YANG Data Model for RPKI to Router Protocol

draft-liu-sidrops-rtr-yang-04

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Overview

- This document defines YANG data models for RPKI-Router Protocol ([RFC6810], [RFC8210], and [I-D.ietf-sidrops-8210bis]).

- Four YANG data models are defined:
  - ietf-rpki-rtr.yang: How to configure and manage the RPKI-Router protocol on routers.
  - ietf-bgp-origin-as-validation.yang: How BGP validates the origination AS of BGP routes based on ROA.
  - ietf-bgp-sec.yang: How BGP validates the BGPsec_PATH attribute of BGP routes.
  - ietf-bgp-aspa.yang: How BGP validates the AS_PATH of BGP routes based on ASPA.

Will be presented in IDR WG at Friday Session II
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How BGP validates the origination AS of BGP routes based on ROA.
How BGP validates the BGPsec_PATH attribute [RFC 8205].

- bgp
  - neighbor/peer-group -> afi-safi -> ipv4-unicast/ipv6-unicast -> export-bgpsec-validation -> enabled
  - route-selection-options -> origin-as
    - enabled
    - allow-invalid
  - loc-rib -> route
    - bgpsec-validation -> enabled
  - global -> afi-safi
    - ipv4-unicast/ipv6-unicast
      - BGPsec validation of BGP routes
      - BGPsec validation state of BGP routes
      - Check the BGPsec validity states in BGP export
      - Check the BGPsec validity states in the best-path calculation
How BGP validates the AS_PATH of BGP routes based on ASPA [draft-ietf-sidrops-aspa-verification].

- AS_PATH validation of BGP routes based on ASPA
- ASPA validation state of BGP routes
- Check the ASPA validation states in the best-path calculation

Role of BGP peer: customer / provider / lateral-peer / ...

- bgp
  - global -> afi-safi
  - route-selection-options -> aspa
    - enabled
    - allow-invalid
    - allow-unknown
  - neighbor/peer-group -> peer-role
Next Steps

• Any questions or comments are Welcomed.
Thanks