

Implementing DNSSEC at the Root

NTIA – ICANN – VeriSign

ICANN DNSSEC Workshop
June 24, 2009

Notice of Inquiry

- NTIA issued a Notice of Inquiry (NOI) on the implementation of DNSSEC at the root zone level on October 9, 2008.
- Fifty five (55) comments from industry, non-profit organizations, academia, and individuals were submitted by the November 24, 2008 deadline.
- <http://www.ntia.doc.gov/DNS/dnssec.html>

NOI Results

- The NOI process revealed almost unanimous consensus among the 55 respondents that DNSSEC should be implemented at the root zone level.
- Other important points raised through the process:
 - Implement DNSSEC as soon as practically possible,
 - Implement in a manner that maintains the security and stability of the DNS,
 - DNSSEC implementation should be aligned with functions of the root zone management process,
 - DNSSEC is about data, integrity, and authenticity – not control.

Post NOI – Moving Forward

- DNSSEC to be implemented with a goal of a signed root by the end of 2009.
- An interim approach closely aligned with the existing root zone management process will be utilized to ensure rapid implementation while maintaining the security and stability of the DNS.
- Once implemented, interim approach will be reviewed taking into consideration any advancement in technology, process and/or procedure related to DNSSEC, to determine whether the approach needs to be adjusted.
- This is an iterative process that will include ongoing consultation with the DNS technical community.

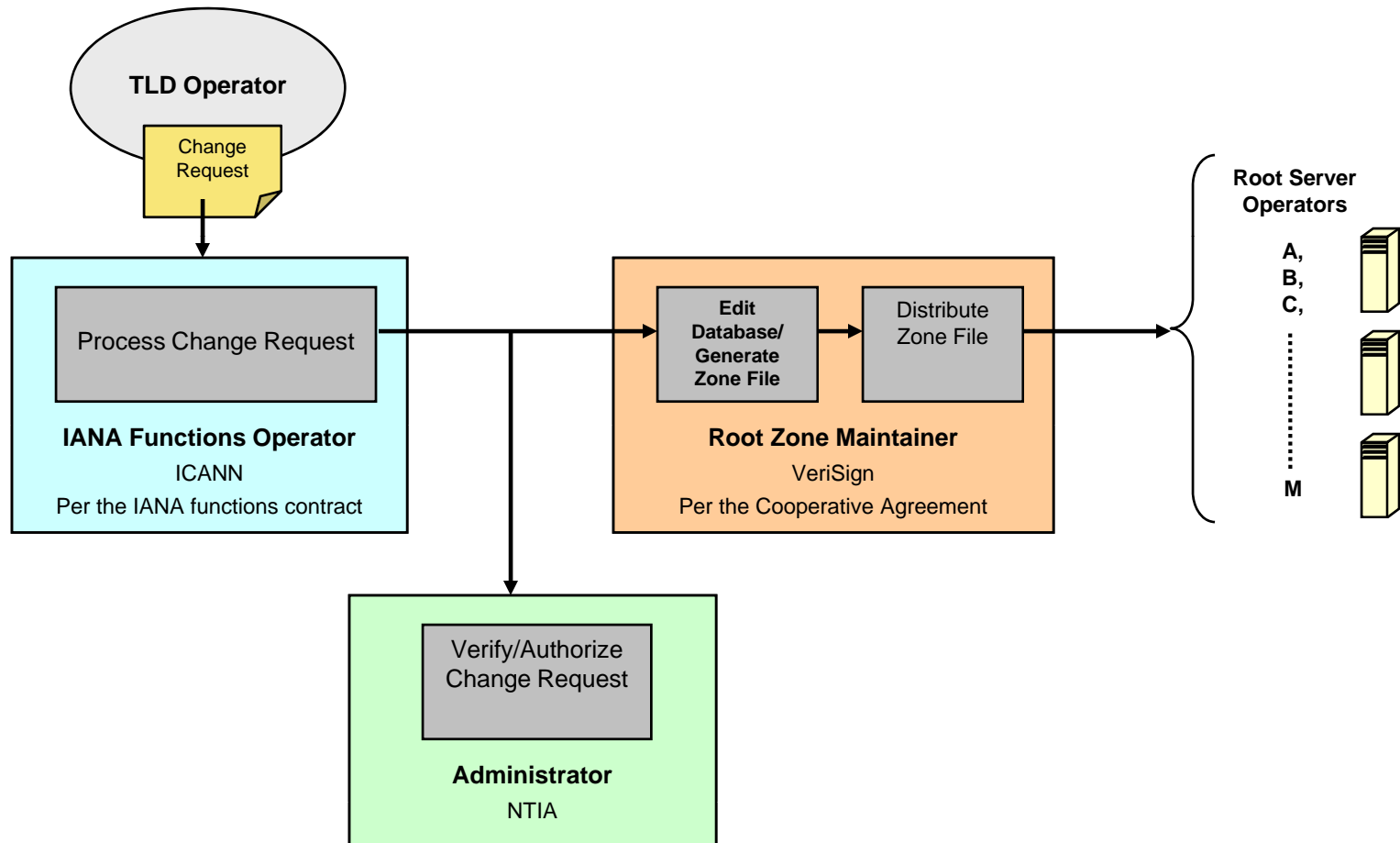
Basic Architecture

- IANA Functions Operator (ICANN) Responsibilities
 - Root Key Signing Key (KSK) management process, in consultation with VeriSign.
 - Publication/Distribution of the Root Key
 - Receive and process TLD public key information

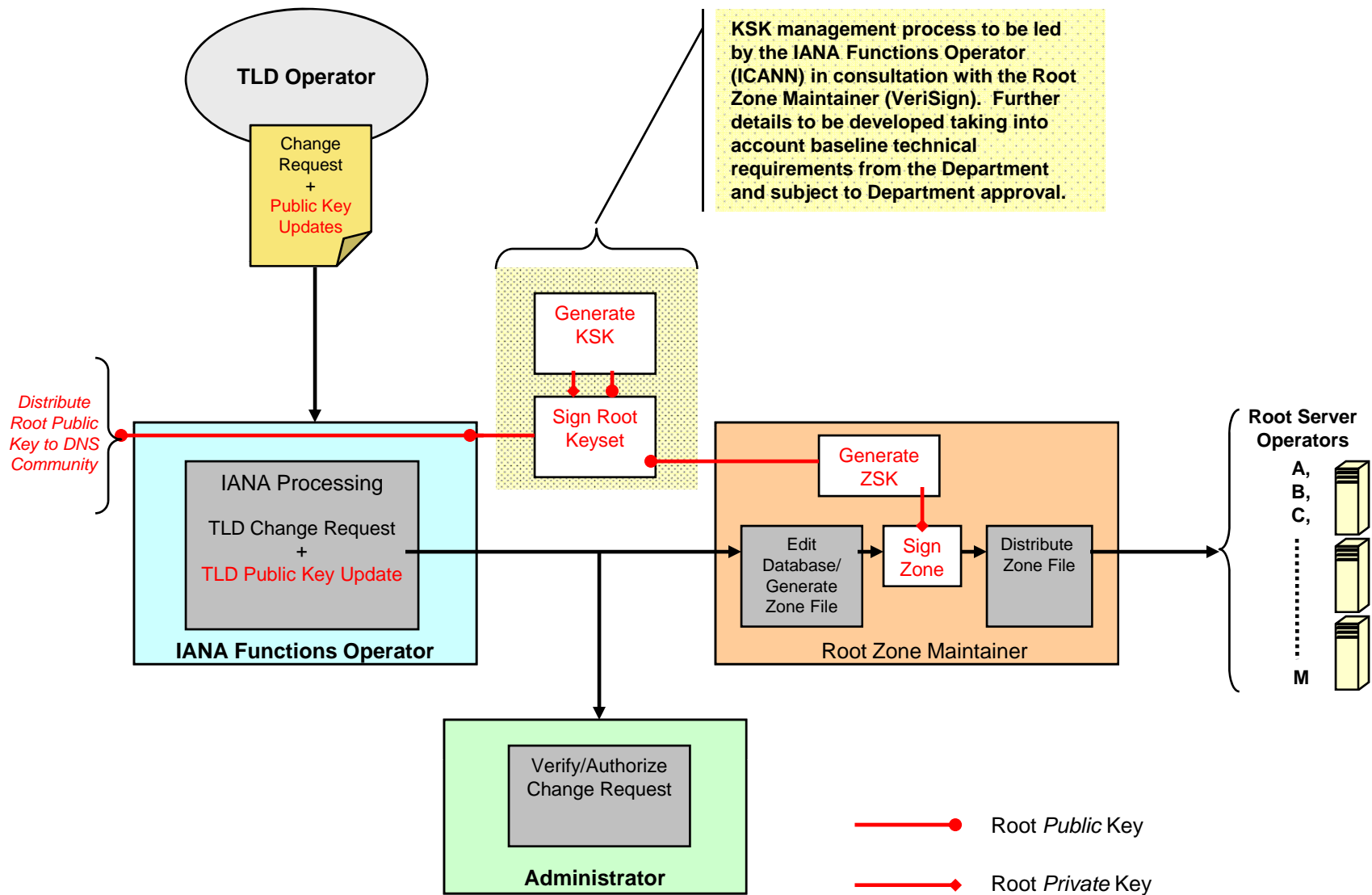
Basic Architecture

- Root Zone Maintainer (VeriSign)
Responsibilities
 - Sign Root Zone as a part of existing root zone generation and distribution responsibilities
 - Management of the Zone Signing Key (ZSK) process, in consultation with ICANN

Current Root Zone Management



Root Zone Management + DNSSEC



Next Steps

- Seek input on draft technical requirements from technical community
- ICANN and VeriSign to draft testing and implementation plans
- Consult with technical community on draft testing and implementation plans
- Initiate testing