Babel Information Model

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Major Changes -05 to -07

- changed Link Type registry in IANA considerations to Link Properties [which will be made irrelevant by the next slide]
- changed direction of reference for HMAC and DTLS objects to be from interface to these objects
- provided DTLS certificate objects with a unique name
- changed received and calculated metric descriptions to make clear that it is ok to have both
- constrained interface reference to only IPv6 interfaces
- babel-dtls-enable and babel-hmac-enable moved to interfaces and made rw
- renamed babel-dtls and babel-hmac to babel-dtls-cert-sets and babel-hmac-key-sets and references to them from interfaces are babel-if-dtls-cert-sets and babel-if-hmac-key-sets
- https://github.com/bhstark2/babel-information-model/issues/16 with nits [major of these was “The router-id value MUST NOT consist of all zeroes or all ones.”]
- https://github.com/bhstark2/babel-information-model/issues/14 addressing parameters not allowed to be empty/null
- https://github.com/bhstark2/babel-information-model/issues/18 on IANA link properties table [which will be made irrelevant by the next slide]
Issue #1: Link Properties

Proposed changes based on recent emails:

1. Delete IANA Considerations section. No request is being made of IANA (i.e., no registry for link properties or link types or any other such thing).
2. Delete babel-supported-link-properties and babel-link-properties in all places
3. Make babel-interface-metric-algorithm rw (so it can be updated by the management system)
4. Add boolean rw babel-interface-split-horizon parameter: Indicates whether or not the split horizon optimization is used when calculating metrics on this interface. A value of true indicates split horizon optimization is used.

[No changes for RTT; an RTT draft can propose info model updates needed to support it formally.]
Issue #2: “k-out-of-j” or “2-out-of-3”?

Replace the “k-out-of-j” enumeration for expression of algorithmic capabilities with “2-out-of-3”. If other variants are supported, they will need to be explicitly included in the enumeration.

Change:

babel-metric-comp-algorithms: List of supported cost computation algorithms. Possible values include “2-out-of-3”, and "ETX".
Issue #3: Calculated and received metrics datatype

Problem: Some data modeling mechanisms (e.g., TR-181) model NULL as 0 (zero) for uint datatype.

Proposal: Change last sentence in description of these 2 parameters from:

“This is a 16-bit unsigned integer.”

to

“This is a 16-bit unsigned integer but may be represented by a data model as a signed integer for schemas that use 0 (zero) to represent NULL with unsigned integers, but use negative numbers to represent NULL with signed integers.”
Next steps

• Post -08 draft with resolutions agreed on for issues in this presentation.
• Do one more quick WGLC on -08. ?
• If nothing pops up, move it on. ?