

IPv6

The New Generation Internet

22nd – 23rd June 2000, Millennium Britannia Hotel, London

“We are very pleased to officially support this event and look forward to a successful two days”

Latif Ladid, President, IPv6 Forum

Fully Supported and Endorsed by:



What are the current concerns with IPv4?

- ◆ How will IPv4 cope with current internet growth rates?
- ◆ How will IPv4 cope with 618m online GPRS mobile terminals by 2003?*
- ◆ How will IPv4 cope with 200m Bluetooth enabled appliances by 2003?
- ◆ When will IPv4 addresses run out: 2010, 2015 or 2005 !
- ◆ How will IPv4 cope with the current breaches in internet security?
- ◆ When will fraud grow significantly to damage consumer confidence of net transactions?

* Source: ARC Group, Future Mobile Handsets Report – 2000

Expert Speaker Panel

- Latif Ladid, President, IPv6 Forum*
- Kenji Nomura, IP Task Force, NTT Europe*
- Mike Short, Chairman, Mobile Data Association & Director, BT Cellnet*
- Bosco Fernandes, Chairman ICT Group, UMTS Forum*
- Mario Campolargo, Directorate General XIII, EC Commission*
- Patrick Grossetete, IPv6 Product Manager, Cisco*
- Ole Pedersen, R & D, Martin Professional A/S, Denmark*
- Tim Chown, University of Southampton, UK*
- Marc Blanchet, Viagenie*
- Marko Keskinen, Nokia*
- Dr Nigel Seel, Interweave Consulting*
- Stuart Prevost, IP Specialist, BT*
- Alain Durand, Sun Microsystems*
- Tatsuya Jinmei, Toshiba*

PLUS New to IPv6? – Do Not Miss

The IPv6 Masterclass

Led by Viagenie Inc.

21st June 2000, Le Meridien Hotel, Piccadilly

A Focused & Comprehensive Agenda will update you on the move to IPv6

The Business Case for IPv6

- ◆ THE NEED FOR IPv6: INTERNET EVERYWHERE AND IN EVERYTHING
- ◆ PREPARING FOR THE IPv6 TIDAL WAVE
- ◆ THE IPv4 CAPACITY CRISIS: HOW LONG HAVE WE GOT?
- ◆ IPv4 IPv6 COEXISTENCE STRATEGIES
- ◆ IPv6 TRIAL DEPLOYMENTS AND CONFORMANCE TESTING
- ◆ IPv6 STANDARDS UPDATES
- ◆ IPv6 ADDRESS ALLOCATION UPDATE
- ◆ IPv6 APPLICATIONS
- ◆ IPv6 FOR FUTURE MOBILE NETWORK

The Technical Case for IPv6

- ◆ TRANSITION STRATEGIES
- ◆ IPv6 CLOUD DEPLOYMENT
- ◆ IPv6 – IPv6 TUNNELS
- ◆ ENSURING IPv4 ONLINE DURING IPV6 TRANSITION
- ◆ IPv4 TRANSLATION TECHNOLOGIES
- ◆ AUTOCONFIGURATION OF LINK LOCAL CONNECTIONS
- ◆ IPv6 FOR VOICE OVER IP
- ◆ IPv6 QOS
- ◆ IPv6 AND IPSEC
- ◆ MOBILE IPv6

IPv6 is happening – are you ready?

Official Publications



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Day One – 21st June 2000, Le Meridien, Piccadilly

The IPv6 Technical Masterclass

Led by IPv6 experts Viagenie, this one day seminar will cover the basics of IPv6, what it is, how it works, how it will integrate with IPv4, a complete update on the trial network architectures, commercial deployments and the growing support and trends of the IPv6 industry.

- **Overview of IPv6**

Why IPv6?

Problems with IPv4

IPv4 Address Shortage Current and Future Situations

NAT

New Communication Technologies

Current status of the IETF standards and working groups

- **IPv6 Features**

Design Criteria for IPv6

Basic Specifications

- **IPv6 Addressing**

IPv6 Address Representation

DNS configuration for IPv6 addresses

Aggregatable Global Unicast Addresses

Multicast and Anycast Addresses

- **Routing protocols (BGP4+, RIPng)**

- **Transition Strategies**

Tunnel Broker Architecture

- **Host installation and configuration**

- **Router configurations**

- **How to connect to the IPv6 Internet**

- **IPv6 deployment on the internet**

Tunnel Peering

- **IPv6 industry support and trends**



Course Leaders

Viagenie is a consulting firm specialized in security, advanced network architecture including IPv6, voice-video-telephony over IP and internationalisation. Viagenie made the first and most important portal on Internet standards, called Normos (<http://www.normos.org>), that includes RFC, IETF-drafts, IANA, W3C, ISO, SET, IEEE and ATM Forum standards.

Viagenie staff is very involved in IETF, in IPv6, security and internationalisation areas, where M. Blanchet is co-chair of the internationalized domain names working group and author of drafts on IPv6. He is the co-founder of the IPv6Forum and member of the board. He also write books on TCP/IP and is a technical editor for books on IPv6.

Viagenie is very active in IPv6 since 1996 and has been the first Canadian network site to get connected to the 6bone and the first canadian backbone site. Together with ESnet, Viagenie has engineered and manage the 6tap, the first IPv6 exchange located at the Startup. Viagenie is currently providing a unique easy access to the IPv6 Internet called Freenet6 (<http://www.freenet6.net>) and a IPv6 quake server (quake.ipv6.viagenie.qc.ca).

Join the IPv6 Forum



A worldwide consortium of currently over 80 leading Telco's, Internet service providers, Internet solutions vendors and Research & Education Networks are shaping the IPv6 FORUM. With a clear mission to promote IPv6 by dramatically improving the market and user awareness of IPv6, creating a higher quality, secure New Generation Internet and allowing world-wide equitable access to knowledge and technology. The IPv6 FORUM will not develop protocol standards. The Internet Engineering Task Force has sole authority for IPv6 protocol standards.

We would like to take this opportunity to urge your organization to sign up to become Members of the IPv6 FORUM. A membership application form as well as the Benefits of Membership can be found at <http://www.ipv6forum.com/>.

The IPv6 Forum welcomes every helping hand, and we invite you to join us. Your valuable addition to our membership would be another important step towards the success of this noble mission.

Do Not Miss Your Chance to Shape the New Generation Internet Join the IPv6 Forum at www.ipv6forum.com/.

Prepare your IPv6 Business Strategy

Day One – 22nd June 2000

Keynote Session

The opening presentations will provide delegates with the overview of the internet explosion and how the internet needs to know evolve and reach maturity.

09.00 The IPv6 Forum: IPv6 Now a Reality

- Are we outgrowing IPv4?
- The Need for Industry Standards
- New Internet Applications and Vertical Markets
- IPv6: Quality, Security, Mobility
- The Exploding IPv6 Industry

Speaker: **Latif Ladid**, *President, IPv6 Forum*

09.30 The IPv6 Internet in Europe

- IPv6 a Unifying Standard
- The European IPv6 Initiatives
- The Future of IPv6

Speaker: **Mario Campolargo**, *Directorate General XIII, EC Commission*

10.00 Towards IPv6 Businesses – NTT Communications' Activities

- Objectives
- NTT's IPv6 Activities
- NTT's Global IPv6 Network
- Future Plan

Speaker: **Kenji Nomura**, *IP Task Force, NTT Europe*

10.30 Questions and Discussion

10.40 Morning Tea and Opportunity to Visit the IPv6 Demonstrations

11.00 Standards Body Panel Debate

- IPv6 a Robust International Standard – Taking the Standard to Market

Panellists: **Latif Ladid**, *President, IPv6 Forum*
Jean Michel Becar, *Project Director Internet, ETSI*
Bosco Fernandes, *Chairman ICT Group, UMTS Forum*

New Applications Driving The New Internet

The IPv4 protocol was designed over twenty years ago to cope with possibly millions of machines not billions of machines, mobile handsets and appliances.

11.30 The Mobile Data Explosion

- Mobile Industry Overview
- Growth of Mobile Data
- Mobile Demand for IPv6

Speaker: **Mike Short**, *Director, BT Cellnet & Chairman of Mobile Data Association & Past Chairman, GSM Association*

11.55 IPv6 3G Cellular

- e2e solutions for Internet-Mobile Convergence
- Portability and interoperability
- Key challenges facing I-M convergence
- Key Success Factors for Mobile IPv6
- Key Benefits of UMTS

Speaker: **Bosco Fernandes**, *Chairman ICT Group, UMTS Forum*

12.20 Questions and Discussion

12.30 Lunch and opportunity to visit the latest IPv6 Product Demonstrations

13.45 IPv6 Home Networking

- Why Home Networking
- IPv4 Limitations in Home Networking
- Advantages of IPv6 in Home Networking

Speaker: **Brian Haberman**, *Research Engineer, Nortel Networks*

14.10 Bluetooth: The Application Explosion

- What is Bluetooth?
- Why will we need Bluetooth?
- What will Bluetooth mean?
- How will 300m IP Enabled Appliances be connected?

Speaker: **Mark Lambert**, *Consultant, Cambridge Consultants, UK*

14.35 What is embedded IPv6?

- The idea of embedded networking - what's the advantage of the plug in the toaster?
- Should embedded applications using IPv4, IPv6 or both?
- What's needed for an embedded IPv6 application?
- Some applications using embedded IPv6

Speaker: **Ole Pedersen**, *Data Communication Engineer, R & D Department, Martin Professional A/S, Denmark*

15.00 IPv6 in the Sky

- Air Traffic Control World
- Aeronautical communications and applications
- Operational requirements
- Why is IPv6 the answer?
- Conclusions

Speaker: **Phil Smith**, *IPSky Project Manager, Eurocontrol Experimental Centre, France*

15.25 Questions and Discussion

15.35 Afternoon Tea and Opportunity to visit the IPv6 Demonstrations

15.55 IPv6: Opening up the Provision of IP-VPN's

- IPv4 VPNs - what's missing?
- What makes an IPv6 VPN attractive?
- The business case for IPv6 VPNs
- VPN end users, "the usual suspects?" or, a broader deeper market?

Speaker: **Mike Parr**, *SAQ Internet, UK*

IPv6 Commercial Product Rollout

Some of the leading internet equipment vendors describe their IPv6 product availability

16.20 What's Shipping in IPv6 Products

Speaker: *A Representative, Sun Microsystems*

16.35 Commercial Roll Out Plans Vendor Panel – When will IPv6 products being ready for shipment?

How to create the chicken and the egg and drive market momentum. Current roll out predictions are examined.

Panellists: **Patrick Grossetete**, *Cisco*
A Representative, Sun Microsystems
Marko Keskinen, *Business Development Manager Digital Convergence Business Unit, Nokia Mobile Phones, Finland*
Alan Hadden, *Global Suppliers Association*

17.10 Cocktail Party

Over 30 Key Experts from the IPv6 world

IPv6 enabling Internet Quality, Security, Mobility

Day Two – 23rd June

Worldwide Trials: Lessons from the IPv6 Trials

What lessons can be learnt from the IPv6 testbeds?

09.00 Japan: The First Commercial IPv6 Deployment

- General overview of the KAME project
- Implementation and deployment status of KAME including the status of merging KAME into BSD variants
- Future plans of the project
- Activity report of IPv6 community in Japan including commercial services

Speaker: **Tatsuya Jinmei**, Researcher, Research and Development Center, Toshiba Corporation, Japan

09.30 Lessons Learnt from the BT ISP Trials

- The Network Deployment
- Tunnel Broker Service
- Transition Techniques

Speaker: **Stuart Prevost**, IP Specialist, Advanced Communications Engineering, BT

10.00 UK IPv6 Testbeds

- The UK Trial Network
- Major Lessons Learnt
- Future Project Plans

Speaker: **Tim Chown**, University of Southampton

10.10 Questions and Discussion

10.20 Morning Coffee and opportunity to visit the IPv6 Demonstrations

10.40 French and European IPv6 Trials

- The French RNRT @IRS project
- The Renater IPv6 Network
- The IST 6INIT project

Speaker: **Patrick Coquet**, Thomson-CSF, France & Vice Chairman, IPv6 Forum

11.15 Canadian Trials

Speaker: **Marc Blanchet**, Viagenie

11.45 The Norwegian IPv6 Test Bed

- A separate test bed for network research in addition to the reliable research and educational network
- A backbone connecting major research facilities and universities
- Deployment of IPv6 in big scale and study of different transition strategies
- Deployment of IPv6 services

Speaker: **Trond Skjesol**, Senior Staff Member, UNINETT, Norway

12.20 Questions and Discussion

12.30 Lunch and opportunity to visit the IPv6 Demonstrations

IPv4 Integration / Interworking Strategies

How can we seamlessly migrate IPv4 users to IPv6?
What is the integration architecture needed?

13.40 How to Evolve and Integrate IPv6 Infrastructure

Speaker: **Henk Steenmans**, AT&T, The Netherlands*

* Awaiting Final Confirmation

14.10 Transition Strategies

- Global overview of transition
- Review & classification of various mechanism from IETF NGtrans wg
- Study of one particular transition scenario

Speaker: **Alain Durand**, Sun Microsystems

14.40 Integration of IPv6, starting from the Edge

- IPv6 rationales
- Phasing IPv6 integration
- Cisco IOS IPv6 roadmap

Speaker: **Patrick Grossetete**, IOS IPv6 Product Manager Cisco Systems

15.10 Transition Architecture

- Three Methods: Tunnels, Translators and Dual Stacks
- Focus on Carriers and Service Providers
- Review of configured and automatic tunnelling approaches
- Peer vs. overlay IPv6 – IPv4 interworking (translation vs. tunnels)
- Tools and techniques
- Example configurations

Speaker: **Dr Nigel Seel**, Interweave Consulting

15.40 Questions and Discussion

15.50 Afternoon Tea and opportunity to visit the IPv6 Demonstrations

Mobile IPv6

The future access networks will be mobile, two talks will examine the important area of Mobile IPv6.

16.10 Mobile IP introduction and its involvement in IN and UMTS

- The purpose of having it developed at all
- The driving forces behind it
- The move from IPv4 to IPv6
- Mobile IP architecture
- How it functions with in a network, therefore, I shall be looking into matters such as Roaming, addressing and hand off
- The differences and advantages, between MIPv4 & 6
- The effect of migration on the network elements

Speaker: **Ali Katzounian**, DeTeCon

16.40 IPv6 – delivering the next generation Internet

- IPv6 – the next generation Internet, for everyone anywhere, anytime
- IPv6 – so what (does it deliver)?
- snapshot of the real world – what do the consumers want, really?
- consumer relevant services
- IPv6 and the wireless personal trusted device
- Summary & conclusions

Speaker: **Marko Keskinen**, Business Development Manager Digital Convergence Business Unit, Nokia Mobile Phones, Finland

17.10 Questions and Discussion

17.20 Close of Conference

Register at www.ibctelecoms/ipworld

Fully Supported by the IPv6 Forum

IPv6 AT THE HEART OF EVERYTHING

Why We Will Need IPv6?

- 75% of traffic on Internet is WWW
- 3 Million Web Sites (est. Jan 1999)
- 700 Million web pages (and dark info)
- Data Domination (20% voice, 80% data)
- 8000 ISPs worldwide (4700+ in U.S.)
- Traffic growth 100-1000%/year reported
- 300 M - 1000 M users by Dec 2002

Source: IPv6 Forum

IPv6 at the Heart of Everything



Gain a Lead in the IPv6 Marketplace

Don't miss this opportunity to meet a precisely target audience and establish your position within the market place.

Sponsoring – 'IPv6' will provide your company with an excellent opportunity to enhance your company's image and profile in the global arena.

Exhibiting – Companies who choose to exhibit at 'IPv6' are guaranteed excellent access to their audience, prominent exposure for their brand and an excellent opportunity to network in a relaxed environment with a highly targeted audience.

For further information, please contact **Jo Simmonds:**

Tel: +44 (0) 171 453 5401; Fax: +44 (0) 171 453 2175; E-mail: joanna.simmonds@ibcuk.co.uk

IBC – World Leaders

IBC are the world leaders in conferences in the mobile communications arena, with flagship events including the GSM World Congress, now in its 14th year attracted over 15,500 participants in 2000. Our portfolio of strategic, marketing and technical focused events in telecoms, media and IT attracts over 17 000 delegates each year. Numerous regional conferences cover Latin America, the Gulf, Asia Pacific, the USA and Europe. We also produce a number of annual events on other technologies that are allied to Bluetooth, such as events for the Bluetooth SIG, WAP Forum, the DECT Forum, the UMTS Forum and the European Public Paging Association. Our marketing experience and international reach is second to none, which ensures that you have the best chance of meeting other key decision-makers in your industry, and of making your time out of the office as fruitful and informative as possible.

Further information can be found at: www.ibctelecoms.com

IP Based VPN's



A 2-Day Focused Conference

Utilising the Control Offered by IP

11th – 12th July 2000, Hyatt Carlton, London

IP based VPNs are a key technology for the deployment of many new applications over the internet which require the assured security of confidential information. Despite this, the VPN market is in a state of flux and ripe not only for market expansion, but also for market leadership.

Hear from industry innovators and market leaders addressing these key issues:

- Evolution of IP Based VPN services
- Generating Revenue from VPN Traffic
- Providing End to End IP Based VPNs
- Bundling and Marketing VPN Services
- IPSec – Internet Protocol Security Protocol and VPNs
- Security strategies for IP VPN's
- Re-evaluating QoS
- Benchmarking VPN Services
- Managing QoS for IP VPN's
- IP VPN Architecture

Go To www.ibctelecoms.com/ipworld or phone +44-207-453-5495 for further information.

IPv6 is going to happen – are you ready for it?

“Cisco has confirmed plans for a phased rollout of the next-generation Internet protocol”

Press release 16/3/00

“Microsoft to release Windows 2000 add-on for software developers that supports IPv6”

Press release 14/3/00

“For Sun and the Solaris software organization, providing support for IPv6 networking has been a key priority”

<http://www.sun.com/solaris/ipv6/>

“the lack of authentication in current protocols means short time measures can only minimise the impact of the floods; they cannot fully prevent it – that has to be prevented in the long term by migrating to IPv6, which provides necessary authentication facilities and a bunch of other security extensions.”

Mixer (hacker responsible for recent high profile website attacks)

For Further information about the IPv6 and IPv6 Forum please go to www.ipv6forum.com

340,282,366,920,938,463,374,607,431,768,211,456 is the number of IPv6 Addresses

