Get more out of your enterprise architecture

Make business decisions better, faster, and cheaper
Introduction

"Should we invest in a new technology?"

"How do we modernize our service offering?"

"What is the impact of retiring an application?"

"Which systems are contributing to our poor audit findings?"

"What new processes do we need to support our new strategy?"

Every organization needs to deliver informed and rational answers to critical business questions, enabling business leaders to make good decisions.

You may have some kind of Enterprise Architecture (EA) capability—a list of systems and costs, and some high-priority processes mapped out and aligned to systems. You may even have an EA platform (software) installed to help deliver EA value.

But despite this effort, your EA project is not having the impact you envisioned. If decision makers do come to the EA to help with business problems and related technology road maps, they are not confident in the recommendations. Some might want more transparency and quality behind the responses they receive; others may feel the answers are coming too late to be of use. Consequently, they may even be questioning whether the cost of developing and maintaining the EA capability is worth the return on investment.

This paper dives deep into some of these common challenges to uncover how CIOs and CTOs put discipline and governance behind the organization’s EA capability to drive more value for the business. Read on to discover techniques for driving greater value from your EA investment, and elevate the EA to a strategic capability:

- How to align EA services with business priorities
- How to select and configure the right tools to produce answers in a fast, repeatable manner
- How to staff your EA team to answer questions at a lower cost.

Enterprise architecture is the fastest-growing skill shortage facing CIOs

Source: Harvey/Nash KPMG CIO 2017 Survey

89% of organizations indicate immature or inconsistent use of operational and business data to support strategic decisions

Source: Forrester’s Q3 2016 Global State of Enterprise Architecture and Portfolio Management Online Survey
Developing a business-aligned EA service

When stakeholders come to your EA team with a business problem, analysts and architects jump into action to deliver the answers. They might review relevant documentation and collect and validate information, such as: “What systems are currently documented?” “How do those systems relate to processes?” and “How do those systems enable the organization to deliver key capabilities?”

But are the answers delivered back to stakeholders truly actionable? Or are they based on outdated data? Too complex? Too confusing? Too granular? Too overwhelming? Do they cost too much or come too late to make the effort worth it?

A business-aligned EA service overcomes these common service quality issues, helping deliver and present information for business and functional leaders, not just architects and IT experts. The data that underpins the answers is high quality and easily validated. The processes to translate data into insights are speedy and streamlined, the right people are trained and held accountable, and tools are used optimally to reduce costs over the longterm.

Business-aligned EA functions generate deeper insights and more specialized recommendations that align to the business agenda, all in a focused and cost-effective manner.

Few business stakeholders will want to hear about models, analysis, and road maps—or even about enterprise architecture itself. They just want answers.
Building blocks

Your EA is a high-value service when EA customers get fast, dependable information. At this tipping point, it sells itself, engaging business users and becoming a key strategic asset.

So how do you implement a services-based approach to EA—and realize the benefits? You need the right building blocks in place:

— A well-defined service catalogue aligned to business needs
— A base platform of EA technologies to ensure reliable service delivery
— Strong people-skills in all aspects of operating the toolchain, but especially in data analysis.

Let us explore each building block in detail.

Define the service catalogue
An EA service model will have a clear definition of EA capabilities and processes. It divides the work done by the EA team to answer each business question into a continuum of distinct services. Shown below is a layered service hierarchy, where an “EA Factory” supports services that deliver business outcomes. Level 1 is the lowest value—i.e., the necessary foundational services to play the game—and Level 4 is the highest value services.
Defining and mapping your capabilities helps the EA team pinpoint the most appropriate and valuable deliverable for the end user and deliver it in accordance with their expectations. For example, C-level executives might only care about EA services as they relate to higher level business needs, such as:

- New product delivery transformation (i.e., within *Transformation Architecture Support* service, where the customer is Chief Marketing Officer, Chief Digital Officer, or Chief Executive Officer)
- Technology portfolio review (i.e., within *Strategy Alignment Support* service, where the customer is a Chief Information Officer)

At a more detailed level, to provide those services, intermediate analysts such as IT or line-of-business managers need fast, accurate answers to their questions. In this case, they might prefer a real-time summary of the EA output before it has been simplified and designed—i.e., a spreadsheet of data. Within Level 2, *Architecture Development and Analysis* service, the EA factory should be able to provide these services:

![Diagram of detailed EA Factory services](image_url)

*Figure 1 – Detailed EA Factory services, for analysts, architects, and IT experts*
**Invest in reliable technology**

The technologies that underpin EA processes are critical to enabling a service-based approach. For EA resources to produce answers quickly, reliably, and repeatedly, a base EA platform needs to be in place, but it also must be flexible and customizable, including relevant application programming interfaces (APIs) for interfacing, visualization, and reporting.

We find that EA processes are most effective when they use a mix of out-of-the-box (OOB) tools, such as Software AG’s Mashzone (a dashboard) and ARIS/Alfabet (enterprise strategy, process, and technology architecture modelling and analysis tools), and custom-developed tools (such as plug-in apps using open-source components).

Custom EA toolchain extensions can turbo-charge OOB tools to deliver even faster, more organization-specific value. EA customized extensions can accommodate technical capabilities, such as:

- Automatic template reports for more complex data filtering, deeper and higher-volume analysis
- Automated EA governance, such as workflow-driven artifact validation (i.e., e-mailing Web portal links and sending e-mail notifications)
- Automated alignment between other governance systems, such as an automated interface between Archer and ARIS, for high-accuracy process and governance, risk, and compliance alignment.

Mature organizations typically use EA toolchains and combine both standard and custom tools for key EA services.

**Leverage people who can deliver**

The most important ingredient for operating the toolchain and delivering EA services are the people. Unfortunately, it takes more than smart people to deliver EA value; it is too easy to build an ivory tower of architects and analysts who can do a lot of things, but somehow do not show a lot of value.

The right EA staffing model can define and answer business questions capably, at a low cost.

The key to effectively staffing the EA function includes identifying and slotting candidates into the correct level, and supporting them with training and tools. This means having the right mix of business architects (who understand the business), technology/solution architects (who understand how to design solutions to solve business problems), and analysts.

All persons in the EA function need to perform the “analyst” role, at some level. Not everyone has to be a programmer! Assuming that most of the architecture development work is already done, and appropriate tools and methods and quality content are in place, power users and analysts can extract the answers they need.

Reducing the number of people doing more complex development work will likewise reduce costs. Some organizations even outsource the most complex development work and keep only one or two in-house developers with mid-level technical skills. Shown is an example hierarchy of roles needed to analyze EA information and produce answers:

![Figure 2 – The hierarchy of roles within an EA Factory needed to analyse EA information and produce answers](image-url)
Case study: System rationalization for audit readiness

Challenge
An organization has received several audit Notice of Findings and Recommendations resulting from expensive technologies that are no longer in compliance. Some legacy systems pose a significant risk, such as key experts retiring. Others are simply too expensive to maintain. In the short term, the organization wants to reduce risks related to its technology systems (i.e., to pass audits). In the longer term, the organization wants to retire high-risk, low-value systems as part of a modern digital enablement program.

Within the Level 3 Strategy Alignment Support service area, a technology portfolio review effort was started. It advertised benefits such as lower cost and better compliance through standardization and consolidation of systems.

The match is made, and now the work can begin.

Approach
The EA team starts by defining the key question: “Which systems have the highest risk?”

Next, using Software AG ARIS EA/BPA platform, the EA team collects, normalizes, and validates data found in the architecture. This forms a rational basis for the analysis. The team models data related to audit risks as well as other business/operational risks, such as vulnerability to a security breach. The risks are decomposed into various levels of detail, each compiled by a score based on weighting criteria specific to each risk. Data-quality trackers—i.e., the date when the data was last updated, or the source of the data—also impact the scores, helping stakeholders understand that they can trust the data.

Now the team moves on to analysis, which involves scoring the data, summarizing it into a spreadsheet, transforming it into a useable format, and presenting it a visible dashboard for consumption by business stakeholders.
The EA team presents its findings on which systems pose the highest risks, including recommendations. The “high-level dashboard” shows a Tolerate, Invest, Maintain, Eliminate (TIME) chart. This indicates relative value vs. risk of the systems. It indicates that many of the 12 systems should receive additional investment (and have data migrated to them), two are clearly not as high value, and two are higher risk but also high value.

Note that this is a high-level analysis of the KPI data (i.e., for the technology portfolio manager). More detailed analysis can address specific risks, such as processes to modify that might minimize risks (i.e., for a system owner or business stakeholder).
Final thoughts: From output to outcomes

A well-governed EA service model can transform the EA team into strategic advisors and transformation agents. Supported by insightful and trusted information on high-priority issues, the business can make decisions better, faster, and cheaper.

**Better**

Using a service-based approach to answer key business questions improves upon manual techniques, such as merging spreadsheets every time a new answer is needed. With a service-based approach, the EA repository stores data from several sources and is tagged with quality control attributes—i.e., the last time the data was updated—to help ensure results are based on high-quality information.

**Faster**

An EA service model leverages a combination of out-of-the-box analysis tools and prebuilt toolchains and aligns technical versus nontechnical people to appropriate tasks. This approach enables the EA team to produce preliminary answers faster by eliminating the need to re-collect and re-validate information. Borrowing from the spirit of agile software development, these quick, initial answers can serve as temporary placeholders for business problems that require new data, deeper analysis, or both.

**Cheaper**

A service-oriented approach to EA enables day-to-day operations to scale and cost less in the long run. The right mix of outsourcing technical skills, such as developers, versus in-house, role-specific training for broader skills, such as analysts, will optimize value of the EA team.
About KPMG’s enterprise architecture services

How will a new initiative impact business processes? How will data security be ensured? Will the initiative support the business in three to five years? How can we govern and accelerate a wide-ranging digital transformation effort?

Organizations need an EA capability to support their business goals. KPMG’s EA services help enterprises build a solid foundation for today and a plan to support the future. Our tested EA methodologies and technologies help companies gain greater insight, increase efficiency and visibility, and reduce costs.

With a result-driven approach, we help determine the necessary process, organization, application, technology, infrastructure, and data changes to turn their vision to a new reality. Learn more at www.kpmg.com/us/ea.

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