

Faster, More Accurate Decisions with IT Operations Analytics

Empower IT to drive success
in the era of the digital enterprise



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Executive Summary

The rise of the digital enterprise, and the unprecedented role of technology in every aspect of the value chain, has created an explosion of valuable yet unharnessed data for IT organizations. Traditional IT tools and processes, founded on the notion of control and management, are unable to support the speed and agility requirements of the digital enterprise. As a result, IT is under-equipped for the rapid proliferation of operational and business data, and under-prepared to transform that data into actionable insights that support the fast-moving business.

IT organizations should harness this exciting opportunity and reengineer their approach, from traditional analytics and reporting to adaptive, real-time digital service analytics. This requires an expanded view, beyond IT traditional operations data, to understand the role of critical services in the context of their business purpose. As a result, IT organizations will uncover new digital service opportunities that create revenue, optimize cost, and mitigate risk, resulting in greater success for the digital enterprise.

Most IT organizations endeavor to integrate 10–20 monitoring or other tools either directly or through an aggregated data store.¹

¹ Drogseth, Dennis. (2014, Sept 20). Advanced Operations Analytics and Beyond [Webinar]. Retrieved from <http://research.enterprisemanagement.com/advanced-operations-analytics-webinar-ws.html>



THE DIGITAL BUSINESS REVOLUTION CREATES OPPORTUNITY FOR IT OPERATIONS

More than half of the companies listed in the Fortune 500 in 2000 no longer exist as independent entities.² As legacy business models falter and disruption transforms markets, technological innovation has become central to business survival, making it possible for companies to adapt, compete, and thrive.

In the not-so-distant past technology touched or influenced a fraction of business processes. However, as technology reshapes the ways companies operate and serve customers, technology is now infused in nearly every aspect of the business value chain. This is true not just for digital-born companies like AirBNB, Uber, and Venmo, but also for long-established enterprises reinventing their business on a digital core. From airlines transforming the passenger experience through mobile apps, to healthcare organizations newly empowering patients and care providers, to organizations, in nearly every industry, connecting employees and work-groups through internal collaboration networks, the digital enterprise revolution is now. This revolution creates an exciting opportunity for IT operations to harness and exploit the unprecedented data generated by the digital business to create better services and experiences that improve revenues, control costs, and reduce risks.

Technology Complexity

As technology has grown more important, it has also become more complex—much more so. To create and deliver the best possible digital services, IT needs to rely on diverse, dynamic

technologies including best-in-class, point, and disruptive new solutions. Pulling data and functionality from these many diverse sources, the modern digital service and application bears little resemblance to the monolithic stack of the past. Instead, various independent parts—each built separately, often using different data and object models—are joined through various connection points to form a dynamic set of digital business services. In most cases, applications no longer have firm, clear boundaries but exist within a pool of data and functionality that can be combined and recombined quickly to enable innovation and flexibility. Simply said, the only constant for IT organizations in the digital business era is the flow of data.

Challenges for IT Operations

It is the unstructured nature and complexity of technology that sets up the opportunity for IT operations teams, as they now contend with:

- Harnessing highly distributed, diverse, and unstructured data from traditional IT and non-traditional sources
- Articulating how applications and services impact revenue, costs, and risk in the context of the unprecedented role of technology in the digital enterprise
- Anticipating the extent to which technology can support the evolving business and consulting with digital business leaders on important, technology-founded decisions
- Moving at the speed of business, which often outpaces traditional IT operations processes and involves embracing calculated risk over risk-avoidance



80% of CIOs agree that a shift away from backward-looking, passive analysis is needed to lead in a rapidly changing digital business world.³



Only 28% of businesses believe that they are generating strategic value from the data they collect, and nearly 40% admit that they need a plan to take advantage of big data.⁴

2 Wang, R Ray (Feb 18, 2014). Research Summary: Sneak Peaks From Constellation's Futurist Framework and 2014 Outlook on Digital Disruption [blog].

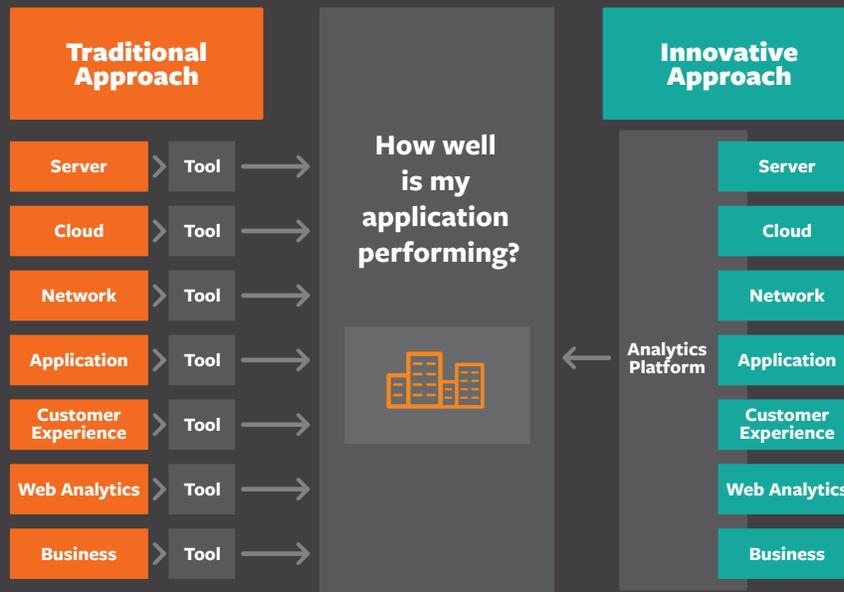
3 Gartner. Digital Business Initiatives Demand the Use of IT Operations Analytics, Colin Fletcher, March 2015.

4 Accenture Technology Labs. Accenture Technology Vision 2015, Digital Business Era: Stretch Your Boundaries. Paul Daugherty and Pierre Nantermy, 2015.

THE CHALLENGE: MAKING DATA-DRIVEN DECISIONS IN THE CONTEXT OF BUSINESS

While the environment of the digital business is highly dynamic, one thing does remain constant: the primacy of data. In the era of the digital business, reporting for the sake of reporting goes extinct and data becomes the currency that guides and drives all decisions and actions.

To play a strategic role in the business, IT must deliver insights at the speed of business. However, given the unprecedented pace of change and overabundance of new data sources, the context of data is often very short lived and therefore must be utilized before its value expires.



Decision-makers Need to Know What's Happening Now

Decision-makers need to know what's happening now—not two weeks ago. Both operational data and business data are critical for understanding what customers want and the business needs, and ensuring that the company can deliver accordingly. IT executives and application owners alike must be able to set priorities and allocate resources for optimal business impact—a calculation that can change from one day to the next with little to no warning.

For example, if your costs for Amazon Web Services™ (AWS) are rising during your slow season, you may want to explore more efficient alternatives, but during business peaks what matters more is how your hosted systems are holding up under pressure. Does the data tell you these critical systems and applications dependent on AWS, during your business peak, are reliable and available? A major infrastructure upgrade may play a key role in your strategy for the coming year, but you'll need to plan carefully to avoid disrupting business-critical services at inopportune times. If a new digital service is enjoying unanticipated popularity, rapid scalability can mean the difference between a stratospheric rise and a premature crash-and-burn.

And that's only the beginning. To empower service owners with insight, IT must consider everything related to the service or application—including performance, usage trends, capacity, user experience, and more—in the context of its role in the business.

Questions to Consider

The questions to be answered range across a broad spectrum of interrelated operational and business topics, such as:

- **IT operations** – What is the root cause of this problem? Which of these alarms are the most relevant? How can we optimize capacity or improve performance?
- **Business intelligence** – What is the projected conversion of our current sales pipeline? How does our current spend compare with our budget forecast? Which marketing campaigns are delivering the best returns in actual sales volume?
- **Customer experience management** – How often has a given customer visited us, and what did they purchase most recently? What are the most popular features of our app? What is our customer satisfaction score?
- **Sentiment analysis** – What are people saying about our company and products on social media? What are our employees chatting about on IM?
- **Web analytics** – How many unique visitors did we have this week? How many found us via search? How many people used our mobile app?
- **Security** – What is our current patching schedule? Have any security concerns or alerts arisen in the market today that may impact our business?

IT organizations are well aware of the strategic importance of this task. According to *The Economist*, “Companies that rate



By 2017, 70% of successful digital business models will rely on deliberately unstable processes designed to shift as customers’ needs shift.⁶

themselves substantially ahead of their peers in their use of data are three times more likely to rate themselves as substantially ahead in financial performance.”⁵

In the era of digital business, however, working with data is far more complicated than it used to be. While applications have grown more diverse and dynamic, traditional IT tools have remained narrowly focused on individual, diverse components of each service, forcing IT to work with proliferating point tools that each do less than what’s really needed. To gain full visibility into the typical digital service, IT might have to manually draw many different sources, a painstaking manual process that can

An effective digital services analytics platform must focus on four critical requirements:



CONTEXTUALIZE DIVERSE, VOLATILE DATA

Easily integrate and correlate data from multiple disparate business and technical sources including infrastructure availability, system logs, user activity/volume levels, application performance, incident/ticket activity, and customer order status



DELIVER DIGITAL SERVICE INSIGHT

Provide a holistic, visual perspective on the service, including global service health, business demand, cost, utilization, market perception/sentiment, and financial performance



LEARN AND PREDICT

Learn service behavior, identify relevant abnormalities, predict performance degradation, and issue proactive alerts to prevent service disruption



SUPPORT DATA-CENTRIC THINKING AND ACTION

Support fast technical and business decision making through what-if analysis and if-then modeling

⁵ The Economist Intelligence Unit, *Fostering a Data-Driven Culture*, Jim Giles, 2013.

⁶ Gartner, *Top 10 Strategic Predictions for 2015 and Beyond: Digital Business Is Driving ‘Big Change’*, Daryl C. Plummer, Leslie Fiering, et al, October 14 2014.

yield a tremendous amount of data—but without the context necessary for IT to understand, manage, and innovate in alignment with the business. Most IT organizations rely on a single source for a few data points. However those data points, when put in the context of another data source, conflict. Multiply this effort by the large and ever-growing number of digital services in the enterprise, and the ensuing data they generate, to understand the full scope of the challenge.

Sometimes, the most important questions to answer are the ones you hadn't yet thought to ask. Presented effectively, data can prompt new questions and hypotheses. Beyond finding needles in haystacks, IT should be able to explore the haystack itself for additional needles it may have overlooked.

In light of these needs, the requirements for a new class of digital services analytics solutions become clear.

DIGITAL SERVICES ANALYTICS—A DATA-DRIVEN FOUNDATION FOR THE DIGITAL ENTERPRISE

To enable the digital business, IT needs a way to break down information silos and transform high volumes of volatile IT operations, technical, and business data into real-time, meaningful, actionable insights that fuel fast, business-aligned decisions and action.

As useful data becomes the coveted currency of the nimble IT organization, a single, architected analytics platform that collects and contextualizes data from distributed IT operations, business, and other critical systems is required to optimize overall IT service, operations, and infrastructure performance and guide IT-dependent business decisions.

CONCLUSION

The digital business revolution creates the opportunity for IT to play a core strategic role in the business. In fact, it makes such a role essential for business survival, success, and growth. To fulfill this mission, IT must overcome the complexity of a more diverse, dynamic application environment and extract business-oriented insights to help service owners manage and improve their digital services and applications—and do so at the speed of today's fast-paced markets. Traditional IT operations tools are too narrowly focused to deliver contextualized insight into the entire application and its role in the business. **What's needed is a digital services analytics platform—a new breed of solution designed explicitly for the era of IT in the digital business.** By providing holistic information on digital services, contextualizing data from across disparate sources, learning and predicting service behavior, and supporting data-driven modeling and decision-making, a digital services analytics platform can empower IT to fulfill its strategic role at the intersection of data and business.



FOR MORE INFORMATION

To learn more about Digital Services Analytics, please visit
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