The evolution to true enterprise payments
How ACI’s Universal Payments Platform enables an enterprise payments strategy
The payments industry is undergoing unprecedented change. Dramatic growth in global payment volumes and a growing set of challenges have shaped an increasingly complex environment for financial institutions and retailers. The pressures are building: A shifting mix of payment channels, payment methods and settlement schemes. Increasing competition from new and innovative market participants. More onerous regulatory mandates. And demanding customer service expectations.

Financial institutions agree that payments represent an attractive revenue stream from both the retail and corporate banking perspectives. Retailers also stand to benefit from both the enrichment of payment relationships with customers and the ability to control the cost of those relationships.

But with today’s market conditions, unlocking these advantages can be a challenge.

Compounding the problem of industry disruption is the fact that many institutions are shackled by legacy payment systems and archaic architectures that have evolved over decades of mergers and acquisitions, changing regulations, and new products and channels. A technical patchwork of monolithic applications and outdated architectures has generated a multiplicity of problems, including:

- An inability to scale and enhance systems at the speed required to accommodate new market opportunities and demands.
- Escalating costs from duplicate hardware and software infrastructures supporting multiple payment silos.
- Costly compliance projects required every time the regulatory climate changes.
- Difficulty detecting and combating fraud across multiple payment channels and multiple front- and back-office payment systems.
- An inability to achieve a holistic view of payments information across the enterprise.

In the face of these problems, inaction can have dire consequences. As new regulatory and competitive pressures continue to tax the capabilities of existing payment systems, the problems are likely to escalate. Financial institutions and retailers, stymied by legacy systems and architectures, will find it increasingly difficult to maintain customer service levels and capitalize on new market opportunities.

Moving toward enterprise payments

Fortunately, new architectures are emerging to centralize payments management across the enterprise. Integrated payment systems promise to help financial institutions generate revenues from consumer and business transactions and harness payment information across all payment types and channels. This paper examines the ACI Universal Payments Platform, showing how the solution can be leveraged by financial institutions and retailers to accelerate their strategies and drive toward a true enterprise-wide payments system.
With the introduction of its Universal Payments strategy, ACI has made it the company’s mission to deliver the industry’s broadest, most unified end-to-end enterprise payment solution. ACI’s Universal Payments strategy is based on nearly 40 years of payments expertise and a focused commitment to develop the products and services that are instrumental in enterprise payment systems. In the face of industry disruption, ACI’s comprehensive approach helps financial institutions, processors and retailers accelerate time-to-market for new products and services, manage risks, grow revenues and increase operational efficiencies.

The realization of that mission is the Universal Payments Platform.

**The Universal Payments Platform**

The Universal Payments Platform is at the core of ACI’s strategy to enable end-to-end enterprise payments. It is a set of technologies and frameworks that orchestrate all aspects of payments processing for any payment type, any channel, any currency and any network. Combined with ACI’s leading solutions, it delivers an innovative architecture that bridges existing systems and future needs.

ACI’s Universal Payments Platform enables customers to adopt an enterprise payments strategy, moving beyond monolithic applications to loosely coupled, service-oriented solutions. Both flexible and functionally rich, the Universal Payments Platform enables institutions to evolve their payments processing from legacy platforms to a new, componentized architecture that is capable of managing payments of all types and from all channels in a consistent, efficient and profitable manner.

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How does it work? The Universal Payments Platform extracts core payments functionality from applications and exposes the business logic as well-defined, standards-based service interfaces. These service interfaces unlock the intrinsic value of the business logic and allow it to be more easily shared across ACI’s products and existing payment solutions. Approaching payments in this manner radically reduces process duplication, which reduces the need for duplicate infrastructure and ultimately leads to lower overall costs, better reuse and greater processing efficiency. Well-defined service interfaces also enable more streamlined interaction between ACI solutions and existing customer assets, preserving IT investments and shortening the delivery cycles for implementation and new product innovation.

ACI’s Universal Payments Platform paves the way to true enterprise payments. Common business logic inherent in ACI’s payment solutions, along with shared data models based on ACI’s Payment Information Model, are incorporated into the Universal Payments Platform. The result is an enterprise platform that allows financial institutions to view payments corporate-wide and implement a service-oriented architecture that optimizes business processes regardless of payment type, currency, entry channel or settlement mechanism.
Enabling technologies and components

The Universal Payments Platform provides purpose-built payments functionality, monitoring, fault-tolerance, orchestration capabilities and automated failover features to ensure the continuous availability of payments processing.

Combined with ACI’s industry-leading retail, wholesale, merchant, fraud and mobile payment solutions, the Universal Payments Platform provides the capabilities of a true enterprise payments solution. The Entity Builder, based on ACI’s Payment Information Model, defines the underlying data model and exposes the properties of each transaction. The Endpoint Builder provides interfaces and message transformation between inbound channels and outbound payment gateways. The architecture of ACI’s payment solutions exposes services containing the business logic and payments functionality. The Session Builder orchestrates all of these components to provide a flexible, user-defined processing flow.

Enterprise payments enablement

In recent years, the payments industry has given a tremendous amount of attention to the need to move to an integrated payments strategy, focusing on the concept of a payment services hub. ACI’s Universal Payments Platform is an enabler of enterprise payments that facilitates an organization’s enterprise payments strategy.

Almost all industry analyst firms contend that there is still much work to be done to get stakeholders to agree on common definitions, terminology, architecture and components of a payment services hub. Is a payment hub hardware, software or some combination of the two? Is it an architectural vision or a recipe for payment services and processing flows? Is it a channel integration platform, a services orchestration platform or both? These are all questions that industry analysts and other experts are debating.

There is no one-size-fits-all definition. In ACI’s view, a payment services hub is more of an institution-specific strategic goal than a tightly defined combination of off-the-shelf hardware and software. It is highly unlikely that a bank will find a payment services hub in a vendor’s product catalog, ready to buy and plug into the bank’s environment. Ultimately, the requirements, architecture and approach must be viewed in the context of the institution’s overall payments strategy and long-term goals. The hub is not the end-state but rather an enabler that allows financial institutions to progress along a journey toward enterprise payments. The routes taken to get there will differ considerably for each institution.

What is critical is selecting a payment solution that provides the flexibility, resiliency, depth of functionality and breadth of channels to effectively guide the institution along the journey to enterprise payments. In ACI’s view, every institution will need to adopt a strategy for enterprise payments. The strategy must envision a robust payments platform that accommodates loosely coupled components and services that can be orchestrated to provide a flexible payment solution capable of handling all payment types. Ultimately, this payments platform will need to reach from the front-office origination channels to the back office. It must support any channel, any transaction type, and any payment instrument, and enable fulfillment to any payment destination.

Enterprise payments is a strategic goal. Reaching that goal involves leveraging existing assets and implementing the strategy in phases, with pragmatic, measured steps that offer short-term wins.
Key building blocks

The following components are the key building blocks of the Universal Payments Platform.

Mission Critical Application Server

At the core of the Universal Payments Platform is the Mission Critical Application Server, a high-availability distributed runtime environment that provides a common platform for payment systems. A distributed architecture enables the solution to operate across multiple processors, servers, databases and sites while behaving as a single logical hub. This approach drives efficiency.

Entity Builder

The Entity Builder is a configuration tool that allows the creation of new payment models and allows the Universal Payments Platform to understand an infinite variety of payment types. It enables the platform to integrate new payment types faster through reuse of platform and payment services. Highlights include:

• A flexible payment hierarchy, enabling business entity types to be easily defined.
• Flexible payment terminology, with unique definition of payment types allowed.
• ISO 20022 templates.
• ISO 8583 and IFX templates.

Endpoint Builder

The Endpoint Builder is a configuration tool for quickly building networks or channels that send or receive payment information through the Universal Payments Platform. It connects the platform to new payment endpoints, devices, networks and back-office systems. Highlights include:

• Standard GUI tools to provide ease of configuration.
• Message mapper and transformation tools, plus capabilities to configure interface validation, security, audit logging, reconciliation, and transaction processing rules.
• Virtually all endpoint interfaces supported with minimal coding. This includes inbound interfaces from channels as well as outbound interfaces to payment gateways.
• PCI/DSS-compliant interfaces.

Session Builder

The Session Builder is the orchestration engine that enables an infinite combination of services in unique payment flows—all through configuration. It enables orchestration of rules-based transaction plans that drive efficiency and competitive advantage. Highlights include:

• A flexible transaction monitor to enable the definition of logic and processing rules that direct decisions about payment types and flows.
• A comprehensive participant payment processing model, enabling an organization to control unique business rules.

The Universal Payments Platform complements the existing environment.
Benefits of an enterprise payments strategy

Increasingly, institutions are recognizing the value of embarking on an enterprise payments strategy. With a well-thought-out strategy for unifying disparate payments silos, major benefits can be achieved: improved margins, new revenue gains and high levels of customer service. Major advantages to moving to an open, enterprise payments architecture include:

• A future-ready platform that enables the progressive transformation of payments functions.
• The ability to respond more quickly to mergers, acquisitions and changing regulations.
• Less duplication in hardware, software and support, resulting in lower license, development and maintenance costs.
• Enhanced risk management.
• Improved fraud detection and prevention.
• Consistent customer experiences and an integrated view of customer payments information.

A commitment to Universal Payments

ACI is fully committed to adopting and delivering the Universal Payments Platform across its products and services: it is the technical means by which ACI is fulfilling its enterprise payments strategy. The current releases of ACI’s BASE24-eps and Money Transfer System are already exposing services that are being consumed and orchestrated using the Universal Payments Platform. Product roadmaps are being updated to further exploit the platform; these updates will include new endpoint development to dramatically accelerate the building of interfaces between ACI solutions and customer systems. In addition, the orchestration capabilities of the Universal Payments Platform will be further enhanced and leveraged across ACI’s products to provide user-configurable processing flows and configurable business rules.

Through adoption of the Universal Payments strategy, ACI will provide customers with an enhanced set of capabilities to reimagine payments in meaningful ways:

• Speeding the development of connections to networks, devices and systems.
• Accelerating time-to-market when addressing new initiatives and regulations.
• Enabling new combinations of services to allow innovative payments processing.
• Leveraging the existing payments infrastructure with a modern, SOA-based approach.
• Eliminating processing silos to reduce costs and increase efficiency.

With nearly 40 years of payments expertise, ACI has earned the trust of more than 1,750 financial institutions, retailers and processors around the world. Powered by a growing product portfolio and the integration of the Universal Payments Platform, ACI is set to reward that trust with a true enterprise payments strategy.
Through its Universal Payments solutions, ACI is committed to providing customers with the control, choice, and flexibility they need to meet the challenge of change—and turn it into a competitive advantage.

**For more information** about the Universal Payments Platform, contact your local ACI representative.
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ACI Worldwide powers electronic payments and banking for more than 1,750 financial institutions, retailers and processors around the world. Through our integrated suite of software products and hosted services, we deliver a broad range of solutions for electronic payments; transaction banking; mobile, branch and voice banking; fraud detection and trade finance. To learn more about ACI and understand why we are trusted globally, please visit www.aciworldwide.com. You can also find us on Twitter @ACI_Worldwide.