Draft-dean-manet-metricTLV-01

71st IETF Philadelphia

March 10th 2008

Justin Dean

What is new?

- Reorganized document to more clearly state what is being specified
- Added new encoding types
  - 16,32 and 64 bit exponential metric representations taken from IEEE standards
- Expanded IANA considerations section
  - Added definitions of namespaces for future allocations using this document

Metric routing requirements

- Metric definition
  - What is the meaning of a metric? What cost value does it represent?
  - How is a metric set/found/calculated?
- Metric dissemination
  - How is a metric encoded?
- Metric usage
  - How does a protocol use a metric?

Draft-dean-manet-metricTLV specifies

What does this draft specify?

- What is the meaning of a metric?
  - Defines "metric" and "cost value"
    - Cost value is defined as the unit to be represented
    - Metric is the on the wire representation of a cost value
  - Defines various metric *classes* to give some context regardless of the actual cost value being represented
    - Node
    - Inbound
    - Outbound
    - Bi-Directional

What does this draft specify? Cont.

- How is a metric encoded?
  - Defines a common way to encode metrics
    - Flat number spaces
    - Exponential number spaces
  - Assigns TLV extended type values to namespaces for future allocation
    - 2 namespaces for message TLVs
      - 128 possible assignments for each namespace
    - 8 namespaces for address block TLVs
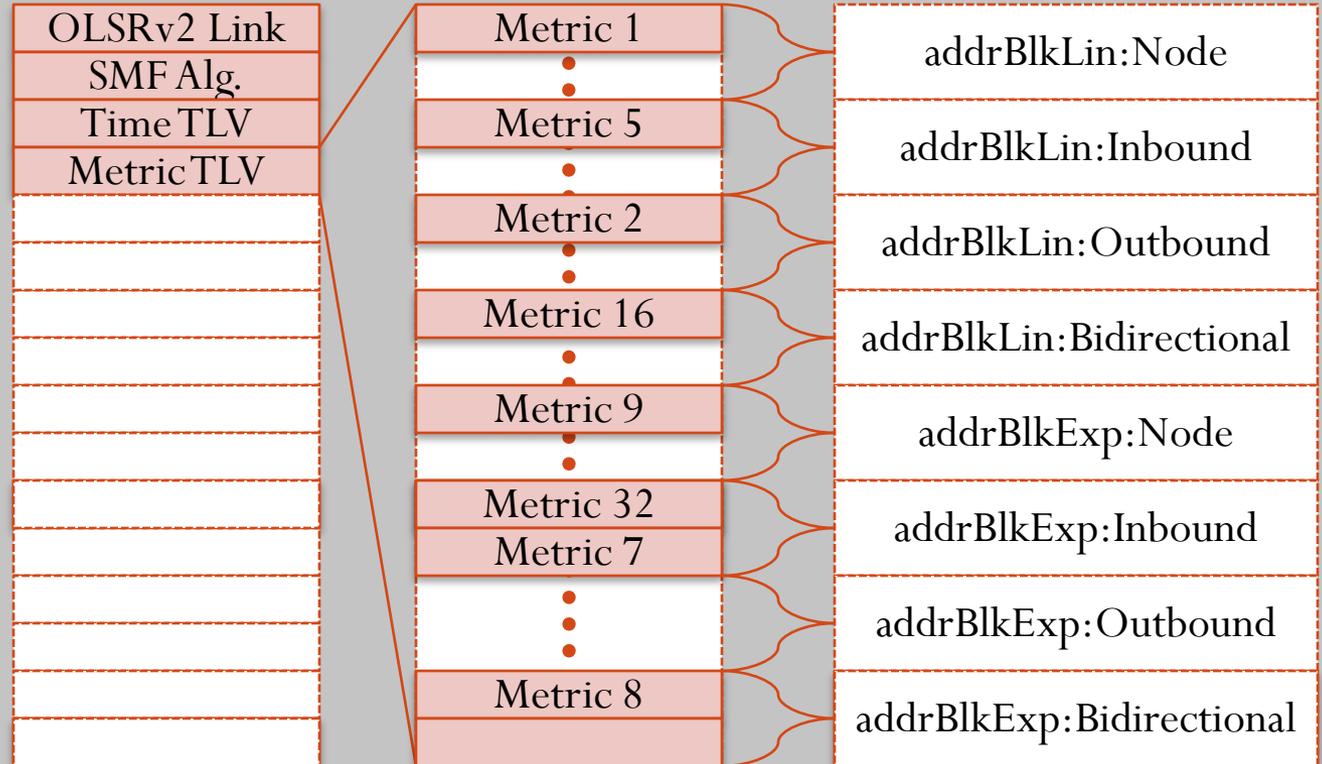   - 32 possible assignments for each namespace

Namespaces

- Packetbb specifies a flat TLV space with extended type fields.

- This document condenses future TLV type assignment by using extended type field to group common TLV types.

- Differing extended types give some context/meaning about the metric being conveyed.

TLV type assignments example

Is this draft useful?

- Informational?

- Best common practices?

- Standards?