

SOA and the intelligent network

ZapThink's Ron Schmelzer on the service-oriented network.

A noted author and SOA expert, RON SCHMELZER is a senior analyst at Baltimore-based ZapThink LLC, an SOA and web services advisory firm he founded. He spoke with F5 World's editorial director, Bill Laberis.

Q Is SOA the revolution some people make it out to be?

A Not at all. SOA is a natural part of the evolution of IT. Companies have been moving away from proprietary architectures, away from islands of IT, and away from doing integration after the fact. They are moving toward loosely coupled services from multiple systems, and toward metadata-based composition environments. They are moving toward this vision we're calling service-oriented architecture.

Q How can users expect to benefit from SOA versus what they are actually getting today?

A There are four primary reasons for SOA adoption. The first is a tactical effort to reduce the rising costs of integration in today's heterogeneous environments. Users often see quick results here. Second, users want to build shared services. What's lacking is a good reusability metric to measure success,

but most companies intuitively feel that centralization and sharing functionality is a good thing. Third, users seek a business agility benefit, since SOA enables them to make changes faster and, therefore, respond more quickly to external changes. That value is also hard to quantify, but managers just know that agility is good. And fourth, SOA helps companies exert greater control over their systems to respond to compliance and regulatory pressures like Sarbanes-Oxley.

Q What's different about the network requirements to support SOA?

A To the traditional firewalls, routers, and gateways, SOA traffic looks pretty much like any other traffic. These devices just look at where the messages are going and where they came from. They are not really inspecting the messages.

Q And that's not good enough?

A Not at all. Let's say a request for sensitive company financial data comes across. The traditional devices see it is an internal request, and often that's good enough. But you don't want just any employee making a query of any service on the network.

You have to do a deep inspection to see who is making the request and if he or she is authorized. The network has to know what level of granularity to provide each user. SOA demands message-level, content-based routing where traditional networks do only packet-based or IP routing.

Q Are you saying the service-oriented network has to be much smarter?

A The network has to become more application-aware and the application has to become more network-aware. With SOA, you do put a lot more intelligence into the network itself compared with the rest of the system, because you're trying to loosely couple system components. This is much different from the architecture of traditional systems.

Q What specifically needs to be done from an enterprise architecture point of view?

A Before aggressively deploying SOA, architects must determine the balance between distributing the logic or intelligence at the endpoints or edge and



ZapThink's Ron Schmelzer believes service-oriented architecture is "a natural part of IT's evolution."

distributing intelligence on the network message buses and service buses. There are specific kinds of functionality for doing traffic management, metadata management, or intelligent routing. You want that to reside in the network in the interests of manageability and reliability. But you need to distribute some intelligence at the endpoints, too, because users have to protect themselves from a threat-prevention perspective.

Q What do you recommend for companies planning SOA deployments?

A Start with an organizational team that combines people from different groups, including all IT factions. This is your enterprise architecture team. Give them their own budget. They'll determine what services will be produced and how to ultimately control them with their enterprise architecture plan. ✨