APNIC reverse DNS management roadmap

DNS operations SIG, APNIC 21
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Overview

- Current system
- Potential problems and issues
- New system
- Benefits to community
- Transition
- Schedule
- Discussion
Current system

APNIC whois

RIR/NIR shared zone set

Lameness checks

DNS generation process

APNIC master DNS

Publish zone files

Verify NIR zone set

Registry DB

Allocation data

Registry generation process
Problems & issues

- APNIC whois
- RIR/NIR shared zone set
- Lameness checks
- Allocation data
- DNS generation process
- Registry generation process
- DNS DB
- Registry DB
- Published zone files
- NIR shared zone failed to publish
- Unable to verify
- Failed due to security patch on 22 Oct 05
- NIR shared zone failed to publish
- APNIC master DNS
Other possible issues!

- Race condition!
- Consistency!
- Connectivity!
- Serialised!
- Duplicate data!
New system

DNS generation process

APNIC whois

Lameness checks

XML web services

NIR/RIR/member zone delegation updates

DNS DB

Registry DB

APNIC master DNS

APNIC whois
Benefits to community

• Stable generation of DNS
  – Generation independent of update
  – Last known (good) data always used
• Secure consistent update mechanism
  – Certificate based access controls
  – Encrypted transaction
• Scalable and extensible
  – One zone or 000’s of zones
  – Future support for DNS developments
Transition

• NIR
  – Gather NIR feedback
  – Progress prototype to production
  – Convert NIR to using XML/web, assist the NIRs where necessary for integration to their registry systems

• Member
  – Adjust tools for member use
  – Communicate a cutover date
  – Make tools available
  – Migrate ‘email’ update members to tools
    • MyAPNIC
    • XML client
  – WHOIS becomes read-only for DNS
Schedule

- Pending work assessment
- To be announced by APNIC 22
Discussion

• Questions?