GMPLS-based Hierarchy LSP Creation in MRN/MLN

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draft-zhang-ccamp-gmpls-h-lsp-mln-05.txt

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Problem Statement (1/3)

In MLN/MRN, multiple switching capabilities and/or multiple switching granularities and/or adaptation functions may exist in the server layer network. The source node of the client layer connection needs to specify:

1) which server layer switching capability

Example:

Figure 2 - MLN with multiple ISCs at edge node.
Problem Statement (2/3)

2) and/or switching granularity

Example:

Figure 3a - Multiple switching granularities in server layer.
3) and/or adaptation functions is selected

Example:

\[ \overline{A} / \overline{B} / \text{: Adaptation Function}_A; \quad \overline{B} / \text{: Adaptation Function}_B; \]

Figure 4 - Selection of adaptation function
Gap Analysis

Signaling:

- **RFC6001**: introduces a SC subobject in XRO, but only support SC exclusion, **NOT** the selection of SC in the server layer;
- **RFC6107**: Extending **LSP_TUNNEL_INTERFACE_ID object** to support ends point of lower layer LSP decide the feature of this LSP, including how the client use this LSP (private link etc.).

**Conclusion**: None of this extensions can solve the problem presented.
Next Step

• Please review our draft and we would like to move this draft forward;