



Brussels, 30 May 2008

Ladies and gentlemen,

I regret that I am unable to join you for this conference on IPv6 and the Internet. As you know, I am a strong proponent of introducing IPv6 capability into the Internet on a global scale as quickly as possible. It is credible that the IPv4 unique address space will have been exhausted some time in 2010-2011. We are going to have to run IPv4 and IPv6 in parallel on the Internet.

Operation of two protocols that are not directly compatible is a serious challenge but it must be accomplished. While software appears to be available for most of the popular operating systems for clients and servers and routers, we will undoubtedly discover various errors in implementation and operation once we have significant deployment of the new IPv6 protocols. It is vital to find out what these problems are before we are required to have IPv6 in place to support devices that cannot be assigned a unique IPv4 address.

At Google, we recognize the importance of introducing IPv6 in parallel with IPv4. We have already implemented access to our search system via IPv6 using the domain name [ipv6.google.com](http://ipv6.google.com). This is still a very early implementation and we cannot guarantee the same performance that users get with the IPv4 system but we expect this will improve.

I believe it is imperative that Internet application providers and users start asking their ISPs NOW whether IPv6 is available and, if not, when it will be. Users of all kinds should be able to obtain both IPv4 and IPv6 addresses serviced on a single access line (but that is something you need to ask about explicitly as some ISPs seem to think these services should be offered on distinct circuits - possibly because they are terminating on different routers or different ports on the same router.

It is easily predicted that there will be billions of devices on the Internet in wired and wireless modes of operation. To support them, we need the expanded address space of IPv6. We need for DNS to work on both protocols. We need routing to work with both protocols. We need various forms of network protection to work with both protocols. We need connectivity of the Internet to be equally good with IPv4 and with IPv6. ISPs are key players in this equation and they need to adopt policies that will encourage users to adopt and use IPv6.

European networking policy can go a long way towards helping the world move towards the implementation of IPv6 and I commend this goal to the Commission and to the participants of this conference.

Sincerely,

Vint Cerf  
Chief Internet Evangelist  
Google