

e-Japan Strategy -- its progress to date

Government's strategic scheme

IT Basic Law (effective in January 2001)



IT Strategic Headquarters
(set up in January 2001)

Measures taken by IT Strategic Headquarters

e-Japan Strategy (adopted by IT Strategic Headquarters in January 2001)

Target: "To make Japan the world's most advanced IT nation"
(ex. Promote the shift to the Internet networks equipped with IPv6)



e-Japan Strategy (adopted by IT Strategic Headquarters in March 2001)

(all 103 measures for FY2001 were carried out as planned)



e-Japan Priority Policy Program - 2002 (adopted by IT Strategic Headquarters in June 2002)



e-Japan Strategy II

(adopted by IT Strategic Headquarters in July 2003)

Target: "To realize an energetic, worry-free, exciting and more convenient society through the strategic utilization of IT "



e-Japan Priority Policy Program - 2003 (adopted by IT Strategic Headquarters in August 2003)

Benefits of a Ubiquitous Network in Various Fields

Work

- Personalize any PC for public use (at internet cafes or hotels) with personalized ID card

Environment

Protection

- Simplifying the recycling of goods and the management of waste materials, with the use of microchips.

Logistics

- Improve the efficiency of distribution systems by giving each commodity a microchip ID.

Traffic control

- Realize precise guiding of cars and pedestrians, with microchips embedded in roads

Home electronic appliances

- Enable an access and control from outside over various home electronic appliances.

Education/Learning

- Enable routing and presentation guides to exhibits at museums, customized to personal preferences.

Finance

- Prevent counterfeiting of securities by embedding microchips.

Food

- Ensure traceability of foods with the use of microchips.

Medicine

- Avoid side effects of taking several medicines at one time, by identifying the composition of each medicine with microchips.

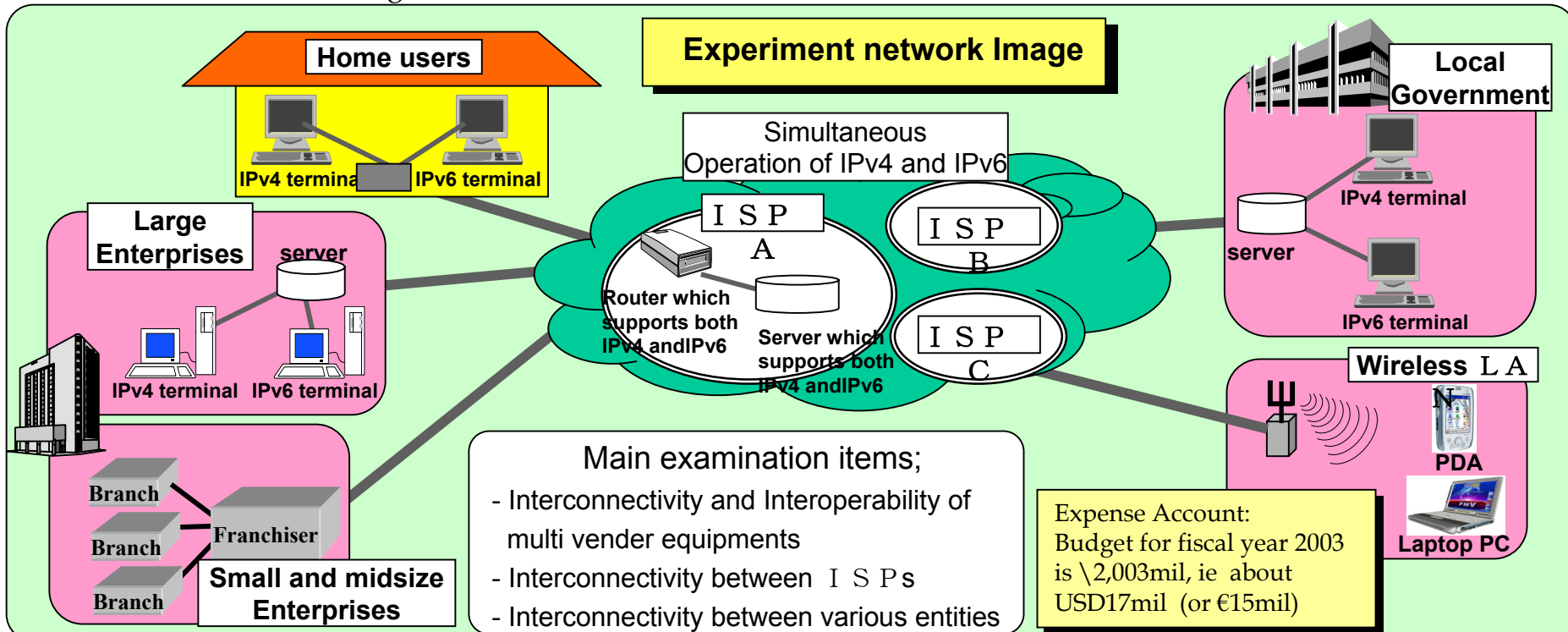
Convenience for the elderly and people with disabilities

- Create barrier-free environment in public transportation facilities with sensors detecting any inconvenience

Promotion of the transition to IPv6 Internet

With the ultimate aim of becoming the most advanced IT nation in the world, we intend to conduct demonstration experiments to realize a smooth transition of the whole Internet infrastructure from IPv4 to IPv6. Through these experiments, we seek solutions to network operational problems while developing transitional models. (Experiments started December 2003)

- In Network consisting of a local government, enterprises and home users, etc., MPHPT conduct demonstration experiments for 3 years from 2003 targeting a transition of the whole Internet infrastructure from IPv4 to IPv6.
- While seeking solutions to network operational problems, develop an optimal model for a smooth transition to IPv6, without adversely affecting IPv4-based services.
- In order to promote the transition to IPv6 worldwide, we will distribute IPv6 transition know-how to the rest of the world by such means as releasing the results of the demonstration experiments and taking part in standardization activities of international organizations.



Cooperation among Japan-China-Korea

Japan-China-Korea ICT Ministerial Meeting

- First China-Japan-Korea ICT Ministerial Meeting was held at Marrakesh, Morocco on September 24, 2002.
- Second China-Japan-Korea ICT Ministerial Meeting was held at Cheju, Korea on September 8, 2003.
- Japan, China and Korea will comprehensively cooperate for promoting harmonized ICT policies, the Asia Broadband Program, R&D, joint research.

Fruits of the Second meeting: the three ministers agreed upon a joint statement

- Establishment of WG concerning 3G and next generation mobile communications(G4)
- Establishment of WG concerning next generation internet (IPv6)
- Establishment of WG concerning digital broadcasting
- Establishment of WG concerning information security
- Establishment of forum concerning open source software
- Establishment of forum concerning policy for telecommunication services
- Cooperation concerning 2008 Beijing Olympic Games

The next meeting

- To be held in Japan within 2004

Domestic promotion scheme of cooperation among the public and private sectors

- Japan-China-Korea ICT Cooperation Council (Established on November 2002) discuss the details of contents through the joint initiatives between the public and private sectors.

Internet Policy Direction in the 21st Century

Second Interim Report of the Telecommunications Council on 7th August 2002

Targets as set forth in the "e-Japan Strategy"

Realization of the world's advanced IT nation within 2005

1. "to bring low-cost, flat-rate high-speed Internet access to 30 million households and ultrahigh-speed Internet to 10 million households"
2. "promote the shift to the Internet networks equipped with IPv6 that provides enough address space and stricter protection of privacy and network security"

Current Status

Number of homes passed high-speed/ultrahigh-speed Internet

	ultrahigh-speed Internet	high-speed Internet	
	FTTH	DSL	CATV
Target (households)	10 million	30 million	
Homes passed	14 million	35 million circuits	23 million households
Actual subscribers	35,000	2,699,000	1,533,000
Ratio	0.3%	7.7%	6.7%

Source: Benchmarks, "e-Japan Priority Program 2002"

IPv6 readiness

1. Standardization was almost completed, IPv6-ready OS is at final stage.
 - Japan's KAME Project leads world's R&D.
2. IPv6-readiness of network equipment is in progress.
 - Japanese manufactures (Hitachi, NEC, Fujitsu, etc.) achieved the world's first IPv6-readiness.
3. Launch of commercial IPv6-ready access service by ISPs.
 - NTT-Com, IJU started the world's first IPv6-ready access service.
4. IPv6-readiness of network operations is in progress.
 - Japanese origin address policies are implemented since July 2002. IPv6-readiness of DNS is in progress.

Issues to be deliberated

- (1) Promotion of use of high-speed/ultrahigh-speed Internet (promotion of content distribution, widespread use of IPv6-ready applications/terminals, etc.)
- (2) Expansion of IPv6-based Internet infrastructures to be comprehensively compliant with advanced Internet use.

Promotion of Internet Use

Promotion of content distribution

Factors preventing content distribution on the Internet

1. Increase of illegal copies along with digitalization
2. Complicated rights management pertaining to content production

Technical issues and solutions thereof

In addition to promotion of content distribution, with a viewpoint of strengthening Japan's industrial competitiveness, the following support measures will be implemented:

1. Support for R&D on DRM-preinstalled terminals
2. Implementation of verification experiments for building social consensus on content distribution over the Internet

Legal issues and solutions thereof

While preparing legal frameworks to cope with networking, support verification experiments with the following perspectives:

1. Verification of the effectiveness of mechanisms for monitoring rights violation on the Internet in order to ensure the effectiveness of right
2. Promotion of rule making concerning rights management pertaining to content production

Promotion of IPv6 use

Advantage of IPv6 improving user convenience

1. Improvement of convenience of existing services
 - Improvement of convenience of for content distribution
 - Improvement of mobility
 - Improvement of P2P applications, etc.
2. Creation of diversified applications through use of terminals other than PCs
3. Applications in the future

Implementation of verification experiments toward widespread use of IPv6 with the following perspectives:

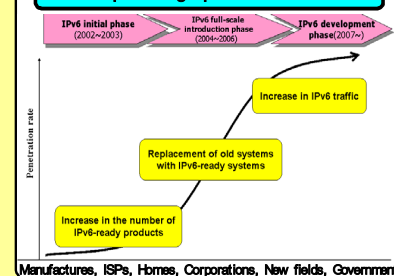
1. R&D on IPv6-ready convenient terminals and applications, and demonstration thereof to consumers in an easy-to-understand manner
2. Social consensus-building among stakeholders on desirable operation rules (protection of proprietary information, the scope of liabilities related to service providers) in order to put IPv6 into practical use

Transition of the Internet to IPv6-based one

Analysis of current status

1. Basic R&D was completed thanks to the considerable contributions of Japanese researchers.
2. Inspired by Japan's industry-academia-government efforts, many countries including the U.S. are catching up with Japan.
3. The current IPv6 is still at an initial stage for practical operations before the full-scale introduction phase. It bears a similarity to the status of IPv4 a decade ago.
4. In the years ahead, as the existing IPv4-based infrastructures become compatible with IPv6, IPv6 will be deployed.

Roadmap showing a path toward transition



Challenges to be tackled

In order to accelerate initiatives toward IPv6 full-scale introduction implement verification experiments on model project in model local governments, with the following purposes:

1. Establishment of higher reliability and user-friendliness of hardware/software necessary for the Internet as a social infrastructure
2. Earlier establishment of knowhow to facilitate transition of IPv6 coexisting with IPv4, and operation knowhow of IPv6 different from IPv4
3. Fostering of human resources with sufficient knowledge on IPv6

Japan as a leading country in IPv6, shall distribute the transitional model to other countries, and further contribute to worldwide deployment of IPv6.