
15 Dec 2000

ATIS NEWS

Volume 1, Issue 3 Association of the Telecommunications Industry of Singapore

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REMINDER

AGM

Jurong Country Club
1900 Hrs

Letter from the President

INFOCOMM 21 INDUSTRY DIALOGUE

Wendy Aw (wendy.aw@radiancemcomms.com)

Radiance Communications Pte Ltd Company

Infocomm 21 is iDA’s blueprint for harnessing information communication technologies for national competitiveness and improving our quality of life. The blueprint articulates the vision, goal and strategies that would facilitate the development of our infocomm industry over the next five years and move Singapore into the ranks of “first world economies” of the Net age.

On 28th Sep 2000, President Wendy Aw and Vice President Maurice Nunas were invited to facilitate the Telecoms Track sessions, titled “From Liberalisation to Telecoms and Internet Hubbing”. Other ATIS members, namely Clarence Tan of Pinznz and Chan Kin Hung of Uunet were also invited as facilitators, through ATIS’s recommendation to iDA. About 70 delegates from the telecoms industry participated in this forum. The objective of the forum is to obtain feedback from industry players for the Infocomm 21 Masterplan.

At these sessions, ATiS representatives moderated the fruitful discussions and invited questions and concerns for deliberation. Issues discussed were the Effects of Liberalisation as a key component to grow a vibrant and competitive Infocomms cluster and, how this will bring about a greater variety of services and reduced telecoms costs. The groups also discussed on the impact of liberalization on businesses, for example, market share, operations, planning and revenue. Topics such as “positioning Singapore as a Telecom and Internet hub”, “the growth of data market exceeding the growth of voice in the next few years”, the activities of contents, portals and e-commerce” were also raised .

In closing the forum, Wendy and Maurice joined the panelists to answer questions from the floor where iDA addressed issues in the Telecoms sector in order to carry out the Infocomm 21 Masterplan.

It was an indeed an invaluable and enriching experience for all who attended this forum.

Editorial

Big and Small—Making it work

[Maurice Nunas \(Maurice.Nunas@motorola.com\)](mailto:Maurice.Nunas@motorola.com)

Motorola

As I write this, I am attending the weeklong Asia Pacific Telecommunity Management Committee Meeting in Hong Kong. For those of you who have been living under a rock somewhere, the APT is “the” telecommunication organization in this region. APT is comprised of government departments, operators and companies engaged in telecommunications. The Management Committee is the APT’s planning body—the big fish in a very big pond.

APT is everything that ATiS is not. ATiS is small; APT is big...very big. APT is multinational, rich with resources, has a fulltime secretariat, and produces lots of nice glossy publications; I need not list the converse situation for ATiS. So, we should each only join APT and forget about ATiS, right? Wrong!

To be sure, the APT has its place, and a very important place it is indeed. However, it is bureaucratic and controlled by governments. You and I control ATiS, and it is anything but bureaucratic. You would be surprised how that can work for you.

Suppose you want to get the Asian regulators to select a certain standard, technology or bit of spectrum. How might you do it? Well, you could join APT and begin to make waves. But little fish make very little waves! Or you could exercise your membership in ATiS and gain support of the ATiS ExCo and your fellow members...a fairly easy proposition. ATiS can influence iDA to take up the matter at APT; we meet regularly with the iDA, which is always on the lookout for good ideas that will help Singapore businesses. Through our relationships with sister organizations we can perhaps get the ATiS equivalents in other countries to take similar actions. We have loose association with several other organizations, through ATIE and we have been approached by ATIA, the Australian version of ATiS, to undertake a MoU for inter-association co-operation. Fight me...fight my gang...together we are really quite strong. The tail can wag the dog...providing it does so properly!

So, what am I driving at? Well, first, many ATiS members are not taking advantage of their status as ATiS members to further their agendas. We really don’t receive that much input from members at large. Why not attend the upcoming AGM and meet up with your ExCo and other members? Begin to build the necessary relationships with your peers in the Singapore telecommunication industry. Communicate your needs and ambitions and see if there is a way for ATiS to work for you...I’m sure that there is!

Smart Cards – The Technology of Convenience

[Blunden Butt \(Blunden.Butt@motorola.com\)](mailto:Blunden.Butt@motorola.com)

Motorla

Imagine...

A family leaves home to begin their day. Heading off on a business trip, the father pays for his limo with the same smart card he used to buy his plane tickets and to reserve a rental car and hotel room. At the airport he breezes past long lines as his smart card instantly authorises his boarding pass. All along the way, his smart card tracks his business expenses and loyalty points.

His wife has been equally busy. She uses her smart card to quickly pay for highway tolls and her morning coffee. When she stops for gas, her smart card not only pays for the transaction but also alerts her that her car is due for an oil change.

Grandpa starts his day by driving to his volunteer position at the local hospital. He uses a smart card to enter the parking ramp and uses the same card when entering or leaving the hospital. The card not only gives him access, but also records the time he arrives and departs for volunteer recognition programs.

Meanwhile, their daughter boards a bus to the university, where a student fare is deducted from her smart card. She uses the same card to check out library books, gain access to the school's computer network, and make purchases from a vending machine. At the student health centre the card simplifies her doctor's appointment by providing her medical history and health care benefits.

What are smart cards?

Smart cards are similar in appearance to a credit card, but have a small computer chip inside. Smart cards can store up to 270 times more information than a magnetic stripe card. Unlike magnetic stripe cards, information on smart cards is easily changed and secured, using the computing strength of the computer chip, or integrated circuit (IC) in the card.

Different types of cards are designed for specific applications. General-purpose microprocessor cards can be programmed to do many different applications. Sometimes the IC itself is customized for specific uses, such as for transit automated fare collection or bankcards.

Application Specific Integrated Circuit (ASIC) cards, sometimes called memory cards, use special purpose IC's that are highly optimised for a specific set of tasks. Often these tasks enable the same applications also addressed by microprocessor cards, such as transit or payment. ASIC cards are optimised to provide fast transactions and a low cost for a specific set of features. The best examples are contactless AFC (automatic fare collection) cards and payphone cards.

Both technologies provide the capability to store and secure information, and "make decisions" as required by the card issuer's specific applications needs. Because smart cards offer a "read/write" capability, new information can be added and processed. For example, a building access card can also keep track of an employee's attendance.

What is a smart card system?

Smart cards, just like the microprocessor (CPU) in a PC, do not do anything by themselves -- they must be used with a system. In this case, the system typically includes special card accepting devices (readers), or terminals, built for a specific application like retail payment or payphones. The terminal is connected to a network to one or more remote computers that perform all of the many behind-the-scenes actions that are required.

Why is a smart card secure?

The intelligence of the integrated circuit chip in smart cards protects the stored information from alteration or theft. For this reason, smart cards are significantly more secure than magnetic stripe cards, which carry information on the outside of the card and can be easily copied.

How do smart cards operate?

There are two types of smart cards – contacted and contactless. Contacted smart cards have a small gold plate about ½” in diameter on the front called a contact. The IC is under the contact, connected by wires. When inserted into a reader, the card's contact makes a physical connection with the terminal. That connection is used to provide power and transfer data to and from the chip.

As the name implies, there is no contact in a “contactless” card. Cards are brought near the reader but do not need insertion or physical contact. Using technology similar to building access control cards, the electronic microchip and antenna inside the card transfers power and communicates with an antenna/coupler unit in the reader. Contactless cards are an ideal solution for high-speed transactions, such as mass-transit or toll collection activities.

A new type of card pioneered by Motorola is the dual interface card that combines both contacted and contactless capabilities on a single card. Multi-application cards support multiple applications, such as public transit fare collection, university identification, and secure access to Internet services, all on one card.

Smart Card Applications

For financial institutions: A smart card loaded with electronic money can reduce cash handling costs and fraud and provide an easy payment and loyalty mechanism for merchants while providing consumers the convenience and ease of electronic payment.

For telecommunications service providers: New generation smart cards store subscriber data that can increase security and convenience while also offering a wide range of value-added applications such as on-line payment and loyalty.

For transit operators: A smart card solution can reduce the costs of distributing and managing fare media, maximise passenger throughput while minimising equipment maintenance costs, and provide a wealth of ridership data.

For government, corporate, and university campuses: Smart cards can control access to buildings and computer networks while providing additional conveniences such as time and attendance, vending and cafeteria payment.

For government agencies: A smart card solution can help to cut costs by reducing paperwork, verifying benefits, reducing fraud and streamlining access to government programs and services.

For healthcare service providers: Smart card systems can make medical records and insurance information paperless and portable, which can translate into a more effective delivery of medical services.

Developing Trends in the Market (Singapore & Overseas)

Multi-Application:

At this time most smart cards work as single application cards. However, common business interests are cooperating to deliver multiple applications on one card. For example, bank cards will also serve as transit fare cards.

E-Commerce and Internet Security:

An excellent tool for confirming identity in an increasingly networked world, smart cards offer significantly greater levels of security than software/browser-based keys and certificates. Electronic signatures will help avoid disputes in e-commerce transactions.

Access Control:

A new generation of RFID (radio frequency identification) access control cards will become multi-application cards. The same card used to enter a building will authorize access to computer networks and Intranets, record equipment checkouts, and serve as a credit/debit card for the cafeteria and vending machines.

Transit:

The San Francisco Bay Area Metropolitan Transit Authority and Amtrak have contracted with Motorola to implement smart card automatic fare collection (AFC) systems. These systems will network several operators and offer the possibility of future multi-applications.

In Singapore, the LTA (Land Transport Authority) contracted with Motorola and the ERG Group alliance to supply an integrated smart card fare collection system for the public transport network of Singapore. The system will involve a total of 22,000 readers and an initial 5 million smart cards, making the Singapore system one of the largest integrated smart card based transit systems in the world

Calendar of Events

December 12-14th, 2000

Streaming Media West 2000 (<http://www.streamingmedia.com>)

Venue: San Jose Convention Centre - USA

Touted as “The Industry Meeting Place” Streaming Media West 2000 is one of the largest Streaming Media Convention ever held for streaming, broadband and content companies.

The Singapore pavilion, titled “Singapore –Where the Digital Future Is”, is organised by iDA.

Jan 31, 2001

Workshop on E-Commerce Strategies for the SMEs

Venue: Mandarin Hotel

Time: 900am to 100pm

Closing Date for Registration: 26-Jan-2001

Contact: Desiree at DID: 4334472 or e-mail: desireekoh@itis-online.com.sg

February 13, 2001

Workshop on Customer Relationship Management on the Internet

Closing Date for Registration: 07-Feb-2001

Time: 900am to 100pm

Venue: Mandarin Hotel

Contact: Desiree at DID: 4334472 or e-mail: desireekoh@itis-online.com.sg

February 20-21, 2001

Asia Pacific IT Conference 2001

Venue: Suntec City (SICEC)

Organised by: IDC Asia Pacific

ATiS—Who's Who

Executive Committee (Exco)

Like all organisations, ATiS has an executive committee to serve you. These people on the Exco are all volunteers; so let's be thankful for the time and energy that they are putting in to help us.

- President—Wendy Aw, Radiance Communications Pte Ltd, 9834-0040
- Vice-President—Maurice Nunas, Motorola Electronics Pte Ltd, 9637-6220
- Secretary—Joseph Lee, Roots Communications Pte Ltd, 9639-6344
- Treasurer—Michael Teo, Comm & Net Pte Ltd, 9411-8854
- Chairman, Membership—Ivan Tan, Ericsson Telecommunications Ltd, 9617-1972
- Chairman, Website—Phua Aik Hong, StarHub Pte Ltd, 9859-0658
- Chairman, International Affairs – Goh Young Kwang, CET Technologies Pte Ltd, 9633-7605
- Chairman, Activities—Colin Goh, Datacom Cable Technologies Pte Ltd, 9818-0050
- Member—Khor Seng Peng, Jason Electronics Pte Ltd, 9846-4861
- Member—Evelyn Goh, Pinnz Pte Ltd, 9750-8744

Complete Members List

A complete listing is available from our website at: <http://www.atis.org.sg>

Welcome New Members

There were no new members in the period September to December.

Departing Members

- Ultro Communications
- Worldwide Telecommunicaitons

Members' Details

Promoted to new greatness? Moved to a bigger office? Got a more prestigious phone number?

Please have a look at our list of members and check out the details for your entry. Our secretariat would surely like to have the latest on you!

Send any changes to the secretariat at: atis@pacific.net.sg □□



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