

# WSON Optical Interface Class

draft-martinelli-wson-interface-class-00

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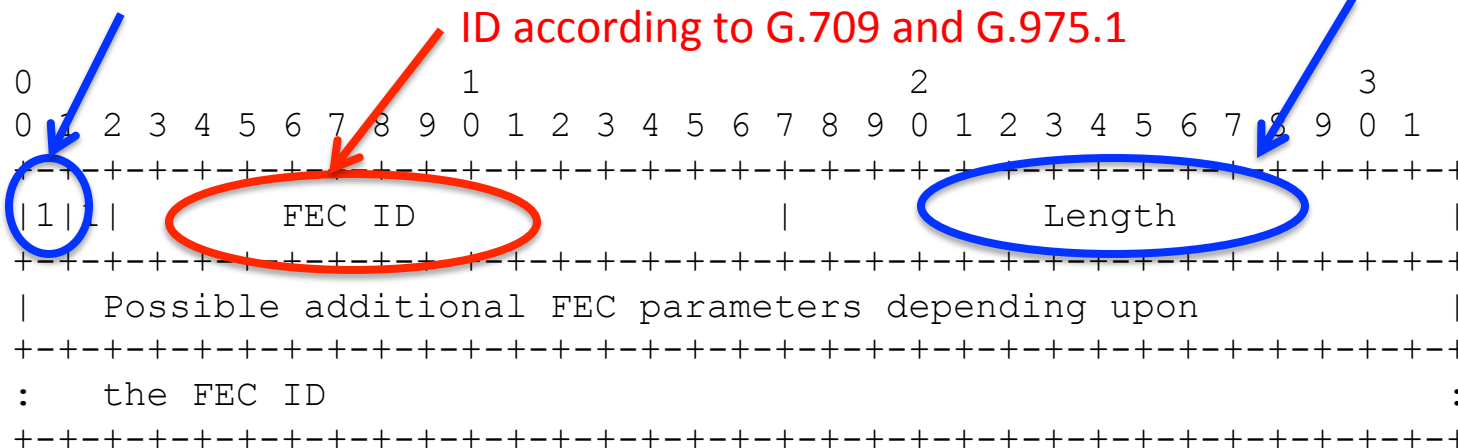
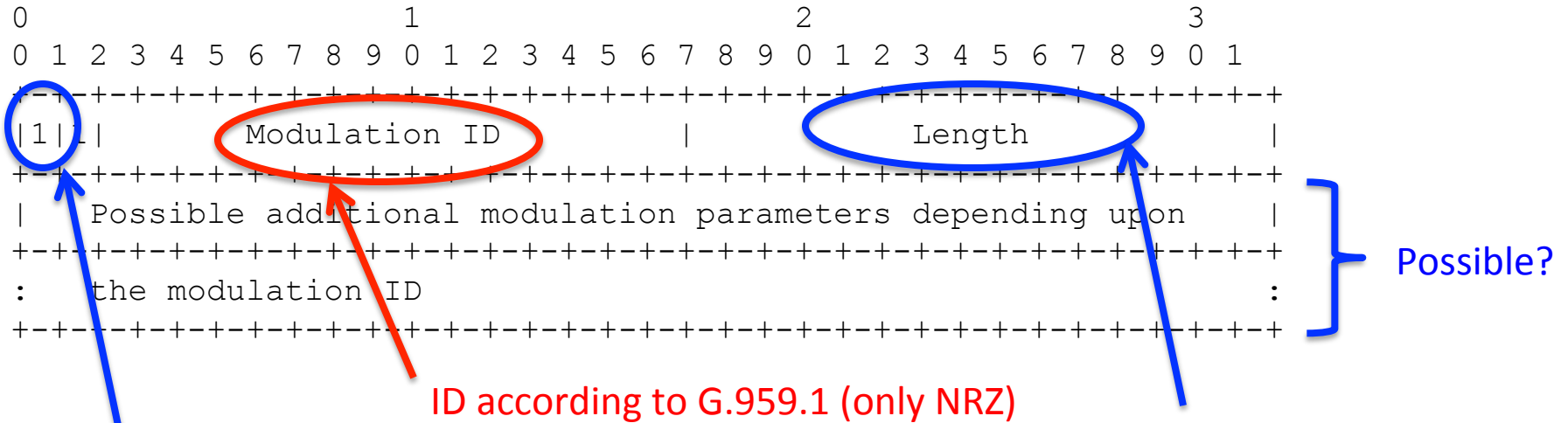
# Overview

- **What:** Propose a different way to solve the WSON signal compatibility.
- **Why:** (to some extent) keep protocol extensions independent from ITU standard evolution.
- **Draft Status:** a rough cut proposed here to start discussion.

# Current WSON status

- Signal compatibility parameters (RFC6163):
  - FEC (forward error correction)
  - Modulation Format
  - Bit Rate
- Definitions/Encodings:
  - draft-ietf-ccamp-rwa-info-11, draft-ietf-ccamp-rwa-wson-encode-11
- Protocol Extensions
  - OSPF: draft-ietf-ccamp-wson-signal-compatibility-ospf-04
  - RSVP: draft-ietf-ccamp-wson-signaling-01
  - PCEP: draft-lee-pce-wson-rwa-ext-02

# Example: Mod Format & FEC



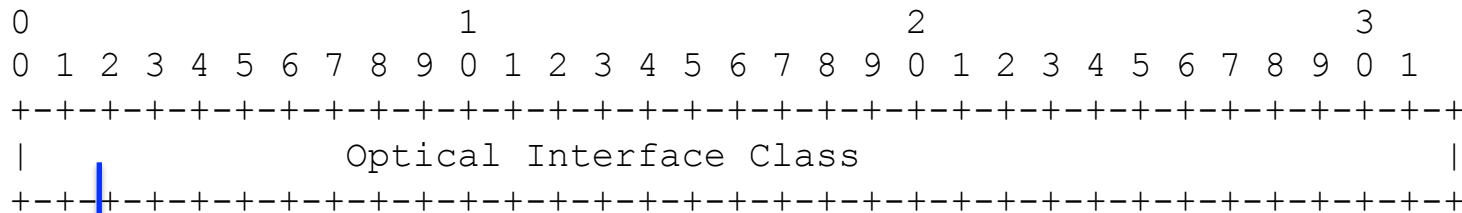
# Problem

- There are already new modulation formats available for 40/100G (e.g. DPSK/QPSK):
  - standard will evolve soon (but we don't know how).
- What if we need some more parameters?
  - E.g. The Optical Impairment awareness case.

# The Optical Interface Class

- It is a number
- Protocol operations become trivial: if two interfaces have the same number, they are compatible.
- The optical parameters values associated to this numbers are defined elsewhere.
  - So when optical std evolve no changes are required.

# Optical Interface Class: encoding



Reference to:

```
Class value = 1
{
  FEC = ...
  Mod Format = ...
  Bit Rate = ...
  ...
}
```

```
Class value = 2
{
  FEC = ...
  Mod Format = ...
  Bit Rate = ...
  ...
}
```

Class Values / Content shall be defined elsewhere.

# Conclusions

- Comments?
- From 00 to 01:
  - Details encoding
  - Refine how to associate Optical Interface Class with the set of optical parameters.