

Improving the ROI for IT: Why “Enterprise Architecture” is important to your business

Enterprise Architecture (EA) is a relatively recent discipline that enables an organization to gain control of their Information Technology Asset, align it with their overall business goals, blueprint it, optimize its use, and build processes to keep their business and technology systems working together. EA aligns the purposes, methods, and technology that comprise a corporation (or any complex organization) and sets them under a disciplined, rational framework. The role of EA in a complex organization is analogous to architecture’s role in construction. If you build a complex system without blueprints aligned to the business owners’ needs, the results will be predictable: rework, inefficiency, waste, redundancy, and uncertainty over how the parts relate to the whole. Your house will have an architecture, but the architecture will be poorly understood, undocumented, and essentially useless as a tool. Without blueprints and a capability to keep blueprints current and aligned as the complex system changes, making significant changes to your home will be much more expensive than necessary. This will leave you with the most inefficient and least valuable house on the block.

Architecture can be thought of as the “rationality” of a complex system. The architecture of a house or a skyscraper is documented in a set of blueprints, ranging from high-level conceptual design, to detailed plans for each floor, to wiring and plumbing diagrams. As parts of the structure change, the changes are properly reflected across all relevant blueprints throughout the complex structure. The set of blueprints is aligned horizontally and vertically, from top to bottom and side to side of the structure. This comprehensive, integrated set of plans enables the designer, builder, and various sub-contractors to work independently, while having the same vision of the finished product. The designer will know where all of the elevators, drinking fountains, and light fixtures go, and because everyone is working from the same set of plans, all of the different sub-contractors, who see only a small part of the whole, will work harmoniously and tightly aligned to the original building goals. Although separate, the relationships among the different levels of the blueprints must integrate in order for the building to function as designed. The same is true for complex organizations. Different business units or departments, which typically operate in silos, have complex technology, information, and applications that are often not properly aligned across these silos.

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Further, the architecture of a building must align with its function. Buildings with different purposes will have different architectures, though their components may be the same. For example, all buildings require foundations, but the foundation of your house is very different from the foundation that supports a 30-story office building.

When a corporation’s goals and processes align with its information systems, sustainable value and competitive advantage can occur.

Imagine you want to make a change to your home, perhaps add a new floor or an extra bathroom. To do either, you would have to know answers to structural questions like: which walls are load bearing, or where does existing plumbing run? In a well-architected building, you can make changes with confidence. In a well-architected enterprise, you are able to see how a change or addition will affect existing processes, information, or technology. A solid EA capability gives you the perspective you need to decide how best to realize changes to the IT Asset.

Investing in a multi-million dollar building without detailed blueprints, plans and standards is unthinkable. It should be equally unthinkable to invest millions into the IT Asset without them. An EA capability ensures that a corporation's information technology investments align with its business processes and strategic goals. But having blueprints alone does not guarantee your IT Asset will continue to grow coherently. Equally important as the blueprints and standards are the disciplined business and decision making processes that enable blueprints to be tightly aligned to the corporate business goals. Without an organizational commitment to continual, metrics-based maintenance of the IT Asset and business processes alignment, even the best plans will not help for long.

Enterprise Architecture and the Information Technology Asset

The Information Technology Asset — which is comprised of an organization's hardware, software, information, and business applications, plus the people and processes that manage them — is a mission-critical resource and a tremendously valuable corporate asset. The IT Asset, like the Internet before it, enables entirely new business opportunities. The information generated by any large organization grows at an astounding rate, as do the investments necessary to keep up with the changes in technology and the resulting productivity gains those changes enable. Unlike a pile of gold, the IT Asset is made valuable not by its quantity, but by the information that streams through it, as well as how effectively it can support the organization's goals. Uncontrolled information growth makes the IT Asset unmanageable. This inefficiency in access to the IT Asset depletes its value and competitive advantage for the organization.

Enterprise Architecture Coordinates:

- *Blueprints*
- *Processes*
- *Portfolio Management*
- *Tools*
- *Metrics*
- *Architecture Organization*
- *Architecture Governance*

An organization's Information Technology Asset is not static. The continuous portfolio of projects adds new data, technology, applications, and functionality — along with many layers of integration — to the IT Asset each year. And every time the IT Asset is changed, that change represents an investment. According to the "State of the CIO Survey," published in the April 1, 2003, issue of *CIO Magazine*, large companies spend an average of 6.3 percent of their revenue on the IT Asset. One *Fortune 50* company, for example, will introduce up to \$1 billion worth of change into its IT Asset in 2004. Approximately 60% of that \$1 billion, or over \$600 million, will be spent on maintenance of their existing complex IT Asset — which, like it does in most organizations — developed piecemeal, on a project-by-project or need-by-need basis, not under the alignment of disciplined Enterprise Architecture principles. The result? Of the new project dollars, an astounding 40% will be spent on costs associated with *integrating* the new projects into the existing overly complex, unnecessarily redundant IT environment.

That the IT Asset is in near constant flux argues even more strongly for a rational, disciplined, blueprints-based understanding of what the enterprise's architecture actually looks like. Businesses must know how their information, technology, and applications are stored, used, and shared, and to what degree the existing IT Asset is optimized to meet overall goals. By having well designed blueprints that are aligned with business objectives, combined with the capability to manage these blueprints, projects can move from concept to build-out without redundancy, cost overruns, or contamination of data, all of which compromise the integrity of the IT environment.

Enterprise Architecture and ROI for IT

By ensuring your organization is supported by a well architected, fully aligned IT Asset, you will have a distinct edge over your competitors. You will spend less money and time on the maintenance and integration pieces of the IT budget. Consider the implications. What if Enterprise Architecture could cut the average 60% of pure IT Asset maintenance figure down to 50% or even 45%? In our *Fortune 50* company, the savings would be on the order of \$150 million.

Enterprise Architecture delivers value beyond cost avoidance. When the complexity of your core applications, data processes, and enterprise information is ordered, your company will be able to deliver services more effectively. You will have the information you need to make critical decisions faster and with greater certainty. What does that mean? It means you will reduce development and maintenance costs, decrease business cycle time, and better align the IT Asset with the business. This is just a glimpse of the potential value, which could be astronomical.

Ignoring the IT Asset is an expensive mistake, and one that is potentially dangerous to the success of your organization. Enterprise Architecture can help you optimize your IT Asset, which is something every organization needs.



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