IANA Transition: Why do we care?

Paul Wilson
SANOG 28 – Mumbai, India
1 August 2016
Outline

• What’s the IANA?
• What’s the transition and why?
• What’s the plan?
• What’s it mean for us?
• What’s next?
What is the IANA?

- Internet Assigned Numbers Authority
- Originally, one man: John Postel
- Hosted by USC ISI

- RFC 790, 1981:
  - “The assignment of numbers is also handled by Jon. If you are developing a protocol or application that will require the use of a link, socket, port, protocol, or network number please contact Jon to receive a number assignment.”

- 1988: Operation under contract with the US Government
What does the IANA do?

The Internet Assigned Numbers Authority (IANA) is responsible for the global coordination of the DNS Root, IP addressing, and other Internet protocol resources. Learn more.

<table>
<thead>
<tr>
<th>Domain Names</th>
<th>Number Resources</th>
<th>Protocol Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>IANA manages the DNS Root Zone (assignments of ccTLDs and gTLDs) along with other functions such as the .int and .arpa zones.</td>
<td>IANA coordinates allocations from the global IP and AS number spaces, such as those made to Regional Internet Registries.</td>
<td>IANA is the central repository for protocol name and number registries used in many Internet protocols.</td>
</tr>
<tr>
<td>- Root Zone Management</td>
<td>- IP Addresses &amp; AS Numbers</td>
<td>- Protocol Registries</td>
</tr>
<tr>
<td>- Database of Top Level Domains</td>
<td></td>
<td>- Apply for an assignment</td>
</tr>
<tr>
<td>- .int Registry</td>
<td>- Network abuse information</td>
<td>- Time Zone Database</td>
</tr>
<tr>
<td>- .arpa Registry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- IDN Practices Repository</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What does the USG do?

• IANA Functions Contract
  – USG “Stewardship” since 1988
  – Originally with USC
  – Defines IANA activities and responsibilities

• Root zone changes
  – USG authorises all changes to the DNS root zone
  – Verifies ICANN has followed documented policies

• “Adult Supervision” for IANA operator

• No USG involvement in other IANA activities
  – e.g. in IP address allocations
The new IANA?

• 1998: Green and White papers on “NewCo” (ICANN)

• White Paper:

  “… US Government would continue to participate in policy oversight until such time as the new corporation was established and stable, phasing out as soon as possible, but in no event later than September 30, 2000.”
1998:

- 1998: USC transition agreement, transferring the IANA project to ICANN, from 1999
- 2000: USG Department of Commerce agreement with ICANN to perform the IANA functions
- ...
- 2014: USG Department of Commerce announces transition of IANA stewardship to the Internet community
What is this “Transition”?  

- End of the IANA Functions Contract  
  - Transfer responsibility to another set of arrangements with the “multistakeholder community”  
  - Fulfilling original purpose of ICANN (originally 2000)  

- Why?  
  - Removal of special role/status of USG  
  - As described by US policy in the White Paper  
  - As expected and demanded by global community  

- What will change?  
  - Authority, accountability, dispute resolution  
  - Nothing at all practically or operationally
The USG requirements

- Support and enhance the “multistakeholder model”
- Maintain the security, stability, and resiliency of the Internet DNS
- Meet the needs and expectation of the global customers and partners of the IANA services
- Maintain the openness of the Internet

And…

- NTIA will not accept a proposal that replaces NTIA role with a government-led or an inter-governmental organization
The Transition Plan

• ICG formed to develop the transition plan (2015)
  – 30 members representing entire community

• ICG plan
  – Identified 3 operational communities: Names, Numbers, Protocols
  – Called for 3 separate community processes
  – Final plan included all three, with conflicts resolved
  – Plan was submitted to NTIA in March 2016

• But: also depends on improving ICANN’s “accountability”
  – Required by NTIA and the Names community
  – Separate planning process assigned to “CCWG”
ICANN Accountability

• Revision of ICANN structural model
  – Communities have status as a “Designators” of board

• Revision of ICANN bylaws
  – Fundamental and Standard Bylaws
  – New and clearer community powers
  – Remove individual ICANN Board Directors;
  – Recall the entire ICANN Board

• Two Workstreams
  – WS1
  – WS2
Timeline

<table>
<thead>
<tr>
<th>Event</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTIA announcement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICANN transition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICG</td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>CRISP</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ianaplan</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICG</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICANN accountability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCWG WS1</td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>ICANN submission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICANN implementation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCWG WS2</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>NTIA evaluation</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>IANA contract ends</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
</tbody>
</table>
CRISP timeline

<table>
<thead>
<tr>
<th>CRISP activity</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICG</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>ianaxfer@nro</td>
<td></td>
<td></td>
</tr>
<tr>
<td>APNIC38</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>ARIN34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LACNIC22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RIPE69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFRINIC21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRISP nominations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRISP announcement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRISP activity</td>
<td></td>
<td>✔</td>
</tr>
</tbody>
</table>

1st draft 19 Dec
2nd draft 8 Jan
Final proposal 15 Jan

14 CRISP team teleconferences In 8-week period
CRISP proposal

1. ICANN continues as IANA operator
   - Subject to review in case of failure
   - ICANN can subcontract (to “PTI”)

2. RIRs replace USG in contracting ICANN to run IANA
   - Contractual “SLA” to define the terms
   - Drafted, but still pending negotiation with ICANN

3. IANA IPRs to be transferred to neutral party
   - IETF Trust is the proposed IPR holder
   - Terms are still under discussion

4. IANA performance review
   - Regular review by independent body
Recap

• Community efforts
  – 26,000 working hours (est)
  – 33,000 mailing list messages
  – 600+ events where

• “Multistakeholder” process
  – Including all communities and interests
  – Fully transparent and documented

• Final Outcome
What’s next?

• Complete implementation
  – IPR arrangements

• Success
  – IANA contract with NTIA expires in September and transition plan implemented

• Failure?
  – NTIA extends IANA contract for 1 or more years
  – Future opportunity is uncertain
  – Not an option, we hope!
Reminder: Why do we care?

• Ensuring IANA operations continue stably, during and after the transition
• Ensuring that policy processes are protected
• Removing US government’s “special role”
• One extraordinary example of global community participation
Thank you!

pwilson@apnic.net
@apnicdg
Register now

Register by 12 August 2016 to take advantage of the early bird rates for the workshops.

www.apnic.net/meetings
Welcome to the APNIC Survey 2016.

This survey is run every two years to gather feedback from Members and other key stakeholders about APNIC services, the challenges facing the Internet community and where you think APNIC can assist.

The survey helps the APNIC Executive Council (EC) and Secretariat to understand the needs and wishes of the community and the results are used to guide decisions on future priorities and service offerings. The APNIC EC places a high degree of importance on the results from this survey.

The APNIC EC has commissioned Survey Matters to conduct this survey so you can be sure that your answers will remain confidential. Individual responses will not be identified and we encourage you to provide honest and objective feedback. Please note, however, that any free text comments you write will be provided to APNIC unedited (so if you identify yourself by name or otherwise in the free text comments these will not remain anonymous). You can view Survey Matters terms of use at the bottom of each page of the survey.

www.apnic.net/survey