DNSSEC, APNIC, & how EPP might play a Role

Ed Lewis
DNS SIG
APNIC 21
Agenda

• Reverse Map Interfaces
• EPP and Number Registries
• DNSSEC and Number Registries
• EPP extensions for DNSSEC
• Passing DNSSEC Data
• Quick Demo
Reverse Map environment

IANA

RIR

NIR

Where DNSSEC data might flow (administratively)

LIR

(sub)LIR

Internet User

DNS Operator

IP space holder
EPP and Number Registries

• EPP (RFC 3730+) written for ICANN-style registrars and registries
  – "Business to business"
• Potentially helpful to RIRs
  – Marginal benefit, not worth the change
• DNSSEC interface might suggest a look
  – Maybe, maybe justifies use by the RIRs
DNSSEC

• Adds secure records to DNS
  – RFC 4033-4035
  – Parent will have to publish DS records
• RIPE NCC has signed their zones
  – Open for RIPE IP range holders
• DNSSEC DS RRset is posted to RIPE
  – Via a "ds-rdata" attribute
EPP-DNSSEC

• RFC 4310
• Adds a means to transfer DNSSEC administrative data via the provisioning interface for domains
  – DS or DNSKEY
  – Request max signature time
• An extension to EPP's base definition
Passing DNSSEC Data

• Increased frequency
  – Not a "one time set up", a recurring relationship

• Increased bulk
  – DS records have quite a few "random" characters, hard to type correctly
Quick Demo

• This was used to update the RFC prior to publication
• "Shows" more than "does", but shows it works
Window Layout

EPP Client

EPP

EPP Server

Log File

DNS Update Client

Dynamic Update

TLD Server Running

Registrant DNS "work directory"

Cut&Paste