Design Choices When Expanding DNS
draft-ymbk-dns-choices-00.txt

Patrik Fältström

paf@cisco.com

What’s up?

- It is acknowledged that people want to store “non-DNS-data” in the DNS
- Adding new data can be done in multiple ways
- Rob Austein and myself felt a document was needed that discussed the alternatives
- IAB has decided this is to become an IAB statement

draft-ymbk-dns-choices-00.txt

Alternatives

- Place selectors inside the RDATA
- Add a prefix to the owner name
- Add a suffix to the owner name
- Add a new Class
- Add a new Resource Record Type

Place selectors inside the RDATA

- example.com. IN TXT “selector data”
- When querying, fetch whole RRset, walk through all records and choose the ones you want
- Size of RRset will grow, and registry for “selector” is needed for the chosen RR type
  - Most people talk about reusing TXT
  - NAPTR do have a registry

Add a prefix to the owner name

- selector.example.com. IN TXT “data”
- Query directly for the records you want
- Potential collisions with existing/new subdomains to example.com

Add a suffix to the owner name

- example.com.selector. IN TXT “data”
- Query directly for the records you want
- Synchronization with example.com domain is hard

Add a new Class

- example.com. SELECTOR TXT “data”
- Query directly for record you want
- New class implies new root, and implications of new root is unknown, including how to walk the DNS hierarchy

Add a new Resource Record Type

- example.com. IN SELECTOR “data”
- Query directly for record you want
- RFC3597 specifies how to handle unknown RR types
- Implementations that conform with RFC3597 is high
- Downside is that implementations of DNS(-like) mechanisms that do not support RFC3597 exists

draft-ymbk-dns-choices-00.txt

Conclusion

- Preferred method is to add a new RR type
- Applications must be compliant with RFC3597
- Input/suggestions appreciated
- Next version of the draft will be draft-iab-dns-choices-00.txt