Generalized Labels for the Flexi-Grid in Lambda-Switch-Capable (LSC) Label Switching Routers

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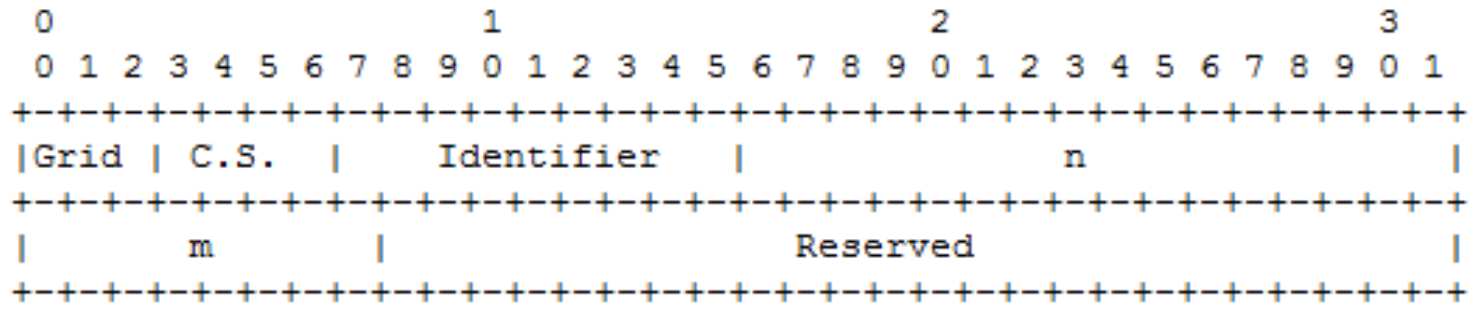
Motivation

- The draft provides a “stake” in the ground for discussion of flexible grid labels.
  - Builds on RFC6205 (Generalized Labels for Lambda-Switch-Capable LSRs).
- This document was merged with draft-li-ccamp-flexible-grid-label.

Label Format



- Flexi-Label Encoding
  - Currently extended to 64bits
  - Slot Width “m” field (Slot Width (GHz) = 12.5 GHz * m)

Open Items

- **Q1:** Do we want a 64bit label or truncate at 40bits, or pad at 48bits?
  - Might look more efficient to have shorter label.
  - Label object is aligned on 32bit boundary anyway.
- **Q2:** Do we use a new value for "Grid" or re-use DWDM value?
  - We could go either way.
  - It looks to us that it is slightly more helpful for implementation.
  - Worth noting that:
    - Grid value is not tied to any external SDO.
    - Label type might be known from context anyway.
    - It may be worth supporting fixed and flexi-grid in some hardware?

Open Items, continued.

- **Q3:** Is the "m" field part of the label, the traffic parameters, or both?
  - We are only looking at label definition.
  - Traffic parameter definition is also important.
  - We feel that "m" is integral to the definition of the label.

Summary & Next Steps

- Overall, not an urgent piece of work.
  - We must wait for Q6/15 in ITU-T.
  - Deployment is not imminent.
- Authors will continue to resolve outstanding questions/issues.
  - Synch with other flexi-grid efforts.
- At some point, we need to decide whether label should be in a separate I-D (modeled on RFC6205), or bundle all flexi-grid work together.