

HP Service-Oriented Architecture (SOA)

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Frequently Asked Questions



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1. What is a Service-Oriented Architecture (SOA)?

A business's ability to respond to changing market conditions — agility — will determine its competitiveness and ability to survive. To attain agility, business needs a method of removing barriers between business and IT, and reducing the complexity of heterogeneous IT environments. SOA does this through an approach for building modular (loosely coupled, reusable) services with well-defined interfaces that encapsulate business processes. These reusable assets can be quickly repurposed and recombined to create new functionality that allows business to respond to constant change. Well-architected SOA supports multi-platform, heterogeneous environments, and accommodates new as well as legacy business systems and processes. Service-oriented architectures provide agility, stability, predictability and manageability in a highly distributed and chaotic component world.

2. What are the benefits and implications of adopting SOA for my business?

Agility, the flexibility to change quickly in light of changing business conditions, is the leading indicator of business performance. The right SOA implementation removes tightly coupled, single-use business services, high degrees of business system complexity, and high costs directly from the system, freeing up business and IT resources for innovation and increased business performance. An SOA architected on industry standards

also enables you to efficiently use your legacy systems, allowing the systems that currently run your business well to continue to do so.

Service Orientation provides business users with known services they can call upon and compose into business processes as needed — building systems that can adapt as the business changes.

3. Why should I be thinking about adopting SOA now versus later?

The era of business system silos is ending, and SOA adoption is paving the way to business agility and increased business and IT alignment. Business system architectures currently implemented inhibit agility:

- Legacy systems control critical business processes, and cannot simply be ripped out
- It takes too long and costs too much to develop completely new systems
- Web services implementations are difficult to manage
- Business system silos are too difficult and expensive to maintain

Businesses know they want to respond more quickly and effectively to change, but need a vehicle that supports well-architected, reusable, managed, and loosely coupled services with enhanced security features enterprisewide, enabling changes targeted where they will be most effective. According to some analysts, more than three-quarters of the world's largest businesses will adopt SOA enterprisewide by 2007.

The sooner a company embraces SOA the sooner they can begin to realize the many benefits to their organization. In addition, some specific trends which enable SOA adoption are listed below.

- The need for business flexibility is causing SOA to overtake Web services as the leading architectural priority.
- The standards for defining and accessing services are becoming widely deployed. These are the web services standards such as Simple Object Access Protocol (SOAP) and Web Services Description Language (WSDL).
- Integration between business processes that were not required initially when an application was first implemented, are making traditional integration "after the fact" expensive with existing integration technology and traditional applications. SOA is a new architecture model that will help business processes change more rapidly.

4. What did HP announce around Service-Oriented Architecture (SOA)?

HP announced a comprehensive suite of SOA consulting SOA services, worldwide SOA competency centers, SOA training universities, and deeper SOA industry relationships that complement HP products, services and

capabilities, offering customers choice and best of breed technologies, with the deepest skills in architecture and multiplatform environments. The new services and competency centers build on HP's existing consulting services, management software, and SOA capabilities.

1. HP has formalized its experience in SOA with 7 new consulting services that provide a full lifecycle for SOA implementation to support our customers as they build an Adaptive Enterprise, designed around a process of envisioning, mobilizing and synchronizing business and IT requirements around a consistent methodology:

- SOA Envisioning Service
- SOA Assessment Service
- SOA Governance and Architecture Services
- SOA Enablement Service
- SOA Service Development Service
- SOA Software Development Service
- SOA Management Service

2. HP has launched 4 SOA Competency Centers in France, Japan, India and the United States, staffed by SOA experts, to support client acceleration of SOA adoption, including customer briefings and customer proofs of concept. The centers are staffed with HP and partner SOA experts, offering customers access to deep architecture and consulting skills, software and hardware for demos, workshops and proof-of-concept activities.

3. HP, acknowledging our customers live in a heterogeneous world, uses technologies from Microsoft, BEA, SAP and Open Source, with HP OpenView SOA Manager and HP server and storage products.

HP provides a complete end-to-end approach to SOA including management, security, governance, web services and SOA architecture capabilities. The HP Services approach to SOA is the framework for the HP Adaptive Enterprise vision.

5. How is the HP approach to SOA unique in the marketplace?

HP offers:

- a. Customer Choice: HP offers enterprise customers unique SOA value through a choice of leading middleware providers, and talented architects with exceptional skills in multi-platform environments and business systems, with a comprehensive suite of SOA services.
- b. SOA Experience and Expertise: People, process, technology and partners to drive business agility to build an Adaptive Enterprise with customers.
- c. The power of the HP portfolio: Services, management software, world-class server and storage products that

deliver on SOA, bringing depth in architecture and solution delivery for managed, governed SOA implementations with enhanced security features.

6. What is involved in adopting an SOA?

While there are many purely technical responses to this question, SOA is a both a business process and IT decision. For our response, we will use the metaphor of remodeling an existing structure.

The first step in SOA adoption is to prioritize the business process areas that are impeding agility the most. Once those impediments are identified and prioritized, the architectural plans can be drawn, similar to the plans one would see during a structure remodel. A key architectural design point would be how much of the structure we are going to remodel — if we use the metaphor of the campus of a large company, we could select an office, a building or the entire campus. In the business systems world, this might constitute a systems project, an entire line of business system, or the entire enterprise.

The architectural plans for the remodel would take into account that others would have to continue working in the building during the entire remodel process. Rules and regulations, management plans, and other policies are drawn at the same time so that the people, processes and technologies involved can be regulated and managed in a successful, risk averse and cost-effective manner — one that won't cause a complete work stoppage while construction is being done.

In the next phase, which is the longest phase, infrastructure and existing structures are tested and reworked to prepare for the new construction, and any changes that have to be made to existing systems are made. Services and software are developed, implemented and tested. Security and management software is implemented, and the people, processes, sites and other elements are also secured.

In the final phase, the new building is maintained and managed by a highly effective system, in our case HP OpenView SOA Manager. Highly skilled people and detailed processes allow for constant change in an Adaptive Enterprise built on SOA.

In highly effective SOA adoptions, the key element of success involves implementing business process changes that will have the greatest effect on the business — in terms of agility, performance, return and risk.

7. How can I get started evaluating an SOA approach?

In highly effective SOA adoptions, the key element of success involves selecting business process changes that will have a significant effect on business agility. Start with an HP SOA Agility Assessment to show you which business and IT processes are fast and slow to react to change. We will help you compare the agility of critical business and IT processes to other businesses in your

industry, and arm you with the statistical research needed to develop a strategic SOA plan to synchronize business and IT to capitalize on change.

Some customers have chosen to start with a proof-of-concept (POC) based on HP OpenView SOA Manager. These POC's can last from 4-6 weeks, and are often based on a single business process. During the POC, several aspects of SOA are incorporated in this high-level solution, and yield a result that can help you get to the next level. We will help you assess the value of the POC, and plan for the next set of business processes to be delivered through a project with a larger scale and size. A SOA Manager POC is an easy way to start small and expand as you develop confidence in SOA and HP.

8. Why is HP Consulting and Integration the right choice for SOA?

1. While HP has been providing these services for the Adaptive Enterprise, formalizing them as SOA services supports our customers' requests for a single vendor to take SOA leadership for their multi-platform, heterogeneous environments.
2. Business realizes that agility is the leading indicator of business performance. SOA is critical to increasing agility, driving ownership of business services to the business process owner as tightly coupled, single-use business services, and high degrees of complexity and costs, are driven from the system. HP is the only company who can measure agility and use it to pinpoint the business process "hot spots" that clarify a customer's roadmap for change.
3. HP offers all the critical elements for successful SOA implementation: end-to-end SOA services, choice in middleware vendors, HP OpenView SOA Manager and world-class server and storage products. HP is the .NET Prime Integrator for Microsoft, Strategic Integrator for both BEA and SAP, and a member of Open Source.

HP offers:

- Proven expertise in SOA in heterogeneous operating environments and multiple platforms — J2EE and .NET
- Choice — HP offers the ability to choose an integration platform from one of our best in class technology partners: Microsoft, BEA, SAP, Tibco, WebMethods
- IP Assets — pre-integrated web service stacks (J2EE, .NET, Open Source), business process automation
- People — 2,100 Project Managers, 1,300+ Solution Architects, 5,000+ Application Services professionals in Global Delivery, 5,200+ Microsoft Certified Experts, 3,000+ SAP Certified Experts, 300+ ITIL Mastery Certified Experts

- Process & Methodology — HP Global Methods (for solution architecture, for project management), Certifications (CMMI Level 5 Certifications, ISO 9000, JBOSS, BEA, Microsoft, SAP certifications), HP Professions (Architect, Project Manager, Microsoft Technologist, etc.), extensive global delivery operations, 4 SOA Centers of Expertise
- Technology — HP Software (HP OpenView, SOA Manager, OpenCall), HP Imaging & Personal Systems, HP industry standard servers and storage, pre-certified integrated Open Source, J2EE and .NET application stacks
- Partners (both ISV and SI) — Global Prime Integrator for Microsoft .NET, Strategic integrator for BEA and SAP, and alliance agreements with Deloitte Consulting, Accenture, BearingPoint, and CapGemini

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