January 31 2007

ECOM News

No.22

Headline

- The 4th Planning Committee Meeting for FY 2006
- Special Report New RFID Tags and E-Commerce Initiative
- "1st ECOM Special Seminar for Executives" Lecture Outline
- Information Security Workshop Activities Report
  -Privacy issues and e-commerce in the United States-
- "17th ECOM Seminar" Lecture Outline - The progress of e-government in Estonia -
- Overseas Research Report -Trends in the Chinese E-Commerce Market -
- Announcement of the "19th ECOM Seminar"
  - "Information Security Day" Special Foundation Commemorative Seminar -
- Announcement of the "20th ECOM Seminar"
  - " RFID tags and the guarantee of privacy at consumer contact points" -

The 4th Planning Committee Meeting for FY 2006

- Start of Activities Plan for FY 2007 -

The 4th Planning Committee Meeting - January 15, 2007

At the start of the year, Masahiko Fujihara, Information Economy Division Director of the Commerce and Information Policy Bureau at the Ministry of Economy, Trade and Industry spoke about the future direction of the information economy in the 'New RFID Tags and E-Commerce Initiative' (see the special report on p. 3 of this issue). Discussions were then held concerning proposals put forward by the Secretariat of the Next Generation Electronic Commerce Promotion Council of Japan (ECOM) for next year's (FY 2007) work program (draft).

[FY 2007 Activities Plan (proposals from the Secretariat)]

The ECOM Research Directors explained about the activities of each of the following six groups for next year.

1. Special Committee on RFID Tags and Traceability *Schedule to be put forward at the next Planning Committee Meeting

2. EC Safety and Security Group (Personal Information Protection WG (Working Group), Electronic Signatures WG and the Information Security Workshop)

3. IT Utilization Group (IT Utilization WG and Electronic Application Systems Collaboration WG)

4. Technological Infrastructure Development Group
(Information Sharing Technology WG, Next Generation EDI Introduction Technology Promotion WG, Development of E-Commerce Infrastructure WG)

5. International Relations Group
(Survey of EC trends abroad, Japan-Korea EC Promotion Council and relations with EC promotion institutions in China, Taiwan and other locations, and other items)

6. Public Relations Group
(ECOM website, ECOM News, ECOM Seminar, ECOM Forum, the final events and publications of the year and other items)

* Please ask the Research Directors for specific details about their respective programs.
* Please understand that it is sometimes not possible to implement all programs for a variety of reasons.

[Future schedule]

Friday, February 9	2nd ECOM Special Seminar for Executives, 'Towards a World-Class Information Security State'
Tuesday, February 20	Deadline for proposals from ECOM members for FY 2007 activities*
Friday, February 23	5th Planning Committee Meeting (Activity reports for FY 2006 (drafts), proposed activities from ECOM members, and other items)
Tuesday, February 27	3rd ECOM Special Seminar for Executives, 'New RFID Tags and E-Commerce Initiative'
Tuesday, March 20	6th Planning Committee Meeting (Activity reports for FY 2006 (provisional), FY 2007 Activities Plan (draft), and other items)

* We began accepting proposals on Friday, January 19. Please contact ECOM members or the Research Directors for the relevant working group concerning proposals.

Special Report

New RFID Tags and E-Commerce Initiative

- Solving social problems through the use of IT -

The ECOM Secretariat will be reporting below on the ‘New RFID Tags and E-Commerce Initiative’ which is aimed at the creation of ‘new information economy social infrastructure’ and was introduced by Masahiko Fujihara, Information Economy Division Director of the Commerce and Information Policy Bureau at the Ministry of Economy, Trade and Industry at the opening of the 4th Planning Committee Meeting (January 15, 2007). The below contents were debated during the intensive deliberations on Japanese productivity reforms during the meeting of December 20, 2006 of the Council on Economic and Fiscal Policy.

* Please see http://www.keizai-shimon.go.jp/ for more details on the Council on Economic and Fiscal Policy.

1. Basic thinking on productivity reforms

(1) Challenges faced by Japan’s economic society

In order to achieve the target of ‘annual real economic growth of 2.2% or more’ raised in the Economic Growth Strategy Outline for Japan’s national economy, not only the manufacturing industry but also the service industry, which accounts for 70% of Japan’s GDP, have to vigorously promote fundamental improvements in productivity by making full use of the particularly effective tool of IT. In addition, more efforts should be made to tackle with problems appearing in a wider range of industrial sectors such as product safety issues and environmental challenges including global warming, product recycling and chemicals controls.

(2) Changes in the IT-use environment that have accompanied the recent technological revolution

Along with the recent technological revolution, major changes have occurred in the IT-use environment that surrounds us, and an information-sharing environment that goes beyond the businesses sector gradually taking shape. Specifically, in addition to the growth of the broadband environment, each industry takes into account the particular characteristics of transactions and is promoting development and diffusion of electronic commerce (EDI). This is speeding up transaction times and reducing administrative costs and inventories. However, also full use of recently developed standard languages (such as XML) made it at least possible to exchange and share a variety of information including simple transactions that goes beyond the scope of the respective industries. This kind of information exchange is currently not possible with existing EDI.

Concerning RFID tags, although examples of use by individual companies and application methods through field trials are being researched, we have yet to reach the stage where they are used for inter-business and inter-industry transactions. However, international standards have finally been formulated for related technologies and mass production technologies for cheap RFID tags such as Hibiki tags were materialized, meaning that we are now at a stage in which expansion in use and development abroad have become technically possible.

There have also been gradual qualitative improvements with businesses information systems, such as the integration of accounting and finance systems, distribution management systems, and manufacturing process management systems in respective departments, and with versatile solutions being provided for primary information-sharing between departments through the overall business process. In addition, in recent years emerging business models are able to offer the same level of service as business information systems at extremely low prices via the internet.

(3) Creation of new social infrastructure for the information economy as a socioeconomic system

In order to solve the challenges facing Japan's economic society, such as the dramatic improvement of productivity in Japanese industry, responses to global environmental issues and the creation of a safe and secure society, it is necessary for the related industries to promote measures through information-sharing that go beyond the existing boundaries of businesses and industries. The achievements made by the recent IT revolution are extremely useful to implement those measures. Creation of data-sharing systems, so-called 'new social infrastructure for the information economy', is a pressing issue for each industry.

The basic concept of 'new social infrastructure for the information economy' driven by the New RFID Tags and E-Commerce Initiative is as follows:

(1) Organic linkage of both within and outside companies' systems using RFID tag/ internet-based next-generation electronic commerce infrastructure (such as EDI) as an information-sharing tool.

(2) Establishment of mechanisms to widely distribute the benefits of information-sharing by promoting unified measures for related industries, rather than working from an individual company base.

The aim is for the organic internal and external linking of companies' systems which at present only share information internally (not limited to production and sales companies, but also including companies in related services and recycling companies), thereby assisting in the promotion of the visualization and sharing of a variety of separate information (not only ordering information but also parts and materials information, manufacturing history information, marketing information and environmental information) in real time between multiple bodies, productivity improvements through the external effects and total optimization of networks, the creation of innovation, the promotion of environmental measures and the establishment of safety and security for consumers.

2. The main future measures for the creation of 'new social infrastructure for the information economy'

(1) The promotion of concrete project investigations concerning 'new social infrastructure for the information economy' through opinion exchange with the industrial sector

In order to go about creating 'new social infrastructure for the information economy', it is essential to link up the systems that have been closed to specific companies or industries and formulate a consensus within related industries about building the inter-business platform needed to share a variety of information.

For this reason, the first thing that needs to be done is for the Ministry (METI) to cooperate with the industrial sector in reconfirming the issues that would arise in providing an inter-business response and to identify the points of concern in respect of the need to create a platform for partnerships that can take us beyond the barriers of each industry, thereby developing an opinion-exchange process with the industrial sector. Because the need to build such a platform is directly linked with management challenges, problem-sharing and examinations are expected to be carried out with the participation of management level employees within the industry.

At the same time as clarifying the shape of new utilizations of RFID tags and e-commerce that go beyond existing utilizations through the provision of opportunities for opinion exchange within the industry, the problems that need to be solved in order to make use of RFID tag and e-commerce systems outside of the industry will be identified and sorted out.

(2) Establishment of tools that allow utilization of systems outside the industry

Based on the results of opinion exchanges within the industry, the necessary tools for the creation of an open and secure inter-industry platform will be clarified, leading to measures aimed at the establishment of that platform by related industries. The two types of tools that are currently being assumed are as follows: (1) common dictionaries and databases that can be used for recycling, energy-saving and resource-saving, and the creation of new projects and business; (2) the creation of standardization and common operational rules for things such as user memory allocation methods and write items for RFID tags. As is already clear from examples of electronic products and automobile products, supply chains are usually not closed domestically. Normally, materials and parts are gathered from multiple countries, built into finished products and then supplied to users. Accordingly, in order to establish these tools, it is necessary to formulate unified measures in domestic related industries. At the same time, it is also important to make effort in providing specifications and management that can create an open and secure format for foreign users in consideration of possible internationally standardized technological specifications.

(3) Building a ‘road map’ for partnerships between businesses and industries

In order to build an open and secure inter-industry platform, a ‘road map’ will be formulated containing the items (such as the technological specifications for individual business or industry systems that need to be disclosed in order to secure interoperability and compatibility for RFID tags, information security and personal information protection) that need to be shared and clarified in building partnerships between businesses and industries, with sharing and clarification of any necessary items then being carried out.

(4) Building an environment for joint-use by small-to-medium businesses

In order to support the smooth use of RFID tags and e-commerce by small-to-medium businesses, the supporting measures for software and system introduction in small-to-medium businesses will be clarified.

3. Future schedule

With ECOM and the Japan Electronic Data Interchange Council (JEDIC) acting as the administrative bodies, opinion exchanges will begin between mid-January and mid-to-late-February in the major industries, with additional opinion exchanges being carried out later on as necessary. In February, opinions will be heard during meetings that include management (such as the ECOM Special Seminar for Executives), in parallel with the opinion exchange process. In March, the results of the opinion exchanges will be compiled, along with examinations into the selection of and solutions for challenges aimed at expanding the use of next-generation EDI and RFID tags outside individual industries, and progress reports through forums such as the ECOM Board of Directors and the JEDIC Steering Committee. In addition, the results of the opinion exchanges and tasks that need to be dealt with will be reported by the Industrial Structure Council and the Information Economy Subcommittee. In April, we plan to begin specific investigations within the industrial sector based on the compiled results.

“1st ECOM Special Seminar for Executives” Lecture Outline

- Responding to the universalization and individualization that accompany globalization -

The above seminar was held for board members on Tuesday, December 19, 2006 at the Kikai Shinko Kaikan (3-5-8 Shiba-Koen, Minato-ku, Tokyo). Hikari Sugiura, a Chief Consultant, Industrial Strategy Group, Mitsubishi Research Institute, Inc. was invited as a lecturer. He spoke about the meaning, measures and challenges that accompany the spread of globalization. We have provided an outline of his lecture below.

* We plan to place the full lecture record on the ECOM website (members only page) around February 2.

===

1. The spread of globalization

The current state of globalization

In economic and industrial terms the 1980s is know as the decade of ‘neo-liberalism’ in which movements to the liberalization of economies evidently brought back vitality to countries, businesses and industries. With the end of the Cold War in the late 1980s and early 1990s, the capitalist systems of the Western economic powers were to ‘defeat’ the economic systems of communism. In other words, this was a time when a phenomenon was to take hold in which national living standards and those of individuals were improved through the expansion in the overall wealth of nations as a result of capitalist economic liberalization. That is to say, during the 1980s a trend appeared in the major countries and regions of the world to liberalize economies and ease regulations. As a result, a background of rapid but temporary increases in trade and investment from the 1980s to the early 1990s led to debate on the concept of ‘internationalization’ in newspapers, magazines and within companies.

However, since the year 2000 the spread of trade and investment has become even more rapid. The value of trade, direct investment flow and stocks have all begun to increase dramatically. The name given to this phenomenon in the debates of the past decade has been ‘globalization’.

Looking at it in this sense, it would probably be a good idea to see the ‘internationalization’ that was debated in the 1980s as being slightly different in nature from the ‘globalization’ that is used to define the current and future business environment.

Globalization and internationalization

When comparing the era of the post-war modern world system of ‘internationalization’ with the ‘globalization’ of the late 1990s onwards, differences can be seen in the main players, the concepts and the relationships involved. In other words, in addition to current and future globalization representing a quantitative expansion over the last dozen years or so in the ‘internationalization’ of the 1980s, it is also important to see the development of qualitative changes such as regional dispersion, stronger networks, and an expansion in multi-tiered relationships. This is the background behind the keyword of this lecture, ‘globalization’.

2. The significance of spreading globalization

I would like to explain the new significance of globalization as it changes both quantitatively and qualitatively in terms of the following two phrases: ‘universalization and integration’ and ‘the emergence of individualization and differences’.

Universalization and integration

As a result of the advance of economic and political thinking that supported liberalization and deregulations in the 1980s, there has been a global trend for the environment that surrounds trade and investment and the specific businesses to become extremely liberalized. One example is an international organization, the WTO (GATT), which aims to liberalize trade. The number of member countries has increased from 23 in 1947 to the current number of 149, with approximately 20 countries currently negotiating entry, meaning that not only is there a trend towards philosophies and ideas in support of liberalization and deregulations, the concrete trade and investment environment is also becoming gradually more liberalized.

As a result, with trade and investment rapidly expanding from the year 2000 onwards, we can also see a rapid development in not only increased economic activities in the form of simple business projects, but also in the globalization and integration of consumer markets.

Huge differences can be seen when comparing the economic standards of Japan with the other countries of East Asia, but when we look at the numbers of mobile phones (including PHS systems) and personal computers being sold, the differences are not an large as the *per capita* differences in GDP. If we take the level of Japan to be 100, in terms of mobile phones, China could be described as being roughly at 460, with even Thailand at 30. In terms of personal computer use, China would be at 77, with India at 25. In the past, the expensive consumer products enjoyed by the citizens of developed countries did not normally spread quickly in developing countries. However, in spite of the lower per capita GDP levels of the developing countries, the markets for consumer goods enjoyed in developing countries are expanding throughout the world at almost exactly the same time on a global level. Although a considerable disparity can be seen between the respective countries when looking at the larger overall picture of average *per capita* figures, a different situation can be observed when looking from a slightly different perspective. Looking at the individual countries we can see that the number of those who earn as much as the Japanese middle class is beginning to increase to a certain extent in developing countries. This is one of the new meanings of globalization - the universalization and integration of markets.

Individuality and differences

When looking at the qualitative differences between globalization and internationalization during the 1990s, one thing that can be seen as emerging is the individuality of countries and regions, and the differences between them.

To begin with, business management and capitalism itself are mechanisms whereby added value is created by making the most of differences. For example, trade was able to sustain itself as a profitable activity by making the best use of differences in regions or physical distance. Businesses, conversely, promote direct investment because they consider it better to produce nearer the market. By manufacturing in the countries of East Asia, where labor costs are dramatically lower than in Japan, companies have been able to reflect cost differences in the prices of goods and create added value. However, the more direct investment is carried out, the more difficult it becomes to pursue cost differences. With this being the situation, companies are now developing new lines of business such as 'business process offshoring', which makes the most of time differences through use of the latest technology.

However, with the unification of consumer markets occurring in the background, even people from developing countries are now able to share information instantaneously through use of the internet, finding out what the latest products in different countries are and roughly how much they are being sold for around the world, meaning that information-sharing has progressed even further. This means that the use of information disparity of itself to create differences is becoming extremely difficult in the modern world of globalization. The pursuit of differences that can lead to sources of profit is becoming more and more challenging. An additional feature of globalization is the fact that it is now necessary to consciously go about trying to discover new individuality and differences.

Expansion of free trade agreements between two countries or regions

The trend towards FTAs (free trade agreements between two countries or regions) expanded rapidly from the 1990s onwards, primarily focused on major countries. However, these FTAs in a sense have been agreements between close partners who have decided to implement liberalization purely between themselves, as a result, when looking at the world as a whole the gap is widening in different levels of liberalization of trade and investment.

There are differences both in the contents of free trade agreements and between the liberalization that has occurred under GATT and the WTO and the FTAs. I would like to give two examples of the latter. The first example is that of Vietnam. In the past, Vietnam developed policies for the protection of its domestic automobile industry (with preferential treatment for domestic cars in comparison with imports). However, with one eye on WTO membership, it has begun to reverse its automobile industry policies due to the need to set up a nondiscriminatory domestic business environment. These have included lowering customs tariffs and special consumption taxes on imported cars, and raising special consumption taxes on domestic cars. The result has been buying restraint of consumers who now expect falling prices, leading to the rapid cooling of car sales. The spread of globalization in other words, has meant that along with liberalization there has been a rapid emergence of intrinsic loosening in the former policies of a country that was originally unconnected to the liberalization process.

The second example is provided by Thailand and India. Japanese consumer electronics manufacturers have been fighting an uphill battle to establish production bases in India. However, following the conclusion of a free trade agreement between Thailand and India, which materialized tax-free trade of items such as air-conditioners, Japanese manufacturers began to close the production bases in India and export products into India that had been made in Thailand. In this way the Japanese manufacturers are trying to overcome the various obstacles to production in India. This also shows that bilateral FTAs have revealed distortions in the trade structures between Japan and other countries.

The withdrawal of Japanese companies from overseas operations

As a result of the development of two different trends towards 'universalization and integration' and 'individuality and differences', the realignment of foreign business structures is becoming a more important issue for companies. Since the late 1990s, there has been an increasing trend towards a rise in the ratio of Japanese companies withdrawing from overseas operations. Rather than being interpreted as a failure of Japanese companies foreign operations however, this is a reflection of the fact that more companies close overseas bases due to mergers and abolitions resulting from the ability to cover the markets of two countries from a single production base that has occurred due to the liberalization of trade between neighboring countries. Both individuality and differences should be perceived when markets and business environments are unified, and the accompanying realignment of business structures and business networks are therefore becoming important issues.

3. Management measures that take globalization into account

I would now like to provide an example of a business model that makes good use of the liberalized business environment.

Example: Manufacturer carrying out processing for fabricated plywood and wooden building materials products

This example is of a plywood (building materials) manufacturer. Foreseeing that price competition and the procurement of raw materials would become difficult in the 1990s, the company actively developed its overseas operations. It currently carries out forest management, primary processing and secondary processing in New Zealand, the Philippines and China, bringing products into the Japanese market and also taking them throughout Asia. The company had originally acquired raw materials through logging in New Zealand, but due to the increased costs that would have arisen from processing in New Zealand, it built secondary processing production bases in the Philippines and China. Its processing subsidiary in the Philippines is of particular note in that by processing and exporting from Subic Bay, which is a bonded area, it is exempt from customs duties on imports of processing materials (logs) from New Zealand. This is one example of a company that has successfully made use of trends in trade and investment by avoiding taxes between New Zealand and the Philippines, carrying out processing at low labor costs, and then bringing the products into Japan.

4. Challenges posed by spreading globalization

When considering globalization itself, as well as globalization-based international management, as something different to the internationalization of the 1980s, and when thinking about the development of overseas business, we must see on the one hand the universalization and integration of markets and the business environment, and on the other hand individuality and differences of countries and markets in regions. I believe that one of the largest future managerial challenges will be understanding what needs to be done to balance these two opposing vectors intentionally created as part of companies' profit-creating strategies. In order to overcome this challenge, it is necessary to carry out the continued review of businesses in terms of things such as the geographical scope of an organization, the functions it should fulfill, and optimum locations in view of those functions, always bearing in mind key concepts such as the maintenance of speed, the acquisition of flexibility, policy-reversal and reform, and partnerships.

Given the fact that the individuality of and differences between countries and regions is becoming an extremely significant factor in management, I believe that a new level in external partnerships and the use of external resources that includes things such as the skillful use of managerial resources to match local conditions, responsiveness to rapid changes in the business environment and a perspective of maintaining flexibility are all becoming extremely important in the future environment of globalization.

Lecturer:

Hikari Sugiura
Chief Consultant
Industrial Strategy Group
Mitsubishi Research Institute, Inc.

—— Information Security Workshop Activities Report——

Privacy issues and e-commerce in the United States

As part of the 4th Information Security Workshop (chaired by Yutaka Yasukura), a special session was held on November 28, 2006 with Associate Director of the Center for Democracy and Technology (CDT), Ari Schwartz introducing the current state of privacy protection in the United States and an opinion exchange being carried out between the participants. The contents of the lecture and open debate are reported on below by ECOM Research Director Kazuhiro Kawashima.

* The CDT website can be found at: http://www.cdt.org/

==

◆ Lecture: Privacy and Electronic Commerce in the US

Mr. Ari Schwartz (Associate Director, Center for Democracy and Technology)

Background to the establishment of the CDT

The CDT was set up in Washington DC in 1994 as a non-governmental, non-profit organization. Its mission is given as the ‘pursuit of civil liberties’. Although the development of internet and new information technology are useful in spreading democracy, this advancing technology may cause companies or individuals huge problems. In order to prevent the problems, the Center works in partnership with both the government and business and industrial groups and promotes activities for the maintenance of standards.

The history of privacy protection

There is a clause in the United States Constitution which states that investigations or examinations by the government will not be permitted without due cause, and interpretation of this clause has had a major influence on privacy-related matters. American privacy laws have its origin in the development of commercial privacy between the early 1900s, continuing throughout the 20th century. It was from the 1970s onwards that concrete laws were to be formulated, with the concept of ‘fair information practice’ being created during scientific studies carried out at that time (‘fair information practice’ included: (1) notice of information gathering; (2) consent from the parties involved; (3) disclosure of gathered information; (4) secure storage; and (5) management of information’s whereabouts). This contributed to the eight basic principles of the OECD and the ten basic principles of Canada.

Early privacy laws

The first privacy law to govern the internet was the Electronic Privacy Law enacted in 1986, which was a law dealing with e-mail. At the time, e-mail was not sufficiently guaranteed or protected as a means of communication, and with the position of companies and individuals at the time essentially one of not wanting to receive e-mails, the focus was on the protection of the information contained in e-mails. After the establishment of this law, private companies boldly declare that personal e-mail information that had not previously been protected would be safe in the future as a result of the new law.

Trends in privacy law

Over the past twenty years, laws in a variety of fields such as finance, medicine and child have been separated and developed in each state, thus, different states have different interpretation on the same law. Recent opinions have argued that a general privacy law (a ‘baseline’ law) needs to be given consideration. The reasons given are as follows: 1) a new privacy protection law would allow businesses to carry out campaigns more easily; 2) people were reluctant to obey different state laws and demanded an easing of the stricter regulations; 3) people required easier entrance into foreign countries which currently have different personal information protection laws by complying with the new law. In addition to these movements to create a standard law, there are also laws in new fields such as outsourcing and spyware. In this way, America is promoting measures concerning privacy issues in revolutionary ways, and is contributing to international standardization.

◆ Open Debate

The following matters were discussed during the open debate concerning the differences between privacy protection in Japan and the United States.

(1) The existence of laws to punish the perpetrators of information theft

(2) Disclosure obligations when personal information has been leaked (US: Data Infringement Law; Japan: Private Information Protection Law)

(3) Measures being taken to protect privacy

* The Special Session was carried out in cooperation with the Broadband Association.

“17th ECOM Seminar” Lecture Outline

- The progress of e-government in Estonia -

The monthly ECOM Seminar was held on the above theme on Wednesday, January 17, 2007 at the Kikai Shinko Kaikan (3-5-8 Shiba-Koen, Minato-ku, Tokyo). 51 members of the general public attended on the day, in addition to ECOM members.

The seminar focused on Estonia, which has recently been drawing attention as an highly advanced IT nation, with Estonia’s history, customs and IT strategy, the progress of electronic government, examples of ID-card use, and methods for using electronic authentication and electronic signatures all being talked about during the seminar.

◆ Lecture 1: “Estonia’s history, customs and IT policy”
Kosaku Yamaguchi, Representative in Japan
Estonian Tourist Board, Enterprise Estonia

[Tourist situation]

Many of the tourists to Estonia come from Scandinavia and the United States, with approximately 4 million visitors per year in total. Although many tourists come to Estonia for a winter break or shopping, there has also been a rise in the number of visitors coming on business strips due to Estonia’s recent rapid economic growth. Currently, package tours which visit the three Baltic countries are popular among visitors. In the capital Tallinn, with buildings from the 13th century being used as government offices, hotels and housing, it is still possible to see the old medieval town. The City of Tallinn issues an open pass which allows visitors to use public transport and enter tourist locations free of charge, with discounts sometimes being offered on leisure facilities such as opera performances. In terms of catering, there are several restaurants offering food with a medieval or special ingredient theme, and the city’s coffee has an excellent reputation.

[Outline]

As a republic, Estonia’s head of state is chosen through presidential elections. The legislature operates via a one-chamber system. The area of Estonia is 45,277 km^2, approximately the same size as the Japanese island of Kyushu, but with a population of 1.34 million, about the same as the city of Fukuoka, the concentration of population is fairly low. The capital city of Tallinn, known as the oldest city in Northern Europe, contains 30% of the country’s entire population. Estonia’s labor force is 650,000, its GDP in 2005 stood at 8,200 euros per capita, the GDP growth rate is 10.7%, and total foreign direct investment is 10.75 billion euros, and this is growing at a rate of 2.34 billion euros per annum. Estonia is preparing for entry to the Euro, but entry has been postponed this year due to an inflation rate of 4.1%. The unemployment rate is 7.9% and average monthly income is 514 euros, but these are nominal figures which include self-sufficiency data, meaning that real unemployment is considered close to zero, with monthly income at approximately half of Japan’s. Estonia has implemented extremely strict immigration policies in the past, but has recently begun to put systems in place for the acceptance of foreign labor, and plans to gradually ease restrictions in the future.

[Historical background]

Estonians were living in modern Estonia as its original inhabitants as long ago as 8000 B.C. In approximately 3000 B.C., Finno-Ugric (Finnish) tribes began immigrating into. Estonia was vanquished by a crusade from Germany and Denmark in 1227, and shortly after was to join the Hanseatic League in 1248, leading to the economic prospering of the current capital Tallinn as a trading post between Europe and Russia. Later, Sweden was to rule as a result of the outbreak of the Livonian War. This era is known as the golden era of Swedish rule in Estonia, with a variety of positive outcomes, in particular the spread of education. In 1710, however, Estonia was to be occupied by the Russian Empire, and entered one of the darker periods of its history. The first national song festival was held in 1869 (with 35,000 participants and an audience of 100,000). Estonia was to gain independence for the first time in 1918, but was absorbed into the USSR in 1940, thereafter entering into the Cold War. However, Estonia was to regain its independence again in 1991.

[Progress in IT measures]

In 1998, the Estonian government set up a portal site. This was to be followed in 2000 by the enactment of an electronic signatures law which allowed annual savings of 30 million yen in paper and copying fees as a result of the electronic management of cabinet meetings. In 2001, a unique project named TOM[*1] was started as a way of involving Estonian nationals in the state's decision-making processes. The issuing of ID cards began in 2002, and the Look@World project was implemented between 2002 and 2004. Investment for this project came not from the government but from banks and telephones companies as a way of encouraging the spread of the internet. It was to prove a turning point in the switch to information technology, with internet usage levels rising rapidly as a result. In 2005, the first electronic voting was carried out in national elections as a way of increasing voter turnout, and in 2006 notification of test results was carried out using mobile phones thanks to the creation of the SMS[*2] scheme. In 2007, electronic filing was started.

Another example of Estonia's IT policy would be its land information systems, through which it is possible to view cadastral maps, soil maps, survey maps and ancient maps, but only a limited number of people is able to acquire this information.

The causes for the success in Estonia's IT policies could be seen as a combination of the correct infrastructure being in place, partnerships between industry, universities and government, the Tiger Leap Project[*3], the nature of the Estonian people in the sense that they do not fear failure, and good luck.

◆ Lecture 2: Estonia's e-government and the ID card usage status

Michihisa Uchida, Research Director, ECOM

[Estonia's IT environment]

By implementing the Tiger Leap Project[*3] from 1996 onwards, Estonia provided an environment for all schools to be able to use the internet and carry out internet training of teachers. It used 1% of the national budget on IT measures between 1994 and 2004.

The IT environment in 2006 saw an internet diffusion rate of 60% and mobile phone diffusion rate of 102% with the DSL connection rate at 100%. 100% of the public sector and 90% of businesses are connected to the internet. 82% of individual income tax applications are carried out online. The internet usage rate is at 52%, which is slightly above the European average. Online purchasing in respect of population is at approximately 40%, which is high even by European standards. A high proportion of younger people is using the internet, in part due to the influence of education, with women users more common in all age brackets.

729 so-called 'Hotspots', the internet accessible sites, are located in public places all over the country, and they are easily reached by car (such as petrol stations and libraries). An @ mark is used to show the Hotspot locations. The Hotspots provide open access to all, with internet use being provided free of charge.

[Electronic government]

The three strengths of electronic government in Estonia are the X-road system, user authentication through digital ID built into personal identification papers and integrated services which are of use to the general public. ID cards are issued to both Estonian nationals and immigrants. There is a single ID which can be used for a variety of procedures, including personal identification, authentication, and as an electronic signature tool.

[Examples of ID card usage]

• TOM

TOM is an internet-based conversation system for the government and administrative bodies and the general public. It allows individuals to take part directly in political processes through use of an ID card. All government agencies upload budgetary and legal proposals at the drafting stage, with the general public then being allowed to make comments or submit their own proposed legislation.

• Forums managed by the legislature

Forums have been operated by the legislature for 5 years, with participation open to anyone who is prepared to register. Themes are freely decided upon, with anonymous opinion exchange then being carried out for a period of three weeks. After the opinion exchange, a vote is held using ID cards and electronic signatures, with the results then being sent to the relevant government bodies within two weeks, which must then respond to the results within a month.

• Electronic voting

In 2002, the election board provided a legal framework for electronic voting, and in the following year, began developing an electronic voting system with the aim of increasing voting opportunities for eligible voters and improving levels of convenience. Electronic voting was not something set up in opposition to the existing voting methods (voting by filling in a ballot paper); rather, it was seen as an additional choice of voting method. The first national elections in which electronic voting methods were employed were carried out in 2005. The electronic voting is implemented during the absentee ballot period. Voter authentication was carried out using ID cards, with only those who had received authentication being allowed to vote electronically. Electronic voters can vote as many times as they wished, with only their last vote being included in the final tallies. Because the former voting methods are prioritized, when an eligible voter casts an electric vote during the absentee ballot period, but then also later goes to the polling station to cast his or her vote, the electronic vote is cancelled. Electronic voting procedures involve the voter inserting his or her ID card into a card reader, displaying the electronic voting website, selecting the candidate, and finishing by confirming his or her final decision using an electronic signature. When compared to visiting a polling booth, the procedure could be simpler. Electronic voting in the above election resulted in 9,317 eligible voters casting their votes electronically, with this later being reduced by 30 to 9,287 due to voters who also voted at the polling station, constituting 1.85% of the total number of votes cast. Many of the electronically cast votes were cast in the evening or late at night, with voters of middle age being common.

• Other

ID cards can be used for transportation tickets and as a library card, health insurance card, driving license, and passport within the EU. They are also used for procedures of examinations or bank transactions.

[Government reforms]

In 2001, an internet-based residents' registration system was established. However, problems arose in that it required individuals to take individual ID, application forms and authentication papers to a variety of institutions in order to submit documentation to a given institution. Development was then started for a residents' registration system that would provide a 'one-stop service' for people to carry out all procedures at one time. Thanks to the successful development of the residents' registration system, citizens no longer need to prove their registration details with a variety of complicated documents at different institutions. For example, when birth or marriage registration documents need to be submitted, if the residents' data are input at the registering institutions and interoperability with other information systems has been achieved, the residents no longer need to submit documentation. Moreover, public officials no longer have to input data into the system themselves, leading to work being carried out at higher speed, and with improvements in work quality.

The aim of national information systems is not seen as being one of 'selling' services, but rather to seek improved convenience for the general public; the development of a safe IT environment that takes the needs of all citizens into account is seen as the work of the state. Currently, 'mobile government' is being planned as the next step in electronic government, with systems currently being developed that would facilitate mobile phone use.

◆ Lecture 3 "The application of public key infrastructure in Estonia"

Yoji Maeda, Research Director, ECOM

[Estonian ID cards and electronic authentication]

Estonian ID cards play an important role in advancing information technology within society, as well as in the network authentication of cardholders. For example, information such as the owner's national identification number, private authentication key and private signature key are contained in the ID cards. Electronic authentication here refers to PKI (public key infrastructure) identification.

In terms of the distribution of ID cards in Europe, Italy and Belgium are currently in the process of distributing cards, with Germany still having only completely planning. In contrast, Estonia's ID card project began in 1997, with cards being issued in 2002 and one million cards currently having been issued out a total population of 1.4 million. Along with a photographic portrait of the cardholder, the following information is printed on the front of the card: name of cardholder, national ID number, date of birth, gender, citizenship, card number and the valid period for the card. The back of the card contains the following information: birthplace of cardholder, date of issue of the card, other information related to resident permits and data in a machine-readable format containing the information printed on the front and back of the card. The IC part of the ID cards contains two types of electronic authentication, for identification purposes and signature purposes. The electronic authentication contains the name and national ID number of the cardholder, with the identification part containing only a public e-mail address, meaning that there are no problems with privacy. Cardholders' names and national ID numbers are considered as things that belong to society, and not things that would cause any problems if they were to be found out by other people. National ID numbers are decided upon at birth, with everyone knowing their own number, and the eleven digits displaying, in order, gender (one digit), date of birth (six digits) and a number (4 digits). It is possible to forward e-mails from the public e-mail address to a maximum of five other e-mail addresses. Two types of electronic authentication are issued, for identification and signature purposes, and although these largely focus on government-related uses, private sector services such as banking services also make use of electronic authentication. The cost to the individual is quite high, with 10 Euros being charged at the time of issue (the overall cost is 20 euros, but 10 euros of this is paid for by the government).

Here is an explanation of how electronic authentication is issued. Firstly, the applicant posts an application to the CMB Regional Office (a government body), and the government then requests that the card be issued by a private sector card company after checking the identity of the applicant using the national ID number. The private sector card company then makes a request for the issue of the card to the Certification Agency (a private sector electronic authentication company). The private sector card company then hand-deliver the ID card, which contains private keys and electronic authentication, to the applicant. This is a similar mechanism to that employed in Japan for the electronic application and issuance of passports.

Under Estonia's law on electronic signatures, the operation of electronic signatures requires the strictest levels of qualified certification, with electronic signatures having the same effect as handwritten signatures. There are also provisions governing the Certification Agency (CA) and the Time Stamp Agency (TSA), and cards are issued only on behalf of individual people as opposed to corporations.

[Data exchange platform - X-Road]

X-Road is an internet-based platform developed for Estonia's e-government for the purposes of data exchange. It aims to achieve safe data transmission, is compatible with decentralized information systems and uses public key infrastructure (PKI). It is used as a governmental database and information system. More specifically, X-Road connects together the various portals (portals aimed at the general public, businesspeople and public officials), the Certification Agency, bank databases and databases from various industries. With security servers being set up for all of the above and complete access logs being taken, a record is kept of who accessed what information and when. Security measures have been put in place using a security server, adapter server and monitoring, thereby making it possible to protect information. The central database registry that manages X-Road is also monitored by a separate government body.

As a result of introducing X-Road, the general public has become able to make fuller use of internet applications, with the need to reenter already existing data. People are easily able to check who has accessed their data and when. There is no longer any need for public officials to deal with slips of paper, and no need for them to input the numbers written on the slips. It is also possible to obtain information simply by inputting a national ID number thanks to the fact that databases have been connected to a single network.

ID cards are used for electronic government services that make use of X-Road. They are used as electronic signatures for noteworthy services such as electronic voting, e-democracy and e-banking. For example, with electronic voting it is possible to use the 'double-lock' of public keys for both the government and the individual.

[Points of note]

After gaining its independence in 1991, Estonia decided upon which fields needed to be focused and what needed to be eliminated in order to attract foreign capital and revitalize industry. It acquired the understanding of its citizens in attempting to prioritize IT promotion. Although the administration has changed hands five times in the past 15 years, there has been no wavering in it is strategy of promoting IT. Estonia has carried out advanced services such as electronic cabinet meetings and electronic voting based on the creation of a strong information platform. This success can be seen as the result of clear policies from government and the understanding of the general public in relation to the need to encourage IT, and in particular a strong will to set about creating that platform.

*1 TOM: 'TOM' takes the first letters of a sentence in Estonian and translates roughly into English as 'I decide today'.

*2 SMS：Short Message Service. E-mail between mobile phones or other compatible e-mail.

*3 Tiger's Leap Project. Tiger's Leap here refers to Estonia's attempts to become a Northern European 'tiger economy'.

- Overseas Research Report -

Trends in the Chinese E-Commerce Market

Haruo Muto, a Research Director at ECOM's International Relations Group, reports below on trends in the Chinese e-commerce market based on local research.

==

As of July 2006, the percentage of the total Chinese population made up by internet users stood at 9.4%, below the world average of 16.6%. However, the absolute number of internet users supporting electronic commerce had increased by 20 million from the previous year to 123 million. This growth rate threatens the current leading nation in terms of internet usage, the United States. Local research was carried out on the trends in China's e-commerce market in cooperation with the Fujitsu Research Institute. I have provided an outline of the findings below.

1. Schedule and locations visited

The research was carried out through interviews from January 8-15, 2007 in the cities of Beijing, Hangzhou, Shanghai and Guangzhou. The five interviewees were as follows: 1) three central and regional industrial groups related to electronic commerce in China; 2) five companies carrying out electronic commerce (two of which provided business-to-business services and three of which provided business-to-consumer services); 3) a third-party settlement service company; 4) two RFID-related organizations; 5) a Japanese manufacturer.

2. Report outline

Firstly, we received an explanation concerning overall trends in electronic transactions in China in 2006 from the China Electronic Commerce Association. Information on personnel training and regional e-commerce were given, and what left the deepest impression was the fact that infrastructure developments for credit-related e-commerce had advanced so much over the last year. A national personal credit information database was up and running, a credit appraisal center for electronic transactions (established in November 2005) has started full-scale activities, and serious research has been carried out into the credit situation. In China, the issue of credit related with electronic transactions is an extremely serious concern naturally for traditional transactions, but new companies have been established to solve this type of problem, a typical example of which is YeePay, where we visited during the trip. YeePay offers settlement services between banks, e-commerce companies and consumers and also carries out settlement support in non-electronic commercial fields such as telephone sales for air tickets. This type of business could probably only be viable in China which, unlike Japan, has serious problems with the issue of credit.

In terms of business-to-business, the extremely interesting explanation was about the largest company Alibaba, which was gradually shifting away from their "Meet at Alibaba" business model and towards a "Work at Alibaba" business model. Alibaba has established its own 'Alicollege' and is working on measures to train e-commerce personnel in cooperation with universities and educational institutions. Alisoft was established in January of this year, and has begun sales of business management software. This signifies that not only is the company involved with transactions, but is also branching into the added value service of providing a seamless partnership between companies' internal work and transaction data, which is a trend that needs to be observed when looking at the future of the business-to-business sector in China.

In terms of business-to-business transactions, when importing or exporting is involved, the switch to electronic trade operations such as customs procedures is also an important challenge. The China International Electronic Commerce Center (CIECC), which is an organization related to the Chinese Ministry of Commerce, has facilitated electronic procedures for things such as the management of imports, exports and foreign capital, as well as offering services to provide information on importers and exporters, China-based foreign organizations and authorized trade control and licensing bodies. After interviewing a Japanese company about the state of moves towards electronic trade operations, the company claimed that procedures such as applications for import and export had become much simpler than previously, and that it was using electronic application systems to clear customs, but that in actual fact there had been a lot of trouble with the system and there had not been many advantages to its introduction overall. Because China is an important trading partner for Japan, the computerization and rationalization of trade administration will no doubt become an important point of consideration for Japanese businesses in the future.

In terms of the business-to-consumer sector, because many of China's internet users are young, come from the major coastal cities and are mostly male, the majority of products sold is made up of books, music or video products and electronic equipment, with less diversity than in the United States or Japan. Although things such as health products, toys, flowers and kitchen products are also sold, there is a strong element of gift-giving with these transactions. There is the problem of an underdeveloped goods distribution network in China, meaning that catalog sales have never been as large as in Japan and the United States. Although there are unique companies such as Hangzhou-based YouCan, which is developing electronic transactions at the same time as physical stores and the goods distribution network to connect them, it is predicted that rather than expanding explosively, the business-to-consumer sector will expand gradually along with the spread of infrastructure developments and network users.

Lastly, concerning RFID in China, a code has yet to be standardized, and an ultra-high frequency band has yet to be allocated. However, research is being carried out at universities and chip manufacturers, and there are now no problems with sample shipments. All related parties claim that applications are going to become important in the future, but currently the main focus is on the management of items such as foodstuffs, dangerous goods and inventories, with all of these still at the experimental stage. Japanese businesses have already participated in RFID field trials carried out at department stores managed by the Shanghai-based Bailian Group, and it is likely that participation in field trials in China represents an excellent business opportunity for Japanese companies.

Announcement of the "19th ECOM Seminar"
- "Information Security Day" Special Foundation Commemorative Seminar -

Anyone is now able to make use of electronic transactions thanks to the establishment of the internet environment, but the hidden dangers of the internet, such as bots, viruses and phishing, are beginning to emerge. We will be making the most of this opportunity to commemorate the establishment of 'Information Security Day' to explain the policies and measures for information security needed to bring about safe and secure e-commerce, measures from a user perspective and the measures that ought to be implemented by businesses and organizations.

Date:	10:25-18:20
	February 6 (Tuesday), 2007
Location:	B2 Hall, Second Floor Basement, Kikai Shinko Kaikan, (3-5-8 Shiba-Koen, Minato-ku, Tokyo)

Program (scheduled)

For details see ECOM's website

10:25-10:30	Opening Greeting
Session 1 Information Security Policies and Measures	
10:30-11:00	Trends in Japan's information security policies and measures
11:00-11:30	Providing early warning systems for computer security - bot countermeasures
11:30-12:00	Security assessment and benchmarks for information security measures
	Questions/Break
Session 2 New User Risks	
13:30-14:00	New information security risks as seen in problems suffered by users
14:00-14:30	Increasingly sophisticated phishing scams
14:30-15:00	The current state of spyware
	Questions/Break
Session 3 Countermeasures by Businesses and Organizations (Part 1 - Organizational Measures)	
15:15-15:45	The importance of information security management
15:45-16:15	Protection measures for personal and business information at Matsushita Electric Industrial
	Questions/Break
Session 4 Countermeasures by Businesses and Organizations (Part 2 - Countermeasure Tools and Examples)	
16:25-16:55	Usage examples and applications of secret data decentralization
16:55-17:25	Long-term storage of large volumes by decentralizing secret data
17:25-18:10	Information security improvements in daily work at Ricoh
	Questions

Announcement of the “20th ECOM Seminar”

“ RFID tags and the guarantee of privacy at consumer contact points” -

In order to popularize the use of RFID tags, it is important to guarantee privacy for customers at retail stores and other ‘points of contact’ where products with built-in tags are handed over to consumers. From this prospective, ECOM has been studying the privacy issues surrounding RFID tags, ways of empowering consumers and consumer protection policies aimed at businesspeople. We will be reporting on the results of these efforts in this seminar.

Date: February 23 (Friday), 2007 13:30-16:30

Location: Kikai Shinko Kaikan, Third Floor Basement, Research Room 2
(3-5-8 Shiba-Koen, Minato-ku, Tokyo)

Program (scheduled)

For details see ECOM’s website

13:30-14:00	Lecture 1 “The significance of privacy protection in RFID tag use”
14:00-14:40	Lecture 2 “RFID tags and privacy protection technologies and methods”
14:40-15:00	Break
15:00-15:50	Lecture 3 “Consumer empowerment as necessary for the popularization of RFID tags”
15:50-16:20	Lecture 4 “Introduction of ‘IC tags for beginners’ from the website”
16:20-16:30	Questions

From the Secretary-General

▼ The 4th Planning Committee Meeting was held on Monday, January 15, with explanations and discussions being provided by the Secretariat on its activities proposals policy for FY 2007. The Activities Plan for FY 2007 is scheduled to be put together after discussions by the Planning Committee and Board of Directors. If you have any opinions whatsoever on the Activities Plan, please contact the Secretariat. ▼ At the above Planning Committee Meeting, Masahito Fujihara, Information Economy Division Director of the Commerce and Information Policy Bureau at the Ministry of Economy, Trade and Industry introduced the New RFID Tags and E-Commerce Initiative (see p.3 for details). The initiative is seen as something that aims for ‘new social infrastructure for the information economy’ through inter-business and inter-industry RFID and EDI activities as a way of creating a new system for economic society. We would like to hear any of your opinions on this matter. ▼ As introduced on pp.22-23, the 19th (February 6) and 20th (February 23) ECOM Seminars have also now been scheduled. There will also be a seminar (please refer to our website, http://www.ecom.jp) aimed at the popularization of RFID tags entitled “Popularization measures for RFID tags and potential usages” which is scheduled to be held, starting in Tokyo (at the 18th ECOM Seminar, on February 1) and then followed by Osaka (February 19), Hiroshima (February 21) and Takamatsu (February 23). We look forward to participation of people in various regions.. (Kataoka)