What we’ve been up to in the last two months
ccNSO, ICANN San Juan Meetings, June 2007

Kim Davies
Internet Assigned Numbers Authority
Working 9 to 5.. 6.. 7..
Request load.

- Slowly rising
- Opens (blue) and closures (red) roughly meet = steady state
Processing Times.

- One ticket skews our beautiful trend
<h1>Writing <abbr>HTML</abbr></h1>
A new website.
Root Zone Database

The Root Zone Database represents the delegation details of top-level domains, including gTLDs such as "COM", and country-code TLDs such as "UK". As the manager of the DNS root zone, IANA is responsible for coordinating these delegations in accordance with its policies and procedures.

Much of this data is also available via the WHOIS protocol at whois.iana.org.

---

<table>
<thead>
<tr>
<th>Domain</th>
<th>Type</th>
<th>Purpose / Sponsoring Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>.AC</td>
<td>country-code</td>
<td>Ascension Island</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Network Information Center (AC Domain Registry)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c/o Cable and Wireless (Ascension Island)</td>
</tr>
<tr>
<td>.AD</td>
<td>country-code</td>
<td>Andorra</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STA Servei de Telecomunicacions d'Andorra</td>
</tr>
<tr>
<td>.AE</td>
<td>country-code</td>
<td>United Arab Emirates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Emirates Telecommunications Corporation</td>
</tr>
<tr>
<td>.AERO</td>
<td>sponsored</td>
<td>Reserved for members of the air-transport industry</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Societe Internationale de Telecommunications Aeroutique S.C. (SITA SC)</td>
</tr>
</tbody>
</table>
Some other notable things.

- List of major IANA projects.
- Clearer arrangement of ccTLD procedures and materials.
- All presentations we’ve given in last 18 months.
- IDN Repository improved.
- Information about what IANA is.
- A good foundation to grow the website into the future.
Available now.

beta.iana.org
Working out how the Internet is going to break.
IDNs in the root

- Plan to insert evaluative IDNs in the root as precursor to production launch
- What if the Internet breaks?
- Emergency revocation procedure for evaluative IDNs.
  - Threshold based or manual
  - Pull test delegations quickly, perform a post mortem
- Been open for public comment.
- Procedure before the Board on Friday for approval
Phone calls at weird times of the night.
Root Zone Automation

- We’re ready to start public testing!
- Simon Raveh, our chief developer, is here to talk to you about it.
  - We will arrange some demonstrations to small groups over the next few days.
Where we are

- “Alpha” code complete
  - Does all tasks except name server changes (technical checking functionality still being finalised)
  - End-user interface is maturing
- Over next few months moving toward functional completeness
  - Will ask testers to run requests in parallel with system and our existing process
  - Will seek approvals for deployment
Status View

- Provides new exposure to status of requests without needing to ask IANA
Workflow Automation

- Lodge and view details online through responsive interface
Demonstrations

- We will be giving demos and explanations to smaller groups (based on demand)
  - Today at 1pm in Conference Room 8&9
Testing

- Accepting expressions of interest from testers.
  - Please provide me with your business card
Generating more keys than a locksmith.
Is IANA going to do DNSSEC?

WE ALREADY DO!*
DNSSEC.

KEYGEN

HSM

KSK public, ZSK public and private, keyindex

secure key backup
(pkcs11: C_WrapKey, C_UnWrapKey)

ZONE SIGNER

ZONE GEN

keybundle, current private ZSK

EL SEGUNDO

VPN

AMSTERDAM

HID DEN

ZONED

keybundle, current private ZSK

backup of zone files

HSM

KSK public, ZSK public and private, keyindex

KEYGEN

HID DEN
DNSSEC work at IANA

- Richard Lamb on staff this year working full time on systems development
- Internally signing IANA managed zones since March
- Software production ready for .ARPA by Chicago IETF (July)
- Deployment of signed .ARPA depends on implementation confirmed with various parties
  - Including shifting .ARPA zone to IANA (currently with VRSN)
  - Does .ARPA still stay with the root servers?
Some DNSSEC design decisions

- Model is based primarily on Swedish experience
  - Keys generated offline
  - Currently using smartcards for KSK; moving to HSMs
- We will share our procedures and experience publicly
  - Including custom code we have developed
- DNSSEC mechanisms will be in a dedicated cage in our colocation facilities
... but what about the **root**?

- IANA will wait for policy folks to tell us what to do.
- Until then, building our internal skill-set and systems with the other zones we control.
# (DEMO) DNSSEC Status

Note: This data, including the signed zones, are purely for test purposes and are not to be used in any production capacity. We do not guarantee their availability, and they may not otherwise function from time-to-time.

<table>
<thead>
<tr>
<th>ZONE (serial)</th>
<th>STATE / LAST UPDATED</th>
<th>VALIDITY PERIODS (keyid)</th>
<th>EFFECTIVITY PERIODS (keyid)</th>
<th>TRUST ANCHORS</th>
</tr>
</thead>
</table>
| root          | Ok                   | 2007-JUN-26 (2007062601) | 2007-JUN-26 (2007062601)    | -----BEGIN PGP SIGNED MESSAGE-----
|               |                      |                          |                             | Hash: SHA1     |
|               |                      |                          |                             | $ORIGIN .     |
|               |                      |                          | 86400 IN DNSSKEY 257 3 5   |               |
|               |                      |                          |                             | AwEAAAbgqzQRnvkyj4refIMWXfBFbwAlH5 |
|               |                      |                          |                             | xThDxIls0a36kayqz2Lb30KgAs8EjgXxAgJ3W |
|               |                      |                          |                             | axfVsmw02A8BDbgBwo2L1QyYk2mtdARNgh6 |
|               |                      |                          |                             | LuomiX2mOY2qOw2G/8VXnk0bfmGb9m+OOPn |
|               |                      |                          |                             | o2VSprrKXb52KKE8U74W1HRv3eeLmny/mtiw |
|               |                      |                          |                             | jln70YDr9Ltk0pxgJW5c31+wyl2UY0jNxm |
|               |                      |                          |                             | uGvsi14qg8Oti4wmiKnxgB/BBYFwqSTGA |
|               |                      |                          |                             | sKh9EtVYIkmckF9gGbo3VvG6jnlU3lq |
|               |                      |                          |                             | w1KMS6WogNQHqNq7TnNnC/2x3vHb29cDDR |
|               |                      |                          |                             | XaCkAn9j7hB1+Lr6fIwWE7c= |
|               |                      |                          |                             | } ; key id = 45622 |
|               |                      |                          | 86400 IN DNSSKEY 257 3 5   |               |
|               |                      |                          |                             | AwEAAAdmz/QYi13nLbhegclfBjdzNHy8f7d |
|               |                      |                          |                             | QnLs6Yj3VWVlfUk2d/3yAkJzC7cuO7oOIv |
|               |                      |                          |                             | hsQZyj/g/k/rZpTNPux8sn7OwsaKvmQ/IX2a |
|               |                      |                          |                             | /7Ip0SpU2JBL8cCVoLD90x3Nh/+1XOHnp |
|               |                      |                          |                             | npgAa2Y2HXV/qxchB6gsP+cs/gS2jWvTQDW |
|               |                      |                          |                             | QSKOzBRgdTn1l68kitKpqboyn3K9F3FTsI |
|               |                      |                          |                             | OJrV0mpQb6Z0w2U7g7-98-0OtwCpRt |

## Test zones

- [https://ns.iana.org/dnssec/status.html](https://ns.iana.org/dnssec/status.html)
Speaking in tongues.
IDN Repository Updates

- Improvements to the IDN Repository on the new website http://beta.iana.org/domains/idn-tables/
- First script registration last month (.CL — Latin)
- We would like to invite you to submit your IDN tables
  - Just information sharing.
  - Language or script based.
Standing in front of the firing squads.
Service Level Targets

- Spoke with APTLD and CENTR about IANA service level agreements
- Discussed current process, and current service level obligations
- Noted problems we face (particularly third party reliance)
- Service Level Targets to be set by the community?
  - Consensual review?
- Happy to speak with other communities
Thank you for your attention!
(fire away)

Kim Davies
kim.davies@icann.org