IPv6 Deployment in Japan
- the way we accomplish -

EC IPv6 Deployment TF –Phase II
September 12th, 2002
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IPv6 Promotion Council of Japan
Deployment Scope
shared by both Gov. & Industries

Applications
- E-Government
- E-Learning
- Medical Welfare
- Shopping Logistics
- Communication
- Finance

Platform
- Base Strategy (Domestic/Intn’l)
  - Standards
  - Address Admin
  - Base system Infrastructure
  - Security Legislation

Infrastructures
- Government
- Metropolitan
- Countryside
- Intelligent Traffic System
- Legislation

Applications
- Community
- Metropolitan
- Countryside
- E-Learning
- Medical Welfare
- Shopping Logistics
- Communication
- Finance
Deployment Promotion Body

- Performance of Promotion Body (Such as IPv6 TF) is the key for deployment
- Establishment of IPv6 PC for this sake

- Grand Design
- Strategic Planning
- Budget Program

- Press
- Magazine
- Event
- Show Rm

- R&D Project
- Trial Program

- Apps. Trial Program
- Feedback collection
Deployment Status in Japan
All parts get ready in J P:

- Government Support IPv6 in “e-Japan”
- Major ISPs have started services
  - Even start-ups and rural small ISPs
- Backbone and IX providers have started
- Major router vendors are “v6-ready”
- Major terminal vendors started trials
  - Home appliances, sensors, Web-cameras, etc.
- Other service area started trials
  - Internet Car/Train, Medical, On-line Games, etc.
ISPs

- **IIJ**
  - 1st IPv6 service (tunnel) in 1998
  - Offer Dual, IDC, Consultation at current
  - More than 100 customers

- **NTT Communications**
  - 1st commercial IPv6 service in 2001
  - Started Dual services for ADSL users
  - World-wide global transport service
ISP (cont.)

- Others offer trial services
  - Powered Com
  - Japan Telecom
  - KDDI
    - Also started tunnel service for Mobile phone
  - Fujitsu, Panasonic, Sony, DTI, Mitsubishi for home users
  - Chita Medias (a local CATV provider)
  - MIS (Mobile IP/802.11b “Hot-spot” service)
ISPs (cont.)

- Others
  - JGN (Japan Gigabit Network)
    - Funded by Government
    - Nation-wide research network
    - Native IPv6 transport (not tunnel)
    - IPv6 over ATM
    - 622 Mbps capacity
    - 45 access points in nation
      - This site is also connected to Kita-Kyushu point
IXs

- NSPI XP6
  - Operated by WIDE Project
  - About 40 ISPs and organizations connected
  - 180 Mbps recorded in peak

- JPIX
  - 1st commercial IPv6 IX with APNIC/JPNIC special allocation for Ixs

- MEX (Media Exchange)
  - Started transit service
Router vendors

- All Japanese vendors are ready to go
  - HITACHI
  - Fujitsu
  - NEC
  - Furukawa Electric
  - YAMAHA
  - Etc…
Promotion Activities

- IPv6 Promotion bodies helps activities
  - **IPv6 Deployment Committee**
    - Est. 2001 under Internet Association of Japan
  - IPv6 Operation Study Group
    - Solve issues in IPv6 operation and study for standardization proposing to IETF
  - Publish IPv6 related articles in IA Japan Review
  - Play a role of liaison to IPv6 Forum
  - Plan and execute “Global IPv6 Summit in Japan”
Promotion Activities (cont.)

- **IPv6 Promotion Council of Japan**
  - Basic activities funded by Government
  - Help conducting many trials
    - Home Appliance
    - Internet Trains
    - Broadcasting (multi-angle views of Baseball games)
    - Tele-control/sensing

- **International Coordination**
  - EU-JP cooperation: IPv6 TF, Eurov6
  - Korea-JP operation meeting
  - China-JP collaboration: 6TNet
  - Taiwan-JP collaboration

- Hosting **IPv6 Showroom “Galleria v6”**
Promotion Activities (cont.)
Other Activities

- Publication: *increase public awareness*
  - IPv6 Magazine (former “The IPv6 Journal”)
    - Issued quarterly as an extra number of “Internet Magazine”
    - IPv6 experts in Japan contribute writing
    - Pick up hot topics in technical standards, operation, services, products, overseas activities update, etc.
    - IPv6 PC contribute articles regularly
Other Activities

- Publication (cont.)
  - Web news “v6start” by Nikkei-BP
    - [http://v6start.net/](http://v6start.net/)
      - Hot topics, educational corner, political discussion, etc
  - So-called “v6-Press Club”
    - Call all interesting press members by IPv6 PC
    - Contacting every event or news happen
Trails:

- Please take a look video provided from IPv6 PC
  
  http://www.v6pc.jp/data_e.html
1st IPv6 Internet Live Concert in History
@NetLiferium (Internet/ISP event for consumers)
Ex: WLAN Access on Trains

Wireless LAN service inside moving trains.

ODAKYU (TOKYO)

KEIKYU (TOKYO)

NEX (TOKYO)
IPv6 Promotion Council

Test-bed participants:

- Carriers/ISP:
  NTTc, Yusen, IP Revolution, Tokyo-Metallic, JCN, Biglobe, Nifty, etc.
- Data Center:
  NTT Communications, and others
- Modem (cable, ADSL):
  Panasonic, Hitachi, Yamaha and etc.
- Security (IPSec/IKE/PKI/IDS/DDoS):
  INTEC and others
- Operating System:
  Microsoft (including WMP)
  And…
Test-bed participants: (Cont.)

- Contents Delivery Service: Accelier
- VoIP/IP Phone: SoftFront
- Wireless: NOKIA, SHARP, NTT-DoCoMo, J-Phone
- Sensor node: Yokogawa, NTTc
- Game gear: SONY
- Home Appliances: Toshiba, Panasonic, Sanyo
- Digital Camera: Sanyo
- Web Camera: Canon, NEC, etc.
  …and others
Situation in Japan:

- IPv6 is becoming a basic technology
  - Adoption of IPv6 is not special anymore
  - IPv6 access services are getting ready
- Japan is moving to the 2nd stage
  - The focus is moving to new application for next generation of Internet market
  - Hardware vendors also challenge to introduce new network-oriented products
- Some new applications emerge
Words from Japan:

- Contribute to global advancement
  - Global effort and advancement is necessary to lower the cost
- Share the deployment experience
  - Organic link of Promotion Bodies is important
- Many trials from many different aspects
  - Nobody knows which application will break
- Obtain more attention of various kinds of people
Announcement:

- Global IPv6 Summit in Japan 2002
  - Dec. 18-19, 2002 @ Yokohama
  - “Share Vision and Know-how for Business development”
- Workshop Day (Dec. 18\textsuperscript{th})
  - IPv6 setup tutorial
  - IPv6 implementation session for Company Network
  - IPv6 conscious application development tutorial
  - IPv6 embedded system development session
- Conference Day (Dec. 19\textsuperscript{th})
  - Panel discussions
Thank you and
Let’s do together!

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