Tech Interview

Taking ATM tech easy

THE era of information technology has spread its roots in various directions making life easier than before. Security, speed, reliability and flexibility are the features that necessitated modern technologies.

Automated Teller Machines (ATM) are one of the banking technologies that contribute to the technological innovation and have become quite popular in Bangladesh. **Maruf Alam (MA),** senior manager, Systems & Marketing, **Electronic Transactions Network Ltd. (ETN),** talks to **Saad Bin Fazle Hammadi (SH)** about the technologies they have implemented for banking services.

SH: Tell us about ETN and the technologies you offer.

MA: Electronic Transactions Network Ltd. (ETN) is a joint-venture company between United Group and Sonic Global Solutions Pvt. Ltd. Australia that has been operating in Bangladesh for the last two years, providing services to banks on a shared basis. Presently, we have nine banks as members of our network including a nationalised commercial bank (NCB), one foreign bank and seven local private sector banks.

The idea of a shared ATM network was conceived in 1996 but the commercial operation started in 2001. Our network has been branded as the "Electroways Network" and the product our banks have in the market is the "E-Cash" ATM Card operational in the debit platform. The main switching software, responsible for multiple bank transaction processing, routing and authentication of transactions, is Technique Plus II (TPII), developed by IFS International of New York, USA (currently acquisitioned by Sonic Global Solutions Pty. Ltd.). The TPII is built on the C++ programming language, uses the ORACLE (RDBMS) database and operates on the UNIX Platform.

The company provides ATM/Debit Card Services from 20 ATMs located in Dhaka, Chittagong and Sylhet. From these ATMs, clients of member banks are able to withdraw cash, make balance inquiry, pay various utility bills and make fund transfers.

SH: Bangladesh is advancing in the arena of information technology. How does ETN contribute to this progress?

MA: We strongly believe that our contribution towards the advancement of information technology in Bangladesh is quite notable. In fact, we are the first and only company in Bangladesh to implement the quintessence of a truly online shared ATM network, through which any single bank cardholder may enjoy the advantage of using multiple ATMs located in multiple member bank premises.

SH: Tell us the about the network structure of ETN? What technologies are you implementing for your services?

MA: We are using ATMs manufactured by Diebold Inc. with servers from HP, network equipment from Nortel Networks, security device from Racal and card production management system from NBS of the UK. We also maintain and operate a fully functional disaster recovery site to make the network fail-proof.

Three different ATM models are currently in use. They are the 1064ix (stand-alone ATM), 1071ix (Through-the-Wall ATM) & 1072ix (Through-the-Wall) models. Each of our ATMs can capacitate up to four cash cassettes, of which, each one may hold up to 2,000 cash notes. Cash loading in ATMs are based entirely on usage frequency of the machines.

All ATM booths have 24/7 CCTV surveillance systems to keep records of transactions taking place for a period of over one year. Moreover, each booth has a hot-telephone link affixed for troubleshooting and instant help-desk services.

SH: How do your member banks maintain the ATM transactions?

MA: Our Switch Server centrally controls all the ATMs of the network, which is connected online, using hybrid WAN. A mixture of ADSL, RF Link and VSAT solution is implemented to connect all of our ATMs to our centrally operational Switch server. A middleware software bridges between our Switch and respective member bank software, which is responsible for data uploads and downloads on a daily basis.

SH: Tell us about the financial prospects? Are yours a profitable venture?

MA: Business investments are either long-term or short-term. We have come to this market with a long-term vision. We believe that the business prospects of plastic card usage in the debit platform will exceed all other applications available.

SH: What does 2004 hold for ETN?

MA: The year 2004 should be challenging for us as we expect to cover the wider segments of our socio-economic class as users of plastic cards. At present, our member bank cardholders are making an average of 1,200-1,500 transactions from the ATMs a day, which is increasing proportionately with the growth of cardholders. Our objective is to become the 'National Switch of Bangladesh' as a third party electronic banking transaction processor.

SH: We understand you are planning to sign contracts with other ATM service providers in Bangladesh, which would increase the booths as well as benefit customers with access to ATMs at random and also allow access for Master Card holders. How far have you reached your objective?

MA: Yes, we do plan to shake hands with other potential ATM/POST service providers to expand our network in due course of time. We are at the final stage of becoming the Master Service Provider (MSP)/ Third Party Processor (TPP) for accepting MasterCard International (MCI), Maestro and Cirrus Transactions through our ATM-POST network.

The service will enable foreign MasterCard, Maestro and Cirrus cardholders to make transactions in taka, through our devices and vice versa for all of our Maestro and Cirrus branded cardholders, to make transactions from the Electroways Network and all other ATM networks, which support the above brands.

We are the only operating Switched ATM Network in Bangladesh with ISO Standard Switch Software (The TPII) compatible to EMV, JCB, Diners, Amex and other international networks.

SH: What are the security features of your network?

MA: The following aspects of our network may be defined to establish our security aspects and system robustness:

Hardware Security

a) Racal brand 128 bit Host Security Module (HSM) through which card information is encrypted, decrypted along with PIN generation. This device is used worldwide to maintain and relay highly secure information as an exchange platform. After HSM has verified and authorised the PIN and decrypts it, customers receive funds from ATM. The HSM is also responsible for generating ATM Card PINs for the TPII, and

b) Each ATM has a built-in 64-bit encryption device for ensuring maximum security during transactions.

Software Security

a) TPII software operates on the UNIX platform, which is known to be the world's most secure and redundant operating system providing multiple users and multiple tasking facilities, and

Database is maintained in Oracle (RDBMS), the world's most secure database system.

Maruf Alam, senior manager, systems & marketing, Electronic Transactions Network Ltd. (ETN)

STAR PHOTO: SK ENAMUL HAQ

ATM 1071ix (Through-the-Wall ATM)

Photo Tech

PHOTO: AFP

Japan's electronics giant Sony unveils the prototype model of the electronic book player with the technology of the e-Paper which shows the comic contents on the paperback sized display in Tokyo on November 13. Fifteen Japanese companies, including Sony, 13 publishing companies and Japan's printing giants Toppan and DNP formed the joint venture to publish electronic books which can be downloaded from the Internet and will start the new service from next Spring.

Star Tech Quiz   66

Check the box beside the correct answer

1. Which frequency is a SDRAM clock speed?

☐ 133 Mhz   ☐ 166 Mhz

☐ 100 Mhz   ☐ 66 Mhz

2. Which is the best choice for a specification for a vide

☐ PCI   ☐ ISA

☐ AGP   ☐ EIDE

Name: Occupation:

Address:

Contact Number: E-mail:

Last week's answers

1. 5ms   2. hard disk

Winners: Muntasir Ahmed
165 Elephant Road, Dhaka

Please fill this up and send your answers to Star Tech Quiz, The Daily Star, 19 Karwan Bazaar, Dhaka 1215 by November 24, 2003.

Tech News

Sirius puts internet into portable CPE

STAR TECH DESK

SIRIUS Broadband introdced the region's first non-line-of-sight (NLOS) wireless internet access through portable customer premises equipment (CPE). The launching ceremony was held at a local hotel on November 14.

Internet in Bangladesh has made a tremendous breakthrough since early 1997 and is still continuing to make communication and access of information faster than ever before. With this newly introduced portable CPE, the country is expected to have a new experience in the technological improvisation. Sirius Broadband has signed an agreement with California Amplifier to be their exclusive partner in Bangladesh.

California Amplifier is one of the leaders in NLOS market, providing solutions to operators like US Sprint and MCI.

"The viper modem allows consumer installation with true plug-and-play operation. The portable CPE features smart antenna technology, which eliminates the use of external antennas," said Anruda Kalatunge, NLOS specialist, Sirius Broadband.

"In areas where the ISP might have low frequency due to high-rise buildings or poor coverage, the viper modem also allows an optional external transparent antenna. It is a SCDMA-based technology, which synchronises the data transfer from both ways preventing any signal loss due to collisions. The modem carries a USB port and an Ethernet port through which it could be connected with the computer", Kulatunge added.

"We have been working with Sirius Broadband for over a year, supplying them with our subscriber transceivers for their existing Line of Sight wireless services. It is the first implementation of the NLOS in this region and we would provide all the support and services for this technology to Sirius Broadband," said Charles Woodrow, sales manager, California Amplifier.

"We wanted to team up with the industry leader in order to bring the best NLOS technology to the country. We are impressed with the portability, mobility and scalability features of Viper CPE. We'll work as an exclusive solution provider of California Amplifier for Bangladesh and will help other ISPs to implement the NLOS technology," said Ziaur Rahman, chairman, Sirius Broadband.

The Viper CPE Modem

Tech News

World's largest commercial database runs Oracle

STAR TECH DESK

ON November 14, Oracle Corp. announced that Oracle is the leading database for transaction processing and decision support in real-world customer environments, according to the Winter Corporation 2003 TopTen Program, says a press release.

According to the survey, the largest commercial data warehouse in the world, with 29.2 terabytes of data, runs Oracle Database. Overall, Oracle customers run the world's top 10 OLTP database implementations on Unix, both OLTP Sites by Database Size, and by Most Rows/Records.

The survey also found that the world's largest transaction-processing database on Unix runs Oracle Database, with more than 5.0 terabytes of data. Worldwide, Oracle customers run three of the top 10 OLTP databases on Windows; the largest manages 3.2 terabytes of data. In addition, Oracle Collaboration Suite Email Server handles more than 2.2 terabytes of data.

The survey identifies the world's leading database implementations based on Database Size and Most Rows/Records. As part of the rigorous survey process, respondents must have a validated database size that meets the survey's requirements. Winter surveyed Oracle customers from 20 countries on five continents, in industries from telecommunications and government, to healthcare and banking. In all, Oracle customers made up approximately 50 percent (70 of 141) of the validated Winter TopTen Program results.

All customer respondents were required to complete the Winter TopTen Program survey and validate their entry by running the SQL Validation Script against their production system. The SQL Script Validation output must report a database size greater than one terabyte for Unix/Mainframe and greater than 500GB for Windows to be accepted by Winter Corporation. Winter Corporation defines database size as user data plus indices.

The complete results of the Winter TopTen Program are available at http://www.wintercorp.com/VLDB/2003_TopTen_Survey/TopTenWinners.asp.

Hy Wire

PHOTO: AFP

This file photo dated November 14 shows a patrol guard stationed along the Great Wall in Beijing inspecting the General Motors Hy-wire, the world's first driveable fuel cell vehicle, making its first appearance in China.

Tech Jobs

Eye On Bangladesh Online
Post: Network Support Engineer
Last Date: December 03

Maestro Ltd.
Post: Oracle Programmer
Last Date: November 30

A Reputed Health Care Organisation
Post: System Officer
Last Date: December 07

Infobase Ltd.
Post: Multimedia Faculty; Analyst Programmer (Part Time)
Last Date: November 30

Bangladesh Internet Press Ltd.
Post: Software Professional
Last Date: December 15

BangladeshNGO.com
Post: Content Developer/ Copy

Writer
Last Date: November 21

Mak Mobile Technology Institute
Post: Computer Engineer (Female)
Last Date: November 24

Proshika Computer Systems
Post: Executive/Trainer (Graphics & Multimedia Track); Executive/ Trainer (Programming Track); Executive/ Trainer (Networking Track)
Last Date: December 15

Western Network Limited
Post: Support Engineer (VOIP); V-SAT Engineer; System Administrator; Support Executive
Last Date: November 22

Source: www.bdjobs.com

Tech Toon

GLASBERGEN

"What good is technology if it takes six seconds to send a message but six months to get someone to act on it?!"

Best 10 Websites   Category: Quality Management I

International Organisation for Standardisation
A network of the national standards institutes of 147 countries, with a Central Secretariat in Geneva, Switzerland, that co-ordinates the system.
URL: http://www.iso.ch/

American Society for Quality
Certification is formal recognition by ASQ that individuals have demonstrated a proficiency within a specified body of knowledge.
URL: http://www.asq.org/

National Standards System Network
US National Resource for Global Standards serves as a central point to search for standards information.
URL: http://www.nssn.org/

Internet Resources for Best Practice Information
Best practice resources & links compiled by the University of South Australia.
URL: http://www.library.unisa.edu.au/internet/pathfind/bestprac.htm

International Quality Systems Directory
The International Quality Systems Directory is the largest directory of its kind in the world.
URL: http://www.iso9000.org/

Quality Assurance in Health Care
Measuring the quality of America's health care.
URL: http://www.ncqa.org/index.htm

Best Practices - E-Business
Best practice analyses & worst e-commerce practices from ZDnet.
http://www.zdnet.com/ebusiness/filters/bestpractices/

Australian Quality Certification
Quality Assurance Standards, providing worldwide certification to Australian & International Standards. URL: http://www.qas.com.au/

American National Standards Institute
ANSI is a private, nonprofit organisation, administrating the US private sector voluntary standardisation system.
URL: http://www.ansi.org/

Standards Australia
1,200 ISO quality standards online.
URL: http://www.isostandards.com.au/