

LEVELFOURNEWS

Getting more from your ATM network

Winter 2005/06, Issue 11



WELCOME TO LEVEL FOUR NEWS



As I welcome you to the Winter 05/06 issue of Level Four News, may I take this opportunity to wish you a prosperous 2006. Level Four has had an excellent start to the year and we are delighted to announce two new customer wins. These announcements are testament to the growing global support for the move to open standards, an industry wide adoption that Level Four believes is a key building block in our vision of the future for the ATM industry. In the main article, we expand further on that vision and our belief that a new business and technology model is required for the ATM channel. The newsletter will also update you on recent company developments and industry trends.

Martin Macmillan, CEO, Level Four Software
[Email your comments to enquiries@levelfour.com](mailto:enquiries@levelfour.com)

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TIETOENATOR SIGNS LICENCE AGREEMENT

Level Four has signed a licensing agreement with TietoEnator, a leading supplier of high value-added IT services in Europe. Level Four's ATM testing and development solutions will help optimise the development process and reduce complexity relating to testing TietoEnator's



TietoEnator

ATM driving solution, Transmaster. As TietoEnator prides itself on the delivery of high quality solutions to its customers, it constantly seeks new ways to enhance and improve its existing service levels. With ATM Developer, TietoEnator will decrease its testing and development

cycles, therefore will be able to deliver next-generation ATM solutions to its customers more quickly.

The licensing agreement extends the partnership signed between the two companies in March 2005 and reinforces Level Four's position as the de facto standard for ATM testing and development worldwide.

AL RAJHI BANK SELECTS LEVEL FOUR

Al Rajhi Bank, a major name in Saudi Arabia's banking industry, has selected Level Four's ATM testing and development solutions to help introduce new innovative services throughout its 1,300+ ATM network, the largest in the Kingdom.



ATM Developer will enable Al Rajhi to develop and test new ATM content from any desktop PC in the network. The bank will benefit from automation of its ATM testing operations as well as automatic creation of transaction documentation. With anomalies identified and corrected ahead of

go-live, ATM Developer will help Al Rajhi introduce new content to its ATM network quickly, easily and cost effectively.

Level Four will also help the bank comply with regional and international regulatory mandates, notably EMV and SPAN 2, the second generation of the Saudi Payments Network.

Is a new business and technology model required for the ATM channel?

The automated teller machine (ATM) is a familiar and enduring sight to bank customers looking to access their cash 24/7. For the banks themselves, the business and technology model behind the ATM network has remained virtually unchanged for the last 25 years. Ever since 1967, when the very first ATM was installed by Barclays Bank, the ATM's role has primarily been to dispense cash. While today's ATMs now offer various other services such as balance checks and statement requests, these are in fact little more than peripheral value-adds, exploiting, rather than advancing, the technology that has driven these machines for so long.

It can be argued that the reason that the functionality of the ATM has barely evolved over all this time (while other technologies have made quantum leaps) is actually that the structure of the software which powers it has been allowed to stagnate.

Today's ATM systems are universally architected using a simplistic 'two box' model in which the ATM operates either as a dumb terminal connected to an intelligent host banking application, or as an intelligent client machine connected to a slave host server. Either way, inherent design inflexibilities in the implementation of these 'two box' architectural approaches have come to define the manner in which the ATM and bank communicate.

This makes any customisation of the ATM - be it aesthetically as regards the display, or more fundamentally, the services it provides - a complex, time consuming and expensive proposition. The current two box architectures mean that each unit has to be updated individually and in synchronization to change the service.

Due to the timing and slow evolution of the ATM software market, it is today still clearly dominated by a small number of incumbent suppliers - the ATM manufacturers - who typically supply both the hardware of the ATM and the software that controls it. These closed, proprietary legacy systems are now proving to be a major hurdle to the expansion of ATM usage.

A new era

However, as banks focus on extracting revenue from untapped resources, the humble ATM is about to enter an era of fundamental change. Recently introduced open standards are creating opportunities for banks to seek alternative suppliers for their ATM software. New applications are becoming

available at the same time as new distributed processing architectures are unlocking the potential of the ATM network, increasing the opportunity to interact with other bank systems and third parties.

In this exciting new environment, consumers can look forward to a wave of new opportunities when they insert their card into the 'hole in the wall'. Because applications can be created and controlled in network servers rather than individual ATMs, new content can be integrated into the network quickly and inexpensively. New services can be developed and deployed without the need for specialist staff and, because each machine can be configured dynamically, third party processing networks can present different screens and



A distributed architecture can be implemented with minimal expense or disruption

functions to the customer depending on which bank issued their card.

For banks and third party vendors alike, this equates to a huge chunk of as yet untapped marketing opportunity, while for the customer, everything from car hire to last minute travel insurance could soon be arranged via an ATM.

A vision of the future

For too long the potential of the ATM has gone overlooked and

unexploited, largely because most banks have had to rely on their ATM suppliers for software. By adopting a distributed software architecture, Level Four believes there are many benefits that could be easily and inexpensively implemented across the board. Furthermore, the huge opportunities offered by the new wave of chip cards could also be seized upon.

In summary, a distributed software architecture could offer the following to an ATM network:

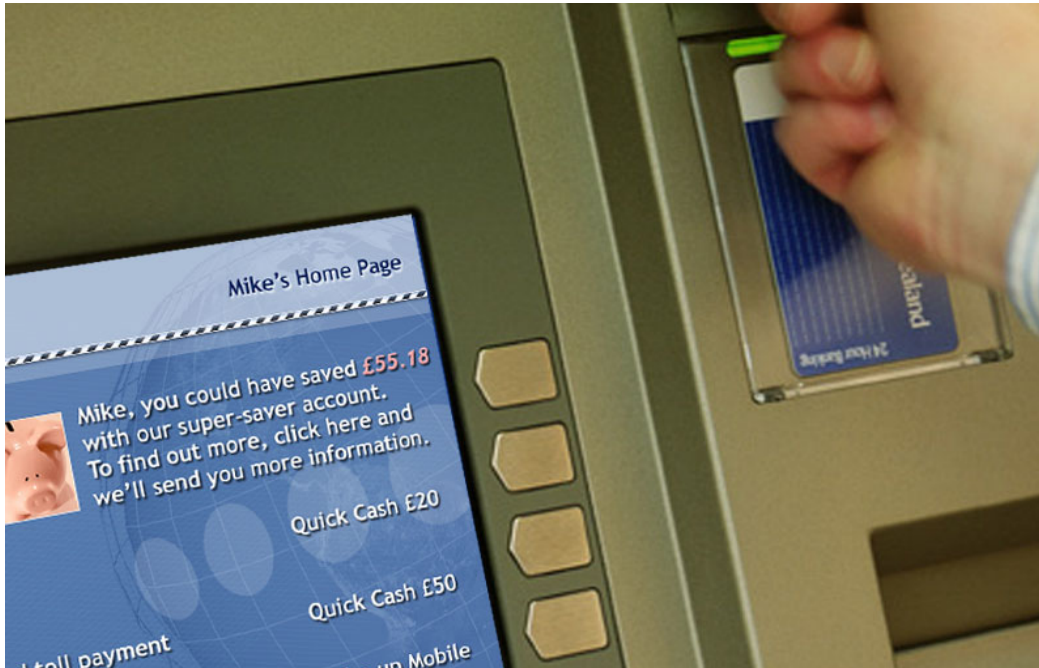
The bank

- The service at each machine can be created dynamically allowing the network to be fully exploited at anytime;
- New content can be created and introduced into the network without the need for data or software updates and complex retesting;
- Promotions can be activated at specific times of the day or at certain ATMs to target particular audiences;
- Real-time messages can be broadcast to improve customer loyalty, for example an immediate 'congratulations' message could be sent to ATMs near a winning football team stadium;
- Network performance data can be extracted at all levels to improve management information;
- Applications can be created and controlled in network servers rather than in each ATM.

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Applications can be created and controlled in network servers rather than individual ATMs. New content can be integrated into the network quickly and inexpensively.

The consumer

- A link to CRM data allows for personalised promotions or services like welcoming the customer by name;
- New card technologies allow the ATM to recognise individual customers and update them as to relevant new products and services;
- Customers can tailor the services using their Internet banking service.

Third party partners

- Each machine can be configured for a bank dynamically when it is used rather than presenting just one bank's branded screen or a generic interface and service;
- New technologies enable third party processing networks to 'share' their ATMs with multiple banks;
- Third party networks can offer their banking customers the same level of control and customer focus as an in-house network.

Distributed architectures

With the infrastructure and technology components now in place to kick-start a new era of ATM usage, banks now need to provide the impetus to drive this change through. A distributed architecture, delivering a fully customisable service, linked through a bank's CRM system and providing detailed managerial reports, sounds too good to be true. And yet it can be made available, right now, and is ready to be implemented with minimal expense or disruption.

The benefits of this new approach can range from a simple personalised greeting to instantaneous service downloads and online deployment of applications. Coupled with the recent technology advances made in the payment card industry, a network of

dynamically configured ATMs will allow both banks and their customers to enjoy an unprecedented array of new services at the ATM.



This article summarises a recently published Level Four whitepaper on distributed architecture in the ATM channel. To download the full version, please visit: www.levelfour.com/newatmmodelwp.html

Industry survey

In order to market test some of the ideas in its distributed architecture white paper, Level Four conducted a survey to assess industry trends affecting ATM network operators.

Responses were received from over 35 organisations in more than 15 countries, predominantly in Europe, the US and the Middle East. The results highlight some interesting trends in the changing market for ATM services.

Key findings:

- 53% of respondents believe IFX will be the industry standard protocol for communications between ATM and host devices within 5 years
- 79% of respondents believe open source software has a part to play in ATM software technology
- 75% of respondents' ATM networks will use Microsoft Windows as the primary operating system by June 2006
- 71% of respondents use a proprietary software product from an ATM manufacturer/ISV. 29% use their own bespoke software

To view the full survey results and have your chance to comment, please visit www.levelfour.com/surveyresults

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COULD ATMS REDUCE IDENTITY THEFT?



Arthur Morrison, CTO of Level Four Software, explains how extended services to the ATM could reduce identity theft.

The latest estimate provided by the Home Office Identity Fraud Steering Committee shows that identity fraud cost the UK economy £1.7 billion in 2005. The rapid growth of identity theft has forced financial institutions to become more demanding in the validation that their customers need to provide to identify themselves, in support of a standard application form for new services. Banks can leverage their investment in technology to roll out EMV chip cards to overcome this situation because an EMV card is encrypted and could therefore ensure secure personal identity through a bank's encrypted networks. Here's how it could work.

When a financial institution sends an application form to a customer, the customer would also receive a simple short digital 'challenge' code. To complete the application form, the customer would use an ATM to generate a 'response' code to confirm his identity. After identifying him/herself with the PIN at the ATM, the customer would simply select the 'identity confirmation'

option and input the 'challenge' code. The ATM network would then generate a secure 'response' code that could be printed on the ATM statement. The customer can then complete his/her application form by including the 'response' code and card number.

When the financial institution receives an application form, it can forward both 'challenge' and 'response' codes along with the name and card number of the applicant to the ATM network operator, who responds with a simple acknowledgment or denial of the customer's identity. The final part of the process could even be conducted over the web. The financial institution may still request a proof of address to be sent with the application form but the customer's chip card would provide the secure means of personal identification at the ATM.

As ATMs are available 24/7 and conveniently located, customers would welcome this service because they would not need to journey into a branch to present personal documentation for verification/identification during office hours. ATM network operators would also welcome this easy-to-implement and secure service because it could generate additional revenue, similar to mobile phone top-up at the ATM.

NEW MIDDLE EAST GENERAL MANAGER

Level Four has appointed Issa Keshek as general manager for the Middle East. Based in Dubai, Issa will focus primarily on supporting the company's strong customer base across the region, which includes Arab National Bank, SAMBA and National Commercial Bank.

"As general manager, Issa will continue the development of the Middle East operation as a fully-fledged sales, marketing and technical support centre, with full responsibility for managing local system builds, delivery and support," said Martin Macmillan, CEO of Level Four Software.

Issa brings more than fifteen years of payments processing and technology experience to Level Four mostly gained in the Middle East. Issa worked for NCR Corporation for 12 years and in his latest position as programme director, Issa was responsible for a \$21million business unit operating across EMEA.



Issa Keshek, Middle East general manager

Macmillan added: "Issa is a valuable asset to Level Four's ongoing and future success in the Middle East, a key area in our global expansion strategy."

Forthcoming events

EBUG 2006
25-28 April 2006
Lisbon, Portugal,
www.ebug.org.uk

SMi's ATMs and Kiosks Conference
10-11 May 2006
The Hatton, London (UK),
www.smi-online.co.uk

ATMIA European and Electronic Banking
15-16 May 2006
Radisson SAS Portman Hotel, London (UK),
www.atmiaconferences.com

Cards Middle East
22-23 May 2006
Dubai, UAE,
www.worldofcards.biz/2006/cme/

ACE 2006
10-13 September 2006
Las Vegas, USA,
Dubai, UAE
www.aciworldwide.com/usergroups/conference_info.asp

For details of events that Level Four will attend, please visit www.levelfour.com/events.htm

For more company information, please visit www.levelfour.com or call +44 (0) 1628 674732