PRESS RELEASE

IPv6 Cluster Release New Publication:
'Moving to IPv6 in Europe'

Brussels, November 4, 2003 – A new booklet, entitled 'Moving to IPv6 in Europe', has been produced by 6LINK, a project in the IST (Information Society Technologies) division of the EU's Fifth Framework Programme. It provides an excellent overview of the current status of European R&D activities in the IPv6 area and covers projects, networks, trials and applications developed and demonstrated in the IST Programme.

IPv6 is a new version of the Internet Protocol and is a key element in the move towards a Next Generation Internet. The European Union, through its IST Programme, is a major supporter of this new networking technology. To date there have been more than 30 IPv6-related projects which, collectively, explore the use of IPv6 in telecoms networks both from an operator and end-user point of view.

'IPv6 is a critical technology for enabling the convergence of the Internet with mobile communications, an area where Europe leads the world,' said Erkki Liikanen, European Commissioner for Enterprise and the Information Society. 'The importance of IPv6 to European competitiveness in general cannot be overestimated. Europe needs to match its first-class research with political commitment to make IPv6 happen.'[1]

The easy-to-read booklet is addressed to professionals working in areas related to telecommunications and information technologies as well as decision makers and users interested in the current status of IPv6 and its evolution in the near future.

'Our new publication really serves to highlight the tremendous investment that the European Commission and European industry are making in IPv6. The range of activities and the scale of deployments being undertaken prove that IPv6 is an essential component of the rapidly expanding Information Society. Bringing these projects together to share results and collaborate as part of the IPv6 Cluster, as supported by 6LINK, strengthens and enhances their impact,' claimed Mat Ford, 6LINK Co-ordinator and IPv6 Cluster Chair.

The current booklet is the second publication of this type from the 6LINK project. A third one is being prepared and is expected to be ready around June 2004.

BACKGROUND

In February 2002, the European Commission adopted the Communication entitled 'IPv6: Priorities for Action'[2]. The Communication calls for a European action plan to accelerate the rollout of Internet Protocol version 6 (IPv6) - a key technology for the Next Generation Internet. The current generation of the Internet does not have sufficient 'Internet addresses' for the long-term future of the global Information Society. IPv6 provides a huge increase in the number of Internet addresses available.

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[1] Commission takes step Towards the Next generation Internet
(http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=IP/02/284|0|AGED&lg=EN&display=)
[2] http://europa.eu.int/eur-lex/en/com/cnc/2002/com2002_0096en01.pdf

'Moving to IPv6 in Europe' is available in PDF format directly from the IPv6 Cluster web portal (http://www.ist-ipv6.org/pdf/ISTClusterBooklet2003.pdf), and hardcopies can be requested from Marie-Gabrielle.Dejardin@cec.eu.int or Jordi.Palet@consulintel.es.

THE IPV6 CLUSTER

'IPv6 is becoming central to the development of new technologies, services and applications. The IPv6 Cluster provides support to foster cooperation between research projects. Publications like this increase the opportunities for different projects to work together. With this publication, it is clear that IPv6 is ready for deployment,' said Jordi Palet, Consulintel CTO and Euro6IX Scientific Coordinator.

ABOUT IPV6

IPv6 is an upgrade to the data networking protocols that power the Internet. The Internet Engineering Task Force (IETF) developed the basic specifications during the 1990s after a competitive design phase used to select the best overall solution. The primary motivation for the design and deployment of IPv6 is to expand the available 'address space' of the Internet, thereby enabling billions of new devices (PDAs, cellular phones, appliances, etc.), new users (countries like China, India, etc.), and new, 'always-on' technologies (xDSL, cable, Ethernet-to-the-home, fibre-to-the-home, PLC, etc.).

While the existing protocol, IPv4, has a 32-bit address space that provides for a theoretical 2^{32} (approximately 4 billion) unique globally addressable hosts, IPv6 has a 128-bit address space that can uniquely address 2^{128} (about 340 undecillion[3]) hosts. In practice, the number of global IPv4 addresses that can be used is far less, due to inefficiencies in their allocation and use. IPv4 simply cannot support an Internet scaling to many billions of globally connected hosts. Network Address Translation (NAT) has extended IPv4's life in conjunction with private IPv4 addresses. However, NAT complicates application deployment and, more importantly, cannot support new Internet growth areas including those 'always-on' and 'peer-to-peer' services that require connections be established to devices in home networks.

Further information is available on the IPv6 Cluster website (http://www.ist-ipv6.org). Also the press coordinating team can be contacted directly through:

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[3] Actually 340,282,366,920,938,463,463,374,607,431,768,211,456 addresses.