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Business Experience Management

A Key Element of Your Successful Digital Transformation

Business experience management: a key element of your successful digital transformation

There's a race to embrace new methods of transacting business due to the disruptive change stemming from the rise of digital competitors. One way of competing in emerging modern marketplaces is to transform the delivery and support of applications and platforms. By assessing and managing applications and platforms based on business measures rather than technology measures, we can effectively manage entire digital transformation programs. We call this approach business experience management.

The business case for digital transformation

Yesterday's IT organizational structures, cultures, and approaches need to change to meet the velocity at which business will operate in the new digital paradigm. Primarily, these changes should occur in areas where IT has developed strategies to cope with the complexity of supporting aging systems. In contrast, this new digital universe abhors complexity and crushes closed and proprietary approaches. It thrives on immediate gratification, instant and plentiful access to data, and rapid iterations — three ultra–high-risk practices when applied to inflexible architectures and software developed more than a decade ago.

A hallmark of these new digital competitors is that they are built on heavily leveraged software infrastructure, providing massive scale at a very high revenue per employee. That is, they can run most of their business with very little human labor, and they are processing massive numbers of transactions. Moreover, they automate interactions with their customer base primarily through their websites and mobile applications. Examples of these businesses include Airbnb, Uber, Lyft, Netflix, and Udemy. These businesses must provide a spotless consumer experience, because new competitors emerge daily, looking to eat them up.

Rather than "simply" changing the playing field on which they are competing, these new competitors are changing the expectations for how all organizations should interact with their customers in 2017. So, even if your business is not directly affected today by one of these new digital powerhouses, it is indirectly affected: The existence of these powerhouses changes how your customers believe they should be able to interact with you.

This tornado is sweeping across all industries, forcing companies to incorporate digital transformation into their strategies. This means changes must occur in investment and leadership fostered by the CEO and the board. It also means that IT needs to accommodate these changes or face one of two potential outcomes that splinter IT:

1. The business may adopt a bimodal IT organizational structure and position the digerati in their own well-funded internal startup; or
2. A subset of the overall application portfolio may be outsourced to a managed service provider, leading to a further reduction in IT resources and spending internally.

Service management for the digital age: integrated digital service management (IDSM)

Supporting a digital transformation — which is a business-wide transformation, not just an IT transformation — is a multistaged, multifaceted, and extremely invasive process for most organizations. Many pressures already affect the ability of IT to deliver against current expectations: insufficient staffing, shrinking budgets, an explosion of data, increased systems complexity, and increased demand from the business. Supporting an initiative as critical as a digital transformation further stresses already strained resources.

Because digital transformation is about the business, it makes sense that business outcomes be used to measure progress. Specifically, an IDSM approach that incorporates business experience can be used to assess business impact rather than the traditional IT service management (ITSM) approach. Both address most of the same needs, but IDSM does so by targeting different goals (Table 1).

IDSM most notably approaches the management of systems and services through the lens of business outcomes versus technology-related outcomes. For many businesses, this means both technological and cultural changes.

Table 1

IT Service Management	Integrated Digital Service Management
Success defined by IT availability and security	Success defined by measured business outcomes
SLAs specified against IT technical measures	SLAs specified for needs of business services
Tools selected for IT SLAs and engineering requirements	Tools selected to facilitate business operational concerns
Changes made sparingly to reduce risk	Changes made at desired velocity of the business
Rooted in failure avoidance	Rooted in speed of restoration
IT-led governance model	Business-led governance model
Process-centric	Outcome-centric

DXC Technology, through working with our customers, has observed that adopting an IDSM approach is a great starting point for transformation activities. Establishing the expected business outcomes — what you want to measure and how you're going to measure them — provides the trajectory for how to engineer and design your applications. Therefore, the development of the transformational roadmap better aligns with the needs of the business.

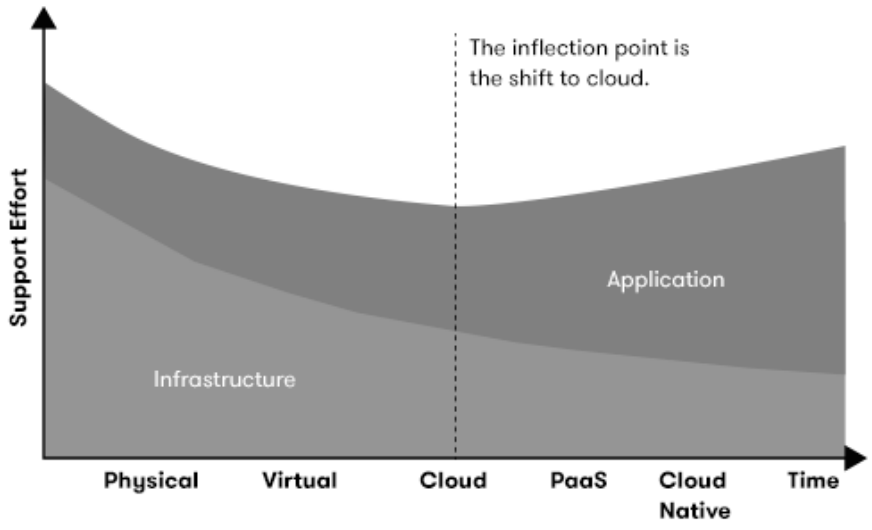
IDSM lays the foundations for an operational management platform upon which the transformed applications can be more effectively managed. Through IDSM, the effectiveness of digital transformation programs increases, since management control mechanisms have a refined means of understanding the impact on the business, employees, and customers. An IDSM[1] approach improves communication across multiple service providers and engages them more fully in the transformation process.

The shift from infrastructure to applications

Digital transformations significantly shift focus from infrastructure to applications. Many businesses have invested heavily in developing service management practices around support of their infrastructure operations but have not developed a mature equivalent for applications. These organizations are likely to struggle as they attempt to apply their infrastructure operations practices to a modern cloud-based application universe.

The inflection point for change is the moment the organization begins transforming its critical applications to the cloud. From this point, the balance of the support effort shifts more significantly from the infrastructure to the application space, as depicted in Figure 1.

Figure 1



[1] For more on IDSM, see DXC's position paper, "Integrated Digital Service Management: The Key to Managing the Digital Enterprise."

The cultural shift from it to business

As is frequently stated, the complexity in IT is often rooted in people, not technology. Digital transformations are often complicated by a clash of cultures within the organization, characterized as mature low-risk processes meeting emerging high-risk and, ultimately, market-driven requirements. In the case of IDSM, an inherent desire to achieve agility and speed is often deterred by complex and overly obtuse processes. Indeed, it is fair to say that these cultural shifts are consistent with embracing a DevOps approach.

Successful adoption of IDSM and delivery of business experience management may require philosophical changes in how an organization currently monitors applications and configures the environments in which they operate. As we'll discuss shortly, this cultural clash and the subsequent collaboration to overcome the challenge were significant components in the growth of the relationship between DXC and a global insurance company.

Failure to address the culture clash can result in shadow IT — that is, business groups purchasing their own tools to get the applications they need in a timely manner to support their business needs. This can be even more complicated in organizations with multiple service providers, as these environments commonly experience dissatisfaction, lack of awareness, and duplication in capabilities for monitoring the constituent parts of a value chain. All this complicates the work of capturing and measuring the business experience from end to end.

Changing how we assess it: APM and business experience management

It is common for silos to be created in which domain-based teams such as networks, middleware, and DBAs each have independent tools to help achieve an improved "mean time to innocence" whenever a problem occurs. Red teams, tiger teams, and situation rooms are notoriously ineffective and incredibly expensive due to the inefficiency of gathering everyone together, the repeated management updates, and the diversion of people from their primary roles.

For business teams affected by these events, the lack of visibility into the extent and consequence of the impact is incredibly frustrating. The service operations teams are naturally on the defensive and tend toward keeping the metrics internal and not sharing data between teams, particularly where multiple providers are involved. This is counterproductive to solving problems and only prolongs the process.

For all involved, understanding how technical components and services combine to provide a business outcome is challenging. This problem is exacerbated by the shift to the cloud, where the platform places a further layer of abstraction on the services being delivered.

Many organizations are modernizing their service management toolsets to enterprise Software as a Service solutions, such as ServiceNow, to help alleviate this problem through use of a common platform. However, the measurement approach is inherited from a physical world. Even where business services have been mapped out to the contributory components, the metrics captured are most typically centered on infrastructure, and the mappings are unable to keep up with dynamic application architectures.

For applications hosted in the cloud, the flexing of capacity according to demand becomes a priority for achieving cost savings. This aligns with having high levels of compute utilization but runs very much contradictory to a monitoring approach that has historically centered on static thresholds. Effective monitoring will become more challenging as modern microservice architectures become more prevalent. The quantities of service components will increase exponentially and dynamically provision themselves, creating a complex matrix of interconnected services that span hybrid cloud platforms.

Trying to manage these connected application platforms using a traditional monitoring approach and operating model simply does not work. To be effective, the operating model needs to be completely redefined.

These shifts are driving growth in the use of application performance monitoring (APM) technology, which can help alleviate such problems. Gartner notes that "The APM market is one of the largest subsegments of the IT operations management market, with 2015 revenue of approximately $2.7 billion and a growth rate exceeding 10% annually" and assumes that by 2020, "70% of APM suite technology buyers will reside outside of traditional IT operations organizations, up from 40% in 2016."[2]

While this sector is tagged as "performance" monitoring, the capabilities that these types of technologies bring are far broader, spanning advanced analytics, business activity monitoring, log monitoring, service health, application fault investigation, and code analysis. These capabilities have many use cases that go beyond pure performance analytics to provide broad advantages to both business users and the groups managing applications.

That's critical, because business groups, rather than IT, are the catalysts driving digital change. With this shift of power, the requirements of the business owners — not IT — are bringing a change in focus to monitoring efforts.

While IT measures continue to be important for effective management of services, resolution of incidents, and rectification of longer-standing problems, the methodology by which the business assesses IT is changing. Traditional measures, focused on IT infrastructure availability, are being usurped by a growing shift toward measuring business outcomes and combining them with the experiences of customers and employees. A best-in-class APM solution, wrapped in an IDSM framework, enables a new methodology: business experience management.

[2] Gartner, Magic Quadrant for Application Performance Monitoring Suites, 21 December 2016.

Business experience management at a global insurance company

The story of how a large global insurer and DXC transformed the approach to managing critical applications based on business experience started from a realization that the two parties were pulling in opposite directions.

Existing monitoring services were IT-centric and privately managed by DXC. When the insurer's business services were being interrupted by apparent IT failings, the insurer's service teams wanted to have access to the output from the monitoring services.

However, the DXC processes, teams, and approach were geared toward internal rather than shared usage. This caused tension between teams and inefficiency in solving problems. Since the data being captured centered on IT measures, the approach to quantifying the extent of the business impact was largely manual. For example, in the case of a problematic call center application, multiple site visits were needed, with floor walkers having to evaluate the performance of the applications via over-the- shoulder observations.

Existing tools centered on the needs of the IT teams, and a large proportion of incidents raised by end users went undetected by the existing approach.

Inefficiencies were built into the joint process, where each new application required project management and architecture work to customize a bespoke monitoring design for every implementation.

In recognizing these problems, DXC and the insurer collaborated to forge a better way forward. From this was born the Digital Performance Management service, built on Dynatrace technology. The service changed the emphasis from IT measures to real-time reporting of the key business measures that represent the outcomes or workflows for critical applications. The process outcome measures are combined with geographic visualizations of user experience to provide a holistic health status of the insurer's critical insurance platforms. This is connected into the service management toolset to provide a system for 24×7 coverage.

By measuring business throughput against an expected baseline, we can identify genuine problems that are affecting the business. Although an infrastructure alert may achieve the same end goal, the changing dynamic of applications would continue to erode the effectiveness of this methodology.

Therefore, the approach of measuring a business output is a more reliable and tangible measure of service health and is certainly easier to understand and quantify for business owners.

Examples for this insurer include quantifying the number of claims raised or in progress, the number of inquiries submitted, and the number of policies being looked up. The response times, grouped by location, and the successful completion of the transactions comprise the metrics being reported against.

Where failures occur, it is possible to drill down to understand which user was processing the request, which technical component caused the issue, and, often, why the problem occurred. A recent example: In a claim settlement transaction, failures were occurring due to a third-party payment system passing back incorrectly formatted values. After identifying the problem, it was possible to isolate the issue, quantify the impact in terms of the affected volumes of claims, and apply a specific alert to notify the business support teams while remediation actions were in progress.

If the throughput in any of the business processes is operating outside of a dynamically adjusting baseline, it is clear that there is a material business impact that needs to be addressed immediately.

Major transformation projects such as the launch of a new claims management platform have been successful, with business-centric metrics used from day 1 to report the health status to all stakeholders. Both the IT and business teams have relied on the key transaction measures as the de facto method of understanding service health.

Where specific issues have affected end users, the support teams have seen advantages in being able to troubleshoot these efficiently, with one support team leader telling us that the "identification of users' activity or specific complaints was never so easy and evident." With the capability of linking failures and application errors to named users and linking to the affected business processes, the means to identify, troubleshoot, and correct the most serious problems becomes far easier.

The advantage of effectively applying the APM technology is that it not only allows you to measure the customer experience and business outcomes but also provides comprehensive end-to-end coverage of a delivery chain. These tools are designed for modern platforms, so they are able to adjust automatically, in line with the monitored applications, unlike static infrastructure-centric approaches. Having a toolset that provides end-to-end coverage, coupled with processes designed for sharing data, significantly improves efficiency in solving problems and facilitates a much more collaborative culture.

Where the business is the dominant player in requesting these types of services, it is necessary to simplify and provide greater transparency in the means through which these services can be consumed.

In the example of the global insurance company, DXC has created catalog-based service options with tiered pricing for small to large applications. Having a fixed service model and standardized pricing and outputs has helped drive growth in use of the services.

The advantage of this approach has been a reduction in management overhead, approvals, and project management and architecture work to customize the design, as well as a repeatable model that is driven by an automated workflow to improve delivery efficiency. Business teams have commented that they appreciate the transparency in the pricing and service outputs, thereby driving further adoption.

In terms of future operating models, it is likely that IT services will be contracted on the basis of managed business outcomes using this type of methodology to measure throughput. This will work best in complete business process outsourcing situations, where one party has sole responsibility for the output, but the metrics are still relevant to managed services where traditional contracting methods for staff augmentation are seen as expensive and inefficient.

Business experience management: tangible and transformative

The digital disruption affecting every industry can be tamed by implementing an effective IDSM strategy, with APM enabling business experience management. By laying the groundwork for measuring business outcomes, the alignment of goals between IT and the business becomes something that can be tangibly measured.

Once you have aligned measurement that is consistently understood by both the business and IT teams, you have a means of transformation and continuous improvement. That is a digital transformation that goes beyond withstanding the winds of change to being the winds of change.

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