

A horizontal banner with a dark blue background. On the left, there is a glowing blue globe showing the Americas. The background features a grid of white lines and a stream of white binary code (0s and 1s) that appears to be flowing from left to right.

Deploying DNSSEC



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The banner features a blue background with a globe on the left and binary code (0s and 1s) on the right. The title "DNS Admin – Pre DNSSEC" is centered in white text.

DNS Admin – Pre DNSSEC

- Initial Setup (occurs once)
 - Setup conf file with original zones and parameters
 - Set serial to first value, and add in resource records
- Operations (Very Infrequently):
 - Add to conf file when new zone comes online
 - Make change to resource records and increment serial
- Monitoring:
 - check that update made just happened and hit secondaries
 - check that DNS, NTP is running
 - check that transfers are working

A blue banner with a globe on the left and binary code (0s and 1s) on the right. The text "DNS Admin – Post DNSSEC" is written in white, bold, sans-serif font across the center.

DNS Admin – Post DNSSEC

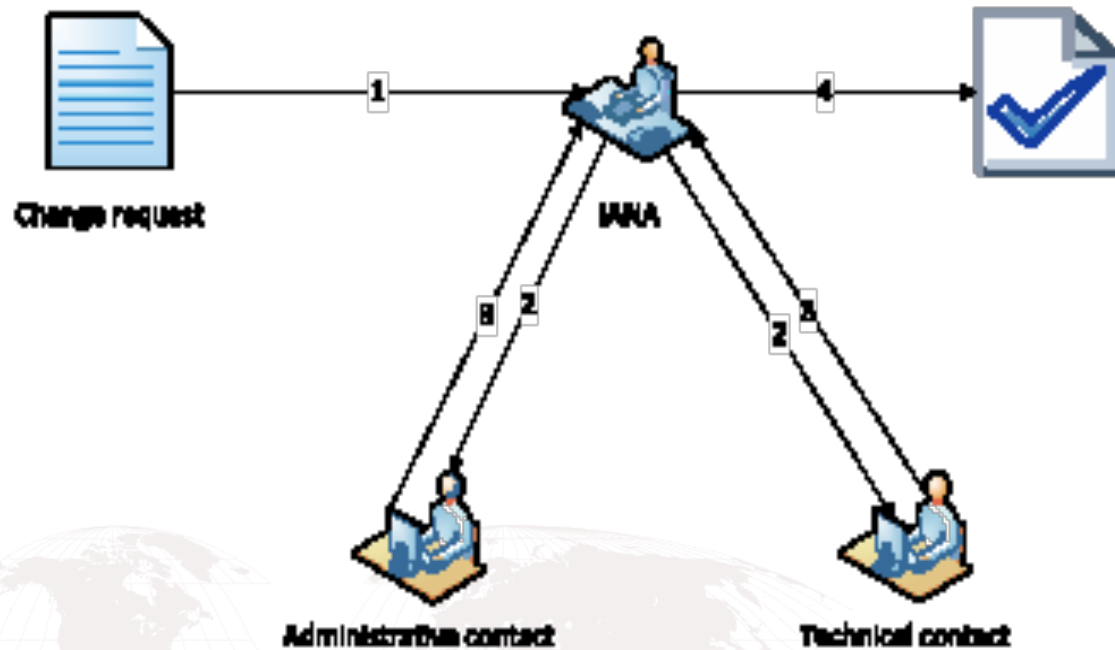
- DNSSEC Setup (occurs once)
 - Decide on signing solution, signing frequency, signature expiration, key rolls
 - Generate initial keys
 - Sign zone(s) initially
 - Make sure registrar supports DNSSEC
 - Generate initial DS records - and send to registrar
- DNSSEC operation (very infrequently)
 - Generate new keys
 - Generate new DS record (if rolling KSK), send to registrar
 - Begin signing with new keys
 - Deprecate old keys at appropriate time



DNSSEC Admin – Post DNSSEC continued

- DNSSEC operation (frequent)
 - Re-sign zone
 - Sign new records as they come into the zone
- Monitoring
 - Check signatures are valid
 - Check NSEC / NSEC3 records are valid
 - Check signatures will not expire before next zone re-sign
 - Check zone re-signs work and transfer
 - Check that new keys are valid
 - Check signature with new keys valid
 - Ensure DS in parent is in sync w/ DNSKEYs in apex

Current IANA process



1 – Change request is sent to IANA

2 – IANA sends a request for acknowledgment to Admin and Tech contacts

3 – Admin and Tech contacts send acknowledgment of change to IANA

4 – IANA makes the requested change



IANA process – Challenges

- The IANA process requires confirmation from BOTH admin and tech contacts for publication.
 - Contacts can change jobs
 - Contacts can change locations
 - Keeping IANA contact information current may not be top priority for some TLD operators
- IANA will not approve changes which may affect stability/service for the TLD
 - Nameservers in the TLDs apex NS Set must be upgraded to "DNSSEC-Ready" versions