Creating a human-centric, earth-friendly information society

The "C&C User Forum & iEXPO2008" was held at Tokyo International Forum over three days from November 11th, 2008. The concept of the forum and exposition, "Creating a human-centric, earth-friendly information society" is also part of the NEC Group's vision for creating "a rich information society in which people can use services that are safe, secure, comfortable and convenient, while maintaining harmony with the global environment." The event was held by joining all of the forces of the NEC Group and it was thus able to introduce a variety of innovations and customer collaborations. These were in fields that included IT and the networking convergence of NEC Group, an exhibition of over 150 products and solutions and 107 lectures and workshops. This article focuses on the highlights of the technologies featured in the exhibits.

Outline of iEXPO2008

iEXPO2008 was held at four main locations. These were the Exhibition Hall where the latest solutions and technologies were exhibited, the Plaza where the latest personal products were exhibited, the NEC Digital Cinema Theater in Hall B5 where 3D digital movies were projected, and Hall B7 that was used as the venue for introducing solutions that were specialized for each type of business. The most advanced technologies introduced in these locations attracted the interest of large numbers of visitors.

The Exhibition Hall was divided into the Main Theme Stage and five exhibition areas with topics representing: "Agreeable Work Style," "Eco Products and Solutions," "Safe and Secure Business and Society," "New Business Creation and Business Support Services" and "The Latest in Technology and R&D." Each area introduced solutions and technologies matching its theme with the use of demonstrations and exhibits.

Main Theme Stage providing a comprehensive display of iEXPO2008 as well as recommended information on exhibits and demonstrations

The Main Theme Stage in the Exhibition Hall was intended to invite the visitors of the event to a realistic experience of the future and to offer a description of the entire event in the context of the iEXPO2008 theme of "Creating a human-centric, earth-friendly information society" (**Photo 1**).

A human-friendly, recycling-based community was once established in "Edo," which was the old name of the city presently called Tokyo. The exhibition at the Main Theme Stage showed how we were able to learn from the wisdom of those times in utilizing IT to realize "sustainable growth" and in "Creating an information society friendly both to humans and the earth." The narrator on stage interacted with the animated character of Gennai Hiraga, an innovator of the Edo era, displayed on the screen. Together they gave explanations of the

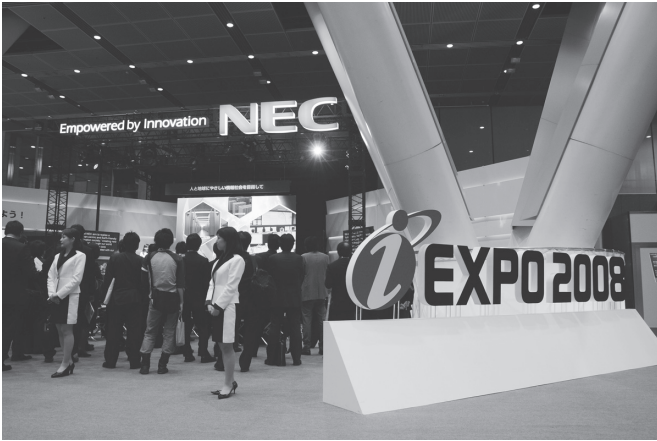# Creating a human-centric, earth-friendly information society

Photo 1 Visitors stop and listen to the explanation on the Main Theme Stage.

Photo 2 An HDTV conference connecting different sections from inside as well as from outside a company shows a full of reality.

21st century undertaken by the NEC Group. She also introduced exhibit highlights from other areas of the event as well as recommending seminars and lectures.

Agreeable Work Style
- Agreeable Work Style by minimizing troubles, waste and irregularities -

This area mainly showcased the Unified Communications platforms, RFID and Thin Client as well as productivity improvements brought about by improved efficiency. It also offered demonstrations and actual experience of applications so that visitors could experience work styles without the need to perform troublesome tasks.

One of the demonstrations was "Conference solution to accelerate collaboration." An HDTV conference connecting people from inside and outside a company was demonstrated in the context of a real business situation. Its high definition imagery and realistic presence attracted much visitor attention (**Photo 2**). Other demonstrations included the "Ubiquitous Work Place Portal" that visualized the priority of callers requesting contact and displayed the incoming call status in order of time, and "Easy and Safe mobile work" that utilized mobile cellular systems. In addition, demonstrations of projected work styles were also presented as "Safe and Collaborative Telework" using Thin Client.

Regarding the use of RFID, actual scenes of applications were demonstrated, including the "UHF-band compact RFID solution" for the accurate counting of large numbers of products, the "active tag solution" for theft prevention or alarm triggering in relation to abnormality detection, the "hybrid kanban system" and the "uniform wear management system" using linen tags.

Eco Products and Solutions
- IT at work for the environment -

This area introduced the "REAL IT COOL PROJECT" targeting an up to 50% reduction in the power consumption of IT environments by 2012. It demonstrated the achievements of NEC products including power-saving platforms, power-saving control software and power-saving facility services.

The exhibits of power-saving platforms featured the environmentally friendly server "Express5800/ECO CENTER" that received the "Ministry of Economy, Trade and Industry Award," which is a premier prize of the "Green IT Award for 2008" presented by the Green IT Promotion Council (**Photo 3**) and the "NX7700" that adopts a power-saving cluster system, as well as systems featuring significant power consumption such as "iStorage D Series" and "iStorage HS" and LAN switch "IP 8800." A demonstration of the actual power saving achieved at a data center was also provided for the visitors.

Photo 3 The environmentally friendly server "Express5800/ECO CENTER" receiving the Ministry of Economy, Trade and Industry Award of the Green IT Award 2008.

For the power-saving software, exhibits included the operations management software "WebSAM" that is capable of fine control of hardware power consumption and comparison of power consumption between previous and upgraded office systems as well as presenting new technologies such as bio-plastics and lithium ion batteries.

Safe and Secure Business and Society
- Protecting business information as well as human life and communities -

This area introduced the latest technologies, expertise, products and solutions related to security. All of the booths attracted the interest of large audiences by reflecting the circumstances of modern society.

Solutions for protecting communities included "human behavior monitoring" utilizing image analysis technology, physical security solutions such as the "intelligent integrated surveillance system" and "biometrics authentication" as well as "an integrated fire-fighting and disaster prevention system" and "electronic medical chart system".

On the other hand, among the solutions for protecting businesses, various security software products that together constituted a coordinated security solution enabling total security management attracted special attention from the many visitors.

New Business Creation and Business Support Services
- New business/service models proposed by NEC -

This area introduced examples of applications of new business and service models, such as digital signage and e-money/e-coupons to enable visitors to have a taste of what life will be like in the near-future.

Digital signage incorporates various technologies such as face recognition, age/sex estimation and information distribution control. The digital signage demonstration presented a new potential for advertising procedures. It displayed the most suitable advertisements and market information for targeting persons witnessing signage at the counters of banks, securities companies, etc. That for the e-money/e-coupon assumed a case in which a foreigner was visiting Japan. The traveler used various new services available via a cellular phone, including the purchase of an e-ticket for a movie with a discount coupon using the Concierge Terminal service, checking a hotel reservation and acquisition of an e-key.

Other features introduced in this area included the collaborative ware offering optimum environments for businesses, the SaaS type services and examples of outsourcing.

The Latest in Technology and R&D
Latest technologies to benefit of the future of humankind and the earth environment from the ocean depths below to the constellations above

This area was used to introduce the latest technologies and R&D of the NEC Group by classifying them into "technologies supporting today" and "technologies creating tomorrow."

In the field of space technology, space technologies developed by NEC were introduced via demonstrations and computer graphics. These included the well-known Advanced Land Observation Satellite (*DAICHI*) "ALOS" and Selenological and Engineering Explorer (*KAGUYA*) "SELENA" as well as the robotic arm used in the Japanese Experimental Module "*KIBO*" of the International Space Station and the greenhouse gases observation sensors "*TANSO*" of Greenhouse Gases Observing Satellite (*IBUKI*) "GOSAT" to be released in 2009. In particular, the demonstration of the robotic arm of the Japanese Experimental Module "*KIBO*" attracted the highest popularity because it enabled visitors to experience the simulated spacewalk training by observing computer graphics on the

Creating a human-centric, earth-friendly information society

Photo 4 A visitor experiences simulation of spacewalk training by watching computer graphics (CG) on the monitor.

Photo 5 Visitors attentively watching a powerful "3D Digital Cinema" projection.

monitor screen (**Photo 4**).

In the field of marine communication technology, the actual optical submarine cable to be laid for a distance of 10,000km at a maximum depth of 8,000 meters was exhibited together with the ultra-compact microwave communication system "PASOLINK," of three frequency bands, boasting the world's top share and the "RFID Reader/Writer" boasting the first global compatibility with RFID.

In addition, the "technologies creating tomorrow" also introduced some of the latest R&D results through exhibitions and demonstrations.

"Machi-Naka (around town) demonstrations" for experiencing a taste of projected future realities

The Digital Cinema is regarded as changing the history of cinema, and offers an entertainment business with many advantages, such as no deterioration thanks to its film, free format, the possibility of distribution via satellites and networks, and reduction of operating costs. The NEC Digital Cinema Theater in Hall B5 (**Photo 5**) was visited by large audiences who obtained their e-tickets from the Exhibition Hall and Plaza via their cellular phones in order to enjoy a selection of powerful 3D movies. At the Main Theme Stage of the Exhibition Hall, an open experiment demonstrating flow

planning using the ZigBee technology was held and participated by many visitors. They were able to view visualizations of the staying time of each visitor to the hall, area movement history and stage audience measurements on the monitors.

Experience of the latest PCs and cellular phones, Specialized Business solutions for the manufacturing, distribution and communication industries

In the Plaza, the latest desktop and notebook PC models featuring power-saving and environmental considerations, the Lui home server client solutions, cellular phones and wireless home networks were exhibited to allow visitors to individually experience them and to enjoy actual scenes of their applications in the home. These were introduced in visual format.

Finally, in Hall B7, the impact on management of the latest specialized business solutions for the manufacturing, distribution and communication industries was introduced. In many corners of the hall, groups of visitors eagerly listened to explanations by expert staff.