NAT-PT Applicability Statement Design Team

IETF #57, IETF V6OPS WG

Vienna, Austria

July 16, 2003

Background

- IETF V6OPS WG meeting in San Francisco, CA (IETF #56 meeting)
  - Discussion took place about status of standards track RFCs NAT-PT/SIIT (2766/2765) (just sitting at PS)
  - No active editor for NAT-PT
  - Need to decide what to do by March 03 with NAT-PT/SIIT
    - Deprecate? Update? Write an Applicability Statement?
  - Decision: Write an Applicability Statement
    - Form a Design Team

Design Team Members and Deliverables

- Design Team Members
  - Suresh Satapati (Design Team Lead)
  - Rob Austein
  - Peter Barany
  - Karim El-Malki
  - Satomi Okazaki
  - Sentil Sivakumar
  - Hao Wang
- Deliverables
  - NAT-PT Applicability Statement
    - No Internet draft available yet.

Scope and Goals

- Document the applicability (or non-applicability) of NAT-PT
  - See RFC 2026 for definition of Applicability Statement
- Proposing modifications to NAT-PT (RFC 2766) (or extensions to make NAT-PT applicable) is not within the scope of the Design Team

Outline of NAT-PT Applicability Statement

- Table of Contents
  - 1. Introduction
  - 2. Applicability
    - 2.1 Deployment Scenarios
    - 2.2 Limitations
  - 3. Security Considerations
  - 4. References
  - 5. Authors and Contact Information
  - 6. Full Copyright Statement

2.1 Deployment Scenarios

- Deployment scenarios agreed upon by Design Team
  - 2.1.1 3GPP Networks
  - 2.1.2 Futuristic Scenario
    - Entire network infrastructure is IPv6 but there are some existing IPv6 hosts (or applications) that cannot be upgraded
- FFS
  - 3GPP2 Networks

2.2 Limitations

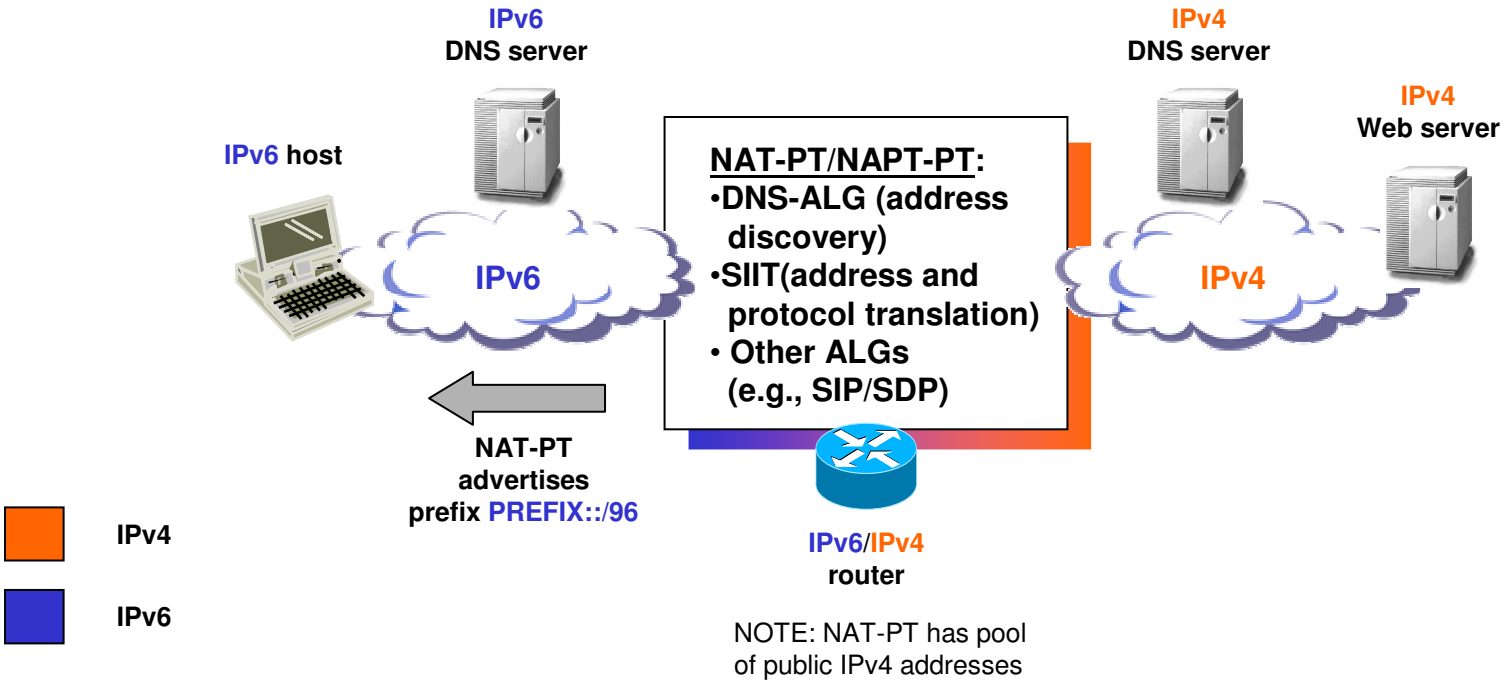
- Some ideas
  - Applications with IP addresses embedded in payload
  - Address selection
  - End-to-end security
    - IPsec, DNSSEC
  - Multicast
  - Mobility
  - Single point of failure

Proposed Sections

- TBD
  - Factors affecting deployment, etc.

Backup Slides

NAT-PT Architecture



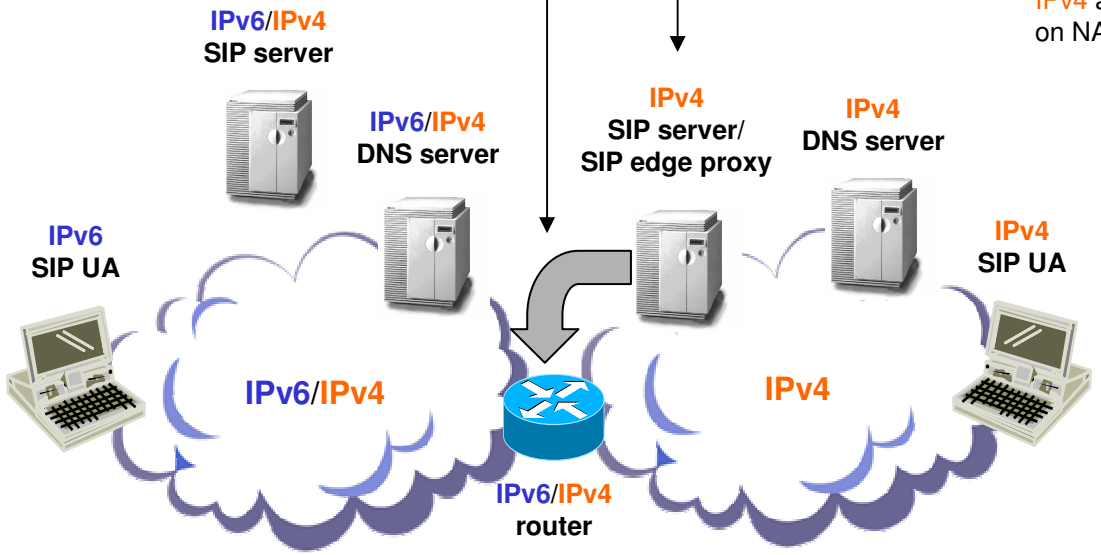
NOTE: NAT-PT has pool of public IPv4 addresses

NOTE: A variation of NAT-PT is NA(P)T-PT which also translates transport identifiers (e.g., TCP or UDP port numbers and ICMP identifiers)

Possible SIP/SDP and NAT-PT Architecture

NOTE: MEGACO, MIDCOM (e.g., SNMPv3), etc.

NOTE: SIP edge proxy has pool of public IPv6 addresses and public IPv4 addresses previously configured on NAT-PT/NAPT-PT



NAT-PT/NAPT-PT
- ~~DNS-ALG (address discovery)~~
- SIIT (address and protocol translation)
- ~~Other ALGs (e.g., SIP/SDP)~~

IPv4

IPv6