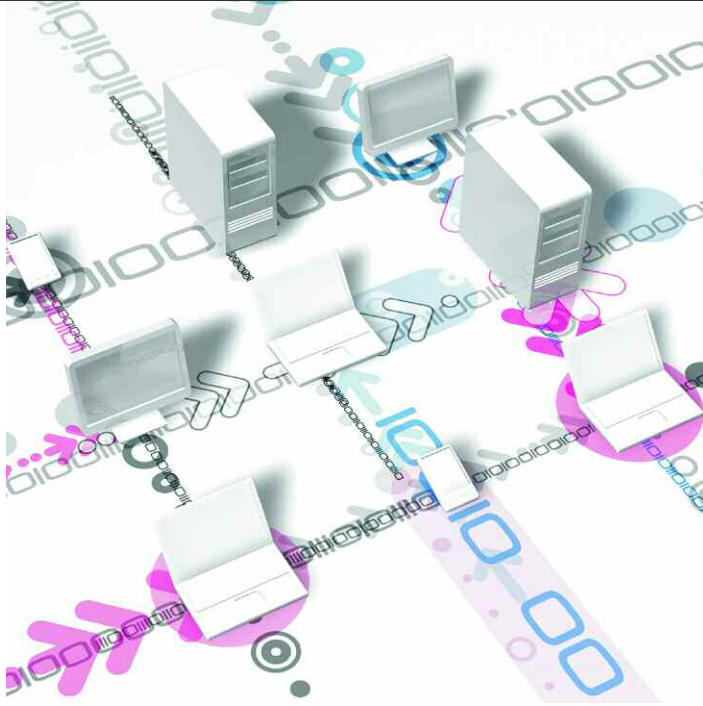


Feature



Oracle's Fusion: SOA Sweet (Suite)

By Calvin "Cal" Yonker, CedarCrestone

Perhaps, like you, my morning ritual includes a stop at the local Starbucks. But I enjoy more than a quick chat with my favorite barista and the caffeine jolt. As my venti cup makes its way to completion, I witness the fundamentals of an evolutionary technology.

Some (bored?) mathematicians have estimated Starbucks can create over one million coffee drink combinations. While this endless variety can cause early morning annoyance as you listen to the preceding patron list off the multiple adjectives and qualifiers to his order, an observant mind will question the mini miracle playing out – one million possible combinations created by three (sometimes newly trained) employees in approximately 200-square-foot of production space.

The basic building blocks to make this happen are services. As cups dance their way from order-taking to completion, you'll notice a number of stations where a particular service is performed. There's a service for adding flavored syrup, another for adding ice, still another for espresso shots and yet another for steamed milk. Each cup follows its own unique path where the right services are performed to satisfy the order requirements (*Orchestration*). A closer look at the services reveals that there is little to no dependency between the service and its preceding or subsequent service (*Loosely*

Coupled). For example, the service of adding vanilla syrup to a drink is the same regardless of the service performed before or after. And when Starbucks dreams up a new coffee drink many of the services used in its other drinks can be employed in the new drink with no modifications (*Reusability*). The result is a business that can quickly roll out new products to its customers' ever-changing desires with small investment and minimal staff training (*Agility*).

Now, you've got the basics of service-oriented architecture (SOA). Further, you've got a glimpse into Oracle's next generation technology and application called *Fusion*. And with some additional understanding of Oracle's plans, we can discuss implications for the HR community.

Fusion: Application, Technology, or all the above?

In July 2003, Oracle announced its hostile intent to take over PeopleSoft and for the next 18 months the Oracle-PeopleSoft events played out more like a daytime soap opera than a clash of software titans. Mercifully, the drama ended in December of 2004 when PeopleSoft acquiesced and Oracle got its prize.

Initially, the message out of Oracle was that the next step was to create a "super set" application that took the best of E-business suite (EBS), PeopleSoft and JD Edwards. Oracle named this application Fusion and declared the release date in 2008. Further, all its application customers would need to eventually move to Fusion as support would be discontinued. Oracle stuck with this messaging for the entirety of 2005 and the early part of 2006. For many, Oracle CEO Ellison's intent to kill off applications was sadly coming true.

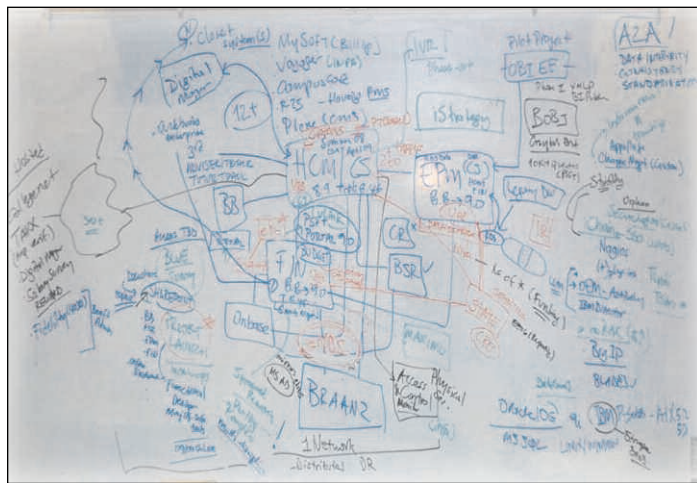
But a new strategy was developing within Oracle. At its core, Oracle is a technology company. Technology is its strategic heartbeat and applications are a secondary pursuit whose purpose is to sell more technology. Fusion applications are no different. Therefore, the SOA-based technology used to create the Fusion applications began to emerge as a central message.

We started to see this in January 2006 with Oracle's "Half way to Fusion" marketing event. Billed as an update for its customers on the Fusion application, Oracle made a subtle shift in the definition of Fusion to include the underlying SOA-based technology, as well as the super-set application. Additional evidence of the changing message occurred in April 2006 when Oracle announced "Applications Unlimited." Oracle's application strategy had shifted from a "take it or leave it" message on Fusion applications to support and extend policy on all applications. Oracle customers' reaction was relief. But for Oracle this was not simply giving customers what they were asking for. It also represented the stratagem of shifting focus away from applications and toward technology.

Oracle has evolved the messaging away from Fusion the application, to Fusion the technology. Unfortunately, the change in direction has caused lingering misconceptions and misunderstandings around the term Fusion. Oracle has attempted to clarify by branding the super-set application, Fusion Edition, and the SOA-based technology platform, Fusion Middleware. But the question remains: is Fusion an application or is it the technology? My short answer: by Oracle's definition, it's both, but primarily it's about the SOA-based technology, Fusion Middleware. My longer answer: Fusion Middleware is Oracle's next generation technology platform. Upon this platform many different applications will be built. Fusion Edition will be Oracle's next generation application designed initially for new prospects and will compete with other SOA-based applications like those from Workday. Oracle will use Fusion Middleware to develop Edge applications designed primarily for its existing client base to fill in functionality gaps within EBS, PeopleSoft and JD Edwards. Third-party vendors, independent software vendors (ISV) and system integrators (SI) will also use Fusion Middleware to create their own industry-oriented solutions. Companies will build their own composite applications designed to solve their specific business needs.

Why SOA? Solving a Business Problem

While the definitional issue of Fusion may be muddled, it's clear that central to Oracle's ongoing strategy is its SOA-based technology. To get a better handle on the implications of this strategy to the HR community, we need to understand why SOA matters. The short answer is:

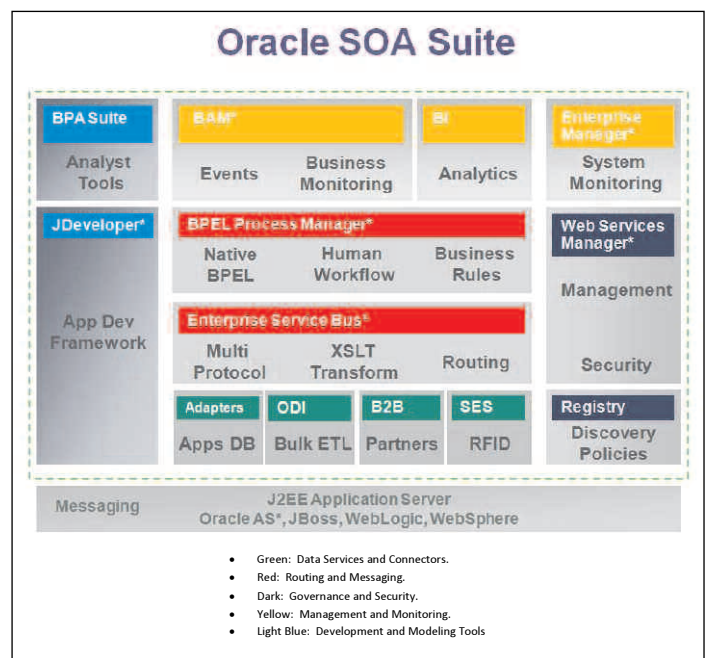


An overview of most businesses' systems would look similar to the byzantine, white-boarded example above – a structure plagued by siloed applications, point-to-point interfaces and multiple technologies.

To understand how SOA addresses these conditions, we can build on the Starbucks example and look at a few key concepts. The basic building block of SOA is a “service,” or in other words, a business process step such as “Employee Lookup.” These services are implemented in standard ways to invoke them and are loosely coupled – that is, they can be

invoked without the caller needing to understand anything about the technology choice or location of the service provider. Therefore, the employee lookup service can be called from any other business application that requires employee information. Siloed applications require different versions of code in every application stack to retrieve employee information. But in SOA there is only need for one. An obvious end result is lower cost of ownership.

Service-oriented architecture also contains a “transport” layer to allow communications between the different services, and a directory enables services to be identified and located. For SOA to be effective there are numerous other infrastructure capabilities needed, such as security, governance, versioning, auditing, management and monitoring. Fusion Middleware, specifically the SOA Suite, handles these chores and more.



Using Fusion Middleware, SOA implementations have numerous benefits. As depicted in the white board example above, many IT implementations have evolved into a set of functional silos, usually aligned with different business units. For example, a retail company may have a silo for the distribution systems, a silo for the stores systems and a silo for corporate functions such as HR and Finance. Typically, these silos were developed on IT platforms, often resulting in duplicate functionality across silos. Service-oriented architecture enables companies to avoid these duplications, creating single services shared between all applications. Reuse provides multiple benefits: reduced time and cost to implement new functions as the company's portfolio of services grow; reduced maintenance as fixes need to be applied to a single versus multiple locations; and reduced business risk as changes are made only to affected areas.

Service-oriented architecture also provides benefit through composite applications. It makes it feasible to assemble an entirely new class of business application that

combines functionality from multiple existing systems to provide end users with new cross-functional capabilities. Companies' current applications suffer a severe limitation – database orientation. In other words, an application's interface with the user is based on getting information into a database regardless of the user's role, experience or knowledge. Therefore, companies are faced with a difficult decision during implementation: modify the application (expensive) or go through rigorous training and extensive organizational change (expensive).

But SOA promises to turn this orientation upside down. Business processes and role-based participants are placed ahead of database demands. No longer do organizations need to conform to the "best practices" embedded in an application. Instead, they can create composite applications that are efficient and effective for their organization and people.

Service-oriented architecture technology is as much a complementary technology as it is a replacement technology. It is ideally suited to incremental deployment, where investment can be made on a step-by-step basis tied to individual business projects. Most companies have invested heavily in the applications and technologies that support their business. A technology whose pitch is to scrap that investment and start over is a difficult sell. But SOA doesn't ask this requirement to receive its benefits. Rather, it views the existing ERP, CRM, HCM, and other business applications as the data and business logic stores that bring its services to life. This concept, complementary technology, should be fundamental in the way we think through the HR community's approach to Fusion.

Oracle's Fusion Strategy

My perspective on the strategy is based on some fundamental assumptions. First, Oracle is a technology-driven company. It is not driven by applications as was PeopleSoft and SAP currently. Second, Oracle will proceed in a manner designed to maximize its profitability and create defensible differentiation. And finally (based on the lack of information at Open World), I do not believe the Fusion Edition will be generally available before the end of 2009.

Oracle's overriding desire is to have Fusion Middleware the *de facto* market-leading technology stack. If it can accomplish this, the other parts of the business, applications and services, will follow. To accomplish this Oracle is taking a two prong attack: first, building out a comprehensive technology stack; and second, creating real-world solutions that demonstrate the benefits of its technology.

In addition to spending considerable sums to internally develop Fusion Middleware into a comprehensive technology stack, Oracle has augmented, and accelerated, the build-out through acquisition. Some of the acquisitions include: Stellent – content management, Oblix – identity management, Sunopsis – data integration, Hyperion – business intelligence, and BEA – application server technology. All this effort and money has allowed Oracle to catch up to the other technology stack players (IBM, SAP and Microsoft).

No matter how robust or comprehensive, technology does not sell well based solely on a white paper listing the benefits. Real-world solutions, with Fusion Middleware as the technology platform, need to be created to stimulate the market into buying. To this end, Oracle has taken a multi-faceted approach:

- Delivering Fusion Edition (HCM, Financials, CRM, ERP) in the future;
- Pre-building adaptors or integrators to common applications (PeopleSoft, EBS, JD Edwards, SAP) to be used in composite application creation;
- Acquiring vertical software solutions that are, or will be, certified on Fusion Middleware (examples include: Retek – retail, i-flex – banking, MetaSolv – communications, SPL – utilities);
- Integrating with ISV products; Oracle claims 9,000 of these;
- Delivering Edge applications designed to fill out gap functionality for its application users; and,
- Encouraging partners to develop industry-based composite applications for resale.

Oracle's application strategy is similarly robust. In order of priority, its strategies are:

- Protect the maintenance revenue from current Oracle application clients. Clients continue to pay maintenance for two basic reasons. First, they need ongoing tax, regulatory and technology support. Second, the maintenance fee is an "option" for future enhancement to their application and technology. To the first, Oracle has a robust support organization. To the second, increased functionality is released in next versions. Interestingly, in the past this has been a process that takes two to three years. Based on conversations within the application groups, I speculate that Oracle will begin releasing increased functionality in a smaller, modular form at a quicker pace starting in 2010.
- Cross-sell additional applications and technology into existing client base. Key to this tactic is incorporating increasing levels of Fusion Middleware into applications. As this is accomplished, Oracle can deliver Edge applications that fill in gaps across the entirety of its application portfolio.
- Sell applications to new prospects. At least through 2009 this would appear to be EBS, PeopleSoft, JD Edwards and Siebel. Determinations of what to sell will be based on client's key functionality needs, industry and price point.

It is unclear how the release of Fusion Edition will affect Oracle's application strategy. As always, quality and functionality will have a strong effect, but my thought is that Oracle does not believe a significant portion of its existing client base will move to Fusion Edition in the next five years. For the net new market, Fusion Edition will most likely be slotted into the niche tactic explained in priority three above.

Implications for the HR Community

Determining what all this means for your company and internal HR organization depends on your situation. And so, my thoughts below should be taken strictly as thought starters.

For those that have a non-Oracle application, i.e. SAP, Lawson, etc.: If you haven't already abandoned this article due to its Oracle slant, please read on. While the specifics may be different, the themes are similar. You have similar issues: functionality gaps, ongoing gaps between business requirements and IT delivery, upgrade decisions, etc.

For those that are in the market for a new HCM application: Oracle hasn't delivered a pure SOA-based application, Fusion Edition. And if you're currently in the market, there's a good chance Oracle will not deliver Fusion Edition before you make a product decision. There are some leading edge SOA-based products on the market. In terms of decision-making, my general direction would be to evaluate these products versus Oracle/SAP/etc. based on functionality, license versus SaaS model, pricing and technology direction according to your company's requirements.

For those that have an Oracle HCM application: In terms of a three-year plan, for the vast number of organizations, Fusion Edition should not be included. There is a tremendous amount of discussion and energy around whether Fusion Edition will be a complete re-implementation from the current Oracle application. While such discussion may be interesting, as a practical matter it's a waste of energy. Given an initial Fusion Edition release date in 2010 (assumption), only the very earliest of adopters from the existing client base will move to Fusion Edition by the end of 2011.

Energy should be spent making decisions and establishing plans that decrease functionality gaps and reduce the potential of upgrading. But there is a new twist in the process – Fusion Middleware. In some cases, Fusion Middleware will bolster the case to upgrade. In other cases, it will delay the need for an upgrade. Let's examine this thought a bit further.

Upgrades are generally justified on two propositions. First, that there is a requirement to stay current with tax, regulatory and technology changes. And second, the enhanced functionality will allow the business to operate more efficiently and effectively. Fusion Middleware does nothing for the first, and complicates the second. In terms of bolstering the case, bringing the application to its latest edition will include enhanced Middleware components allowing the company to garner the benefits from SOA more quickly. As an offset, remember that Fusion Middleware is a complimentary technology, not a replacement. Therefore, the argument could be made, setting aside tax and regulatory issues, that the better approach would be to redirect the investment away from the upgrade and toward the technology and related projects designed to alleviate business process issues.

Regardless of the upgrade path, the adoption of SOA

should be on everyone's planning horizon. To determine where it fits, it's important to remember SOA's sweet spot is in the remediation of your key business processes that have one or more of the following characteristics:

- Cross applications/systems;
- Cross departments – multiple handoffs;
- Complex business rules and work flow;
- Rigorous and persistent training of process users;
- Unstructured and structured data; and,
- High volumes and/or high perceived value to organization.

For those organizations that have a SOA and related technology direction, this concept is most likely already part of the plan. For those that don't, some barriers exist, primarily around cost versus benefits. In other words, buying into an SOA-based technology platform is not inexpensive. The benefits are initially small until reuse kicks in and the full benefits are realized. Because of this dynamic, the decision is often strategic, enterprise-wide and CXO level.

But there is another way – smaller in scale, project-based and extremely affordable. The basic costs of a SOA project are the technology license, infrastructure, development and ongoing maintenance. Currently, there are options to cover the license, infrastructure, and maintenance for as little as US\$3,000 a month in a hosted environment. The development cost, assuming skills are not present within the organization, would primarily be consulting expense. There are opportunities to reduce this expense as well provided the consultancy can own, package, and re-sell your solution to other clients. Your consulting partner can help you explore this approach.

Conclusion

Oracle's acquisition of PeopleSoft touched off a massive consolidation of the technology landscape. Unfortunately, Oracle's initial communication and marketing efforts were confusing, leading to misconceptions and misunderstandings; some of which lingers with us today, especially around the term Fusion. Still, Oracle's recent actions and messaging are bringing clarity to its intent, as well as how the HR community can benefit from Fusion Middleware.

About the Author

Cal Yonker (contact@cedarcrestone.com), president and CEO of CedarCrestone, has more than 16 years of experience in management and technology consulting. Prior to CedarCrestone, he was a partner with AG Consulting and a manager at Saturn Corporation in the financial systems group. He was an original founder of Crestone International in 1995 and has held the position of CEO at CedarCrestone since inception in 2005. Yonker holds an M.B.A. from Michigan State University and a B.S. in accounting from Calvin College in Grand Rapids, Michigan.