Service Oriented Architecture

A Service Oriented Architecture (SOA) is essentially a collection of services organized in a practical and logical manner so that it serves the needs of business and users. A computing entity communicates and interacts with another to perform a unit of work or a service. Each interaction is self-contained and loosely coupled, so that it is independent of any other interaction. Communication can involve either simple data exchange or two or more services coordinating some activity.

Web services technology is a means of connecting these services and enabling access in the platform-neutral environment of the Web. A well conceived architecture framework is a prerequisite to effectively leverage Web services technology successfully.

Web services enable enterprises to move to a SOA with a host of benefits. For example, they can consolidate process and services – similarly to how a data warehouse aggregates data – enabling them to leverage previous functionality hidden in other systems with open standards-based interfaces that can be exposed inside and outside the firewall.

Simple Object Access Protocol (SOAP)-based Web Services are becoming the most common implementation of SOA. However, there are non-Web services implementations of SOA that provide similar benefits. The protocol independence of SOA means that different consumers can use services by communicating with the service in different ways.

SOA the RCG way

The Microsoft .NET and J2EE frameworks are the base architecture models that RCG has developed and uses in providing SOA and Web services solutions. RCGIT designs a SOA solution so that it ensures complete flexibility for providers regarding implementation protocols. Our SOA solution offering is based on our agile development methodology, which incorporates the patterns necessary to produce a robust SOA. The SOA includes many of the features of currents EAI solution offerings, messaging, workflow and business process management. It also includes the external Web services now being exposed by third-party packages to create a complete view of the processes available to the business.

A traditional SOA contains several components. It can be based on n-tier architecture including presentation, business logic and data layers. In addition, it must also address management aspects for data, security, transactions, hosting infrastructure, systems and networks. The success of Web services will rely on how an existing enterprise infrastructure can be evolved to support Web services, and related tools and technologies.

An important question is how big an impact Web services will have in any given enterprise and how quick the adoption rate will be. To understand and find answers to these questions, the difference between simply deploying a Web service and deploying an enterprise class Web services architecture needs to be understood.

By providing a foundation to support and leverage Web services standards, a paradigm shift is necessary to establish an enterprise class Web services architecture. RCG’s experience designing, implementing and deploying SOAs will help you ease into your implementation with the confidence that your application is built on a rock solid foundation.

Case Studies

World-Class Car Manufacturer

Designed the architecture for a web-based dealer extranet to facilitate loan applications.

Oil & Gas Exploration Company

Developed a SOA architecture for one of the world’s largest oil and gas exploration companies that reduced integration costs by half. The SOA combined the .NET and J2EE frameworks into a seamless real-time environment.
Development & Integration
Service Oriented Architecture

Major Insurance Company
Designed and developed a web-based system to automate customer case management, new agent approvals and reporting.

County Government
Redesigned the County’s Consumer Affairs system from Access to Oracle Server 8i, .NET and Crystal Reports for .NET.

Healthcare Provider
Redesigned the Healthy Living section of the company’s Benefit Companion application for the web.

Life Insurance Company
Documented the requirements and architecture for the creation of an updated Benefits Payment Service application based on a J2EE Web services design.

Cruise Line
Developed an Enterprise .NET SOA for one of the largest cruise lines in the world

Why RCG
RCG can help your enterprise implement SOA and Web services solutions to improve operational efficiencies, communication and interaction beyond your firewall.

RCG continuously examines all of the technology components – be they people, process or technology – to ensure your success. We agree on an engagement’s success criteria upfront and contractually commit to it.

Our SOA encompasses the following major activities:
- Architecture Design
- Component Development
- Production Support
- User Support
- Governance

RCG Key Differentiators
- 37 years of service
- Business approach to IT innovation
- Over 360 clients nationwide, including 43 of the Fortune 100
- 95% repeat business
- Proven successes and methodology for implementing Business Architecture
- Business Architecture professionals with more than 15 years of practical business modeling experience
- SEI SW-CMM® assessment
- Development on-site, off-site or offshore
- Manila ODC assessed at CMMI Level 5

For more information on Development and Integration or any of RCG’s solutions, visit our website at http://www.rcggs.com or contact our marketing resource center at 800-333-7816 or solutions@rcggs.com.