

Draft-dean-manet-metriclv-00

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Metric Issues for MANET

- How should metrics be calculated?
 - Mac layer specific solution?
 - A generalized hello based approach?
 - Cost value dependent (bandwidth vs power)
- How are metrics to be transmitted/shared?
- How to use this information?
 - Dependent on protocol.
 - Dependent on cost value being shared.
 - Does this new information break anything?

Metric Issues for MANET

- How are metrics to be transmitted/shared?
 - **Draft-dean-manet-metricity-00**
Only addresses this issue
 - A generalized metric based on each?
 - Cost value dependent (bandwidth vs power)
- How are metrics to be transmitted/shared?
- How does a protocol use this information?
 - Dependent on protocol.
 - Dependent on cost value being shared.
 - Does this new information break anything?

How are metrics to be transmitted/shared?

- What type of numbers need to be represented?
- Solution should be efficient.
- Solution should be flexible
- Different cost values should be allowed to be represented.

Proposed method for sharing metrics

- What type of numbers need to be represented?
 - Flat 1-255 representation
 - Exponential 1-63488 representation using mantissa/exponent.
- Solution should be efficient.
- Solution should be flexible.
- Different cost values should be allowed to be represented.

Proposed method for sharing metrics

- What type of numbers need to be represented?
- Solution should be efficient.
 - Each cost value represented with an 8 bits
 - Multivalue TLV uses 6 byte overhead per metric type for any number of values.
- Solution should be flexible.
- Different cost values should be allowed to be represented.

Proposed method for sharing metrics

- What type of numbers need to be represented?
- Solution should be efficient.
- Solution should be flexible.
 - Defines a TLV to be used within the packetbb framework.
- Different cost values should be allowed to be represented.

Proposed method for sharing metrics

- Different cost values should be allowed to be represented.
 - Multiple metric TLVs can be assigned to the same addresses using differing subtypes.
 - Format generalizes 4 cost ideas
 - Outbound link metric
 - Inbound link metric
 - Symmetric link metric
 - Node metric

TLV subtype usage

- Subtype to allows for differing metrics to be assigned without using up packetbb tlv type space.
- 3 bits of 8 bit field define
 - flat/exponential
 - Inbound, Outbound, Symmetric, Node

Is this useful?