

Sun Integrated Payments Solutions

Sun technology helps banks modernize payments systems

The payments industry is in an era of dramatic change, driven by turmoil in financial services, new customer and industry demands, increasing competition, technology advancement, shrinking margins, and more regulation. As an executive responsible for providing payment services, you understand that to compete, your payments infrastructure must evolve to contend with the changing industry landscape. It must grow to support new, real-time, dynamic payment services, while at the same time, drive down costs.

- Complying with initiatives such as the Sarbanes-Oxley Act (SOX) and the Single Euro Payments Area (SEPA) to bring services into alignment with regulations
- Returning to their core business of providing essential financial services to restore customer confidence and drive revenue
- Adapting to new corporate strategies and cultures after merging with or acquiring other banks

Payment solutions from Sun and Sun partners are helping banks provide the flexibility and scalability needed for today's demanding payments markets.

Highlights

- Helps banks implement powerful, cost-effective payments systems
- Replaces outdated legacy systems with open standards-based solutions
- Leverages innovative Sun capabilities such as virtualization features, energy-efficient technologies, and identity management software
- Integrates payments systems seamlessly with internal and external infrastructures, including SWIFT
- Improves performance and TCO, while reducing risks

To help you address these challenges, Sun offers the Sun Open Payments Suite (OPS). This collection of products and services provides the technological framework that can help banks transform fragmented legacy systems into secure, real-time platforms, simplify application integration, and maximize reuse of existing assets.

In response to the upheaval in today's financial services industry, many banks are making major strategic changes including:

- Reinvesting in new systems to increase efficiencies and reduce costs

- Deploying new payment and cash management services such as contactless cards, mobile phones, real-time payments, and even biometrics to attract local customers, especially in emerging markets

Faced with these significantly disruptive changes, you must evaluate whether your firm can be cost competitive in the payments business. For many managers, an affirmative decision often means modernizing their payments facility. This requires that legacy systems must be upgraded and, in some cases, replaced.

Many bank executives are satisfied with their current payments system's functional capabilities, but struggle with the system's lack of scalability, manageability, and reliability. Too often processes are interrupted, payments are lost, or the system does not properly recover from a fault. Some payment systems are slow, especially when processing high volumes of low-value payments. Banks need systems that can meet the growing transaction demands of the payments industry, at a price that matches their budgets.

Sun's approach to modernizing legacy payment systems is to create an environment that aligns the system architecture and technology to the business problem. Sun does this by drawing on years of experience helping banks design and deploy powerful, yet cost-effective payments systems. Sun's proven technologies, industry expertise, and respected partners can help you implement cost-effective, flexible, and highly available payment systems. In addition, Sun Professional Services can assist with your architectural designs, application benchmarking, and solutions integration.

Choice of strategies to meet your needs

Sun supports your specific renewal strategy with several options for helping design and deploy a new payments system. Depending on factors such as the capability of your current system, the availability of development resources, and the time frame in which the solution must be deployed, Sun offers three alternatives:

- *Upgrade* to powerful, energy-efficient Sun server and storage platforms. This option helps to improve the overall efficiency of your payments operations by increasing capacity and flexibility while simplifying system management and reducing costs.

- *Integrate* a Sun partner solution running on Sun platforms into your environment. This alternative helps to reduce risk and complexity and produces a faster time-to-market. Add new features in a phased manner as new services are needed and extend the solution with unique capabilities using Sun's innovative service-oriented architecture (SOA) tools.
- *Architect* a customized solution, creating unique capabilities that are not available from third-party software vendors. This approach can help you offer exclusive services and address unusual markets that provide a singular competitive advantage.

Regardless of whether you decide to develop a customized payment architecture, to acquire existing technology from a payments solution provider, or to upgrade your current environment, Sun works closely with you and your chosen vendors to help create the optimal payments solution to meet your unique needs. Sun experts have hands-on experience in planning, designing, implementing, and managing financial services environments and can augment the skills and expertise of your team helping to minimize the project risk.

Upgrade to a best-of-class solution

To help improve the overall performance and efficiency of your payments environment, Sun offers a wide range of servers with the transaction capacity to handle the payments operations for virtually any size bank. Sun's extensive family of entry-level, midrange, and high-end servers, as well as Sun Blade systems, helps banks upgrade to a highly flexible and manageable solution. Offering a choice of architectures — SPARC®, Intel® Xeon®, or AMD Opteron™ processors — and operating systems — the Solaris™ Operating System (OS), Linux, or Windows — Sun helps banks upgrade their legacy payments systems with a powerful, cost-effective solution.

At many banks, datacenter managers are particularly enthusiastic about the high performance, space-saving, and energy-efficient servers implemented with Sun's innovative CoolThreads™ technology. Servers, powered by Sun's UltraSPARC® T1, T2, and T2 Plus processors, deliver breakthrough performance with dramatic space and power efficiency. Coupled with integrated support for multithreaded computing in the Solaris 10 OS, banks can readily scale payments operations to meet the demands of new services and the growing volume of transactions. CoolThreads technology-based servers are ideal for banks needing eco-conscious IT functionality.

To assist with the upgrade, Sun's consultants can evaluate your system and develop a comprehensive plan to help keep your server environment aligned with your current and future business needs. Sun's expertise in installing, configuring, and deploying payments solutions on Sun platforms, helps you accomplish a successful system deployment. In addition, by identifying bottlenecks and hotspots, these experts can help uncover congestion in your payments system and improve the overall utilization of your IT assets.

Integrate an industry-leading Sun partner solution

Many payments managers prefer to acquire a self-contained, packaged solution that can be integrated into the bank's payments environment and configured for the firm's specific needs. By using this buy-and-integrate alternative, managers can implement the new payments system in a more evolutionary fashion — rather than rip-and-replace — by taking advantage of the software's many features and well-tested applications as well as Sun's extensive experience in implementing successful payment systems.

Some of the leading payments solutions vendors are also Sun partners including:

- Dovetail
- eFunds
- Fundtech
- Logica
- Misys
- Society for Worldwide Interbank Financial Telecommunications (SWIFT)
- SunGard
- VocaLink

Sun can assist in selecting the appropriate software package by sizing your production requirements and testing the performance and scalability of alternative configurations, helping you confirm that the solution you choose meets your current and future needs. While the key functions of a packaged payments solution are ready to run, the software still needs to be integrated into your environment.

Sun can help integrate the chosen packages with the appropriate Sun platforms. To assist in this effort, Sun offers a wide range of technical and business services, hands-on development centers, and product features that can help optimize third-party packages on Sun platforms and can extend the capability of your payments system to meet the unique demands of your environment. Services available from Sun include:

- Hardware and software selection
- Business process consulting
- Best practice consulting
- Reference implementations
- Capacity planning
- Performance testing and characterization
- Workshops and training

Sun Solution Centers bring together technology and expertise in simulated environments where you can envision, build, and test innovative payments solutions.

With their broad knowledge and experience designing payments industry-specific systems, Sun consultants can assess your needs, document technical requisites, and evaluate payments applications, to help align the capabilities of the solution with your specific requirements. In addition, Sun offers workshops, where you can collaborate with experts from software vendors and system integrators to develop a proof-of-concept payments solution. Then Sun assists with benchmarking and testing the solution for performance, scalability, and functionality to help you create a final design that is tuned specifically to meet your needs.

Architect a state-of-the-art solution

The Sun Consolidated Payment Architecture (CPA), shown in Figure 1, is a framework comprised of Sun's products, services, and partnerships designed to meet the needs of payment service providers. The Sun CPA helps you achieve the control, as well as the

flexibility, of a customized, purpose-built environment. Implementing the Sun CPA is accomplished with the Sun Open Payments Suite (Sun OPS), a collection of the Sun Glassfish™ Portfolio, the Sun Java™ Composite Application Platform Suite (Java CAPS), the Sun Java Identity Management Suite, and the MySQL™ database software.

Most payments solutions today are based on a service-orientated architecture (SOA) — a loosely coupled framework within which services from different sources can be combined into a coherent payment system.

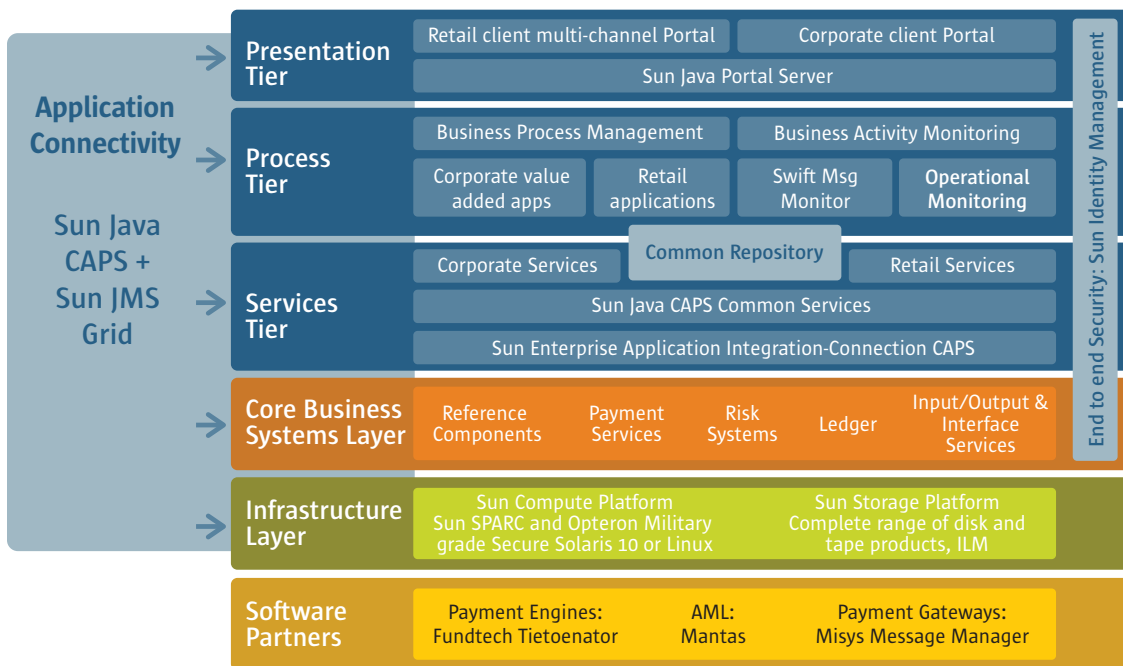


Figure 1. Sun Consolidated Payment Architecture

Java CAPS, which is included in the Sun OPS, can be used by banks to build a unique environment, or it can be used to enhance the capabilities of a third-party packaged solution. Java CAPS helps you integrate packaged payment solutions into existing payments systems, reducing the cost and effort of the system implementation. The suite also provides your IT department with a flexible and powerful set of tools to customize a new payments system to meet specific customer needs. Java CAPS helps you reuse existing investments in IT technology, thereby achieving a faster time to market for your new payment system.

The Sun OPS also includes elements of the Sun Open Suite for SWIFT, which helps payments services firms take advantage of SWIFT connectivity and management, reducing the complexity, risk, and cost of domestic and international transactions. The software helps service providers automatically audit SWIFT traffic as it flows through their organizations, helping firms to comply with international regulations.

The Java Identity Management Suite, which is also part of the Sun OPS, includes the components necessary to manage, protect, store, verify, and share identity information throughout the bank. The suite features capabilities for provisioning resources, controlling access, managing directory services, and delivering identity auditing data, helping ensure seamless, secure exchange of data. With the Java Identity Management Suite, you can integrate automated identity lifecycle management with identity auditing capabilities, making it possible to manage these processes at the business role level.

By applying the same business rules, roles, and audit policies, the suite promotes consistent enforcement of identity based controls and helps reduce ongoing operational and compliance costs.

Payment cannon offers cost-effective solution

The payment cannon is a collection of best practices for payment systems, integrated in a consistent architecture. It represents a next-generation system designed to rapidly process payments using the most cost-effective method, while performing the necessary checks and balances. The aim of the payment cannon is to process the majority of payments — those with the least risk — as fast as possible, while redirecting riskier transactions for automated or manual investigation. Through careful tuning and with the use of Sun virtualization technology such as Solaris Containers and Sun Logical Domains, the payment cannon helps banks consolidate applications onto fewer servers, lowering capital expenses and improving overall payments system manageability.

Simplify deployment with Sun™ Customer Ready program

The Sun™ Customer Ready program can help make implementing your payments system less stressful. The program simplifies the installation of your payments system by configuring, racking, cabling, and testing your system prior to shipping to your site. The Sun Customer Ready program can also integrate specialized components — even third-party hardware and software — into your system. These services create a single source for multivendor configurations simplifying management of the installation and helping reduce the time to productivity of your payments system.

Learn More

For more information, visit sun.com/solutions/landing/industry/financial_services.xml or contact your local Sun sales representative.

Built in Sun's facilities, Sun Customer Ready systems are shipped fully configured and ready to run, saving time and money, reducing risk, and increasing return on IT investment.

Payments solutions that create opportunities

As you seek to deepen your bank's value proposition to corporate clients and to broaden services in the area of financial payments, you are under pressure to improve customer service while, at the same time, reducing costs. To offer new and innovative payments services while facing enhanced regulations and increasing competition, you need to deploy systems that can expedite and optimize payments processing.

Sun's hardware and software platforms and industry expertise, in combination with solutions from Sun partners, help banks to design and deploy systems that optimize and streamline payments processing. Sun's Open Payment Suite, Open Suite for SWIFT, SOA development tools, and payments architectures help banks turn today's challenges into lucrative opportunities.