the challenges of 21st century electronic funds transfer

Business benefits of advanced authorization systems

The electronic funds transfer (EFT) payments business is becoming increasingly complex. As the number of delivery channels increases so does the complexity of the networks and supporting infrastructure. New financial products are being introduced and often add layers of sophistication to existing products. In addition, the need to increase the return on investment (ROI) of new initiatives, such as customer relationship management (CRM), is greater today than ever before.

In the current economic climate, most banking institutions are focusing on increasing the profitability of the business through making better business decisions and better use of the systems that are in place. Any investments have to recognize these fundamentals.

This document highlights some of the challenges facing financial institutions and financial service companies in authorization processing within the retail EFT environment. It outlines how involving additional data sources and increasing the level of sophistication within the authorization process can tackle significant problems like fraud, bad debt, and the burden of online authorization and referrals. It also discusses the possibility of generating new revenue streams from new products, services and customer segments without significantly impacting legacy systems. Finally, it outlines the elements of ACI's multiplatform enterprise payments services architecture — BASE24-eps™ — that uses a powerful scripting engine to introduce business rules that reduce risk and increase customer loyalty.

Business Issues

Fraud

Fraud is an increasing problem and no longer simply a cost of doing business. Fraud is considered not only a financial issue to the bank but also a social one. Banks have invested in fraud systems in both the back and the front offices. However, these systems often are not integrated and coordinated; therefore, they do not offer the coverage that they could — maximizing ROI and reducing the associated costs.

The real cost of fraud is not simply the lost transaction but the administration and overhead of processing suspect transactions. Fraud management is a balance between ensuring that valid transactions are processed without hindrance and invalid transactions are stopped. Therefore, methods of automating this are key to successful investment.

Indicators can be used to identify transactions that need more checking. Perhaps a particular region or business segment is currently generating higher levels of fraudulent transactions, so any business from that region should be checked more closely. Thus, the requirement of an authorization system is to allow easy inclusion of new data into decisions and integration with fraud detection systems.

Bad Debt

Bad debt and credit losses are a cost of doing business in retail EFT. However, if a customer's move to a higher level of debt can be identified earlier in the cycle and action taken, then it should be possible to limit exposure. A small reduction in bad debt can significantly contribute to an organization's bottom line. Invariably, bad debt customers tend to use their limits to a maximum. Therefore, with the ability to incorporate more data into the transaction authorization process also lies the potential to provide tighter control where a customer is heading toward a suspected bad debt situation.

EMV Card Controls and Online Authorization

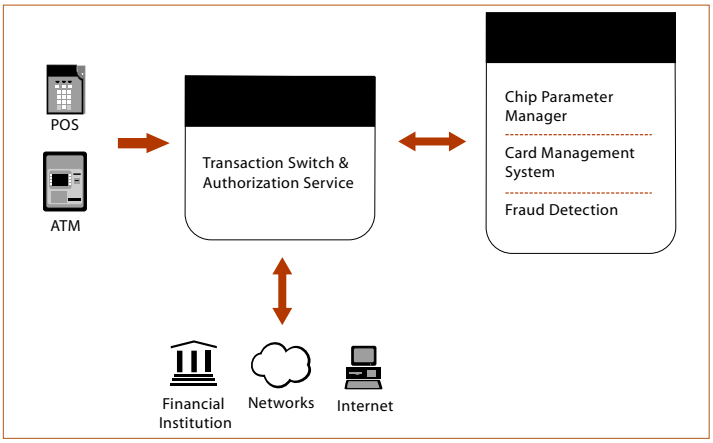
The initial implementation of EMV chip cards used a basic set of parameters to control offline spending, often with a simple segmentation by cardholder category — gold, silver, etc. Now financial institutions are beginning to consider how to use these parameters to better manage the risk profile of transactions

generated. This requires focus to set parameters to reflect the specific cardholder activity rather than the generic cardholder category.

These parameters provide a powerful technique to manage the level of central authorization undertaken. Initially a card category may be set to authorize online only every fifth transaction or transactions over a specified amount. When a suspected fraud transaction has occurred on a card, the institution can change the parameters to require online authorization for every transaction. Another example would be a sudden change in the geographic location for transactions from that card; if generally the cardholder spends in the United States and a transaction suddenly appears from Colombia, it may be appropriate to require more online transaction checking.

Although it is easy to create scenarios where more control might be required, there is also the need to reverse this and reduce the controls on the card. Once suspected fraud has been revealed to be valid spending or the Colombian transactions revealed to be genuine vacation spending, the previous parameters need to be reset. However, this may be a gradual relaxation that is appropriate as the patterns change back to the cardholder's "normal" profile.

In the United States and many European countries, full online authorization has been the route for every transaction. With these EMV parameters there exists the possibility to alter that profile and move some transactions into an offline authorization mode, thus reducing the scale of the institution's authorization systems.



Increasing Numbers of Referrals

Reducing the number of referrals generated will directly contribute to cost savings. Many referred transactions end up as lost business to the financial institution as the retailer prefers to ask the consumer for an alternative method of payment. Handling a referral call costs many times that of an automated transaction, as it involves a longer process and call center staff.

By using a wider set of information in the transaction authorization process, it is possible to reduce the number of referrals — turning these into approvals or denials. Information such as delinquency rates or overall relationship with the institution, which would have been used by the call center when handling the referral call, could easily be used by a flexible authorization service to automate the decision process. Other data may also be relevant to ensure that good customers are not negatively impacted by referral rules.

The Impact of Introducing New Products and Segments

The bank card business is built on increasing layers of product segmentation; standard and basic cards, gold, platinum, and company cards are all part of the portfolio mix. For both customer service and risk management, authorization decisions need to be segmented along product lines.

The key to profitability is the ability to deploy new products and services in an efficient and effective manner. Many back-office account systems cannot be changed easily to allow for new product processing. Perhaps, with a flexible authorization system, new products can be introduced without impacting the legacy account systems.

Account aggregation, the ability to combine different product groups into a single picture to the customer, has been an area of significant interest. This type of service has two aspects: The first is better customer service — consumers receive a single picture of all their financial products. The second is in the introduction of linked products, which provide consumers with the facilities of a checking, savings, mortgage and loan accounts, but use the overall balance position to determine interest calculations and authorize payment transactions. In both of these examples, the payment system must be able to access multiple back-office account systems to retrieve relevant data to present to the consumer or make the authorization decision.

Some new products require the integration with partner companies to provide new services. One example implemented in many countries is the ability to "top up" mobile prepay phone accounts from an ATM. This is a traditional ATM withdrawal transaction with an additional request to a mobile telephone system for confirmation of the top-up element of the transaction. With the ability to perform more sophisticated transactions at banking channels, like ATM, branch and Internet, more of these links to nontraditional systems will emerge.

Liability Responsibilities

Plans continue to move the emphasis of liability for credit card transactions from acquirer to issuer. However, as history shows, the liability position has oscillated in the past and will continue to do so in the future. This means that business plans and the supporting systems must be flexible to meet the inevitable changes. The systems need to react and adopt policies quickly and effectively.

Liability patterns will also vary by business models. While those for credit and debit cards are well established, new services, such as person-to-person (P2P) payments, will have different rules that are likely to change rapidly as they mature. Even with established card schemes there is no guarantee that the latest guidelines for liability will be constant. Thus, organizations need to make decisions based on delivery channel, product type and liability rules. All of these factors could radically change a business model. It is, therefore, imperative that an authorization system can adapt to different models to ensure maximum revenue and minimal costs.

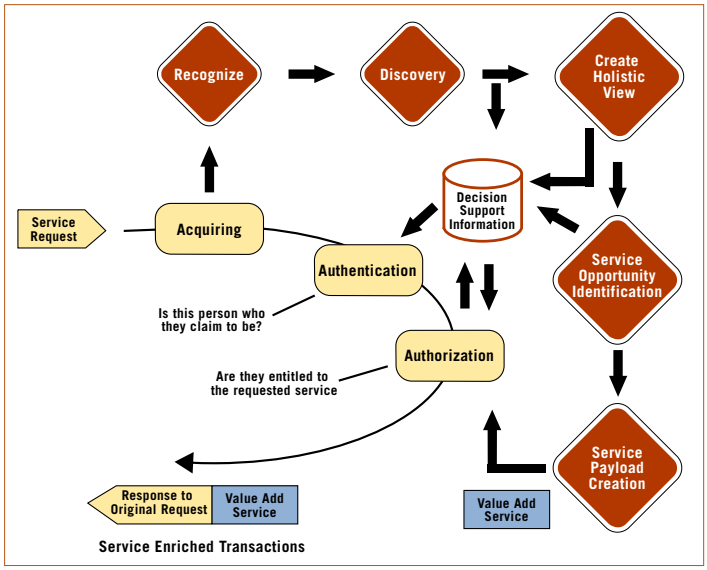
Making Use of CRM Data

A key aim for any financial institution is to maximize existing customer profitability. Growing the product portfolio of existing customers costs much less than attracting new customers. This has led to the use of focused marketing techniques and tools such as CRM.

However, industry research from Gartner suggests that 55 percent of CRM projects failed to meet the company's expectations. A Bain & Co. survey discovered that one in five users reported that their company's CRM initiatives not only failed to deliver profitable growth, but also damaged longstanding relationships. Different institutions have different goals, but most have struggled to reach the ROI expected from a CRM implementation.

Within the authorization service, data from CRM systems can be used in two ways. First, to better assess the business opportunity being offered in each transaction. Information held in the CRM system makes it possible to alter the normal transaction authorization decision — either to make it more likely to retain a customer's business or to withhold business where a risk situation is emerging.

Second, CRM data can be used to find additional customer offerings while interacting with the bank. Although this is not appropriate through all customer interaction points, for instance a POS terminal in a supermarket is not the right place to offer another product, it is relevant in others — for instance, a self-service terminal in a branch or through an Internet banking service. The key requirement is the ability to send targeted messages to customers in a way that adds value to the experience of interacting with a bank yet does not distract the customer unnecessarily.



Common Systems and Services

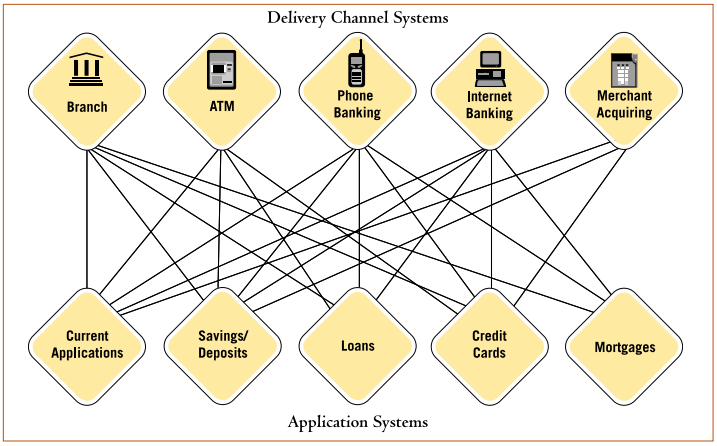
As more and more channels become available, and as more opportunities in the marketplace emerge, there is a constant requirement to provide new delivery services. These services require authentication and authorization services. The issue is the constant change necessary to support these technologies.

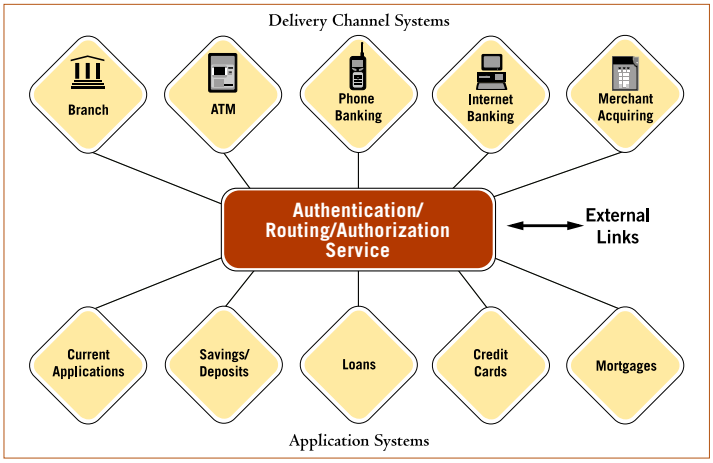
At the same time, traditional channels are changing. Although ATMs were and are used as pure cash dispensing mechanisms, ATMs in some areas are being developed to be full automated teller machines, automating many transactions that were traditionally handled only at the teller position. New ATM implementation models — for instance, the deployment in convenience stores by independent ATM deployers (IADs) — have also triggered new views on the required transaction sets.

At the same time as ATMs are expanding into more branch type transactions, the Internet banking arena has become a means by which to offer these services. In some regions, even the POS channel is used for services like check cashing. Today it is no longer possible to clearly identify a transaction set with a particular channel; most transactions can be handled by most channels. Each financial institution will decide what services it wishes to offer through which channels.

Therefore, many institutions are gradually removing the silo system that existed within the IT infrastructure to enable sharing of systems and services across different delivery channels.

However, any shared system must easily integrate into the existing infrastructure to make best use of the investments in the existing systems. The term "middle office" has been used by some parts of the industry to describe a service layer that allows for the integration of these systems.





Banks are moving to common authorization and authentication services.

Enterprise-Wide Authorization Service

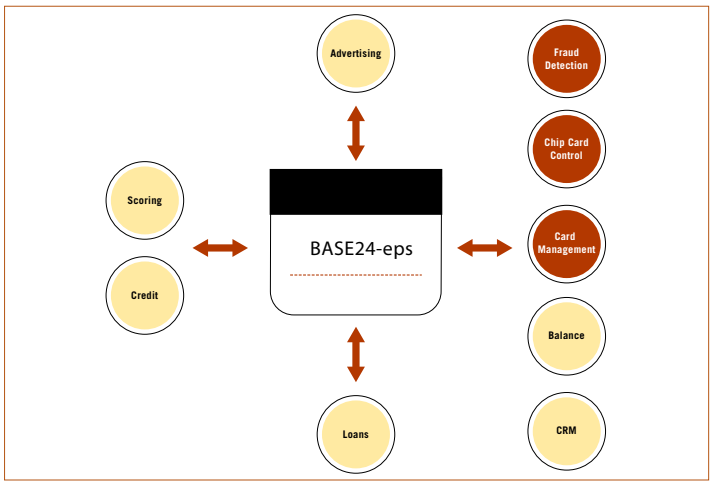
ACI's BASE24-eps product can provide an enterprise-wide authorization service through the following:

- The ability to handle transactions from any channel
- The ability to integrate nontraditional data into the authorization process
- The ability to pass requests to other banking or partner systems and use the resulting information in the authorization process
- The ability to script the authorization steps and better match the business needs of each organization.

BASE24-eps is not a single solution for all of the business issues financial institutions face. It does, however, supply a solution that allows institutions to maximize their investments in other areas of the retail banking marketplace. Transaction handling must be reliable, scalable and have integrity. BASE24-eps ensures that the fundamental requirements of EFT processing are maintained.

To this end, BASE24-eps does not replace the CRM system, but allows its data to be used elsewhere. BASE24-eps does not provide full MIS support but augments it. BASE24-eps does not replace existing core banking systems but enhances them.

From a technical perspective BASE24-eps achieves this by the use of standard hardware platforms, a high level of parameterization and an unrivalled level of data integration, operating in a proven, scalable architecture. This is the result of ACI's more than 30 years of research and development, which for this product alone has exceeded US$40 million over the past four years.



BASE24-eps can make the link to many systems.

When Is Complex Transaction Processing Beneficial?

Not every transaction needs more sophisticated authorization; complex transaction processing is only needed when the risk is perceived to be greater than or further processing is of more value to either the customer or the bank. Examples of this include the following:

- Real time scoring using neural networks for fraud and bad debt is only performed for higher risk transactions
- Transactions that would have been referred are subjected to further business analysis, perhaps accessing detailed transaction and credit history
- Transactions originating through Internet delivery channels are subjected to different authorization rules
- An offline risk engine detects a suspicious sequence, so future transactions from that cardholder or customer are checked in more detail

- Processing CRM-based data to generate customer interaction; for example, SMS messages based on purchase type to encourage further spending
- Splitting a request into two elements to handle partner-serviced transactions such as mobile top-up requests

However, by using enhanced authorization services for high-risk transactions, financial institutions can increase the profitability of their businesses through making better business decisions and better use of the systems that are already in place.

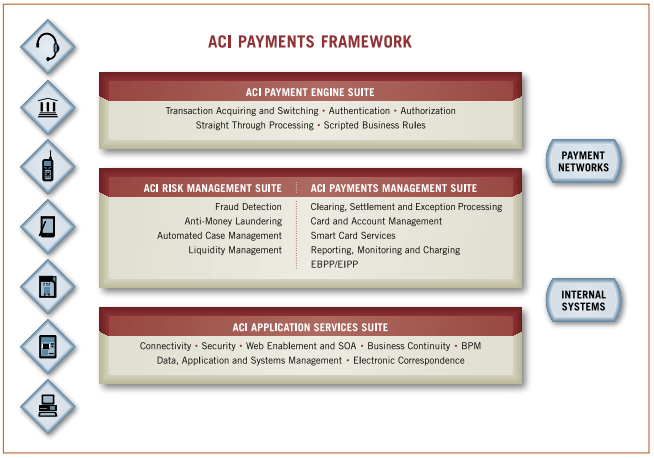
Why ACI Worldwide?

ACI's business is to help customers optimize their returns on current investments, transact in high volume, and move forward with new technology. ACI software processes more than 55 billion transactions a year. ACI is the leader in e-payment processing products and has vast payment marketplace experience on a variety of platforms, including IBM® System z, IBM® System p, HP NonStop™, HP-UX and Sun® Solaris™.

Among software providers, ACI is unique in its ability to address the breadth of services across the payments value chain — a single source for end-to-end solutions, helping customers simplify implementations and speed time-to-market for new services.

Experience, Expertise

Every second of every day, more than 800 customers around the world rely on ACI solutions to process payments, manage risk, automate back-office systems and provide application infrastructure services. More customers use ACI software to manage higher payment volumes, of greater diversity, across more platforms and geographies than any other provider in our field. Since 1975, ACI has provided software solutions to the world's innovators. We welcome the opportunity to do the same for you.



The ACI Payments Framework represents an integrated solution suite that supports transaction initiation, real time processing and back-office transaction management.