IANA Update

David Conrad
david.conrad@icann.org
General Manager, IANA
ICANN
Overview

- Current Status
- What has improved
- What still needs improvement
- What are our plans
Current Status

- New IANA contract signed 14 Aug 2006
  - 1 Oct 2006 through 30 Sep 2007 (optional extensions to Sep 2011)
- Root Zone Management Services
  - “IANA isn’t the problem anymore” - overheard at CENTR GA
  - Name Management Project Specialist position open
    - [http://www.icann.org/general/jobs.htm#IANAProjectSpecialist](http://www.icann.org/general/jobs.htm#IANAProjectSpecialist)
- IP Addressing Services
  - Global IPv6 policy executed (/12s allocated) and 32-bit ASNs allocated
  - ICANN and RIRs working on an agreement that defines IANA SLAs
  - Leo Vegoda hired as Numbers Liaison (started Dec 1)
- IETF Registry Services
  - Michelle Cotton promoted to IETF Liaison
  - IANA Service Level Agreement with IETF signed
## One Year Ago vs. Today

<table>
<thead>
<tr>
<th>What</th>
<th>1 Year Ago</th>
<th>Today</th>
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<tbody>
<tr>
<td>Staff</td>
<td>5 FTE</td>
<td>10 FTE</td>
</tr>
<tr>
<td>Average Median Process Time</td>
<td>82.88 days</td>
<td>7.94 days</td>
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<tr>
<td>Median Queue Depth</td>
<td>21 reqs</td>
<td>4 reqs</td>
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<tr>
<td>24x7x365 “Hot line”</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Screams of Outrage</td>
<td>Many</td>
<td>Fewer</td>
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What Has Improved

• Services (mostly) better
• Improvement across the board
  • Not without some backsliding
• Sufficient operational staffing
• Formalization of project management
  • IANA has 48 projects underway
• Process documentation
  • Internal “Cookbooks” created for all processes
Service Improvement
Dec 2005 (or earliest data availability) to Nov 2006
Sample Statistics

- Changes to the DNS root databases
- root-mgmt@iana.org

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<tbody>
<tr>
<td>Average</td>
<td>65.70</td>
<td>13.03</td>
<td>80.17%</td>
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<tr>
<td>Std Dev</td>
<td>75.81</td>
<td>7.04</td>
<td>90.71%</td>
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<tr>
<td>Median</td>
<td>33.85</td>
<td>11.69</td>
<td>65.47%</td>
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What Needs Improvement

• Visibility into IANA processes
  • Statistics need to be published automatically
  • Process documentation needs to be made publicly available
• Most IANA processes still too manual
  • Processes need to be simplified and normalized
  • Much more automation required
    • Software development taking (much) longer than anticipated
      • New project management methodologies will hopefully help
• Registry data correctness
  • Efforts underway to clean the data
Near-term Issues

- IETF SLAs imply the need for more automation of IETF services
  - Too much of IANA processing remains manual
  - Initiated a pilot project aimed at XMLizing some IANA registries
- Registries need to be cleaned and contacts validated
  - IPv4 and root zone in particular
- Stronger authorization/authentication needed
  - Driven by IANA contract with the USG, implemented first in eIANA
- Development and implementation of a “Computer Security Plan”
- DNSSEC signing .ARPA and associated infrastructure
  - Key management requires tools
- Deploying new IANA web site and eIANA software for testing

Lots of software development/deployment needed

ICANN São Paulo
Mid-term Issues

- Automation
  - Deploy root zone management (eIANA) in production
  - Develop and deploy IETF-related registry creation/modification
- Addressing single points of failure in IANA processes
  - Both infrastructure and employees
- Increased IANA information availability
  - Real-time statistics, ticket status, interaction history, etc.
  - Online XMLized registry availability
- Working out transition from “USG approval required” model
  - First step: auditability of all IANA actions
Looking Forward

- Areas of interest/concern
  - Root DNSSEC deployment
    - Processes and procedures to be defined
  - Exhaustion of IPv4 free pool
    - Expected somewhere around 2010 - 2015
  - Routing system security and growth
    - Should IANA become X.509 address space CA?
    - What can IANA do to help constrain growth?
- IANA will be exploring what role it has (if any)
Conclusions

• IANA “Crisis” period over
  • Still work to be done
  • IANA is undertaking many automation projects to continue to improve processes
  • Additional work needed in improving visibility of IANA activities