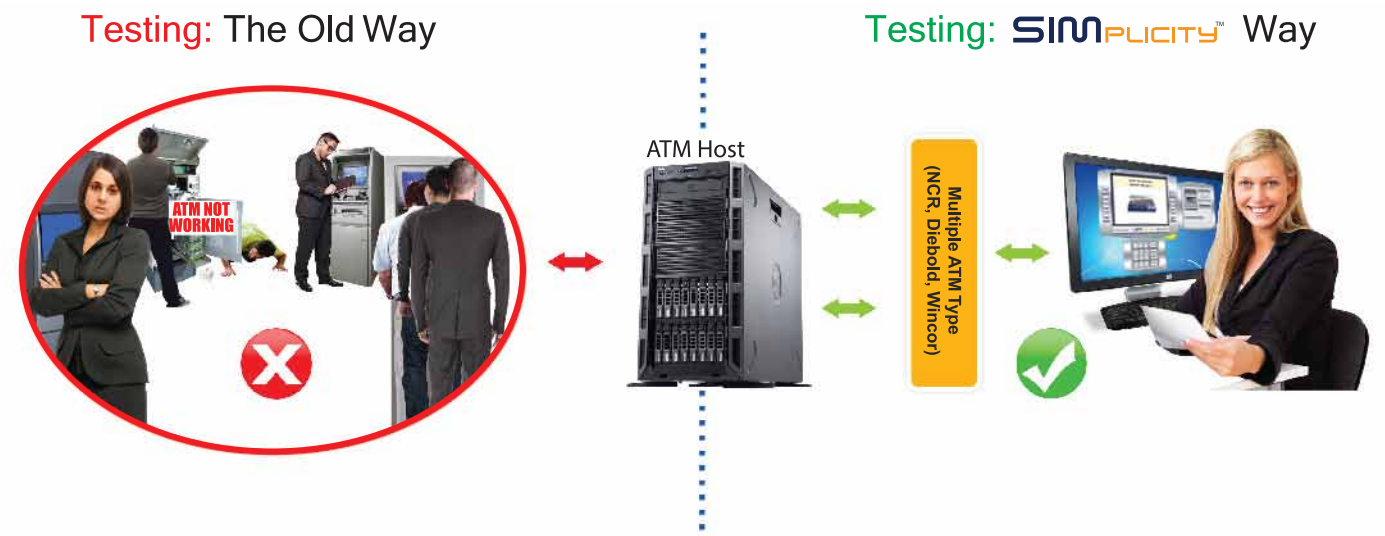
Give your Bank the SIMplicity™ Business Benefits

SIMplicity™ is a revolutionary Automated Teller Machine (ATM) and Cash Deposit Machine (CDM) simulator and stress testing product uniquely designed and developed by Abbrevia to meet various gaps in the market for testing of a bank's or a Third Party Processor's (TPP) host system.

WHO IS ABBREVIA?

Abbrevia is an innovative provider of leading-edge payments solutions with a global customer base spanning four continents. We provide our customers access to best-of-breed payments products through exclusive alliances with international market leaders.

Abbrevia has developed and markets SIMplicity™, a world-leading and next generation ATM simulator and provides associated electronic payments consultancy, test management, certification and project management services.



OUR PROMISE

- ✔ Vast improvements in scope of coverage of testing reducing business risks
- ✔ Significant improvements in the accuracy and quality of testing leading to customer satisfaction
- ✔ Automation of testing resulting in "repeatability" and considerable reduction in time to market for new transactions and services
- ✔ Immediate reduction in costs associated with testing of ATM and CDM network
- ✔ Fully automated business and technical level auditable reporting to streamline the review and sign-off process
- ✔ Automated regression testing with immediate pass/fail indicators
- ✔ Industrial grade Stress Tester for capacity planning and future transaction growth
- ✔ Acceleration of EMV smart cards migration based on comprehensive smart card functionality and cryptography
- ✔ Guaranteed Return On Investment of 300% to 500% within 4 years

WHAT IS SIMPLICITY™?

SIMplicity™ is Abbrevia's flagship product which it has developed and markets worldwide. It is a next generation device based ATM simulator which simplifies the development and testing of your ATM transaction flows and content using innovative features, unparalleled ease of use and an intuitive design to ensure immediate productivity gains and return on investment.

Configuration and usage of SIMplicity™ does not require a technical background and can be deployed by business oriented users. The SIMplicity™ product suite is an integrated solution that supports NDC+, Diebold 912 and Wincor Procash protocol ATM networks. Please refer to the SIMplicity™ Technology Advantages for more details.

WHY WAS SIMPLICITY™ DEVELOPED?

PROBLEMS OF MANUAL TESTING

Traditionally, banks and TPPs have tested their host systems that drive ATMs and CDMs manually by using physical ATMs or CDMs and physical test cards in their test environments. Manual testing has numerous disadvantages amongst which are the following:

- Not comprehensive
- Not automatically repeatable
- Lacks proper reporting
- Not easy to produce test cards which are designed to cause failures (especially for ICC smart cards)
- Not always accurate
- Is Expensive in terms of time and cost
- Not possible to perform stress testing

PROTECT BRAND EQUITY

The need for automation of testing has increased significantly in recent years as the banks have become more and more global and as banking technology has becomes widely and easily available to all the banks regardless of their country of origin and operation. As such, the banks increasingly find themselves offering roughly the same services to their customers. With limited differentiating factors available to the banks to identify their brand and to set themselves apart from their competitors, they are becoming obliged to progressively rely on the quality of the services they offer (as opposed to the type of service) and to compete based on the time-to-market window (albeit for a limited period of time before others catch up) in launching various new products to their advantage.

The quality of service, quick time-to-market and the reduced product development and operations costs which accrue as a result of the rapid product development cycles and thorough testing are, therefore, the key unique advantages available to the banks today and, if utilized properly, can have a significant impact on the banks' bottom line not only in terms of controlling attritions of account holders but also in terms of attracting dissatisfied customers of competitor banks.

THIRD PARTY PROCESSORS

The above argument holds especially true for the Third Party Processors (TPPs) since due to improved communications infrastructure worldwide, the TPPs can no longer lock-in their banking customers indefinitely since a TPP sitting in one country can provide services to a bank thousands of miles away just as effectively and efficiently as a local one. In view of this, TPPs are now required to provide services to a more customized and stringent service level in order to retain their banks and as such looking for quality of service and customization as a differentiating factor. This customized level of service in terms of providing ATM and CDM screen and transaction content specific to each Bank which respects each Bank's brand identity, rather than a more generic service can only be possible through a leading edge platform such as SIMplicity™ which enables the development and version management of multiple ATM and CDM screen and transaction content in a highly visual user interface.

PROVEN RETURN ON INVESTMENT

Deployment of SIMplicity™ and automating the testing process increases accuracy and quality of testing significantly and decreases testing time and costs associated with testing while allowing for repeatability and reusability and also results in significant operational cost reductions due to reduced failure rates. This translates into a proven Return On Investment (RoI) in the SIMplicity™ product with a break-even within the first year of its deployment with a further RoI gain of 300% to 500% (depending on the size of the bank) within 4 years.

INDEPENDENT OF HOST SYSTEM

SIMplicity™ is both a visual and user friendly ATM simulator and is intended for use by banks and TPPs Test Engineers, Quality Assurance Officers and business teams alike. In addition, SIMplicity™ can be used by marketing departments to gain a better understanding of the ATM or CDM user experience and the impact of changes to the ATM or CDM channel on the user experience in order to develop and maintain customer satisfaction and loyalty.

SIMplicity™ is independent of the host system a bank may use and simulates all types and models of ATMs and CDMs such as NCR, Diebold and Wincor.

SIMplicity™ is the most advanced product in the market and is the only product of its class world-wide which supports simulation of the latest web services browser based services from the ATM or CDM.

HOW SIMPLICITY ADDRESSES PROBLEMS OF MANUAL TESTING

The following section explains the above problems in more detail and describes how these are addressed by deployment of SIMplicity™.

Problem: Manual Testing Not Comprehensive	Solution: Covers all test conditions
Conventional method of testing is not comprehensive and is often error prone since ATMs have been designed for delivery of banking services in real environments and not as "test" machines. As such, all the possible conditions that occur in real life cannot be tested using real ATMs. For instance, using a real ATM, it is not possible to test how the banks host will behave when various mechanical and electronic devices within an ATM malfunctions. Testing of numerous failure modes that occur in real life and their resulting effects on the bank's host is a critical, time consuming and laborious scientific task that needs to be conducted time and time again.	SIMplicity™ allows a bank or a Third Party Processor to simulate all transactions that are (or may be in the future) offered on a bank's ATM or CDM. In addition all device failure problems are easily simulated.

Problem: Manual Testing Not Always Accurate	Solution: Automatic Verification
In the absence of automatic verification of test results, success or failure of various test cases can only be ascertained using different receipt print out, journal entries and manual verification of financial entries in the banks systems which results in inaccuracies and incomplete analysis. Furthermore, in cases where a problem has occurred it is not possible to pinpoint causes of a particular failure resulting in time consuming investigation and verification.	Using SIMplicity™, tests are automatically documented in a great level of detail which includes snapshots of the screen flows, keys pressed at the ATM during the test, details of the card and PIN used and copies of all media output such as receipts and journal logs. Test results are also automatically compared to an expected baseline result and provides an instant indication of success or failure of each test transaction. This drastically reduces testing cycle times, test documentation, test reviews and vastly improves the thoroughness and quality of testing. Furthermore, problem areas are pinpointed which results in significant time savings and reduces testing cycle.
Problem: Manual Testing Not Automatically Repeatable	**Solution: Record Test Cases and Replay**
Bank and Third Party Processor's ATM host systems are regularly updated either as part of the vendor's periodic releases or due to regulatory requirements or international card schemes' (Visa, MasterCard, Amex etc.) mandates. Each time the system is updated a complete set of testing is conducted by the banks or the Third Party Processors to ensure that not only the new functionality works correctly but also to confirm that there is no inadvertent negative impact on functionality that was working previously.	The transaction record and replay facility in SIMplicity™ can be built into an overall regression-testing program. Regression-testing scripts can be built quickly and effectively, and run online together with a configuration of fixed test conditions (e.g. cards, ATM device types and peripherals) against the host system after any changes to the ATM network.
Problem: Expensive in Terms of Time and Cost	**Solution: Automatic Execution of Test Cases**
Manual testing results in repeated effort of increasing magnitude as more services are added for each new release resulting in delays and staff overheads; in other words if the first cycle of testing took x number of weeks, the 2nd, 3rd, 4th and the nth cycle will also take a minimum of x number of weeks and with an ever increasing duration in time and effort.	Using SIMplicity™ transaction test scripts of previous test cycle can be run against different card types to identify variances. Regression tests can be automatically scheduled and require no operator input to execute the testing or review the results. Regression tests can also be scripted once and reused as new ATM environments are introduced.
Problem: Manual Testing Lacks Proper Reporting	**Solution: Automatic Documentation**
Proper reporting of test coverage and test results required by senior management is a laborious task when testing manually and presentation of various test result material in a manner that is easily understood and evaluated is almost impossible.	Transactions can be recorded in real time and used as documentation. This includes all button presses, message data, EMV smart card data and terminal status messages. These sophisticated self-documenting business level and technical level trace reports can be generated in seconds, saving considerable amounts of time compared to the manual approach.

Problem: Stress Testing Not Possible	Solution: Stress Test at Desired TPS
Stress and volume testing is an important part of any testing activity to establish how a bank or a Third Party Processor's host system will behave in peak times. It is also required for proper capacity planning to cater for future transaction growth. This type of testing is not possible using physical ATMs and more often is not conducted in the hope that the host will handle peak time transaction often resulting in delayed response to customer transactions and even a system crash under extreme loads leading to significant customer dissatisfaction and tarnishing the Banks brand value.	Using SIMplicity™ it is possible to simulate many ATMs simultaneously and perform transactions at the rate of up to 100 Transactions Per Second per stress test server and can be scaled up based on the bank's or Third Party Processor's requirements.
Problem: Limitations in using Physical Smart Cards	**Solution: SIMplicity™ Virtual Cards**
Testing with the newly introduced smart cards technology poses additional challenges and limitations when relying on the use of physical smart cards. The cost and time required to personalize test smart cards are significantly higher than magnetic stripe cards and the availability of the physical test card pack becomes a bottleneck with many personnel (developers and testers) being constrained on their work. It is also not possible to easily produce smart cards which are designed to fail since the bank's card personalisation system is only designed to produce fully functional and valid cards. There is also a problem once a physical card is blocked it cannot be unblocked and used again and therefore has a cost implication requiring new cards to be generated for additional card block testing.	SIMplicity™ solves these problems through its virtual cards which supports both magnetic stripe and smart cards and can be created in seconds. Smart cards can be created by skimming one or more physical test card using a USB smart card reader and each developer or tester can make multiple copies of the card and change the card configuration instantly to meet their required normal and failure testing needs without any cost. Because SIMplicity™ uses virtual cards, it is also possible to create new cards after a previous card has been blocked within seconds and at no extra costs. SIMplicity™ supports all card schemes (Visa, MasterCard, SPAN, Interac etc.) and card types (credit and debit).

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