EU Task Force on IPv6

(EURESCOM contribution)

- Items for discussion
  - *Protocol Platform*
  - *Administrative issues*
  - *Application Platform*
  - *Comments and proposals*

Protocol Platform

- Requirements are well defined including options
- Developments are fairly complete and stable
- Main manufacturers are already involved
- Several “trial” networks are already operational (e.g. 6-bone)

Administrative issues

- Internet address administration, handling and management is still a crucial point
- The role of ICANN, IETF, …..
- Can IP numbers have some logical structure to minimise administration and management costs?

Application platform (I)

- Key issue: migration from IPv4 to IPv6
- IPv6 needs to be installed in terminal equipment and in ISP routers
- No real business case, hence a wrong perception: *IPv6 is generally seen as "I have to accept it" rather than an opportunity*
- IPv4 is not so critical for fixed networks
- Who is willing to pay for it?

Application platform (II)

- The need for IPv6 is mainly felt in Europe and Asia
- A second wrong perception: IPv6 is not just increased address space capability, but includes necessary enhancements for interactive multimedia services
- Future models of “all-IP” networks and all devices communicating demand IPv6

The key issue

- The mobile market could be the principal driver for the introduction of IPv6:
- Nevertheless at present:
  - *No IPv6 mobile terminals*
  - *No (?) IPv6 commercial servers*
  - *No (?) IPv6 based services*

How to break the vitious loop?

Comments and proposals (I)

- First point: we must encourage development of applications, not just technology
- Applications based on IPv6 should be promoted and adequately sponsored
- A co-operative approach among European (and Japanese?) mobile and network operators (IPv6 MoU?).
- The EU could be catalyst for such initiatives through provision of appropriate resources

Comments and proposals (II)

- It is essential to create a critical mass
- Promote IPv6 pilot networks (eg. Universities)
- Promote “in-house”, “infomobility” and “localization” services, as new applications
- QoS and security as main additional issues
- Utilise RTD 5th and 6th FPs, and TEN Prog.
- EU Commission could also play a primary role on administrative issues

IP Work In EURESCOM 2001

- **Protocols and deployment:**
  - Mobile IP, IP Multicast, MPLS, Diff Serve, IPSec., IPv6,
- **Technology evaluation:**
  - IP-over-Optical transport Networks, IP/GbE/WDM, IP/POS/WDM, IP/DPT/WDM, Scalability
- **IP Services & Management:**
  - IP VPN, VoIP, SIP, QoS, IP Management, Inter-Operator IP QoS Framework, Mobility mngemnt