IPv4 Exhaustion & IPv6 Adoption within Access Networks

Panel:

Neil McRae, Chief Network Architect, BT
Ian Dickinson, Network Architect, BSkyB

Daryl Tanner, Network Systems Architect, Virgin Media

Chair:

Chris Russell, Systems Manager, Knowledge IT

UK Access Networks: Broadband Subscribers

- Virgin Media: ~ 4.2 M Subscribers
- BSkyB: ~ 4.7 M Subscribers
- BT: ~ 6.1 M Subscribers
- Talk Talk: ~ 4.07 M Subscribers

UK broadband usage estimated at > 22.3 M

As ISPs need capable CPE devices:

Network Support WAN: DOCSIS 30 (Europe)	Not Available	Not Available	Not Available	Not Available
Network Support WAN: DOCSIS 30 (US)	Not Available	Not Available	Not Available	Not Available
Network Support WAN: ADSL	Not Available	Not Available	Not Available	Not Available
Network Support WAN: ADSL 2+	Not Available	Not Available	Not Available	Not Available
Network Support WAN: VDSL	Not Available	Not Available	Not Available	Not Available
Network Support WAN: GPON	Not Available	Not Available	Not Available	Not Available
Network Support WAN:	Available	Available	Available	Available

Source: RIPE 2012 ipv6 CPE Survey
http://www.ipv6actnow.org/info/cpe-survey-matrix/

Our Subscribers want to connect and go from multiple devices:

Tablets, Mobile Phones, Consoles, Laptops, 10 year old PC's, Fridges, Toilets (why!) (!) – an internet of everything

Are UK Broadband Subscribers ready for IPv6, does IPv6 matter to them – is there market demand ?

Are the current CPE / termination devices available and ready to support them ?

Are support departments ready for the changing nature of support queries ? Higher level of awareness / mindset changes required ?

"PlusNet Tests IP Address-Sharing As IPv6 Fails To Take Off"

Masses of online debate, mostly negative.

Is CGN a stop gap or a workable solution for identified subscribers - where is the evil, if this is a necessary evil ?

If end-to-end is the ideal, will CGN create a two tier internet, or are we there already there ? (the have/have-nots or the wants/not interested)

Are we (ISPs, Vendors) investing too much time in making things work with CGN rather than ipv6.

"the general view and acceptance that NAT will solve any problems especially with the growing use of CGN"

Carrier Grade NAT: Experiences and evaluations, lessons learned

The road to IPv6 in UK Access Networks

v6 Transit and enabling v6 Web/ISP Services
Enabling the Core
Onwards to the Access Layer..

"Its been 10 years, where are we …. really."