) and media layer?
    - How do we characterize links and nodes?
    - Resource allocation
    - Additional link properties?

Flexi-Grid Related (cont.)

- ## Super channel
  - What is the current view/status on definition of an entity containing more than one frequency slot?

  - Based on current view/definition(s), is there any restriction on treating more than one frequency slot as a single entity for control/ management plane functions?

  (ref: slides-86-ccamp-34)