



ENTERPRISE SERVICES ARCHITECTURE FOR BANKING

Distinguishing Your Enterprise in a Challenging Market

Today, more than ever, IT and business managers must cooperate closely to ensure banks acquire the technology they need to meet the increasing and varied challenges today's market poses. Enterprise services architecture (ESA) is that technology. ESA is a business-driven software framework that offers a broad spectrum of Web-based services that you, as IT manager, can easily modify and combine to produce the business logic your bank needs.

Whether business or IT manager, you know banks face tough challenges in today's marketplace. It's an environment in which your bank must distinguish itself – and maintain that distinctive difference – by agilely meeting the challenges globalization, takeovers, and keen competition from new market entrants pose for it. Achieving such distinction requires sustained innovative power. You must be able to develop products and services for discriminating customers as quickly as possible – not just now and then but on a regular basis.

Like many banks that want to outpace their peers, yours has probably added new software and expanded its IT landscape by stitching architectures together. Mergers and acquisitions exacerbate the problem. But the requirement remains: your bank must be flexible, efficient, and responsive to address its challenges today – and tomorrow. Those many pieces of stitched-together software must be merged into an integrated whole to exploit overall software functionality as only skillful integration can do. This is your challenge.

A service-oriented architecture (SOA) with an infrastructure for Web-based services is designed to facilitate exactly this work. It's likely you have heard how SOA can reduce system complexity and maximize efficiency across your organization. However, SOA involves the infrastructure only. Impact on business functionality is limited.

Next-Generation Software for Next-Generation Banks

Enterprise services architecture (ESA) delivered by the SAP NetWeaver® platform builds on basic SOA functionality. Exploiting this architecture, you can segment functionality into reusable components called Web services and combine them with business logic to produce business-level enterprise services

representing complex business processes. These enterprise services serve as powerful building blocks for automating enterprise-scale business scenarios. The result: processes that are easy to manage and adapt. What's more, the landscape ESA supports can be maintained efficiently by fewer resources. In addition, due to cleanly defined Web services, judicious outsourcing can further trim costs while limiting compliance cost and risk.

As the central design strategy for next-generation software solutions, ESA enables IT managers to leverage existing assets while moving to network-based business activities. Within the framework ESA establishes, business managers can align their bank's IT resources with its organizational directives and practices. And by following ESA guidelines both can collaborate on software solutions that deliver the increased efficiency, flexibility, and innovation that will set their bank apart from its peers.

Turning Web Services into Enterprise Services

A Web service is a request, based on open standards, for a chunk of self-contained software that performs an action and returns the result of that action. For banks, four Web services might be: get an internal credit rating, get an external credit rating, calculate a credit score based on the ratings returned from the first two Web services, and validate the combined score. By orchestrating such Web services, ESA produces tailored solutions that answer specific business needs – in this example, approving a loan. Combining Web services into enterprise services – with business logic embedded – results in industrial-strength functions that can support complex scenarios such as staffing and materials management.

The layered structure of ESA separates role-based operations, business processes, business functions, and infrastructure. One layer can be changed without affecting the others, allowing precise adaptation of the bank's IT landscape to its needs. The changes can then be made available throughout your institution. This layered structure together with ESA's interoperability and adherence to open standards means ESA optimally supports platform migration as well as the coexistence of SAP® and non-SAP software.

You can easily integrate ESA into your bank's existing SOA, if one is in place. Many businesses have done so, introducing ESA alongside third-party infrastructures such as IBM WebSphere and Microsoft .NET. ESA is based on the same architectural concepts but comes with added business functionality. Because it supports standard, enterprise-wide services, ESA gives your bank the extra advantage of being able to adapt quickly to prevailing business and regulatory demands – while keeping IT and business budgets in line.

ESA provides strategic IT benefits such as platform standardization, quality improvement, and platform rationalization and simplification. ESA can also lower the risk, increase the speed, and reduce the cost of initial implementations. In addition, ESA can enhance business operations by improving the following:

- Process standardization
- Data availability, consistency, and sharing
- User role harmonization

Putting ESA to Work

ESA helps banks address the particularly difficult challenges posed by finance-related communication with their corporate customers. Many banks now realize that their corporate clients often miss the chance to capture value from discounts made for early vendor payments. Improved corporate control for this and other aspects of supply chain financing is a key service business managers can sell to corporate clients. Having the right functionality to provide information for participants on both sides of a trade offers opportunities for interest-rate arbitrage and can reduce fraud and credit risk.

However, most banks face several blocks to providing such a service. Common problems include reconciling invoices and standardizing customer interfaces. On top of that, banks have historically separated trade finance from cash management – activities that must finally be brought together to maximize value opportunities for corporate clients.

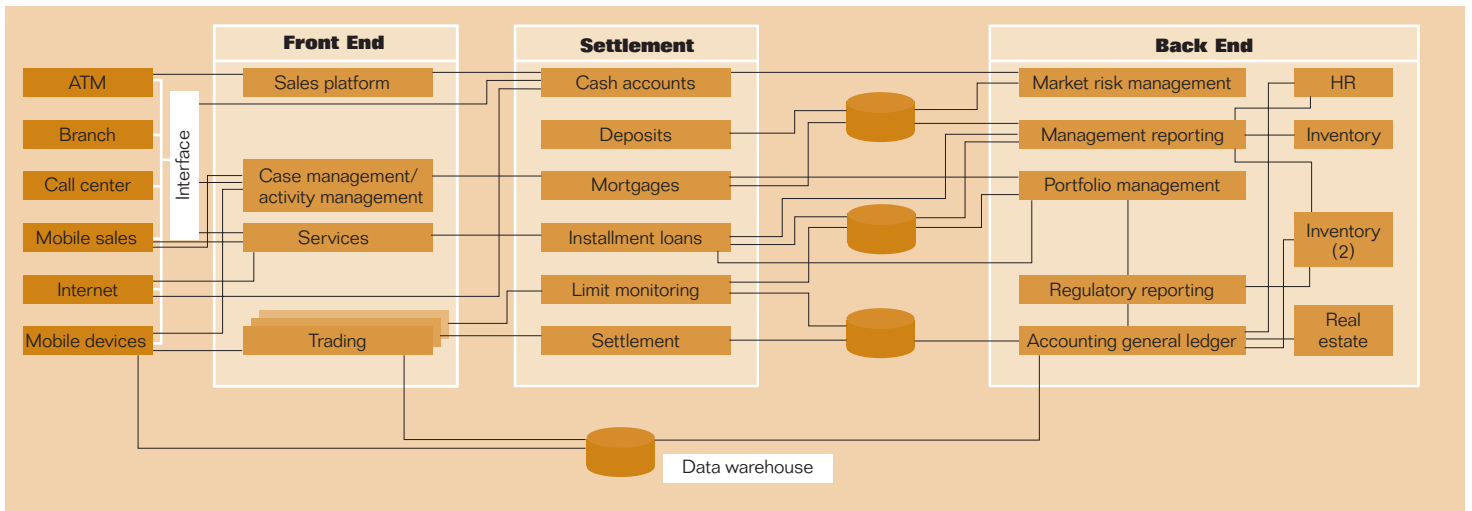


Figure 1: Typical IT Architecture

Having the right technical architecture minimizes such difficulties. By providing a framework offering SAP business functionality based on the same blueprint, ESA can standardize interfaces between a bank and its corporate customers. With the right agreements in place, the bank can interface with those corporate clients. This yields great benefits for both but is just one example of how, in taking Web services to the business level, ESA delivers financial institutions both technical advantages and business value.

ESA can help you combine and reuse enterprise services with ease. This ability can facilitate a stream of innovations and new business opportunities for existing corporate customers, enable more affordable transitions for new customers, or provide unique offers to key customers.

Helping Banks Seize Today's Opportunities

The improved efficiency that ESA provides results in cumulative business benefits for your bank.

Revenue Growth

The ability to combine services increases flexibility, which facilitates innovation and speeds new products to market. Your bank will benefit from the following:

- Accelerated integration with business partners
- Greater automation through improved straight-through processing
- Improved customer service through wider choice, better information, and easy-to-use self-services

In addition, ESA's discrete services and service-area migration allow your bank to exploit the economies of scale and synergy that mergers and acquisitions were meant to generate.

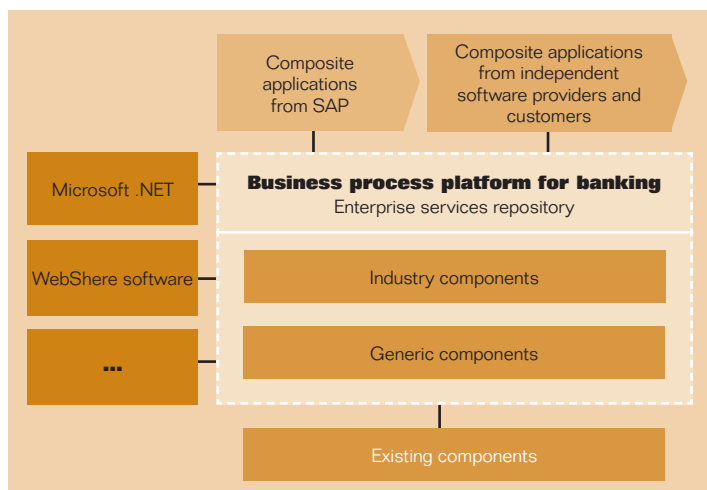


Figure 2: Enterprise Services Architecture

Cost Efficiencies

ESA improves cost efficiency by making outsourcing easier for IT executives. ESA supports outsourcing by virtue of its layered architecture, its reusable business scenarios, and its standardized interfaces and services. Because of the layered architecture, business processes can be changed without affecting existing functionality, and software can be migrated in controllable segments to ESA services and interfaces. This reduces costs and increases control over the IT landscape as its quality improves. A related benefit can be seen in heightened employee productivity and greater employee flexibility and retention. Costs sink even further with the enhancement of customer self-service options, automation, and integration.

Compliance

To meet a bank's regulatory requirements, its IT and business managers must compile information that is scattered across the enterprise and not semantically equivalent – even though the data may appear similar. This makes for difficult, time-consuming work, which means costly work.

ESA addresses this issue by enabling you to standardize – at the appropriate business level using enterprise services – common data models, semantic models, and process models. In moving to virtually real-time enterprise services with ESA, you will be able to comply with regulatory requirements more economically. ESA lets you tap business information that is timelier and more accurate, make better business choices, and avoid compliance crises that divert valuable resources. In addition, ESA makes it possible for you to adapt to changes in compliance rules and business choices as they occur.

Industry Partnership Strengthens Architecture

ESA makes it possible for banks to progress in discrete, controllable phases to the next targeted level of cost efficiency and business flexibility. To facilitate this process, SAP has partnered with major industry players to create the Industry Value Network for Banks, which was formally announced in December 2005.

The joint project has the following objectives:

- Define the structure, taxonomy, and content of ESA for banks
- Define the principal Web services for the architecture
- Establish the road map for a nondisruptive, phased integration of new services into bank IT landscapes

The effort pools industry knowledge with SAP's significant expertise in assisting banks to define the services they need for their transition to a service-oriented architecture. Service enablement of the general SAP business support portfolio is already available, and service enablement of banking-specific functionality has begun. ESA operations and execution will be available in 2006. Unlike SOA toolkits from other vendors, which require an initial investment of time to develop the relevant skills, prepackaged enterprise services from SAP come ready for installation.

Set Your Bank Apart from Its Peers

ESA is the design strategy for a service-oriented architecture that combines the reliability and comprehensive functionality provided by SAP applications with the flexibility of services based on open standards. ESA provides the means to seamlessly integrate SAP, legacy, and third-party software to enhance key processes. With the ESA approach, SAP blends technology with content, providing a business process platform that will set your bank apart from other banks.

To learn more about how ESA can help your bank meet today's challenges and opportunities, please call your SAP representative or visit us on the Web at www.sap.com/netweaver. For more information about SAP solutions for the banking industry, visit us at www.sap.com/industries/banking.

Powered by SAP NetWeaver

ESA is powered by the SAP NetWeaver platform. SAP NetWeaver unifies technology components into a single platform, allowing organizations to reduce IT complexity and obtain more business value from their IT investments. It provides the best way to integrate all systems running SAP or non-SAP software.

SAP NetWeaver also helps organizations align IT with their business. With SAP NetWeaver, organizations can compose and enhance business solutions rapidly using enterprise services. As the foundation for enterprise services architecture, SAP NetWeaver allows organizations to evolve their current IT landscapes into a strategic environment that drives business change.