

# PCEP Extension for Stateful Inter-Domain Tunnels

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**draft-ietf-pce-stateful-interdomain-01**

# Update since previous versions

- Version 00:
  - Working Group adoption based on draft-dugeon-pce-stateful-interdomain-04.txt
- Version 01:
  - Take into account comments received during the WG call adoption
    - Except the comment about the implementation option

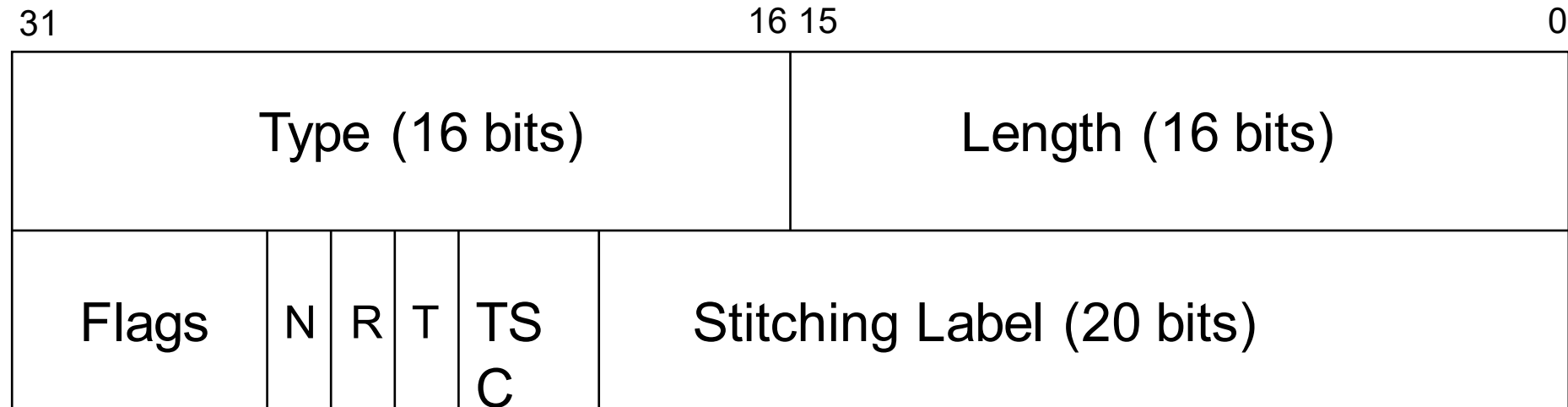
# Implementation requirements

- The stitching label principle requires at least a certain number of modifications in the current PCEP version
  - A new PCE Capability to announce the inter-domain behavior
  - A new PCE Association Group to associate the local paths identifier to the inter-domain identifier
  - A new PCEP Errors message to manage the Stitching Label exchange
  - A mechanism to convey the Stitching Label
    - The WG should choose between several options

# Technical solution to convey Stitching Label

- Use ERO and RRO in conjunction to new Path Setup code points
  - Solution proposed in the current version of the draft
  - Pro: Simplest implementation
  - Cons: As mention by Dhruv, each time a new path enforcement appear, a new PST code point must be allocated (e.g. new Segment Routing v6)
- Use ERO and RRO in conjunction to a new flag in LSP
  - Pro: Simple as PST code points
  - Cons: Need to use the new LSP Extended Flag sub-Object
  - Alternate solution: find another place for the flag e.g. SRP or LSPA Object
- Define a new PCEP sub-Objet TLV within the LSP to convey the stitching label
  - Pro: More independent and explicitly convey the Stitching Label
  - Cons: Need extra parsing in the PCEP Grammar from an implementation point of view

# New Stitching Label sub-Object format



- Stitching Label (20 bits): Must equal to 0 for request
- TSC (3 bits): Traffic Class for the Stitching Label if T flag is set
- Flags (8 bits):
  - R: Request Stitching Label
  - T: Traffic Class must be used
  - N: Nested path