

INSIGHT

EDS: Vendor Profile Series for SOA Service Offerings

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IDC OPINION

In early 2007, EDS launched a major investment program for service-oriented architecture (SOA), supported by the vision to develop a cohesive SOA approach that builds on the firm's core competence, its Agile Application Architecture, and relationships with the Agility Alliance partners. IDC has made the following observations:

- ☒ Leveraging its expertise in infrastructure platforms and application management, EDS relies on its Designed for Run strategy to build SOA-based solutions that cost less to operate and maintain throughout the life of the solution.
- ☒ Application modernization is a key core competence of EDS and to support this effort within an SOA framework, EDS has reengineered the use of technologies such as performance testing, interoperability testing with hardware and software products, developer best practices, configuration and support guides, and so on.
- ☒ EDS is focusing on building industry registries that define business component models down to services at a more granular level. These prebuilt assets will enable EDS to accelerate its delivery of solutions to clients.
- ☒ EDS is planning to invest in business process management (BPM), more specifically to enhance the human workflow automation and process modeling/simulation features and continue developments of key industry-specific offerings such as the Agile Card Utility and the Defense A3 platforms.
- ☒ EDS aims to differentiate itself in the market as "doing SOA better" than others through reliability, security, and performance.
- ☒ EDS' strong foothold and relationship of many years with the public sector — in the United States as well as in the United Kingdom — is a distinct feature that sets it apart from many of its major competitors in the SOA space.
- ☒ The Agility Alliance is a point of differentiation for EDS in that it allows the firm to stay abreast of new product developments and strategies by working with the product managers of its leading technology partners such as Cisco Systems, EMC, Microsoft, Oracle, SAP, Sun Microsystems, and Xerox.

IN THIS INSIGHT

This IDC Insight profiles EDS by describing the company's SOA capabilities with respect to its service offerings around SOA. IDC examines EDS' overall SOA strategy and marketing messages, new developments and investments, SOA-specific services portfolio, key methods and tools used in SOA engagements, competitive differentiators, and strengths and challenges.

This document is a part of a series of profiles of major service vendors in the SOA market; the other vendors that will be featured are Accenture, BEA Systems, Capgemini, CSC, Deloitte, HP Services, and IBM Global Services. Subsequently, all of these profiles will be published together in one major report, which will include a competitive analysis of these different service providers.

SITUATION OVERVIEW

About EDS

EDS (NYSE: EDS) is a leading global technology services company delivering business solutions to its clients. EDS founded the information technology outsourcing industry 45 years ago and, today, it delivers a broad portfolio of information technology and business process outsourcing (BPO) services to clients in the manufacturing, financial services, healthcare, communications, energy, transportation, and consumer and retail industries and to governments around the world.

Based on its total service revenue of \$19,911 million in CY07 (IDC estimate), EDS continues to be one of the top three service vendors in the world, with a workforce of 139,000 employees in 65 countries (as of February 2008).

SOA Vision and Strategy

Until last year, EDS has kept a rather low profile and understated presence in the SOA marketplace. But in early 2007, the firm launched a major investment program for SOA with executive support from Charlie Feld, executive vice president of Applications Services. The vision is to develop a cohesive SOA approach that builds on EDS' core competence and leverages its relationships with the Agility Alliance partners. The main objectives of the SOA initiative are:

- ☒ Establish credibility of EDS to design, develop, and maintain SOA architectures with clients and with industry analysts
- ☒ Differentiate EDS in the market as "doing SOA better" than others through reliability, security, and performance
- ☒ Integrate EDS' approach with modernization initiatives and other applicable EDS service offerings

Future Strategic Direction

Today, EDS is mainly focused on driving ROI and managing the long-term costs of SOA-based solutions. This work is taking place within EDS' Designed for Run initiative (further discussion follows). In addition, EDS is planning to invest in business process management, more specifically to enhance the human workflow automation and process modeling/simulation features and continue developments of key industry-specific offerings such as the Agile Card Utility and the Defense A3 platforms (see discussion that follows).

SOA Marketing Message

About SOA

"IT modernization is the challenge of the decade and SOA is the critical enabler of this modernization.

Modernization is a journey that requires the right architecture. Renewed legacy systems and newly developed functionality can be integrated to work in new ways through SOA. ... as SOA becomes a critical enabler for agile business processes, enterprises must take a holistic approach to modernization."

About EDS and SOA

"EDS understands networks, infrastructure, server utilization, and virtualization. We have the IT outsourcing and applications management knowledge that are critical to understanding how to incorporate legacy systems as part of your service-oriented solution. We approach the engineering of SOA-based solutions with the long-term costs in mind. Our solutions are Designed for Run, which means our clients' business reaches new performance levels with the right balance of speed, cost, and quality."

Major SOA Investments and New Developments

Five Work Streams

In response to its new vision, EDS formed five specific areas to build on the firm's SOA foundation and maximize resources and investments in key areas. These five work streams are intended to support those areas of SOA that EDS considers most important for the success of an SOA implementation. The five work streams are as follows:

- ☒ Enabling Technology and Service Management (define SOA technologies and tools, including service management platforms; create reference architectures; and validate products from major SOA software vendors)
- ☒ Reuse Behavior and Culture (define culture and reuse goals, including roles, expectations, skills, change management, and training; and establish a corporatewide Reuse Repository of reusable assets for EDS)

- ☒ Governance and Policy (define governance and service policy processes and models to ensure alignment of SOA projects; the model is closed loop and addresses the entire SOA life cycle; more than 2,000 process components in business process management notation have been compiled)
- ☒ SOA Partner and Acquisition Plan (establish relationships for joint marketing opportunities, product agreements, and pipeline discussions with EDS' vendor partners in the Agility Alliance [so far, Oracle, TIBCO, Microsoft, SAP, Sun, and Cisco have been leveraged for SOA-specific developments])
- ☒ Market Facing Offerings (deliver a pure SOA offering, referred to as Integration and SOA Services [ISS], with focus on assessment, design and development, and management; the ISS offering concentrates on EDS' best practices and thought leadership in SOA to demonstrate the company's breadth and depth of integration and SOA expertise, emphasize security as a high priority, and provide a foundation and process for performing quality, value-add integration and SOA assessment, etc.)

Enabling Legacy Resilience

Application modernization is a key core competence of EDS and to support this effort within an SOA framework, EDS has reengineered the use of the following technologies:

- ☒ Evaluation and functional testing of the product
- ☒ Performance testing
- ☒ Interoperability testing with hardware and software products
- ☒ Product stack certification on standard EDS configurations
- ☒ Documented bill of materials
- ☒ Developer best practices and configuration and support guides

Business and Technology Services

In addressing the alignment of IT and business issues, EDS has made further investments in its Business and Technology Services (BTS) offering, which enables a client's modernization program. Lasting about 4–24 weeks, EDS assists clients with their strategic IT planning and business process modeling, providing detailed enterprise architecture and IT governance recommendations, along with enterprise transformation road maps, to enable their SOA journey within a modernization context.

Enterprise and Industry Frameworks

EDS applies the Enterprise and Industry Frameworks (EIF) not only to build its SOA-based solutions, but also to bridge the gap between IT and business strategy in a specific industry, using a top-down approach. These frameworks consist of knowledge-based assets and architectures that document and portray the processes

and related IT components in a particular industry. Most important, they enable EDS to harness IT capabilities in order to deliver business value to clients, consisting of:

- ☒ Industry insights, including industry points of view, trends, and drivers
- ☒ Industry standard models, including business process models and business component models, which define the candidate services to be consumed within an SOA
- ☒ Industry reference architectures

Right now, EDS is focusing on building industry registries that define business component models down to services at a more granular level. These prebuilt assets will enable EDS to accelerate its delivery of solutions to clients.

"Designed for Run" Strategy

Leveraging its expertise in infrastructure platforms and application management, EDS relies on its "Designed for Run" strategy to build SOA-based solutions that cost less to operate and maintain throughout the life of the solution. There is a strong focus on virtualization techniques (for storage, servers, and applications) to obtain a high level of infrastructure efficiency and use of network appliances (e.g., Cisco, ACE, XML, and Gateway) in order to move functions such as XML transformations, compression, and so on off the more expensive application servers to the network.

Key Industry Offerings

Defense A3 — Agile Applications Architecture Platform

EDS is investing to build a Defense A3 platform that will serve as a lab for demonstrating its solutions to the public sector — both in the United States and outside. It is primarily being built to serve the UK Ministry of Defence and the U.S. government.

Agile Card Utility

With this multilayered card platform, different functions are isolated into separate layers in order to provide financial institutions agility and flexibility while interactions outside the processing engines are standardized to make interfaces more straightforward. Both core and extended systems and processes are transparent to the user. The platform also allows process improvement services to be plugged in (e.g., call center services or back-office workflow functions).

EDS User Experience Team

EDS is reinvesting in its user experience capability by developing a proven design process with the help of its User Experience team, represented by information architects and designers, to provide interface design service for Web applications, information-rich Web sites, and Web-based multimedia. EDS' applications engineering team is also assessing user interface visualization and prototyping tools to better serve the market.

Integration of Delivery Teams

EDS has more tightly integrated its various delivery teams that focus on business process reengineering, enterprise architecture, IT strategy and integration, and SOA design and build services.

EDS Infrastructure Portfolio

With business users' ability to construct applications under a mashup approach, there is an expected demand for an SOA infrastructure to enable the development of these mashups. Thus, EDS is actively investing in the engineering of virtualization technologies to optimize the infrastructure layer.

Global Testing Offering

Leveraging its strong testing service capabilities (mainly as a result of the acquisitions of MphasiS and RelQ Software), EDS has enhanced its global testing offering to include SOA-specific testing principles, practices, and tooling.

Training

EDS has invested in additional training for SOA consultants and hands-on practitioners plus SOA immersion training for the delivery organization, ranging from architecture to methodology and hands-on, product-specific information.

SOA Marketing

The go-to-market plan for SOA has been created to leverage EDS' SOA initiatives and investments. It includes the creation of an SOA-themed site on the firm's Web site, along with a series of white papers, presentations, and case studies, with focus on EDS' SOA thought leadership and experience.

Key Service Offerings

EDS is primarily an outsourcer, offering an extensive portfolio related to infrastructure and application management. However, the firm also provides consulting and systems integration services. EDS' key service offerings are:

- Business and Technology Services engagements.** Lasting from 4 to 24 weeks, these services address clients' modernization needs in which EDS consultants having strategic planning and business process consulting expertise provide detailed enterprise architecture and IT governance recommendations along with enterprise transformation road maps.
- Integration and SOA Services.** These services focus on the design and development of clients' core SOA infrastructure. This offering includes three major packages:
 - Integration and SOA Assessment services:** This consulting-led engagement analyzes the client's current environment and develops a road map for implementing and moving the SOA enterprise to a desired, future state.

- ❑ **Integration and SOA Design and Development services:** This consulting-led engagement involves design, development, and implementation of integration services and/or SOA solutions, including interfaces, adapters, process automation, and Web services.
- ❑ **Integration and SOA Management services:** In this field-operations-led engagement, EDS provides ongoing support for an integration service and/or an SOA solution.
- ☒ **Composite Applications and Portal Services.** These services enable users to make faster, better business decisions by leveraging their organizations' applications, information, processes, and communities of interest through a single point of access — where content and services are available to employees, partners, and clients anytime, anywhere in a secured, personalized way. Special service offerings include:
 - ❑ **Assessment services:** These include strategy and architectural assessments.
 - ❑ **Development and Deployment services:** These focus on architecture design and strategy, user experience, Web parts and portlet development, search technologies enablement, and identity management and directory services enablement.
 - ❑ **Management services:** These include hosted solutions enablement and hosted SharePoint services.
- ☒ **Applications Modernization Services.** Using a holistic approach to modernization, EDS leverages these service offerings plus the rearchitecture and replatform of legacy code services. Main offerings include:
 - ❑ **Applications assessment:** This assesses and rationalizes the applications portfolio and determines the business, functional, technical, and financial value of applications in the portfolio.
 - ❑ **Modernization road map:** This defines the path to the agile enterprise by applying modernization strategies to each application.
 - ❑ **Business case and ROI:** These develop the business case/s for change and the execution of a multiyear modernization program.
 - ❑ **Modernization program management:** This manages the modernization journey.
 - ❑ **Application modernization projects:** These execute the modernization strategies defined in the road map for specific applications or group of applications as projects under the guidance of the modernization program.
 - ❑ **Change management:** This manages organizational change and transforms the business operations.

- ☒ **Network Services.** These services develop and engineer the network to drive higher levels of performance, reliability, and scalability and to support the implementation and management of network devices for robust and secure services and to achieve better performance.
- ☒ **Grid Computing Services.** These services are offered by EDS to help clients enhance their value of SOA. To achieve cost reductions, EDS made investments in the processes and automation required to manage its delivery of grid-based services, enabling the firm to perform at a predictable and high standard of operation with less overhead.
- ☒ **Outsourcing Services.** As a major outsourcer, EDS offers a large services portfolio related to infrastructure and applications management. The offerings most often combined with EDS' SOA-related services are:
 - ☐ **Datacenter modernization services:** EDS combines these services with applications modernization services to form a suite of complementary services supported by multiple architectures (e.g., SOA) and engineering capabilities.
 - ☐ **Web-hosting services:** EDS provides the full spectrum of managed services for Web-enabled content and site management using the latest automation and virtualization technologies and delivery paradigms such as database, middleware, and SOA infrastructure application support.
 - ☐ **Applications outsourcing services:** As part of an outsourcing contract, EDS assists clients in modernizing their applications (and often infrastructure) by, in many cases, leveraging an SOA approach in order to generate increased value to the client.
- ☒ **Training Services.** EDS does not provide standard training programs related to SOA but does offer customized training in specific SOA subject areas, such as developer training, for the use of common SOA-enabled services.

Key Methods and Tools

EDS takes advantage of a diverse set of tools for SOA projects that it has developed over the years to support its services portfolio, but the firm has also created SOA-specific methods or frameworks:

Industry-specific frameworks are specific to an industry and sometimes an industry segment. For example, in transportation, EDS has defined the passenger airline framework. In government, numerous frameworks have been developed to support areas such as revenue and tax, welfare and benefits, defense, Homeland Security, and so on. These industry frameworks form the basis on which EDS creates a strategic SOA road map and outlines how clients can reach their goals.

Enterprise and Industry Frameworks are horizontal frameworks, such as CRM, finance and accounting (F&A), HR management, and supply chain management, which can be applied across all industries. They provide reference architectures to analyze the current environment and develop a future (to-be) enterprise architecture;

they also help identify and/or develop reusable components that can be used by different clients in the same industry, resulting in cost savings.

Agile RightStep Framework is applied in the delivery of services, covering all elements of delivery, from transformation planning through service management. It describes the "what" as well as the supporting processes (the "how") of the work to be done. It is an IT planning framework that demonstrates how IT initiatives, such as SOA, can be linked to enterprise goals. It is mapped to multiple benchmark and industry enterprise architecture frameworks (e.g., DODAF Federal Enterprise Architecture and TOGAF) and approved by The Open Group for IT Architect certification.

Integration and SOA Services Method contains the detailed processes needed to design, build, produce, and manage EDS' SOA solutions and examples of deliverables and templates to help accelerate delivery in the field.

Business Value Framework is used in the assessment phase to identify value measurements and capture key baseline metrics.

Agile Application Architecture (A3), already discussed earlier, is also applied in the assessment phase, representing conceptual models, strategy papers, and technology policy to provide key references for creating the transformation plan and future enterprise architecture.

Global Applications Delivery–Quality Management System is applied in the design, development, and implementation phase in order to build and implement SOA-based solutions on a global basis with a high degree of consistency while minimizing deployment risk.

SOA Maturity Model (developed with Oracle) captures information and metrics from both the technology and business domains and comprises a set of criteria, parameters, and factors that can be used to measure and describe the degree of complexity involved in implementing SOA. The purpose of the model is threefold: to understand the current state of SOA implementation and measure the degree of readiness to adopt SOA, to provide guidance to SOA implementation by focusing on key areas and disciplines, and to understand the impact of SOA on the client organization.

SOA Governance Model addresses the governance model needs of an organization to drive further value to the business.

Competitive Differentiation

- ☒ The Agility Alliance is a point of differentiation for EDS in that it allows the firm to stay abreast of new product developments and strategies by working with the product managers of its leading technology partners such as Cisco Systems, EMC, Microsoft, Oracle, SAP, Sun Microsystems, and Xerox. EDS regularly drives product requirements with these partners to better meet the needs of its clients.

- ☒ More so than most service providers, EDS stresses the technological underpinnings of SOA, such as infrastructure, network, server utilization, and virtualization, because they represent the basis of the firm's core competency. Few firms can offer the same level of breadth and depth of technology expertise that EDS can to benefit SOA clients, especially with its access to technology partners in the Agility Alliance.
- ☒ EDS' strong foothold and relationship of many years with the public sector — in the United States as well as in the United Kingdom — is a distinct feature that sets it apart from many of its major competitors in the SOA space.
- ☒ EDS also plays a major role in the airline industry, for which it has developed a unique AirlineSOA industry offering, a hosted platform built for high performance, reliability, and security. It is a framework for integrating business-critical, always-available, and high-performance systems using standards such as SOAP and XML and industry-generic formats for managed services. EDS has served major airlines such as U.S. Air, Continental, and Lufthansa, recently announcing it has managed the orchestration of 37 million transactions.
- ☒ EDS is primarily recognized in the marketplace as one of the leading IT outsourcers as opposed to a major consulting firm or systems integrator. In the SOA market, EDS' brand image is therefore mainly associated with application modernization and/or management.

FUTURE OUTLOOK

IDC applauds EDS for building its SOA competency over the last couple of years to join the rest of the major SOA service providers. It has succeeded in developing a comprehensive set of service offerings that combines its technology prowess along with its process and industry capabilities.

The firm has been very wise to concentrate on what it does best: to primarily be a technology advisor and provider by focusing on service-oriented infrastructure services and incorporating SOA in clients' application or datacenter modernization programs and on its various outsourcing offerings such as Web hosting and applications outsourcing. And by being consistent with its long-standing strategy to help clients leverage their existing IT investments, EDS has won kudos from many customers.

Despite its SOA capabilities, EDS has largely remained "under the radar" in the SOA marketplace. Its marketing efforts around SOA could therefore be stronger. As the second largest services provider in the world, the firm needs to launch an aggressive marketing campaign about its SOA strategy and services capability in order to gain recognition as a major SOA provider. Even if the firm continues to benefit from doing SOA work for its existing clientele, it behooves the firm to pursue and win new logos.

Despite an economic downturn, EDS is likely to do well because of its strong foothold in the government sector — a sector that will remain a strong prospect for growth despite a looming recession. In particular, EDS is most likely to benefit from a recent initiative, the Federal Enterprise Architecture (FEA) program, by a few U.S. agencies,

to use enterprise architecture as the underpinning of federal technology contracts. EDS' role in the U.S. public sector also translates into opportunities from government agencies overseas, which continue to be one of the most active adopters of SOA. EDS should be able to take advantage of its presence in both the Europe, the Middle East, and Africa (EMEA) and Asia/Pacific to support SOA initiatives among different government agencies in these two regions.

IDC believes that EDS has an excellent opportunity to leverage its IT acumen by driving the convergence of Web 2.0, SaaS, and SOA. IDC is interested in finding out how EDS will position itself in the next few years with respect to this convergence — it is incumbent on the firm to make an official statement and develop a clear message around this emerging trend, which could be an important growth opportunity for EDS.

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