




DNSSEC Implementation in .BG

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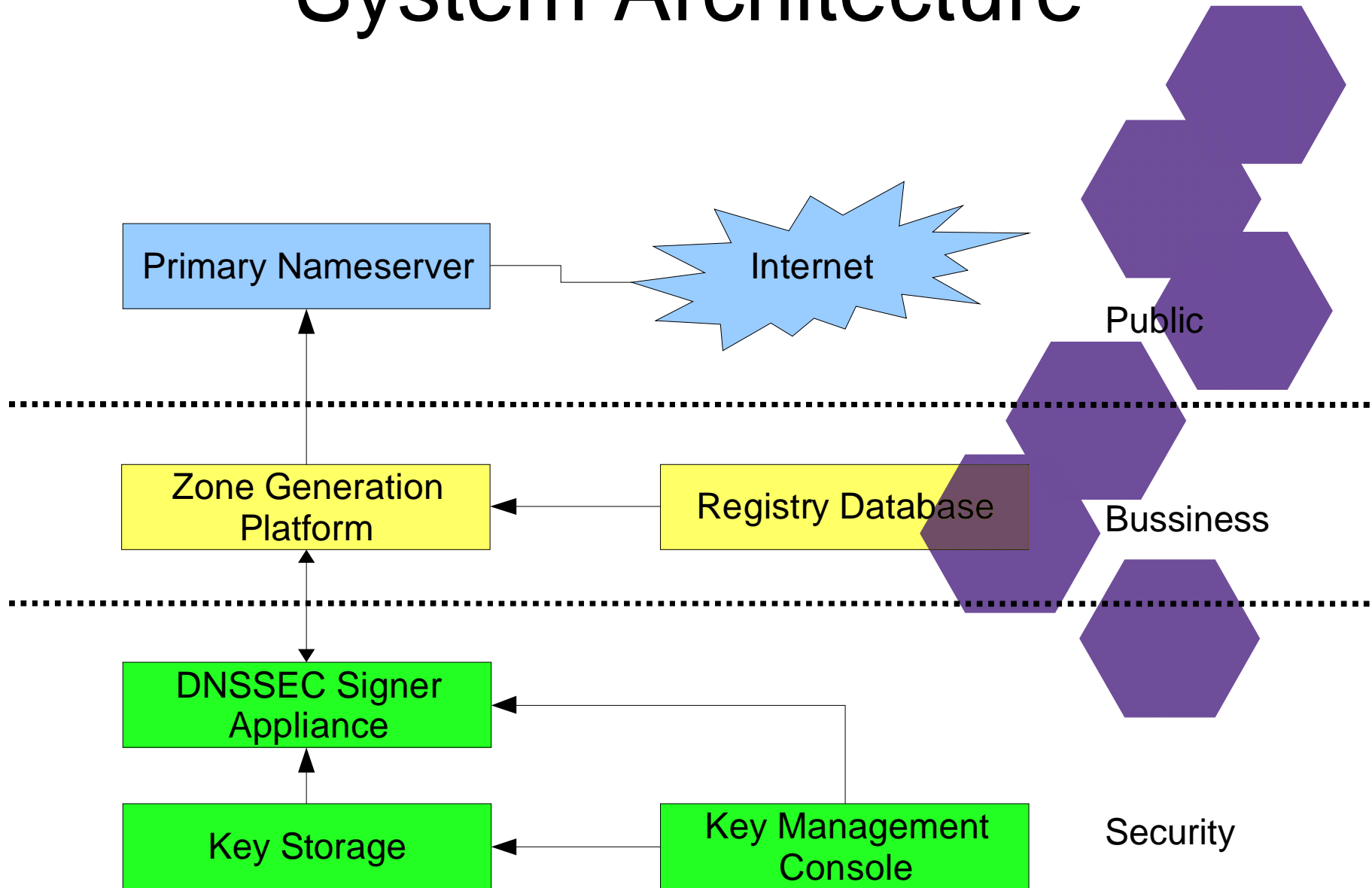
Why?

- DNSSEC seen as essential part of DNS Service.
 - Mature technology – many years of development and experiments.
 - Improves the quality of registrations.
 - Better authentication of registrants.
 - Improvement in security.
 - Pioneering technology and implementation for the Registry.
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Design Goals

- Software design goals
 - Use publicly available, open source tools (BIND9, RIPE DISI Tools)
 - Build proprietary glue software, tailored to the specifics of the Registry
- Key signing platform design goals
 - Readily available off the shelf components
 - High scalability and availability
 - Constrain costs
 - Adequate security

System Architecture



Registrant Interface

- .BG Registrants can request secure delegation from the Registry.
- Fully integrated into registry system.
- Digital signature certificate as the only authentication method.
- DS records treated the same as NS records.
- Only DS records processed/stored.
- Accept only published hash algorithms.
- Only syntax checks at present.

Timeline

- September 2005 – initial implementation plans
- September 2006 – signature infrastructure setup, initial platform testing, few BG subdomains signed
- January 2007 – BG zone signed in production (second TLD to implement DNSSEC after .SE in production)
- October 2007 – Delegation signing user interface in production, DNSSEC at .BG considered complete.

Statistics and Observations

- Over 80 DNSSEC enabled zones in .BG as of August 2008
- Resistance by ISPs and DNS service providers due to lack of competence and fear of increased workload
- No immediate interest in DNSSEC deployment by Government agencies. But there is progress.
- End-users do not see immediate benefits of DNSSEC.

Future Plans

- Add user and registry initiated validity tests for DNSSEC enabled registrations
- Publish more DNSSEC related documentation
- More training and dissemination meetings
- Pilot projects and know-how transfer
- Publish detailed KSK rollover schedule

Thank You

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