

December 13, 2005

Press Release

T-Engine Forum
Ubiquitous ID Center

**TRONSHOW 2006 Government Pavilion
“Introduction of the Achievements of
Six Government Ministries Working Together
Using Ubiquitous ID Technology and T-Engine”**

The T-Engine Forum/The Ubiquitous ID Center (Location: Shinagawa, Tokyo, Chair: Ken Sakamura, Professor, the University of Tokyo) have been working on the promotion, and research and development of Ubiquitous ID technology and T-Engine in collaboration with the government towards the realization of a ubiquitous computing society.

Ubiquitous ID architecture and T-Engine architecture will serve as the infrastructure behind a ubiquitous information society in the future. These architectures have been used in activities conducted by government ministries (Ministry of Internal Affairs and Communications, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare, The Ministry of Agriculture, Forestry and Fisheries of Japan, Ministry of Economy, Trade and Industry, Ministry of Land, Infrastructure and Transport). In order to make them work as part of the social infrastructure, collaboration between industry, academia and the public and private sectors is essential. At TRONSHOW2006, achievements, mainly the approach of the government will be exhibited and the effective cooperation by the common infrastructure of Ubiquitous ID technology and T-Engine will be introduced.

Specifically, activities of each government ministry regarding the promotion of utilization, networking, manufacturing/software are introduced and demonstrations for fresh food distribution systems and Free Mobility Assistance systems which use Ubiquitous ID Center-certified UHF tags will be conducted to enable visitors to experience these systems. Below are details of the major exhibitions of each government ministry at the TRONSHOW2006.

Ministry of Internal Affairs and Communications

Ministry of Internal Affairs and Communications has been promoting research and

[Information 9]

development of core technology to systematically relate electronic tags and sensors via networks and utilize them safely and securely as well as to widely deploy them in various foreign countries towards the realization of the world's leading ubiquitous networking society.

At this year's TRONSHOW2006, with a focus on the activities of YRP Ubiquitous Networking Laboratory which studies the core technology for ubiquitous networks that use RFID tags, the details of research and development, and feasibility study experiments of technologies for the sophisticated use of electronic tags, such as networking technology to operate collaboratively and control 10 billion micro chips (assuming that 100 chips per person are involved and that is for 100 million people), seamless tag information management technology, security adaptive control technology and interconversion gateway technology will be introduced.

Ministry of Education, Culture, Sports, Science and Technology

Ministry of Education, Culture, Sports, Science and Technology will exhibit "Secure Ubiquitous Computing Platforms". This research and development have been conducted jointly by the YRP Ubiquitous Networking Laboratory and Graduate School of Interdisciplinary Information Studies, the University of Tokyo as part of the "Research and Development for Building the Next Generation IT Infrastructure" of Ministry of Education, Culture, Sports, Science and Technology since 2005. As core technologies for a secure ubiquitous computing environment, the development of high-performance and large capacity tags and research of secure embedded OS's that securely handle software and content by using such tags have been conducted. Furthermore, these technologies are applied in ubiquitous systems for which information security is required, such as health care and food systems, and their effectiveness is verified.

Ministry of Health, Labour and Welfare

Ministry of Health, Labour and Welfare will exhibit "Research on Mobility Assistance for Cognitively impaired People with Geographical Disabilities" conducted by Research Institute National Rehabilitation Center for Persons with Disabilities.

There are people with geographical disabilities who cannot go to their destinations on their own or cannot read maps, and such disabilities are a big disadvantage in everyday life or at work. Many assistance systems for visually impaired people and wheelchair users have been provided, such as free mobility assistance systems, but research on assistance for cognitively impaired people with memory disorders, etc. have rarely been conducted. Considering this situation, PDA software that navigates people with geographical disabilities

[Information 9]

especially within buildings will be exhibited in this research.

In the future, it is planned to link these systems with the Free Mobility Assistance Project promoted by Ministry of Land, Infrastructure and Transport.

The Ministry of Agriculture, Forestry and Fisheries of Japan

Firstly, the Ministry of Agriculture, Forestry and Fisheries of Japan selected verification activities regarding 8 issues including "Food Information Infrastructure Systems That Use Ubiquitous ID Technology" promoted by the T-Engine Forum as one of the issues of the "2005 Ubiquitous Food Safety and Security System Development Activities". At the TRONSHOW2006, focusing on "Integrated Food Traceability Systems That Use Ubiquitous ID Technology" that were developed as part of the 2004 activities by the T-Engine Forum with a goal of realizing and spreading food safety and security systems that utilize and apply ubiquitous computing technology, systems that secure food reliability will be exhibited and the importance of these systems will be widely introduced.

Secondly, one example of the distribution management methods that use ubiquitous ID technology in fresh food logistics which the Ministry of Agriculture, Forestry and Fisheries of Japan has verified in the "Verification Activities for Introducing Electronic Tags in Fresh Food Logistics" will be on exhibit. In this exhibit, the details of feasibility study experiments for systems which monitor how the temperature is managed from a production site to a wholesale market using pT-Engine (active tags) will be introduced. In addition, some of the cutting-edge technologies that enable automatic identification and bulk inspection of products on pallets using RFID tags (UHF band tags certified by the Ubiquitous ID Center) that support the UHF band that will be released next year are to be introduced.

Ministry of Economy, Trade and Industry

The IPA's Exploratory Software Project of Ministry of Economy, Trade and Industry aims to discover and foster "Super creators", personnel with great capabilities, in the software-related fields. For the implementation of this project, project managers (PM) with specialized knowledge are appointed from academia and industry in order to actively evaluate their creativity.

PM, Ken Sakamura (Professor, the University of Tokyo) has been promoting development of software that runs in embedded devices and that can be used generally and universally. From the achievements made through the project, two products will be exhibited. One is a 100% domestically-made integrated open source desktop application environment, WideStudio ("WideStudio for T-Engine" by Mr. Shunichi Hirabayashi), and the other will be CyberLink, which implements a UPnP (Universal Plug and Play) protocol stack for

[Information 9]

information appliances for embedded systems and is the only UPnP library written in C++ or Java and is available as open source (“Development of protocol stacks for home information appliances” by Mr. Ken Imano).

Ministry of Land, Infrastructure and Transport

Ministry of Land, Infrastructure and Transport will exhibit the Free Mobility Assistance Project. For this project, the Ministry has been making efforts for creating an environment where a variety of information can be accessed by “Anyone anywhere, anytime” to enable them to move safely and securely, and by making such an environment, they further aims to realize a “Universal society” in which everyone, including impaired people, elderly people and foreign people, can actively work and participate.

Additionally, the Ministry applies these systems and provides sightseeing information to foreign tourists in Japan as part of the promotion for the “Visit Japan” Campaign.

At this TRONSHOW2006, the Ministry’s activities, such as feasibility study experiments that have been conducted in many places across Japan, will be introduced. Also, in the Experience corner the same tags and markers as the ones used in the experiment fields such as portable terminals will be set up to give visitors an opportunity to actually use devices, and experience the effect of how free mobility assistance and sightseeing information are provided by utilizing ubiquitous technology.

End

[Inquires regarding this issue]

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