levelfour news
Getting more from your ATM network
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Letter from the CEO

Welcome to the Autumn/Winter edition of Level Four's newsletter. As ever, customer developments have dominated our diaries in the last few months, with several new wins. Our worldwide customer base is growing, marked by our new partnership with Aurigae in Spain and also the exciting appointment of Steven Lund to spearhead our North American activities.

In this issue, we look at the industry demand for advanced monitoring of ATM networks prompted by the move to Windows and an open standards environment. With new levels of risk introduced by these changes, ATM deployers need to monitor and control their hardware, software and operating system more closely to ensure profitable and reliable ATM networks in the 21st century.

Ian Kerr, CEO, Level Four
Please email your comments to enquiries@levelfour.com

OTP upgrades to BRIDGE:test

Hungary' largest retail bank, OTP Bank, has upgraded to Level Four's automated testing solution for Windows-based ATM applications, BRIDGE:test. With a network of nearly 2,000 ATMs, the solution will help OTP Bank drive cost savings and productivity gains while ensuring the highest possible level of customer service at its ATMs.

Since 2003, OTP Bank has been using Level Four's ATM Developer. Now, with the BRIDGE:test upgrade, OTP Bank can confidently deploy fully-tested modern Windows/XFS-based ATM application software into its network. The solution's comprehensive, automated testing of ATM software applications means that issues can be detected and resolved prior to deployment for greater network reliability. OTP Bank will benefit from reduced time to market of implementing new software builds and BRIDGE:test will support the roll-out of a common ATM application to the bank's international subsidiaries in Bulgaria, Croatia, Romania, Serbia and Slovakia.

Partnership to deliver independent ATM testing in Spain

Level Four Software has entered a partnership with Aurigae, a Spanish payments systems specialist, to deliver Level Four's BRIDGE:test solution to banks and ATM processors in Spain. The partnership will provide Spain's sophisticated ATM market with access to Level Four's world-leading solution, BRIDGE:test, for the comprehensive and fully automated testing of ATM software applications. Banks will benefit from being able to deliver enhanced functionality ATM applications to market more quickly and with reduced risk.

Galia Gómez García, managing director at Aurigae, said: "Our partnership with Level Four will offer Spanish banks the opportunity to move from laborious manual testing to an automated solution for the first time, optimising the ATM and allowing banks to derive maximum benefits from the channel."

As part of the partnership, Aurigae will provide sales assistance, implementation and consultancy services for Level Four products in Spain.

Level Four ensure smooth migration at Canadian ATMs

We are pleased to announce the signing of our third Canadian bank to BRIDGE:test, making BRIDGE:test the software of choice for Canadian banks looking to migrate to EMV in their ATM channel and automate their ATM application software testing.

The demand for Level Four's automated testing solution for Windows-based ATM applications has been largely prompted by the EMV (Europay, Mastercard and VISA) chip card standard mandated in Canada for December 2012. Another driver for upgrades to Canadian ATM networks has been the worldwide migration to the Windows operating system and the XFS open standard.

Steven Lund, President of Level Four Americas, said: "BRIDGE:test empowers our Canadian banking customers to take control of their ATM networks during a period of significant change. With comprehensive, end-to-end testing of their ATM network enabling a seamless transition to new technology within the set timeframe, the banks can focus on rectifying any problems in the network that may negatively impact the customer experience. From our past experience with bank's EMV compliance projects throughout Europe and the Middle East, we're in a great position to help the Canadian banks that have signed with us this year. We anticipate additional banks will follow suit as EMV compliance gains momentum in Canada."

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Putting intelligence back into the ATM network

Martin Macmillan, business development director at Level Four examines the changes in the industry forcing banks and processors to rethink their ATM monitoring strategies.

ATM uptime is critical to ATM network deployers. It is imperative to ensure that all ATM terminals are not only fully operational with any faults rectified quickly but that customers receive the best service at the ATM. It is for this reason that the business requirement for sophisticated monitoring has become so critical to ensure both high network availability and that the customer experience is not compromised.

Historically, ATM monitoring has been carried out at the host end of the transaction, with limited insight into the ATM itself. With the introduction of Windows and the XFS open standard at the ATM, the industry can now move away from this status quo towards a more modern and effective solution. There is a clear opportunity within the industry to monitor every ATM at the terminal itself using a simple agent which provides more detailed data that enables a complete, objective and real time view of the status of the terminals. It is this data that enables more control over ATM networks and the ability to manage and maintain them to fulfill customers' expectations.

The entire industry has been forced to tackle the migration away from OS/2 to the Windows operating system at the ATM. Arguably, this has made the need for intelligent ATM monitoring greater than ever, as there are now significantly more "moving parts" in the terminal itself. Windows moves ATMs into an open standards environment, which is of significant benefit to ATM deployers from a hardware cost perspective as well as the ability to deploy a single application throughout a multi-vendor network. Effective monitoring becomes even more important in a multi-vendor environment as the ATMs and software are no longer necessarily provided by the same supplier.

Pressures on ATM Network Managers

Intensified economic and business forces have placed extraordinary pressure on banks to remain competitive, increase customer loyalty, and improve the efficiency and profitability of their ATM networks. These pressures are compounded by the fact that, given aging legacy systems and rapid consolidation in recent years, banks now manage an increasingly complex mixture of vertically siloed technologies.

In order to get the most from their ATM channel, business owners must look to maximise the investment they have made in hardware and infrastructure as part of their migration to a Windows/open standards-based network and beyond. This has to be done alongside the ongoing challenge of addressing key pressures that affect the maintenance and control of ATM networks and minimising the ongoing cost of ownership of the network. Some of these key areas are highlighted below

The time factor
Banks are under more pressure than ever to prove the profitability of the ATM network by extending their core ATM capabilities but are still struggling with other factors such as reducing the cost of ATM network maintenance and maximising availability. While ideally any fault at an ATM terminal should be raised as soon as it occurs in order to be promptly fixed, the reality is that there is often a significant time-lag from when a fault occurs to when the network operator is made aware of it or identifies it - in some cases, hours or even days. The current approach largely relies on "listening" to messages at the host, and trying to interpret, or "second guess" what is happening at the ATM.

Customer satisfaction
ATM downtime creates brand risk with both customers and within the highly competitive banking industry as a whole. Customers have come to expect ATMs to be available 24/7 and to provide a high quality, stable service. In fact, widespread ATM downtime has achieved national newspaper coverage with the associated damage that causes to the bank's reputation.

Remote Diagnosis
As software problems are the biggest cause of ATM failures, the ability to provide "keyhole surgery" on an individual ATM to restart Windows processes could prevent long periods of downtime and lost revenue for ATM deployers and improve operational efficiency. Often, a simple software restart would solve ATM downtime issues, and so timely diagnosis and resolution based on an advanced monitoring approach with access to the operating system could significantly increase overall network uptime. Additionally, third-party service companies could access data directly from the ATM peripherals, making remote fault diagnosis possible and minimising engineer visits to the ATM.

Measurement and reporting of ATM uptime
Traditionally, reporting of ATM availability between an IT area and the business area within a bank was based on availability measured at the host. As most modern host systems are based on fault-tolerant computing and well established software, this was traditionally a high number, normally in excess of 99%. The OS/2 operating system and stable application software was deemed very reliable, and so it was taken as given that if the host was available for processing transactions, the ATM was available and in service.

Under a Windows network however, this is no longer a valid approach. ATM service availability can only be measured at the terminal itself, and reported upwards. There is no value in having a host available for processing transactions if the ATM terminal itself has crashed, or is somehow unavailable for accepting cardholder transactions. A true and fair representation of the ATM network availability can be measured if there is a periodic "heartbeat" reporting to a central server that the ATM is online and operational.

Risky business

While the move to Windows and open standards can create an improved and more consistent customer experience, a number of areas are often overlooked when considering this major migration, in particular how ATM terminals are remotely monitored and controlled.

A modern Windows-based ATM may have as many as eight separate applications running concurrently (ATM software, software distribution, monitoring agent, anti-virus, etc), which can cause application stability problems when compared against a typical OS/2-based machine. As a result, banks and payments processors are now experiencing greater downtime at their ATM networks as they have not fully understood how the nature of the problem has changed from the OS/2 world to the Windows world.

Improving Network Reliability

The potential for multi-vendor ATM networks based on open standards made possible by the migration to the Windows operating system brings a new focus for more effective ATM monitoring. In order to achieve a true and accurate picture of how the ATM hardware, software and network are performing, financial institutions should ensure monitoring is independent of any ATM manufacturer. In a multi-vendor environment, banks can no longer rely on a third party with a vested interest in the performance of the network to ensure that maximum productivity and customer service is being delivered through the ATM channel.

Advanced agent-based monitoring software has now become the monitoring solution of choice. An intelligent ATM monitoring solution has an agent on each ATM terminal that sends and receives data in real-time to a central monitoring server. Agent-based monitoring enables banks to be instantly alerted when individual faults occur, regardless of whether these are hardware or software related. Agent-based monitoring provides an unbiased and detailed view of the status of the hardware, software, and operating system on each terminal. Monitoring and control can be more efficiently provided through an independent network server rather than via the central financial host, allowing the central host to focus on providing efficient transaction processing.

The benefits of agent-based monitoring are clear. Instead of relying on outdated systems that can result in a significant delay between an error occurring and its detection by the ATM operator, an agent-based approach offers instant detection of faults. Intelligent ATM monitoring also enables financial institutions to carry out a fast diagnosis due to the ability to remotely detect any problems on individual ATM terminals. Improving operational efficiency through effective monitoring will benefit ATM deployers by helping to decrease ATM downtime. Furthermore, more detailed knowledge of an ATM network's performance, network traffic and quality of service that is provided by agent-based monitoring means that banks can improve the profitability of their networks and better address customer experience.

Level Four has written a guide designed to help ATM network deployers understand the business value of advanced ATM monitoring in a Windows environment. The guide outlines the business and technical issues that banks and processors should consider when wanting to extract greater intelligence from their ATM network and put more intelligence back into the network. To download a full copy, please visit www.levelfour.com

levelfour
Americas

Level Four Americas: New president and headquarters

In July, Level Four Americas announced the appointment of Steven R. Lund as President. Lund adds extensive industry experience to Level Four Americas as the company enters an exciting growth period having signed leading North American and Canadian banking customers.

Lund is responsible for executing the company strategy of becoming the market leader in delivering open standards-based ATM software. Lund brings in excess of 20 years of international sales, marketing and general management experience in the ATM, POS and EFT industries, including the role of VP of Worldwide Sales at Nexus Software.

To better support its growing customer base in North America and Canada, Level Four Americas has also moved its headquarters from Miami to Charlotte, the second largest banking headquarters in the United States after New York City.

Ian Kerr, CEO of parent company Level Four Software, said: "A senior hire of Steve's caliber will be instrumental in ensuring Level Four Americas' success. Moving our headquarters to Charlotte shows our commitment to making Level Four Americas a leading player in the ATM marketplace and will enable us to build a support infrastructure to continue to deliver optimum service to our customers."

Upcoming events

ATMIA - Middle Eastern ATMs
Dubai, UAE 3–4 December 2007

ATMIA Conference
New Orleans, LA, February 20-22 2008

New training courses available

We're pleased to announce the launch of three new training courses to enable our customers to get the most out of the advanced regression testing capabilities of BRIDGE:test. Courses are given on-site using customer's live ATM applications and are available at the following levels:

BRIDGE:test User Training - (ID 2091)
BRIDGE:test user training is intended to provide an overview of the capabilities of the software and provide sufficient product knowledge to allow test teams to become comfortable using the software to create and execute regression tests of ATM software and end-to-end transactions.

BRIDGE:test Automated Regression Testing (Introductory) - (ID 2092)
BRIDGE:test Automated Regression Testing (Introductory) is intended to provide an introduction to the test scripting and regression testing capabilities of BRIDGE:test.

BRIDGE:test Automated Regression Testing (Advanced) - (ID 2093)
BRIDGE:test Automated Regression Testing (Advanced) is intended to provide a deep knowledge of the advanced test creation and scripting capabilities of BRIDGE:test. It assumes some programming knowledge as manual manipulation of scripts is used to achieve the most advanced level of test automation.

BRIDGE:test

Please visit **www.levelfour.com** for more information and course outlines

1 in 3 customers would switch banks to avoid faulty ATMs

A survey by Level Four Software, carried out by ICM Research, reveals that more than one in three people (38%) in the UK would consider moving their bank account due to their bank's network of faulty cash machines (cash machines that are 'out of order' or 'out of cash').

As ATMs are critical customer touch points for banks, network availability is crucial. Banks are facing an increased demand on their ATM networks, and at the same time, customers expect a high level of service. The migration to Windows has introduced a greater level of complexity into today's ATMs and technology changes have impacted service availability levels. This change, as well as the desire for more complex functionality, introduces a new level of risk to banks' ATM operations. Banks need to gain greater insight into their ATM network through more effective monitoring and control to identify and fix problems immediately that could compromise customer service