Toward an Information Society Friendly to Humans and the Earth
–Creating the future with you–

On November 11th and 12th, 2010, the C&C User Forum & iEXPO was held at the Tokyo International Forum under the theme, “Toward an Information Society Friendly to Humans and the Earth – Creating the future with you”.
The forum featured a presentation on NEC’s business strategy for C&C Cloud as a path to realize an “information society friendly to humans and the earth” as stated in the NEC Group Vision 2017.

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An information society friendly to humans and the earth

This February NEC announced its Mid-Term Growth Plan “V2012”. This plan consists of three pillars for growth, namely cloud services, new business creation and global business development. We consider the most important of these to be the contributions we can make to the market by leveraging “C&C Cloud” to realize an information society friendly to humans and the earth.

NEC’s aspiration to realize an information society friendly to humans and the earth refers to achieving a safe, secure, convenient and fulfilling personal life through easily accessible services that make efficient use of limited resources and offer sustainable development in harmony with the natural environment. NEC is looking to bring about this society through “C&C Cloud.”

The World of C&C Cloud

In the last ten years, the ICT environment has changed significantly. For a start, networks have all gone broadband. The LTE, or Long Term Evolution, services commencing from this December in Japan will further upgrade wireless broadband to make it possible for networks to handle even larger volumes of data, even in wireless environments. The latest virtualization and other such technologies have also made it possible for IT platforms that process data to handle larger volumes at quicker speeds.

NEC first heralded the C&C concept, the integration of computers and communications in 1977. It is now that we have the power to efficiently manage large volumes of data to create new services. We are entering exciting times to better contribute to the society with our solutions and services.

In the era of cloud computing, all of society’s information, even that stored on paper, will be available electronically in real-time using a variety of sensors and ubiquitous devices.

Electronic data is classified into a number of categories and centralized onto the cloud via networks. Within the cloud, unaligned data begin to cross category boundaries and interact with each other, forming linkages.

From these new combinations, possibilities for new services and business opportunities will emerge. Underpinning these

* This is a summary of the NEC presentation delivered on November 11, 2010, at the C&C User Forum & iEXPO2010.

possibilities is cloud computing and its ability to process large volumes of data. We believe that the real-time data that will come from this cloud environment will bring about new services, and it is these types of services that will realize an "information society friendly to humans and the earth".

The new services created by cloud computing will be delivered to a large number of users through such devices as mobile terminals and digital signage. At the same time, we believe that data collected separately will acquire new value through the formation of organic links within the cloud and that we will be able to deliver this value-added data in real-time. From this perspective, it is new mobile cloud services delivered via wireless networks that will draw the most attention.

Contributions to the customer offered by the C&C Cloud

At present the major business issues faced by corporations are how to (1) achieve growth while contributing to the overall market; (2) respond to the trend toward globalization; (3) realize efficiencies in business operations, and (4) give full consideration to the environmental measures necessary to fulfill corporate social responsibilities while meeting the needs of stakeholders. We are confident that NEC can contribute through C&C Cloud to help address these four issues.

(1) New Service / Business Creation

Through C&C Cloud, NEC is not only delivering a range of industry-oriented services, but also providing the IT platforms, network devices and various sensors that collect data in real-time required for cloud computing. Having ownership of all these assets, NEC's ability to build end-to-end solutions makes it a truly unique global ICT company.

We are striving forward to realizing new business models and services for our customers by offering them the use of these assets.

A specific example of cloud computing can be seen in the construction industry. NEC is providing new cloud services for a collaborative IT infrastructure, jointly designed by Tokyu Construction, Takenaka Civil Engineering and Construction, JDC Corporation and Tsuchiya, for a diverse range of administrative tasks. These services will be made widely available to others in the construction and civil engineering industry (**Fig. 1**).

In the housing industry, NEC is providing new cloud-oriented services to associated businesses through a collaboration with Sumitomo Forestry.

Similarly in the financial industry, Sumitomo Life Insurance is aiming to cut Total Cost of Ownership (TCO) by approximately 40% by converting its asset management system to a cloud service. In the carrier arena, NEC has built a SaaS (Software as a Service) platform for Spain's Telefónica, which is

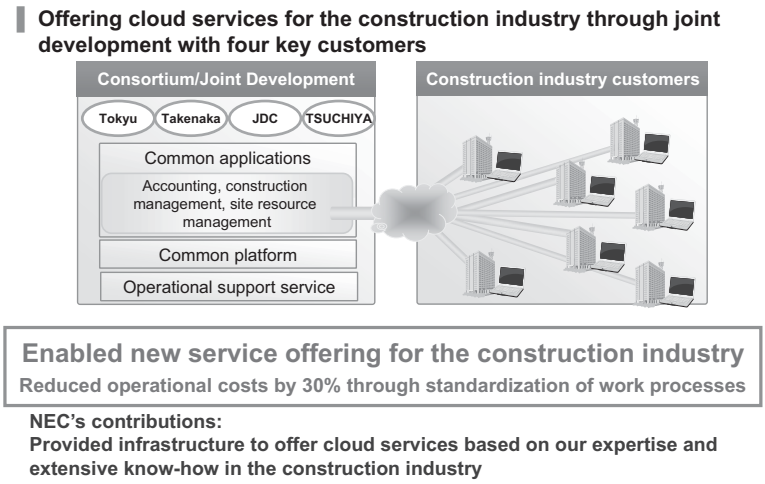

Fig. 1 Joint development of "Software as a Service" for the Construction Industry.

looking to provide new services to its corporate customers.

Telefónica will use this system to deliver CRM and asset management systems as SaaS and is eyeing deployment of these services to Latin America in the future.

Digital signage systems can deliver various contents to large displays, and enables to generate effective target-specific messages.

When combined with facial recognition technology, digital signage can be used as a detailed and proactive marketing tool. Large-scale digital signage system has been deployed in the recently opened New International Terminal at Tokyo's Haneda Airport to play a key role in providing customer services at the airport.

In its ultimate form, cloud computing is the realization of real-time services. Mobile cloud services will therefore become increasingly more important in the future. To support these mobile cloud services NEC has brought to market a new information terminal called "LifeTouch". We are presently communicating with a range of industry customers and discussing how this terminal can be put to effective use.

(2) Support for Global Business Development

Business expansion in overseas markets has become a pressing issue for Japanese companies. Wanting to provide finely tuned local support to customers expanding their operations overseas, NEC will introduce a new organizational structure from this year and strengthened operations in the five regions, in North America, Latin America, Greater China, APAC (Asia Pacific) and EMEA (Europe, Middle-East and Africa).

At each of these regions, NEC will set up a regional headquarter company and a competence center, with these centers offering support to other regions through the provision of locally developed solutions. Cloud-oriented data centers (CODC) for the delivery of cloud services will also operate at the 5 regions. These datacenters will be linked via a global service network in an effort to build a structure that can provide integrated, global services.

The initial service menu will center on horizontal deployment of NEC's own cloud-based core system. Developed on a SAP platform, this system has made NEC the world's first SAP-certified cloud service provider. To facilitate global deployment of cloud services, NEC recently established a joint venture with major Chinese solutions vendor, Neusoft. This new company will play a central role in the expansion of SaaS in the Chinese market.

We are already seeing locally developed solutions making inroads into overseas markets. In the Greater China, for example, NEC is providing a temperature traceability system using RFID tags. Health care services are being delivered in North America, while IT management services are being provided in APAC. In the future we are looking to develop and provide new solutions in partnership with Japanese companies.

(3) Support for Management and Business Process Reform

NEC has delivered a large number of solutions to 150,000 companies operating in diverse industries. Recent discussions with our customers have revealed concerns about the complexity and redundancies of IT systems, as well as the excessive increase in costs associated with regulatory compliance.

There are others who are worried about IT governance on a global level. There are compelling reasons for these concerns. The NEC Group carries the same concerns. When in-house IT infrastructure became too complex, we have decided to standardize mission-critical tasks and switch to cloud computing. A cloud-based core system commenced operation in October 2010, and when we started informing our customers of this switch, we heard time and time again that they themselves were thinking of doing the same.

By switching to a simple cloud-based core system we have successfully simplified business processes. In the field of sales, for example, we have managed to cut the existing 100-plus processes to approximately 20. We are confident that companies using this system will be able to speed up operations and execute tasks with a greater sense of speed. In addition, users can expect to save approximately 20% on the total operational cost of the system. A section of the system is already available and we have started accepting orders from major vehicle parts manufacturer, Exedy. We are also presently negotiating with many other customers.

NEC has also employed mobile cloud services on RFID-equipped mobile handsets to streamline resource management operations. As these handsets make use of the recognition functions of RFID we believe that these devices may also be employed to create a range of new services.

NEC continues to deliver around 50 SaaS services to small and mid-size businesses, from front office applications, like mail and schedules, to core systems. NEC Corporation has joined with NEC Nexsolutions to operate the "NEC SaaS Partnership Program", a 200-strong organization that offers support to

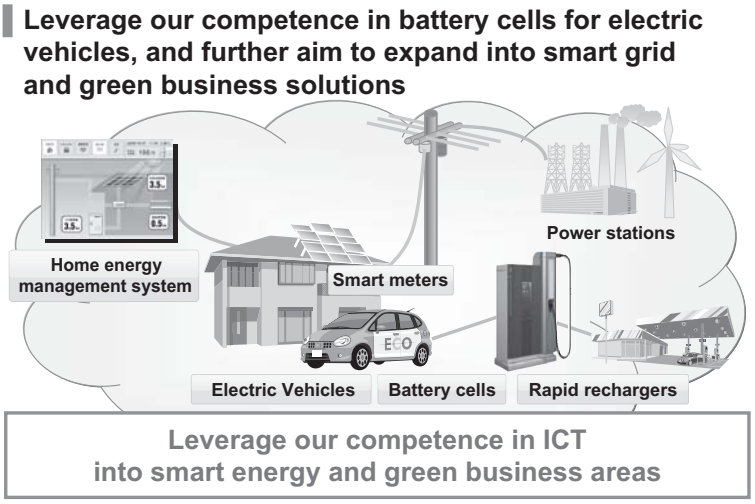

Fig. 2 Contributing with C&C Cloud -"Green" Society.

partner companies.

(4) Realizing a Society Friendly to the Earth

Broadly speaking NEC is undertaking two major initiatives to promote a greener society using IT. The first is delivering platform products that realize green IT. The other is making use of IT to reduce CO_2 emissions.

"The Cloud Platform Suite", for example, reduces time for system implementation while offering features that conserve resources. NEC's latest PCs for enterprise customers are fitted with power-saving sensors that automatically cut power to monitors when users move away from their desks. By providing an array of other energy-saving products NEC is working to fully support the environmental efforts of our customers.

NEC is making use of IT to reduce CO_2 emissions by moving ahead with "Offices Friendly to Employees and the Environment". This initiative aims to assist customers in their efforts to save energy across the entire office environment, including office facilities. The NEC Tamagawa Solutions Center that opened in May 2010 is putting "Offices Friendly to Employees and the Environment" into practice in the expectation that it will reduce CO_2 emissions by around 50%.

NEC is focusing on environmental and energy-saving ventures in an effort to promote "greener" society and make it truly environmentally friendly (**Fig. 2**). In the field of electric vehicles, we are engaged in the production of lithium ion batteries for Nissan Motors. In the future we are looking to branch out into business areas that apply this technology, including smart grids, home energy management systems and smart meters. Smart grids make use of ICT in a broad range of scenarios, from generators to homes and commercial buildings, and NEC is presently conducting demonstration testing in other fields, such as energy storage. These activities are gradually producing outcomes, and we are confident that these outcomes will continue to accelerate initiatives to realize an "information society friendly to humans and the earth".

Through our involvement in the satellite business, NEC was a participant in the successful "Hayabusa" project, which made a marvelous return to earth. We believe the advanced wireless and control technologies used in satellites will find practical use in smart grids and other applications requiring sophisticated operational technology. NEC is using these assets to pursue our vision of an "information society friendly to humans and the earth".

The NEC Group, through "C&C Cloud," is working with customers to design and develop new services as the first step in efforts to provide across-the-board support for the global business expansion and "green" office measures of our customers. We hope you will continue to offer us your encouragement and guidance on these and other activities into the future. Thank you very much.