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.
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• 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.