



## SOA Provides Opportunities and Challenges



Joe Jarzombek, the Department of Homeland Security (DHS) Director for Software Assurance, stated that with more organizations considering Service-Oriented Architectures (SOAs) for their applications and services and with software as a service gaining traction, we need to directly address the reality that these are built on software applications and also address factoring security needs into development, acquisition, and deployment decisions. SOAs provide an avenue to develop, operate, and access distributed computing systems. While traditional quality and information assurance methodologies tended to focus on closed or tightly-controlled monolithic systems, the reality of SOA has moved us away from that conventional thinking and forced the mainstream Information Technology establishment to operate in a complex distributed computing world.

SOAs provide numerous conveniences and additional challenges along with those conveniences. As the highlighted co-sponsor for this issue of CROSSTALK, the DHS focuses on the security challenges of the enabling applications for SOAs.

With this important focus, we start this month's CROSSTALK with *The Security of Web Services as Software* by Karen Mercedes Goertzel. In this article, Goertzel stresses the need to focus on security while developing the software that enables SOAs. We take a step back with the following article to focus on enablers of overall SOA success. Grace A. Lewis and Dr. Dennis B. Smith discuss developing an appropriate SOA strategy, implementing effective SOA governance, making sound technology assessments, and accounting for the fact that SOA requires a different mindset in *Four Pillars of Service-Oriented Architecture*. Next, Michael S. Russell addresses practical applications for the warfighter in *Defining Services Using the Warfighter's Language*. Mitch Chan provides an example of a current successful application in *Applying a Service-Oriented Architecture to Operational Flight Program Development*. In our final article, *For Net-Centric Operations, the Future Is Federated*, John Michelsen suggests a system intended to ease sharing of burden for shared software services.

Total SOA Assurance represents the merging of what was considered distinct domains of computer system assurance. Quality assurance, information assurance, and operations are all merging to a place where one cannot exist without the other. The buyers of technology and consulting services around SOA must become well-educated consumers. To that end, we should focus on current and developing concepts around total SOA assurance. As the nature of future distributed computing systems will cross organizational and political boundaries, a new framework of thinking about SOA needs to begin to handle the myriad of issues that surround interoperation organizations.

As the increasingly popular delivery scheme, SOA provides the enabling framework for software applications, yet it tends to further separate the user from the enabling software. Lest this separation cause the community to forget the challenges posed and faced by all involved with the software, the articles in this issue of CROSSTALK are intended to bring some key ideas to the forefront.

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