Brussels 21.5.2015

GEN6

The Idea ---- The Results

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This project has received funding from the European Union's

European Commission

GOVERNMENTS ENABLED WITH IPv6

Project Data

- ICT PSP call 2011
  - Pilot Type B
  - ***Theme 4: ICT for Innovative government and public services***
    4.3: Piloting IPv6 upgrade for eGovernment services in Europe
  - From 2012-01-01 to 2015-05-31
  - Funded by

European Commission Directorate General for Communications Networks, Content & Technology. Short: **DG CONNECT**.

http://www.gen6-project.eu

http://ec.europa.eu/information_society/policy/ipv6/index_en.htm

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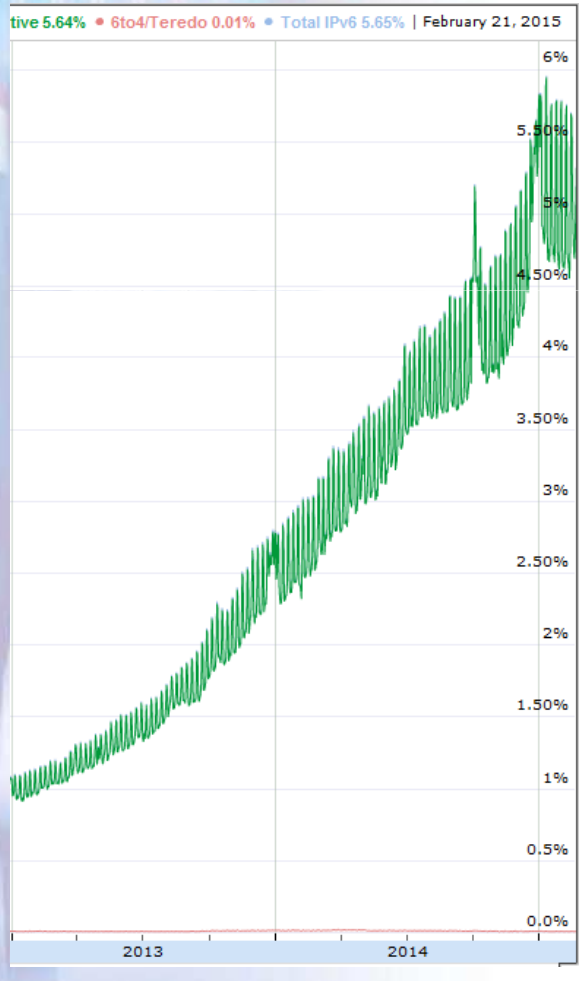
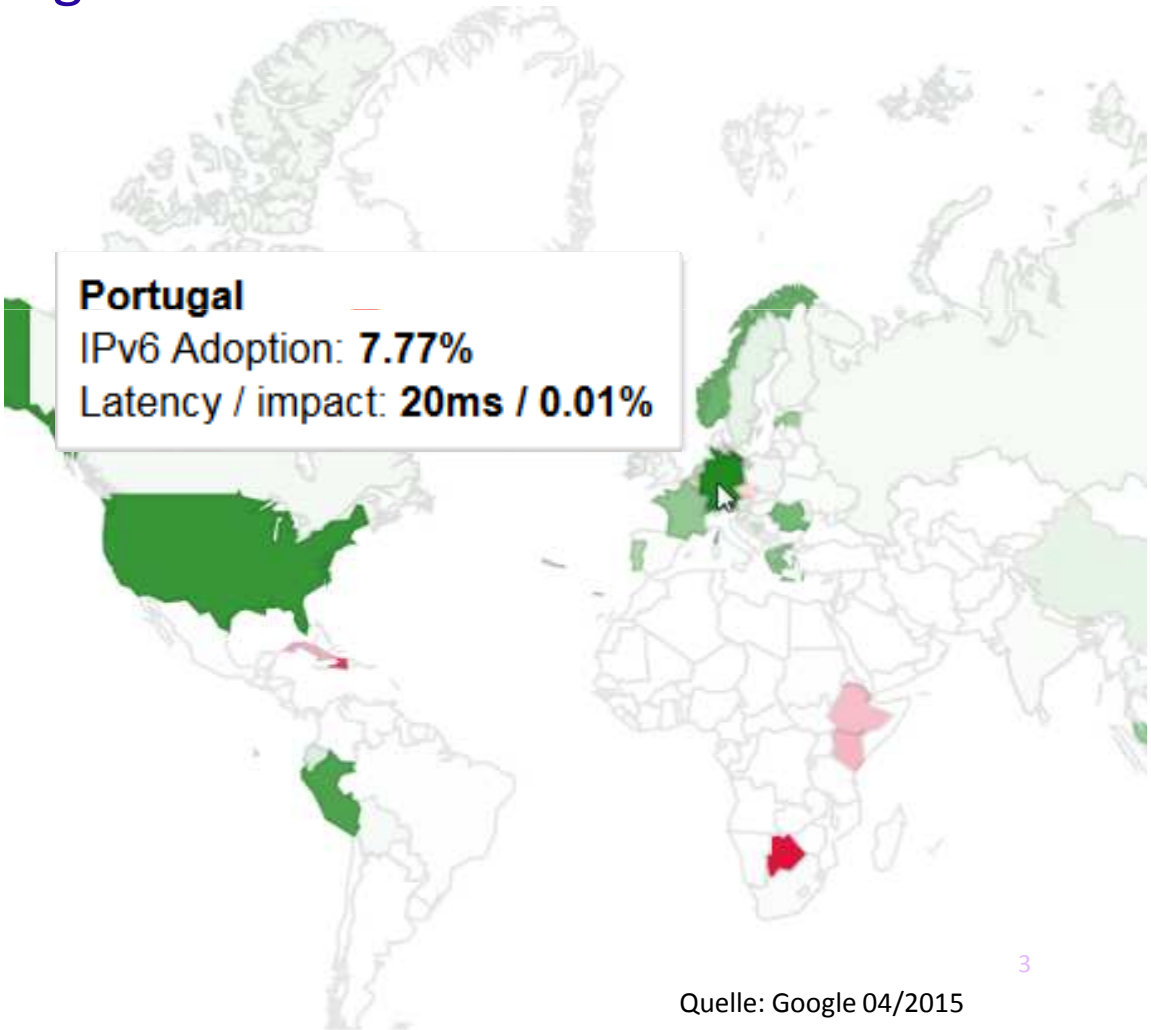
IPv6 Usage and Internet

- IPv6 usage when googling





Quelle: Google 04/2015

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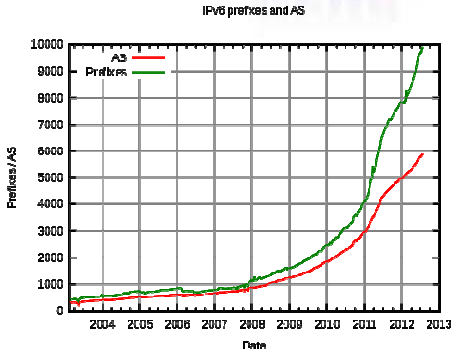
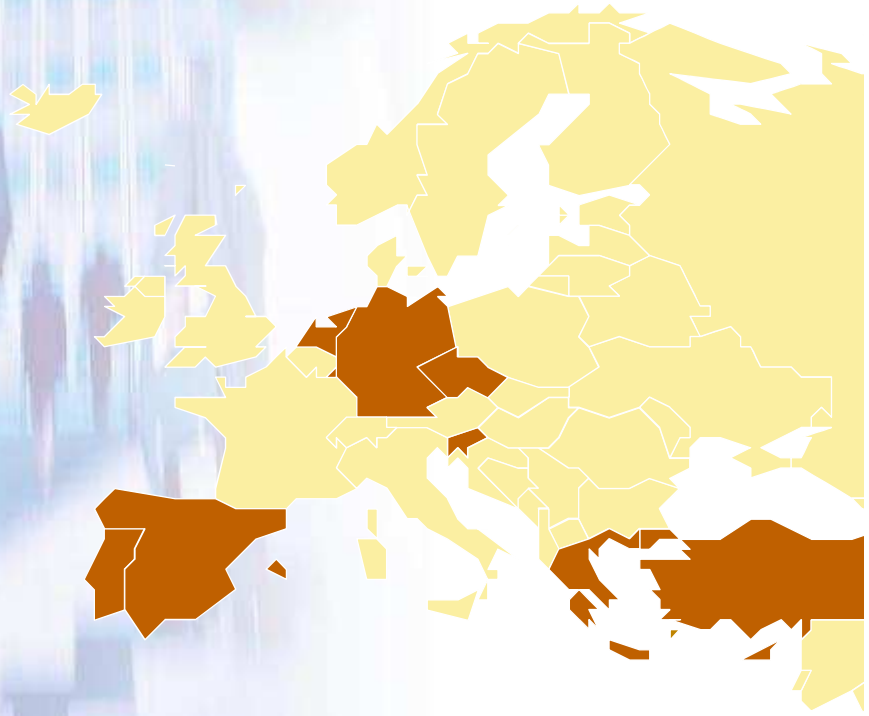


- IPv6 is on its way!
  - v4 addresses only in small quantities available
  - Provider are changing to IPv6 in "quiet mode“
  - IPv6 World Days are drawing attention to IPv6
- The implementation process
- National Roadmaps
  - USA (Gov), India, Malaysia, Uganda, Thailand, …….

- **But where are the success stories from governments?**

GEN6



- Project partner from:
  - Cyprus
  - Czech Republic
  - Germany
  - Greece
  - Luxembourg
  - Netherlands
  - Portugal
  - Slovenia
  - Spain
  - Turkey

Project Objectives/Results

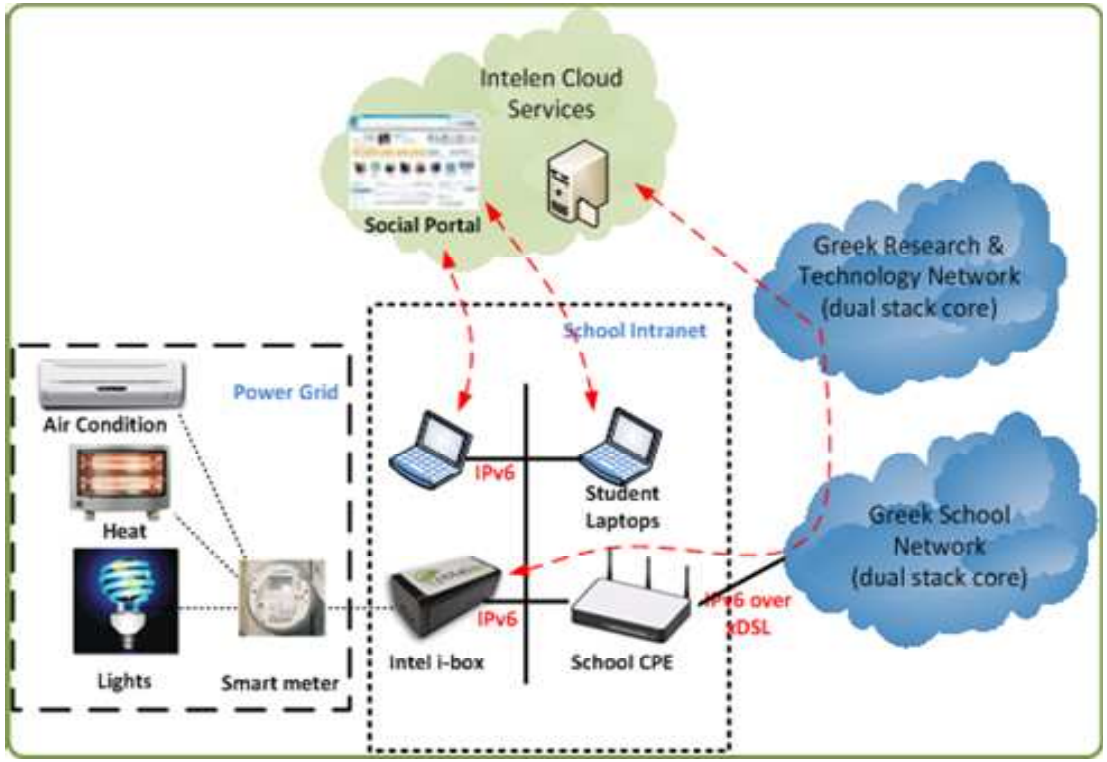
- GEN6 provides general guidelines for planning and transition steps.
  - IPv6 networks topologies and addressing types
  - IPv6 addressing technologies and addressing plans for Governments
  - IPv6 transition technologies and support
  - IPv6 deployment support
- The outcome of the pilots provides additional documentation based on transition experience in the fields of:
  - network equipment (switches, router, firewalls, load balancers, …)
  - network provider access points (CPE, fibre, xDSL, …)
  - middleware and technologies like webservers, portals, databases
- Self Assessment

Project National Pilots

- Different national pilots, some of them replicated in a complementary way in different countries, considering different existing approaches.
  - National strategies: Germany and Spain
  - Greek Energy Efficiency School Project on IPv6
  - Emergency Response Systems from ULFE Slovenia
  - Monitoring and the Czech Way

Greece – Energy Efficiency School Project on IPv6

- Projects with pupils
- Monitor energy consumption
- Teach about energy efficiencey and green IT
- Use IPv6 networking
- in the background



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Slovenia – Support for Emergency Communication

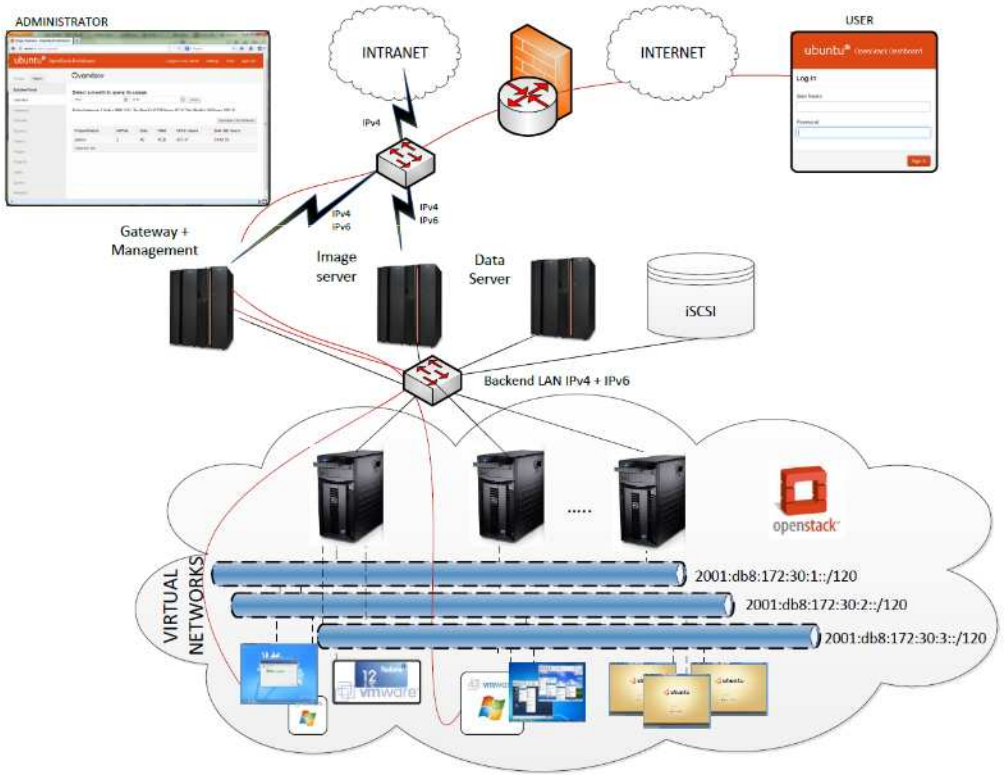
http://www.6inaction.net

- 6onCORE – IPv6 intelligent network enabler
- 6onDASHBOARD – Solution to connect and show sensor data
- 6onMOBILE – Mobile triage application for emergency responders in the field

Luxembourg – Secure Government Clouds on IPv6

Cloud technologies are being adopted by governments around the world, and IPv6 is here to stay. It is important to know what changes the transition to IPv6 triggers in the cloud network and how the security configuration of such a system can change.

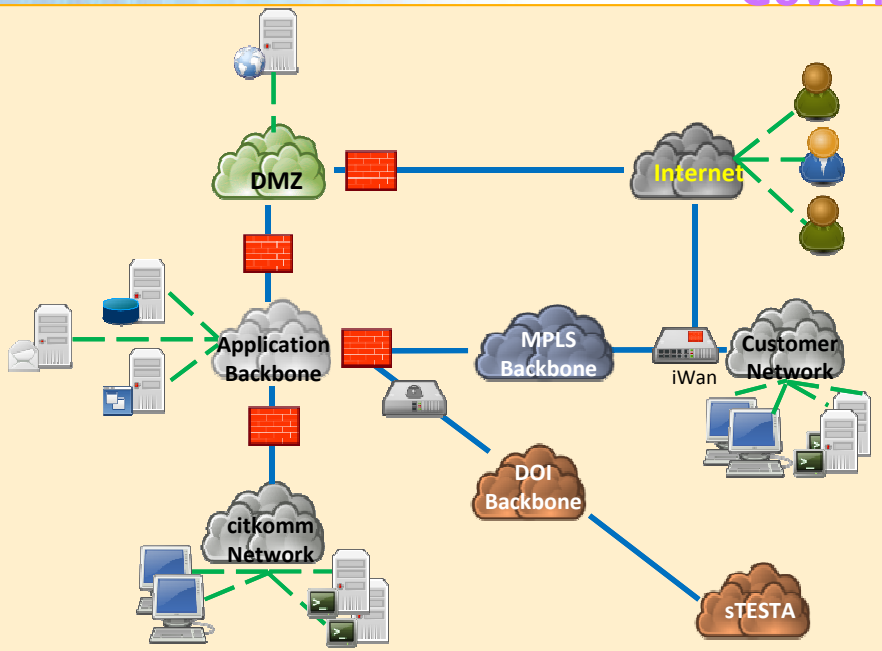
The pilot is based on an open source cloud distribution used in a government setting, and examines its IPv6 support.



Turkey – Citizen Service Portal Transition

- Enabling IPv6 in e-Government Gateway (**EGG**) Portal
- Backend IPv6 support
  - Making necessary **software updates** (i.e. applications, operating systems) on services that are already on EGG.
  - Making necessary **hardware upgrades** where necessary.
  - Integrating new public services that are **not yet part of the EGG** over IPv6.

Government Backbone and Services

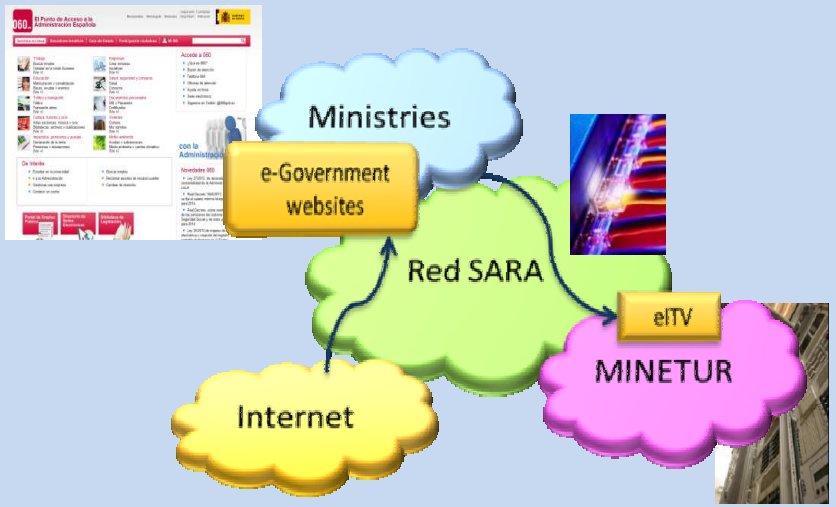


- Enabling a municipal datacenter's network and infrastructure for IPv6

(1) Transition of the network as fundamental part of the backbone infrastructure

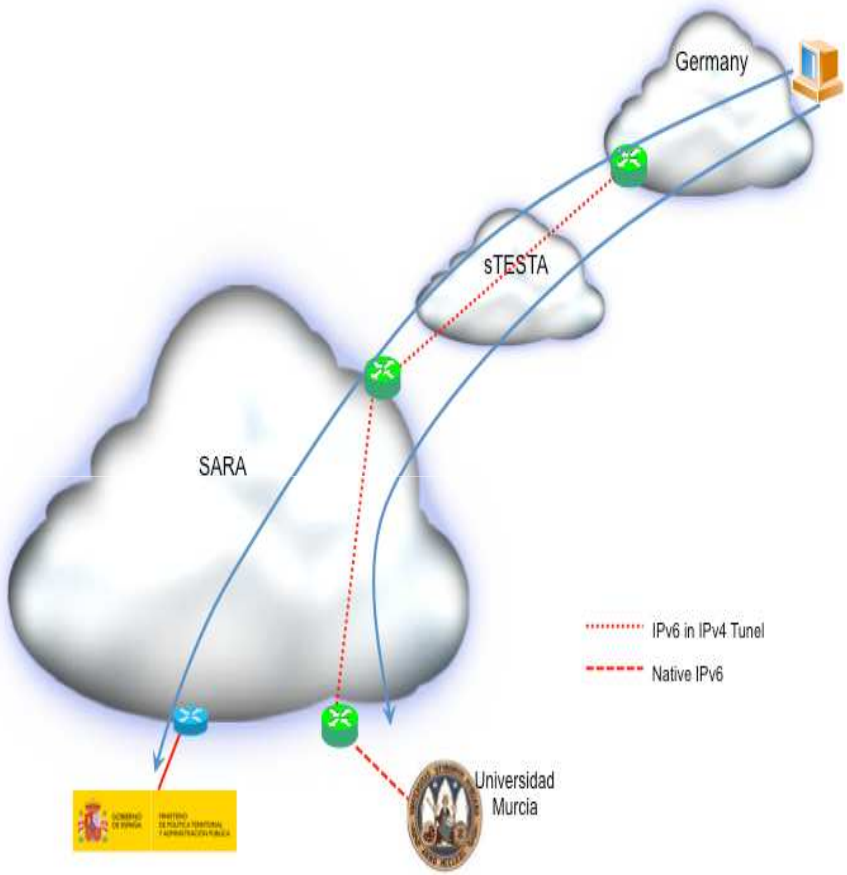
(2) Transition of productive servers and other relevant systems

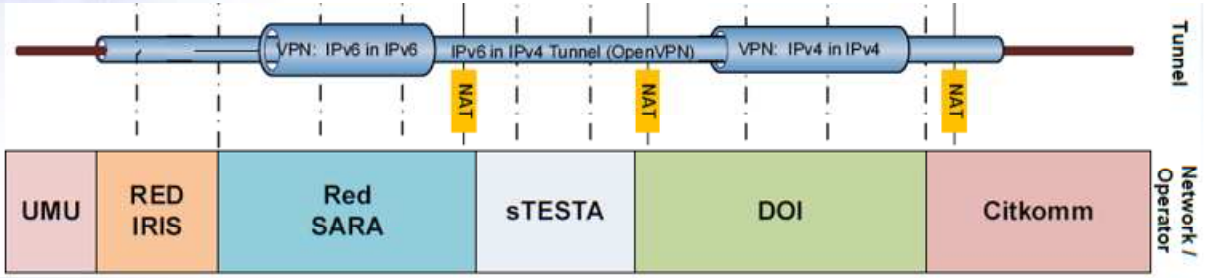
- Upgrade of Red SARA so that it can transport IPv6 natively, allowing IPv6 communications between administrative units
- Upgrade to native IPv6 of one the e-Government existing applications (eITV, related to the process of registering a motor vehicle)



Project Cross-Border Pilots

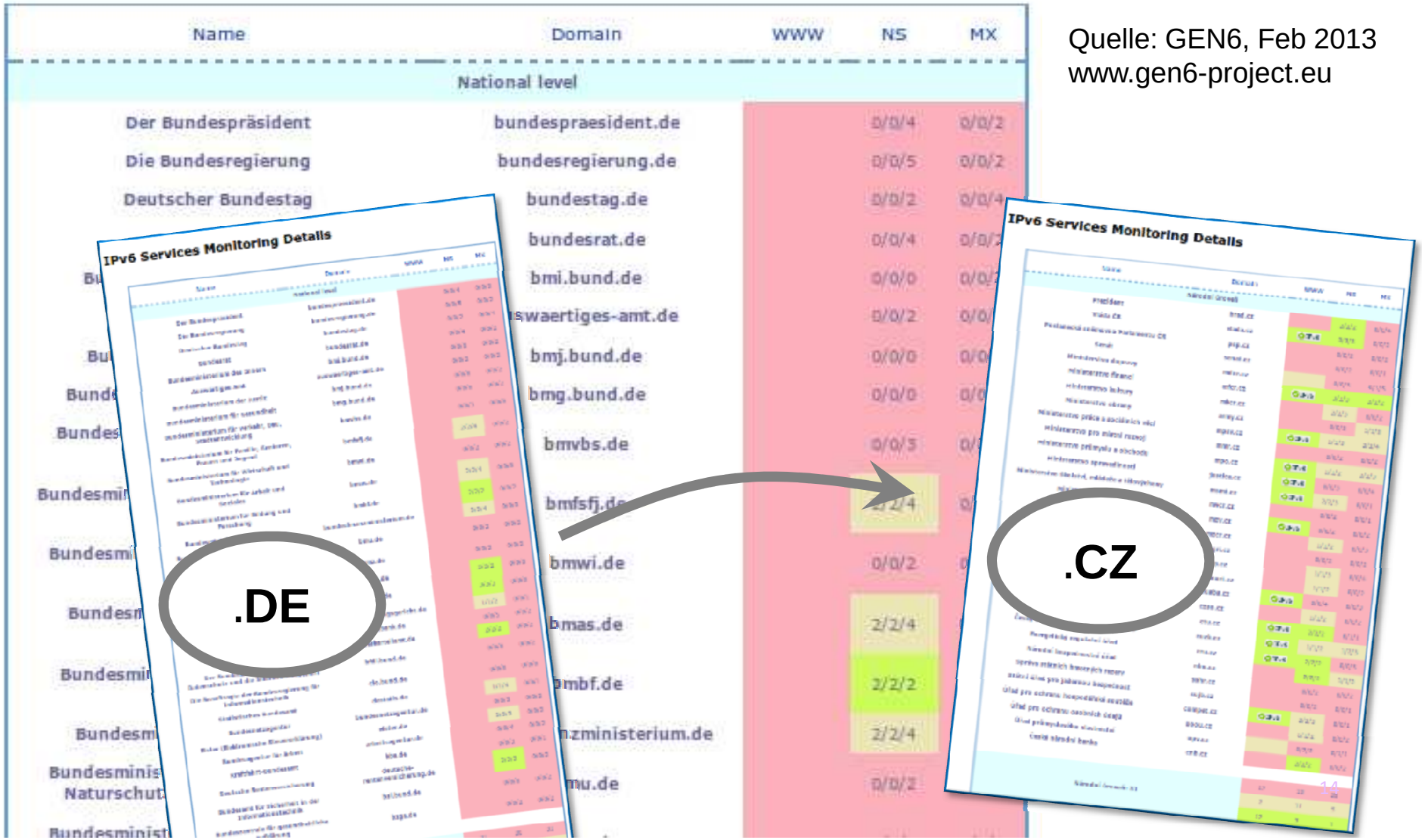
- Interconnection of national government backbones and European networks like sTESTA, in order to ensure a wider IPv6 readiness and interoperation for European cross-border services.
- Work with the national networks in order to make IPv6 enable the PEPs (Pan European Proxy Service) entities that are being used on STORK and STORK2.0 and that now are a key component of the end user authentication process based on national IDs.
-
- Public Safety Networks exploiting the greater benefits brought in to this critical sector by IPv6 features (such as “on the fly networking”).





The GEN6 Project

IPv6-Access in the Public Sector



Quelle: GEN6, Feb 2013
www.gen6-project.eu

IPv6 in Academia Networks

- Experiences of IPv6 implementation in existing academic networks
  - Best practices for implementation
  - Known challenges
  - Considering the specific environment of academia
- Driven by two complementary approaches
  - Karlsruhe Institute for Technology (KIT)
  - Instituto Superior Técnico (IST), Técnico Lisboa

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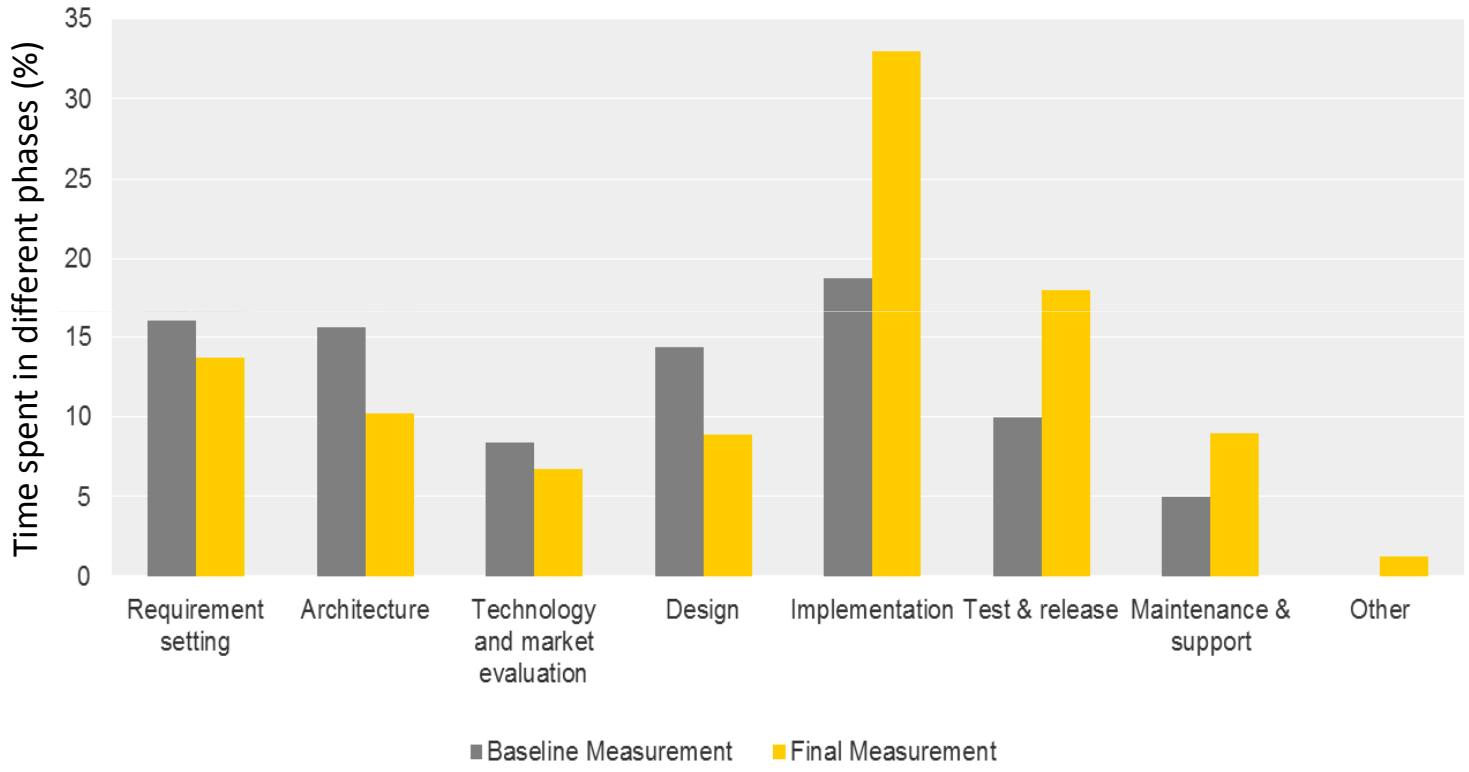
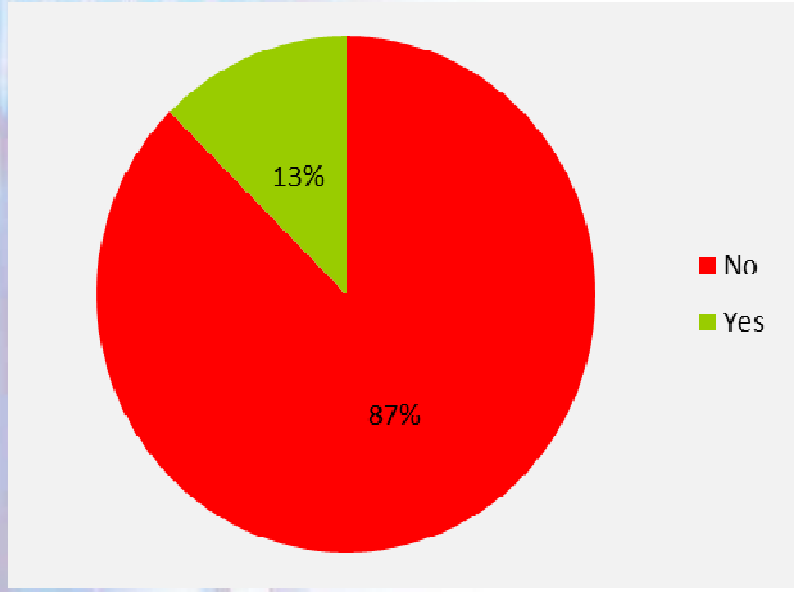
- Assignment of a /26 (plan /19) address space „de.government“ — Q4/09
- First local IPv6 Pilots of the de.government address space — Q3/10
- Start Piloting IPv6 in DOI — Q4/10
- Start Implementation of SubLIRs — Q2/11
- Completion of the implementation of the LIR de.government — Q4/11
- Going into operations of IPv6 in DOI — Q4/12
- Implementation of Dual Stack — Q4/14
- Complete Implementation of SubLIRs — Q4/15 ??

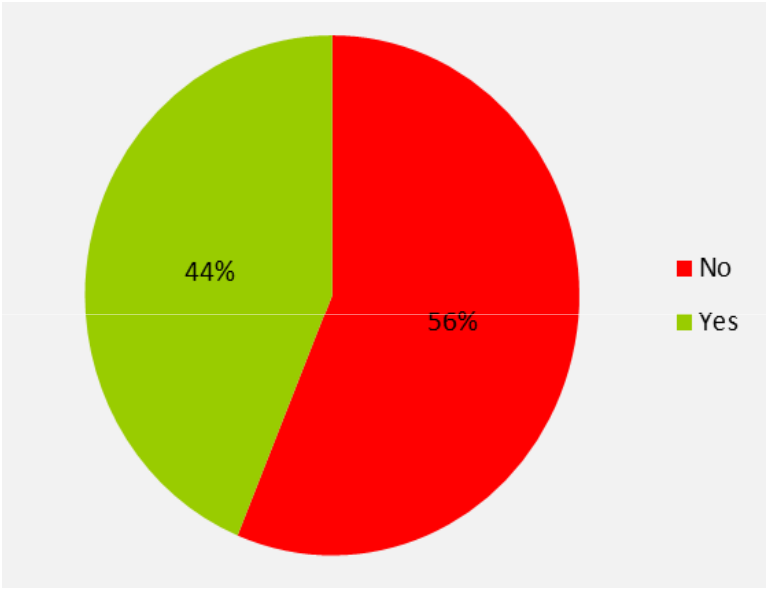
Good to know


Time spent in different phases (%)
35
30
25
20
15
10
5
0
Requirement setting
Architecture
Technology and market evaluation
Design
Implementation
Test & release
Maintenance & support
Other
Baseline Measurement
Final Measurement

Good to know



Did other organisations influence IPv6-related decision making in your organisation?



Did government policies influence IPv6-related decision making in your organisation?

After the End

ETSI IPv6
Integration Industry Specification Group (IP6 ISG)

ETSI World Class St

Home | People | Resources | Manage | Events | Search | IPR | Services | WEBstore | Help

IP6

Show/Hide groups

BOARD	FC	GA	IPR	OCG	3GPP	oneM2M	AERO	ATTM
BRAN	BROADCAST	CABLE	CYBER	DECT	EE	eHEALTH	EMTEL	ERM
ESI	HF	INT	ITS	LI	MSG	MTS	NTECH	PLT
RRS	RT	SAFETY	SAGE	SCP	SES	SmartBAN	SmartM2M	STQ
TCCE	USER	ISG	NSO	STF	WORKSHOP			

Home | Meetings | Contributions | Work Programme | Drafts | Remote Consensus | Actions

IP6(15)001001r2	Agenda	IP6#1 Kickoff meeting Agenda V2	Available	Discussion	IP6#1-Kickoff meeting
IP6(15)001017	NWI	IPv6-based Cloud Computing	Revised	Decision	IP6#1-Kickoff meeting
IP6(15)001016	NWI	Impact of Mobile IPv6	Available	Decision	IP6#1-Kickoff meeting
IP6(15)001018	NWI	IPv6-based Autonomic Networking	Available	Decision	IP6#1-Kickoff meeting
IP6(15)001001r1	Agenda	IP6#1 Kickoff meeting Agenda V1	Revised	Discussion	IP6#1-Kickoff meeting
IP6(15)001015	NWI	IPv6 For Academia & Education	Revised	Decision	IP6#1-Kickoff meeting
IP6(15)001014	NWI	IPv6 For Governments	ed	Decision	IP6#1-Kickoff meeting
IP6(15)001013	NWI	IPv6-Based 5G Mobile Wireless Intern	ed	Decision	IP6#1-Kickoff meeting

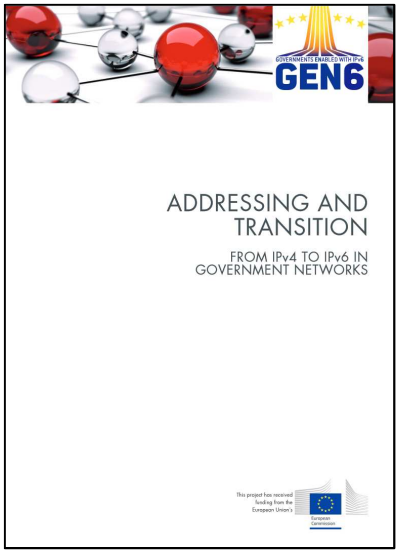
Rapporteur: UL (LU)

Rapporteur: IST (PT)

Rapporteur: Fraunhofer (DE)
Participant: Citkomm

More Project Information

www.gen6-project.eu



www.linkedin.com/groups/
Governments-enabled-thru-IPv6-4243531

www.slideshare.net/GEN6

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Thank you for your attention

and enjoy the following presentations.

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