

OPENTEXT

Successful Enterprise Architecture

Aligning Business and IT

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Executive Summary

What if you had a clear and comprehensive view of your organization's key resources – people, products, processes, systems, and technologies? What if you could see and understand the relationships between these resources and how they relate to the goals and strategies of the business, and could more quickly and thoroughly analyze, plan and drive changes throughout your enterprise? Such capability is particularly valuable today when getting the most out of your organization's resources and driving change that keeps pace with a more dynamic business environment is essential.

Enterprise Architecture (EA) is the process of translating your business strategy into enterprise change by identifying, communicating, planning for and enabling your organization's evolution to the desired future state. Properly executed, EA can help bridge the gap between business and IT and enable your organization's leaders to make better informed decisions.

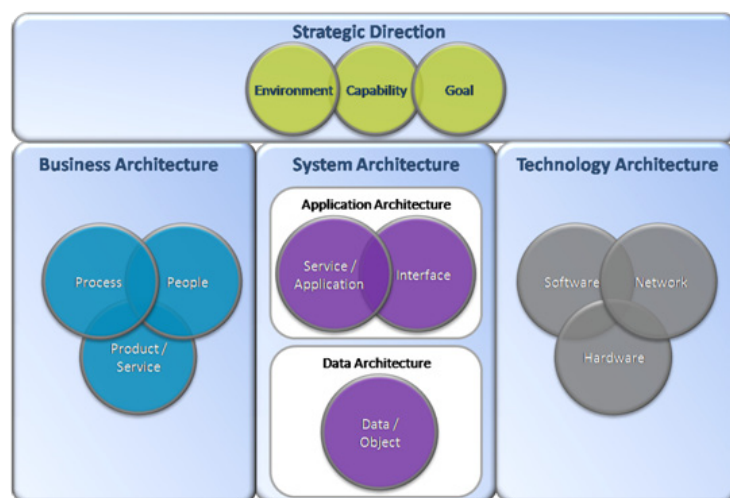
With a strong EA function, you can see the assets in your organization, understand the interdependencies, and map them to a business architecture that allows you to realize better resource optimization through business process improvements or other initiatives that rapidly fill the gaps in your ability to attain your goals.

This paper will explore the benefits and use of EA and offer practical guidance on the steps required to begin implementing a plan for your organization's evolution.

An Integrated Business & IT Infrastructure

To support a synchronized, enterprise-wide perspective, numerous EA frameworks have been created to provide project structures for developing a comprehensive EA program. One of the earliest, and still popular, frameworks is the Zachman Framework developed and popularized by John Zachman. More recently, United States government organizations employ frameworks such as the Federal Enterprise Architecture Framework (FEAF) and the Department of Defense Architecture Framework (DoDAF). Private industry has introduced frameworks such as The Open Group Architecture Framework (TOGAF) and the Meta Architecture Framework.

While EA frameworks do not share consistent terminology, they do share a common concern for the various components of the enterprise that should be captured and analyzed. An EA framework supports the integration between Business, Systems and Technology Architectures, and places them in the context of their support for the enterprise's strategic direction. OpenText's EA Framework diagram below illustrates the common components required in today's EA solutions.



A complete set of EA models, objects, and artifacts will include the following components:

Strategic direction - Creates a vision for the enterprise that will guide the development of each architecture component.

Business architecture - Describes the current and target business environments, focusing on the business processes and operations of the enterprise.

System architecture - Defines what kinds of application systems are relevant to the enterprise and describes the applications as logical groups of capabilities that manage the information and support the business processes defined in the Business Architecture.

Technology architecture - Identifies technology principles and defines the technology platforms and the distribution of data and applications.

The comprehensive nature of EA, though, is more than a collection of the constituent architectures. EA frameworks and supporting tools must maintain the critical elements of each architecture, as well as the interactions between the architecture components. It is through the analysis of the component relationships that the EA becomes a valuable management tool.

A documented EA is a management tool that can be used to bring business and IT into closer alignment. Paul Harmon, executive editor/analyst for Business Process Trends, suggested that “An Enterprise Architecture is a tool to help executives think about the organization as a whole. An Enterprise Architecture captures a wide variety of information, establishes relationships among the various documents and diagrams and stores all of the information together in a single repository, so that managers can then see the relationships, ask questions, identify problems, or run simulations to help make decisions about changes they are considering.”

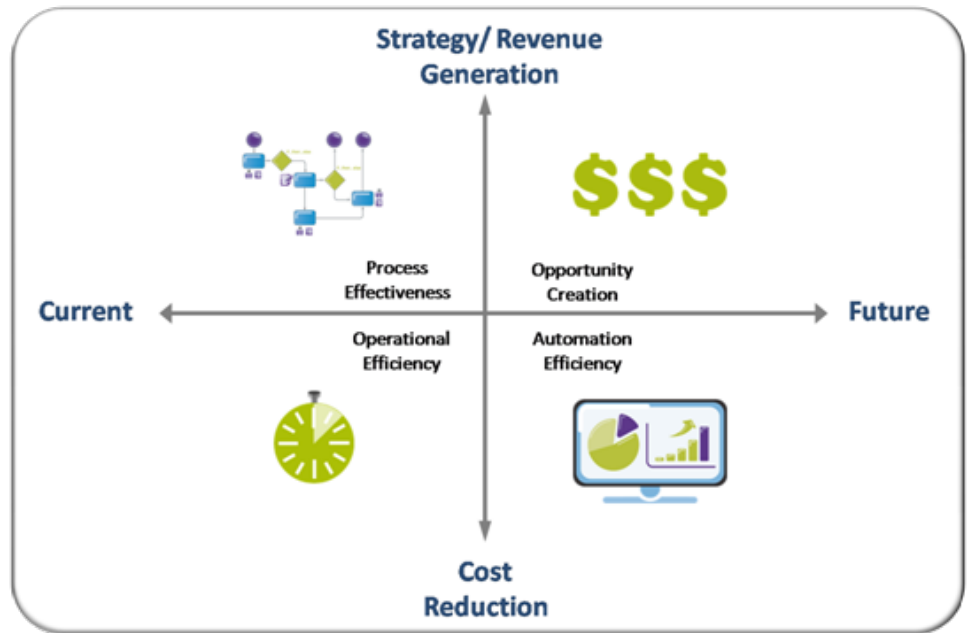
While most organizations committed to EA are striving for a comprehensive, enterprise-wide implementation with the accelerated pace of change required for business today, achieving this can be elusive. However, the principles of EA applied to specific areas of the business can deliver tremendous business benefits. Better organizational alignment on strategic programs and projects, better operational performance, more consistent execution, reduced project risk and lower operating costs are all results of the application of EA practice to organizations committed to its use.

Benefits to Business and IT Go Hand In Hand

Key to the effective use of an EA is understanding how it can address important enterprise-wide concerns, such as meeting stakeholder needs, pursuing new strategic initiatives, aligning IT resources with business needs, or reducing duplication of systems, processes, or data. For the question of where to start and focus, the answer comes in understanding the various benefits that EA provides and learning which architecture components and relationships must be analyzed in order to achieve specific objectives.

In order to understand the benefits of EA, two dimensions must be considered. The first dimension is the timing of the benefit receipt. There are EA benefits that provide current value (to ensure proper prioritization of the investment) and future value (to avoid an over-restrictive focus of architecture on the enablement of current processes). The second dimension is the type of value. EA can provide cost savings (the easiest to identify in the current time span) and revenue generation and/or the implementation of new strategic initiatives (which requires the inclusion of business consideration and flexibility so future opportunities can be exploited).

Illustrating these two benefit dimensions, the diagram below points out that EA benefits can be realized in any of four different categories: Operational Efficiency, Process Effectiveness, Opportunity Creation and Automation Efficiency.



Operational Efficiency can provide current cost reduction, market speed, and/or quality benefits. Examples of Operational Efficiency benefits would be using the EA to identify and eliminate complex, costly processes between incongruent systems, or perhaps using the EA to standardize technology platforms and propagate identified best practices, to simplify training, maintenance and support requirements. System Architecture and Technology Architecture components are key considerations when pursuing operational efficiency. The relationships between System Architecture and Technology Architecture components provide a comprehensive IT architecture and demonstrate how all of the various IT resources work. Since EA concepts originated within the IT world, some organizations focus strictly on operational efficiency, following an IT-centric approach to EA.

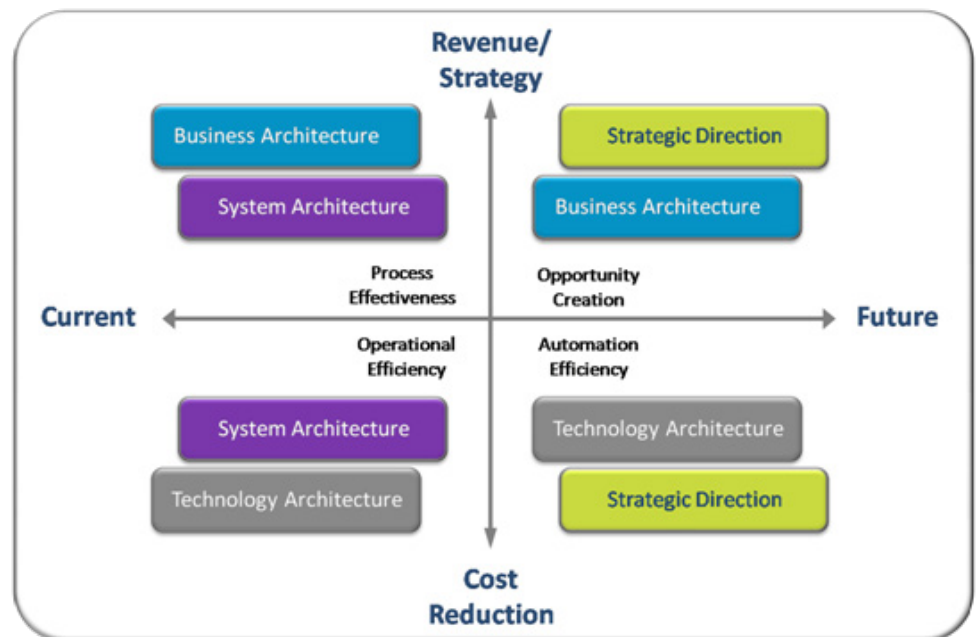
Process Effectiveness provides the organization with process improvement opportunities and, potentially, current revenue generation benefits. Competing through the optimization of world class business processes, such as supply chain, has become a key focus of many global enterprises. Process improvement requires focused analysis of both the Business Architecture (and its processes) and System Architecture components required to perform the business processes. This use of EA emphasizes how processes are currently performed, redesign and process improvement scenarios, and how software systems (application and data) are used to implement specific portions of the processes.

Opportunity Creation provides future revenue generation benefits and/or implementation of new strategic initiatives. This benefit category truly demonstrates how EA can be used to promote business and IT alignment. Examples of opportunity creation benefits would be using the EA models to explain the business, assess the impact of business changes, and ensure that long-range systems plans complement the business plans. Strategic Direction and Business Architecture components are emphasized when pursuing new strategy opportunities. This is a more process-centric approach, allowing business managers to understand where their organization is going and what process changes will be required to get there. System and technology architectural components will be utilized, but more in a secondary role.

Automation Efficiency benefits provide future cost reduction benefits by aligning technology planning to the strategies of the organization. The EA could be used to assess the benefits and impact of new systems and emerging technologies. An example could be to focus the organization on the strategic use of a specific technology, like mobile platforms. The emphasis here is on the relationships between the strategic direction of the enterprise and Technology Architecture components, allowing technology planners to define infrastructure changes that will be required to support the future direction of the organization. In this way technology decisions can be anticipated within the IT organization, instead of requiring each automation project to include its own technology assessment.

By understanding the benefits of EA and clearly defining EA objectives up front, organizations can be sure to build all of the architecture components that will be required to realize their goals. Conversely, understanding the benefits of EA and clearly defining your EA objectives can help organizations avoid building architecture components they do not intend to utilize.

As shown on the figure below, different enterprise objectives and benefits will emphasize different architecture components. Each benefit category will require the EA team to analyze different architecture components and different interrelationships to answer various questions about their organization.



Six Steps to Optimizing the Enterprise

As mentioned earlier, there are numerous EA frameworks which provide valuable assistance in building EA components. This section presents a possible scenario for how an EA might be built and where the benefits will be realized.

Step 1: Define "Enterprise" Scope

Most organizations would like to demonstrate the benefits of EA before investing in the resources to develop a company-wide set of models to support all of the architecture components. Because of this, a logical first step for any EA project is to define what they mean by the word "enterprise."

A good definition of "enterprise" in this context is any collection of organizations that has a common set of goals and a set of identifiable business metrics. In that sense, an enterprise can be a government agency, a whole corporation, a division of a corporation, a single department, or a group of geographically distant organizations linked together by common ownership.

Based upon the scope of the "enterprise," the current strategic direction must also be documented. It may be mapped to the current architecture components, as well as being used to drive the discussions concerning future strategic direction.

Step 2: Determine Future Strategic Direction

The future strategic direction creates a vision for the enterprise that will guide the development of each architecture component. The strategic direction validates the business principles, business goals, and strategic business drivers of the enterprise.

Strategic positioning means performing different activities from rivals' or performing similar activities in different ways. Strategic directions can be based on customers' needs, customers' accessibility, or the variety of a company's products or services.

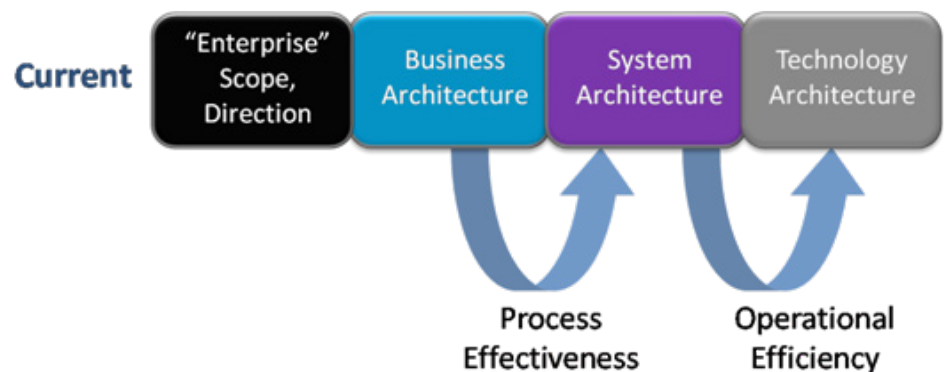
At this point, if the future strategic direction cannot be defined, or if the future direction is not much different than the current strategic direction, it may be difficult to demonstrate the opportunity creation benefits of EA. If that is a concern, an alternative "enterprise" may need to be selected.

Step 3: Document the Current Architecture

The current architecture that will be impacted by strategic vision should include the current business, system and technology architectures as follows:

- The current Business Architecture describes the current business environments and business processes defining how work that will be impacted is currently done.
- The current System Architecture defines the current application systems that are relevant to the enterprise's desired future state and describes the applications as logical groups of capabilities that manage the information and support the business processes defined in the current Business Architecture.
- The current Technology Architecture identifies current technology principles and defines the technology platforms and the distribution of data and applications.

Once the current architecture components are defined, the current EA benefits can be realized. As shown on the figure below, process effectiveness can be achieved by analyzing the relationships between business architecture and system architecture components. Similarly, operational efficiency benefits can be achieved by analyzing the relationships between System Architecture and Technology Architecture components.

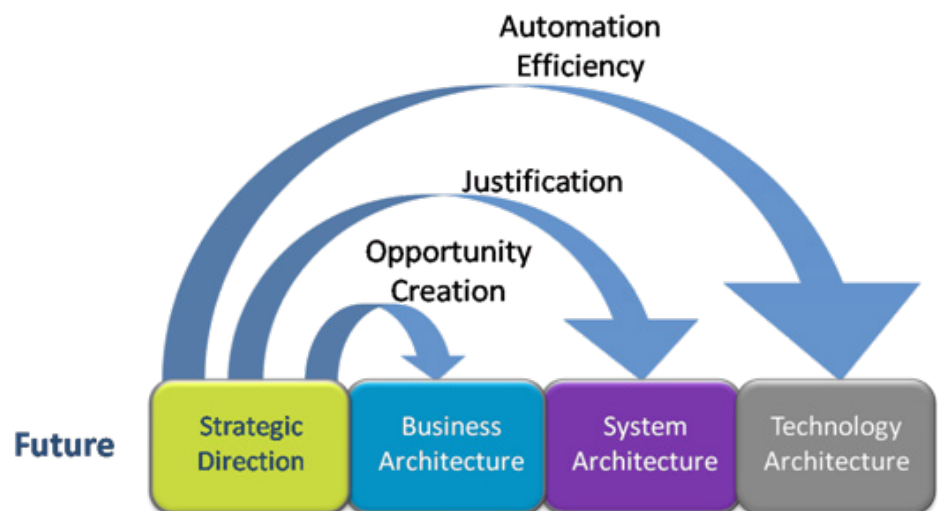


Step 4: Design the Future Architecture

The future architecture includes the future Business, System and Technology Architectures as follows:

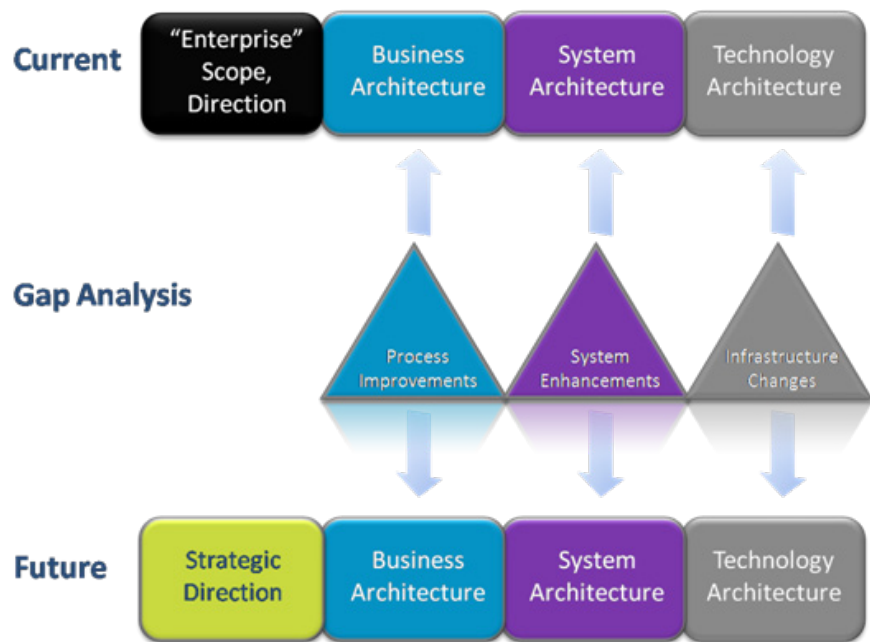
- The future Business Architecture describes the future business environments and how business processes and work will be done in the future to support the vision.
- The future System Architecture defines what kinds of application systems will be relevant to the enterprise and describes the applications as logical groups of capabilities that manage the information and support the business functions defined in the future Business Architecture.
- The future Technology Architecture identifies future technology principles and defines the technology platforms that will be required and the anticipated distribution of data and applications.

With the completion of the future architecture components, the future EA benefits can be realized. As shown on the figure below opportunity creation benefits can be achieved by analyzing the relationships between Strategic Direction and Business Architecture components. Similarly, automation efficiency benefits can be achieved by analyzing the relationships between Strategic Direction and Technology Architecture components. Additionally, analyzing the relationships between Strategic Direction and System Architecture components will provide justification for the system enhancements required to support the future strategies of the enterprise.



Step 5: Perform Gap Analysis

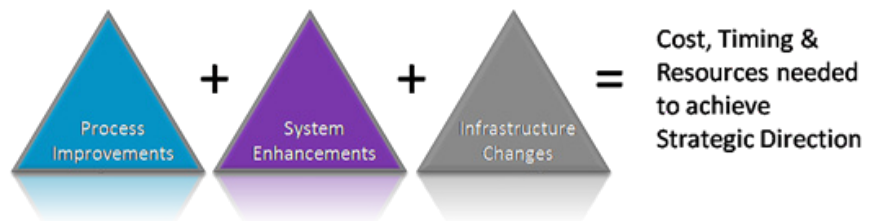
With the current and future architectures defined, gap analysis can be performed to identify the changes that will be required within the enterprise. As shown on the figure below, the gap analysis between the current and future Business Architectures will yield the process improvements that will be required within the enterprise. The gap analysis between the current and future System Architectures will identify the system enhancements required to support the future strategic direction. And finally, the gap analysis between the current and future Technology Architectures will highlight the changes that will need to be implemented within the enterprise.



Step 6: Evaluate Strategic ROI

Cost, timing, risk and resource requirements must be identified for the process improvements, systems enhancements and infrastructure changes required within the enterprise. As shown in the diagram below, the sum of these three sets of changes then represents the total cost, timing, risk and resources needed by the enterprise to support the future strategic direction.

If calculated ROI for a strategic direction is acceptable to the enterprise, plans may be made to implement the recommended changes. If the ROI is not acceptable, the enterprise may choose to analyze alternative strategic directions to find a more suitable result. Either outcome should serve to demonstrate the benefits and value of EA with the organization.



Deliver Value to Your Business with EA

EA facilitates rapid change in an organization's business processes and in the information, applications, and technical infrastructure that support them. It can be a valuable management solution for addressing important enterprise-wide concerns, like assessing the impact of business changes, aligning long-range business plans with system plans, and focusing on the strategic use of technology.

OpenText ProVision is designed to support your holistic EA efforts by readily enabling the development and integration of business, systems, and technology architectures with the strategic goals, objectives, and direction of your organization. Following OpenText's comprehensive and integrated EA approach, your EA projects will synchronize business and IT, increase visibility, reduce costs, and deliver value to your business.

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