

# ECOM News

No.30

## Headline

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- Special Report My Thoughts on Web Commerce 2.0
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- Announcement of the “26th ECOM Seminar ”Towards a more improved use of electronic administration services
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## *The Third Planning Committee Meeting was Held!*

— Concerning post-ECOM Activities —

The Third Planning Committee Meeting was held on September 19, 2007. This fiscal year (2007) is the final year of the current ECOM activity period, set as three years long. At the Planning Committee Meeting, the following reports and debates, centering on the debates concerning the shape of activities from 2008 (the post-ECOM activities), were held.

### Concerning the Shape of Post-ECOM Activities

To start with, Akio Kanaya, the Director of ECOM, explained the conclusions of the planning committee meeting taskforce in terms of more definite activity goals, and outlined the main activities (new RFID tags, electronic commerce initiatives, links between small-to-medium companies and large companies, international goods distribution, etc) with the basis of the current situation, issues, links between organization structure and related organizations, and outline of the direction of post-ECOM activities. Then Mr. Tsuchimoto, Director of the Information Economy Division, Commerce and Information Policy Bureau, Ministry of Economy, Trade and Industry, was kind enough to explain the policy direction regarding information policy in FY2008 and the situation in each area of new electronic tags and electronic commerce initiatives.

Regarding the direction of post-ECOM activities and the information policy, we called for the opinions (more reflection of on-the-site requests, the self-regulated integration of Web security and payments that is vital for electronic commerce, etc) of all attending members. Each individual opinion was considered, and while listening to the opinions of current members, we debated about which theme the new ECOM should be active in, and were able to pin down some key points.

### Matters Reported (schedule for next meeting, activity reports, etc)

The next meeting is scheduled for November 12 (Monday), and is expected to discuss the interim report for FY2007 and post-ECOM matters.

Regarding WG Activity Reports, the 139 ECOM members and 50 experts of 11 working groups (WG) will hold some three meetings per WG, and report on what activities they are pursuing, and regarding scheduled events, members were notified about the 25th ECOM Seminar to be held on October 1 (Monday).

**The Third Planning Committee Meeting Order of Business**

1. Concerning post-ECOM (discussion)
2. Other Matters (planning committee interim meetings, FY2007 WG activities, ECOM seminar, etc)

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Toshiro Kawamura  
Executive Advisor  
NEC Corporation

The market for eCommerce (electronic commerce) domestically is some four trillion yen for BtoC, and some 148 trillion yen for BtoB, and worldwide BtoB trade is said to be some 500 trillion yen, so it has developed into an undeniable economic infrastructure. Furthermore, with the introduction of Web 2.0, the internet technology that supports it allows the debates over internet business to shift from “software” to “services.” Moreover, recent metaverses (imaginary worlds) like Second Life that are gaining such public attention allow us to look forward to even further possibilities.

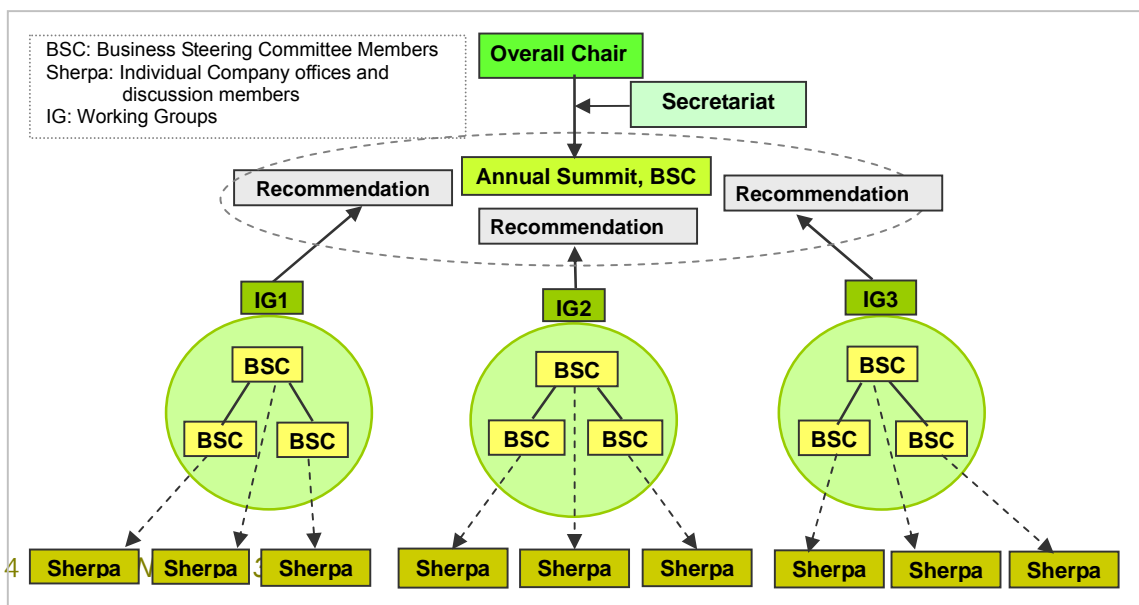
Any technology or new business develops in tandem with risk. For example, the faster the car, the stronger the brakes that are needed. Likewise, as things become more convenient there are also downsides, which need new efforts to be rid of. Thus, we expand businesses precisely by fighting against these risks, and the issues with eCommerce also require the use of the double-edged sword that is the strengthening and expansion of new businesses but also the reduction of threats and risks that comes with it.

The GBDe (Global Business Dialogue on eCommerce), a grouping of international private enterprises connected with eCommerce, is a forum for discussing global points of view regarding implementation of the two aspects noted above. Of the nine Japanese companies that participated in FY2007, NEC was honored to be chosen as the Overall Chair. Therefore, I would like to take the opportunity in this report to describe the activities of the GBDe.

**What is the GBDe?**

The GBDe is grouping of managers of international corporations that discuss and debate on an international level new business opportunities and problems related to eCommerce.

**Fig. 1 GBDe Organization Chart**



For a safer and more secure internet society, together with considering business chances like new business models for the “Ubiquitous Society”, minor internet transactions across national borders, and the Digital Home (a digitalized home environment) in the increasingly NGN era, we discuss the development of laws, the introduction and enforcement of commercial morals, observance obligations of each companies, consumer protection from the point of view of the consumer, claims processing, removal of immoral companies, and the provision of government services for a richer lifestyle for the residents. At these meetings, representatives of national governments, public organizations, private corporations, and NPOs of consumer bodies gather together, and in Japan we are honored to have the support of the Ministry of Economy, Trade and Industry, the Ministry of Internal Affairs and Communications, and Nippon Keidanren.

GBDe was begun in 1999 through the leadership of Western corporations. At its founding, CEOs of famous IT network companies filled the ranks of the founding officers, but with the bursting of the IT bubble in the US, those managers who were the founding officers left their posts, and regrettably, despite their own high ambitions, these ambitions were not passed on to the CEOs who succeeded them. On the other hand, Asian members including Japan were facing trying times, but the corporation managers carried on the ideals of international cooperation. After 2003, the Overall Chairs were all from Asia, and Asia took the lead in action, but as of 2006 we see more movement from the West as Western corporations once again join our membership.

**Fig. 2 Past Overall Chairs of GBDe**

Year	Date	Place	Overall Chair
1999	Sept. 13	Paris	Beltersmann (Germany)
2000	Sept. 26	Miami	Time Warner AOL (USA)
2001	Sept. 14	Tokyo	Fujitsu (Japan) Korea Telecom (Korea)
2002	Oct. 29	Brussels	Vivendi Universal (France) Telefonía (Spain)
2003	Nov. 6	New York	Korea Telecom (Korea)
2004	Nov. 30	Kuala Lumpur	NTT Data (Japan)
2005	Oct. 17	Brussels	MDeC (Malaysia)
2006	Nov. 9-10	Taipei	Chunghwa Telecom (Taiwan)
2007	Nov. 9	Tokyo	NEC (Japan)

Since its founding, the GBDe has presented policy advice and debate at an international level, and has had many successes. If we look at the example of the Consumer Confidence group, of which NEC has been the chair for many years, we see that it has suggested from the beginning the international linking of website trust marks (TM), seen the start in 2003 of the Asia Trustmark Alliance (a linked organization in Asia), and this year, the employment of GBDe TM guidelines as a common standard for TM granting. Moreover, we have determined and published a guideline for international ADR (Alternative Dispute Resolution) in conjunction with the worldwide consumers’ society Consumers International, and now many nations throughout the world are using it as a basis for international ADR.

## **GBDe's Activities This Year**

This year, working groups dealing with the five themes introduced below are in operation.

### **(1) The Digital Home**

Digitalization is increasing in all sorts of areas even in the home. In the "Digital Home," we are discussing what we need for standardization, whether there are business chances, and what sorts of technology there is from the areas of remote monitoring and control of the house itself, entertainment for its residents, public services including financial, and healthcare. Chunghwa Telecom Co., Ltd. of Taiwan is a leader in advancing this field.

### **(2) IMP (International Micro Payment)**

In Japan we have the "cellphone wallet" system, but this can only be used in Japan. For international companies that place an emphasis on international tradability, there is no point to it if they cannot use it for international transaction. Companies that think beyond their own national borders adopt this sort of idea. With high-grade service and taking the initiative, including Chinese, Taiwanese, and Korean carriers as well as Japanese carriers, this is the viewpoint of companies looking to increase their international viability. Chunghwa Telecom is the leader in this area as well.

### **(3) Ubiquitous Network Society**

IT networks become part of the social infrastructure of the steadily-approaching fully-wired Ubiquitous Society, and people's lifestyles and corporation activities will no doubt develop further power through the internet. In order to ensure that this develops healthily into something that can be used safely, we need to establish what concerns there are for managers and what topics need to be urgently addressed. We also need to determine what technologies are needed to deal with these issues. This year we are looking at how international laws and rules should be developed. Japan's Nomura Research Institute is the leader in this area.

### **(4) Cyber Security**

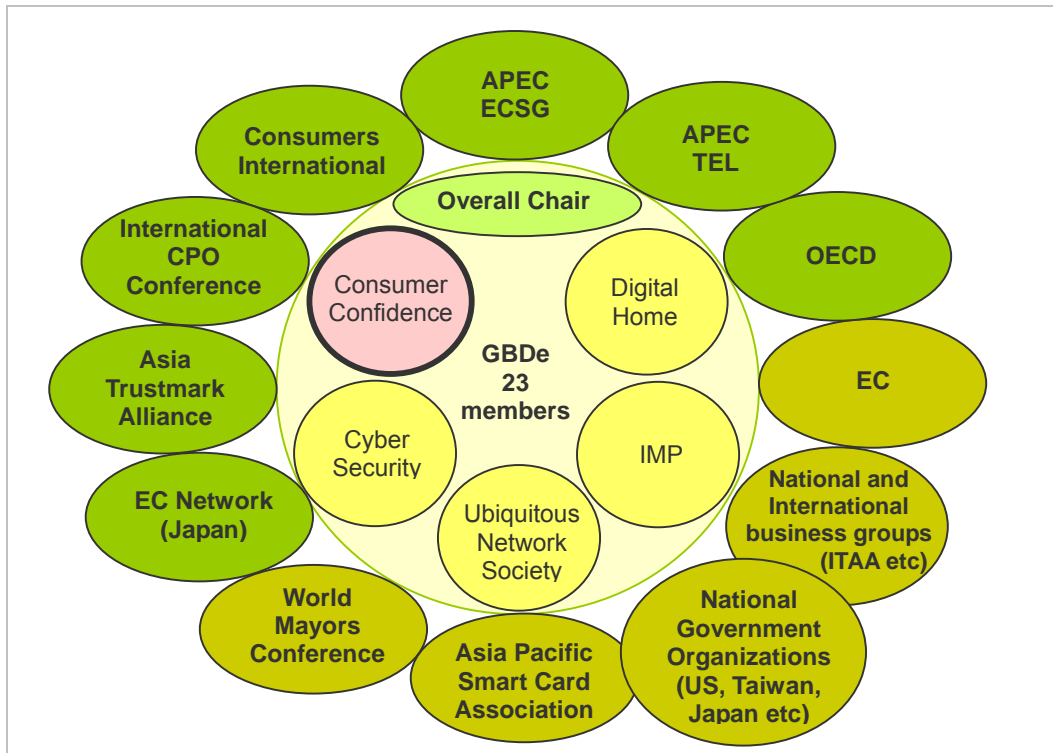
Problems on the internet – like the leaking of personal information, invasion of privacy, and misuse of credit card data – are not limited to within a country, but cross borders. As a security system limited to just one country will not be able to solve these issues, we need to consider the setting-up of a system architecture for multi-national trading, and this year, we are looking at countermeasures and threats found in embedded software. Japan's Information-Technology Promotion Agency is the leader in this area.

### **(5) Consumer Confidence**

From the point of view of consumers, internet shopping is still seen as something slightly risky, and they are worried about problems. We are considering a system to allow safe and secure trading across national borders. The specific aspects are noted below. NEC is the leader in this, and is promoting discussion while exchanging debate with numerous international organizations.

- (1) Clarification of rules regarding the handling of personal information during internet shopping
- (2) Analysis of the granting system for website trust marks based on a shared international standard
- (3) The organizations and systems for international claims processing handling services from the point of view of the consumer

**Fig. 3 Analysis Relationship Organization for Consumer Confidence**



### The 2007 GBDe Annual General Meeting

At GBDe, we invite government officials and various other stakeholders to our annual general meeting to announce the results of the past year's work and exchange opinions. This year's is going to be held at a Tokyo hotel on the 9th of November, and the day before, the various working groups will hold meetings to sum up the year's activities and plan for the coming year.

As guests, we have invited high-ranking government officials from Japan, the United States, Taiwan, and Malaysia, as well as APEC, the OECD, the EU, and Consumers International, and have already confirmed the attendance of the former Minister of Internal Affairs and Communications, Professor Heizo Takenaka, Commissioner Harbour of the American FTC (Federal Trade Commission), President Brown of The Open Group, and the chairman of ATA, among others.

### My thoughts about Web Commerce 2.0

The activities of GBDe, starting in 1999, are now in their ninth year, and we have offered frequent advice to governments and industrial bodies concerning the development of electronic commerce. However, in this period, the internet environment has changed greatly, and now all communication nets from wired to wireless are turning to IPs, and a social infrastructure based on the internet is being completed at the global level. With the arrival of the truly Ubiquitous era, network services such as an electronic commerce based on this social infrastructure are widening into even more new developments.

As broadband and mobile net environments spread, and as the technology and concepts of the new wave of the internet, "Web 2.0," have now penetrated deeply, the electronic commerce market will expand significantly both in quantity and quality. So, just as the development of consumer-lead services by the pioneers of Web 2.0 has now been firmly established, the establishment of a business model adapted to the newly-emerging era of internet infrastructure is an urgent task for businesses looking to expand. To give a push to the development of services with the future in mind, in addition to IMP (International Micro Payment) etc, this year GBDe has taken the theme of the digital home.

Social infrastructure has been developed as a communications network, and thus we have been able to offer many and varied services, but on the other hand there are still many problems that increasingly stand out. First, we cannot say for certain that we can provide a safe and secure service, or that we run a healthy service. In fact, problems of individual information, scams, treatment of minors, etc are increasingly in complexity and scale. These various problems that erupt cannot be solved by just one corporation or one country. We need to discuss them soon internationally.

Along with the analysis of business models for the acceleration of global electronic commerce services, GBDe is a forum for discussing the problems of cyber security and consumer trust that we expect to face in the future. I am acutely aware that now is the time that GBDe, with managers assembled from global corporations all over the world, must fulfill its important role. Talking of both the positives and negatives of electronic commerce with all of the stakeholders, who are also the participants, I hope to show the path by which we should proceed globally. Also, from now on corporation managers will be strongly required for CSR (Corporate Social Responsibility), but I hope also that they will be able to have a shared sense of the problems concerning responsibility in the world of the internet.

There are at present 23 member corporations and organizations of GBDe, of which nine, the largest share, are Japanese, but even with the increase in participation from Western corporations, greater participation of Japanese corporations is needed to give strong leadership. Therefore, while taking this opportunity to urge the member corporations of ECOM to understand and share in the philosophy of GBDe, and to participate in our activities, I would like to ask for your cooperation in working, in a close relationship of ECOM and GBDe, towards the reality of a new eCommerce ——“WebCommerce2.0.”

—RFID Tags Technology Study WG—

**First, Second WG Meetings held!**

Masatomo Takemoto, Research Director of the ECOM RFID Tags/Traceability Electronic Tag Technology Issues Working Group, reports below on the current activities of the Electronic Tag Technology Issues WG.

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■ **The First WG Meeting (held August 23)**

The first WG meeting was held on August 23, and attended by seventeen people: twelve ECOM members (twelve companies), one expert, two members from the Ministry of Economy, Trade and Industry, and two from the ECOM secretariat. To open, in the explanation of the WG founding rationale from the secretariat, it was explained how this year's WG was for the purpose of tackling the fields of technological issues, including activities related to the promotion of RFID tags that ECOM has undertaken. In addition, we were explained about activities that are taking into account the linkups with the RFID tag policies that METI is promoting. Next, after self-introductions from the WG members, we elected a Chair of the WG, and Mr. Nobuyuki Teraura (Denso Wave, Inc.) was appointed by a unanimous vote. Then, Assistant Director Mr. Kazutoshi Morita of METI's Information Economy Division introduced the policies his ministry is promoting for electronic commerce and RFID tags. Also, Mr. Shoichi Nagai, manager of Kodansha Ltd told us about how the publishing industry is grappling with this issue, including a field trial to introduce how industry is dealing with this issue.

The working themes for this year's WG, as discussion subjects for electronic tag technology issues, were set as being centered on the following four: (1) durability of RFID tags, (2) electrical interference, (3) rules for information storage in user areas, (4) improvement of read ratios and industry efficiency. Discussion about how to proceed was left for the next meeting.

■ **The Second WG Meeting (held September 25)**

The second WG meeting was held on September 25, and attended by twenty people: fourteen ECOM members (ten companies), two experts, two members from the Ministry of Economy, Trade and Industry, and two from the secretariat. Initially, Mr. Masaki Umeshima, lecturer at Keio University, introduced the way in which Auto-ID Lab Japan was dealing with this issue. Next, Ms Yukie Tachi, Senior Researcher at the Distribution Systems Research Institute discussed the situation with EPCglobal.

The working themes for this year's WG, set at the first meeting, and taskforces were set up in the WG for discussing (1) durability of RFID tags and (4) improvement of read ratios and industry efficiency. Regarding (2) electrical interference, we have been able to gain the cooperation of groups active in investigating this area. And for (3) rules for information storage in user areas, we put together the most recent discussion developments from groups and consortiums negotiating regarding the rules of information storage for electronic tags in the publishing and home electronics industries, and the investigations that ECOM has carried out in this area so far.

—*Electronic Signature Dissemination WG*—  
**Report on Interoperability Test using JIS Proposal for  
Long Term Digital Signature Format Profiles**

Yoji Maeda, Research Director of the Electronic Signature Dissemination WG of the ECOM EC Safety and Security Group reports below on the progress and future plans of the Interoperability Test using the JIS Proposal for Long Term Digital Signature Format Profiles.

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## **1. Background**

Along with the strengthening of internal regulations and the enforcement of the e-document law, the necessity for the safe and secure storage of electronic documents has increased even more.

Since fiscal year of 2000, the Electronic Signature Dissemination WG has created a guideline for, and carried out various investigations<sup>1)</sup> regarding, the technologies for preservation of electronically-signed documents (signed documents).

For long-term storage especially, we do not imagine that the person who creates and signs a document and the person who re-verifies it years or decades later will be using the same equipment, and there is a strong concern that products which do not offer interoperability will pose a risk for users. This is the reason preventing the widespread use of equipment to preserve signed documents long-term.

Therefore, this WG has been working for the standardization of electronic signature format profiles (long-term signature profiles) as part of developing an environment where equipment for the long-term storage of signed documents can be used with assurance. As part of these activities, we have been exchanging ideas with the European Telecommunications Standards Institute(ETSI)<sup>2)</sup> regarding long-term signature profiles and interoperability tests, and come up with a JIS draft for long-term signature profiles based on ensuring conformance between ETSI-specification profiles and the long-term signature profiles our WG has developed.

## **2. Outline of Experiment**

The Electronic Signature Dissemination WG called for corporations to participate in the interoperability test for long-term signature storage based on our JIS proposal at the end of last year (December 2006), and we were able to gain the cooperation of eighteen ECOM member corporations in Japan and three companies that publish timestamps. At present, the first-stage tests are over, and we intend to commence the second-stage tests in October. We plan to invite the various companies ahead of that to explain the second-stage tests.

The interoperability tests based on the JIS proposal are the following two types of test:

### **(1) Offline Long-Term Signature Format Validation Test**

Through tools for creating test data, we can demonstrate the viability of data offline using a set of long-term signature data, verification data, and setting data for cases where the test data has been correctly created, and in cases not correctly created. The test results give us just the two results of valid or invalid, and we do not consider the reason for a invalid result.

### **(2) Product Matrix Interoperability Test**

We checked if it was possible to demonstrate whether data created on one company's product could be successfully read by another company's product. Note that the necessary certificates, keys etc were distributed through the three cooperating companies that created and supported our test design and test data, and we used the services of three cooperating companies for the timestamps.

## (1) Experiment-related Information

At this time, according to the "Offline Long-Term Signature Format Validation Test Specifications" based on our JIS-proposal profile,<sup>3</sup> we conducted tests with products of the following participating companies, and found that the products of all participating companies passed the "Offline Long-Term Signature Format Validation Test." The participating corporations (those that passed the first-stage tests) and cooperating corporations are made public below:

### (1) Participating Corporations (alphabetical order)

- B-Parc Technology
- Certrust
- Dai Nippon Printing
- Digital Notarization Authority (J-Notary)
- Entrust Japan
- Fuji-Xerox
- HyperGEAR
- LangEdge
- Kanden System Solutions
- Mitsubishi Electric
- Mitsubishi Electric Information Systems
- NEC
- PFU
- Ricoh Japan
- RSA, The Security Division of EMC
- Secom
- SkyCom Corporation
- Teikoku Databank

### (2) Cooperating Corporations (alphabetical order)

<Timestamp Service Provision for Testing>

- Amano Time Business
- PFU
- SEIKO Precision

<Test setting, Test Data Creation>

- Entrust Japan
- NEC
- Secom

## (2) Second-Stage Test Explanatory Meeting

From this October, the second phase, the "Product Matrix Interoperability Test," will be commenced, and we expect to announce the final results within the year. We intend to hold an explanatory meeting on the date noted below. We would ask that any corporations interested in joining the second phase please contact the secretariat of ECOM .

### **Test Explanation Meeting**

Date: October 4, 2007 (Thursday), 16:00 to 18:00

Place: Conference Room 6D-4, 6th floor, Kikai Shinko Kaikan Bldg.

\*1 For results of the first experiments and previous activities, see the ECOM homepage (<http://www.ecom.jp/> →Results Report→FY2007) "Long-Term Signature Format Interoperability Test Results Report."

\*2 ETSI: European Telecommunications Standards Institute

\*3 The long-term signature format that the JIS-proposal profile references is the TS 101 733 (Cryptographic Message Syntax Advanced Electronic Signatures; CAAdES) and the TS 101 903 (Extensible Markup Language Advanced Electronic Signatures; XAdES)

—Electronic Signature Dissemination WG—  
**Austrian Citizen ID Number Investigation Report**  
(Interim report)

As the number-one rated country in the EU for the reputation of its electronic government online use, we visited Austria's A-SIT(Secure Information Technology Center-Austria) headquartered in Vienna and Graz, and looked into the national ID number system that assigns a number to each and every citizen to manage their information. Yoji Maeda, Research Director of the Electronic Signature Dissemination WG of the ECOM EC Safety and Security Group reports on its outline below. Note that there will be a presentation on this theme at the 26th ECOM Seminar (held October 26 (Friday)).

### 1. Background

The introduction of a national ID number for citizens is considered necessary in order to improve the efficiency of citizen information management through the use of IT. However, while a Resident Card Code has been introduced in Japan, it is not widely used, and it is not clear how it can be made more widespread.

According to the literature,<sup>[1]</sup> usage models for national ID numbers fall into the following three categories:

(1) FLAT MODEL

A method that uses the same number for multiple applications. Estonia, as we reported earlier, uses this model, and it is very simple and easy to use, allowing integrated management of individual information. However, there need to be defenses against unauthorized access through the development of laws and usage areas like access control.

(2) SEPARATED MODEL

A method that uses completely unrelated numbers for each different application. In Japan, the Resident Card Code and the Basic Pension Number seem to be thought of as separate, and apparently this model is going to be used for them. As there is no ID linkage between the applications, even if the number used for one application is found out, the other applications are safe from access. But on the other hand, since there is a need to have the information needed for each single application, the amount of services that can be offered are limited.

(3) SECTORAL MODEL

Different numbers are set for each single application, but these numbers are generated from a single number, and only those in authority can connect links between the numbers. Integrated management of individual information is made possible, but it is not possible to deduce other ID numbers from knowing just one.

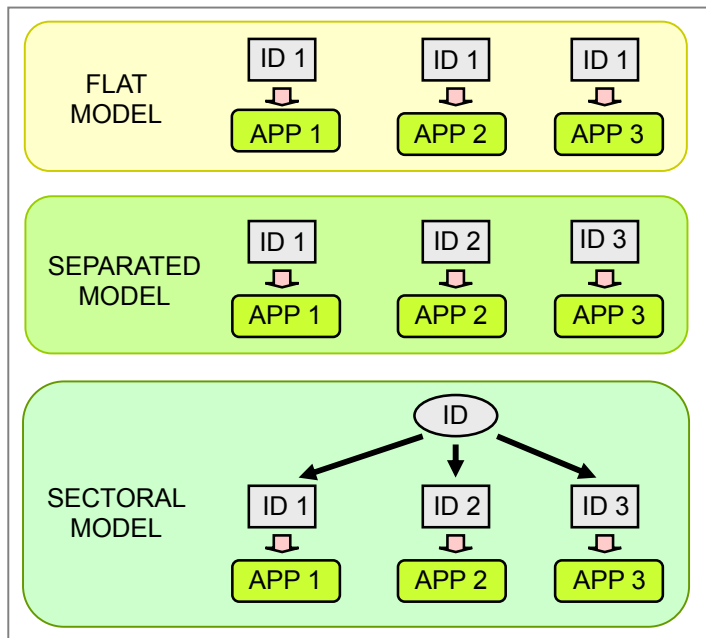


Fig. 4 National ID Number Usage Models

In Austria, it is this Sectoral Model that is the one used. The way it works is briefly discussed below.

## 2. Outline

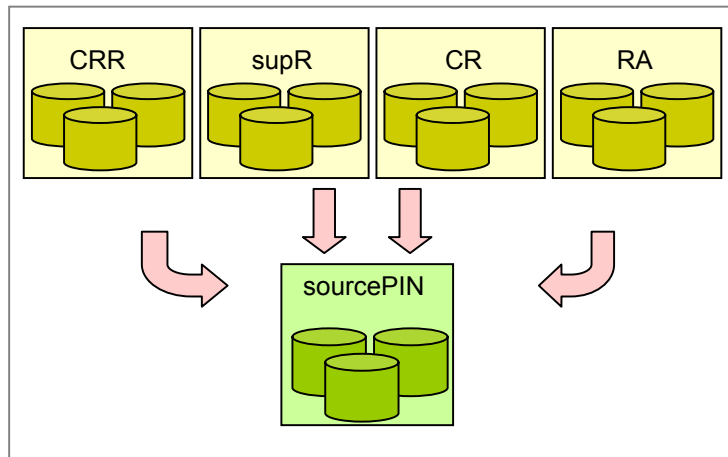
A-SIT is an organization that was set up in 1999, and its members are the Ministry of Finance, the National Bank, and Graz University of Technology. There are currently fifteen members, and their activities focus on creation of security-related indicators and manuals, and consulting for the promotion of electronic government.

The notable feature of the Austrian ID management system is the link between the three levels of national ID number (ZMR-Zahl, SourcePIN, ssPIN)<sup>[2]</sup>

### (1) ZMR-Zahl

All citizens are registered after the birth at the CRR (Central Register of Residents). At this point, a number is assigned according to internal CCR rules. This number is a public number, and does not change throughout one's lifetime. Similarly, foreign residents of Austria are registered in the supR (Supplemental Registers). And corporations are registered in the CR (Commercial Register), and associations in the RA (Register of Associations), and issued with numbers.

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**Fig. 5 SourcePIN Creation Flow**

### (2) SourcePIN (sPIN)

Through encryption processing based on ZMR-Zahl, an ID number (SourcePIN: sPIN) is gained.

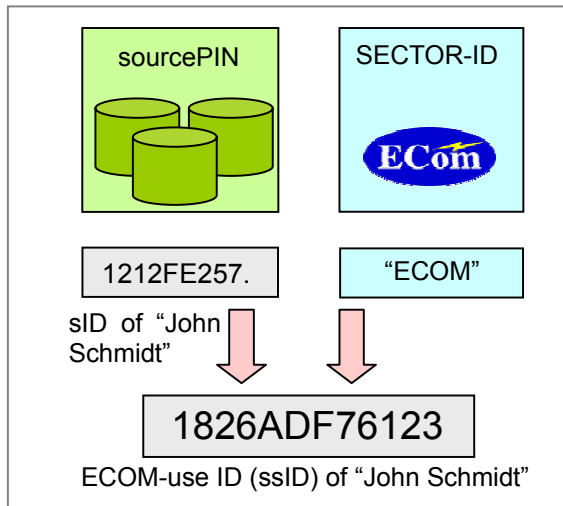
This number is embedded in the Residents Card, and only the person to whom it is issued knows it. Furthermore, the ZMR-Zahl cannot be deduced from the sPIN. This processing is done under the auspices of the government Data Protection Committee (other numbers are likewise processed).

### (3) ssPIN (Sector-specific IDs)

ssPIN is the ID number actually used in applications. Hash processing of the sPIN and SectorID assigned to each individual application gives the ssPIN. The ssPIN is generated for every time the application is used.

Note that it is not possible to deduce the sPIN from the ssPIN.

Through this type of mechanism, it is possible to use a different ID number for each individual application, as well as making unauthorized access more difficult, and by getting the permission of the government Data Protection Committee, it is possible to integrate related information, such as when dealing with tax declarations, and provide the taxpayer with the information thus gathered.



**Fig 6 ssPIN Creation Flow**

### 3. Future Plans

We are thinking about holding discussions on the introduction of the national ID number system used in Austria in Japan, and would like to suggest it as a specific idea.

#### References

- [1] "eID in Austria – THE CITIZEN CARD"  
[http://www.a-sit.at/pdfs/rp\\_eid\\_in\\_austria.pdf](http://www.a-sit.at/pdfs/rp_eid_in_austria.pdf)
- [2] "The Austrian E-Government Act"  
[http://www.stammzahlenregister.gv.at/documents/e-government-act\\_federal\\_law\\_gazette\\_part\\_i\\_no\\_10\\_2004.pdf](http://www.stammzahlenregister.gv.at/documents/e-government-act_federal_law_gazette_part_i_no_10_2004.pdf)

## —Information Security WG— Activity Report

Kazuhiro Kawashima, Research Director of Information Security WG of the ECOM EC Safety and Security Group reports below on the Information Security WG Sub-Working Group (SWG).

In the Information Security WG (Chairs: Messrs. Yasukura and Aihara), we investigate the extent of incidents occurring from information security risk (weakness), consider how to develop an environment for safe and secure electronic commerce (SWG1), how to deal with and counteract undesirable usage that exploits weaknesses in terminals used in electronic commerce (SWG2), and the creation of guidelines(SWG3) that will become a shared awareness between managers, technicians, and other disparate persons and that will be used to improve information security and these weaknesses. Our main activities and future plans are outlined below. For the first WG meeting activities, see "ECOM News No. 28."

The next meeting will be on October 16 (Tuesday), when each WG is expected to combine its problem approach and suggestions.

### 1. Information Security Risk Research SWG (SWG1)

#### (1) Activities (discussion themes)

The instructor outlined the vulnerability-related information portal site JVN that has been used in the Information Security Early Warning Partnership from July 2004. We also had some debate over the existence of sites that discover the most recent vulnerabilities, as well as looking back at some past examples of information traded in the internet before the JVN.

- Progress till now on information security in ECOM (two years of roundtable activities topics)
- JVN (Japan Vulnerability Notes)
- What happened before the MS Blaster worm of August 2003?
- "Do you know of the 'Vulnerability Framework' that can also create viruses?"

#### (2) Future Plans

Continuing on from the above discussions, we will proceed with discussing "another way of using vulnerability information" not as passive vulnerability information, but to improve information security.

### 2. Information Terminal Security Review SWG (SWG2)

#### (1) Activities (discussion themes)

The instructor outlined the equipment certification technology and examples of malicious exploitation of vulnerabilities, and 40 points (IPA) for security guarantees in the development of security equipment etc for embedded software and held discussion.

- Vulnerabilities in embedded software and information security
- Examples of malicious exploitation of vulnerabilities in net-linked equipment
- Information-based home electronics certification technology

#### (2) Future Plans (discussion themes)

Regarding the contents of the advice offered by the Information Terminal Security Analysis SWG, we intend to proceed with debate and problem-setting towards the realization of information terminals that come with information security appropriate to the electronic commerce environment.

- SWG2 report contents and future plans

### 3. Information Security Guide Creation (SWG3)

#### (1) Activities

Joining in with the above activities of SWG1 and SWG2, we held discussions on the differences in perceptions between people with differing specializations such as managers, technicians, lawyers, etc regarding the key words that emerge in debates, lectures and questions.

**(2) Future Plans** (discussion themes)

We shall hold debates on the differences in laws and guidelines and in technical aspects, as well as differences in perceptions between people with differing specializations such as managers and technicians regarding problems and suggestions that come up in the debates, lectures and hearings of SWG1 and SWG2 above, and we shall collate as far as possible, and report on, a guide for shared awareness.

- Investigative Report on FY2006 Information Security Incidents <Estimation of damage from information leakage and Considerations>
- Perceptions of differences in the definitions of “vulnerabilities” that have come up in the talks so far.

We would like to thank all the experts and WG members who were generous enough to give us their cooperation.

—EC Infrastructure WG—  
**ECOM EC Infrastructure WG/JEDIC Business Interface EDI  
Study Group Joint Overnight Conference Report**

The EC Infrastructure WG is working in concert with JEDIC (the Japan Electronic Data Interchange Council) in order to analyze the issues surrounding interoperability between industries. Hisanao Sugamata, JEDIC Secretary-General and Research Director of the EC Infrastructure WG of the ECOM, Information-Sharing Infrastructure Group reports below concerning the Third WG (ECOM EC Infrastructure WG and EDI Promotion Council Business Interface EDI Study Group joint meeting) held at an overnight conference from August 31 to September 1, 2007.

### 1. About the Overnight Conference

The aim of this overnight conference was to attempt analysis, from a viewpoint of information sharing and international standards, in order to clarify the needs of interoperability in electronic commerce shared infrastructures in a collaboration between the JEDIC Business Interface EDI Study Group and the EC Infrastructure WG.

The conference was held in the hamlet of Kakeyu, once known as a hidden spa deep in the mountains, the “private chambers” of the famous Bessho Spa, some thirty minutes by car from Ueda station, Nagano prefecture. Kakeyu Spa lies almost in the center of Nagano prefecture, and has prospered as a healing spa since the Genroku period (circa 1700).

The reason we held the overnight conference was because we wished to discuss to the full



the essential theories about standardization and information sharing that would be difficult to do in the normal two to three hours we allot for meetings, and to form the joint agreement on the needs of interoperability that is the mainstay of this conference.

At the overnight conference, to allow us to realize anew the issues we looked at, industry representatives and experts gave presentations regarding the progress situation of standardization in multi-disciplinary/international arenas, and cutting-edge efforts (in chemical material information management and international EDI) in the industry to show us the current state of efforts in information-sharing and internationalization. In order to use the contents of these

presentations as a starting-point for analysis, we divided into two teams – “Information Sharing” and “International Standardization” – and discussed the issues forthrightly and directly. The next morning, both teams gave reports, allowing us to share the common viewpoint on information sharing infrastructure and internationalization for the needs of interoperability in electronic commerce shared infrastructures.

### 2. Efforts in Information Sharing and Internationalization

At the commencement of analysis and debate, the development of needs to the present was explained and industry examples (JAMP and Chem eStandards) were introduced which deal specifically with information and internationalization.

**(1) Efforts in Chemical Material Information Management** (Electronic and electrical machinery industry/Mr. Nobuya Matsukawa of Hitachi Cable Co.)

The efforts concerning a multi-industry sharing of chemical material information contained in products were introduced which has been carried out by the Japan Article Management Promotion-consortium (JAMP). At JAMP, they determine a standard MSDSplus (Material Safety Data Sheet plus) and AIS (Article Information Sheet) for the relevant information, and make information distribution (shared portals, etc) over design, production, use, and recycling possible.

In Europe, a registration system for chemical material information (the registration tool (IUCLID5) is distributed in XML format) has been prepared. In Japan, considering the establishment of domestic laws and correspondence with the European REACH, the opinion was expressed regarding the MSDSplus/AIS that JAMP is developing should be positively participate in the international standardization.

**(2) Implementing International EDI in the Chemical Industry** (Petrochemical industry/Mr. Nobuhide Murakami of the Japan Petrochemical Industry Association)

Mr. Murakami introduced the promotion activities of electronic commerce standardization going on in Japan by CEDI (Chemical EDI Initiative) based on the Chem eStandards set by the CIDX (Chemical Industry Data Exchange) and promoted by the US chemical industry EDI. Internal corporations too, in order to improve the efficiency of their work processes internationally, are beginning to directly implement EDI between overseas corporations via Elemica (the electronic marketplace of the US chemical industry).

**(3) Information Sharing Needs Between Industries** (Mr. Hidenori Okubo, JEDIC EDI Promotion Department Chairman, Logic Consulting Representative)

We were told how there is a need for implementing EDI in various industries in actual corporate trading. If a multi-disciplinary shared standard is used as a mediator, there is no need for corporations to prepare a different EDI interface each trading industry, and dealing with individual industries should be relatively simple. The core structure elements promoted by the UN CEFACCT could perhaps be used as that multi-disciplinary shared standard.

**(4) EDI International Standards Needs** (ECOM office, Mr. Hisanao Sugamata)

Previously, domestic industry EDIs were not considered for harmonization with international-standard EDIs, save for a limited area (customs, ports, foodstuffs, automobiles). The base of the next international standard EDI has now been established, and as awareness of the importance of collaboration between corporations in global trading grows, it is likely that the harmonization needs between domestic industry EDIs and international EDIs will become more apparent.

### **3. Significance and Needs of Information Sharing**

The "Information Sharing" team, led by Dr Katsuhiko Morita (Professor, Hiroshima Prefectural University, and chair of EC Infrastructure WG), discussed the following points.

When interoperability has information sharing of n-vs-n, equality of participants and mechanism spread become necessary, and the rule-making of such continues. N-vs-n information sharing is increasingly needed for the expansion of the target business and diversification of linked partners.

The following business environment changes are thought to be behind the needs of information sharing:

- Market changes, increase of the need for a real-time grasp of events (shortening of product lifecycles)
- Changes to demand-pull models (shrinking lead times, ideal storage management)
- Responses towards traceability (environment responses, strengthening of compliance)
- Product commoditization (product information publicizing/setting of standards)
- Diversification of alliances, liquidity (Ready to Start)
- Diversification of Sales channels (direct selling)
- Strengthening of management control systems (management information refinement, computerization, sharing)

- Increasing sophistication of IT, cost reductions (expansion of areas that can be electronized)

With the changes in the business environment, immediate response to time-based demands (increase in concurrent intra- and extra-company work processing) are becoming more pronounced for corporations, the weight placed on middle-management levels from above in corporate work, and in planning, projection, and decisions in the field is increasing (discrimination and risk management). Furthermore, Administration management control and accountability strengthening (J-SOX etc, compliance) also are causes of corporations having to proceed with information sharing.

Also, in industry, information sharing for risk management, the realization of economies of scale in social infrastructure-type information sharing, and responses to social needs in regard to information disclosure are all required. Further, responses to social issues and regulations (environmental, health-related) that go beyond national boundaries, and the creation of multi-national economic spheres (FTAs etc), efficiency of government services in trade and so on all require information sharing on a global level.

As a condition for dealing with these needs for information sharing, a framework for shared understanding of protocols and business processes, sharing of information item outlines, and the formatting of information (rules for message construction) are vital.

As a foundation for information sharing needs, network infrastructures/DB/portals for information sharing, medium-and-small business support systems (technology bases, support systems), global response (UN CEFAC, ISO, international agreements) systems, and a support structure for the bureaucrats and people who run these systems is required.

#### **4. Significance and Needs of International Standardization**

The "International Standards" team, led by Mr. Hajime Horiuchi (Professor, Tokyo International University) discussed the following points.

Among the needs of international standard EDI, there are: (1), the spread of a business model emphasizing inter-corporation collaboration, (2), proactive involvement in the global businesses of Asian countries, (3), penetration of standards in product design and manufacture method, and (4), worldwide increases in concerns about safety, security, and environmental issues. These are behind the globalization of business. Information distribution limits and the expansion of information exchanges that grow with the globalization of business expand, and the information technology and networks that makes this possible are continuing to be developed, and business models that emphasize inter-corporation collaboration, like the ones following, are becoming a reality.

- Business creation through inter-corporation collaboration
- Appearance of consortiums that share business goals
- Corporate division and amalgamation through M&A that creates new business models
- Adjustment of global time-space (use of time differences and seasonal differences)
- Fluid overseas distribution of manufacturing bases

Also, worldwide increases in concerns about safety, security, and environmental issues are rising in awareness of the need for global traceability and the need for its registration and certification at an international level, the promotion of lowering and removing international tariff barriers and non-tariff barriers is accelerating global synchronization.

These encourage the development of international standardization in the internal corporate system (ERP, J-SOX responsiveness, etc), and are thought to be connected to the creation of corporate value through a basis in international standards.

However, we cannot see any significant progress in dealing with international standard EDIs within Japan. Several major reasons for this, as they relate to awareness within Japan of international standards, are given below:

- Standards are not an incentive for corporate strategy (business chances, making money)
- Internationalization is just for show, and it is thought that all that is needed is to be tops within Japan
- There is suspicion regarding the slight progress of world usage, and the speed of past international standard developments

- It is thought that Japanese mercantile methods are different to those of international business and not applicable, or that Japanese mercantile methods will not be understood
- The feeling that “Japanese ideas and people are superior,” and that there is no need to be conformance with international standards
- Many corporations would aim for dominance rather than being in cooperation with other companies through standards.
- The field wants the continuation of the present system, and dislikes dealing with new standards
- Links with other nations (Asian countries) through standards suggestions and promotions are not good at.

Corporations in Japan consider standards in terms of informatization as part of their corporate strategy, and will probably find themselves required to proactively face up to international standards in order to improve their corporate value.

### 5. Future Discussion Developments

At the ECOM EC Infrastructure WG/JEDIC Business Interface EDI Study Group, based on the shared opinions at the overnight conference, we have determined a plan for integration into the information economy social infrastructure in order to solve social issues connected to safety, and security, and the environment, as well as manufacturing revolutions through the idealization of industry as a whole, and aim to send it to industry, both in Japan and overseas, and create a joint opinion on a framework for electronic commerce.

When considering the framework of the information economy social infrastructure, we need to discover a coherent direction that can respond to both its significance for corporations, and its significance for economy and society.

When you pass over the wooden roofed bridge that crosses the small gully that runs behind the Saito Hotel, in Kakeyu Spa, Shinshu, where we stayed, there is a flight of stone steps to a hall housing an image of the Monju Bodhisattva, marked by a Jizo statue. After our stay, the members each prayed to Monju to grant them increased wisdom, before heading home.



**Announcement of the “26th ECOM Seminar”**  
**Towards a more improved use of electronic administration services**  
**～The state of small-to-medium company employee-related administration procedures～**

In order to promote the IT society that electronic government and electronic administration aim for, we will outline the common issues shared by many associations, and the state of integration in leading associations. As a specific example of integration, we will have reports on developments through SaaS, employee administration procedures for local tax portal systems, regional information platforms, and additionally survey on electronic administration overseas.

Date and Time: October 26, 2007 (Friday), 13:00 to 16:45

Place: Hall, Floor B2, Kikai Shinko Kaikan Building (5-8, 3-chome Shiba-Koen, Minato ku, Tokyo)

▼ **Program (scheduled)**

For details, please refer to the [ECOM website](#)

13:00-13:05	Opening Speech
13:05-13:45	Keynote Lecture: “The Society Electronic Government/Electronic Administration Aims For”
13:45-14:15	Lecture 1 “Regional Information Platforms and Regional ICT Society”
14:15-14:45	Lecture 2 “Towards the Expansion and Spread of the Local Tax Portal System (eLTAX)”
14:45-15:05	Break
15:05-15:35	Lecture 3 “WG Activity Interim Report – Analysis of Employee-related Procedures centering on Small-to-Medium Businesses”
15:35-16:05	Lecture 4 “The Expansion of Software Application Limits through SaaS – including specific examples”
16:05-16:35	Lecture 5 “Survey on Overseas Electronic Administration Services and Best Practices – the Austrian National ID Number system”
16:35-16:45	Questions and Answers

## *Letter from the Secretary-General*

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▼ At this year's Third Planning Committee Meeting, held on Wed Sept. 19, we have been lucky enough to hear discussion on what post-ECOM should become. On the day of the meeting, we were honored with attendance by Mr. Tsuchimoto, the Director of the Information Economy Division of the Commerce and Information Policy Bureau, Ministry of Economy, Trade and Industry, and from the ECOM office, we were given an explanation of the issues (materials for consideration) that the post-ECOM should tackle. In the future we need to dig even further, and more specifically, into these issues, and so I ask for your continuing cooperation as we do this. ▼ As was reported in this newsletter, the activities of each WG are heading into the latter half of the fiscal year, hitting their stride. The Research Directors are beginning overseas investigations in accordance with their research and investigation themes. This newsletter will report on their activities through ECOM seminars and the like. ▼ The Kikai Shinko Kaikan Bldg. where the ECOM office is housed, is undergoing earthquake-resistance reconstruction. Because of the effect, our ECOM office conference room will not be able to be used for some time (until the beginning of November or so). We would therefore ask that WG meetings instead be held in the sixth-floor 6D-4 conference room of the Kikai Shinko Kaikan Bldg. We apologize for any inconvenience, and ask for your understanding.  
(Kataoka)