IANA ccNSO Update
Kim Davies
ICANN 55, 8 March 2016
Agenda

- Introduction to IANA
- Performance Overview
- Implementing new post-transition performance metrics
- Framework of Interpretation
- RDAP Update
- Other Work in Progress
A reminder: What does IANA do?

We’re record keepers for globally-unique Internet identifiers. For hierarchically assigned identifiers like domain names and IP addresses, we are the registry of registries.

We tend to divide what we do into three primary areas, that represent the major community groups we partner with in doing those tasks:

### Protocol Parameters
- Port Numbers
- Service Codes
- Media Types
- Time Zones
- Private Enterprise Numbers
- Command Flags
- Service Types
- Character Sets
- Property Types
- HTTP Status Codes
- Internet Telephony Admin Domains

### Domain Names
- Root Zone
- TLD\(_1\)
- TLD\(_2\)
- \(\cdots\)
- TLD\(_n\)
- Key Signing Ceremonies
- .arpa registry
- .int registry
- IDN tables
- Label Generation Rulesets

### Number Resources
- IPv4
- IPv6
- AS
- Regional Assignment
- Direct Assignment
- Protocol Assignment

#### Registry Types
- RIR\(_1\)
- RIR\(_2\)
- RIR\(_3\)
- \(\cdots\)
- RIR\(_n\)

**You are here**
Processing times and volumes

- All requests
- Routine requests

Graph showing processing times and volumes from 2014-04 to 2016-02.
SLE Development at IANA

- **Decide what should be measured and reported**
- **Implement changes to existing systems to capture needed data points**
- **Convert raw data into public data streams (event logs, aggregate dashboards)**
- **Finalise which are the key measures and what their thresholds are**
- **Finalise reporting to highlight performance against thresholds**
- **Evolve and adjust reporting based on feedback**

- **Design Team A CWG Final Report**
- **RZMS deployment on 2 March**
- **Tools development commences next week**

*After a period of data collection when trends emerge*
*After ICANN and community agree on thresholds*
*Regular engagement with CSC and periodic reviews*
## SLE Development at IANA

<table>
<thead>
<tr>
<th><strong>Decide what should be measured and reported</strong></th>
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<tbody>
<tr>
<td>![Document]</td>
<td>![Database]</td>
<td>![Dashboard]</td>
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- **Design Team A CWG Final Report**
- **RZMS deployment on 2 March**
- **Tools development commences next week**

- Provided subject matter expertise to Design Team to identify what is possible
- Implemented technical changes to systems to record new data
- Now developing system to crunch raw data to generate draft dashboards and other reporting
Finalise which are the key measures and what their thresholds are

Finalise reporting to highlight performance against thresholds

Evolve and adjust reporting based on feedback

After a period of data collection when trends emerge

After ICANN and community agree on thresholds

Regular engagement with CSC and periodic reviews
Approved by the ICANN Board at Buenos Aires meeting, sought draft implementation plan from staff

ccNSO appointed liaisons (Becky Burr, Keith Davidson) to work with ICANN staff on developing implementation plan

Meetings have been held with initial clarifying questions posed, more drafting to be done before being ready for public comment and implementation.

Open actions
  - Response from ccNSO liaisons on open questions regarding manager consent
  - Completion by ICANN of implementation plan dependent on ccNSO clarifications
RDAP Support

What is RDAP?
Registry Data Access Protocol (RDAP) is a newly developed technical standard from the IETF that provides next generation access to registration data. It is intended to be a successor to the WHOIS protocol, but can run in parallel with existing WHOIS servers.

IANA’s Role
One of the features RDAP has over WHOIS is automatic discovery of RDAP servers. You no longer have to manually find where the right server is for the data you are looking up, the protocol will do this automatically. It does this by using “bootstrap registries” that are published as an IANA service.

What’s new
We have implemented bootstrap registries for IPv4, IPv6, AS numbers and Top-Level Domains. TLD Managers are now able to log into our Root Zone Management System to list their RDAP servers to appear in the bootstrap registry for the DNS.
RDAP Support

RDAP clients fetch bootstrap registry which lists known top-level RDAP servers.

```
"services": [
    ["fou", "bar"], ["rdap.registrycorp"],
    ["baz", "rdap.baz.boop"]
...
]
```

Queries are fulfilled by connecting to RDAP servers listed in bootstrap registry.

RDAP Bootstrap Registry

TLD’s RDAP Server
<table>
<thead>
<tr>
<th>#</th>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Parallel Operations</td>
<td>Testing removing NTIA processing by running two services between ICANN and Verisign, ensuring both produce the same root zone.</td>
</tr>
<tr>
<td>2</td>
<td>Label Generation Rulesets</td>
<td>Finalising <em>draft-ietf-lager specification</em> within the IETF with plans to use LGRs in IANA’s workflow and IDN repository.</td>
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<td>3</td>
<td>Rollover of the Root KSK</td>
<td>Community design team has produced a set of recommendations on how to replace the Root Zone key-signing key (KSK) for the first time.</td>
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<td>4</td>
<td>TCR Renewal Process</td>
<td>Finalizing processes to select new volunteers from the community to oversee Root KSK operations, including new travel support options.</td>
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<tr>
<td>5</td>
<td>KSK Access Control Upgrades</td>
<td>Improving logistics with the key ceremony room to enhance security and provide for smoother ceremonies.</td>
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<td>6</td>
<td>RZMS Development</td>
<td>With transition related development completing, re-evaluate work plan on items discussed with ccNSO, including new authorizer model, improved technical checks, bulk updates etc.</td>
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Thank you!

Root Key Signing Ceremony 24
February 2016