

# delivering business value through IT

the next evolution of the IT framework  
toolkit for successful startups

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## Executive Summary

In a previous report, we outlined an IT toolkit for startups, and analyzed how USAA was able to leverage principles of the toolkit to develop agile capabilities to address the expanding mobile landscape. Often when we speak of IT frameworks and maturity, it is from the perspective of established firms looking to resolve performance issues, or respond more effectively to changing market conditions that may include competition, declining market opportunities or adverse political and economic environments.

When composing the IT Framework Toolkit for Startups, the original intent was to build a modular infrastructure suitable for a young startup. The volatile startup environment, along with the often inevitable pivots in strategy, necessitate that any framework must be able to grow and adjust to support the organization, while reducing the need for expensive, wholesale changes down the road. Early stage adoption of IT framework principles can be an enabler for quest style, rapid-results delivery that we typically reserve for new firms.

As startups and mobile app developers come under increasing scrutiny for data privacy concerns, technology frameworks that simultaneously allow for rapid market delivery and due diligence will be critical to ensuring firms can absorb market changes, such as increased FTC regulation, while also remaining competitive and relevant.

Evolving from a highly agile and distributed organization to one with tighter processes represents a distinct challenge for many organizations. Structure and predictable performance become critical to ensuring consistent results. Change management and the theory of the business are needed to assess where the firm may need to pivot, and how to manage the changes in strategy and operations that result from revising said theory. Successful evolution requires changes to a culture and systems ecosystem that worked well when the firm was young and less complex.

Whether a firm is technical at its core or not, IT must

deliver functionality that is both directly and tangentially related to delivery of core business products and services. In this report, we develop the next generation of the IT Framework Toolkit for the startup firm that has developed a solid business model, and is poised to develop their capabilities in order to:

- Respond to trends;
- Build dynamic capabilities in a dynamic environment;
- Transform the vision and theory of their business;
- Deliver agility through alignment;
- Measure the business value of IT, and;
- Proceed from strategy to execution.

### Respond to Trends

Applegate (2009) defines the business model as “how an organization interacts with its environment, to define a unique strategy, attract the resources and build the capabilities, required to execute the strategy, and create value for all stakeholders.” Likewise, Drucker (2005) speaks about the importance of accurately defining the theory of the business, which are “the assumptions on which the organization has been built and is being run” including markets, customers, competitors, technology, dynamics, strengths and weaknesses.

How an organization defines its business theory will drive other key decisions. Leadership would be spurred on to set goals for IT delivery that would enable them to operate at higher efficiency based on the goals they want to accomplish.

The theory of the business, in tandem with the vision, colors how a firm interprets and responds to market trends. CIOs should be monitoring trends in the consumer products landscape for all device types from game consoles to feature phones. Are there potential partnerships they can leverage with device manufacturers? What peripheral consequences could arise from a new tablet or mobile device that is multimedia focused (Ofek et. al., 2010), or targeted towards a highly engaged mobile demographic

like African-Americans or Hispanic-Americans (Brenner, 2013)? How could the leapfrogging trend for technology adoption in emerging markets impact content consumption from studio servers, or analytics regarding content popularity and future distribution decisions?

CIOs must consider the fact that consumers tend to be more engaged on mobile versus desktop (Tilton, 2012). For emerging markets, this is even more critical where consumers are skipping laptop adoption and engaging with the Internet on smartphones. Additionally, the Internet infrastructure is being challenged by the rising Internet of things. In an article from Forbes (2012), they note that over 15 billion things are connected on the Web, and these generate more than 50 billion intermittent connections. By 2020, over 30 billion connected things, with over 200 billion with intermittent connections (Forbes, 2012). This heralds a shift away from a client-server model to a model where devices, like sensors and RFIDs, behave autonomously and are becoming “a world of intercommunicating devices serving as the new web” (Hoffman, 2012). The existence of a direct user endpoint is no longer required, or necessarily a given (Hoffman, 2012).

Hoffman (2012) notes that for high priority devices like those used in medical delivery, network uptime and device reliability must be high. The billions of devices online will also contribute to the big data trend discussed above. Combining sales information from POS systems with RFID in warehouses and sensors measuring traffic in-store can provide retailers and suppliers with real-time information of customer behavior that drives strategic decisions about product offerings and customizations with high revenue potential.

Managing shorter windows or even simultaneous product releases means CIOs will need to consider embedding responsive design paradigms into the software development and infrastructure strategies to adequately manage increasing mobile page views, as well as shorter development cycles for web development.

## Build Dynamic Capabilities

As firms grow, they will undoubtedly face the paradox of too much of a good thing. Favorable press can grow to viral proportions in a short time, thus driving more traffic and sales to a business than they may be prepared to handle. Additionally, having implemented a smart sensor system to monitor environmental events, a firm could find themselves with both the data and agility to deliver valuable services and products in real-time. To ensure a responsive and quality experience for customers, organizations must build an infrastructure robust enough to handle dynamic fluctuations in web traffic, while remaining nimble enough to not create excessive and costly capacity that goes underutilized.

We can assume that many medium to large firms already have substantial investments in data center infrastructure. Organizational processes, data security concerns and culture would be impediments to convincing CIOs to move their operations to a more dynamic environment, like Amazon Web Services for example. However, startups are inherently dynamic and must build an organization with the capacity to “purposefully create, extend, or modify its resource base” (Helfat et. al., 2007; Esterby-Smith et. al., 2009). Startups are looking to disrupt a market, or, at a minimum, increase the competition for market share. Scaling quickly can be a challenge for a small firm with limited resources, both in terms of capital to acquire resources and build out the infrastructure to handle increasing demand.

If a firm has done well to pursue quest-style management model, the IT Framework evolution should be implemented to preserve this ability to work dynamically while also putting in place appropriate governance and process to deliver dynamic results in a consistent, predictable manner. The ability to scale and meet growing online demand generated by good strategy decisions and/or social buzz can accelerate market growth, or, conversely, lead to the firm’s demise if the customer experience is negatively impacted by an inflexible or inadequate infrastructure. This network effect operates exponentially

**TALENT MANAGEMENT BUILDS A CAPABLE WORKFORCE**  
*poised to seize new opportunities*  
 delivering innovative products & customer solutions in a  
**high-growth startup firm.**  
**a customer-driven culture of**  
**teamwork, cost-consciousness &**  
**process excellence**  
 establishes the modular web services infrastructure today that will  
**deliver agile innovation for the future.**

Rapid-Results / Rapid-results project management engages impact-driven project teams and adoption of an agile methodology by spearheading initiatives that reduce white space and integration risks, increasing successful delivery of products and solutions to market.

Working Smarter / Working smarter requires an ongoing commitment to leverage digital analytics in managing accountability and reinventing the organizational roles & structures essential to evolving from heroics to intelligent operations.

Agility / Agility is the catalyst that accelerates market delivery of quality products that delight customers, while actively promoting a culture of innovation within the firm when it becomes adept at shifting top talent & resources to new market opportunities and strong portfolio bets.

Maturity / A culture of innovation built on a modular Web services infrastructure where talent is rewarded for productivity while optimized processes enable rapid delivery of products and solutions to market.

Quest Model / The quest management model is well suited to high-growth startups and firms seeking to remain dynamic throughout their maturity evolution by focusing on intrinsic motivation that empowers talent to define the means for capturing real market opportunities.

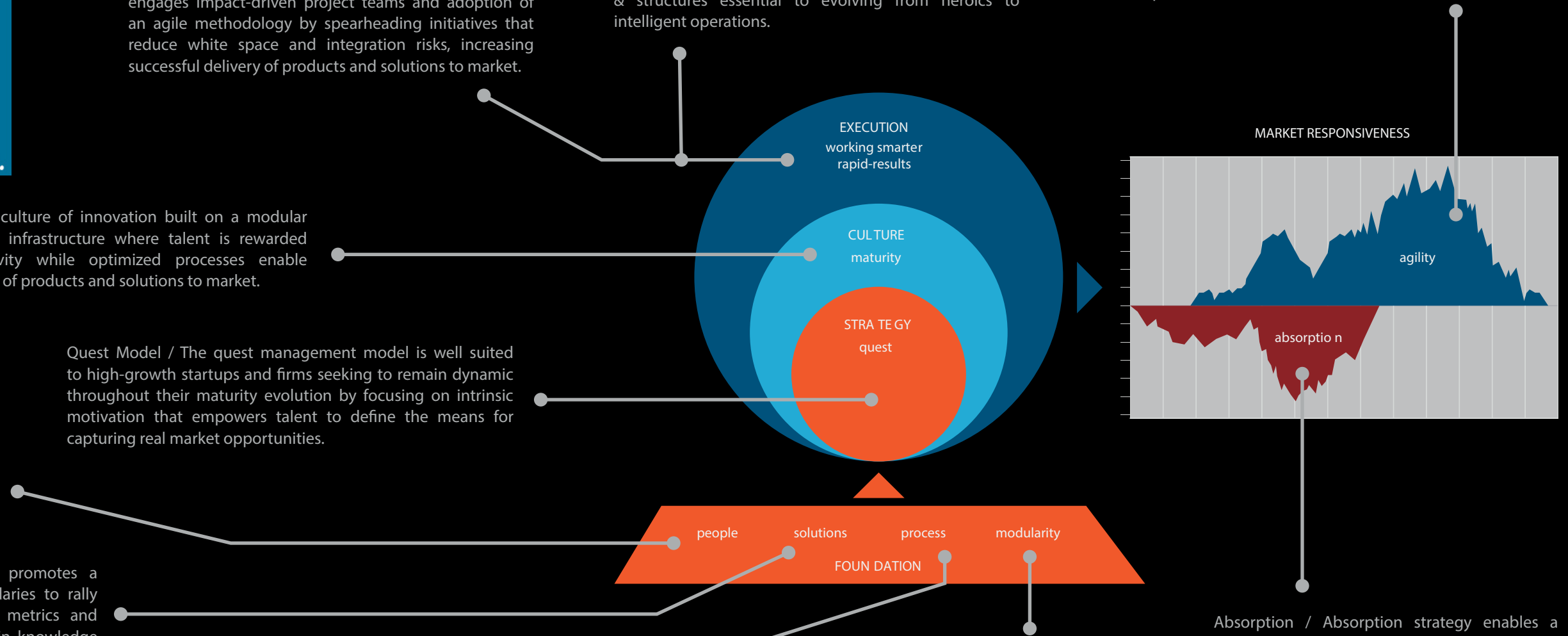
People / Talent management builds strong workforce capability when knowledge workers are poised to support the firm's core competency and competitive advantage in the market.

Solutions / The solutions-oriented firm promotes a culture of cooperation that spans boundaries to rally around the customer needs. Managers, metrics and incentives reward service and multidomain knowledge needed to be a cutting-edge solutions maker.

Process / Executive engagement coupled with top talent performers inspire high-efficacy process design that supports a customer driven culture of teamwork, personal accountability and enterprise capability.

Modularity / An organization develops modularity by implementing a service-oriented architecture foundation supported by best-of-breed business software, skilful knowledge workers and agile process capability.

Absorption / Absorption strategy enables a firm to weather competitive forces through low fixed costs, high cash reserves and lean staffing. Additionally, a variegated product and service pipeline diversifies cash flows attracting powerful patrons incentivized to stay engaged.



through viral propagation. Shuen et. al. (2009) note how companies like Xing and Flickr grew their online businesses on the premise that “members of a community naturally influence each other.” Huckman et. al. (2008) demonstrate how Animoto’s decision to leverage AWS allowed them to fully capitalize on their network effect by presenting users with a consistent and quality user experience as members began to influence each other into delivering more traffic to the site.

### Transform the Vision

- defining the behavioral theory of the vision
- redefining the organizational vision

As the vision evolves, so must the technology ecosystem that supports it. Organizations at this stage must analyze their current software environment, and determine to what level it can accelerate delivery of browser-based applications and functionality. The Jive software suite, for example, enables social collaboration internally as well as with external stakeholders through CMS, regional segregation of content and social sharing features. Continuing with the business architecture efforts already implemented, this can be a way to align IT metrics in real-time to strategic marketing and sales activities, and maintain ongoing collaborative communications between IT and the business.

Coupled with a design and development tool set like Adobe Digital Publishing Suite, IT can reduce its time to market by leveraging the design and code generation capabilities of Adobe Muse and Creative Cloud to deliver vision-supporting functionality to production in less time. Working closely with marketing and other design professionals internally, and through third party agency engagement, the process from concept to design to production can be streamlined, thus fostering more positive relationships through goal attainment, and securing IT’s position as a visionary partner to the business.

Decisions such as these are enabled when effective

governance works to ensure that IT is moving towards a growth-enabled model through effective alignment, change management and open communication across the organization.

### Deliver Agility Through Alignment

As Bhatt et. al. (2010) explains, IT in itself does not confer direct competitive advantage to the firm, however, the level of IT infrastructure flexibility can impact the firm’s ability to respond to opportunities, changing market conditions and resource allocation demands.

In an article from Forbes (2012), they note that over 15 billion things are connected on the Web, and these generate more than 50 billion intermittent connections. By 2020, over 30 billion connected things, with over 200 billion with intermittent connections (Forbes, 2012). This heralds a shift away from a client-server model to a model where devices, like sensors and RFIDs, behave autonomously and are becoming “a world of intercommunicating devices serving as the new web” (Hoffman, 2012). The existence of a direct user endpoint is no longer required, or necessarily a given (Hoffman, 2012).

The billions of devices online will also contribute to the big data trend. Combining sales information from POS systems with RFID in warehouses, and sensors measuring traffic in-store can provide retailers and suppliers with real-time information of customer behavior that drives agile decisions about product offerings and customizations with high revenue potential. But firms must focus on becoming effective at IT delivery first to avoid the alignment trap — a scenario where the ecosystem becomes overly complex due to business alignment efforts, and where IT delivery performance degrades.

One key to delivering agility is ensuring that leaders have the right balance of speed and accuracy when accessing knowledge for decision making. Knowledge management (KM) describes the activities, systems and processes involved in discovering, capturing, sharing and applying knowledge derived from data and information (Becerra). Knowledge within an organization can be implicit or

explicit. Through systems and processes, we seek to externalize implicit knowledge embedded with the people of an organization into explicit knowledge, which, over time, becomes embedded into the organizational culture and is again converted into implicit knowledge.

One manifestation of knowledge management is business intelligence (BI). BI is a direct result of insights obtained by revealing connections and patterns within data and information. The focus here is on discovering explicit knowledge through data access, analysis and presentation. Since BI focuses on the explicit element of KM, it is only one part of the overall KM strategy within an organization, but can serve as a valuable input into other KM processes and systems.

From a systems perspective, BI is an example of a technology solution implemented to enable processes for discovering, capturing and sharing knowledge that can enable better alignment and agility. Organizations must also establish the broader and longer term foundations to support KM including the infrastructure, mechanisms and overall technology ecosystem. The infrastructure refers to strategic implementations of data processing, data storage and communications networking that will support the KM technology ecosystem. The mechanisms include norms and beliefs of the organizational culture as well as the organizational structure needed to build the right level of KM understanding, incentives for knowledge sharing and communities of practice.

### Measure the Business Value of IT

Building custom software from the ground up no longer offers the advantage it once did (Bhatt et. al., 2010). Likewise, IT leaders must continually assess how well their investments are promoting growth for the organization. Not having the right technology in place to manage product releases, service delivery and social buzz can leave firms vulnerable not only to other established players, but also smaller producers. The rise of 3D printing, for example, could reduce the ramp up cost for manufacturing and lower barriers to entry for products as simple as jewelry to

more complex products like industrial parts.

Since consumers are more likely to engage on mobile versus desktop, traffic inside data centers, especially those that support e-commerce, will need robust infrastructures that can provide simplified, fast and secure payment processing to capture on-the-go mobile purchases. All of this increased traffic and engagement generates substantial amounts of data.

Collecting, storing and analyzing business data will be crucial as firms measure how well their online activities are leading to engagement and revenue generation. Gartner (2013) reports that the business trend is to make connections between systems where the data resides as opposed to building large and complex “single enterprise data warehouse” stores. Analytics systems will be required to make connections between disparate data sets quickly enough to produce real-time or near real-time metrics for business leaders. These connections will facilitate increased personalization, customer service and efficiency for firms (EMC, 2013).

Network administrators will need to architect an automated infrastructure that leverages agile analytics and storage that can scale within minutes (EMC, 2013). Storage and data network vendors offer solutions that can combine data center resources in various locations to create a large yet seamless scale-out data storage cloud that is managed as a single resource (EMC, 2013). Fiber optic data centers offer a solution to the level of internal compute power needed to process transaction and web metrics. Fiber can scale from 10 to 100Gb Ethernet making fiber ideal for a scale-out storage area network (Corning, 2013). Optical cable and hardware, including switches and servers, require not only less space, but also less power compared to copper wire, and this further lowers the cost of implementing and managing dynamically scalable network infrastructure (Corning, 2013).

### Proceed from Strategy to Execution

In the interest of being responsive, CIOs should consider third-party solutions like Adobe Social for social media

analytics, and SAP for industry verticals (Adobe, 2013; SAP, 2013). Since social moves so quickly, this is one area where CIOs may want to prioritize speed over accuracy and quality to ensure leadership has timely information needed to execute on strategy (Davenport et. al, 2011).

Failure to deliver business alignment from technology is often a symptom of inadequate processes for planning what assets should be developed; implementing that plan against good best practices; evaluating effectiveness of planning and implementation efforts; and, institutionalizing the payoffs (Kholi et. al., 2004). Kholi et. al. (2004) recommend a framework that seeks to drive better alignment through implement governance activities across four phases: alignment, involvement, analysis and communication (AIAC).

A phased and deliberate approach may not be warmly received within the current culture, but is essential for the long-term health and growth of the organization. T project selection and prioritization processes that align

to business revenue are instrumental in driving valuable conversations about the percent of project spend as it relates to revenue generation, and can further help to align IT metrics as a whole to business drivers, strategies and KPIs (Mitra et. al., 2011).

As a startup organization progresses on its path to governance maturity, they will want to focus on the difficult decisions of consolidation. This applies to both applications consolidation and retirement, as well as the data center infrastrucutre needed to deliver IT, including virtualization and internal cloud computing.

Cloud applications like Salesforce and Basecamp become considerations over in-house proprietary systems. Cloud applications can deliver best-in-class collaboration with internal and external stakeholders. Licensing costs replace server plus licensing costs required for installed software, and reduce overall custom development efforts that risk keeping an organization in the less effective quadrants of the IT alignment framework outlined by

Shpilberg et. al. (2007).

- Strategy formation
- Moving from strategy to execution
- Avoiding the quick win paradox but still showing value early

### Looking Forward

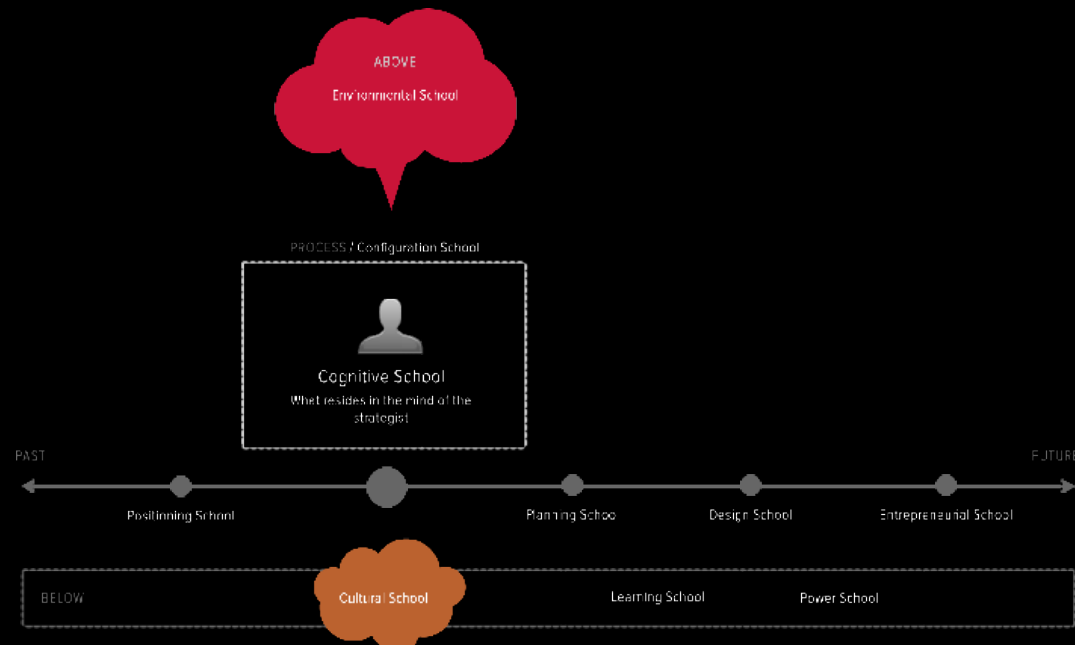
With the growth of smartphone ownership and mobile device usage, data networks must rapidly evolve to meet the growing information needs of a highly connected world. By 2015, Gartner (2013) predicts that over 80 percent of mobile devices sold in mature markets, like the United States, will be smartphones, and that 50 percent of laptop shipments will be media tablets. In-house IT departments will no longer be able to standardize on a Windows platform with only a few models to support.

In the consumer domain, ISPs will witness a rise in traffic as more smartphone users come online, and as brands begin to develop and promote their mobile web offerings. Apps still enjoy a more robust experience since they have access to unique device OS features such as those found on iOS. However, mobile web offers brands an opportunity to reach more consumers, especially those who do not frequent app stores, but do have the ability to go online with their mobile device. As HTML5 continues to expand its capabilities, mobile sites will deliver richer functionality, thus creating a positive feedback loop that entices users to view more web content on mobile devices.

IT leaders will be challenged in this new digital landscape to ensure that technology is supporting a theory of the business that aligns with market forces as the ways in which revenue is captured, and content is consumed, continue to evolve (Drucker, 2005). By focusing on responsive design, real-time analytics and flexible infrastructure, CIOs can enable the firm to be more nimble, and respond to changes in the market faster than they have historically. Being responsive means not only expanding a firms operations or product offerings, but also growing an organizational culture that values innovation and views

flexible IT as an enabler for strategic advantage.

Process, governance and workforce capability maturity need not be synonymous with impeded growth. Instead, these cornerstones of IT framework best practice can increase a young firm's ability to seize opportunities in a measured way, and position them to capitalize on high ROI opportunities in the future. Speaking the language of business through well aligned IT metrics and less technical jargon can help to foster relations, and drive better collaboration, understanding and risk-reward decision making for business and technical leaders.



## References

- Adner, R., & Snow, D. C. (2010). Bold retreat: A new strategy for old technologies. *Harvard Business Review*, March 2010, 1-6.
- Adobe Digital Publishing Suite. Retrieved from <http://www.adobe.com/products/digital-publishing-suite-single.html>
- Adobe Inc. (2013). About Adobe Social. Retrieved from <http://www.adobe.com/products/social.html>
- Amit, R., & Zott, C. (2012). Creating value through business model innovation. *MIT Sloan Management Review*: 53(3), 41-49.
- Ancona, D., Bresman, H., & Kaeufer, K. (2002). The comparative advantage of X-Teams. *MIT Sloan Management Review*: 43(3), 33-39.
- Applegate, L. M., Austin, R., & Soule, D. (2009). Corporate Information Strategy and Management: Text and Cases.
- Bachman, K. (2012). Franken's Location Privacy Bill voted out of judiciary committee proposal won't advance until next Congress. *AdWeek*. Retrieved from <http://www.adweek.com/news/technology/frankens-location-privacy-bill-voted-out-judiciary-committee-145938>
- Basenese, L. (2013). The Seven Most Investable Technology Trends of 2013. Retrieved from <http://www.wallstreetdaily.com/2013/01/14/seven-technology-trends-2013/>
- Beath, C. M., & Ross, J. W. (2010). PepsiAmericas: Building an information savvy company. *MIT Sloan Center for Information Research*: February 2010(378), 1-17.
- Bhatt, G., Emdad, A., Roberts, N., & Grover, V. (2010). Building and leveraging information in dynamic environments: The role of IT infrastructure flexibility as enabler of organizational responsiveness and competitive advantage. *Information & Management*, 47(2010), 341-349.
- Bingham, C. B., Eisenhardt, K. M., & Furr, N. R. (2011). Which strategy when? *MIT Sloan Management Review*: 53(1), 71-78.
- Birkinshaw, J., & Goddard, J. (2009). What is your management model? *MIT Sloan Management Review*: 50(2), 81-90.
- Brenner, J. (2013). Pew Internet: Mobile. *Pew Internet & American Life Project*. Retrieved from <http://pewinternet.org/Commentary/2012/February/Pew-Internet-Mobile.aspx>
- Burrus, D. Daniel Burrus' Top Twenty Technology-Driven Trends for 2013. Retrieved from <http://www.burrus.com/resources/daniel-burrus-top-twenty-technology-driven-trends-for-2013/>
- Carr, N. (2003). IT doesn't matter. *Harvard Business Review*, R0305B, 41-49.
- Chatterjee, P., & Gupta, V. (2009). NetApp's corporate culture and HR practices. *ICMR Center for Management Research*: 2009(409-049-1), 1-16.
- Chun, M., & Mooney, J. (2009). CIO roles and responsibilities: Twenty-five years of evolution and change. *Information & Management*: 46(2009), 323-334.
- Collins, J. C., & Porras, J. I. (1996). Building your company's vision. *Harvard Business Review*, 74(5), 65-77.
- Curtis, B., Hefley, W. E., & Miller, S. A. (2001). People Capability Maturity Model® (P-CMM®) Version 2.0. Carnegie Mellon Software Engineering Institute. Retrieved from <http://www.sei.cmu.edu/library/abstracts/reports/01mm001.cfm>
- Cusumano, M. A. (2010). *Staying power: Six enduring principles for managing strategy and innovation in an uncertain world*. Oxford University Press.
- Danner, P. (2012). USAA awarding hefty bonuses again. Retrieved from <http://www.mysanantonio.com/business/article/USAA-awarding-hefty-bonuses-again-2675546.php>
- Davenport, T. H., & Snabe, J. H. (2011). How fast and flexible do you want your information, really? *MIT Sloan Management Review*, 52(3), 57-62.
- Deloitte. 2013 Outlook on Telecommunications: Interview with Craig Wigginton. Retrieved from [http://www.deloitte.com/view/en\\_US/us/Industries/industry-outlook/839e85e47142b310VgnVCM2000003356f70aRCRD.htm](http://www.deloitte.com/view/en_US/us/Industries/industry-outlook/839e85e47142b310VgnVCM2000003356f70aRCRD.htm)
- Deloitte. TMT Predictions 2013 - Telecommunications. Retrieved from [http://www.deloitte.com/view/en\\_GX/global/industries/technology-media-telecommunications/tmt-predictions-2013/tmt-predictions-2013-telecommunications/index.htm](http://www.deloitte.com/view/en_GX/global/industries/technology-media-telecommunications/tmt-predictions-2013/tmt-predictions-2013-telecommunications/index.htm)
- Domo. (2012). Portable power: The progress of mobile business intelligence. Retrieved from <http://www.getapp.com/blog/best-business-intelligence-infographics/>
- Drucker, P. with Macriarello, J. (2005). *Management*, Revised Edition. Collins, Part II - Chapter 8 (The Theory of the Business).
- EMC. (2013). Create new business value with big data. Retrieved from <http://www.emc.com/campaign/bigdata/index.htm>
- EMC. (2013). Big data for the predictive organization. Retrieved from [http://web.emc.com/bigdata\\_ebook?cmp=micro-big\\_data-general-emc-Esterby-Smith, M., Lyles, M. A., & Peteraf, M. A. \(2009\). Dynamic Capabilities: Current debates and future directions. British Journal of Management, 20\(2009\), S1-S8.](http://web.emc.com/bigdata_ebook?cmp=micro-big_data-general-emc-Esterby-Smith, M., Lyles, M. A., & Peteraf, M. A. (2009). Dynamic Capabilities: Current debates and future directions. British Journal of Management, 20(2009), S1-S8.)
- Feurer, S. (2007). Enterprise architecture - Maturity stages. *SAP Deutschland AG & Co. KG*.
- Forbes. (2012). Gartner: Top 10 Strategic Technology Trends For 2013. Retrieved from <http://www.forbes.com/sites/ericavitz/2012/10/23/gartner-top-10-strategic-technology-trends-for-2013/>
- Galbraith, J. R. (2002). Organizing to deliver solutions. *Organizational Dynamics*: 31(2), 194-207.
- Gartner. (2012). Gartner Identifies the Top 10 Strategic Technology Trends for 2013. Retrieved from <http://www.gartner.com/newsroom/id/2209615>
- Gulati, R. (2007). Silo busting: How to execute on the promise of customer focus. *Harvard Business Review*: May 2007, 98-108.
- Hammer, M. (2007). The process audit. *Harvard Business Review*: April 2007, 111-123.
- Henderson, J. (2013). Top 10 telecom trends for 2013. Retrieved from <http://techday.com/telecom-review/news/top-10-telecom-trends-for-2013/140888/>
- Hoffman, J. (2013). Building for the Internet of things (and the demise of the client-server model). Retrieved from <http://venturebeat.com/2013/01/31/building-for-the-internet-of-things-and-the-demise-of-the-client-server-model/#iaUKcqVaertx95FH99>
- Huckman, R. S., Pisano, G. P., & Kind, L. (2008). Amazon Web Services. *Harvard Business Review*, 9-609-048, 1-25.
- Hugos, M. H. (2009). Business agility: Sustainable prosperity in a relentlessly competitive world. *Microsoft Series John Wiley*.
- Huselid, M. A., Beatty, R. W., & Becker, B. E. (2005). A players or a positions?: The strategic logic of workforce management. *Harvard Business Review*: December 2005, 110-117.
- Huseyin, T., & Du, Kui. (2011). EMC Corporation: Managing IT M&A integrations to enable profitable growth by acquisitions. *MIT Sloan Center for Information Systems Research*: August 2011(384), 1-26.
- IT Business Edge. Top 10 Technology Trends for 2013. Retrieved from <http://www.itbusinessedge.com/slideshows/top-10-technology-trends-for-2013-03.html>
- iTunes App Store. (2012). USAA Mobile. Retrieved from <https://itunes.apple.com/us/app/usaa-mobile/id312325565?mt=8>
- Jeffery, M. (2010). Strategic IT transformation at Accenture. *Kellogg School of Management*: 2012(KEL471), 1-18.
- Jive. Retrieved from <http://www.jivesoftware.com/why-jive/>
- Kantabutra, S. (2009). Toward a behavioral theory of vision in organizational settings. *Leadership & Organization Development Journal*, 30(4), 319-337.
- Katzenback, J., & Khan, Z. (2010). Leading outside the lines: How to mobilize the informal organization, energize your team, and get better results. *Jossey-Bass*.
- Kaye, K. (2012). Capitol Hill focuses on mobile privacy with spate of actions: Regulatory and legislative groups work to create standards around data gathering. *Advertising Age*. Retrieved from <http://adage.com/article/news/capitol-hill-focuses-mobile-privacy-spate-actions/238799/>
- Kaye, K. (2012). Mobile-privacy bill edges closer to Senate vote: Would require apps to obtain consent for data collection. *AdAge digital*. Retrieved from <http://adage.com/article/digital/mobile-privacy-bill-edges-closer-senate-vote/238768/>
- Kholi, R., & Devaraj, S. (2004). Realizing the business value of information technology: An organizational process. *MIS Quarterly Executive*, 3(1), 53-68.
- Kotter, J. P., & Cohen, D. S. (2002). *The Heart of Change: Real-life Stories of How People Change their Organizations*. Harvard Press.
- Kotter, J. P., & Schlesinger, L. A. (2008). Choosing Strategies for Change. *Harvard Business Review*, 86(7), 130-139.
- Matta, N. F., & Ashkenas, R. N. (2003). Why good projects fail anyway. *Harvard Business Review*: September 2003, 109-114.
- Mendoza, B. (2013). 2013 Predictions: Top-10 telecom trends for 2013 - What to watch in the coming year. Retrieved from <http://www.rcwireless.com/article/20130108/wireless/2013-predictions-top-10-telecom-trends-2013-what-watch-coming-year/>
- Mitra, S., Sambamurthy, V., & Westerman, G. (2011). Measuring IT performance and communicating value. *MIS Quarterly Executive*, 10(1), 47-59.
- MobThinking. (2013). Global mobile statistics 2013 Part A: Mobile subscribers; handset market share; mobile operators. Retrieved from <http://mobithinking.com/mobile-marketing-tools/latest-mobile-stats/a>
- New, C. (2012). Wells Fargo, SunTrust add mobile check deposit to banking apps. *The Huffington Post*. Retrieved from [www.huffingtonpost.com/2012/09/17/wells-fargo-mobile-deposity\\_n\\_1890498.html](http://www.huffingtonpost.com/2012/09/17/wells-fargo-mobile-deposity_n_1890498.html)
- Nguyen, T. A. (2013). 2013 technology trends. Retrieved from <http://blogs.sap.com/innovation/industries/2013-technology-trends-025415>
- Ofek, E., & Wathieu, L. (2010). Are you ignoring trends that could shake up your business? *Harvard Business Review*: July-August 2010, 125-131. Rettig, C. (2007). The trouble with enterprise software. *MIT Sloan Management Review*: 49(1), 20-27.
- Pelson, J. (2012). The Future of Mobile: The Biggest Trends for 2013. Retrieved from <http://www.broadbandconvergent.com/mobile-market/future-mobile-biggest-trends-2013/>
- Plunkett Research. (2012). Plunkett's Telecommunications Industry Almanac 2013: Telecommunications Industry Market Research, Statistics, Trends & Leading Companies. Retrieved from [http://www.reportlinker.com/p01027638/Plunkett-s-Telecommunications-Industry-Almanac-Telecommunications-Industry-Market-Research-Statistics-Trends-Leading-Companies.html#utm\\_source=prnewswire&utm\\_medium=pr&utm\\_campaign=Telecommunication\\_Services](http://www.reportlinker.com/p01027638/Plunkett-s-Telecommunications-Industry-Almanac-Telecommunications-Industry-Market-Research-Statistics-Trends-Leading-Companies.html#utm_source=prnewswire&utm_medium=pr&utm_campaign=Telecommunication_Services)
- Points, E. (2013). Top 10 Telecom Trends for 2013. Retrieved from <http://blog.xo.com/industry-trends/top-10-telecom-trends-for-2013/>
- PWC. (2012). PWC View: Five trends to watch in telecom during 2013. Retrieved from [http://www.pwc.in/en\\_IN/in/assets/pdfs/industries/telecom/telecom-trends.pdf](http://www.pwc.in/en_IN/in/assets/pdfs/industries/telecom/telecom-trends.pdf) North Coast. (2012). How to create a culture of gratitude. Retrieved from <http://www.northcoast99.org/blog/?tag=Rewards>
- Ready, D. A., & Truelove, E. (2011). The power of collective ambition. *Harvard Business Review*, December 2011, 1-10.
- Reeves, M., & Deimler, M. (2011). Adaptability: The new competitive advantage. *Harvard Business Review*, July-August 2011, 134-141.
- Rice, M. P., O'Connor, G. C., & Pierantozzi, R. (2008). Implementing a learning plan to counter project uncertainty. *MIT Sloan Management Review*: 49(2), 54-62.
- Rogers, P., & Blenko, M. (2006). Who has the D?: How clear decision roles enhance organizational performance. *Harvard Business Review*: January 2006, 52-61.
- Ross, J. (2004). Research briefing: Project governance at USAA. *MIT Center for Information Systems Research*: IV(1D), 1-3.
- Ross, J. W., & Beath, C. M. (2010). USAA: Organizing for innovation and superior customer service. *MIT Center for Information Systems Research*, December 2010(382), 1-18.
- Ross, J. W., & Quaadgras, A. (2011). Working smarter: The next change management challenge. *MIT Center for Information Systems Research*: XI(1), 1-3.
- Ross, J. W., Weill, P., & Robertson, D. C. (2006). *Enterprise Architecture as a Strategy*. Harvard Business School Press.
- SAP. (2012). Benefits of a business intelligence analytics system.
- SAP. (2013). About SAP for Media. Retrieved from <http://www.54.sap.com/industries/media/solutions/sub-ind/broadcast-management-software-systems.html>
- Serena. (2012). There's more to agile than development. Retrieved from <http://www.serena.com/solutions/agile-development/agile-infographic.html>
- Schein, E. (2010). *Organizational culture and leadership*. John Wiley & Sons.
- Shpilberg et. al. (2007). Avoiding the alignment trap in information technology. *MIT Sloan Management Review*.