Excerpt from: Organizational Transformation is the Key to Digital Transformation

Abstract

This document continues the discussion we began in the TechVision report “The End of EA and IT as We know IT” and further describes a new organizational model designed to be more adaptive and responsive to dynamic business needs. We believe that this will be key to not only the future of IT, but the survival of many businesses that are increasingly dependent upon better connections and relationships with customers, prospects, employees and partners.

To bring these concepts forward, we establish five principles for this transition and develop at length the reasoning, new roles, and important caveats for the organizational transformation we advocate. We believe the result of this transition is a more agile IT capability that is more responsive to the business, yet able to leverage the years of institutional knowledge and grounding in the key processes responsible for the governance of IT assets. We believe it is imperative that IT is leveraged by the business, and for the business, and we think this model provides an excellent blueprint for undertaking the transformational journey.

In this report, we propose a representative organizational structure to address the business imperatives resulting from the intensity of competition in the digital era. This is designed to improve competitive positioning by leveraging the benefits of a rapid application cycle time that maximizes customer intimacy. We introduce the idea of Business Integrated DevOps (BIDevOps) which adopts a highly integrated collaborative form of the DevOps model, now managed by product managers in the business units. These ideas represent the means to reduce friction in an enterprise, empower the Line of Business (LOB) units, and improve agility in the Digital World.

Author:
John Mellars, Principal Consulting Analyst
John@techvisionresearch.com
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Executive Summary & Key Advice

This research report builds on our earlier report and examines new organizational structures, technologies and cultural changes necessary to prepare organizations to fully embrace and gain the benefits from Digital Transformation. The competitive imperative is stronger than ever, and enterprise effectiveness and possibly even survival is at stake. It is our belief that over the next 5 to 10 years, perhaps 60 – 70% of Fortune 100 enterprises will be disrupted by these digital transformation forces.

Given the pervasive movement to the cloud and focus on digital transformation, we describe a model for enterprise IT and lines of business to work together in a way that enables organizations to compete better and be more successful going forward. The central theme is to move the center of focus from large IT organizations to the Lines of Business and establish a lighter weight form of central guidance/governance responsible for stewarding enterprise requirements and meeting compliance demands.

We propose a different organization under a newly titled C-level executive called the Chief Information Technology Officer (CITO). This executive is truly a new role and is chartered with several goals. Among these are:

- Leading the required cultural change within the enterprise itself
- Providing the policies and governance that protect and advance the needs of the enterprise
- Ensuring technology innovation is properly addressed

We consider the ramifications of this concept and suggest priorities to be considered by senior enterprise leadership in support of digital transformation.

We also discuss transitioning large portions of the traditional IT organization, as it exists in traditional CIO IT models, out to the LOBs. The foundation of this transition is to empower teams to be blended into the LOBs which we call Business Integrated Dev Ops (BIDevOps) teams. They are located within a product manager’s group, or similar group, within the LOB. These teams include the business analysts, requirements analysts, designers, coders, testers and application operations staff that in this new model are closest to the business and its customers and operate in a low friction, more rapid response manner. We see these application development teams migrating to an agile DevOps model.
We have established a set of 5 principles to guide the construction and enablement of this new structure. These principles are organized into 3 different areas.

- Organization: New structural and organizational models.
- Talent: New roles and types of talent needed.

These ideas will not lead to success unless the organizational culture is changed. It takes time and the right people to exhibit the breakthrough performance these ideas can generate, and this leads back to CITO change management influence along with C-suite commitment and LOB leadership.

We believe the CITO must, in conjunction with the C-suite, be committed to this transformation, and as a result, continuously press for the change. With the commitment of management, this transition should take roughly three years to implement. Without the right leadership, organizational structure and systemic effort to drive needed change, it will wither and die as organizations revert to their comfortable state. Make no mistake, these changes are difficult, time-consuming and have a tremendous impact on the organization. Reaching breakthrough performance is a daunting task, but in fact, we believe it is a necessity if enterprises are to move into this digitally transformed era successfully.

While this transition is occurring, the organization must continue to take care of the legacy application portfolio, along with the supporting infrastructure and continue to address the increasing technical debt of the organization. This technical debt places significant risks from the perspective of security, availability and functionality, and should be understood and alleviated where possible. Application portfolios should be in place and supported perhaps in the context of cloud migration assessments.

Embracing digital transformation requires rethinking how IT works with and supports the needs of the business. This report identifies key organizational elements and a set of guiding principles to position an organization for sustainable success in this new world.
Introduction

In the TechVision report: “The End of Enterprise Architecture, and IT as we know IT” by John Mellars and Gary Rowe we began the discussion about a fundamental transformation in IT and offered suggestions for steps that can be taken to move along this new digital business path. We now continue this discussion at an increased level of detail. We believe the rapid development of technology and the disruptive speed with which it has been immersed in business and culture, creates an increasingly compelling argument for significant change in IT, the way IT is incorporated into Enterprises, and how IT serves the lines of businesses. It is worthwhile noting the ideas discussed here can be categorized as part of an organizations innovation strategy and some of the advice and guidance provided by Fred Cohen in the TechVision article “How to Accelerate Innovation in a Risk Adverse World” can benefit those planning this kind of transformation.

In this report, we propose a representative organizational structure to address the business imperatives resulting from the intensity of competition in the digital era. We discuss the opportunities for improving the ability of organizations to compete by leveraging the benefits of a rapid application cycle time that maximizes customer intimacy. The idea of Business Integrated DevOps (BIDevOps), introduced below, provides breakthrough opportunities, but is, to say the least, challenging to achieve. This model is consistent with the suggestions in our previous work. These ideas represent the means to reduce friction in an enterprise, empower the Line of Business (LOB) units, and improve agility in the Digital World.

The LOB unit’s responsibilities, within the context of the enterprise, are increased in our model, as is the LOB’s ability to meet the demands of competing in today’s environment. In our model, Information Technology (via BIDevOps) is fully integrated into the business, and thereby contributes maximum value to the business and enterprise. It is no longer a separate and distinct affair, distant from the business functions, and the associated budget and investment are integrated with the business strategy and product decisions and the reality of business operations.

We acknowledge that organizations are all different, and that culture, industry, and style all vary. There is also the view that large enterprises cannot change very easily for all sorts of reasons, including large legacy application bases, and disbelief that a new model will do much to solve IT problems, and no easy way to calculate the ROI associated with this transformation. These arguments are often presented, but we believe they are examples of change resistance. This is where CEO and CITO leadership count. We build a generalized case as an example, and offer a set of principles that can be used to adapt the ideas to an organization. But let there be no misunderstanding, this is a difficult road and will require leaders who are fully aware of the path they want to take and why. They must be committed over a significant period to gain the needed benefits.
A New Organizational Model

We start by depicting an illustration of the transformation in organization structure required to enable the new digital company. We are familiar with the sample “current” structure depicted in figure 1.

In this example, we are showing a common version of the traditional central IT organization, with the CIO reporting to the CEO and each operational domain living within IT, reporting to the CIO.
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Fig. 2 Suggest to be IT org structure

Chief Information Security Officer and Chief Privacy Officer

The organization chart we have drawn does not discuss the important positions of Chief Information Security Officer (CISO), and Chief Privacy Officer (CPO). We expect to discuss these in upcoming articles. The organizational placement of these varies by the type of industry, compliance environment and risk profile. In some cases, they may be part of the Chief Legal Officer's Team and in others there may be a direct reporting relationship to the CEO. As a general rule of thumb, we suggest the CISO and CPO report as high up in the organization as possible, preferably to the CEO.

The context for this new organization structure is the changing needs of managing technology in the new digital company. Items to note are:

- The evolution of the traditional CIO to the CITO (a position we first introduced in the TechVision report: The End of Enterprise Architecture, and IT as We know IT)
• Moving application developers to the Line of Business (LOBs) and out of central IT, which are then integrated into the business units and processes.

In this model, the legacy functions of Enterprise Architecture no longer appear, as the activities are altered, enhanced and relocated to the LOBs where they function more effectively. This produces inherently less business friction. Additionally, we disperse the Enterprise PMO function, moving its functions in the various business units to increase organizational agility. These activities occur as a part of the business units planning process and then are integrated into the business strategy and execution plan. To say it simply, they have been moved to the business unit’s budget and accountability. We adopt a highly integrated collaborative form of the DevOps model, now managed by product managers in the business units who oversee the entire product planning, development, operation and support, including its digital and information technology aspects. We call this new model Business Integrated DevOps, (BIDevOps). In this model, the enterprise maintains governance and policy control within central IT so the entire enterprise benefits from common structures and the reuse of patterns that have been proven effective.

The CITO, who replaces the CIO, has a different set of responsibilities, and along with the BIDevOps organizational components, adopts a highly collaborative and integrated approach with his/her peers to accomplish business results in an agile and customer-focused way. The proposed model represents a significant transformation and requires many changes, usually including cultural change at all levels of the organization. There will be a significant shift in what is required of people performing their daily tasks. The net result for organizations able to make the change will be more agility and faster response to competitive demands. All this should lead to higher profitability and in some cases, perhaps, survival.

The LOB Organization Structure

We at TechVision are suggesting that the LOB organization be adapted to incorporate the IT functions aligned with the organizational principles enumerated here. Placing these increasingly critical functions closer to the business unit, including strategy and process execution, ensures they are directly in the product, delivery, and customer feedback loops. We believe this is how to achieve the greatest impact on business success. The recommendation is a more sophisticated and more complex structure than is typically seen today. But on the other hand, successful
practitioners will see substantial improvements in delivering services to customers and in turn, improved business results by reducing business friction and increasing customer interaction. We discuss some of the details in the following sections.

A primary goal of integrating IT into the LOBs is lowering business friction. This move also provides tighter integration with business processes and faster assimilation of customer feedback, which can help achieve a competitive advantage. It also helps to ensure that business strategy drives decision making, not IT. So, the idea of determining the product strategy in close proximity to the execution vehicle is key.

This framework has business units prioritizing expenditures and is an integrated part of the overall business unit plan. This is a stark contrast to the traditional model with separate IT budgets that were gathered from each business unit, balanced over all the requests and submitted to the budget approval process. This new model is designed to limit this friction. Business units might get a strategically apportioned share of what the enterprise can afford and can make their case in each budget cycle. This is clearly an enterprise decision made and influenced by the market. The details of how the line of business budget is spent would be made by the business, based on business goals, and not based on IT issues or items. Different business units will have different emphasis on usage of technology and would incorporate that into their strategy. They would be accountable and responsible for business results and not be constrained by how those results are achieved. This is a high-friction process in too many organizations.

Functions and Structure

We recognize that there will be cultural and industry-specific organizational needs that need to be accommodated. That said, most organizations should consider moving the business-focused components of IT into the business unit to increase responsiveness to customers, shorten feedback cycles and improve the ability of a business to direct and prioritize investments. This moves decision making to where knowledge and information about what is needed is greatest, resulting in better, quicker business decisions and resulting actions. There should reduce friction, in that business leaders will have more control (and accompanying accountability) of the activities. This reduces contention in the organization and keeps the focus on the business strategy and how the enterprise invests and subsequently executes.

The CEO, the CFO and all the other C-level executives in conjunction with the LOB executives are now more directly accountable as technology decisions are not separate from business strategy decisions, but an integral part of them, thus tying closely the technology and application investments made for a given return. There is no side path where the business must fight for its share of the IT budget in another organization. This removes an IT-oriented decision process that is a waste of time and efficiency.
The use of cloud tools and infrastructure is bringing advanced IT capability to the enterprise and line of business through the removal of substantial pieces of infrastructure inertia and availability of application development and deployment technology. Tools and process that enable the journey to continuous development and the assurance of high quality are available. We believe it will take several years for enterprises to make pervasive changes but also believe that improvements can be made more rapidly if the right area are chosen and leadership is convinced of the need for change. We predict that the rapidly changing business and operational models not to mention technology and the cloud will disrupt significant numbers of market leading enterprises. Done right, the business can move faster and be more effective.

As organizations aligned with the principles described in this document, LOBs can better determine their digital business strategy and with the supporting skills and tools to execute on this strategy. The execution of the associated IT activities is subject to the governance and policies produced by the CITO’s organization, which ensures the enterprise requirements are met. The CITO’s team exerts governance through the Technical Procurement group, and the functional management team as discussed below. It is interesting to consider the concept of the Enterprise Product Manager in the CITO’s team as glue that holds the functional managers, the LOB IT teams and the Procurement teams together. These activities create a horizontal swath through the organization. (. On the other hand, the BIDevOps teams in the LOB units including the business analysts, application designers, coders, testers, release team, deployment team and the operations team must be sensitive to the policies and governance exerted by the CITO’s team for the benefit of the enterprise. This governance and policy will need to be flexible and evolve over time, but the interface must be one of cooperation, understanding and coordination to assure the dual goals of business flexibility and enterprise wellbeing are met.

A new perspective is needed from the old model of central IT standardizing on infrastructure solutions across the enterprise to control costs. In the digital business and DevOps model, it is about how the applications are architected. The CITO and his teams will need to be afforded input in how people are selected for the business BIDevOps teams to affect their goal for the enterprise to achieve a different but more successful model.
We have purposefully not established central functions of Portfolio Management and Enterprise Architecture (EA) thereby eliminating sources of business friction. The processes involved in EA are too slow to react in the digital business age. These functions should occur at the business level, and as part of the transition, the people might be moved to relevant line of business units as appropriate. Note that this is another potential influencing point of the CITO. The staff that used to hold these EA titles can move into the business units where their skills and knowledge are directly applicable. As they do so, but they can also carry with them the culture and influence to support a new way of working and a new culture. They are CITO emissaries. The degree to which these people are respected in the organization will be important in this role. In a like fashion, the ideas and staff associated with centralized PMO’s devolves into the business. We are suggesting these people’s skill sets be used in the business and perhaps on a broader basis, that these skills will become integrated with the product mangers team in the overall business execution activities.

To reiterate, strategic planning and operationalizing this planning by business unit across the enterprise, within the umbrella of the enterprise strategic and operational goals, is critical. As an example, if a business unit chooses a strategy that demands more manufacturing capacity by a certain date, how is that handled? Perhaps no difference from what is done now. CEOs, CFOs and Boards vet the forecasts vs the investments and decide. These occurrences inspire loose coupling to improve business flexibility by making it easy to connect them together.
Attention to automating everything, not only for the speed of the process, but for adherence to the process and repeatability, leads directly to quality management and therefore business improvements. A unit's ability to effectively automate is a competitive advantage. Without automating processes, such as testing, release, and deployment, the people involved will not be able to contribute maximum advantage and leverage their intelligence and business and technical prowess. Look also for Artificial Intelligence (AI) to eventually have a big impact. At TechVision we have written extensively about blockchain (see the related reports section) and will soon be releasing a report on smart contracts. We think of these innovations as additional examples of technologies that will substantially reduce business friction. Each of these innovations, in turn, when adopted by competitors increases pressure on businesses and enterprises to reduce other contributors to customer friction to stay competitive. Interestingly, blockchain and the accompanying disintermediation, automation and streamlining of supply-chain and third-party may provide a significant transformation caused by external forces. Organizations on their own journey should be well-prepared to adjust to these changes.
Guiding Organizational Principles

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<th>Principle (Category)</th>
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<td><strong>Mindset</strong></td>
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| 1: DevOps Dissolves into LOB | IT is mostly dissolved into LOB’s  
|                      | • DevOps becomes BIDevOps  
|                      | • Product Management and Enterprise Architects  
|                      | • Combines Process, Development and Operations  |
| 2: Chief Information Technology Officer Leads this Transition | CITO guides the transition and the CITO organization becomes a center of excellence (COE) |
| **Organization**     |             |
| 3: Focus on Outcomes | Small, effective, self-organizing and focused on outcomes. The two-pizza team rule (largely credited to Jeff Bezos, founder of Amazon) is used to allow the teams to stay nimble. |
| 4: Distributed Governance Model | Functional managers provide the limited central governance necessary to fully exploit small autonomous teams thus enabling distributed scale |
| **Talent**           |             |
| 5: Creating a Collaborative Business-Focused Organization | Highly Collaborative, matrixed and self-directing teams have the skills & training; central organization looks after career paths. |

*Fig. 3 Organizing Principles for Information Technology*
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About TechVision

World-class research requires world-class consulting analysts and our team is just that. Gaining value from research also means having access to research. All TechVision Research licenses are enterprise licenses; this means everyone that needs access to content can have it. We know major technology initiatives involve many different skill sets across an organization and limiting content to a few can compromise the effectiveness of the team and the success of the initiative. Our research leverages our team’s in-depth knowledge as well as their real-world consulting experience. We combine great analyst skills with real world client experiences to provide a deep and balanced perspective.

TechVision Consulting builds off our research with specific projects to help organizations better understand, architect, select, build, and deploy infrastructure technologies. Our well-rounded experience and strong analytical skills help us separate the hype from the reality. This provides organizations with a deeper understanding of the full scope of vendor capabilities, product life cycles, and a basis for making more informed decisions. We also support vendors when they carry out a product and strategy review and assessment, a requirement analysis, a target market assessment, a technology trend analysis, a go-to-market plan assessment, or a gap analysis.

TechVision Updates will provide regular updates on the latest developments with respect to the issues addressed in this report.

About the Author

John Mellars is an experienced IT Executive with accomplishments in the pharmaceutical, chemical, consulting services, retail and research environments. John is skilled at developing strategic IT plans with clear links to business goals; implementing technology to support global enterprise applications such as SAP, PeopleSoft, Documentum, Seibel, E-Procurement, and Data Warehouses; and, implementing selective outsourcing, off-shoring and process oriented organizational streamlining projects yielding multi-millions in annual savings.
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Related Reports

The following reports might be helpful in your continued exploration of this domain:

**Reports that explore blockchain in depth:**


[3] Blockchain Call-to-Action for Bankers, by Rhomaios Ram

Plus, the upcoming:

[4] Blockchain 2.0: Smart Contracts, by John Myracle

**Reports that explore innovation and other topics related to this subject:**

[5] End of EA and IT as We Know IT, by John Mellars & Gary Rowe.


[7] How do we accelerate enterprise innovation in a culture of risk aversion? by Fred Cohen