Reinventing Enterprise Architecture in a digital world

Looking at EA through a capabilities lens

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The changing Enterprise Architecture landscape

As Marc Andreessen famously said in 2011, "Software is eating the world."[1] Today, business leaders are embracing this idea, asking, in some way, how to become an information technology company, or at least how to add tech-related services to their offerings.

Every leader—whether it's the Chief Marketing Officer (CMO), a business unit manager, or the head of innovation—seeks a piece of the digital pie. As a result, technology investments are no longer the sole domain of the CIO, resulting in a fragmented digital enterprise that tries to do too much, truly excelling at little. According to PwC's 2015 Global Digital IQ® Survey, nearly 70% of technology investments now fall outside of IT. Uncoordinated investments make it difficult to gain a single view and to unify the enterprise around business strategy. This sub-optimizes the value from capital spend, and more importantly, compromises competitive positioning.

The practice of Enterprise Architecture (EA) creates one enterprise view of the operating model—synchronizing stakeholders and creating an organizational blueprint that charts the future of the business and drives strategic decision-making around investments, priorities and M&A. As digital proliferation accelerates, EA is now far more valuable to organizations—and more difficult—than ever before. EA approaches need to adapt for a digital economy, and bridge the gap between business strategy and execution.

1. "Why Software is Eating the World." Marc Andreessen, WSJ, Aug 20, 2011. http://www.wsj.com/articles/SB10001424053111903480904576512250915629460

Looking at Enterprise Architecture through a business lens

Enterprise Architecture often conjures up images of a hairball of plumbing and wires, or of an enterprise architect deep in thought writing white papers, while doing little else. Both notions, while sometimes true, represent a misunderstanding of the value of EA and how to reap its rewards.

First, EA is a business-driven process. A technology-first approach that doesn't align to business transformation efforts will fail to deliver the anticipated return and will quickly become irrelevant. For example, an insurance company CIO believed the business was ready to embark on a multi-year business process and technology replacement. The chief architect's team spent a year charting technical architecture and integration standards, web technologies, development tools, and databases. While IT was able to execute new technology infrastructure and architecture projects, the initiatives soon became outdated, as they were never aligned with the future business direction.

Second, successful EA approaches align stakeholders around a set of differentiated capabilities—integrating people, information, process and technology—that enable the business to achieve its vision. Apple's design ability, IKEA's innovation prowess and Walmart's mastery of logistics are prime examples of differentiated capabilities systems that are intrinsic to each organization's success. In this digital climate, businesses will need to identify new capabilities like precision analytics, superior customer experience design, seamless multi-channel delivery, and agile software development, that will enable differentiation in a digital world. Synchronizing business strategy, capabilities, and execution is critical.

Finally, the people who lead the EA efforts, Enterprise Architects, simply cannot live and work in a centralized group, waxing poetically about business capabilities, or the latest data integration approach. Because of the digitally-driven distribution of technology investments across the enterprise, it has never been more critical for the Enterprise Architects to get out into the edges of the organization. There they must guide the development, sharing and integration of the single view of the business and technology landscape—the enterprise architecture.

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Capabilities Architecture Planning bridges the strategy-execution gap

The challenges of mapping day-to-day execution to business objectives in a digital climate should not be underestimated. According to research from PwC's Strategy&, more than 50% of executives say their businesses are not focused on executing their strategies. Most businesses aren't lacking in new ideas or innovation efforts, but few are able to bring them to market in line with their vision.

Capabilities Architecture Planning (CAP) is an end-to-end EA framework that bridges the strategy-execution gap for large scale transformation efforts. The framework is particularly well-suited for a digital climate based on its cross-functional approach and agile development processes.

In a nutshell, CAP achieves six goals:

01

Articulates business objectives in clear, actionable and prioritized sets of business capabilities

02

Associates business metrics to each business capability

03

Links each business capability explicitly to its process, organizational, digital and technology capabilities

04

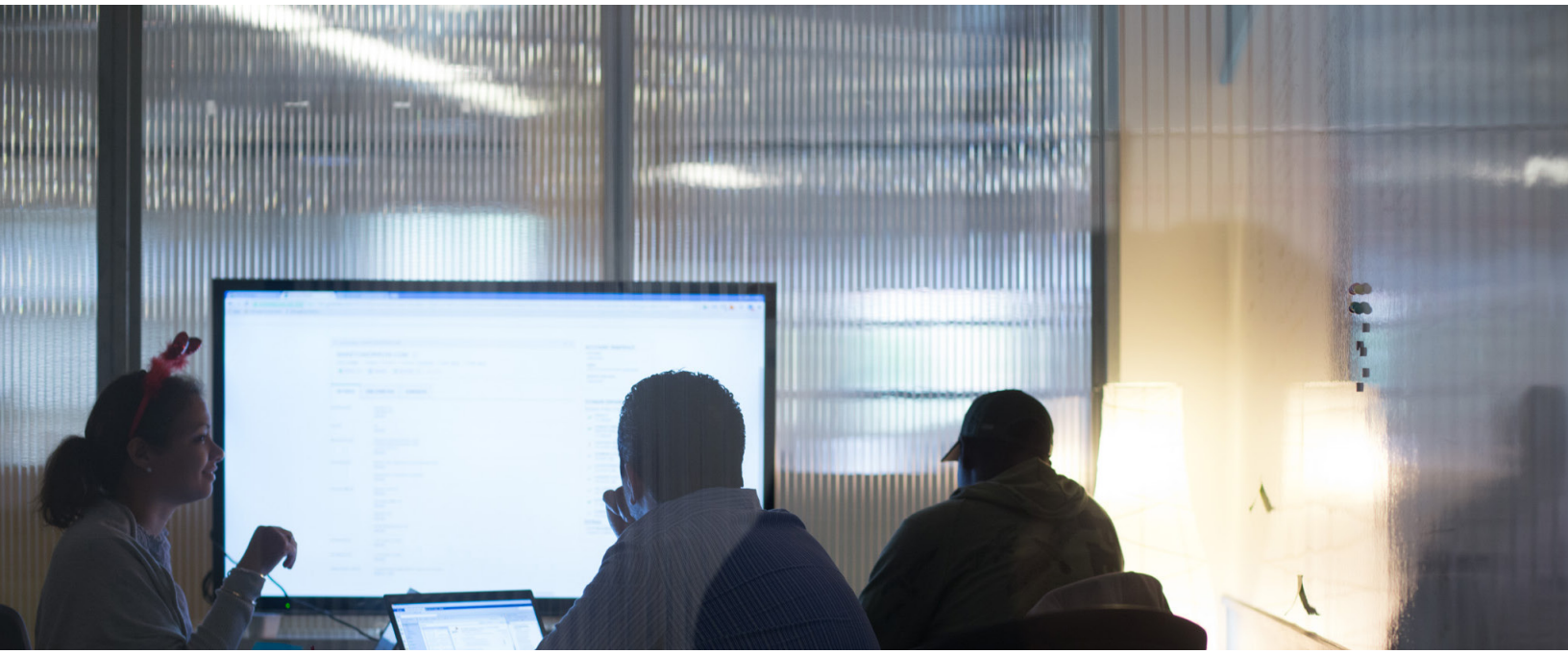
Groups business and associated process, organizational, digital and technology capabilities into initiatives within a strategic roadmap

05

Describes the business case for each initiative and associated business capabilities

06

Communicates the enterprise architecture blueprint and roadmap, from strategic planning through execution and into steady-state transformed operation



Creating a culture of collaboration

Central to CAP is ongoing business, digital, and IT collaboration, which synchronizes stakeholders around the right set of capabilities, that in turn, align with the business strategy. Under this approach, innovation and time-to-market can dramatically accelerate. Too often, strategy execution breaks down, as silos act in their own interests rather than those of the whole enterprise.

Further, functional departments are often asked to fulfill a large number of unprioritized and often conflicting demands. For example, IT may need to establish multichannel customer engagement, support significant product launches, focus on integration, and change architectural components. Costs soar, customer satisfaction tanks, and IT is blamed, even though prioritization is the root cause. CAP unifies the whole enterprise behind the right set of capabilities and paves the way for prioritization and focus based on business value.

Collaboration among business unit heads, functional leaders like the CMO and the Chief Digital Officer (CDO), and regional managers, enables a holistic view. Stakeholders can identify—and agree on—what is most important to the different customer segments in context of what the business does well; define the differentiated capabilities to achieve specific business goals; identify necessary trade-offs; and agree on priorities. However, without explicit leadership, along with the right process and framework to distill and capture these capabilities and priorities, the collaboration falls short. This is where CAP comes in.

The power of collaboration can be seen when looking at a US-based healthcare delivery business that trailed its competitors in virtual care capabilities that would deliver essential efficiencies to the care delivery system, a critical expectation of the 2010 Patient Protection and Affordable Care Act. Although the business was a leader in care delivery, each business unit and geography interpreted the telemedicine strategy differently, and they did not align around the core capabilities needed to achieve the overarching goal.

IT set off on its own to tackle the challenge without any business input. Business units not satisfied with the proposed IT solution implemented their own user-maintained telemedicine programs and enabling technologies. As a result, there was no consistent view of patient stakeholder groups and little alignment around priorities. More than 100 disconnected telemedicine experiments were created and operated concurrently. After wasting substantial time and money, senior clinical and technology leaders eventually pulled together stakeholders from business and IT to consider the strategy, identify the differentiated capabilities, and work together to execute the vision.

Through collaboration, alignment and explicit business architecture-driven planning, they were able to move forward with agility and precision. The business is now on its way toward a consistent and cost effective enterprise-wide telemedicine capability.

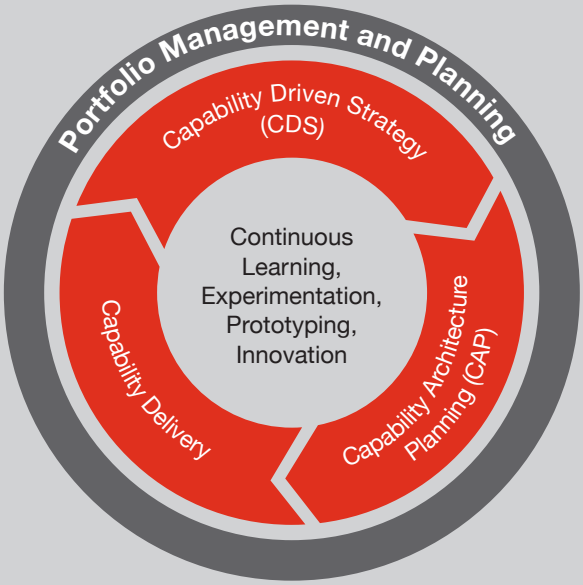
Synchronizing strategy through execution

Under the CAP framework, once the capabilities and business strategy are solidified, the focus shifts to portfolio planning, program mobilization and execution. This is a multi-layered effort, and each business capability, for example, needs to be further broken down into its component parts. Say a business wants to become the fastest package delivery service in the country. The business will need the capability to deliver packages within 24 hours (or less) anywhere in the US. They will need reliable methods of air and ground transport; delivery trucks outfitted with real-time GPS technologies; real-time tracking capabilities; centralized customer data and analytics technologies; and so on.

The team will need to evaluate its current capabilities and identify what new capabilities are needed. Key make-versus-buy decisions will help determine where to outsource to reduce costs. Blueprints bring the vision to life, and roadmaps prioritize programs, initiatives, and investments, and lay out a plan for execution. Initiatives that do not support the vision are scrapped.

Ongoing learning, testing and experimentation take place, within the parameters of the vision. As the business is able to focus on what it does best, the capabilities become stronger and stronger over time, eventually becoming virtually impenetrable by competitors.

Successful CAP links to a capabilities-driven strategy



What is Capabilities-Driven Strategy?

Many executives across industries struggle to develop and execute strategies successfully. Those that follow a Capabilities-Driven Strategy can enable their organizations to become more coherent and gain a right to win in the markets in which they compete. Applying a capabilities lens changes how executives make important strategic decisions, from growth to M&A to portfolio to cost cutting.

A Capabilities-Driven Strategy is based on three interlocking elements:

1. **Way to Play**: How you choose to face the market and create value for your customers.
2. **Capabilities System**: A system comprised of three to six distinctive capabilities—the key strengths that set your organization apart from its rivals. Each capability is delivered through the right combination of processes, tools, knowledge, skills, and organization—all focused on meeting the desired result.
3. **Product and Service Fit**: Based on your chosen way to play and capabilities system, which elements in your portfolio will grow—and which should go.

Charting the course: digital blueprints, roadmaps, and prototypes

Blueprints, roadmaps and prototypes are key tools of CAP, and once the capabilities are identified, they help define technology and business solutions as well as the right execution approaches. While these tools are used in other approaches, under CAP, they tightly connect to capabilities and business strategy.

Blueprints clearly illustrate the long-term vision across people, business process and technology. They inform, focus and align every layer of the enterprise around the business vision. Blueprinting also identifies gaps across people, information, process and technology, as well as areas for standardization and reuse, which can lower costs and drive efficiencies. The roadmap identifies, prioritizes and sequences funding, programs and initiatives, and provides an incremental path for execution.

Prototypes are instrumental for testing and experimenting, gaining stakeholder alignment, and illustrating the art of the possible before costly investments are made. For instance, say a town wants to build a new sports stadium unlike anything they have done before. An architectural firm is brought in and builds a prototype, which brings the idea to life and rallies stakeholders around the idea. The prototype identifies areas of stakeholder disconnect, and enables creative experimentation before decisions are set in stone.

For instance, the town learned that they needed to lower the height of the stadium due to new mandates. Digital prototyping allowed stakeholders to reduce the stadium height while exploring different seating configurations that would maintain the desired capacity. This effort saved substantial time and costs and helped the town avoid potentially costly missteps. As businesses undertake complex transformation efforts with millions or even billions of dollars at stake, prototyping can dramatically reduce risk and cost.

According to PwC's Global Digital IQ Survey, a digital roadmap is one of the 10 attributes most closely correlated to stronger financial performance. Roadmaps help map business and IT investments and initiatives to business strategy.

A financial provider puts CAP into action

A leading provider of financial data and analytics wanted to transform its business and IT in light of regulatory mandates and an urgent need to reduce operating costs. They deployed CAP and as part of the process, business and IT stakeholders collaborated to consider key questions: What is the business vision? What are the barriers and challenges? Given our strategic priorities, what needs to change? What core enterprise capabilities are needed, and what core enterprise capabilities do we already have?

CAP helped conceptualize the vision around becoming a much more nimble and efficient provider of data and insights. The strategy aimed to reduce reliance on people during the intake process and provide new Big Data-based analytics products in weeks, instead of months. The stakeholders determined clear and consistent goals around the transformation effort. They built a case for change at the corporate and functional levels, and defined the “future state” capability architecture model across people, processes, and technologies. An important part of the the process included creating transparency measures to ensure that functional capabilities tied to overall corporate objectives. To gain buy-in from the broader business, the team used blueprinting to educate and inform multiple layers of the enterprise. Prototyping helped demonstrate how key capabilities would manifest themselves and bring the vision to life.

The team mapped out a new set of integration capabilities, and several systems and processes were revamped to become more automated and much faster (e.g., ultimately reducing new data acquisition from days to minutes). New product development processes were supported by agile teams. Capabilities were also put in place to evaluate and act on smaller customer requests immediately versus only during the annual product planning process.

The team agreed on the right delivery methodologies and defined the sourcing model to develop and deliver the capabilities. This included leveraging existing capabilities, tool vendors, system integrators and independent consultants. Through ongoing collaboration, stakeholders ensured that the effort was on track to deliver what was right for the business in terms of scope, scale, costs, and timeframe. Ultimately, CAP helped unify stakeholders and move the business toward a common business objective without duplicating efforts and investments.

The enterprise architect and the glass house

Under CAP, the enterprise architect plays a critical role in the success of digital transformation. Many believe that the enterprise architect is becoming less important, while in reality the function is more critical than ever—but it must be done the right way. A common perception is of the enterprise architect sitting in a glass house pontificating. In fact, the enterprise architect should be a central player from strategy through execution—helping teams marry the traditional business with the future state business and technology architectures.

Enterprise architects need to be firmly embedded into projects as core team members—working on the ground to add value and expertise every day. They need to think beyond compliance with standards. Instead they need to focus on translating the blueprints and roadmaps into useable tools that drive business value and help leaders evaluate real-time impacts to the plan based on changes in the business and marketplace. Today's enterprise architect can be likened to a digital sherpa who climbs with the team, always with the master plan to the summit in mind. The sherpa brings the insight and know-how necessary to adjust course based on shifting winds, while steadily moving ahead until the flag is mounted at the top.

In a digital world, enterprise architects need new skills, like strong business acumen and the know-how to collaborate with different stakeholders such as the marketing, functional, informatics and customer experience leader. An outside-in view and a solid grasp of the digital consumer are important. Data and analytics should be top of mind. This new breed of enterprise architect should be at the heart of digital businesses—to lead the design and development of digital platforms and architect integration across the ecosystem.

Looking ahead

Businesses that double down on their EA approaches as they plot their digital journey and employ CAP are far more likely to achieve competitive advantage than those that take a disjointed approach. CAP is an end-to-end process that helps complex businesses address fragmentation and link execution to business strategy—helping the enterprise unify the entire the entire workforce around common objectives. CAP helps establish a culture of collaboration across business units and functions like marketing, product development, and data science. The approach synchronizes strategy, capabilities and portfolio management, while creating a rich environment of continuous learning, innovation and experimentation. The definition and oversight of CAP should be driven at the top of the house with a combination of COO, CIO and CMO at the table.

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