

# LEVELFOURNEWS

Getting more from your ATM network Autumn/Winter 2003, Issue 4



## WELCOME TO LEVEL FOUR NEWS



Welcome to the autumn/winter 2003 issue of Level Four News. In this issue we look at Level Four's technological vision for the future with an article by our Chief Technology Officer, Arthur Morrison. Arthur highlights enhancements to our current technology and introduces some of the new products that are central to our continued growth strategy. The newsletter will also focus on Level Four's recent expansion into Europe and Middle East with new customers and partnerships.

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

## LEVEL FOUR CONTRACTS FIRST CUSTOMER OUTSIDE THE UK

Den norske Bank (DnB), the largest financial services group in Norway, becomes the first bank outside the UK to implement Level Four's ATM testing and development tools. The move reinforces Level Four's aggressive plans for European growth.



provide DnB with simple customisation of ATM screens, rapid development of new ATM applications and end-to-end testing of the ATM network. DnB will also implement Level Four's EMV FastTrack module to upgrade its ATM network in compliance with the EMV 2005 European mandate.

Level Four's ATM Channel Development Suite will

"The complexity of EMV smart cards and their

compulsory introduction is a challenge for all European banks including DnB," comments Knut Elnan, ATM Product Manager, DnB. "Preparing our ATM networks to support this new functionality is made much simpler with Level Four's products."

EMV FastTrack will enable DnB to manage smart card testing from a desktop PC rather than manual testing.

## LEVEL FOUR ADDS SUPPORT FOR TRITON AND TIDEL ATMS

Level Four has eased the burden of testing for institutions running multi-vendor networks by extending its product suite to support off-premise ATMs from Triton and Tidel.



testing for off-premise devices such as Triton and Tidel. The move follows an upsurge of interest in the convenience ATM market in the UK.

Carlos Siewczynski, vice president of international sales, Tidel Technologies Inc., comments, "Using Level Four's software, our customers can now test an

entire transaction lifecycle automatically, from entering the card into the ATM through to the host system, all from a desktop PC. The benefits and cost savings are remarkable."

Level Four's primary involvement with multi-vendor networks has been with ATMOS, the ATM and card outsourcing division of LINK Interchange Network.

Accessed via a desktop PC, Level Four's ATM Simulator now provides transaction

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## DELIVERING CONTINUED VALUE IN 2004 AND BEYOND...

LEVEL FOUR CO-FOUNDER AND CTO ARTHUR MORRISON PRESENTS HIS VISION



*The technological vision of Arthur Morrison, Chief Technology Officer, is at the heart of Level Four's ever growing success. With global customers in the company's sights, Arthur Morrison discusses Level Four's technological developments and forthcoming product launches*



Banks are coming under increasing pressure to offer new, improved and more reliable services through ATMs. In 2003, LINK, Nationwide and Den norske Bank adopted Level Four technology to assist with the process. Looking ahead at 2004 and beyond, we are confident that our client base can grow far beyond the UK shores. A key component of our expanding commercial business strategy is continued investment in product technology development.

### Supporting customer needs

In 2004, Level Four will enhance its flagship product, the ATM Channel Development Suite, with a new range of features and functions. This includes upgrades to the Suite's ATM Simulator and ATM Developer products, as well as a raft of new plug-in components to bring increasing business benefits to existing customers.

Two of the new plug-in components for hardware device simulation are multi-currency bunch note acceptor and non-envelope based intelligent cheque deposit.

As banks continue their drive to offer increased self-service to customers and improve ATM deposit functionality, Level Four ensures these services are deployed quickly and securely. Simulated and tested directly from the desktop, Level Four's software provides complete emulation of these services. As host systems integrate support for device driving and back office processing in the future, these functions will be widely applicable for ATM deployers.

A further enhancement to our product suite is Load Group Manager (LGM), a

plug-in that works in conjunction with ATM Developer. The plug-in enables financial institutions to manage multiple load groups within an ATM download providing a graphical way of representing and modifying the hierarchy of download data. Ultimately customers will benefit from improved level of service when device failures occur. The solution is vendor neutral solution, but was built for initial compatibility with BASE24 users.

In line with our philosophy of providing increasing benefits for consumers, Level Four introduces the virtual wallet.

The wallet allows a more intuitive drag and drop method of using the simulator, similar to when a customer uses their wallet at a real ATM. The virtual wallet metaphor is a helpful one, especially when new devices such as cash acceptors are added to the range of supported hardware.

### Bringing customer value

New enhancements to automated testing and results checking with ATM Simulator adds increasing productivity benefits to users. The new

enhancements allow the user to pause a transaction at any point and add check results in the recording file. For instance, message fields and screen data for comparison when re-running the regression test. The regression test can then run automatically and the status of the test will be shown dynamically on a result-by-result basis. Additional check information within the recording can be compared and the user is alerted of any mismatches. On completion of the test, the user can save the results for auditing and detailed inspection. This

### Product development increases customers' business benefits

**- Arthur Morrison, CTO**

additional intelligence and flexibility will significantly

improve the regression testing capability of the product.

Another major enhancement to the ATM Channel Development Suite is an 'enterprise' plug-in for ATM Developer and ATM Simulator which permits configurable, open, browser-based user-access for system control, review and update of ATM content. Aimed largely at non-technical users within a bank, the plug-in makes the system more open, visual and customisable. It enables users to make ATM content

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adjustments easily without technical support, bringing increased efficiency gains to customers.

## Testing everything

A completely new solution we have developed in the last six months is ATM Network Stress Tester. This application supports our customers growing demand to simulate full, accurate and meaningful stress testing conditions. ATM Network Stress Tester instantiates and manages large numbers of intelligent, concurrent ATM simulator sessions running on distributed servers. It provides a fully functional simulation of any bank's ATM transaction load, and tests and analyses the behaviour of the Host. It provides our customers with a low cost solution for stress testing their ATM channel.

The expansion of our product suite will also include EFTPOS terminal simulation and ISO8583 EFT switch networks. The latter will provide full end-to-end testing capabilities and assist with domestic and international scheme acquirers certification testing. Our innovative use

of graphical modelling and visual development environments will bring to users an easy and intuitive method for development, simulation and testing.

## Industry standards are standard practice

Industry mandates, especially EMV, will continue to be key drivers behind our product



Level Four's product enhancements improve ATM functionality

upgrades in 2004. We will be providing additional support for security standards such as EMV Static and Dynamic Data Authentication. These standards provide an extra level of security for authenticating chip-based transactions. Our technology supports EMV authentication so that our customers can easily integrate new standards into their testing.

After the initial hurdle of implementing EMV, we believe that innovative organisations will want to capitalise on the opportuni-

ties presented by multi-application cards. Level Four has anticipated the requirement for supporting multi-application initiatives by building in support for this into the product suite. We are also developing support for the simulation of proprietary ATM applications used by larger banks. The development of an IFX simulator personality highlights our involvement and contribution to the IFX Forum industry standard.

Continued product development is a key aspect of our R&D strategy and reflects our dedication to support our customers' needs. We will continue to update you on our product road maps throughout 2004. In the meantime, we look forward to working with you to enhance the services you in turn provide to your customers.



*Please contact Arthur Morrison, CTO of Level Four, with any questions about the company's roadmap for 2004.*

*Please send your questions to [enquiries@levelfour.com](mailto:enquiries@levelfour.com)*

## The future looks bright

*Nigel Walsh, Chairman, talks of Level Four's success in 2003 and the company's continued plans to be the leading global supplier of ATM testing and development software by 2005*

The ATM landscape is constantly evolving. Compliance to EMV chip card mandates and the migration to new software platforms to support non-account based ATM services are amongst the changes prompting a demand for comprehensive ATM testing and development tools. Level Four is determined to be the global leading supplier of ATM testing and development software by 2005. We are already firmly established as a key supplier; in 2002-3, we achieved clear market leadership in the UK and our first sales in Europe.

In 2003-4, Level Four will strive for dominant market position in Europe, the Middle East and North Africa. We are confident that our strategic partnerships with industry leaders and our continued close working relationships with existing customers will enable us to achieve our intended geographic reach within the next two years.

Level Four has strengthened its senior management, increased staff numbers and accelerated a sales recruitment drive in Europe and the Middle East to ensure continued support for our rapidly growing customer base.

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## LEVEL FOUR EXPANDS INTO MIDDLE EAST WITH XENO-LOGIC PARTNERSHIP

Level Four has partnered with Xeno-Logic, a Dubai-based professional services provider, to tap into Middle East interest in its ATM Channel Development Suite. Under the agreement, Xeno-Logic will provide implementation services and first line support. Level Four will provide 24 hour online web-based fault tracking and resolution managed from its operational office in Dunfermline, Scotland.

Xeno-Logic will distribute Level Four's EMV FastTrack to comply with the EMV mandate in the Middle East. EMV FastTrack enables smart card testing from a

desktop PC. It allows banks to develop, simulate and test smart card based transactions, as they would be on a real ATM.



Osman Mehta, director and co-founder, Xeno-Logic, said: "Level Four's proven technology clearly meets a demand that Middle Eastern banks are looking for more sophisticated and thorough testing tools including support for the EMV2000 standard for their ATM environments."

## LEVEL FOUR JOINS NCR'S APTRAXPRESS PARTNER PROGRAM

Level Four has aligned with NCR to provide accurate simulation tools of NCR's current and future solutions. Mutual customers will benefit from reduced time to market of new ATM functionality. In particular, customers embarking on ATM upgrades to support EMV will benefit from this collaboration.

Jim Piggot, Vice President of software and services for NCR's Financial Solutions Division, comments, "Level Four's ATM

tools align with NCR's proven global software solutions, so we recognise the advantage of collaborating and adding benefits to our customers. Reduced time to market of deploying new ATM functionality is a valuable offering in an industry that is highly competitive and coming into an era of increasing pace of change. Preparing for EMV and other industry mandates is a resource-intensive process, so financial institutions will see increased benefits from our collaboration."

## I-DESIGN PARTNERSHIP FACILITATES ATM GRAPHIC UPDATES

Level Four Software has partnered with i-design, specialists in ATM interface design and advertising infrastructure software.

i-design will use Level Four's ATM Channel Development Suite to illustrate to financial institutions the ease with which new ATM content can be added.

The ATM channel is an untapped resource for banks looking for creative marketing opportunities and effective customer

contact. Level Four's products enable financial institutions to test and configure ATM content directly from a desktop PC.

Martin Macmillan, CEO, Level Four Software, said: "By incorporating visuals from i-design into our product demonstrations, we are able to improve the visual representation of the virtual ATM interface and enable our prospective customers to visualise more easily how their ATM networks can incorporate a sophisticated branded ATM experience."

## Operations Director joins fast-growing company

Jan Bateman joins Level Four as Operations Director, bringing over 25 years experience in the IT industry. Bateman was most recently Delivery Manager for Logica's Financial Services Division in Scotland.

Bateman will manage the UK and European operations of Level Four, and be based at the new headquarters in Dunfermline, Scotland. She will be responsible for Level Four's research and development practice as well as the day-to-day management of operations including installations, support and the help-desk.

Martin Macmillan, CEO, Level Four says, "As we respond to continued uptake of our technology across Europe we felt it was the right time to enhance our management team to support business and product development."

Commenting on her appointment, Bateman said: "Working for a visionary company that is focused, passionate and aggressive about its business goals will suit my character and complement my skill set."

**For more information or to request a product information pack, please visit us at [www.levelfour.com](http://www.levelfour.com) or call us at +44 (0) 20 7661 9322**