RPKI and Prefix Origin Validation Operational Practices

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Goals

- Guidance with deployment of RPKI and Prefix Origin Validation
- Technical recommendations
  - running the rpki infrastructure, validated caches, etc.
  - some WG ops drafts are available
- Organizational recommendations
  - implications for business operations (tooling)
  - key management in an organization (people come and go)

Motivation

- Active OPS drafts in SIDR WG
  - e.g. draft-sidr-origin-ops, draft-ietf-sidr-algorithm-agility, …
  - define some practical considerations out of scope of documents
- A “single” document with practical & operational deployment considerations
  - complementary to other WG documents
  - gentle introduction to …
  - refer to relevant drafts/RFCs
  - give guidance in operational deployment decisions
  - …

From SURFnet Pilot Study to a Draft

- RPKI & prefix origin validation pilot study at SURFnet (Dutch NRN)
  - practical and operational findings put in a report
- Put some of the operational considerations in a draft (-like) document
  - however NRN is different business than a tier 1, 2, or 3 network
  - need for input from other SIDR participants, operators (at RIR meetings?), engineers, vendors, …

Examples of Operational Considerations

- Trust in the RPKI infrastructure for an organization
  - identity and authority management
  - key management
  - security procedures in organization
- Trade-offs in RPKI deployment
  - hosted key management, or
  - running own RPKI engine, signing module, LIR back-end
  - management of validator/cache/publisher
- Routing policies
  - strict, secure, loose, … (see also draft-ietf-sidr-origin-ops)
- Refresh frequency for validated caches
  - 3 hours, 12 hours, 1 day, …
  - use of stale data
- …

Questions to the SIDR WG

- Probe interest of WG
- Ask guidance of WG
  - operational practices is a living document?
    - not much practical experience available
    - deployment practices topic of discussion and revision
    - status and visibility of such a document?
  - or, target for draft (with informational status)
    - will have some official “reference” status and visibility
    - accept fact that after, e.g., 2 or 3 years there is a “bis” document
- Ask for input to document
  - reviewing document & talk in hallway
  - discuss and refine goals and structure of document
  - help writing the document