

# The Next Stage of the e-Japan Strategy

By Kokuryo Jiro

THE e-Japan Strategy, the pillar of Japan's national information technology (IT) initiatives, is about to enter its second stage. Details of the new strategy, which will be announced by the prime minister's office later in the year, have not yet been decided. We do, however, have some clues based on reports from related government agencies including the Ministry of Economy, Trade and Industry (METI); and the Ministry of Internal Affairs and Communications (MIC), in which key concepts such as "ubiquitous" and "platform" are proposed. In a nutshell, the idea is the transition from "stage I," infrastructure building and utilization of the broadband network, to "stage II," the creation of platforms on which knowledge, technologies and new businesses emerge vigorously in a ubiquitous network.

The original e-Japan Strategy was announced in January 2001 after the Basic Law on the Formation of an Advanced Information and Telecommunications Network Society

became effective. The move was prompted by a sense of crisis that Japan was perhaps falling behind in the Internet revolution.

To be fair, Japan's IT industry rapidly caught up with the United States in the 1970s and 1980s. The highest performing CPUs, memories and supercomputers were produced in Japan. Such hardware advancement was beginning to help Japanese mainframe vendors to capture markets around the world.

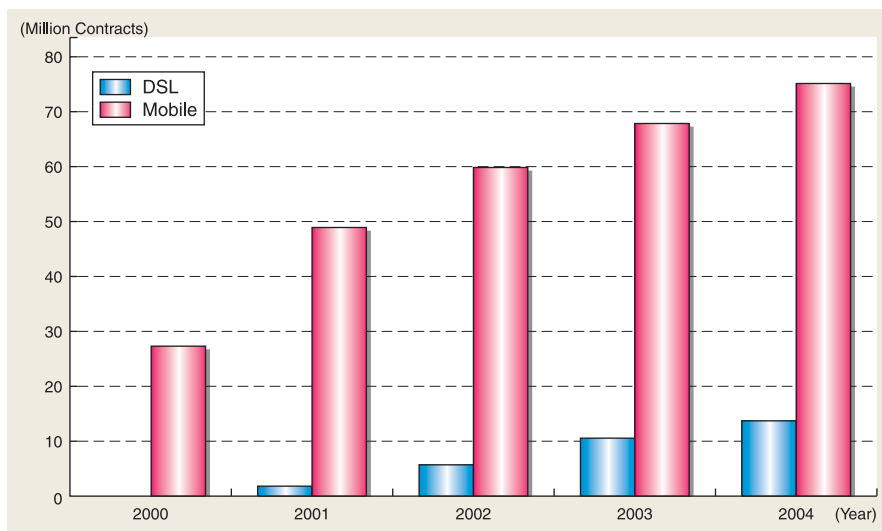
The trend, however, shifted with the rise of personal computers, and most notably in the progress of open architecture systems. Japan's engineering excelled by fine tuning and balance in every detail of systems such as mainframes. Engineers who grew up in such a culture found it difficult to adapt to the idea of building up a system with unbundled hardware, operating system and applications software. Likewise, the idea of packaged software for mainframes and PCs was against the instinct of the engineers, who emphasized

reflecting the result of *kaizen* (improvement) in the operation by customizing every detail of the software to user needs. The Japanese computer manufacturers were slow to respond to the market trend and lost much of the market except in the laptop segment that nevertheless required finely tuned engineering. The final blow was the initial slow start of the Internet. Skepticism toward "best effort" – which means unreliable – technology was stronger in the Japanese IT community (which takes pride in zero defects quality) than in other places in the world. The problem was serious because the weakness was a reflection of the very strength that brought the Japanese IT industry to its prominence. Lack of enthusiasm resulted in the price of (best effort non-time sensitive) Internet service being among the most expensive in the world. Hence the penetration of the Internet was very slow.

The initial IT strategy (the original e-Japan Strategy) addressed the issue head on. The goal was to become the most advanced IT nation in the world in five years. A concrete target was set of connecting 30 million households by broadband networks.

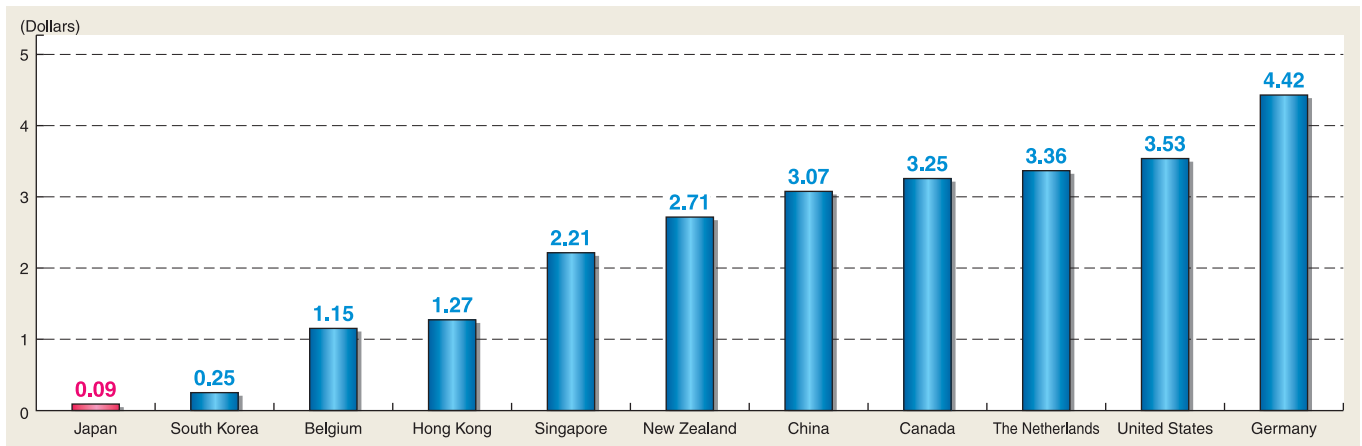
While the e-Japan Strategy included other aspects of the IT society, the focus of the implementation was in the development of network infrastructure. Policies included (1) unbundling of the physical layer from network and applications layers, and (2) promotion of competition in both network and physical layers. These policies worked dramatically. The most direct impact policy appeared in the rapid take-off of digital subscriber line (DSL) services, where many providers rented physical facilities from the incumbents and offered services at competitive prices. Within three years, the price of best effort Internet service quickly fell to less than one tenth of the 1999 price which stimulated significant growth. Another significant

Figure 1 Growth of Mobile and DSL Internet in Japan



Source: Ministry of Internal Affairs and Communications

Figure 2 International Comparison of Broadband Fees (cost per 100 kbps; July 2003)



Source: *Birth of Broadband*, International Telecommunication Union

Notes: Comparison of fees per 100 kbps based on the service speeds and service fee of DSL and cable Internet in each country (region)

area of growth was mobile networks. The strategy of opening mobile access to the Internet, rather than creating a closed data world of its own, was put into action in 1999, i.e., just before the e-Japan initiatives. Nevertheless, mobile networks took full advantage of the e-Japan's strategy of promoting the Internet and together they created an integrated world in which mobile platforms provide a dynamic field for the initiation of innovative e-commerce services.

As progress was made on the infrastructure aspects, recognition grew that the infrastructure was just a part of the solution and investment in infrastructure can only be recovered through effective use of technology. It was with this perception that the e-Japan Strategy II was formulated in 2003. Planning strategic uses of IT was a complicated task, because the causal link between IT investment and the economic/social outcome is long with many non-IT factors working in-between. It was inevitable that the strategy became almost a social program requiring many reforms from the tax system to medical practices. Seven areas, including medical treatment, food safety and lifestyle were selected as pilot areas for making advances. A notable characteristic of e-

Japan II is the introduction of review processes. Based on the recognition of the complex web of factors affecting the benefits of IT, the strategy proposed constant monitoring of the implementation of the strategy. This resulted in the introduction of the plan-do-check-action (PDCA) cycle in the IT Strategy Headquarters.

It is against these backgrounds that the new IT strategy (as yet unnamed) will be formulated. Its official process will most likely take place by the end of 2005 and we do not know what it is going to say. We have clues, however, because two primary ministries have already announced their vision for the next stage.

MIC announced its "u-Japan" Initiative at the end of 2004. The "u" primarily stands for "ubiquitous." The Initiative emphasizes the promotion of an ubiquitous network employing wireless networks and sensor devices that connect not only the digital but the physical worlds. The Initiative calls for the creation of the safe and kind information society by leveraging the lead that Japan enjoys in the preparation of the ubiquitous network through the development of mobile Internet services. METI announced in April 2005 its Vision for Information-based Economy

and Industries that advocates the promotion of platform businesses which provide an environment for integrating various technological and service elements to develop sound business models. Emphasis on the platform notion reflects the recognition that Japan's excellence in individual technological elements (devices) is not resulting in profits because Japanese firms are failing to take initiatives in the creation of platforms and business models.

Putting the new initiatives in historical context, Japan is now ready to propose the next generation of an IT-equipped society. It will be one in which the ubiquitous network provides a platform for building a new society that fully addresses the needs of the 21<sup>st</sup> century such as environment (recycling), safety and elderly care. We will build such a society not only by the initiative of elites, but by mobilizing a diverse range of people who are informed by the networks and can take initiatives by themselves through the networks. The goal of the Strategy will have to be the promotion of innovation through the empowerment of people. **JS**

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