

# Enterprise Architecture Techniques for SAP Customers

*by Derek Prior*



Enterprise architecture has rapidly matured in recent years as a business-driven technique to provide companies with the big picture needed to optimize long-term IT investments. Some of the leading SAP customers have been quietly deploying enterprise architecture techniques to transform their business and prepare for SOA. Why haven't you?

## Acronyms and Initialisms

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ADM	Architecture development method	ERP	Enterprise resource planning
BPM	Business process management	ISV	Independent software vendor
CMDB	Configuration management database	ITIL	IT infrastructure library
CRM	Customer relationship management	PPM	Project portfolio management
DMTF	Distributed Management Task Force	SOA	Service-oriented architecture
EA	Enterprise architecture	TOGAF	The Open Group Architecture Framework
EAF	Enterprise architecture framework		

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To address and prepare for the enterprise-wide impact of service-oriented architecture, SAP customers need to fully embrace enterprise architecture techniques, tools, and strategies.

The  
Bottom  
Line

## Executive Summary

As **SAP** customers contemplate the gradual move to service-oriented architecture (SOA), a whole range of additional technology challenges arise for strategic deployments of SOA across the whole company and all of its IT silos. The only way to properly address these enterprise-wide challenges is to adopt a totally business-driven enterprise architecture (EA) approach.

Enterprise architecture provides a big picture of an entire IT strategy for optimizing a long-term decision-making framework when multiple deployment routes exist. These EA techniques can benefit SAP customers with strategic business transformation projects or business-IT unification initiatives, as well as those undertaking strategic SOA deployment planning.

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## EA—what is it and why bother?

Much has been written about the need to align IT with business strategy. Smart companies strive to blend business management excellence with IT best practices for strategy and execution. This is not just to be cost effective, but also to transform business models and leap-frog competition. As AMR Research has pointed out, these two disciplines must not be merely aligned, they need to be united (see “IT and Business: Don’t Align—Unite!”).

Just how should large enterprises with a huge investment in packaged enterprise applications, especially ERP, try to unite business and IT? Isn’t it much easier said than done?

Success starts with building a master plan. This requires a holistic, business-driven big picture called an enterprise architecture framework (EAF), or blueprint. This is a first step toward formally capturing, describing, and governing the way all IT capabilities across the enterprise are organized and delivered to meet the strategic goals of the business.

### The long and winding road

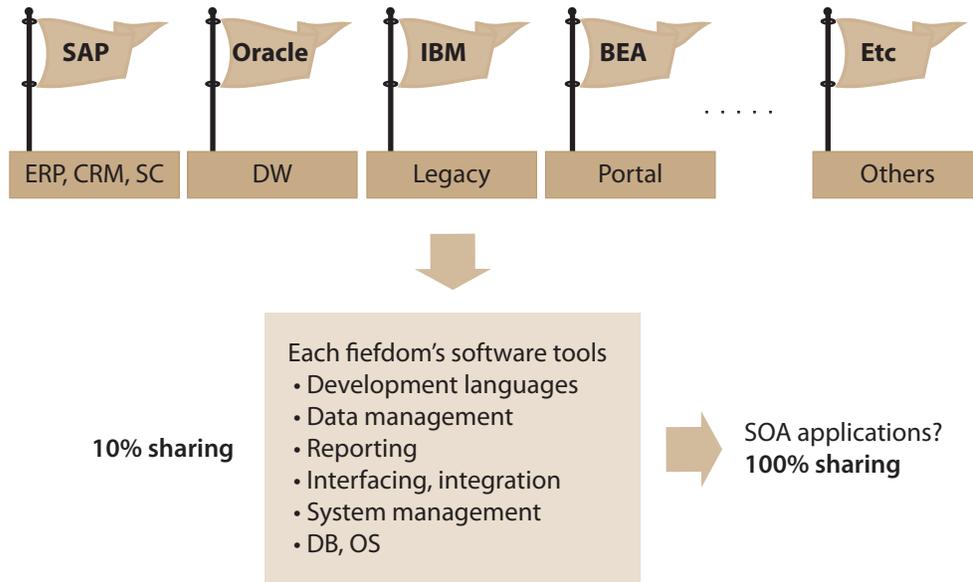
EA is not new. It started in the 1980s, but until recently EA was very technical and used more by companies building instead of buying business application software. Its focus was more on the documentation of IT systems rather than the planning and optimization of future IT roadmaps. In recent years, EA has integrated business thinking and philosophies as a much more logical starting point, evolving into an essential tool to help implement business strategy.

John Zachman is widely credited as the godfather of EA. His pioneering Zachman Framework took an engineering approach to establishing a classification scheme for descriptive representations of EA. This framework includes both business models and technology models. A complete EA blueprint needs such a framework, plus policies, specifications, and standards for all IT choices within an enterprise. An EA blueprint usually starts with the current state (as-is) and additionally describes one or more potential end states (to-be). The engineering analogy is actually a very good one. Every single branch of engineering is ruled by discipline and methodology, especially for design. EA tries to adopt such rigor to fully describe and manage the IT big picture.

### The typical IT department

When we look into the typical IT department of any large enterprise, what do we observe? We typically see something like depicted in Figure 1.

**Figure 1:** Fiefdoms within IT



Source: AMR Research, 2007

The number of discrete silos are better understood as fiefdoms, to borrow a quaint medieval English term. Each fiefdom is self-contained, has its own lord of the manor, and often fights the others for power and influence. Sounds just like IT. Each IT fiefdom has its own unique approach to software development, integration, reporting, system management, etc. It is typically very difficult to share expensive skills across these fiefdoms. Some of these fiefdoms could be legacy software, and some could be custom development. Others revolve around key software platform vendors, like **BEA**, **IBM**, **Microsoft**, and **Oracle**. Typically, one of the larger fiefdoms is the SAP packaged applications fiefdom.

Now, if fiefdoms work efficiently, where is the problem? It's called SOA. Initial deployments of SOA can be handled just like any other new technology, using the classic pilot approach. However, deploying SOA strategically across the enterprise requires crossing and unifying all of these fiefdoms, since strategic SOA deployments rely on 100% sharing of service definitions—across 100% of the company. That said, the business semantics of integration do not magically disappear with its introduction. The only way to overcome these hurdles is to include SOA specifications for all business services within an EA framework for the entire enterprise.

Existing SAP fiefdoms are all client-server architecture, which has worked well. However, as SAP customers move toward SOA, they will need to manage not only SAP Solution Architecture, but also overall enterprise architecture.

A 2007 survey on EA by **Infosys** of 262 architects and decision makers said the top three objectives from an EA approach were:

- Enable business and process flexibility
- Simplify technology and applications portfolio
- Better align business and IT organizations

At the same time, the biggest three benefits currently being realized from EA initiatives were:

- Reducing IT costs
- Enabling business and process flexibility
- Enabling business and process change

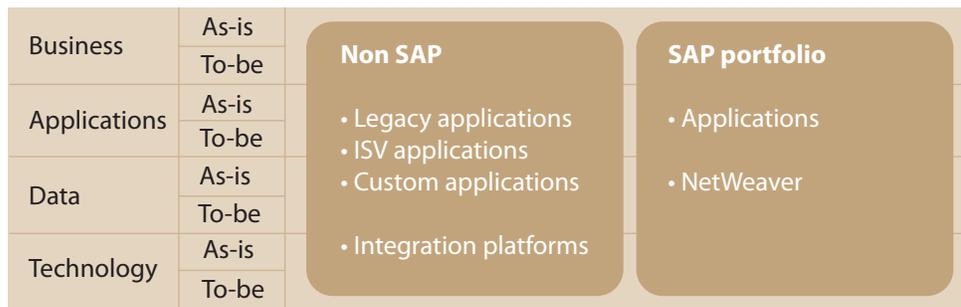
These aspirations mirror the feedback from pioneering companies to AMR Research about the positioning of their current EA initiatives. They clearly reflect that EA has evolved to become a business-driven big picture. This observation is reinforced by findings from the survey that 36% of respondents have representatives of their EA teams actively participating in their company's strategic business planning meetings. It is therefore vital that EA forms a basic building block in the CIO's strategy to ensure that IT is professionally organized and managed. EA therefore plays an important role in IT governance, which enables companies to maximize the effectiveness of their total IT investments for the business.

The project portfolio management (PPM) process within IT governance is vital, but it has a limited scope and a short-term focus, which is selecting and managing IT projects. As we have seen, EA focuses on the whole company over the longer term. A good EA blueprint ensures that all the applications and systems in the company work together to efficiently support both today's PPM requirements and future innovations. For a broader discussion of IT governance, see "How Leading Companies Unite IT With the Business."

## Enterprise architecture methodologies

Building and maintaining an EA blueprint requires a proven EA methodology, and a number of standard methodologies do exist in various industries. AMR Research clients are most likely to encounter TOGAF from The Open Group, which is currently on version 8.1.1. EA frameworks typically contain four classic categories or layers: business, applications, data, and technology (see Figure 2).

**Figure 2:** The key layers of an EA framework



Source: AMR Research, 2007

In the typical EA framework, the to-be endpoint is usually three to five years out. As we shall see, a number of generic EA software tools have existed for many years, and they make it much easier to maintain all of the EA blueprint models and documentation. They also provide powerful decision-making tools to analyze alternative routes in moving toward the to-be end state. The problem is that there are always many alternative routes. The right tradeoff analysis tools permit decision-makers to rationally select the best overall route with respect to multiple conflicting criteria.

## Enterprise architecture software tools of the trade

The most popular EA methodology for AMR Research clients is The Open Group Architecture Framework (TOGAF). SAP has built an EA framework that extends TOGAF to include SAP Solution Architecture. A number of software vendors and systems integrators have developed specialist tools to aid analysis, modeling, and documentation of EA. Virtually all of them support the TOGAF methodology, and some of these can also link to SAP Solution Manager.

SAP has introduced its own EAF method, which is also based on the open TOGAF architecture development method (ADM) and was co-developed with **Capgemini** to specifically integrate SOA patterns from its inception. SAP EAF, version 1.0, was introduced at SAPHIRE 2007 and already over 60 customers have been piloting it. The basic SAP EAF method uses SAP's previous Accelerated SAP (ASAP) documentation approach; it includes roadmaps, steps, reference architecture documentation, and accelerators. These are all maintained within SAP Solution Manager (release 4.0, Service Pack 12), which is SAP's standard customer tool for aiding the implementation, support operations, and knowledge management activities throughout the SAP enterprise application lifecycle.

The SAP EAF method is free to all customers and has UML exports that can be used with standard EA independent software vendor (ISV) tools. Version 2 of SAP EAF is expected to include more detailed reference models and an SAP application to act as a dashboard for monitoring and managing all SAP EAF content.

In an attempt to kick-start real usage of SAP EAF, SAP has introduced specialized training courses and certifications for associate, professional, and master levels all for SAP EAF. SAP has also recruited globally 72 experienced enterprise architects to help customers and consulting partners apply SAP EAF.

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## **From SAP Solution Architecture to enterprise architecture**

Imagine the headquarters of a typical large enterprise SAP customer. Most such organizations have EA teams as part of their IT department. Back in the SAP fiefdom, there are SAP Solution Architects that know the architectural possibilities within the SAP fiefdom and SAP product range, but there are no enterprise architects that manage architecture for the entire organization.

When customers decide to implement standard SAP packaged business applications, many architectural decisions are effectively outsourced to SAP's developers. This reduces the number of architectural decisions the customer needs to make, speeding the implementation process itself. Table 1 summarizes the main architectural choices that typically remain to be made by the SAP Solution Architect.

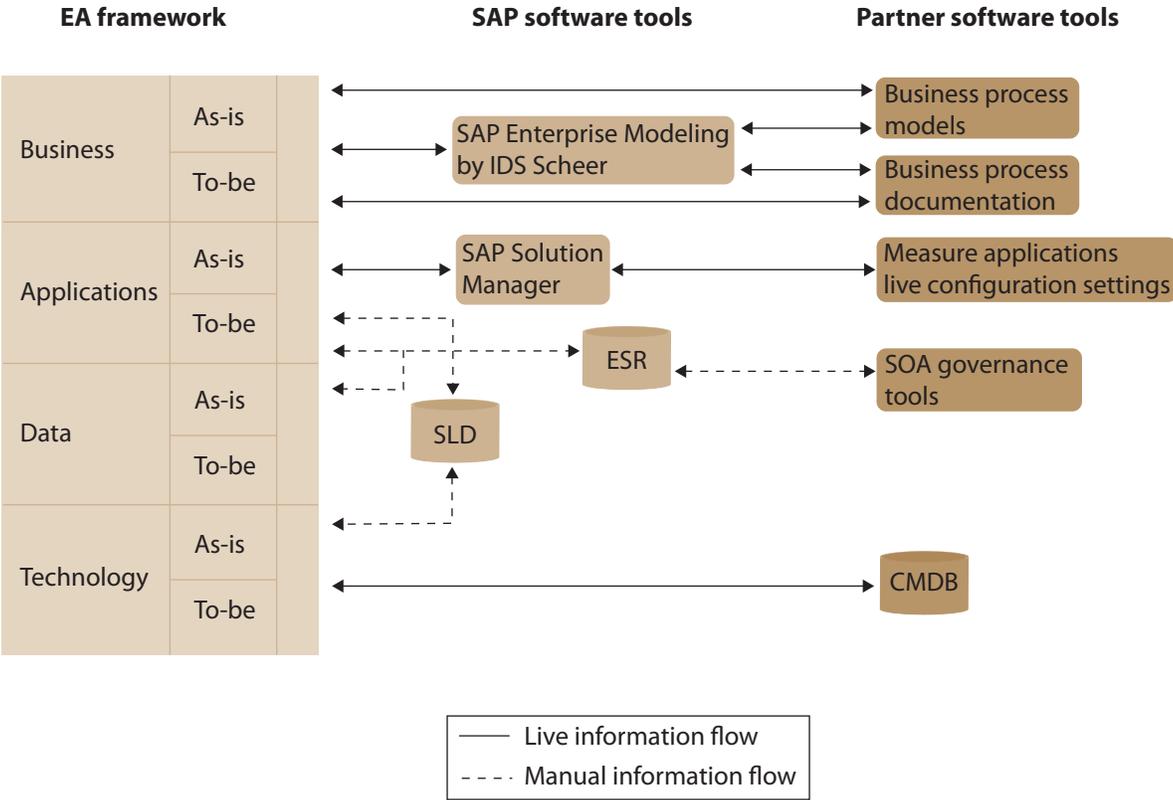
**Table 1:** Customer decisions with SAP Solution Architecture

EA Level	Architecture Parameter	Examples
Application	SAP applications implemented	SAP ERP, xRPM
	SAP application modules implemented	SAP ERP Financials, Manufacturing
	SAP application customization strategy	None, extensive
	Number of instances per SAP application	1, 10
	Number of instances per NetWeaver IT Scenario	1, 5
	Number of non-production instances per production instance	3, 10
	Number of interfaces per SAP application	1, 200
	SAP program development strategy	ABAP, Java
	Additional SAP application operations tools strategy	None, by operations type
	SAP instance virtualization strategy	None, SAP Adaptive Computing Controller
Data	Master data management strategy	By individual SAP application, SAP MDM
	Production instance data replication strategy	None, synchronous copy for disaster recovery
	Addition of custom data tables	None, carefully controlled
	SAP application data models	No control
Technology	Platform operating system, database servers	Microsoft Windows, Linux
	Platform operating system, application servers	Unix, Linux
	Platform operating system virtualization strategy	None, VMware
	Platform database server resilience strategy	None, clustered
	Platform database	Microsoft SQL Server, Oracle
	Platform hardware vendor	HP, IBM

Source: AMR Research, 2007

To manage SAP Solution Architecture, SAP and its ecosystem partners offer a broad range of software tools, documentation, and communities, but these are fragmented. Figure 3 maps many of these products within the context of the four levels within the EA framework.

**Figure 3:** Software tools connected with enterprise architecture



Source: AMR Research, 2007

## Business architecture tools

At the business architecture EA level, SAP sells SAP Enterprise Modeling by **IDS Scheer**, which provides very detailed business process graphical models based on event process chains. IDS Scheer offers a broad range of enterprise architecture tools, including modeling, simulation, and optimization, which integrate with SAP NetWeaver as well. Many SAP customers simply use generic graphical tools like Microsoft Visio and PowerPoint to describe their business architecture and Microsoft Office to actually document it. To assist this documentation, SAP provides a surprisingly large range of options:

- Industry solution maps
- Cross-industry solution maps
- Infrastructure and service maps
- Solution Composer
- SAP Service Marketplace

SAP has also introduced a Business Process Expert (BPX) online community geared to the specific needs of business architecture for SAP applications.

Figure 3 shows an important link that should exist between the EA framework and any generic business process management (BPM) software tools used. Business process modeling is common to both initiatives, although not all such models are directly executable. While this is not relevant for EA programs, it does matter for SOA deployments, which need to be model driven. So EA requires static models of business processes, whereas SOA needs dynamic, executable models of business processes. For the former, SAP has a longstanding partnership with IDS Scheer (ARIS for SAP NetWeaver). For the latter, SAP is developing its own BPM execution engine, project Galaxy, for integrating model-driven SOA execution into its NetWeaver 7.1 SOA platform.

## Application architecture tools

At the application architecture EA level, SAP provides the optional free-with-a-maintenance-contract SAP Solution Manager product to maintain application configuration settings (see “SAP Solution Manager: What Is It and Who Needs It?”). However, very few SAP customers use the multipurpose Solution Manager product in this way, as their huge number of configuration settings were made in implementation projects before Solution Manager was introduced.

To help solve this problem, a small number of partner ISVs have developed software tools to measure and analyze the application configuration settings contained within live SAP applications, especially SAP R/3 and SAP ERP. SAP resells the SAP Reverse Business Engineer (RBE) developed by the German ISV **IBIS Prof. Thome**. Another is an extensive toolset based on LiveModel, developed by **IntelliCorp**. Both products can populate or re-document Solution Manager application configuration settings.

As mentioned already, a number of generic software tools can directly maintain the artifacts, models, blueprints, and documentation needed to fully characterize an EA blueprint for an individual company (see Table 2).

**Table 2:** Leading enterprise architecture tools ISVs

Vendor	Product Name	Interface to SAP Solution Manager?	SAP-Certified Interface?	SOA Artifacts?
Adaptive	Adaptive EA Manager	No	No	Yes
alfabet	planningIT	No	No	Yes
Avolution	Abacus	No	No	Yes
Casewise	Corporate Modeler	No	No	Yes
IDS Scheer	ARIS Solution for EA Management	Yes: ARIS Suite	Yes	Yes
Mega International	Mega Modelling Suite	Yes	Planned	Yes
Proforma	Provision Modeling Suite	No	No	Yes
SAP	Enterprise Architecture Framework	Yes	Yes	Yes
Telelogic	System Architect	No	No	Yes
Troux	Troux Architect	No	No	Yes

Source: AMR Research, 2007

Another very important tool provided by SAP, free with a NetWeaver license, is the SAP Solution Landscape Directory (SLD). This Java software component keeps track of the many SAP software components currently installed within an SAP customer's landscape, plus their interdependencies. It tracks software versions and patch levels, plus technology layer details about the servers they run on.

Using this product fully requires more than 50 separate software components to be deployed and carefully managed. SLD is based on the Distributed Management Task Force (DMTF) industry standard. SLD automatically tracks actual installed components and can compare them with the latest available versions from SAP. SLD, which is closely integrated with Solution Manager, is an optional component but mandatory for NetWeaver XI/PI installations. It contains much useful information about the application and technology EA layers.

### Data architecture tools

Few architectural decisions are to be made when implementing SAP applications at the data architecture EA level, as the data models are the intellectual property of SAP. SAP has a small number of ISV partners that specialize in copying subsets of master and transaction data from production instances to supporting nonproduction instances, such as **Gamma Enterprise Technologies**.

Virtually all SAP customers currently operate client-server architecture business applications. When SAP customers introduce SOA-based composite applications, they will need to carefully manage SOA models and definitions within their EA frameworks. As Figure 3 shows, the SAP NetWeaver Enterprise Services Repository (ESR), once installed into the landscape, will become a vital source of EA information at the application and data levels using classic service provider/consumer definitions, which have company-wide ramifications for reuse and duplication. In terms of communities to exploit enterprise SOA, SAP offers the Enterprise Services Community model for the rapid identification and development of new, customer-driven enterprise services. SAP has a formal method for adding these to the standard ESR.

### Technology architecture tools

At the technology architecture EA level, the SAP SLD plays a role, but a bigger potential contribution is offered for SAP customers in integrating their configuration management database (CMDB) software tools, if they have them. A CMDB is a repository of all infrastructure hardware and system software components used within the IT infrastructure library (ITIL) framework for the configuration management service delivery process. Leading ISVs for CMDB products include **BMC Software**, **HP**, and **IBM**. While there are invariably no direct information flows yet between these CMDB

products and EA software tools, there is a major area of metadata overlap from the enterprise architect's point of view. One exception is the **Avolution** Abacus EA tool, which does have such a CMDB interface.

For developers of add-on software components and integration scenarios based on SAP NetWeaver, SAP has long provided the SAP Developer Network (SDN) community.

## Enterprise architecture strategies for SAP customers

Knowing the main strategies for starting to adopt an EA approach is especially pertinent in view of the fact that most SAP programs deployed to date by SAP customers have not yet started. AMR Research identifies three basic perspectives for starting to use EA techniques:

- An integral part of a strategic new business transformation program
- An enabler of a strategic new initiative to unite business and IT
- A precursory step to strategic deployment of SOA

Major SAP investments are likely to be at the heart of all three perspectives for SAP customers.

### Strategy 1: Strategic business transformation

The fundamental starting point for any EA initiative has to be the business strategy. Large investments by SAP customers are very often made to enable a vital business transformation, which simply has to work. The problem is that there are often many different ways of deploying IT to successfully enable such a transformation. A properly executed EA initiative can provide the big picture and framework to select the best overall route.

#### *Case Study: Birmingham City Council's SAP-based transformation project*

Question: "How do you roll out a very large SAP implementation project?" Answer: "Very carefully." Carefully usually means on time, on budget, and with wildly happy users. But what if that large project is a core part of an enterprise-wide transformation plan that needs a coherent EA blueprint on completion? For most large SAP implementation projects, that is a bridge that spans too far, but not for the Birmingham City Council in the UK.

The Council is the largest local authority in Western Europe, with over one million citizens as demanding customers and over 700 business services to fulfill. It juggles this with the demands of the UK's National Transformational Government strategy.

To meet the needs of this demanding initiative, on such a large scale, the Birmingham City Council decided that it needed to embark on a multimillion-pound program to:

- Transform the way it delivers services to its customers
- Transform the way these services are supported internally by its employees
- Develop a world-class IT capability

The result is the Service Birmingham joint venture, launched in April 2006 as a strategic partnership between the Birmingham City Council and **Capita**, a provider of complex and large-scale services to both local and central government in the UK.

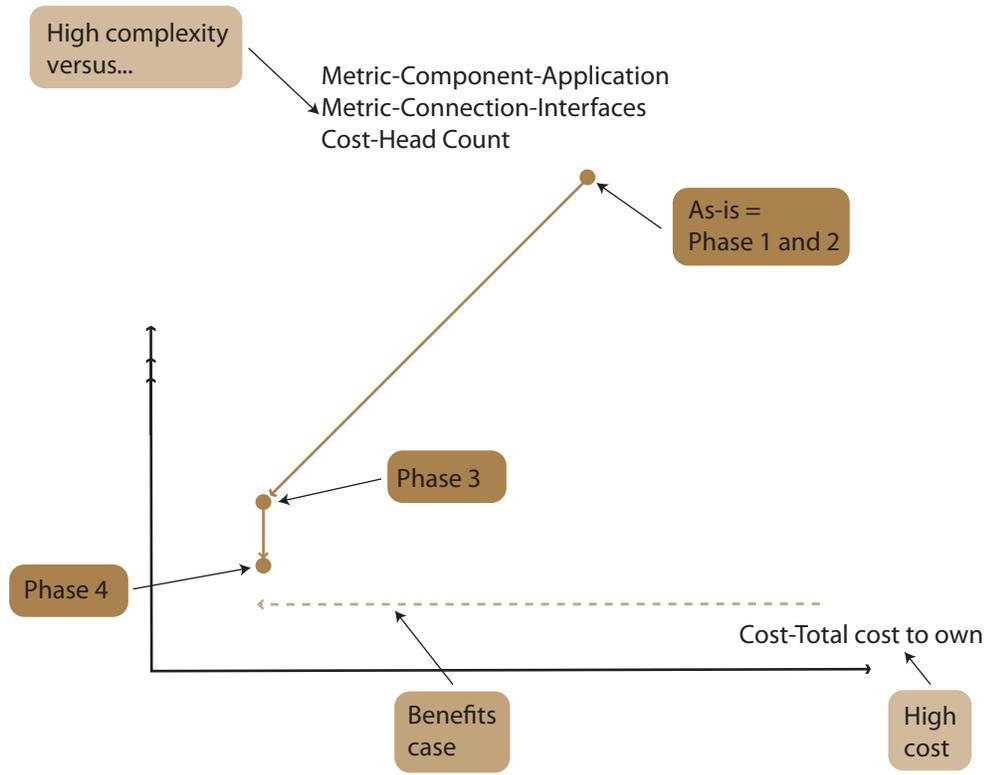
The Council, with the help of Service Birmingham, is planning to deliver nine integrated business transformation projects. For around 30% to 40% of the new core business processes, SAP's Business Suite will be deployed. **Axon**, a partner in Service Birmingham, was chosen as the systems integrator to lead the SAP implementation projects. IBM, Oracle, Microsoft, **Vodafone**, **EMC**, and **Business Objects** (acquired by SAP in 2007) have also been selected as strategic vendors for middleware and system software.

To manage the business transformation programs, a business change management methodology was created, but there were many unanswered questions about how all of the new business processes, applications, information, and infrastructure would fit together across the entire enterprise. For strategic reasons, Service Birmingham wanted an enterprise-wide business-IT framework as a blueprint toward which to work. Virtually all other SAP projects, however large, only address a slice of such an organization, which is usually a self-contained silo. Service Birmingham IT visionaries realized that the only way to build and maintain such an enterprise-wide framework was an EA approach. Service Birmingham selected the Avolution Abacus software tool to implement the EA approach.

IT used Abacus to rapidly build a relatively light-touch, costed model of the as-is IT architecture in terms of business, information, application, infrastructure, and security framework layers. Business processes were captured in the Microsoft Visio and **iGrafx** FlowCharter modeling tools, which were imported into Abacus. Abacus was also used to compile and maintain a standard technology components catalog to support the various business transformation projects. Each business transformation project had to compile a credible business case to gain justification and approval, which in turn required both an as-is enterprise architecture model plus simulation and analysis of the competing to-be scenarios. Abacus was used for all of these models, as it allows the best scenario to be selected based on a comprehensive list of EA metrics, including cost (capital and operational expenditures), availability/reliability, performance, complexity, agility, and traceability. Abacus tradeoff diagrams provide a graphical representation of the alternative scenarios.

The richness and detail of the original light-touch, as-is architecture model was improved as each business transformation progressed. Service Birmingham found that this pay-as-you-go, real-world approach to EA worked and revealed unexpected insight into the best overall metrics tradeoff (see Figure 4).

**Figure 4:** Complexity versus cost tradeoff



Source: AMR Research, 2007

Although there is still much internal selling of the EA approach to be done across the organization in order to institutionalize this approach for maximum benefits, Service Birmingham has already made big progress with its approach. To quote Tony Watson, Service Birmingham lead business architect, “Taking this approach has allowed us to make decisions based on quantitative evidence, understand the impact of change, and so reduce our risks.”

Although SOA is not a short-term driver to Service Birmingham, it is clearly on its radar. It has been able to use Abacus to frame its business services within an SOA context in order to make its to-be EA scenarios SOA-ready. This means that Service Birmingham will not have to retrofit an EA framework onto an organization with a client-server based SAP fiefdom.

## **Strategy 2: Uniting business and IT**

Properly uniting business and IT is the challenge for all companies for the next decade. A properly managed EA initiative can be a very powerful technique for responding to the challenge of business and IT unification.

### *Case study: A German insurance firm's business and IT alignment challenge*

Many SAP customers have long struggled to get their SAP programs owned by the business rather than IT. The CIO of one large German insurance company with a huge investment in SAP was determined to unify business and IT. He was looking for ways to invigorate communication between business and IT executives within the company. He identified EA as a key part of this quest. Although still at an early stage, it has already discovered that an EA program with business goals and strategy as the starting point provides a common understanding of the big picture between business and IT. Effective discussion and communication to all parties involved has focused on a shared vision of the to-be endpoint. By its own admission, it currently has a range of separate product lines with too many fragmented internal departments, not to mention a very cluttered IT landscape. It also uncovered many overlapping projects with previously untapped synergies. The company is under pressure to reduce costs as well, and the word simplification regularly crops up in discussion of its EA blueprint.

Interestingly, in this particular case, SOA has so far not been perceived as a high-priority requirement within its EA blueprint. This is because its industry evolves much more slowly than others. Simplification and standardization are its most pressing issues. Although the company currently is in the middle of major SAP implementation projects, it has included SAP program managers in the EA program.

As part of its EA program, the company selected the German **alfabet** planning IT software tool, and both IT and business executives have been simultaneously trained on the product. The tool has proved effective so far, replacing the ad hoc databases

and documentation that previously existed. A board member sponsoring the EA program believes although they are still at an early stage, “This is the perfect approach we needed to join business and IT.” If EA can be discussed at a board level, without pointless IT jargon, progress can be made toward unification.

### **Strategy 3: A precursory step to strategic SOA deployment**

All companies can experiment with initial SOA pilots, either within the SAP IT fiefdom or elsewhere. But SOA depends on the complete sharing of services across the enterprise. A full EA program and EA blueprint are prerequisites to properly prepare for a strategic, company-wide SOA deployment. Only a handful of SAP customers are now gearing up for strategic deployments of SOA where they will need to encompass SAP’s Enterprise SOA capabilities. A properly managed EA program will be needed. Very few case studies of this type are currently available, but there are examples of companies grinding to a halt with widespread SOA deployments that have tried to do it without a proper EA program.

#### *Case study: Procter & Gamble’s SOA deployment challenge*

A great example of a leading consumer products SAP customer that is gradually deploying SOA within a well organized, company-wide EA program is **Procter & Gamble (P&G)**. P&G is already recognized as a pioneer of how to globally standardize SAP ERP on a large scale and be able to successfully incorporate large company acquisitions. From an EA perspective, P&G cleverly divided its EA team into a 4x4 matrix.

The platform verticals are:

- Business transactions (ERP, CRM, and supply chain management), which are largely SAP based
- Decision support
- Consumer operations
- Product lifecycle management

These are supported by horizontal cross-platform strategies:

- Portal technologies
- Security technologies
- SOA platforms and integration
- Computing platforms

The overall P&G EA team regularly reviews a number of key EA metrics with the leadership of P&G’s Business Services organization. The most important metric is percent standardization of all existing implementations, in pursuit of the to-be end state.

The second inescapable metric is operating cost, for both as-is and to-be states. P&G has already completed several SOA tactical pilots with a number of SOA platforms as it rapidly progresses up the SOA learning curve. The next step in the SOA journey is to use top-down, business-driven planning within the EA program to refine strategic SOA deployment plans. P&G has experimented with a number of EA software tools, but in the words of Peter Klee, P&G's enterprise architect for business transactions, "Success with EA really is about clear deliverables, the right governance, and maintaining a living blueprint."

Another example of a company successfully pursuing strategic SOA deployment within a strong EA program is **DHL Exel Supply Chain** (see "SOA Case Study: DHL Exel Supply Chain Gets Agile With SOA." In this example, EA played a pivotal role in a global SOA deployment.

## Enterprise architecture best practices

The following best practices are recommended for overcoming the IT fiefdom challenge and building a successful EA program. Otherwise, strategic SOA deployment across the enterprise will be impossible.

- **Business driven**—EA methodologies and tools all start with business definitions, so ensure your EA program is completely business driven.
- **Business process expertise**—Integrate any BPM, modeling, and continuous improvement initiatives within your company.
- **Experienced team**—Build, motivate, and retain a respected EA team that can communicate effectively at all levels of business and IT, plus act as the scribe with EA methodologies and tools.
- **Speak business language**—Do not use IT jargon.
- **Start to break down IT fiefdoms**—Facilitate tough decisions on policies, specifications, and standards, including vendors, across these fiefdoms.
- **Understand application packages**—As well as own developments, standard packages predefine many of their own IT standards.
- **Understand SAP's standard software tools**—Many can integrate and assist your EA initiative, especially SAP EA framework, SAP Solution Manager, SAP Solution Landscape Directory, and SAP NetWeaver Enterprise Services Repository.
- **Use a partner company**—Consider using one of the SAP Consulting partner companies to help initiate your EA initiative if your company lacks experienced enterprise architects, provided that the partner can demonstrate a solid EA track record with previous SAP customers, such as Capgemini and Infosys.
- **Evaluate ISV EA software tools**—Use enabling tools of the trade to make it easier to maintain your EA blueprint models, artifacts, and documentation.

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