



Case Study

LINK Interchange Network Ltd

LINK's outsourcing division, ATMOS, improves testing efficiency and achieves EMV compliance with solutions from Level Four Software

LINK Interchange Network is the company that operates the UK's LINK cash machine (ATM) network - the busiest shared ATM network in the world. It is wholly owned by 22 of the UK's leading financial organisations.

LINK is a leader in the rapidly evolving arena of secure electronic financial transactions, serving a wide range of organisations including financial institutions, independent ATM deployers (IAD) and mobile phone companies.

In addition to providing transaction switching and settlement services for the more than 51,000 cash machines deployed by its 51 network members, LINK provides outsourced ATM management and card services through ATMOS, the UK's leading provider of such services, and currently processes more than 200 million transactions each month.

ATMOS has been working with Level Four to automate testing and simplify configuration in its managed estate of 14,500 ATMs. Level Four's tools are also being used to ensure all machines are compliant with the new EMV standards for reading chip cards by the deadline of January 2005.

Case Highlights

Background

LINK operates the world's busiest shared ATM network and, through its outsourcing division ATMOS, is the UK's leading provider of outsourced ATM management and card services.

Challenge

ATMOS required a solution to help automate testing and develop new screen content and functionality on its customers' cash machines. It also required a tool to prepare the 14,500 cash machines it manages for EMV compliance.

Solution

ATMOS installed components of the ATM Channel Development Suite, Level Four's ATM test and development software, plus EMV FastTrack to meet the EMV mandate.

Results

Ease of development and diagnostics for configuration files across a diverse ATM estate.

ATMs now meet standards for accepting EMV smart cards.

Automatically tests every level of functionality and every potential transaction from end-to-end.

Desktop user interface provides high level of visibility of all states and flows.

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Managing ATM operations

ATMOS enables small financial institutions and independent ATM deployers (IAD) to develop and maintain a self-service ATM network while avoiding the operational overhead of running the service in-house. For the smaller institutions without the scale to manage an ATM channel, this is an obvious solution. For the IADs, who deploy ATMs in bars, shops and petrol stations, and charge customers a 'convenience fee', outsourcing operational overheads makes sound business sense.

ATMOS provides ATM infrastructure, installation, management, authorisation, maintenance, settlement, reporting and customer support services. Phil Boden, Systems Development Manager at LINK, says: "As an outsourcer, we don't buy the machines or the software. But with our range of customers, we have to manage many different types of ATM from the major hardware vendors. Our main focus is transaction processing, but we also look after things like testing and configuration management."

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PHIL BODEN,
SYSTEMS DEVELOPMENT MANAGER, LINK.

By January 2003, the rapid growth in ATMOS's business meant the processes it had been using for developing configuration files and testing ATMs were becoming less efficient. The infrastructure also needed upgrading to achieve compliance with the EMV standards for smart chip cards. So ATMOS began looking for ATM simulation, testing and development tools to help it automate processes and achieve compliance by the deadline of January 2005.

After evaluating various solutions on the market, it licensed several components from Level Four's ATM Channel Development Suite. "EMV migration was a critical part of our evaluation because of the impending compliance deadline. Level Four not only has the right products, but also has a wealth of experience in this area because of the similar programmes it has implemented for some of the UK's leading banks," says Boden.

ATM Channel Development Suite components

ATMOS is using Level Four's ATM Developer product for development support including the design and configuration of new content, graphics and screens across all its ATMs. In parallel, it is using ATM Simulator to automate testing. ATM Simulator connects as a virtual ATM to the existing ACI Base24 host system and tests the operations of any ATM in exactly the same way as a real ATM.

This is particularly significant for ATMOS, which manages machines from a number of vendors including NCR, Triton and Tidel. The volume of testing required to implement or upgrade new services can be very intensive across multiple vendors, proving to be both costly and time consuming. ATM Simulator enables ATMOS to fully automate the testing process so that staff no longer have to manually test transactions on real ATMs.

ATMOS is also using EMV FastTrack to migrate ATMs under its management to the new EMV standard. EMV FastTrack enables ATMOS to shorten the time it takes to deploy new EMV compliance into ATMs by simplifying development and automating the testing process.

To ease the loading of data and also the reporting of planned and actual changes to ATM screen states, ATMOS is using Level Four's Load Group Manager and ATM Reporter.

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Level Four's ATM Channel Development Suite helps LINK achieve EMV compliance

Testing new functionality

"The card issuers want systems in place to handle new services delivered via ATM. This includes linkages for more advanced functions such as PIN change and mobile phone top-up," says Boden.

"Other more advanced functionality being introduced includes mini statement printing. We need to develop and test the configurations for these. On certain machines there are many configurable options and you want to be able to change one and quickly see all the consequences of that change."

New applications have also been developed and introduced into the ATM network to achieve compliance with the EMV standard by January 2005, a target that all banks in Europe must meet. As the full-scale rollout of smart cards continues, every debit and credit card user will be affected. The aim of EMV smart cards is twofold: to reduce levels of card fraud, which in the UK was approximately £430m in 2002, and to introduce multiple applications on the cards.

This has a number of major implications for the testing processes that a bank must go through to ensure one of its most crucial channels works as expected.

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Indispensable visibility and control

The component programs of the ATM Channel Development Suite all have a highly visual, intuitive user interface, making it easy for staff to use and positively impacting productivity levels.

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Unique scripting capabilities enable fast reaction to external events and internal developments, resulting in a much quicker time to market of new ATM functionality.

"Without the user-friendly graphical interface, we would still be using the old 'green screen' system, working through screen by screen while trying to retain the big picture," says Boden. "Now we can see everything that is going on from our desktops - either at a high level view or drilling down into particular exchanges between card and ATM. We really are benefiting from this new facility."

ATMOS is also benefiting from the clear and easy to understand reports that ATM Reporter can produce. The company is using this to demonstrate to clients proposals for new screen design, and recording and illustrating flow in the form of HTML 'cartoons'.

Expanded use of Level Four solutions

Even when it has ensured all its ATMs are EMV compliant, ATMOS will continue to use Level Four solutions for configuration file development and diagnostics. It also plans to focus on building up its regression testing capabilities, including testing for device handlers.

"With new versions of Base24 being released, this testing is very important," says Boden. "We are looking at using more Level Four solutions and features to help us continue to serve our customers effectively. We are evaluating Network Stress Tester's capability to provide full and meaningful stress testing conditions so that we can do a direct analysis of system capacity. We are also interested in introducing automated results comparison for regression testing."

Since ATMOS decided to implement components of the ATM Channel Development Suite, it has been very impressed with the level of service and support it has received.

"Level Four has been quick to respond to all of our queries, both in our initial implementation stage, and as we continue to use the solutions for testing and development," says Boden.

"On the Level Four website we can log problems and we have always received a very quick response. When new functionality is introduced, the update and patch process is easily administered and we can roll back the state if we encounter any problems.

ATMOS has gained many benefits from the relationship with Level Four, particularly being able to tap into the great technical knowledge within the company. "We have been able to understand our network and the implications of EMV much better, and thanks to the development and testing tools, we can now offer an even better quality service to our customers," says Boden.



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