

Advertising Per-node Admin Tags in IS-IS

draft-psarkar-isis-node-admin-tag-00

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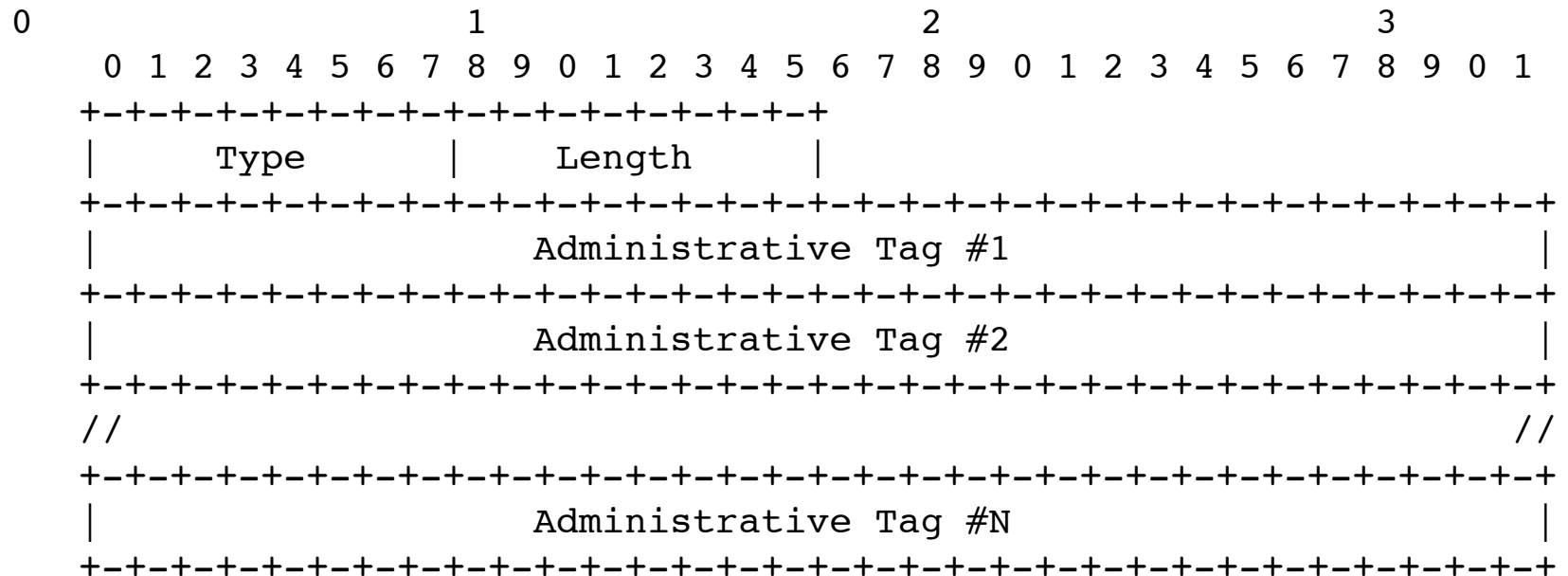
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Rationale

- *Node color* is used for describing path constraints
 - IP paths
 - MPLS paths
- there is a category of path constraints which requires that a certain path *should* or *should not* be routed over a *node with specific properties*.
 - go over the packet-optical super-core
 - don't go over any other PE router
 - don't go over any other ASBR (hot potato)
 - don't go over equipment from vendor X
 - don't go over nodes with limited hardware capabilities (e.g. LB)
 - don't go over equipment which is running software version x.y.z
 - de-prefer nodes which have not good hardware based latency measurements

Per-Node Admin Tag TLV

- Dedicated TLV
 - Unbound List of 32-Bit node colors
 - Received community feedback that for *conserving* TLV # space, this should go under Router-Cap TLV #242.



What about re-using existing protocols ?

- Prefix tags as per RFC5130 ?
 - **No bijection** between a **node** (router-ID) and some **prefix** (which carries the tags)
 - In fact those are different name-spaces
 - What about L1L2 case for Prefix leaking ?
 - How to differentiate **leaked prefixes** vs. **self-originated prefixes** ?
 - No prefix tagging mechanism for OSPF yet
 - Looking for **consistency across protocols**
 - For MPLS paths most implementations of Traffic Engineering Database (TED) schema support
 - **Nodes**
 - **Links**
 - But **not Prefixes**