IETF77 NAT64 Experiment

Simon Perreault and Marc Blanchet

Viagénie

{simon.perreault, marc.blanchet}@viagenie.ca

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IETF77 NAT64 Experiment

- Open-source DNS64/NAT64 implementation
  - http://ecdysis.viagenie.ca
  - Linux on old PowerPC with full debug and logging, one interface with VLANs. (Carrier grade!)
  - Modified Unbound from Monday morning to Wednesday noon.
  - Modified Bind from Wednesday noon to now.
- Addressing:
  - ietf-nat64 SSID subnet: 2001:df8:0:72::/64
  - DNS64 address: 2001:df8:0:72::1
  - NAT64 prefix: 64:ff9b::/96 (well-known prefix)
  - External IPv4 address: 130.129.48.17

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Stats

- Only considering packets received by NAT64...
- Inbound IPv6:
  - Packets: 230984
  - Bits: 0.3 Gb
- Inbound Ipv4:
  - Packets: 305685
  - Bits: 2.6 Gb
- Unique IPv6 sources: 34
- Unique IPv6 destinations: 1052
- Unique IPv4 sources: 1205
- IPv6 packets with null source: 18
- IPv6 Packets with source outside 2001:df8:0:72::/64: 25
- Usage time (IPv6 source time last seen - first seen)
  - Mean: 11.4 hours
  - Median: 0.5 hours

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Problems

- Strange behaviour with CNAME on Snow Leopard
  - In IPv6-only network, CNAMEs don't work.
  - CNAMEs are *everywhere*!
- Network managers think you're offline
  - Need to uncheck “Work offline” in Firefox.
  - Network manager sometimes automatically tries other SSID.
- IPv4-only apps don't work (that was expected)
  - Such as: Skype, Google Talk, MSN (IPv4 literal in protocol)
  - IPv6-enabled XMPP client on Windows?
- Found 2 bugs in our stuff. (Yay!)

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Repeat the experiment in Maastricht?

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Questions?

info@viagenie.ca

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Thanks to the NOC people for the help!
Thanks to the testers!

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