

IPv6 Deployment Status in Japan

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1. Governmental Activities
2. IPv6 Application and Service
3. Conclusion
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New IT Reform Strategy

- IT Strategic Headquarters decided ***“New IT Reform Strategy”*** in January 2006
(The New Japanese IT strategy take the place from “e-Japan Strategy”)

“Also, as information and communications hardware is updated and replaced in the future, **new equipment will as a general rule be IPv6 compatible by FY 2008.**”

<http://www.kantei.go.jp/foreign/policy/it/ITstrategy2006.pdf>

• Priority Policy Program - 2006

- IPv6 guideline IPv6 compatible e-Gov system
- The each ministry agency makes the transition plan
- Investigate the IPv6 correspondence of ISP

 **Result will be shown around the END of Mar. 2007 !** 3

Government's expectations for IPv6

- The End of Analog Broadcasting
 - TV Broadcasting Service will COMPLETELY shift to Digital in 2011. (Analog TV will STOP)
 - Government is planning that IP Multicast service as one of substitution to fill the Gap area.
➡ Will use IPv6 Probably.
- Social health insurance
 - Efficiency of Medical and Social Insurance service is a big political issue in Japan.
 - Medical fee claims will be online.
➡ Expectation for IPv6 Secured network.
- Other
 - The Elimination of Broadband Zero Areas
 - Challenge Again Assistance –Promotion of “Tele-work”–

IPv6 Transition Model

Smooth Transition

- Prepare for IPv6 Environment at the time of system upgrades
 - Lead to a gradual transition in several years

Forced Deployment

- IPv6 Transition by force
 - Lead by government bodies, etc
 - Forced conditions such as IPv4 exhaustion

Solution Oriented Deployment

- IPv6 Deployment as solutions
 - Adopt IPv6 as means to meet the needs
 - This includes closed networks and other cases which doesn't require IPv4 compatibility

Potentials of IPv6 Market

Two areas of commercial market in IPv6

IPv6 network (Closed Network Service)

- IP-conversion of non-IP area – “Will be IP” –
 - Facility Management
 - Sensor Networks
 - Telephone/mobile infrastructure
 - IPTV
 - etc...

IPv6 Internet (Global Network Service)

- IPv6 over IPv4 (tunneling)
- Dual stack connectivity
- Remote monitoring system over IPv6 internet

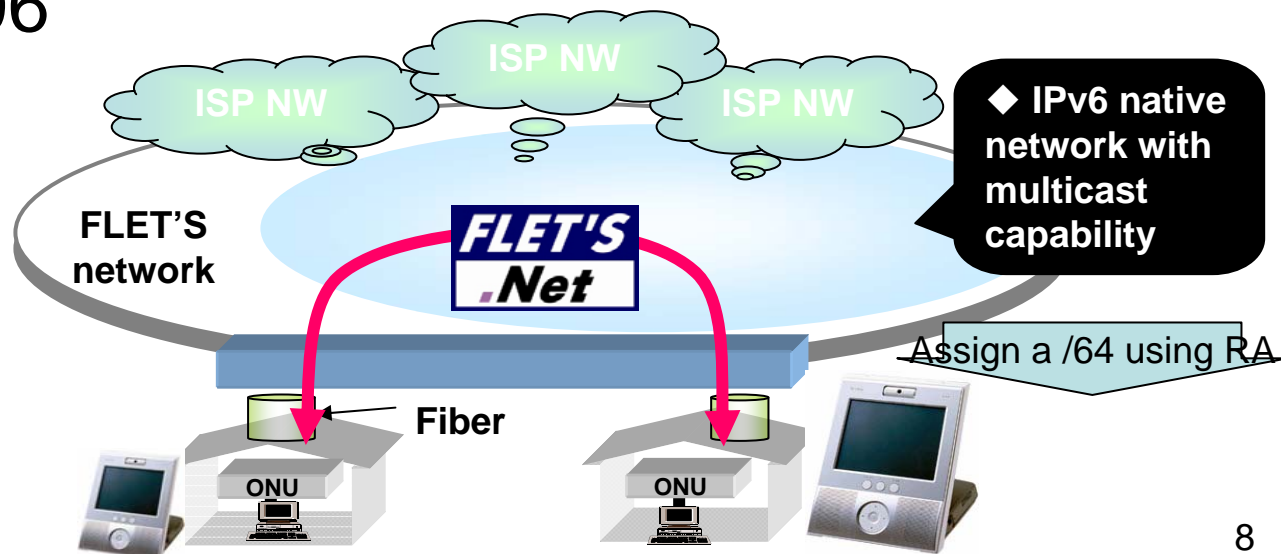
IPv6 Market (IPv6 Business in JAPAN)

Base Network Service	<ul style="list-style-type: none">• FLET'S Networks and Services (NTT East / NTT West)• IPv6 Internet Connectivity Option (OCN)
Applications upon Closed Network	<ul style="list-style-type: none">• 4th media (Plala)• On Demand TV (On Demand TV)• IPv6 kiosk terminal service (Family Mart)• Building Facility Management System (Panasonic etc.)
Applications upon IPv6 Internet	<p style="text-align: center;">Easy to be on IPv6 Internet Service</p> <ul style="list-style-type: none">• IP Phone (FreeBit)• Live E! (Not Commercial)

FLET'S Network and Services

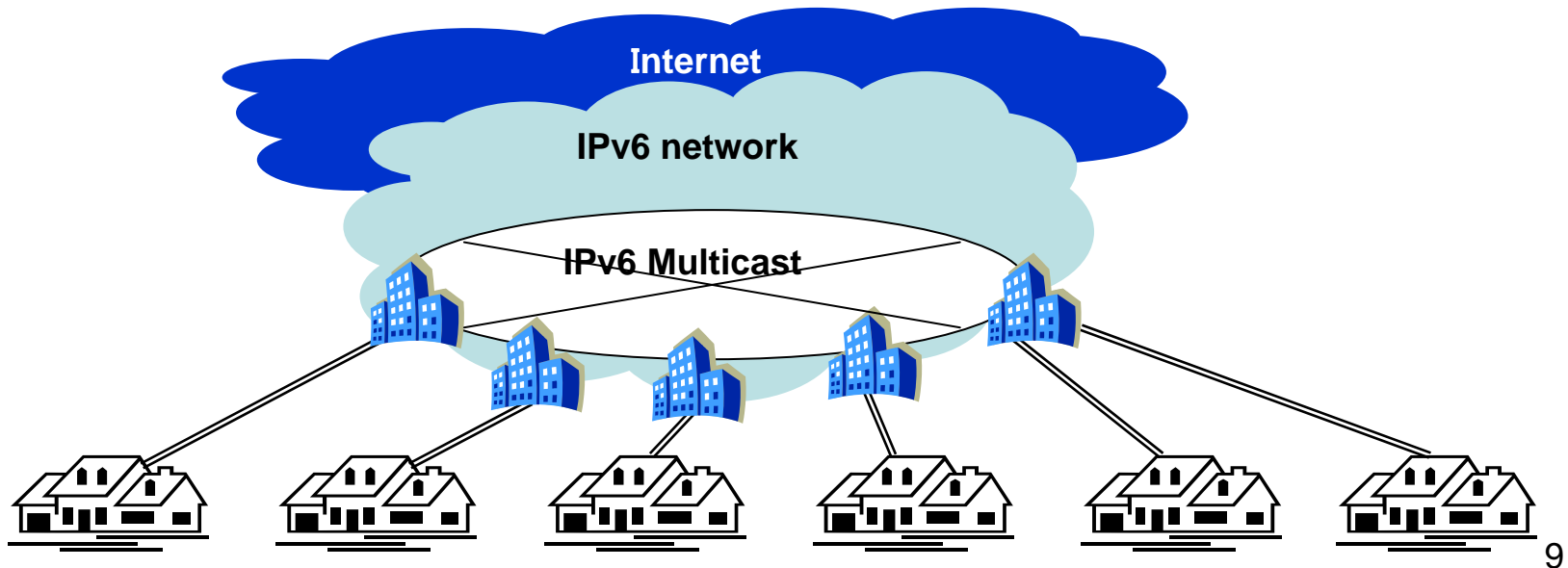


- Optional service for FLET'S internet subscribers
(FLET'S Subscribers are "IPv6 Ready", FLET'S .NET service and FLET'S v6Appli service Subscribers are "IPv6 Users")
- ISPs connected to FLET'S network can be ASPs
- 5.4M FLET'S Subscribers in Jan. 2007.
- 48K FLET'S .NET Subs, 49K FLET'S v6Appli Subs in Mar. 2006



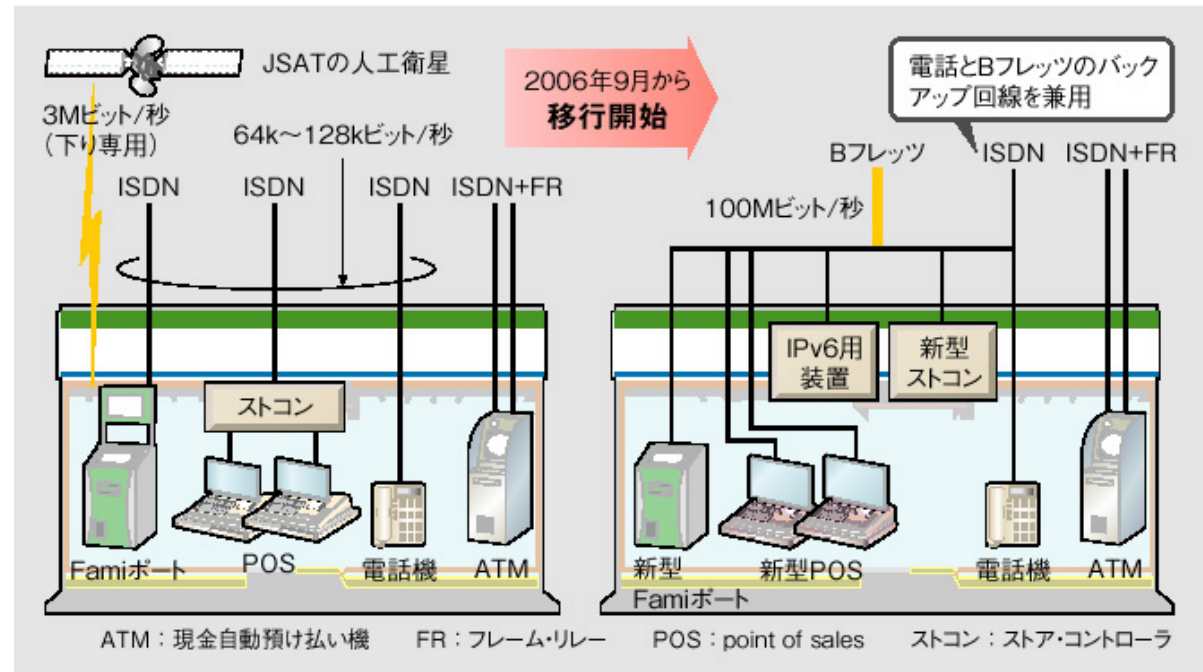
VoD service (4th Media / On demand TV)

- TV broadcasting and Video on Demand services based on IPv6 multicast technology
- Using FLET'S Network
- 50K Subscribers in Oct. 2006 for 4th Media
- 50K Subscribers in Apr. 2006 for On demand TV



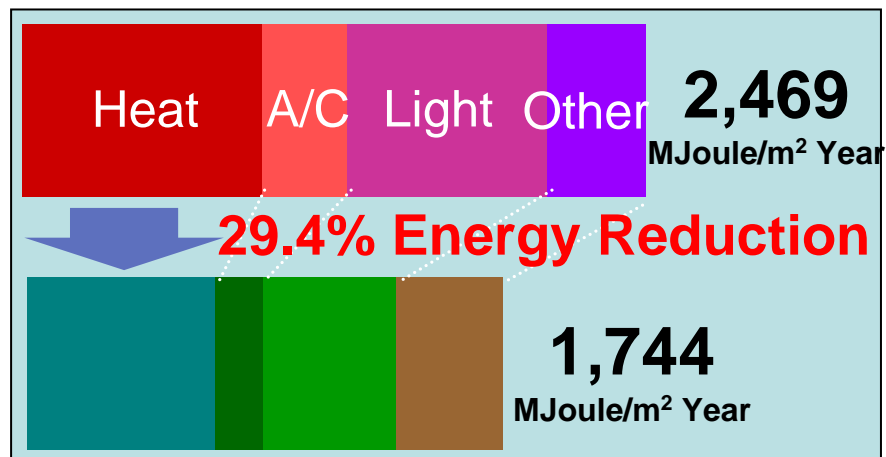
IPv6 kiosk terminal service (Family Mart)

- Major convenience store plans to implement a broadband network for 7000 stores by Feb. 2007.
- Use IPv6 Multicast Technology to send Store Manuals, Advertisement.



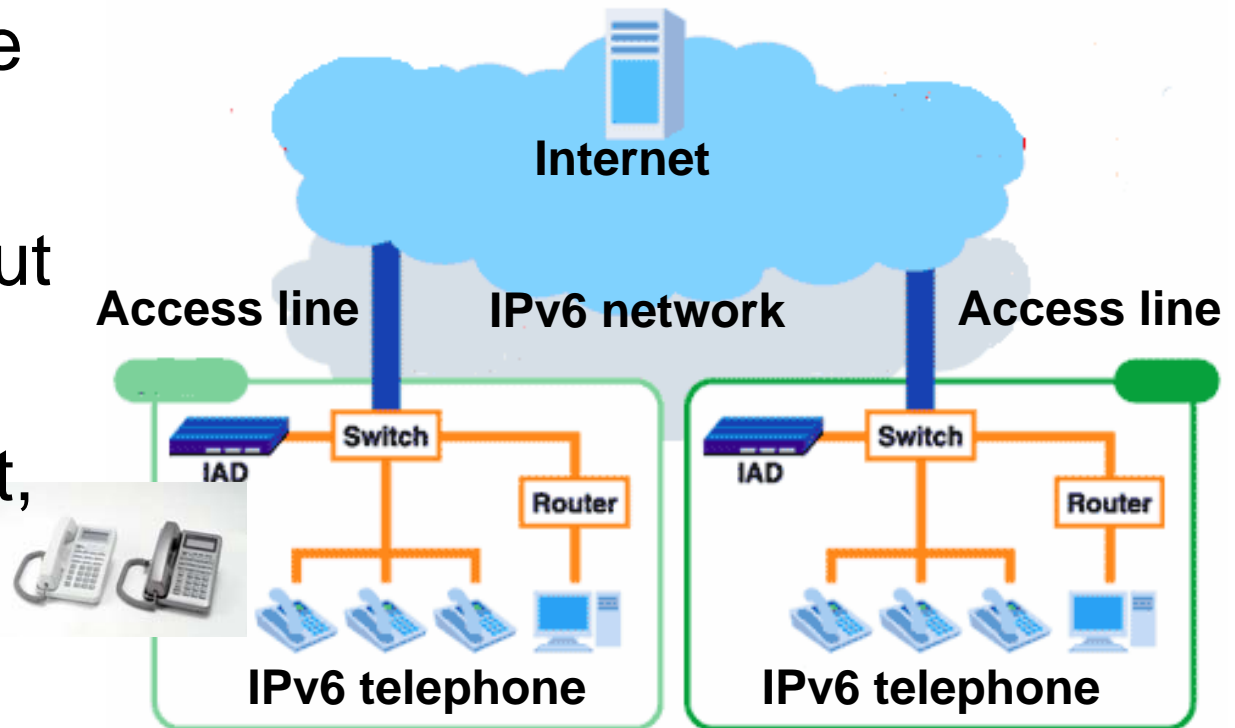
Building Facility Management System

- Use BACnet Protocol on IPv6 to share the network infrastructure with two or more Facility Management Systems.
- Panasonic Installed their FM System – EMIT – on IPv6 to their Tokyo Headquarter Building.
- Panasonic's trial in their Osaka site, shows 29.4% Energy Reduction.



FreeBit

- IP-phone solution based on shared IP Centrex
- Has Already installed 25,000 terminals to a dormitory operator to manage their distributed facilities
- Not only reduce the initial and running cost, but also reduce Installation cost, risk and time.



Live E!

- Live E! is a approach that aims at the achievement of the infrastructure construction that can use, process, and share “Environmental Information”.
- “Environmental Information” is collected by "Digital Weather Station“, IP Camera, etc. that are set up by the individual and the organization voluntarily.
- By the installation of a lot of “Digital Weather Station”, the environmental information can be utilized much more.
- The development of a new activity is assumed in an education, public service and the business field.



Digital Weather Station

Chair : Hiroshi ESAKI (Tokyo Univ.)
Co-Chair : Reiji AIHARA (Hiroshima Univ.)

Cooperation WIDE Project
Organization: IPv6 Promotion Council of Japan
U18 IPv6 u
IRI Ubiteq, Inc. Weathernews, Inc.
Uchida Yoko Co., Ltd. ECHELON Japan K.K.
Cisco Systems, Inc. DAI-DAN CO., LTD.
Net One Systems Co., Ltd.
Nippon Telegraph and Telephone East Corporation
Willcom Inc.
NTT Neomeit Chugoku Corporation
Mitsubishi Research Institute, Inc.

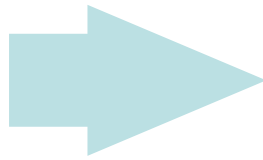
multiple purposes

①Education Materials

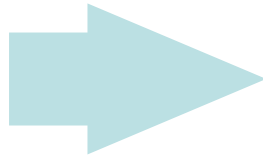
②Public Services

③Business applications

IPv6 getting closer to the home



IPv6 home router, Now in Japanese major electrical store.
Only about \$120.00 !!



IPv6 Network Camera, Also in some store.
Only about \$480.00 !!



OCN IPv6
未来はすぐそこ。家庭内ネットワークの新しいカタチ！
OCN IPv6は、ライフスタイルが変化する可能性を秘めた接続サービスです！

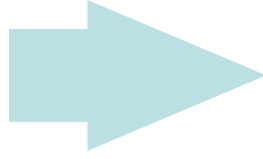
IPv6ってなに？
IPv6は、現在インターネットで使われているIPv4の次世代プロトコル。IPv4アドレスが枯渇している中で、広大なアドレス空間を持つIPv6が導入されています。IPv6は、その利便性により、あらゆる種類のインターネットにつながって、発信元からのコントロールも可能になります。そのことによって新しい時代は、ここから始まります。

OCN IPv6 サービスの長所

① 外出先から自宅の対応機器へダイレクトにアクセス！	② 専用ルーター等の設定変更が不要！
③ IPv6サービスと併用してのご利用が可能！	④ 接続プログラムを無償提供！
⑤ 月額315円(税込)で同時に2セッションご利用可能！	



IPv6 Connectivity Option, provided by OCN.
Only \$3.60 per month !!



IPv6 Multicast Compatible LCD HDTV, provided by Toshiba.
Only from \$1200.00 !!

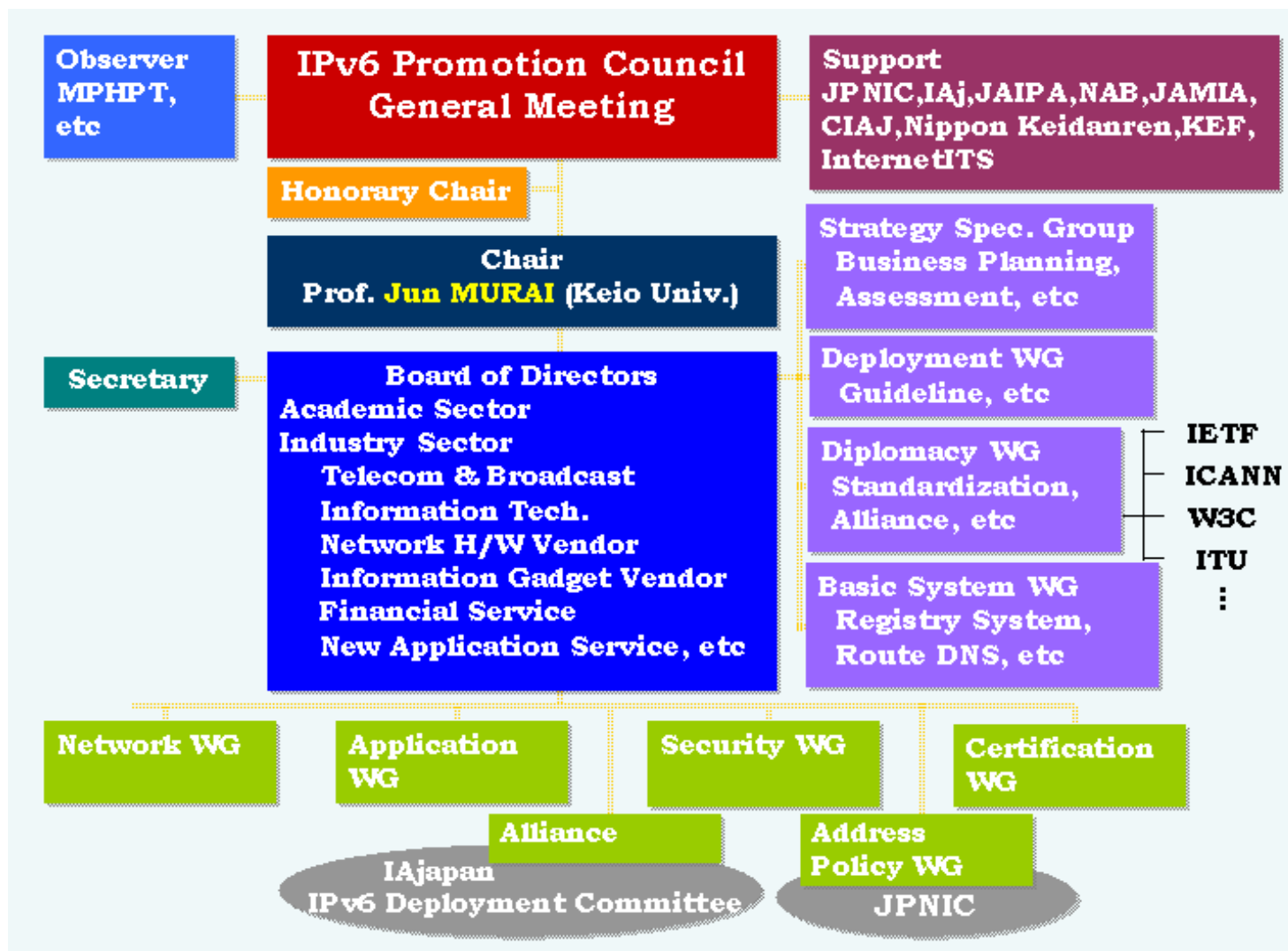
Future Activities in Japan

- Commercial IPv6 services for corporate and home-users are available in Japan
 - Services within closed networks currently enjoy more advantages (Ex. Multicast service with FLET'S network)
 - But, IPv6 is NOT Attractive in Current IPv4 internet service market.
>>Forget it in Japan!
- For the consumer, the IPv6 connectivity is getting closer.
 - With WINDOWS VISTA, Some Consumer will use IPv6 Internet. (but some will not realize it...)
- In the “Will be IP market” as the building maintenance , the sensor network and the disaster prevention system, the system using IPv6 will spread rapidly.
 - Japanese Government execrating IPv6 for network of these systems.
- We will contribute to spread IPv6 at worldwide scale.
 - IPv6 Promotion Council will Focus to ASIA area in this year.

About us

- Established in October, 2000
- Non-Profit and Non-Governmental organization
- 390 Corporations, Organizations, and Individuals as of November 2006
 - Members from worldwide major companies in telecom carriers, ISPs, HW/SW vendors, car, finance, general trading companies as well, such as TOYOTA, Bank of Tokyo-Mitsubishi UFJ and so on
 - international members such as HP, Juniper, CISCO, IBM, NOKIA, Native6 and so on

Organization



Thank you for your attention !



More information:

IPv6 Promotion Council of Japan:

URL: <http://www.v6pc.jp/en/index.html>

e-mail: info@v6pc.jp