

# Parameterized Nameserver Delegation with NS2 and NS2T

[draft-tapril-ns2-01](#)

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# Overview

- 2 new RRtypes. NS2 and NS2T to allow connection parameters to be encoded in the nameserver lookup
- Can co-exist with existing NS records and support a phased transition/rollout
- Uses the [DNS SVCB](#) format record encoding and formatting

# NS2 RRType

- Exists at zone cuts, indicative of a delegation.
- May be present in the child or parent. (If in parent, suggested in child)
- Uses both forms of the DNS SVCB record, Service Form and Alias Form
  - Service form: Standard delegation, includes parameters about delegation
  - Alias Form: Points to another set of NS2/NS2T records which can identify the authoritative nameservers or alias further

# NS2T RRType

- Not found at a zone cut
- Referred to by either a NS2 or NS2T record
- Uses both forms of the DNS SVCB record, Service Form and Alias Form
  - Service form: Used when directing resolution to a set of nameservers
  - Alias Form: Points to another set of NS2/NS2T records which can identify the authoritative nameservers or alias further

# Changes since -00

- Removed DS and DNSKEY SvcParamFields
- Removed IPv{4,6}Hints SvcParamFields

# NS2 / NS2T SvcParamKeys

- transports: The dns protocol to use for this record (eg: do53, dot, doh, doq)
- dnsDotEarlyData: Should DoT allow TLS early data, for example [rfc8446#section-4.2.10](#)
- dnsDohURITemplate: The DOH URI template
- esniconfig: Encrypted servername indication for TLS 1.3
- dnsTlsFingerprints: Contains the same information as a TLSA record
- ~~● ds, dnskey: Encoding the DS and/or DNSKEY information for the specific server indicated in the NS2/NS2T record~~
- ~~● ipv4hint, ipv6hint: Equivalent to glue records~~

# Changes since -00

- Updated when to sign the NS2 / NS2T records (not signed at the parent)
- Added a statement that the parent records are glue and should not be signed
- Attempted to clean up the introduction, goals and motivations sections
- Added a privacy considerations section
- Added more clarity around when to include/expect the NS2/NS2T records
- Added a note that CNS2 will not be included in this draft
- Added a prohibition for NS2 and NS2T existing at the same name

# Open Questions in -01

- Should NS2T be replaced with SVCB a record with a `_dns` prefix on the label?
- How can downgrade be prevented when the parent does not support encrypted transport?



Questions / Comments / Reviews?