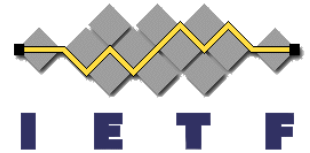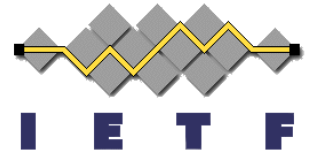# Discovery of a Network-Specific NAT64 Prefix using a Well-Known Name

IETF #81 Behave WG
WEDNESDAY, July 27, 2011

draft-ietf-behave-nat64-discovery-heuristic
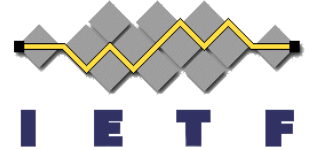Teemu Savolainen, <u>Jouni Korhonen</u>

Contents

- Changes in heuristic draft since IETF#80.
- Where to obtain well-known name and IPv4 address.

- Btw, WGLC started for the companion I-D draft-ietf-behave-nat64-learn-analysis.

Changes in heuristic draft since IETF#80

- Adopted by the WG
  - http://tools.ietf.org/html/draft-ietf-behave-nat64-discovery-heuristic-00
 - This revision had only references + name update
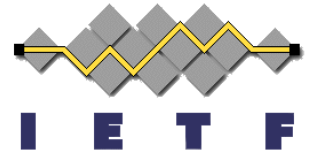
Changes from -00 to -01

- Focusing on a single well-known name instead of generic concept
- Clarified need for well-known IPv4 address
  - To dig out NSP from synthetic IPv6 address
  - Otherwise A query is required for IPv4 address
  - No connectivity test for this address – connectivity tests only against vendor's dedicated servers

Changes from -00 to -01 cont'd
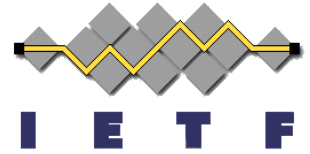
- Discovery should be performed when needed (interface change etc) and results cached

- DNS(64) must not interfere queries (until exit)

- Recommending long TTL for the well-known name to improve effectiveness of DNS caching

  - No longer than year. Would some other value be better suited?
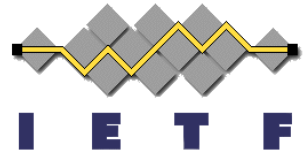
-00 to -01: exit strategy

- Global DNS:
  - Well-known name disabled and NXDOMAIN replies for A record as well
- Local DNS:
  - May locally disable this tool by replying NXDOMAIN (A/AAAA) for the well-known name
- Client
  - NXDOMAIN for A query tells host the tool is disabled and discovery should not be attempted
  - NXDOMAIN for AAAA tells there is no NAT64
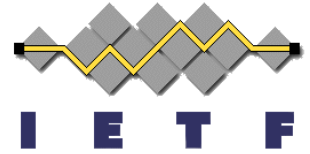
Changes from -01 to -02

- Text regarding non-standard NSP removed (was Section 3.2).

Where to obtain well-known name and IPv4 address
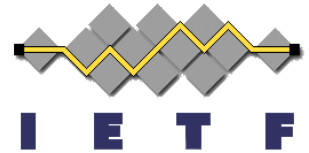
- Well-known name
  - Where to get one? IANA? IETF?
- Well-known IPv4 address
  - Has to be from global pool (as otherwise DNS64 may not synthetize IPv6 address)
  - Does not need to be routable, as no packets are sent to the address
- Discussion still ongoing on the list whether a well-known name is the right approach..

Questions? Comments?