Simplify, Digitalize, Transform – Mastering the Chaos of Complexity

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Third platform technologies (cloud, mobile, social and analytics) are helping organisations transform their business. The accelerating speed of change also means increased complexity as these emerging technologies introduce complexities beyond traditional architectures of datacentre and infrastructure and extend it to applications, information and business processes. As traditional business models continue to struggle and change becomes the only constant factor for business, organisations are required to adapt to the uncertain technology landscape by continuous collaboration between business stakeholders and IT organisations - to simplify and navigate through the complexity and create new digital revenue streams. Careful planning of the path to simplification can reduce the risk of increasing complexity while moving to become more dynamic and assuring effective use of technology to achieve strategic business outcomes.

This paper addresses the key steps along with the ‘why’ of simplification. Using key indicators from customers in a number of vertical industries who have made this journey, this paper discusses the business value derived and the key stages in defining and executing digital simplification along with some lessons learned along the way. Finally, some key considerations for enterprises about to embark upon their own simplification journey including security, application performance and optimisation, the necessity for the right people with the right skills and the value of adding an experienced partner to the simplification journey.

INTRODUCTION

In this digital age, enterprise line of business expects IT to run in simpler, more agile ways and be more dynamic. IDC believes that by 2018, 70% of siloed digital transformation (DX) initiatives will ultimately fail due to insufficient collaboration, integration, sourcing, or project management. While the organisation’s vision of DX involves complete business transformation, the inability to have a holistic vision will be a major reason for the failure of these initiatives. And the root cause of these siloed failed initiatives will be the lack of collaboration between IT and business stakeholders.

Large enterprises will often deploy thousands of applications (a large bank in Australia, for example, counts over 6,000 individual applications in its portfolio). Each of those applications consumes infrastructure resources and does so either efficiently or inefficiently. Each has a cost associated with it, in the form of skilled resources, maintenance and ongoing interactions with other systems.

3rd Platform technology evolution presents businesses with great opportunity but there exists an increasing number of risks and challenges: security, application performance, identity management, network dimensioning, developed workloads across a variety of locations/platforms along with a
perceived loss of control. In addition, IDC research suggests there will be more disruption across the digital landscape in the next five years than has been seen in the previous fifty.

There continues to be a rapid evolution in technology, and IT organisations are facing tremendous pressure from their stakeholders in the business who believe they can acquire tools and services directly from third party vendors bypassing the IT organisation. While on one hand IT organisations are faced with challenges of running their existing IT systems, on the other hand they are under constant pressure to be more dynamic and leverage digital technologies to achieve business objectives. The technology choices made today will be pivotal in reshaping the competitive landscape. The penalty for failure in this respect is, in many cases, the overall survival of the enterprise.

IT complexity stands as a major barrier in deriving value from the array of new technologies and engagement methods available today. The task of simplifying the delivery of IT is at the forefront of the agendas of many CEOs, CMOs, and CIOs. That task is fraught with challenges and littered with the remains of those who have failed. IDC estimates that 60% of CIOs will have to revive their rationalisation initiatives to simplify their IT environment and enable innovation over the course of 2016/2017.

IDC anticipates that by 2020, one third of the top 20 market share leaders will be significantly disrupted by new competitors utilising cloud, mobility, data analytics, and enterprise social media. One of the biggest examples of this is the Fortune 500 that was established in 1955. Of those original 500 companies, only six remain in business today.

**THE ROAD TO SIMPLIFICATION – Reigning in complexity**

Emerging technologies, including software defined networking, hybrid public and private cloud environments along with changing application development methods present great opportunity for transforming the business of IT, while also contributing to complexity, risk, and the requirement for new skills. Careful planning of the path to simplification can reduce the risk of increasing complexity while moving to become more dynamic.

The reduction of complexity requires IT and business stakeholder alignment, leading to strategies which drive application rationalisation based on scenarios led by business outcomes. This process frames what is to be achieved, and determines whether this can be done in a more effective environment. The overall process of rationalisation requires leadership buy in, funding, and disciplined tracking of decommissioning/migration of both infrastructure and applications. IDC research has shown that organisations who embrace this changing environment have been able to improve revenue by up to 36% and deliver application refresh cycles on a weekly basis, while enhancing their decision making capabilities.

In addition, to all the technology implications and the change in roles that DX brings, one of the most important and often overlooked aspects is the "culture" of the organisation. Concepts of continuous innovation, continuous delivery and continuous integration are overtaking the existing delivery of IT systems to drive the disruptive change that organisations need. Plan for change by assessing the maturity of the organisation, its business needs and characteristics of the organisation. Organisational change will have to become a core competency and part of the DNA of IT organisations if they are to serve meaningful roles in their businesses’ digital transformation.

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In delivering infrastructure to the business, the introduction of cloud platforms has taken server provisioning times from weeks to minutes, while security profiling and container based deployments have delivered secure, targeted applications to customers, partners and employees.

**CURRENT TRENDS**

According to IDC’s 2016 Cloud Maturity study, many IT organisations remain unprepared for the complexity associated with managing environments where applications and data become highly interconnected. Organisations will increasingly have hybrid cloud architectures that incorporate a mix of public cloud delivery models while continuing to have legacy applications in traditional datacenters and hosted/outsourced private cloud environments. Management of these workloads across environments not only requires streamlined management processes and tools but also call for a collaborative business and IT approach to governance, thereby increasing complexity. Complexity hinders responsiveness and as the enterprise tries to respond to the anytime, anywhere, anyhow demands of customers, partners, and employees, the level of back end complexity in enabling those demands increases. Legacy applications, networks, compute and storage environments further hinder the urge to simplify, with maintenance of current environments currently accounting for over 60% of IT budgets.

IDC has observed that simplifying the delivery of IT by reducing the level of complexity in application deployments can reduce application and infrastructure costs by up to 50%, while offering savings in the overall IT budget of up to 30%. Much of these savings came from streamlining infrastructure by deploying converged and hyper-converged stacks, eliminating legacy applications and environments along with the requirement to maintain and operate those environments plus rationalising network and security infrastructures. Successful organisations will be the ones that are able to free up resources to make new IT investments that will enable them to drive new digital revenue streams.

As a result, CIOs today face their biggest crisis in leadership, pivoted on three major challenges:

- **Business Need.** By 2017, 60% of top APAC 1000 organisations will put DX at the center of their business strategy; in response, CIOs are considering how they and their organisations will participate in the digital transformation of their enterprise.
- **Capabilities.** Despite aspiring to be leaders who can drive innovation and create new digital revenue streams for their organisations, only 25% of CIOs see themselves in a position to deliver on their ambitions.
- **Availability.** CIOs cannot sacrifice secure, reliable and available solutions in their quest to transform their environments. Over 64% of IT budgets remains focused toward ‘keeping the lights on’ leaving little time or money for transformation.

CIOs need to prioritise the delivery of a simplified and streamlined IT portfolio. Rationalising the IT portfolio directly impacts the availability challenge and indirectly improves the enterprise’s ability to transform. This goal becomes increasingly challenging as end points multiply, deployment platforms transform, and cyber-security attacks on high profile organisations continue to proliferate. Increasing the overall efficiency of IT by reducing management complexity allows IT to meet the future needs of the business within the ever tightening constraints of limited budget and reduced decision making control over deployed solutions.

IDC predicts that by 2017, over 60% of organisations' ICT spending will be for 3rd Platform technologies, solutions, and services,
Underlying drivers that accelerate the need to rationalise the IT portfolio on the CIO’s agenda are as follows:

1- **DX: Accelerating Business Disruption from Digital Transformation**

Business’ digital transformation is going mainstream in response to changing customer demands and the emergence of new competitors in virtually every industry. Some of the innovations include:

- Supermarkets offering insurance and mobile phone services, as in the case of Woolworths supermarkets.
- Traditional department stores innovating with digital experiences, e.g. Myer and eBay developing the first virtual reality department store.
- Australia’s Commonwealth Bank has been extremely aggressive in adopting cloud to build agility and flexibility and their long term vision to deliver Omni channel experience across engagement channels, including mobile, which is all part of their customer intimacy agenda.

As a result, transformation is fast becoming a competitive necessity and an enterprise survival imperative. It is the source of a massive wave of new investments in the digital transformation of business operations, communications, and services.

To remain relevant, IT needs to simplify the current environment so that those resources can be spent more strategically and respond more dynamically.

2- **The Budget Conundrum**

IDC sees overall IT budgets have been flat or declining for a number of years. The 2016 IDC Cloudview survey showed that line of business and finance teams are having increasing influence on IT investments, resulting in a 57:43 split in Australian IT budgets between traditional IT and line of business.

With enterprises noting that 64% of their overall spend is dedicated to keeping the lights on, funding for transformative initiatives remains scarce and can only be realised by reducing investments in the status quo. Simplification initiatives aimed at reducing management complexity through automation and orchestration of infrastructure, rationalising platforms using converged and hyper-converged platform offerings, and leveraging cloud platforms for application deployment can all drive reduction in capex and opex IT expenditure.

3- **Talent Quest: High Demand for Next-Generation Business/IT Skills, but Scarce Supply**

The talent most urgently needed includes expertise in business intelligence (BI), analytics, mobile development, social media strategy, security and enterprise architecture. Not surprisingly, these are the skills necessary to drive digital transformation. However, the DX-savvy talent pool is growing too slowly to meet burgeoning business demand.

Through a structured rationalisation effort that creates a less complex IT environment to manage, the skills gap can be narrowed. Removing the need to manage outdated or non-strategic applications can greatly reduce the number of technologies the IT staff need to stay abreast of. This frees up staff to retrain or expand their knowledge on urgently needed expertise across strategic technologies.
4- Shifting Gears: The Slowing Pace of IT Productivity

Technology's ability to effect fundamental advances in business and social systems slows as those environments become more complicated. The requirement to bring together traditional IT solutions with the needs of the business to form a seamless, connected whole, constrains the potential of IT as a productivity engine.

For applications and infrastructure, rationalisation has already occurred several times. Business process re-engineering, datacentre consolidations and virtualized compute and storage are only the most recent examples. However, in the past few years, IT organisations have lost control of much of the technology investment. Line of business increasingly drives the acquisition of cloud services including core applications and the platforms they run on, sometimes without any IT involvement. As a result, many rationalisation initiatives must be revived to tackle this increase in duplication and the resulting inefficiency of management.

As companies begin to embrace cloud computing options for new IT initiatives, IDC suggests that companies look at portfolio rationalisation as an integral part of an overall cloud transition strategy.

ESSENTIAL GUIDANCE

Achieving simplification can be therefore distilled to seven key initiatives that enterprises can implement to substantially reduce the amount of complexity and drive the value of IT in the dynamic enterprise:

1. **Partner for success.** Enterprises note that they are seeking partners who bring a holistic strategy for simplification, extensive experience in transforming infrastructure and processes plus a comprehensive suite of services and products. Choosing an experienced partner who can leverage a wide ecosystem of suppliers toward realising the simplification goals of an enterprise are also seen as key to delivering business value in an effective timeframe.

2. **Organise and manage data differently.** In many companies today, data is scattered among an array of systems with no clearly defined master repository and no synchronisation among systems. The ability to view data in real time and access consistent data company-wide is key to delivering an agile organisation. In Australia, 95% of enterprises said data was a strategic asset but almost 50% noted they lacked the skills internally to realise value from that asset.

3. **Simplify the product portfolio and the application architecture.** In a typical product portfolio, 20 percent of a company's products (or services) generate 80 percent or more of its revenue. Eliminating offerings that do not add value lets a business streamline the corresponding business processes and decrease the number of supporting applications, thus reducing IT complexity. Identifying which products to eliminate requires the joint effort of business and IT stakeholders in four major initiatives:

   a. Categorise IT offerings according to their value to the business – those that add competitive advantage, those that support back office functions and commercial off the shelf applications.

   b. Determine the business value each product group contributes.
c. Simplify the application architecture by implementing strong business-IT governance.

d. Connect with the business to prioritise investments around differentiating offerings.

4. **Standardise the IT infrastructure and transform the sourcing model.** Standardising infrastructure boosts flexibility and agility by simplifying provisioning and administration processes. Standardisation lets companies take advantage of automated infrastructure provisioning and on-demand scalability resulting in the ability to launch new services quickly.

5. **Educate the business stakeholders** so that they understand the implications of purchasing cloud services that do not comply with the enterprise IT architecture. Solutions that do not comply cost more to implement and to manage, and often pose security risks. Architecture matters.

6. **Adopt appropriate new tools and a collaborative approach.** Agile software-development frameworks coupled with lean development methods reduce IT development. However, eliminating traditional methods completely may not be appropriate. For many businesses, it makes sense to have the so-called two-speed IT, which employs traditional development processes for legacy systems and agile and lean methods for the new-age digital platforms.

7. **Embrace DevOps to drive closer collaboration of operations and development teams.** As speed and quality become critical while addressing constantly changing business requirements, adoption of DevOps practices become critical in driving people, process and technology change. IDC has observed that planning and laying a foundation for DevOps success can help increase success rates by 90% and, more importantly, accelerate the pace, rate, and scale of transformation across large, silo-based IT organisations.