IPv6 Task Force - Phase II

Welcome

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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”
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.**
European IPv6 research: state-of-the-art

€90m contribution to several ongoing projects in FP5:

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
Actions called for in the Communication of the Commission on IPv6

21 February 2002
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

- **Integrating & strengthening**
  - Genomics: 2255 M€
  - IST: 3625 M€
  - 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€
  - Science/Society: 80 M€

- **Joint Research Centre**: 760 M€

Total: 16,270 M€

Of which 100 M€ for GEANT/GRID

Of which 200 M€ for GEANT/GRID
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.
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:

- 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*
Actions called for in the Council Conclusions on IPv6

18 June 2002
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.
• 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;
• **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.