Babel YANG Model

draft-ietf-babel-yang-model-01

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Status

• A WG document
• Augments Routing Management [RFC 8349]
  • VRF
  • RIB
Tree Diagram

module: ietf-babel
augment /rt:routing/rt:control-plane-protocols/rt:control-plane-protocol:
  +--rw babel!
    +--rw constants
       |     ...
       +--rw interfaces* [reference]
       |     ...
       +--rw hmac* [algorithm]
       |     ...
       +--rw dtls* [name]
          ...
  augment /rt:routing/rt:ribs/rt:rib/rt:routes/rt:route:
    +--ro routes* [prefix]
Issue #5 Link Types

• Link types are defined when they impact metric calculation
  • Wireless
  • Wired
  • Tunneled
  • Default

• How does one know which link-type is “equivalent”?
Issue #11, Mandatory values

• rw attributes can be made mandatory.
  • Have to be specified, e.g. link-type
  • Checked by client/server
  • Scope of being mandatory limited to the "parent"

• ro attributes are set by the system,
  • Cannot be mandatory, e.g. router-id

```plaintext
+-rw hmac* [algorithm]
  | +-rw algorithm identityref
  | +--rw verify boolean
  | +--rw apply-all boolean
  | +--rw interfaces* if:interface-ref
  | +--rw hmac-keys* [name]
  |   +--rw name string
  |   +--rw use-sign boolean
  |   +--rw use-verify boolean
  |   +--rw value binary
  |   +--x test
  |     +--w input
  |       |   +--w test-string binary
  |   +--ro output
  |     +--ro resulting-hash binary
```
Issue #13, Keys, Keys, and more Keys

• Symmetric keys (RFC 8177)
• Asymmetric keys and certificates (draft-ietf-netconf-system-keychain)
• No key rotation protocol
• How to share keys across domains?
  • HMAC uses symmetric keys
Issue #15, Routing Policy

• No update
Issue #16, Need example configurations

• Needed to validate the model
• Showcase how the model can be used
• Do different implementations of the model see different ways to configure BABEL?