

PCEP Extensions for Establishing Relationships Between Sets of LSPs

draft-minei-pce-association-group-02

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What this draft is about

- Generic mechanism to create an association of LSPs
 - disassociation also supported
- What can be associated
 - two sets of LSPs (for example primary and backup)
 - a set of LSPs with a set of attributes - for example configuration parameters for LSP sets
- This draft provides the infrastructure for creating such an association. Specific TLVs for specific uses are defined separately
 - Currently used for primary/backup association for protection

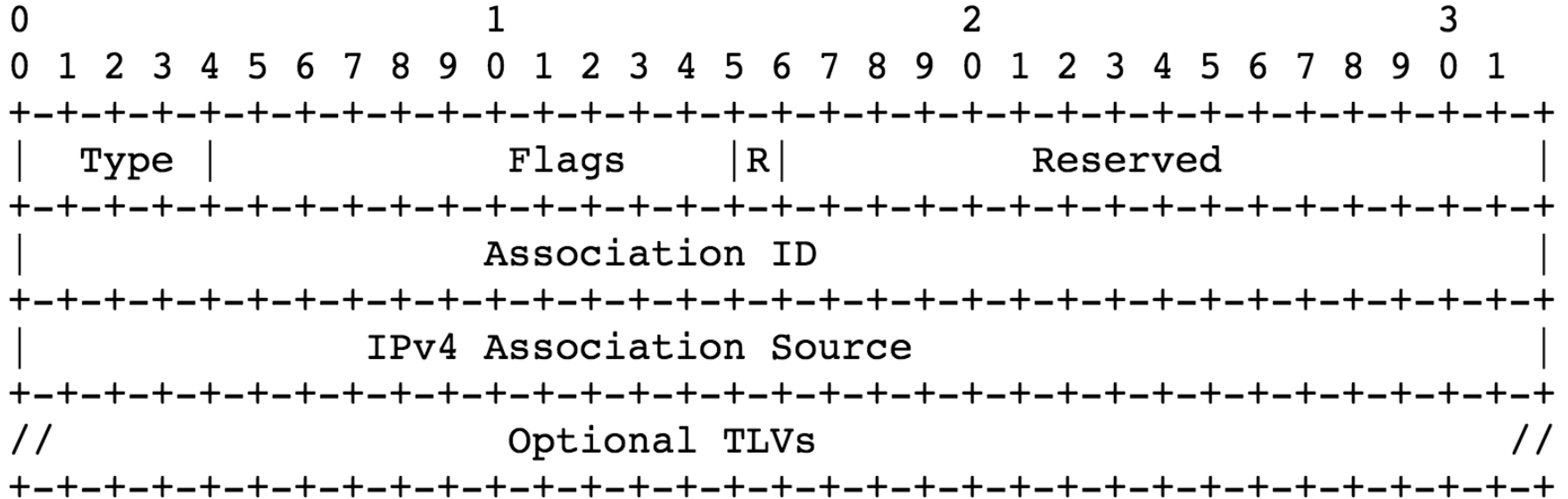
Changes from version 00

- Allow both PCC and PCE to create association group
 - the previous version only allowed the PCC to own the association group
 - the association identifier is a combination of the owner and a local id
 - enables association of LSPs originating at different head ends
- Add the association source in the object encoding of the newly defined PCEP ASSOCIATION object
- Spell out the RBNF encoding of the association object in PCEP messages
- Update the author/contributor affiliation/list;

The association object- high level overview

- Use the Association object to create an association
 - Multiple types can be defined (for different applications)
 - Per/type optional TLVs can be added to carry information specific to a certain type of association
- Key takeaway
 - Both the PCE and the PCC can initiate the association
 - Either of them can be the owner of the association

The association object



Type: 4 bits - the association type (for example protection). The association type will be defined in separate documents

Flags: 12 bits – only one defined: R (Removal - 1 bit): when set, the requesting PCE peer requires the removal of an LSP from the association group

Association ID: 32 bits - the identifier of the association group

Association Source: 4 or 16 bytes - An IPv4 or IPv6 address, which is associated to the PCE peer that originated the association.

Optional TLVs: Variable - no TLVs are defined in this document

Message encoding- high level overview

- Key takeaway
 - an LSP can belong to one or multiple association groups
- Usage
 - PCRpt - PCC reports/deletes association group information
 - PCUpd/PCInitiate - PCE create/update association group information
 - PCReq - PCE can indicate the association group information

Message encoding

```
<PCRpt Message> ::= <Common Header>  
                    <state-report-list>
```

Where:

```
<state-report-list> ::= <state-report> [<state-report-list>]
```

```
<state-report> ::= [<SRP>]  
                  <LSP>  
                  [<association-list>]  
                  <path>
```

Where:

```
<association-list> ::= <ASSOCIATION> [<association-list>]
```

Next steps

Please review and discuss on the list.

Multiple dependencies on this draft. WG adoption?