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European Commission

IPv6 Task Force - Phase II

Welcome

Joao da Silva
European Commission
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Erkki

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Latest EU action on IPv6

- IPv6 Task Force (Phase I) launched April 2001
- Recommendations of the IPv6 Task Force, January 2002
- Communication: *IPv6 Priorities for Action* 21 February 2002
- Barcelona EU Summit (March 2002)
- EU Council Conclusions: 18 June 2002
- A key aspect of eEurope 2005 Action Plan, 21 June 2002
- Central to the "Lisbon strategy":

"... for the EU to become the most dynamic knowledge-based economy in the world by 2010"

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Prompt Action is needed

- **Early, smooth IPv6 deployment**
  - Early: Longer waits = higher bills
  - Smooth: Avoid Y2K-style costs
- **A concerted effort to consolidate and integrate European efforts is a must:**
  - Develop the skills base
  - Sustained European research
  - Accelerate standards / specifications work
  - Promote awareness
  - Ensure deployment
- **IPv6 is a key issue on the road ahead to the new-economy.**

EU Support to IPv6 R&D

- **European IPv6 research: state-of-the-art**
- **€90m contribution to several ongoing projects in FP5:**
  - http://www.cordis.lu/ist/ka4/mobile/proclu/p/ip relatedproj.htm
- **two large scale IPv6 Trials launched (6NET, Euro6IX) complementing GEANT**
  - the GEANT testbed, migrating to IPv6 shortly
- **New projects:** 6HOP, 6POWER, 6QM, EUROV6, HARMONICS, IPV6TF-SC, SATIP6, MODIS, OVERDRIVE, WIRELESSCABIN
- **6th Framework Programme: future opportunities**

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Actions called for in the Communication of the Commission on IPv6

21 February 2002

European Commission to:

Increase and refocus EU support to RTD in the context of the 6th Framework programme in the following areas:

- IPv6 broadband fixed and wireless network infrastructures, and their **interoperability** aspects,
- Development of IPv6 **tools**, devices and network elements,
- Large scale **testing of IPv6 based services** and applications, across heterogeneous, fixed and wireless, access platforms,
- IPv6 enabled advanced infrastructures for Research (**GEANT** and **Grids**)
- IPv6 **awareness**, training and education,
- Launching a socio-economic and market study and assess the impact of IPv6, on the fundamental right to **privacy** and data protection

FP6 Budget Breakdown

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- **Integrating & strengthening**
  - Genomics 2255 M€
  - **IST 3625M€** → **Of which 100M€ for GEANT/GRID**
  - Nanotechnologies, int.. 1300 M€
  - Aeronautics and space 1075 M€
  - Food quality and safety 685 M€
  - Sustainable development 2120 M€
  - Citizens and governance .. 225 M€
  - Specific activities 1300 M€
    - SMEs 430 M€
    - Specific INCO 315 M€
    - Anticipating needs 555 M€
- **Strengthening ERA foundations 320 M€**
- **Structuring ERA**
  - Research and Innovation 290 M€
  - Human resources 1580 M€
  - Research Infrastructures 665 M€ → **Of which 200M€ for GEANT/GRID**
  - Science/Society 80 M€
- **Joint Research Centre 760 M€**

16,270 M€

EC to renew IPv6 TF

- **Mandate:**
  - Provide a regularly updated review and **plan action** (“the European IPv6 Roadmap”)
  - Ensure a **working liaison** with standards and Internet governance bodies such as ISOC, IETF, ICANN, RIPE NCC, 3GPP, ETSI, IPv6 Forum, Eurescom, ETNO, UMTS Forum and GSM Europe,
  - Establish **collaboration** arrangements and working relationships with similar initiatives being launched in other world regions.

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Member States to:

- Provide **support** towards the IPv6 enabling, of the networks and services associated with the public sector (e-everything).
- Establish and launch **educational programmes** on IPv6 tools, techniques and applications.
- Promote the adoption of IPv6 through **awareness raising** campaigns and co-operative take-up activities.
- Continue to **stimulate** the wide spread use of Internet across the EU and encourage the transition towards IPv6 by avoiding fragmented approaches or mandatory deployment time-lines.
- **Strengthen the financial** support towards national and regional research networks (NRENs).

EU Member States to:

- Provide the required **incentives** towards the development and testing of IPv6 products, tools, services and applications in the new economy sectors.

- **Take appropriate measures (such as the establishment of a National or Regional IPv6 Council) to carry out:**
  - The assessment, at national or regional level, of current developments and degree of take-up of IPv6.
  - The development of measures aiming at the alignment of IPv6 transition schedules.
  - Encouraging the active participation of technology experts in the work of standards and specification bodies.

Industry to:

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- Invited to fully **participate in FP6** R&D activities .
- Actively contribute towards IPv6 work within **standards** and specifications bodies.
- Develop **key guidelines** for the integration of IPv6 infrastructures and **interoperability*** of IPv6 services and applications, notably in the context of 3G. Support and fully participate in interoperability events organised, including those by ETSI.
- Conduct extensive IP **security trials**.
- Devote efforts towards the establishment of a European wide, vendor independent, **training and education programme** on IPv6.
- Integrate IPv6 in their **strategic plans** and take early steps to obtain appropriate IPv6 address allocations.

* **Note the recent creation of the OPEN MOBILE ALLIANCE**

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Actions called for in the Council Conclusions on IPv6

18 June 2002

Highlights of Council Conclusions (MS)

- **ENCOURAGES** the Member States:
  - To facilitate the efforts of stakeholders regarding the adoption and the deployment of IPv6, for instance through **awareness**-raising campaigns ;
  - To facilitate, inter alia by enabling IPv6, the integration of **RN** with European-wide networks (e.g.**GEANT**);
  - To **monitor** and **assess** the current development and **take-up** of IPv6, including the definition of **guidelines** and dissemination of **best practice**, in co-operation with the private sector and standardisation bodies.

Highlights of Council Conclusions (EC)

- **SUPPORTS** the Commission's intention to **renew the mandate** of the IPv6 Task Force by :
  - Enhancing co-operation with international standardisation organisations.
  - Providing a review and "**European IPv6 Roadmap**" .
  - Establishing collaboration arrangements and working relationships with similar initiatives being launched in other regions of the world.
- **INVITES** the Commission to:
  - Evaluate the **social impact** on society, citizens and businesses of the implementation of IPv6;
  - Investigate **security** issues related to IPv6.

Highlights of Council Conclusions (Industry)

- **INVITES** the private sector:
  - To consider initiatives aimed at the integration of IPv6 infrastructures, including the **interoperability** aspects of IPv6 services and applications;
  - To participate actively in the establishment of a European wide, vendor-independent, **training and education** programme on IPv6;
  - To provide regularly updated information on the increased **demand for IP addresses** and the current status of IP4 address space;
  - To actively contribute towards on-going IPv6 work within **standards** and specification bodies;
  - To fully participate in **R&D activities** in the context of the FP6, notably in the **large scale tests** of IPv6 based services and applications.

Conclusions

- EC already committed €90m to several **R&D** projects in FP5 and will commit more under FP6. **Visibility** of IPv6 reached unprecedented levels in political circles. More will be done.
- EU will fund under FP6 **major initiatives** covering actions going from very fundamental technological issues to applications development and validation.
- More **strategic thinking** and global approaches are needed.
- **Co-operation** between EU and International organizations is highly desirable.
- **Security/privacy** issues have to be tackled to generate e-customer trust.
- It is now time for the market players to be **more proactive**.
- We hope that through the creation of the **Regional/National TFs** additional momentum will be gained.