BUILDING DIGITAL ECOSYSTEM ARCHITECTURES

A GUIDE TO ENTERPRISE ARCHITECTING DIGITAL TECHNOLOGIES IN THE DIGITAL ENTERPRISE

MARK SKILTON

Building Digital Ecosystem Architectures

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Building Digital Ecosystem Architectures

A Guide to Enterprise Architecting Digital Technologies in the Digital Enterprise

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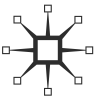

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For Linda, Claire, Emma, and David.

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Foreword

Over the past century, technology – primarily in the form of computing systems – has evolved at a pace never before seen in human history. These changes have not only made life simpler for most people, but have also brought great convenience and immediacy to everyday activities. One need only to consider our new-found dependence on smartphones – devices that barely existed before the iPhone was introduced less than ten years ago in 2007 – to realize just how rapidly technology is changing our lives.

The new digital landscape has also pervaded nearly every system and organization across the globe. Despite the simplicity digitalization has brought to business processes and structures, the technology systems themselves have become increasingly complex over time. This is particularly true in large enterprises, which now require entire buildings placed strategically across globe to maintain the company "infrastructure."

To better manage these systems, enterprise architecture emerged over the past 30 years as a discipline and profession that provided a necessary bridge between the IT department and the business. It has been adopted by companies, partnerships, government departments and agencies, charities and non-profit organizations: in effect, every type of organization that exists.

Enterprise architecture addresses the complexity of information technology systems and the need to integrate new capabilities with the existing legacy in heterogeneous environments. Initially enterprise architecture was justified as a cost-saving tool. It soon moved to being recognized, not only

as a means to control cost but also to enable new capabilities. Now it is becoming a critical business discipline, alongside other essential business functions such as accounting, finance, legal, or marketing, no matter whether the business is a commercial organization, a government agency or, as in the case of The Open Group, a not-for-profit enterprise.

Every organization that exists today has become its own system with a mission (whether explicit or implicit), people, processes, technology and ecosystem of partners, each of which are constantly changing at an ever increasing pace and becoming more and more complex in their own right. As such, many enterprises today are being inundated with the digitization of their business models: products and services, processes, changing costs, revenue and profit models, new subscription and incremental models in capital expenditure and operating expenses, new operating value chains and shifting market position and channels. Boundaryless Information Flow™, the vision of The Open Group, conceived over a decade ago by our members, is even more of a business imperative today, from the macro-scale of connected markets and nations to the micro-economy of trading, social media and personalized mobile services and wearables.

That vision also recognized the need for information to be secure, reliable and timely. Today, new cyber threats and challenges, together with new opportunities for e-commerce have created the need for trade-offs in the flow of information among and between organizational systems, the need for new global standards, and the need to minimize regulation, which by definition is bound by geo-political constraints.

As the march toward digitization has gained momentum, some organizations have become trapped by their brand (how they are perceived), by their culture (how they think), by their processes (how they get things done), or by their technology (in both what they make and the tools they have) and have become the victims of significant shifts in their industry. These are the areas where enterprise architecture can help organizations adapt to this new landscape.

As with any discipline, enterprise architecture also must evolve to meet the needs of the digital economy. Like other professional disciplines, enterprise