

To the Press

19th, April, 2004

YRP Ubiquitous Networking Laboratory

Ubiquitous ID Center

China/Japan & Korea/Japan agree to cooperate in ubiquitous ID-related activities

- Sign comprehensive agreements including conducting joint research aiming for the establishment of Ubiquitous ID Centers and T-Engine Development centers in each country and mutual partnership –

The YRP Ubiquitous Networking Laboratory (Location: Tokyo, Director: Ken Sakamura) and the Ubiquitous ID Center (operated by the T-Engine Forum, Chairman: Ken Sakamura) announced that they had reached comprehensive agreements including conducting joint research on ubiquitous networking technologies with the Institute of Computing Technology, Chinese Academy of Sciences and the RFID Association of Korea.

As ubiquitous networks deeply interwind with the real life, consideration for characteristics of each country, such as laws, cultures and ways and customs of the country is required. Our policy from the very beginning has been that basic technologies can be standardized to achieve mutual data exchange, but it is preferable to independently operate centers in each country. Therefore, we have been actively working on establishing mutual cooperative relationships regarding ubiquitous networking technologies with related institutes in various countries including China and South Korea and reached agreements with these countries this time.

A similar agreement has already been reached with Singapore. TEADEC (the T-Engine Application Development Center) was established in Singapore as a result. It is expected that the agreements reached this time with China and South Korea on top of the one with Singapore will encourage other Asian countries to reach similar agreements.

The contents of each agreement are described below.

The agreement with the Institute of Computing Technology, Chinese Academy of Sciences will include;

- In order to introduce the T-Engine technologies and ubiquitous technologies into China for further development, an organization called the “TRON Ubiquitous Technology Open

Platform Laboratory” is established by the Institute of Computing Technology, Chinese Academy of Sciences.

- The T-Engine technologies and ubiquitous technologies will be openly transferred and localized by the laboratory. The Ubiquitous ID Center’s technologies will be jointly researched and developed on the assumption that a Ubiquitous ID Center will be established in China.
- Both parties’ intent is to establish a Ubiquitous ID Center in China and to start demonstration experiments within this year.

Mr. Ken Sakamura (Professor of the University of Tokyo, Director of the YRP Ubiquitous Networking Laboratory, Chairman of the T-Engine Forum, Chairman of the Ubiquitous ID Center) will visit China and sign the agreement on April 23rd.

The agreement with the RFID Association of Korea includes;

- A delegation of the RFID Association of Korea with approximately 30 members visited the Ubiquitous Networking Laboratory on March 17th, and signed a “memorandum of understanding on the business partnership regarding RFID international cooperation” based on the agreement that was reached with the RFID Association of Korea officials during our February visit to Korea.
- This is a comprehensive agreement to “forge business partnership including the following activities in order to achieve mutual cooperation aiming to advance ubiquitous computing and RFID industrial technologies in Japan and South Korea”, and these activities include mutually providing information, more frequent visits, co-hosting international forums, and jointly cooperating with international activities.
- Furthermore, as in the agreement with China, both parties’ intent is to establish a Ubiquitous ID Center in South Korea and start demonstration experiments within this year.

Ubiquitous communicators - the standardized portable terminal developed by the Ubiquitous ID Center that reads ID numbers to identify physical objects and accesses related information and services - have already been localized to support Chinese and Korean, and displaying information and invoking services in both languages have succeeded as shown in the photographs.

When Ubiquitous ID centers are established in both countries and interoperations are achieved, reading information in Japanese based on ID numbers from Chinese or Korean

products and invoking services based on ID numbers from Japanese products in China or Korea will be realized in the future, which will have a large business potential.

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Inquiries from the press regarding this issue:

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About the Institute of Computing Technology, Chinese Academy of Sciences

- Overview

The Institute of Computing Technology, Chinese Academy of Sciences was established in 1956, and is the first academic institute specialized in comprehensive research on computer science in China. China's first general-purpose digital electronic computer was made here at ICT and a research and development base for high-performance computers was formed here as well. In addition, ICT is the birthplace of China's first general-purpose CPU chip.

ICT is the cradle of the Chinese computer industry, and a number of research institutes, such as the Microelectronic Research Institute of Chinese Academy of Science (CAS), the Computing center of CAS, the Software Institute and Network Center of CAS, etc. all originated in ICT and later were spun off. Furthermore, over 30 enterprises were established including, for example, high-tech companies such as Legend (now Lenovo), Dawning, Hope, Huajian, etc. In addition, most of the IT companies in Zhongguancun are closely associated with ICT.

The Institute of Computing Technology, Chinese Academy of Sciences is composed of six research laboratories and one engineering center, and at the same time, incubated many high-tech companies. Hence, a well-coordinated system of scientific research and commercialization was formed. ICT's major research directions at this stage include CPU and SoC design, high-performance computing and grid computing network and digitalization technologies, knowledge processing, intelligent Internet software, etc.

In 1998, ICT was selected by CAS as one of the first pilot institutions for a project known as "Knowledge Innovation Project".

For the past few years, based on the three principles advocated by Jiang Zemin, General Secretary, "Fundamental, Strategic and Farsighted", ICT has adhered to its management policy that adapts to new situations, has committed "to focus on international leading-edge technologies, to link them with the national economy, and to promote the Chinese communication industry", and has been striving to become the world's leading national scientific research academic institution under a philosophy of "seeking for creation and the truth".

- Innovation and achievement (1999 to 2002)

From 1999 to 2002, The Institute of Computing Technology, Chinese Academy of Sciences presented at conferences or published a total of 1035 papers domestically and

internationally and applied for 74 patents. The research expenses for fiscal 2002 reached 140 million Yuan.

Achievements (1999 to 2002)

- Won the Second Class State Awards for Scientific and Technical Progress for encoding, transmitting and receiving digital signals for digital broadcasting.
- Dawning 2000 Super Server won the Second Class National State Award for Scientific and Technical Progress and Dawning 2000-II was showcased at 50th National Anniversary achievement exhibition as one of the excellent scientific technology achievements in the 90's in China.
- The “computing” technology (Communicator) that links personal computing and mobile computing won the Second Class CAS Award for Scientific Progress also won the Second Class State Award for Scientific Progress. Dawning 3000 Super Server passed the technical validation by CAS. This server supported the Huada Genomics Institute to complete the analysis of the rice genome and the achievement was selected as one of the top ten news stories related to scientific technology for fiscal 2001.
- The IA-64 Open Research Compiler passed the technical validation in 2002. This system is an open source software for IA-64/Linux developed in cooperation with INTEL.
- China's first general-purpose CPU chip – Godson-1 – was developed, which passed the technical validation in 2002. This was selected as one of the top ten news stories related to scientific technology for fiscal 2002.

Director: Li Guojie academician

Renowned scholars presently working at ICT in the Chinese computing field.

ICT entrance

About the relationship with the RFID Association of Korea

- Keynote speech at “2004 RFID International Symposium”

On February 5th this year, “2004 RFID International Symposium” was held at COEX convention center in Seoul as one of the events that celebrated the establishment of the RFID Association of Korea comprising of the Korean government, industry and universities.

The symposium was hosted by the Ministry of Science and Technology, the Ministry of Commerce, Industry and Energy and the Ministry of Information and Communication of Korea that are equivalent of the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Economy, Trade and Industry, and the Ministry of Public Management, Home Affairs, Posts and Telecommunications of Japan, which shows how much importance Korean government agencies place on this field. The leading organizations that support the RFID Association include the preparatory committee on the establishment of the RFID Association of Korea, Korean Institute of Communication and Sciences, Korea Internet Information Center, Korean Electronics Technology Institute, Ubiquitous Computing Association and AJOU university. The Association is sponsored by most of the electronics/information-related media such as electronics newspaper that have an incredible influence in Korea, The Digital Times, Electronic Information Newspaper, inews24, The Korea Economic Daily and so on.

At this “2004 RFID International Symposium”, Ken Sakamura, Chairman of the T-Engine Forum, gave a one-hour keynote speech “UNL’s vision of Ubiquitous Computing – Advanced Application of RFID Technology” which was the first speech in the morning. The venue with a capacity of 700 people was so crowded that there were standing audience. The crowd at the symposium and the fact that most of his recent books have been translated into Korean show high attention towards him and Ubiquitous computing in Korea. At this symposium, the Ubiquitous Networking Laboratory and Ubiquitous ID Center’s vision for Ubiquitous Computing and advanced application of RFIDs was introduced. What was discussed at the speech was conceptual, treating RFIDs from the perspective of important technology which realizes context awareness that is the essence of ubiquitous computing, not as a mere management tool in distribution channel. However, at the same time, its high practicality that is beyond a concept or research was revealed by performing demonstration using ubiquitous communicators and by playing videos to introduce an agricultural food traceability experiment and the last year’s TRONSHOW 2004 which had many visitor..

About the RFID Association of Korea (www.rfidkorea.or.kr)

1. Association specialized in RFIDs under the Ministry of Information and Communication of Korea.
2. Working in cooperation with the Ministry of Science and Technology, the Ministry of Commerce, Industry and Energy and the Ministry of Information and Communication of Korea, etc.
3. Chairman: Shin-Bae Kim, Chief Executive Officer at SK Telecom
4. Member Companies: 60
5. Annual budget: 140 million yen
6. Board members of Association

Vice Chairman: Chairman of ShinSegae I&C (Distribution & Circulation), Chief Executive Officer of Highway Telecommunication Corporation, Director Song of Korea Network Information Center, Chairman of Samsung TESKO, Executive director Yu of Samsung Advanced Institute of Technology, Director of ETRI, Chairman of CJ Systems

Directors: Administrative director of Korea Network Research Association, Executive secretary of Telecommunication Technology Association, Chairman of SK C&C, Chairman of FUJITSU Korea, Chairman of Korea Institute of Construction Technology, Chief Executive Officer of LG Inoteku, Chief Executive Officer of LG Hitachi, etc.