

Generalized Label for Super-Channel Assignment on Flexible Grid

draft-hussain-ccamp-super-channel-label-04

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Definitions

- Frequency Slot
 - A frequency range allocated to a given channel and unavailable to other channels within the same flexible grid (see ITU G.694.1)
- Super-Channel
 - A collection of one or more frequency slots to be treated as a unified entity for management and control plane purposes
- Contiguous Spectrum Super-Channel
 - A super-channel with a single frequency slot
- Split Spectrum Super-Channel
 - A super-channel with multiple frequency slots

Assumptions/Dependencies

- ITU related assumptions/dependencies:
 - What is ITU current view/status on definition of an entity containing more than one frequency slot?
 - Based on ITU current view/definition(s), is there any restriction on treating more than one frequency slot as a single entity for control/management plane functions?

Proposal - Summary

- Extends [RFC3471] [RFC6205]
 - Defines a new generalized label format for super-channels assignment on flex-grid networks
- Super-Channel Label extensions summary
 - Allows label assignment for both Contiguous Spectrum and Split-Spectrum Super-Channels
 - Provides two encoding options for the label
 - List/Range (n_start, n_end)
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