



ERP Suites and SOA: The Emperor's Old Clothes

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Oracle and **SAP** are both trumpeting new service-oriented architectures (SOAs) that will revolutionize how customers work with ERP suites. Both vendors' marketing departments have a history of getting ahead of development, leading to charges about the emperor's new clothes.

SOA is different. In this case, the change isn't as revolutionary as the new and improved hype would indicate. Depending on your goals, that's not necessarily a bad thing.

Wrapping the Blob

As we learn more details about Oracle's Fusion Applications and SAP's Enterprise Services Architecture, a few trends emerge. Neither vendor is rewriting its ERP suite according to SOA principles of componentization, reuse, and reconfiguration as some supply chain execution and midmarket ERP vendors have done (see the links at the end of this article for more). Instead, both are wrapping the existing code base ("The Blob"), exposing some services, and working on overhauling the user interface with their portal technology. Consider the following:

- SAP will apparently continue to have separate customer, supplier, and employee masters that must be synchronized between ERP, HR, CRM, APO, and supplier relationship management (SRM) instances.
- Oracle currently has "hundreds" of services and is exposing more by making modifications to its existing PL/SQL code base or writing new ones to access the database using Java. Undocumented interfaces will still be used internally. An SOA application's services would reflect its fundamental component design and not be added on opportunistically.
- SAP has an ABAP application server to keep its code alive, and its claim to "30,000 services" matches the 30,000 BAPIs and iDOCs that have existed for years. Again, it appears to be wrapping existing code.

Because the core code base hasn't been really opened up into separate services linked by a business process management (BPM) engine, users may not be able to customize core business processes by modifying vendor-supplied business flows or BPEL definitions, at least for the initial release. They will be able to use BPM to link parts of their Blob together or to third-party or custom applications. BPM is reduced to a coarse integration tool for extended business processes and not something to tailor the core without customizing the code. Users may be disappointed because our surveys show that reconfiguring business processes is the most anticipated benefit of SOA (see the AMR Research *Alert* article "Demand-Driven Supply Networks Require Service-Oriented Architectures").

Both companies have also invested heavily in an SOA framework for developing applications. While SAP's capabilities are just emerging and Oracle's will appeal to loyal database developers, both would have trouble in a best-of-breed contest judged by the software development staff against more focused SOA framework vendors, such as **BEA Systems** and **IBM**.

Yes, this is just marketing as usual. The emperor is not unclothed, but merely sprucing up the old suit for the time being. The real question is what companies will want to do with it. What business opportunities does it open up, what is the fastest way to get there, and do they really have to buy into their ERP vendor's strategy?

Choices, choices—if you are looking for differentiated business processes

The only reason SOA is interesting to manufacturing and retail companies is if they want to develop unique differentiating business processes to get ahead of the competition. There are three major choices you can make in this SOA opportunity:

- **Ignore it**—ERP as it works today is just what it needs and wants. Focus on getting more value out of the present capabilities and upgrade only when more functionality is needed.
- **Buy in**—Commit to the ERP vendor's SOA framework for the long haul. Start phasing out third-party portals, enterprise application integration (EAI) tools, and development tools in favor of your ERP vendor. Don't get too excited: the worst thing you can do is get ahead of their capabilities and end up compromising your goals and have to redevelop your extended application. Remember taking the first release of one of your ERP vendor's new modules?
- **Branch out**—If your ERP vendor is only part of your IT environment and you already have another SOA vendor's tools deployed, consider using those tools for your SOA vision. The existing and future exposed services of your ERP vendor will come in useful, and you can start today—without waiting for their SOA version in 2008. Aren't standards wonderful?

Most companies we talk to have yet to make this decision as they are still trying to figure out what that differentiating business process would be. All SOA framework vendors need to get more specific about use cases for SOA if they want to sell.

The good news is that the risk is low and you have time

Long term, becoming more "SOA-like" is a good thing for ERP suites, and their approach is far less risky than rewriting the entire application as an SOA-based application. As clients understand this, they usually breathe a sigh of relief and start thinking harder about when exactly they have to upgrade.

A few recommendations:

- Understand the limits to business process reconfiguration of core processes. More details will come out from each vendor over the following months and years, and we will update this assessment as they do.
- Spend time now lining up the use cases for SOA. What business processes would you like to automate, mistake-proof, measure, and extend to your business partners?
- If you have an extensive deployment of a more general purpose, SOA framework product, perhaps used to develop your customer-facing website and applications, evaluate its capabilities as well. There will inevitably be some coexistence with your ERP vendor's framework, but you may find you can accelerate the SOA project with a more mature product and existing in-house expertise.

Have you thought of any good use cases for SOA that you'd like to implement? The AMR Research SOA Team is collecting examples to help us evaluate whether SOA products are ready to support them. Please contact me at bswanton@amrresearch.com.

Finally, look below for more on specific supply chain and midmarket ERP examples of SOA-based applications:

- "The 2005 AMR Research Warehouse Management System Selection Guide," specifically the section entitled "SOA: Integrating innovation and best practices"
- "Want To Innovate Your Supply Chain? Use SOA"
- "A Viking View From IFS World Conference 2005"
- "SOA May Be an Early Hit in the Midmarket"
- "Dragging the Mayflower, Pilgrims and Kayaks, and Big Versus Little SOA"