MIXFR

or how to decrease the packet size of DNSSEC enable zone transfers

draft-mekking-mixfr
Matthijs Mekking, Dyn
Olafur Gudmundsson, Cloudflare

1035: AXFR

A request for a transfer of an entire zone

1995: IXFR

A more efficient mechanism, as it transfers only the changed portion(s) of a zone

Drawback #1

Size of IXFR not so small anymore
in case of DNSSEC re-signing or re-salting

Also generic size improvements can be made

Drawback #2

Does not scale well:
Many zones require many connections

Proposal for #1: MIXFR

MIXFR is a superset of IXFR:
Adding DNSSEC logic to zone transfers,
mainly implicit RRSIG deletion

Fairly low deployment effort:
Similar approach IXFR is to AXFR,
Reuse of RR wire format

Proposal for #2

A new multiplexed zone transfer protocol one a different port

Alternatives

Packet compression:
Good compression algorithms, but RRSIGs don't compress well

rsync:
No discovery mechanism

Do you think
this is useful work?

No
Yes