Deprecation of ip6.int reverse DNS service in APNIC

Project update

DNS operations SIG, APNIC 21
2 March 2006
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Overview

• Background
• Proposal
• Project status
  – Observations/statistics
  – Coordination work
  – Schedule
• Q & A
Background

• Use of the ip6.int domain deprecated
  Aug 2001 (RFC 3152)
• BCP 109, RFC 4159 (Aug 2005) states
  “The Regional Internet Registries (RIRs) are
  advised that maintenance of delegation of
  entries in "ip6.int" is no longer required as
  part of infrastructure services in support of
  Internet Standards conformant IPv6
  implementations as of 1 September 2005.”

• APNIC has stopped accepting new
  ip6.int domains as of Jun 2004
• Query rate for ip6.int domains is still
  around 5 queries/minute
prop-030-v002

• It is proposed that APNIC cease devoting resources to support the operation of this deprecated domain. The cut off date to be determined jointly with the other RIR
Proposal

• Proposed steps to ensure orderly cut off
  – Notify parties who are sending ip6.int queries to APNIC DNS servers, that APNIC is stopping the service
  – Send public announcements
  – Notify root ip6.int to remove APNIC delegation on the cutoff date
  – Remove ip6.int entries in APNIC DNS on cutoff date
  – Report project status in APNIC 21 (End Feb 2006)
Observations/statistics

• Most IP6 dataflow is from listed NS of domains
  – Zone refresh (SOA) checks
  – Zone notify from masters on update
• Decline in ip6.int related load seen
  – Nov 2005, 2 days measurement
  – Feb 2006, 6 days measurement
Query load per minute, int/arpa

q/min per RR type

Feb 2006: ip6.arpa
Feb 2006: ip6.int
Nov 2005: ip6.arpa
Nov 2005: ip6.int
Non-NS query load

q/min per RR type

Faulty linux PTR queries
How many NS worldwide?

- Very few discrete NS request services in IP6.int
- Query rates are low (<2q/min)
- PTR queries dominated by faulty linux – going to ip6.arpa NS, not sub-reverses

<table>
<thead>
<tr>
<th>Domain</th>
<th>November 2005</th>
<th>February 2006</th>
</tr>
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<tbody>
<tr>
<td>ip6.int</td>
<td>36</td>
<td>29</td>
</tr>
<tr>
<td>ip6.arpa</td>
<td>724</td>
<td>572</td>
</tr>
</tbody>
</table>
Coordination work

- Other RIRs
  - Agreement to coordinate as a global activity
    - Public communications
    - Technical activities
  - Will cease ip6.int on the same date

- NIR
  - Consult each NIR community to check for issues or scheduling conflicts

- Root ip6.int
  - Consultation of activities and schedules (in plan)
## Schedule

<table>
<thead>
<tr>
<th>No</th>
<th>Task</th>
<th>March</th>
<th>April</th>
<th>May</th>
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<tbody>
<tr>
<td>1.1</td>
<td>APNIC 21 project update</td>
<td></td>
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<tr>
<td>1.2</td>
<td>3rd party notifications</td>
<td></td>
<td>#</td>
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<td>1.3</td>
<td>Public announcements</td>
<td></td>
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<td>1.5</td>
<td>Notify root ip6.int</td>
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<td></td>
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<td>1.6</td>
<td>Cease ip6.int service</td>
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<tr>
<th>1 Mar 06</th>
<th>1 Jun 06</th>
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*Note: The table shows the schedule from March 1, 2006, to June 1, 2006.*
Q & A