Updated ENUM Instructions

Gone, but no longer forgotten

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History of e164.arpa

- ENUM maps the E.164 phone numbers into DNS

  - RFC 2916 (Sep. 2000), 3761 (Apr. 2004), 6116 (Mar. 2011)

- RIPE NCC is operating the global e164.arpa zone

  - Under instructions from the Internet Architecture Board (IAB)

  - In close coordination with the ITU Telecommunications Standardisation Bureau (TSB)

  - The instructions had been last revised in 2004

- RIPE ENUM Working Group

  - June 2004 - November 2013, merged with the DNS WG per RIPE 66

Current Status

- "Public" ENUM in e164.arpa

  - 57 delegations based on E.164 country codes and global services

  - Not much observed usage, probably legacy experiments still around

  - Recent activity includes redelegation of 1.3.e164.arpa (NL)

- "Private" ENUM

  - Not visible in the public DNS

  - Very popular amongst mobile network operators

  - Impossible to provide usage statistics

The Problem

- Over time, many of the public delegations have deteriorated

- Based on the current 57 registered domains:

  - 1 temporary delegation expired, but is still working

  - 2 delegations never completed the technical setup

  - 4 delegations were deleted from the RIPE Database by assignee

  - 16 delegations experienced technical issues, e.g. lame delegations

  - Many tech-c and admin-c point to stale objects and contact data

The Solution

- Approached IAB in July 2018

  - Shared our concerns regarding data quality

  - Identified a number of issues with the instructions

  - Raised the lack of instructions for deletions and maintenance

- A new set of instructions got drafted

  - Added the procedure for deletions

  - Allowing the RIPE NCC to check registrations pro-actively

- Coordinated changes with ITU-T Study Group 2

  - All changes, including deletions, need to be approved by the government

Cleaning Up

- The new instructions have been signed off by all parties

  - Published on http://www.ripe.net/enum on 2 May 2018

  - ITU-T Study Group 2 have updated their interim instructions to TSB

- We will start looking into all the faults

  - Try and resolve any technical issues and update contacts

  - When necessary: **advise the government to delete a stale delegation**

- Please help us

  - Find the current contacts and establish the chain of custody

Questions ❓

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