Simplifying DNSSEC: The need for a 1-click solution

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Agenda

- About Afilias

- DNSSEC Deployment and Adoption

- Forward momentum

- Options for End User Deployments

- 1-Click DNSSEC

- Next steps

- "Proof of Concept"

Afilias supports 15 TLDs

- Provides a world class technical solution
- Scale/Knowledge/Experience of 14 million+ registrations

Generic & Sponsored TLDs

Country Code

New Managed DNS Service

- Launched in February 2009
- Security through diversity
  - Most globally, diverse DNS infrastructure available
  - Multi-tiered design with diversity built into every layer
    - Running both BIND + non-BIND
    - Diversity in hardware providers
    - Diversity even in DNS providers
  - Ensured there is never a single point of failure
- Easy Web-based management interface
  - Transparency, advanced reporting, account security
- DNSSEC enabled

Afilias DNS network

Americas (9)
- Atlanta
- Boston
- Washington DC
- New York City
- Palo Alto
- Los Angeles
- Miami
- Seattle
- Toronto

Europe (4)
- Amsterdam
- Paris
- Frankfurt
- London

Asia (3)
- Hong Kong
- Tokyo
- Singapore

Africa (1)
- Cairo

Pacific (1)
- Sydney

Please note, this schematic does not represent all connectivity points on Afilias' network.

D N S S E C
Deployment & Adoption

What's the tipping point?

Stagnation

Adoption

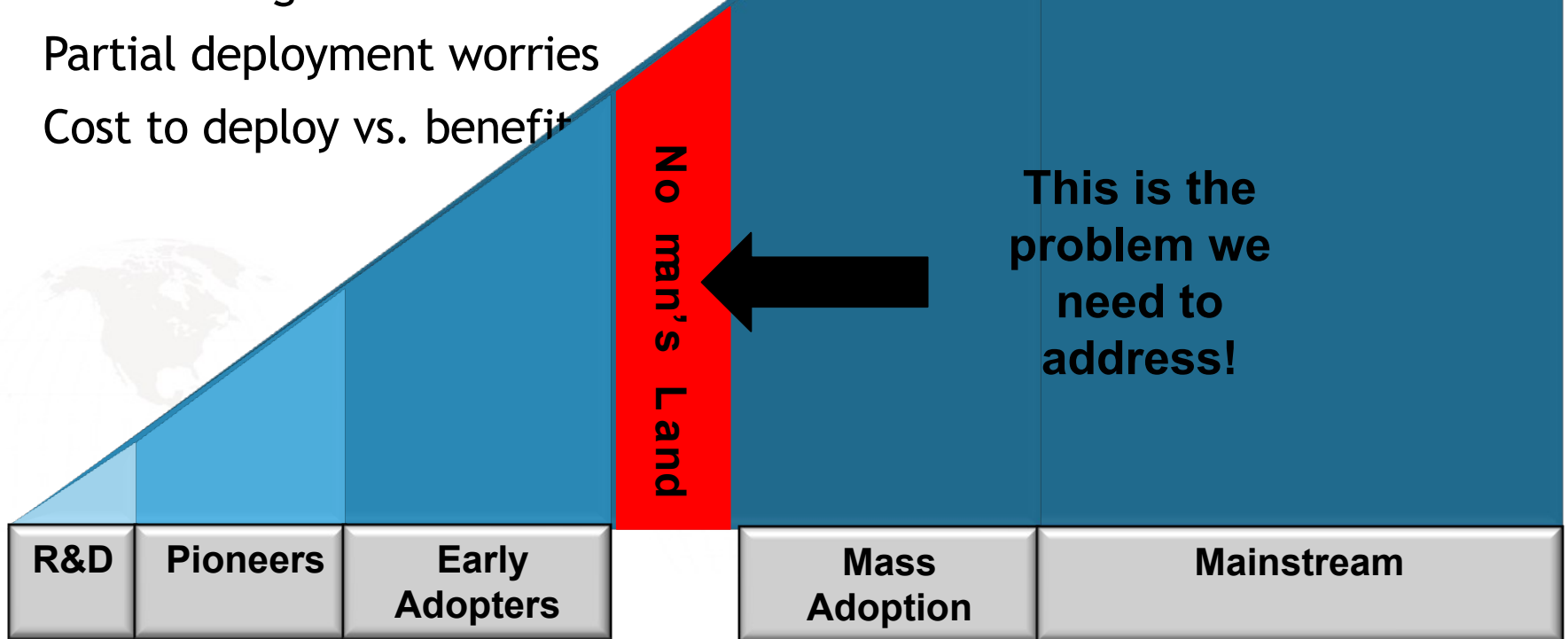|	
Complexity	TLDs being signed (.org, .gov)
Costs	Testbed deployments
Unsigned Root	New hardware & software solutions

Getting to the mainstream

What are the problems with getting to mass adoption?

- Not enough early adopters
- Complex to implement
- Root not signed
- Partial deployment worries
- Cost to deploy vs. benefit

No man's Land

This is the problem we need to address!

R&D	Pioneers	Early Adopters		Mass Adoption	Mainstream

- Option 1: Do it yourself requires:
  - Hardware and software costs
  - Overcome complexities of key distribution
  - In-house expertise, typically not mission critical
  - Risks of website being inaccessible , if done incorrectly

If a site owner selects this they will have to manage:

- New DNSSEC software
- New DNSSEC hardware
- Generating keys – KSKs, ZSKs
- Loading keys for each zone
- Generating and storing DS records at the registrar
- Key rollover

This is NOT a core business function for most organizations!

Choices to adopt DNSSEC

- <u>Option 2:</u> Outsource
  - Fixed cost
  - No expertise needed
  - Complete end- to-end solution

Requires:

- Known provider with global DNS infrastructure and experience in DNSSEC
- Simple interface for signing and management
- Relationships with Trust Anchors and DNSSEC industry leaders
- Service Level Agreement and Contract

Afilias introduces...

With 1-Click DNSSEC you can have the security of DNSSEC and the convenience of effortless management, all rolled into one solution.

1-Click DNSSEC™

- Simple and cost-effective solution to implement D N S S E C **with just one click!**
  - no new customer hardware or software
  - No key management
- Add-on service to Afilias' Managed DNS
  - Automatic creation of the public/private keys
  - Seamless key management and key rollover
  - Easy coordination with participating ICANN-accredited registrars due to Afilias' registry system
  - Distribution of public keys to parent zones, Trust Anchor Repositories and DNSSEC Look-Aside Validation (DLV) registries.

Next steps?

- End-to-end test is needed

- Key members of the community need to participate
  - Registries with signed TLDs (create signatures w/ DS)
  - Registrars (send keys / DS records)
  - DNS providers (generate keys / DS records)
  - "trust anchors" (iTARs, DLVs)
  - ISPs (send DNSSEC queries / validate responses)
  - End users (applications using DNSSEC)

"Proof of Concept" phases

Test customers → Full end-to-end test → Evaluation & Analysis → Retail product availability

Accepting Participants

Registrars + Registrants that are:

- ✓ Considering DNSSEC implementation in 2009
- ✓ Have more than 100,000 queries per month to their DNS
- ✓ Currently using a outsourced or in-house DNS solution with a defined Service Level Agreement (SLA)
- ✓ Have a .info, .org or .gov domain in their portfolio.

Interested?
See us after the presentation or visit our booth!

Thank you!

For more information visit:

www.afilias.info/1-click-dnssec