IETF 90
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Extension to the Link Management Protocol (LMP/DWDM - rfc4209) for Dense Wavelength Division Multiplexing (DWDM) Optical Line Systems

`draft-dharinigert-ccamp-g-698-2-lmp-07.txt`

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Document History

- IETF 84-00: first submission, extending RFC3591
- IETF 85-01: explanatory changes
- IETF 86-02: included parameter objects
- IETF 87-03: split draft into standard and non-standard extensions:
  - draft-dharinigert-ccamp-g-698-2-lmp-03.txt
    - Includes standard application codes, Transceiver power and frequency (or bandwidth)
  - draft-dharinigert-ccamp-opt-imp-lmp-01-txt
    - Includes all optical parameters defined in G.698.2 and extensions such as status information.
- IETF 88-05: clean-up of draft-dharinigert-ccamp-g-698-2-lmp-03.txt: Substantial WG support for the work
- IETF-89-06: address wording issues identified in draft-dharinigert-ccamp-g-698-2-lmp-06.txt

Motivation & Problem statement

- ITU-T G.698.2 defined the “Application Codes” to design a DWDM system in a multi-vendor approach.
- LMP is protocol to exchange optical link property between client and server devices
- NON-GOAL: LMP doesn’t replace routing or signalling

Motivation:

- Provide a standard way to exchange parameters between client (TX, Rx) and server (optical system).
- Support client and server devices to access local and remote optical parameters for property correlation
- Provide a simple way to share information across packet and optical devices for link fault management

Status

- Changed from previous version:
  - Clean-up of text to avoid ambiguity

- Alignment with http://tools.ietf.org/html/draft-galikunze-ccamp-g-698-2-snmp-mib-07

Next Steps

- Generalize approach for optical interfaces beyond G.698.2 scope -> requires re-naming the draft
- Use broader terms like e.g. Application Identifier instead of Application Codes and OCh instead of BL
- Work in good faith with ITU to resolve any pending issues

Comments on the List

- why specific for G.698.2, why not generalize this? In the lmp document, continue to name as “BL_”, whereas the mibs document has been aligned with RFC3591, to say “OCh”.
- In the lmp draft, it says “BL_ApplicationCode”. It has two parameters, “single-channel” and “vendor transceiver”. This implies that G.698.2 (or a “BL”) allows for “vendor transceiver application codes”. But G.698.2 only supports compatibility for the standard codes. This was the main concern of the Q6 Rapporteurs on our WSON work and these drafts, that we infer compatibility for the data plane when it is not appropriate. As they said, the parameters are necessary, but not sufficient to guarantee compatibility.
- G.872 and G.874 use the generic term, Application Identifier (AI) and Central Frequency to characterize an OCh. Malcolm had mentioned this at our previous meetings. AI covers both standard codes and vendor identifiers. Using these terms would cover your need to include proprietary (vendor) identifiers, and not infer these are equal to application codes. Also, “Central frequency” (vs. wavelength) is used in ITU’s data plane work and in other CCAMP work as a more precise term. By adopting “single channel” (vs. BL) terminology and “OCh” and “AI”, you will align better with ITU and other CCAMP documents. And hopefully address much of the concern on how you are managing/modelling these interfaces.
- RFC3591 has monitoring mibs for power and read capability of “current input power”. So why introduce “BL” specific mibs for this monitoring? These can be referenced from RFC3591 or as extensions to RFC3591 if the naming doesn’t match.
- The only parameter missing is setting the output power? I don’t think it is supported though by G.874.1? Have the authors contributed to ITU-T to request it be added?