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

```
+--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?