Advancing Core IPv6 Specifications to Standard

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Chairs

Proposed at Paris IETF

- As a final measure and to send a strong message that IPv6 is done

  The chairs recommend that the working group requests the IESG that the Core IPv6 Protocols are granted Internet Standard status

- The Core IPv6 Protocols are stable, widely implemented, interoperate, etc.
  - They meet the requirements for Internet Standard

Core IPv6 Protocols

- IPv6 Protocol
- IPv6 Address Architecture
- ICMPv6
- IPv6 Neighbor Discovery
- IPv6 Auto-Configuration
- Path MTU Discovery
- Others?
  - Privacy Extensions
  - IPv6 over Foo
  - DNS

RFC2026 Internet Standards Process

- Section 4.1.3 Internet Standard

  A specification for which significant implementation and successful operational experience has been obtained may be elevated to the Internet Standard level. An Internet Standard (which may simply be referred to as a Standard) is characterized by a high degree of technical maturity and by a generally held belief that the specified protocol or service provides significant benefit to the Internet community. A specification that reaches the status of Standard is assigned a number in the STD series while retaining its RFC number.

- 6.2 Advancing in the Standards Track

  A specification shall remain at the Draft Standard level for at least four (4) months, or until at least one IETF meeting has occurred, whichever comes later.

How to Demonstrate?

- “significant implementation and successful operational experience has been obtained”
- “a high degree of technical maturity and by a generally held belief that the specified protocol or service provides significant benefit to the Internet community.”

One Possibility

- Conduct Host Survey
  - Ping all IPv6 addresses

    1 ping / sec * #AllocatedPrefixes * 2^{64}

  - Might take too long :-)

- A different approach would be good….

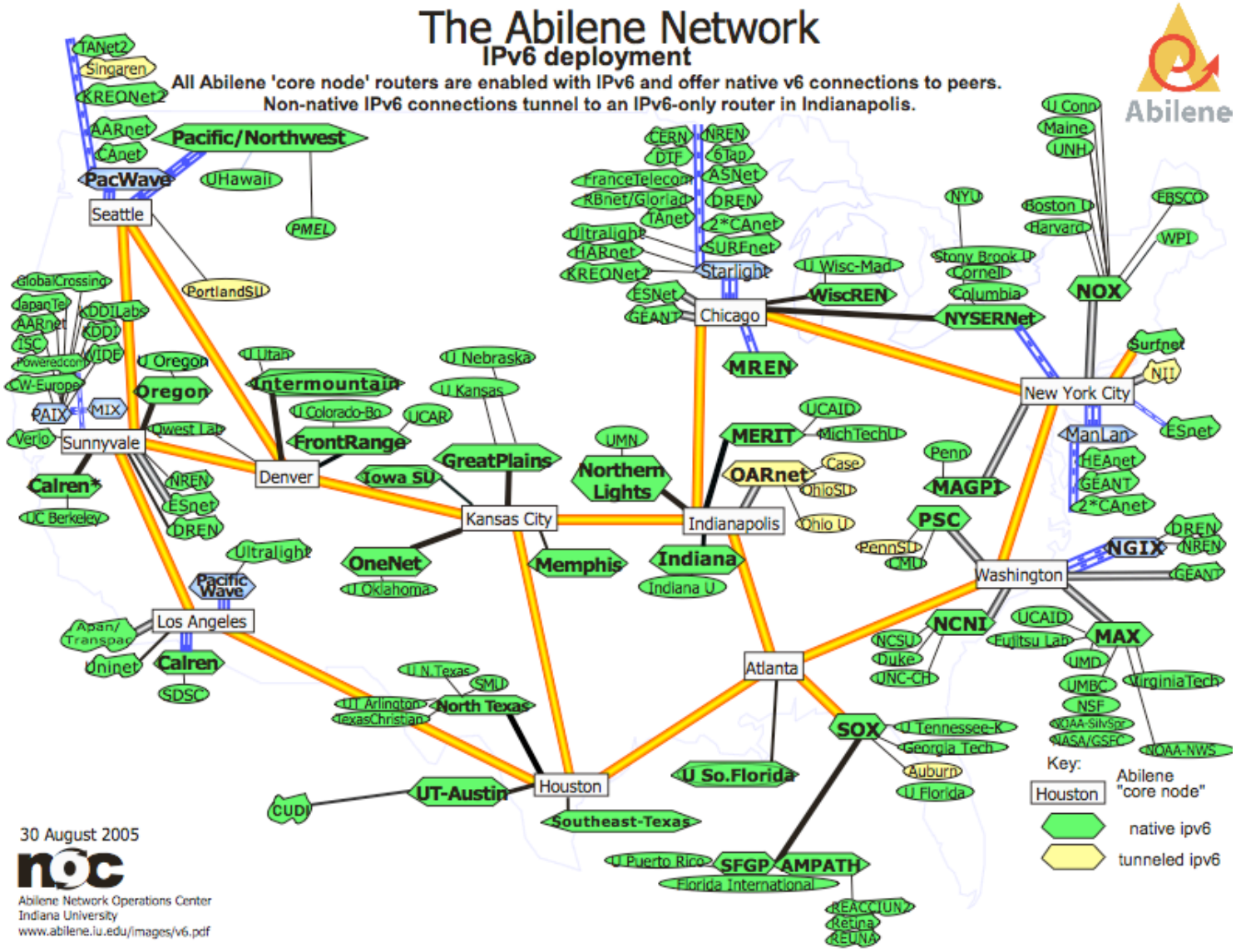
Proposal: Write IPv6 Status Report

- Summary of implementations
  - Host OS, Routers, Switches, Mobile devices, Firewall, etc.
- Applications support
  - Web, DNS, SSH, email, SIP, VoIP, Jabber, Network management, etc.
- RIR Allocations
- Backbone Routing
  - Routing tables, Routing protocols, etc.
- DNS Deployments
  - Root servers, next level, etc.
- Network Deployments
  - Commercial, Government, Research

Report Structure

- Divide into categories (e.g., previous slide)
- Summary of each item with
  - Reference or link to additional information
- Include how long shipping or deployed

Example: Abilene IPv6 Deployment



Volunteers Needed to

- Write Report
- Help collect information
- Provide pointers to deployment information
  - Routing tables, network deployments, etc.
  - Suggest everyone send in info on the deployments they are involved in
- Chairs will coordinate

DISCUSSION