

Building the DNSSEC Deployment Road Map

Steve Crocker & Russ Mundy

Amsterdam

May 3, 2004

Objectives

- DNSSEC spec is done
 - It's taken more than ten years; still loose ends
- Will deployment happen easily?
 - Probably not
- What hurdles? What interdependencies?
- We want to bring the issues to the surface
 - Public visibility of road map & info
 - Useful measures of progress

Deployment Steps

- **Design & Specification**
- **Implementation**
- **Product**
- **Education (Marketing)**
- **Procurement and Installation**
- **Training**
- **Operational Procedures**
- **Error and Incident Handling**

Phases

- Empty
- Isolated – a few signed zones
- Sparse – many signed zones but still rare
- Dense – many signed zones
- Complete – (virtually) all zones signed

Expected Output

- Understanding and buy-in from key people and organizations
- Increased clarity on existing topics
- Identification of new topics
- Formation of small groups to focus attention on these topics
- Rough Cut Road Map

Some Specific Topics

- Key Management Procedures and Tools
 - Special emphasis on the root key and root zone
- Anchor points
 - Creation, promulgation
- End system procedures
- Training
- Privacy considerations (zone walking)

Talks

- Ihrén Body Parts
- Kolkman Sequence, Dependencies
- Ihren View from the Root
- Bosvinkel ccTLD Registry Impact
- Van Pelt DNS at BIT, Registrar view
- Schlyter Root Key Management
- Kolkman Key Management
- Rose Last hop
- Ihrén Operational Deployment
- Barton Root key mgmt & dist'n

Conclusions(?)

- Haven't laid the privacy issue to rest yet
 - Zone walking via NSEC
- Server side looks pretty good
 - Some question re very large zones
- End systems will be the biggest headache
 - Getting code
 - Local policies
 - Treatment of failures

More Conclusions(?)

- Lots of operational details to work out
 - Key distribution and roll over schemes
 - Time to live
- Training material, policy advice is crucial
 - Vast majority of operators and users won't have an independent sense of what policies to adopt.

Next Steps

- Parallel meeting in San Francisco May 23
- Formation of steering group to build, maintain road map
- Road map
 - Sequence of steps
 - Identification of risks
 - Milestones and measures of progress

<http://www.sdl.sri.com/other/dnssec>