Where does DNSSEC stand in .gov? A status update

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FOSE
Deployment diaries: DNSSEC in U.S. federal systems and beyond
July 20, 2011
10:15am
Federal Network Security Branch

- National program which is part of the DHS National Cyber Security Division (with US-CERT, NCS, etc); does not manage DHS internal IT networks.

- Assigned as the executive agent for Office of Management and Budget (OMB) cybersecurity initiatives and FISMA reporting (OMB Memo M-10-28)

- Focused on providing the means to enable long-term strategic prevention of attacks against federal government networks by addressing common challenges faced by all Federal civilian agencies
  - Policy Analysis, Architecture (N&IS), Procurements (RAS), Assessments (CAP), and Reporting (CPM/FISMA)
Agency DNSSEC Responsibilities

- OMB Memo M-08-23: Securing the Federal Government’s Domain Name System Infrastructure
  - achieve the goal of fully operating DNSSEC signed .gov sub-domains by December 2009

- TIC Reference Architecture v2.0
  - TIC Access Providers (TICAPs) resolvers must validate DNSSEC signatures for domains looked up by agencies
Agency DNSSEC Signing Trends through July 5, 2011

Tiger team launched
Common Implementation Challenges

- Agency Reported Impediments to DNSSEC Implementation
  - Vendors support/solutions not ready
  - Technical problems with signing software and key exchanges
  - Lack of managed DNSSEC solutions
  - Infrastructure upgrades needed
  - Funding and resources needed
  - Contractual barriers with vendors and agency sub components
  - Personnel management and training
  - Communication and governance
FNS Initiatives for DNSSEC

- **DNSSEC Tiger Team**
  
  [https://max.omb.gov/community/display/ITI/FNS+Tiger+Team+-+DNSSEC+and+Email+Authentication](https://max.omb.gov/community/display/ITI/FNS+Tiger+Team+-+DNSSEC+and+Email+Authentication) (requires a .gov or .mil e-mail address to register)

- **DNS Reference Architecture**
  
  [https://max.omb.gov/community/display/DHS/Domain+System+%28DNS%29+and+DNS+Security+Extensio](https://max.omb.gov/community/display/DHS/Domain+System+%28DNS%29+and+DNS+Security+Extensions+%28DNSSEC%29) (requires a .gov or .mil e-mail address to register)

- **DNSSEC capabilities in the TIC Architecture v2.0**

- **DHS Compliance Assessment**

- **FISMA Reporting**

- **Weekly DNSSEC Scans of TLDs**
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