# Standard Representation Of Domain Sequence

draft-dhody-pce-pcep-domain-sequence-01
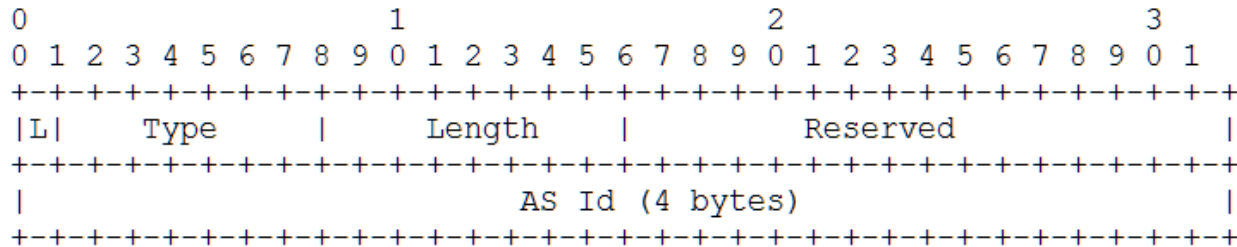
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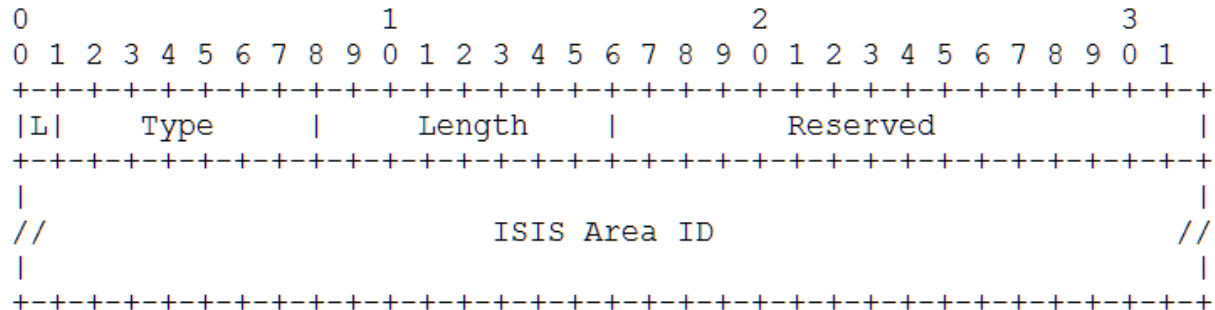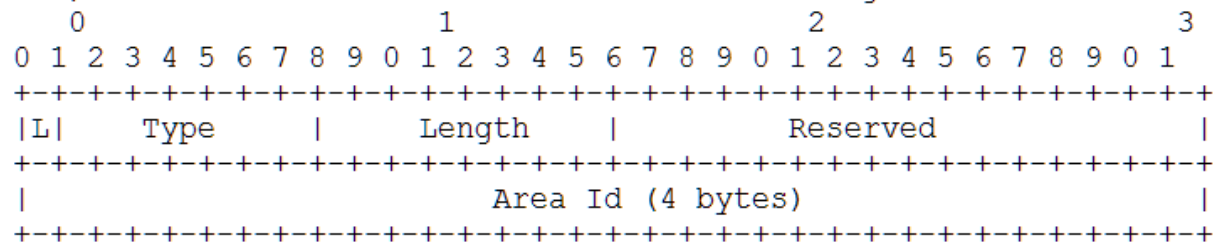
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# Updates from -00

- Support for 4-Byte AS Number

```
0                   1                   2                   3
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|L|   Type      |     Length    |          Reserved            |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                        AS Id (4 bytes)                        |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

- Updates in OSPF/ISIS Sub-Objects

```
0                   1                   2                   3
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|L|   Type      |     Length    |          Reserved            |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                        Area Id (4 bytes)                      |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

```
0                   1                   2                   3
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|L|   Type      |     Length    |          Reserved            |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                                                              |
//                      ISIS Area ID                          //
|                                                              |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

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# Open Issues

•**Encoding of Domain Sequence**

(1) Keep the RFC5440 IRO object (Object class 10, object type 1)
- Current Draft

(2) New IRO object (Object class 10, object type 2)
- Better Application of Rules w.r.t domain sequence
- Sub-Object Ordering
- Different Scope
- Mode of Operations
- Strict v/s Loose

(3) New DOMAIN-SEQUENCE object

** *Authors feel Option-2 is the way to go....*

# Open Issues

- **Boundary Nodes & Links a part of Domain-Sequence?**

    - Should additional constraints/restrictions be part of Domain-Sequence?
        - ABR and ASBR
        - Inter-AS TE Links

- **Formal RBNF specification for Domain-Sequence?**

    - Draft currently mentions multiple deployment scenarios and how the sub-objects (AS/Area) will be encoded in the IRO.
    - RBNF is generally used to define Messages and not Objects.
    - Does WG has a comment on using RBNF to define Domain-Sequence?

# Next Steps

- Resolve Open Issues and update new version.

- Request all authors of inter-domain (P2P / P2MP / HPCE) IDs to give comments.

# Questions
# &
# Comments?

# Thanks!

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