



CASE STUDY

Service: Systems Development Industry: Insurance Engagement: Full Lifecycle & Mentoring

Amentra Replaces Legacy Middleware with Reusable Service-Oriented Architecture for Fortune 500 Insurance Provider

SOA DRAMATICALLY IMPROVES RATIO OF SERVERS TO COUNSELORS TO 200:1

BEFORE AMENTRA

A successful auto insurance provider had based two of its most critical systems (the counselor and internet sales systems) on an unsupported middleware platform that could no longer be maintained. The platform and architecture would not scale to meet changing sales counselor demands even if the operating system and middleware software remained under support. Sales counselors were bound to a physical machine with no load balancing or failover support and poor performance. A very small ratio of counselors to servers was supported in this system (5 to 1) and the technology in use in the middle-tier was not in use anywhere else in the organization, making maintenance very difficult for all but a select few people familiar with the product. The internet sales system was funneled through the same middleware, making it similarly lacking in scalability and fault-tolerance.

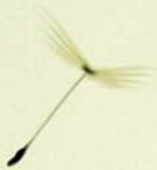
EVOLUTION OF THE BUSINESS PROCESS

The creation of a service-oriented architecture and reusable auto insurance services prompted follow on projects to take advantage of the newly shareable company domain knowledge in other applications. Some of the original siloed development processes, in which most systems duplicated a large portion of existing corporate functionality, were replaced by an open framework that could communicate across language and line of business boundaries effectively. This opened the door for the creation of other shared services on the new platform and for more business process analysis across the organization to determine the fundamental decomposition of business processes necessary to properly provide reusable insurance services to different areas effectively.

The auto insurance sales process benefited most directly in increased maintainability, scalability, performance, and fault-tolerance. This created an easier path to rollout of new counselor workstations and changes in labor force as well as variations in internet web application usage.

AFTER AMENTRA

- Call times for auto insurance sales were reduced
- All internet sales could be handled by 2 servers instead of 40
- The new middleware platform was based on a standard, maintainable technology set (J2EE), known to multiple corporate development groups and outside vendors
- The development staff assigned to the project received full training in Java, J2EE, SOA, design patterns, and many other topics vital to understanding and maintaining such high performance, fault-tolerant systems
- The new middleware servers and services were fault-tolerant, because counselors were not bound to a particular server and could continue to work even if servers went down
- A reusable, service-oriented architecture was created that could be leveraged for other projects and lines of business throughout the insurance company



APPLIED TECHNOLOGIES AND EXPERTISE

Amentra utilized its signature mentoring model and deep expertise in J2EE and service-oriented architectures, design, and development to achieve great success in this effort. The migration of the auto insurance company's COBOL, C, and SmallTalk programmers to the Java language and standard J2EE three-tier concepts, coupled with the actual migration effort from OS/2 and MQ3T to Windows 2000 Server and WebSphere 4.x was a daunting challenge. However, Amentra achieved all of these goals, along with the creation of a long-term reusable platform for future enterprise service development in a very aggressive time period (9 months).

The project relied on very new technologies and on communication between applications written in different languages. For instance, a SmallTalk client program talked to the J2EE middleware server via web services, which then communicated to the mainframe transactions (written in C and COBOL) using MQ Series. A high performance, transactional design was required for this project, so Amentra's knowledge of both relational database design and optimization and high quality J2EE implementation was an important factor in the success of the effort. The mentoring given to the auto insurance company's employees throughout the course of the project insured that they could participate at a high level in these activities and they would be able to adequately handle their own highly technical tasks and to maintain the system at project completion.

"An OUTSTANDING effort to bring home a new complex technology platform under challenging circumstances. Sales is now positioned to take advantage of this state of the art technology to retire OS/2 and MQ/3T, consolidate servers, and achieve the kind of development flexibility that will allow us to leverage our most valuable development associates to produce a wider range of business solutions faster."

- Director or Architecture for Major Auto Insurer

To find out how Amentra can help you please call 804.355.9360 or visit www.amentra.com

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TECHNOLOGY USED

- Java
- J2EE (WebSphere and WebLogic)
- Apache SOAP
- Web Services
- IBM MQ Series
- SQL
- DB2 UDB
- Open Source Projects (mostly Jakarta)

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