OFFERING AN ENTERPRISE SUITE OF INTEGRATED SOLUTIONS FOR RETAILERS

CREATING LOYAL CUSTOMERS, DRIVING NEW SALES AND OFFERING MULTIPLE PAYMENT OPTIONS

PROVIDING SOFTWARE THAT MANAGES PROFITABILITY WITH LOSS PREVENTION TOOLS

In the world of payments processing, managers are increasingly challenged to improve the profitability of today’s business while accommodating a steady stream of new transactions, channels and technologies. Many have found it difficult or even impossible to extend their transaction processing systems for new initiatives. As a result, organizations have lost money and competitive advantage as they have tried to compete using outdated platforms.

It’s time for a new approach. It’s time to evaluate a system that can function as the core processing platform for every type of transaction.
RETAILERS CAN NOW CONTROL THE ENTIRE PAYMENT TRANSACTION FLOW FROM THE POINT OF PAYMENT AT THE STORE TO THE POINT THAT THE CHECK IS VALIDATED AND AUTHORIZED.

EXECUTIVE SUMMARY

ACI Retail Commerce Server™ is an integrated software solution to acquire, authenticate, route, switch and authorize financial transactions across multiple channels. Retail Commerce Server provides a full range of functionality to support payment transactions — both traditional, mainstream transactions, such as debit and credit at the point of sale (POS), as well as mobile and web commerce.

Retail Commerce Server represents the next-generation implementation of ACI’s world-class payments platform. It is the culmination of more than 35 years of experience in developing and supporting payments software, leveraging the input of a global customer base. For three and a half decades, ACI has been known as a trusted provider of industry-leading software to meet the needs of the world’s most sophisticated systems.

With Retail Commerce Server, ACI has invested to bring the best in functionality and fundamentals to an open systems environment with a unique enterprise services architecture that allows organizations to increase profitability, enhance customer service and improve flexibility in a dynamic business environment.

Retail Commerce Server offers a comprehensive electronic payment and authorization system that facilitates a broad range of business applications, including automated clearing house (ACH); check and refunds authorization; credit, debit and electronic benefits transfer (EBT) processing; phone card activation; value card fulfillment; issuance and redemption; and loyalty cards and program management.

In addition, the recent integration of the newly acquired ISD In-store solution suite extends the Retail Commerce Server solution’s control of the payment transaction path all the way down to the point of payment acquisition, such as the PINpad card swipe devices. Furthermore, the addition of the In-store Isolated Payment Appliance (IPA) can help further reduce PCI costs by driving the devices that handle the card-sensitive data, thus removing that burden from the POS network and application.

BENEFITS

INCREASE PROFITABILITY
Retail Commerce Server improves the cost efficiency of payments processing by allowing a common set of transaction services to support multiple channels and transaction types. This
eliminates the cost and complexity of maintaining duplicate functionality and information for each channel while providing a single point of integration to back-office systems.

Retail Commerce Server supports a broad range of computing environments, allowing users to leverage their existing IT infrastructure investments while providing maximum flexibility for the future. Through the use of open methods and widely used middleware standards, Retail Commerce Server enables organizations to add support for new delivery channels without disrupting existing operations.

**ENHANCE CUSTOMER SERVICE**
Retail Commerce Server helps ensure consistency of service levels and information across consumer touch points. The application employs the same principles that have given ACI a reputation for available, scalable and reliable software. In addition, Retail Commerce Server can integrate real-time data from multiple sources within the enterprise to allow for a more complete view of each customer, in turn allowing organizations to better manage transaction risk and personalize service.

Today’s consumers require access to their funds 24 hours a day. Thus, one of the most important requirements for any e-payments system is availability. Retail Commerce Server provides continuous operation through a combination of application- and platform-specific features. The ACI standard for high performance and reliability is known worldwide, and Retail Commerce Server incorporates these features to uphold that standard. High performance, high availability and scalability are key to any mission-critical solutions. ACI has built the Retail Commerce Server software to deliver these qualities. Our benchmark tests have shown that Retail Commerce Server has demonstrated the capability of processing in excess of 2,400 transactions per second on a variety of platforms.

**IMPROVE FLEXIBILITY**
Retailers are under continual pressure to adapt to business, market and technology changes. Too often, outdated processing systems can impede time-to-market by requiring costly updates to support new transaction types, delivery channels or business rules. With Retail Commerce Server, organizations can leverage off-the-shelf support for leading card types, devices, acquirers, networks and host systems. This speeds time-to-market and provides a feature-rich solution that customers can operate in house for maximum control over the business. For example, just as the Retail Commerce Server payment platform provides quick replacement of bank processor interfaces on the back end of the transaction, the addition of the IPA and PINComm solutions in the store give retailers the flexibility to rapidly change the acquiring devices (such as PINpad models) controlled on the front end by PINComm.

With Retail Commerce Server, state-of-the-art object technology enables software reuse for rapid development of new functionality. Retail Commerce Server is engineered for scalability, accommodating growth in transaction volumes.

**IMPROVE CUSTOMER LOYALTY**
Retail Commerce Server helps ensure consistency of service levels and information across consumer touch points. The application takes advantage of the best in systems software for reliability and availability. With Retail Commerce Server, retailers gain a more complete view of each customer by accessing a richer set of data from a variety of sources across the enterprise.

Retailers can tailor authorization decisions by customer type, so they can provide more personalized services to their customers. For example, instead of declining a check based on defined limits, a retailer can consider other aspects such as customer ratings — and approve the transaction accordingly. The result is higher customer satisfaction and more profitable customer relationships.

**REDUCE RISK**
With Retail Commerce Server, retailers can authorize transactions based on data from a variety of sources across the enterprise, including real-time transaction processing, and host and customer relationship management (CRM) systems. Add to that the ability to tailor authorization parameters by customer type, and the system provides strong risk management capabilities for fraudulent transactions, credit risk, potential bad debt and the reduced credit-worthiness of customers.

Data security is another important aspect of risk reduction in the payment environment. Retail Commerce Server offers a number of protections to card-sensitive data, including strong encryption methods and tokenization.

**PRODUCT OVERVIEW**
At the heart of any payments network is a payment engine — one that must acquire, switch, route and authorize transactions from a variety of sources.
Retail Commerce Server is a powerful, resilient and scalable payment engine.

**ACI RETAIL COMMERCE SERVER™ FOR ELECTRONIC PAYMENT ACCEPTANCE**

ACI Retail Commerce Server™ for Electronic Payment Acceptance captures and authorizes customer payments at the point of purchase, providing a fast, convenient and cost-effective method for processing a wide variety of electronic payments. The Retail Commerce Server’s core switching and routing features provide the necessary tools to ensure that retailers can accommodate the consumer’s choice of payment methods. From the point of transaction initiation, Retail Commerce Server provides a software solution to securely authorize, switch and settle many types of payment vehicles including credit, debit, check, gift card, EBT, fleet and ACH, regardless of whether the payment method is magnetic stripe, chip, mobile near field communication (NFC)/radio frequency identification (RFID) or paper.

ACI Retail Commerce Server™ for Gift and Proprietary Card Management ACI Retail Commerce Server™ for Gift and Proprietary Card Management allows retailers to centralize customer information to support the issuance and acceptance of prepaid stored value cards and private label credit cards. Whether it’s a stored value card program targeted to charity organizations or a private label card allowing a consumer to purchase products as efficiently as with a branded credit card, Retail Commerce Server provides all the tools necessary to manage these programs in house. Retail Commerce Server provides tools to manage new card stock orders and inventory control. Merchants may issue single cards or cards in bulk. Discounts may be applied to bulk orders. The solution allows retailers to issue cards with predefined or customer-defined values. Customer-defined cards can have a fixed amount or may be replenished multiple times.

Furthermore, a retailer may choose to issue stored value return cards rather than cash for refunds, thereby ensuring that customers spend their refunds in that retailer’s store.

Specifically for the private label cards (closed loop), Retail Commerce Server authorizes and processes private label transactions online in the same way as credit card transactions, allowing retailers to verify card status and open-to-buy limits associated with the card. By managing proprietary charge cards in house, retailers can have 24x7 control in the production of cards, along with the processing and management of their proprietary card offerings.

And as of the Retail Commerce Server 4.7 release, Gift and Proprietary Card Management is fully integrated to the Retail Commerce Server In-store applications. Therefore, retailers can now control the entire payment transaction flow from the point of payment at the store to the point that the gift card or proprietary card is validated and authorized.

**ACI RETAIL COMMERCE SERVER™ FOR REWARDS MANAGEMENT**

Retail Commerce Server™ for Rewards Management enhances the total customer relationship by providing an enterprise-wide online reward system. Retail Commerce Server can manage multiple concurrent programs for a single customer, allowing maximum flexibility in the way shoppers are rewarded and motivated. Retail Commerce Server supports manual or automatic enrollment in merchant-defined programs, and provides retailers with the flexibility to allow a variety of consumer vehicles to identify consumers at the point of purchase, and allow their purchase activity to be reflected in available programs. All consumer identification vehicles are stored encrypted in the database for maximum protection. Retail Commerce Server for Rewards Management supports multiple reward types and returns reward information with every transaction response.

**ACI RETAIL COMMERCE SERVER™ FOR REFUNDS MANAGEMENT (RETURN FRAUD)**

ACI Retail Commerce Server™ for Refunds Management provides an online refunds management system designed to reduce losses from fraudulent refund activity. Retail Commerce Server offers a return management system that allows retailers to detect and stop fraudulent and abusive return behavior as well as increase sales and customer loyalty. Retail Commerce Server can help identify fraud and abuse at the point of return or exchange, before they become liabilities and reduce profits. Retail Commerce Server for Refunds Management provides support for policy rules on returns and exchanges, yet maintains the flexibility required by retailers.

Retail Commerce Server’s return management system validates returns online with or without a receipt, providing powerful protection against refund fraud, and provides the flexibility required for improved customer service when returning merchandise. Retail Commerce Server manages a systematic approach to handling refunds for both brick-and-mortar and virtual sites, allowing retailers to maintain consistent, accurate refund
policies across retail channels. Retail Commerce
Server refunds management solution enables users
to maintain customer sales receipt information,
against which customer requested refunds are
validated. In addition to reducing direct exposure
to fraudulent refunds, Retail Commerce Server
provides retailers with a potent defense against
losses from reduced sales and increased shrinkage.

**ACI RETAIL COMMERCE SERVER™ FOR INTERNET
SHOPPING**

ACI Retail Commerce Server™ for Internet Shopping enables merchants to extend their
existing payment processing to include secure
e-commerce transactions through interoperability
with ACI Commerce Gateway™, offering a complete
solution for multi-channel consolidation. Commerce
Gateway provides plug-in technology for secure
internet transaction acceptance. As an online
internet payment gateway, Commerce Gateway
allows retailers to acquire credit card orders from a
website in real time. Commerce Gateway supports
integration with a shopping cart and provides a
payment gateway which captures the credit card
transaction, encrypts the transaction information,
routes it to the credit card processor, then returns
either an approval or a decline notice.

Commerce Gateway is a flexible and scalable
solution designed to accommodate rapidly evolving
multi-channel, secure payment environments
for merchants. Commerce Gateway provides a
single, common interface, regardless of which
secure payment protocol is used, that either plugs
into a retailers store-front website application or
provides a hosted payment page that augments
the shopping cart. Commerce Gateway is designed
solely for card-not-present transactions, providing
the gateway between the shopping cart and
Retail Commerce Server. This reduces the cost to
merchants to utilize secure payment technology
and reduces the cost to retailers to deploy and
maintain secure payment technology.

**ACI RETAIL COMMERCE SERVER™ FOR CHECK
MANAGEMENT AND COLLECTIONS**

Even with the declining volume of check-initiated
transactions, check fraud and counterfeiting is still a
large problem retailers face. Reducing exposure to
increasingly sophisticated methods of fraud without
alienating good customers is a familiar challenge for
any retailer.

The Retail Commerce Server’s check management
solution is a convenient check authorization
and management software solution. Through
a comprehensive rules-based and check-rating
system, it reduces retailers’ exposure to bad
check losses from check runners, organized fraud
schemes, checks written on closed accounts
and checks from customers who consistently
write non-sufficient funds (NSF) checks. Retail
Commerce Server expedites the checkout process
for good check-writing customers by maintaining
identification and check-writing history. Retail
Commerce Server stores customer information
so checks from known customers are authorized
quickly, without requiring time-consuming
identification verification at the POS. This service is
extended to business checks whereas businesses
can be added to a pre-approved acceptance list to
improve customer service in local markets.

When a check is returned, ACI Retail Commerce
Server™ for Collections protects retailers from
returned-check losses by allowing retailers to
manage returned checks, create schedules for
collection calling, generate dunning letters, monitor
cashier check-cashing violations and manage
collectors. Retail Commerce Server provides an
automated check collection application designed
to handle the entire lifecycle of a returned check.
Retail Commerce Server transforms a labor-
intensive activity into a single, loss-reduction
process.

And as of the Retail Commerce Server 4.7 release,
Check Authorization is fully integrated to the Retail
Commerce Server In-store applications. Therefore,
retailers can now control the entire payment
transaction flow from the point of payment at the
store to the point that the check is validated and
authorized.

**ACI RETAIL COMMERCE SERVER™ ACH PAYMENT
OPTION SOLUTION**

The ACI Retail Commerce Server™ ACH Payment
Option solution offers retailers the ability to
electronically draft a customer’s bank account
when purchasing goods or obtaining cash. The
Retail Commerce Server ACH Payment Option
solution also offers customers an alternate
electronic payment choice while reducing electronic
payment processing costs normally associated with
electronic payments.

**FEATURES**

**CONSUMER TRANSACTION SUPPORT**

Retail Commerce Server provides comprehensive
support for consumer e-payment transactions
initiated by a variety of transaction instruments
that include credit, debit and chip cards. As the
payment industry evolves and new instruments
emerge (e.g., customer ID, mobile telephone
numbers), the flexible nature of its architecture enables Retail Commerce Server to easily adapt to provide continued value.

With the integration of the Retail Commerce Server In-store solution suite, the retailer can now drive the devices (and the transaction types they support) that acquire the payment portion of the transaction using the Retail Commerce Server PINComm application.

Today, Retail Commerce Server supports a comprehensive cardholder and administrative transaction set accessible from any appropriate delivery channel. The solution also supports administrative transactions for settlement and reconciliation purposes.

Organizations can configure Retail Commerce Server to maintain propriety charge cards and gift cards and associated account information. Authorization logic performs a variety of tasks, including checking current status of the card, comparing cardholder use against limits, determining whether the transaction is allowed based on a number of configurable options and more. In addition, Retail Commerce Server can provide alternate routing or stand-in authorization if a configured primary external authorizer becomes unavailable.

**TRANSACTION SWITCHING AND ROUTING**
Retail Commerce Server for Electronic Payment Acceptance captures and authorizes customer payments at the point of purchase, providing a fast, convenient and cost-effective method for processing a wide variety of electronic payment types. The solution can be tailored to help retailers achieve their business objectives from the point of transaction initiation to real-time processing to back-office settlement and collections.

Retail Commerce Server’s core switching and routing features provide the necessary tools to ensure that retailers can accommodate the consumer’s choice of payment methods. From the point of transaction initiation, Retail Commerce Server provides a software solution to securely authorize, switch and settle many types of payment vehicles including credit, debit, check, gift card, EBT, fleet and ACH, regardless of whether the payment method is magnetic stripe, chip, mobile near field communication (NFC)/radio frequency identification (RFID) or paper. Retail Commerce Server processes transactions quickly and accurately, supporting authorization switching through a primary or secondary authorization interface, or by a stand-in procedure if both providers are unavailable.

Retail Commerce Server provides a highly flexible routing structure for transactions. This flexibility not only ensures that transactions are routed to the appropriate acquirer, card association, processor or internal system for authorization, but it also helps users gain the lowest interchange charges by factoring in the total path when determining the authorization destination. Transactions are routed based on a combination of the following:

- **Bin**
- **Card type**

**FLEXIBLE AUTHORIZATION**
Retail Commerce Server supports consumer authentication and authorization processing. Authorization processing includes checking for duplicate transactions, comparing card and account limits and usages, checking account balance and performing cardholder authentication checks. Retail Commerce Server also provides stand-in capability using negative card data. All limits are user-defined to provide full flexibility in controlling the use of cards and accounts.

**INTEGRATED CONSUMER DATA**
The component architecture of Retail Commerce Server is designed for flexibility. Users can develop components that introduce external consumer data to the scripting engine which allows more intuitive authorization support. This data can be held in CRM systems, fraud management systems, customer information files, core banking systems and other applications. By exposing more consumer information to the authorization process, organizations can improve consumer relationships and manage risk, and thereby deny transactions based on certain risk factors.

**TRADITIONAL AND EMERGING DELIVERY CHANNELS**
Retail Commerce Server supports traditional POS delivery channels, including payments initiated through internet shopping networks and mobile telephones. The solution offers a powerful, flexible foundation for delivering common services across multiple consumer access channels, computer systems and databases.

Through the use of IFX- and ISO-based interface standards and other industry-specific formats, transaction services can be exposed to any channel. Thus, Retail Commerce Server can provide a single point of access across an enterprise for the service of consumer payments, eliminating the costs of maintaining multiple service points.
With the integration of the In-store solution suite, the Retail Commerce Server integration toolkit (ITK) allows retailers and POS partners to pass transaction authorizations through a common format to the Retail Commerce Server payment platform. This also makes possible the integration of the Retail Commerce Server PINComm application which can drive numerous devices that acquire the payment card data (such as PIN pads).

**RELIABLE SECURITY INFRASTRUCTURE**

Organizations’ transaction security requirements can vary greatly depending on the environment. An organization typically requires an integrated system of software, industry-standard hardware and procedures to properly implement financial transaction security.

The Retail Commerce Server solution offers first-in-class protection of customer-sensitive transaction data across multiple channels, positioning retailers to obtain PCI (Payment Card Industry) compliance. The Retail Commerce Server solution provides multiple methods in protecting and securing customer and other sensitive data as required in the electronic payments industry.

Retail Commerce Server operates in a network environment where sensitive data, such as PINs, are secured via encryption. The system provides cryptographic functions such as PIN encryption and card verification using interfaces to external hardware security modules (HSMs).

ACI has gone above and beyond the requirements including multiple encryption types and leveraging the HSM for transaction security functions. In addition, cardholder data is not the only data that is protected. Any form of ID stored within the database can be encrypted along with limited personal information such as last name and phone numbers.

Retail Commerce Server uses advanced encryption technology in securing data. Retail Commerce Server supports many encryption methods including Triple DES (3DES), DUKPT and 3DES DUKPT. Encryption of sensitive data occurs during transaction logging, event messaging, authentication and in data storage.

Retail Commerce Server security is not limited to requirements as defined by PCI. Retail Commerce Server supports AES 256 bit key storage method for card data encryption. In addition, when encrypting customer data, Retail Commerce Server includes customer’s last name, home phone number and zip code. Password protection support includes advanced security methods of storage using SHA 512 with salt.

Retail Commerce Server supports security features in different ways. Many customers choose to support transaction security via a hardware security device. Hardware security options include interfaces to devices such as the Thales, Atalla or Futurex security devices. These security devices support PIN translation, PIN verification, card verification, key generation and key translation.

The Retail Commerce Server IPA is a single purpose device that houses the In-store solution suite which in turn drives the devices that acquire the card-sensitive data. This removes the POS application and network from handling the payments portion of the check-out experience, which results in dramatically reducing the PCI scope of the POS environment.

Retail Commerce Server is designed to be flexible in its transaction security support and to provide a range of hardware options. The application addresses the diverse needs of large-scale transaction processing systems where the originator of a transaction may operate under an entirely different transaction security scheme than the authorizer. Regardless of the origin or destination of payments, Retail Commerce Server meets the latest industry requirements for security, including the Payment Card Industry (PCI) Data Security Standard (DSS), Triple DES (3DES) and EMV support.

**INTUITIVE GRAPHICAL USER INTERFACE**

The ACI user interface presents a task-oriented view of the application for multiple users, ranging from business to technical to administrative, and it incorporates graphical elements such as hyperlinks, buttons and pull-down menus. Users can also choose to display text labels in their local languages to accommodate adaptation into the environment.

Written in Java, the browser-based ACI user interface offers a flexible operating environment used by multiple ACI applications. A security administrator configures access permissions through the ACI user interface where a user security and user audit environment are shared by applications.

**EXTRACTS AND REPORTS**

Retail Commerce Server provides retailers with a wide range of reports. Support is also provided in the extraction of financial transaction data and the importing of either transaction data or consumer payment information.
SETTLEMENT
The Retail Commerce Server system provides reconciliation with third parties by generating settlement files based on a record of the transaction activity and those cleared by retailers. Retail Commerce Server now supports both terminal (trigger) and host capture methods of end-of-day payment settlement.

RECONCILIATION
Retail Commerce Server supports an auto-reconciliation process that will allow retailers to reconcile financial transactions between the merchant (POS) and Retail Commerce Server, and between Retail Commerce Server and the processor. The reconciliation import will load detailed transaction (activity) files from the POS and compare against internal Retail Commerce Server transactions. The same process will occur for one or multiple detailed transaction files from selected processors. Any transactions that do not match will be logged and reported on as exceptions. The flexible reporting can select exceptions by date range or a specific import file and further limit the result set by choosing all exception types or a single exception.

CONFIGURABLE TOKENIZATION
Retail Commerce Server provides retailers with the ability to take PCI out of scope and reduce costs by using tokenization services. Tokenization associates the card number with an alternate ID or token and securely stores both in the database. Configurable tokenization provides retailers flexibility in configuring the format of the token they wish to use. Retailers can rest easier knowing that cardholder data no longer needs to be processed in its original plaintext form, but through use of a token renders the card data useless to those looking to obtain and use this data through fraudulent means.

For retailers, tokenization will be ideal for recurring commercial customers. Retail Commerce Server will securely retain each commercial customer’s name, location information and all potential credit card numbers. The credit card numbers will be associated with a token number. The token number can be assigned by Retail Commerce Server or dictated by the retailer.

For commercial customer purchases, the token value will be used to retrieve the actual credit card number from Retail Commerce Server to submit for authorization. The actual credit card number will never be electronically transmitted between the store and Retail Commerce Server.

Tokens can be single use or multiple use as determined by the retailer. In the event that the retailer would like to assign a new token, the Retail Commerce Server In-store solution securely supports a request token (RT) message that is sent to the Retail Commerce Server payment platform.

CREDIT CARD FRAUD DETECTIONS
Retail Commerce Server reduces the chances for credit card fraud through interoperability with ACI Proactive Risk Manager™. Proactive Risk Manager provides real-time scoring of transactions prior to authorization, and includes near-real-time updates that include post-authorization payment details that are used to track buying activity. The Retail Commerce Server solution provides split-routing capabilities to facilitate this dual processing operation.

NATIONAL NETWORK AND INTERNATIONAL CARD SCHEME INTERFACES
Retail Commerce Server incorporates off-the-shelf support for national and country-specific network interfaces including Visa, MasterCard and American Express, as well as international card scheme interfaces. These interfaces are built using a framework methodology covering ISO 8583 standards. This methodology makes use of inheritance to ensure that the core components of interfaces are easily reusable. It also allows new interfaces to be built quickly by either ACI or the customer organization.

Retail Commerce Server also supports a large suite of bank processor interfaces that allow the retailer to select the most cost-effective authorization path for their business.

SYSTEM INFORMATION
ARCHITECTURE
ACI uses an object-oriented design and development style to implement the enterprise services architecture of Retail Commerce Server. The use of object-oriented programming languages, such as Java, enhances the extensibility of Retail Commerce Server solutions and minimizes time-to-market for new products and services. By extending integration flexibility, Retail Commerce Server allows access to more customer information. All of this has made Retail Commerce Server a much more versatile and flexible payment system, capable of running under a number of different operating systems (OS) and databases.
Retail Commerce Server software components use this architecture to create flexible business services that allow users to quickly develop and deploy new products and deliver enhanced customer service. The components are organized according to the function they perform to support processing for the required business services. Each business component performs a specific type of processing (e.g., authorization or routing) or controls a specific part of the file system (e.g., account or customer).

The architecture of Retail Commerce Server is designed for multiple platform configurations. The platform is defined as the hardware, operating system, middleware and file system. However, platform-specific processing is isolated into specific components to allow the rest of the application to be common across all platforms.

Retail Commerce Server software components are organized according to the function they perform, as shown in the following illustration.

**OPERABILITY**

Retail Commerce Server supports high-volume, high availability, 24x7 operability through a scalable software architecture that runs on a variety of platforms.

- Flexible journal configuration and settlement cutover — This allows for 24x7 cutover processing and uninterrupted processing across separate time frames.
- Implement new business logic without downtime — Code and file system changes that affect configuration do not require a system restart.
- Hardware resilience — The system and data access layers take advantage of each platform’s failover processing capabilities, all with the same set of application code.
- Consistent processing cost — The asynchronous messaging model of Retail Commerce Server provides a consistent per transaction processing cost regardless of the transaction volume, which allows the application to grow as needed with a predictable hardware requirement.
**THE USER EXPERIENCE**
The Retail Commerce Server user interface employs Java technologies, which provide the user interfaces needed to manage all application components.

The system’s built-in user security feature assigns users’ roles that grant them permission to specific functions and tasks associated with various windows. Users are authenticated during the logon process, thereby minimizing the risk associated with unauthorized users gaining access to functions they are not permitted to perform.

The user audit function is responsible for maintaining a secure audit database where all file maintenance transactions and modifications to the user security database are recorded. Before and after images of the affected record will be logged wherever appropriate.

The user interface design allows users to alter the layout and wording on the desktop to meet an individual organization’s needs. All text and positional information is maintained in configuration files, so adapting the user interface without altering the product code is particularly easy. This structure also incorporates multi-language capabilities.

**CUSTOMIZATION STRATEGY**
Although Retail Commerce Server incorporates many configuration options, some components are more difficult to cater to for every combination, so some customization is necessary.

The Retail Commerce Server application development toolkit was specifically created to allow users to define their own processing logic in areas of typically unique requirements. The application development toolkit is used to normalize the data that is inbound from the POS environment and format the outbound data to the unique formats of the authorization end points.

The use of object-oriented design and development and the object inheritance capability ease the process of customizing other components of the system.

When customization is necessary, ACI provides the product changes based on the approved requirements. ACI’s customization strategy of minimizing customizations and incorporating product change into product solutions, minimizes the effort required to upgrade to new releases of the product, ensuring that users can take advantage of future product developments.

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**ADVANTAGES**
ACI understands the mission-critical nature of online transaction processing. Combining the industry’s leading hardware environments with the leader in e-payment software, ACI’s Retail Commerce Server solution can grow as a business grows.

**RICH FUNCTIONALITY**
Retail Commerce Server provides full functionality to support payment transactions across multiple channels. The software is parameter-driven, allowing users to configure a system that will meet their unique business requirements. ACI’s product investment strategy ensures that periodic new releases of software provide support for both regulatory changes as well as new trends in electronic delivery. With built-in flexibility and ongoing investment, customers can be assured that their ACI software will meet both short- and long-term business needs.

**PLATFORM INDEPENDENCE**
Retail Commerce Server supports a broad range of computing environments, allowing customers to operate ACI’s best-of-breed software on their choice of industry-standard platforms. Retail Commerce Server operates on a variety of databases and platforms. On each platform, Retail Commerce Server takes advantage of the best-in-systems software for reliability, availability and high-performance throughput.

**FLEXIBLE ARCHITECTURE**
Because the design of Retail Commerce Server includes scripting support, there is little need for technical staff to have knowledge of the core languages of the application. A working knowledge of JavaScript programming methods will prepare an experienced programmer for maintenance and creation of the business logic necessary to meet the institution’s authorization processing needs.

As the Retail Commerce Server application is component-based, ACI customers have the freedom to develop components in house, which extends product functionality.

**CUSTOMER SERVICE AND SUPPORT**
ACI Worldwide is committed to providing quality products and services to its customers. According to our customer satisfaction report, ACI’s
customers believe our investments in personnel and facilities for customer service are unmatched in our industry.

As a leading international provider of solutions for e-payments, our commitment to customer satisfaction continues through superior customer service and support. With every ACI product, comprehensive support services are available to help implement an organization’s system and keep it operating at peak efficiency.

ACI recognizes its obligation to protect customers’ investments by providing resources and services before, during and after installation. Listed below are brief descriptions of the customer support services provided by ACI. Support services vary according to project status.

PROJECT IMPLEMENTATION SERVICES
These services are available to customers implementing ACI products, installing additional products or taking advantage of a new release of software. ACI offers the Project Management and Implementation Package (PMIP), which is a family of services to support customer projects.

Project management coordinates all aspects of a new customer project, including the project scope meeting (PSM); the project scope document (PSD); project plan; development, delivery and documentation of Custom Software Modifications (CSMs); registration for product education courses; and delivery of product software and manuals.

During the PSM, product consultants provide detailed product presentations, analyze the environment and recommend solutions or CSMs, and address product questions and issues that may arise during the implementation phase.

Field support analysts are available for some products to review the physical operating environment, establish a test network, install software and provide on-site assistance when the system goes into live operation.

PRODUCT SUPPORT SERVICES
These product support-funded services are available to customers after a system has been installed and are based on the relevant product support category. An extensive team of support analysts and an appointed customer manager are available to assist customers.

EXTENDED SERVICES
These are additional support services available on a chargeable basis. Extended services allow ACI customers to customize their staffing requirements by choosing the technical resources that fit immediate and long-term needs. In addition, ACI offers a full set of production support services, including application management services, facility management services, system reviews and capacity planning. Consulting services are also available to assist customers in setting up their own data center facilities.

CUSTOMER MANAGER
The customer manager serves as the customer liaison to all other support services and is responsible for ensuring customer satisfaction. Through ongoing communication and on-site visits, the customer manager assists with business planning activities and keeps the customer informed of new developments at ACI.

CUSTOMER HOTLINE (HELP24)
The HELP24 technical support hotline provides assistance in resolving product-related questions and issues. HELP24 is available 24 hours a day, seven days a week to support critical production issues and is staffed by trained engineers and product specialists who are ready to respond to the most complex issues and questions. The goal of HELP24 is to ensure that customer issues are resolved in a timely manner. HELP24 provides a secured website for customers with maintenance contracts. Using keywords, registered users can quickly search the database of more than 2,000 solutions for ACI’s products. The site also offers the opportunity to check the current status of any case, create a new case and email support information on an existing case.

PRODUCT ENHANCEMENTS
Enhancements are changes that might be made to a product in response to customer requests, ACI innovation, third-party requirements (e.g., bank processors, POS vendors and device vendors) and industry rules and regulations.

PRODUCT DOCUMENTATION
ACI products are documented by a staff of specially trained technical writers. All formal manuals are written to provide users with a complete understanding of how to use their systems to maximum benefit. Documentation is available to customers via CD-ROM, ACI’s electronic documentation system or the HELP24 InfoLink site. Documentation is not distributed on paper; however, customers are allowed to print documents...
ACI Worldwide, the Universal Payments company, powers electronic payments and banking for more than 5,000 financial institutions, retailers, billers and processors around the world. ACI software processes $13 trillion in payments and securities transactions for more than 250 of the leading global retailers, and 21 of the world’s 25 largest banks. Universal Payments —  — is ACI’s strategy to deliver the industry’s broadest, most unified end-to-end enterprise payment solutions. Through our comprehensive suite of software products and hosted services, we deliver solutions for payments processing; card and merchant management; online banking; mobile, branch and voice banking; fraud detection; trade finance; and electronic bill presentment and payment. To learn more about ACI, please visit www.aciworldwide.com. You can also find us on Twitter @ACI_Worldwide.

EDUCATION
ACI offers education courses for many products, and product education courses are open to all ACI customers. Training helps assure that our customers can effectively implement and operate their systems upon installation. Depending upon the products purchased, training may be conducted at a dedicated education facility, at one of ACI’s offices or at the customer site.

CUSTOM SOFTWARE MODIFICATIONS (CSMS)
Software customization services are available for many products when customers require software functionality that differs from standard product functions. This can incorporate developing scripts for authorization, journal query or extract processing.

TECHNICAL CONSULTING
A comprehensive set of specialized on-site technical services is available for some products. Services include design and programming support, operations, system reviews, capacity planning, software certification, installation, quality assurance testing, technical project management, day-to-day systems support and fix application support, among others, to ensure maximum efficiency in systems operations. Extended on-site support services are also available.

ENHANCED SUPPORT PROGRAM (ESP)
An ESP is available if customers need ongoing technical assistance, and this program is customized to meet their specific requirements. The program provides an assigned ESP technical consultant in addition to the standard support services. The ESP technical consultant maintains custom code, provides on-site support and works with the customer’s staff to resolve issues.