

# *IPv6 take-up – too slow...*

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GEN6 Roadshow  
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**Per Blixt**

European Commission, DG CONNECT



Two **Communications** were tabled with priorities and action plans:

"Next Generation Internet-priorities for action in migrating to the new Internet protocol IPv6" (COM/2002/96) in 2002

"Advancing the Internet, Action Plan for the deployment of IPv6 in Europe" (COM/2008/313) in 2008

- Two **studies** were launched with the objective of monitoring IPv6 take-up.
- An useful IPv6 indicator was added and is still being refined for the DAE Scoreboard.
- Over last 15 years more than 100 M€ on IPv6 related projects

# *Future Internet priorities*

- IoT/M2M

- SPITFIRE – [spitfire-project.eu](http://spitfire-project.eu)
- IoT6 - [www.iot6.eu](http://www.iot6.eu)



- Cloud

- BonFIRE - [www.bonfire-project.eu](http://www.bonfire-project.eu)



- eGov

- GEN6 – [www.gen6.eu](http://www.gen6.eu)



- 5G

In all of them, IPv6 has a major role to play!

## Provide

- Best Practices
- Roadmaps
- Benchmarks

to potential interested parties, to facilitate deployment and in particular transition from IPv4

## **GEN6 - Governments enabled with IPv6 - [www.gen6.eu](http://www.gen6.eu)**

"The aim is to stimulate the upgrade of eGovernment infrastructures, and services of public interest to IPv6".

- National pilots in Germany, Turkey, Greece, Slovenia and cross border pilots.
- Successful implementation of eGovernment can improve services, strengthen our societies, increase productivity and welfare, and reinforce democracy.

## Commissioner Neelie KROES

Vice-President of the European Commission



### IPv6: letting the Internet meet its potential (1 Dec 2011)

- Deploying [IPv6] **quickly** is [...] a priority of our Digital Agenda for Europe.
- Towards the end of the nineties, many expected a faster uptake of IPv6. After all, the advantages were quite convincing even then. [However,]the uptake of IPv6 remains slow, too slow.
- We need to act now. The longer we wait, the more it will cost us. We need to convince those most concerned to think differently, and act for the future.

# IPv6 Mandate in Future Internet Projects

- Future Internet proposals were requested to commit to either use or design for IPv6, as appropriate
- Compliance results from last two Calls (2013)

	Not addressing IPv6	Of which,	Properly addressing IPv6	Of which,	
		providing acceptable justification not to		Committing to use IPv6	Designing for IPv6
Submitted proposals	555	111	444	321	123
999	55.6%	20%	44.4%	72.3%	27.7%
Retained proposals	66	12	45	32	13
111	59.5%	18.2%	40.5%	71.1%	28.9%



# *Trends of IPv6 adoption*



- Google figures show that the worldwide IPv6 traffic has more than doubled every 8 months

**4.8% in Oct 14**

**1.8% in Oct 13**

**0.8% in Oct 12**



# *The need for end-to-end Experimentation*

- The heterogeneity of the "**all-IP scenarios**" implies that none of the many players involved will be able to address the totality of the problem, or understand the "whole network"
  - too complex, too variable, too ill-defined
- Thus the need to **experiment, hands-on and on an as-large-scale-as-possible, end-to-end**, with the different "components", wireless and fixed, public and private, and with "realistic" **applications**
- **Access to/composition of a variety of experimental resources** distributed across Europe (and the world)

**IPv6 is spreading everywhere –**



**but too slowly...**

**IPv6 is critical!**

# *In Conclusion...*



- IPv6 has started taking-up, doubling its penetration every 7+ months, but a lot remains to be done
  - the level of preparedness varies across Europe
  - the same with the level of commitment of operators
- Companies, and in particular SMEs, are not ready; nor are Governments in general, not even many Universities...
- The Future Internet depends on IPv6
- We need to accelerate deployment of IPv6 in order to be able to fully exploit the potential of IoT/M2M, Cloud and eventually of 5G – as well as of the European experimental facilities



# *Danke für Ihre Aufmerksamkeit*

**per.blixt@ec.europa.eu**  
DG CONNECT  
European Commission



[cordis.europa.eu/fp7/ict/fire](https://cordis.europa.eu/fp7/ict/fire)