

Emerging Service Provider Scenarios for IPv6 Deployment

draft-carpenter-v6ops-isp-scenarios-00

Brian Carpenter
University of Auckland

Sheng Jiang
Huawei

November 2009

Motivation

- It's several years since the IETF last worked on ISP deployment scenarios
- Since then numerous ISPs have gained real deployment experience
 - and other ISPs have started active planning
- In the last 2 years there has been a real change in ISP requirements
 - Enormous activity in SOFTWARE, BEHAVE etc.
- We believe that it's time for another systematic look at ISP scenarios

Planned approach

- Publish a skeleton draft to indicate our intentions
(done)
- Identify a set of ISPs willing to provide input
(started)
- Develop and issue a questionnaire to all ISPs willing to answer it
(drafted, target for replies 2/2010)
- Analyse replies and draw conclusions in the draft
(target for draft 3/2010)

Outline of draft

- Review of existing documents (*drafted, see next slide*)

The rest is TBD:

- Review of ISP experience, plans and requirements
- Lessons from experience and planning
- Suggested scenarios
 - *Note* - probably not BCP recommendations
- Gap analysis
- Security Considerations

Existing documents identified so far

- RFC 4029, Scenarios and Analysis for Introducing IPv6 into ISP Networks - *useful, but things have changed*
- Access technologies - *useful, but no overview*
 - RFC 4779, ISP IPv6 Deployment Scenarios in Broadband Access Networks
 - RFC 5181, IPv6 Deployment Scenarios in 802.16 Networks
 - RFC 5121, Transmission of IPv6 via the IPv6 Convergence Sublayer over IEEE 802.16 Networks
 - draft-ietf-16ng-ip-over-ethernet-over-802-dot-16
- Security - *not an ISP view*
 - RFC 4942, IPv6 Transition/Co-existence Security Considerations
 - RFC 4864, Local Network Protection for IPv6
- RFC 5211, An Internet Transition Plan - *strategic view only*

Outline of questionnaire

- Confidentiality wanted?
- General questions about IP service
- Questions about requirements for IPv6 service
- Questions about status and plans for IPv6 service
- Questions about individual IPv6 technology choices
- Draft at:
<http://www.cs.auckland.ac.nz/~brian/ISP-v6-QQ>

Input wanted!

- Comments on the skeleton draft welcome
- ISPs willing to give input even more welcome

brian.e.carpenter @ gmail.com

shengjiang @ huawei.com