draft-regnauld-ns-communication

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The question

- DNS carries data, not control information,
- Synchronizing the data served for configured zones between two nameservers is simple (AXFR, IXFR, DBMS replication), synchronizing their configuration (meta-information) is not.

This question only has proprietary answers (PowerDNS' supermaster, Infoblox's replication protocol). No interoperability.

Use cases for a control/provisioning/configuration protocol

- Having a homogeneous view of non-standard zones: I have an internal view `local.example.org` and I want it available from all my resolvers.
- Automatic zone discovery (what zones to these nameservers offer ?)
- Exchanging secondary name service with partners. Reciprocal secondary hosting. Not having to bother RIPE-NCC or ISC staff each time I change the IP address of the master.
- Managing remote name servers. Reload, etc. May be out of scope.

Requirements

Summary of the I-D: we need a protocol with

1. mutual authentication,
2. standard terminology and concepts ("stub", "forward"),
3. (**controversial**) views,
4. (**controversial**) ACLs,
5. queries of the configuration,
6. updates of the configuration ("zone provisioning"),
7. remote management such as reloading.

Open issues

How far to go in the "solution space"?

What is "out of scope"?

Base protocol + extensions?

Zone information or beyond (server-specific configuration)?

Related work

1. Metazones (Vixie), putting configuration in the DNS.
2. draft-sisson-nscp-protocol-00. Never submitted.
3. Netconf (RFC 4741). Too complicated and NIH?
4. SNMP (RFC 1611). History (RFC 3197).

What to do now

1. Discuss requirements,
2. New I-D with consensus requirements if possible. IMHO, we need at least:
   1. avertising/querying list of zones,
   2. updating list of zones.
3. New protocol or reusing an existing one?