Interface Addresses TLV

draft-eastlake-isis-ia-tlv-01.txt

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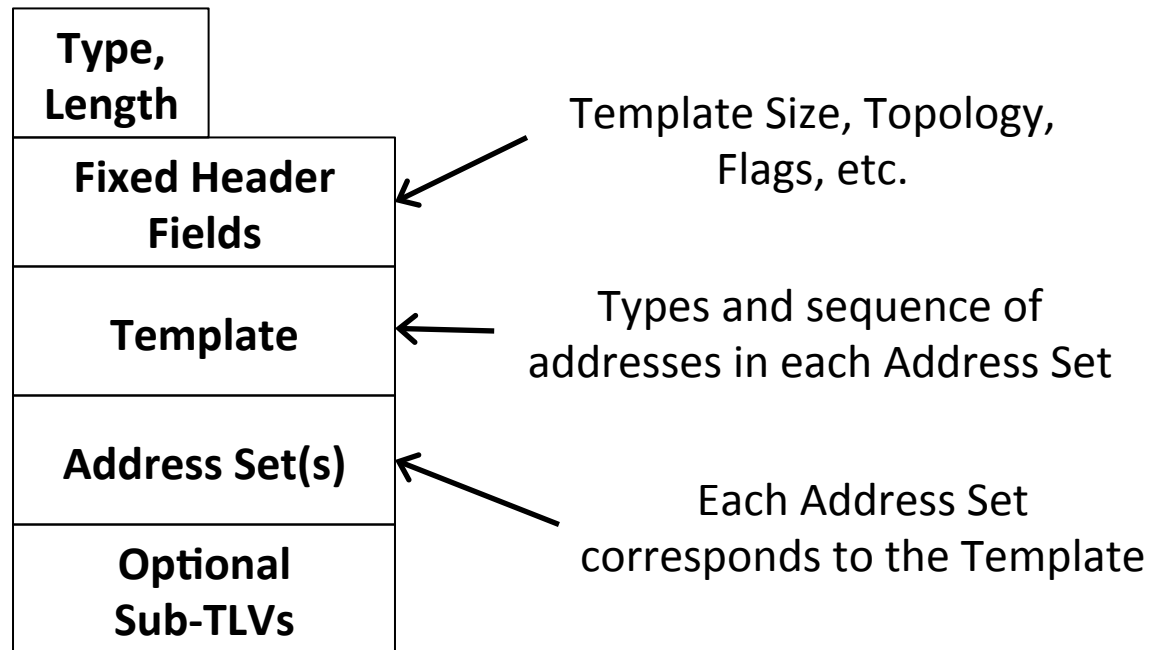
Interface Addresses TLV

- Provide a TLV format for sets of addresses where each address in the set is associated with the same interface (aka port).
  - For example, a MAC address and an IPv6 address, or
  - A MAC address, an IPv4 address, and an IPv6 address.
- Intended to support such things as ability to represent the data needed to locally respond to ARP/ND/RARP and/or discard packets with a non-existent destination.

Interface Addresses TLV

- Described in current early draft as a TLV but could be a sub-TLV or, if it turns out it is only of interest to one application, an APPsub-TLV.

- Address types indicated by AFNs (Address Family Numbers.

- Draft also proposes a few additional AFNs.

- Sub-TLVs and a few reserved flag bits provide for extensibility.

Interface Addresses TLV

- Basic structure:

Type, Length
Fixed Header Fields
Template
Address Set(s)
Optional Sub-TLVs

Template Size, Topology, Flags, etc.

Types and sequence of addresses in each Address Set

Each Address Set corresponds to the Template

Interface Addresses TLV

- Sub-TLVs in current draft to specify
  - the size of a new address type so parsers that don't understand it can at least skip over it.
  - an address that is considered a part of all address sets in that TLV.
  - label (such as VLAN) through which the interface is reachable.
  - identity of the router through which the interface is reachable.

END

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