



Business Transformation in the Age of the Customer

The cloud, analytics, digitization, and security must all work holistically. It's just a better way to do things.

Across rapidly shifting global markets, one thing is certain: This is the age of the customer. Whatever the industry, whatever the location, customers expect companies to respond to — and even anticipate — their needs in a very personalized way. Many businesses are carefully studying changing customer preferences and generating new products and services through Internet-based digital business initiatives.

But not all businesses are on equal footing when competing in the digital business arena. Newer companies are often “born digital,” enabling them to follow a customer-focused strategy that is interwoven with digital assets from the start. In contrast, mature companies, sometimes called “digital immigrants,” frequently face uphill battles as they work to transform their businesses to compete with born-digital rivals. Their challenge is to shift from a traditional “inside-out” approach to an “outside-in” business model that puts the customer, and equally important, data about the customer, first.

By 2020, 38% of the global economy will be digitized, and large companies will lead the way. By 2020, 50% or more Global 2000 companies will have digitized their business, according to IDC.¹

“We are at an inflection point. Over the next three to four years, digital transformation efforts will no longer be ‘projects,’ ‘initiatives,’ or ‘special business units’ for most enterprises. They will become the core of what industry leaders do and how they operate. In effect, every (growing) enterprise — no matter its age or industry — will become a ‘digital native’ in the way its executives and employees think and how they operate,” said Frank Gens, senior vice-president and chief analyst of IDC.²



¹ IDC FutureScape: Worldwide IT Industry 2017 Predictions, Nov. 2016. ² Ibid.



Public cloud services have matured to become essential complements to corporate data centers

CLOUD, ANALYTICS, DIGITIZATION, AND SECURITY

Whether born digital or a digital immigrant, companies must develop customer-focused strategies that integrate four basic disciplines: Cloud, analytics, digitization, and security (CADS). Because CADS elements are interdependent, successful digital business initiatives incorporate CADS holistically. Doing so requires in-depth knowledge of a business and its customers, expertise in multiple technologies, and understanding of people and processes. Here's a look at the CADS disciplines and the relationships between them.

CLOUD

When the cloud emerged on the scene a decade ago, low cost and ease of access were its main attractions. However, public cloud services have matured to become essential complements to corporate data centers. Now, the cloud is widely understood to be a key agent for transforming organizations in the pursuit of customer-focused digital business strategies. And according to IDC, by 2020, over 67% of enterprise IT infrastructure and software spending will be for cloud-based offerings.³

Taking a holistic approach means linking the cloud decision to the other CADS disciplines. For example, there are many cloud-based analytics services available and a company's analytics strategy should take their strengths and weaknesses into consideration. Likewise, a company's approach to digitization should also be conceived in reference to the cloud, which can provide an elastic processing capacity and seamless access to data across regions in a secure and reliable fashion. Data governance, risk profiles and regulatory compliance are factors that can be driven by leveraging the right cloud computing models. A comprehensive solution will enable organizations to personally identify its customers and can provide a rapid response in terms of new products & offerings.

Organizations that embark on a cloud journey will find some applications, such as the cloud-based productivity suite Microsoft Office 365, well suited to many organizations in different industries. The reasons are straightforward. Office 365 contains

the essential applications such as word processing, spreadsheet, presentation, and collaboration that most organizations use. There is little strategic advantage to be gained by running these applications in a corporate data center.

Because the same is true for sales-force automation, many organizations have similarly deployed customer relationship management (CRM) applications in the cloud. The needs of salespeople are essentially uniform across industries, and the fact that sales people travel frequently makes the cloud an ideal access point for them. Disaster recovery is another application that greatly benefits from the cloud's ability to provide low-cost capacity on demand. Storing backup information off-site in the cloud is also an excellent strategy for mitigating risk.

Different cloud providers, such as Amazon Web Services, Google, Microsoft, and IBM have different strengths and weaknesses, and an objective approach is needed when choosing between them. In addition, moving to the cloud is not as simple as flipping a switch and cutting over to the cloud provider. It's a process in which the strategic nature of data and applications must be factored in at every turn.

ANALYTICS

In steering the corporate ship, information in the form of Business Intelligence (BI) plays a critical role. Many organizations, often digital immigrants, have gone far in building and utilizing data warehouse and data mart strategies leveraging various database technologies and data warehouse appliances. Many have also deployed sophisticated BI applications that generate automated reports and present real-time data in visual dashboard displays.

Today, digital immigrants have a golden opportunity to go much further by leveraging new data sources for more sophisticated analytics insights. Big data from social networks, log files, and archived documents, contain a wealth of information that, if properly analyzed, can yield telling insights such as new business opportunities, threats, risks, customer preferences, voice of customers. In addition, big data analytics based on IOT sensors, also called the Analytics of Things, can uncover hidden patterns of customer behavior, human-to-machine interactions, and machine-to-machine interac-

³ Ibid.



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tions. And real-time data streaming from sources such as satellite images is another source potentially rich in insights. Drawing on these data sources, many digital natives as well as immigrants are benefiting from new initiatives in predictive analytics, machine learning, and cognitive computing.

Analytics initiatives are most fruitful when conceived in relation to other CADS disciplines. Cloud-based analytics engines, in particular, can be an economical and timely way to launch a big data analytics initiative. And analytical insights may well inspire a new digitization strategy, particularly one built around insights into customer behavior and preferences. The result might be a web-based advertising initiative or a location-based mobile app that engages a customer proactively. Also, critically important, big data sources must be managed to ensure the right data protection controls are applied and they can also be mined for insights as to security and risk. For example, network and IOT data can be gathered and analyzed to help security professionals detect attack patterns so they can prevent security breaches before they happen.

DIGITIZATION

With a wealth of new information sources and the benefit of analytics insights, companies are forming customer-focused digital strategies in a variety of industries, particularly financial services, health care, and manufacturing. Digital immigrants are firmly established in many of these industries, and it is they that stand to gain the most from digitally transforming their businesses.

Financial services organizations, such as banks and insurance companies, are striving to transform their businesses from a product-centric to a customer-centric focus. In doing so, they are gathering a wealth of information about customer behavior through the use of ATMs, branches, and web sites in order to anticipate needs, personalize interactions, and nurture customer loyalty.

Digitization strategies are most effective when executed through CADS practices. For example, the wealth of customer data that is now available can be economically stored in the cloud and studied using big data analytics. And because digitization itself can present new attack vectors to malicious

hackers, security measures must be part of each step in a digitization initiative.

In health care, large amounts of data from sensors that track patient conditions are being gathered and analyzed in real time to improve patient treatment and outcomes. The location of medical staff and equipment across hospital buildings is also being tracked across Wi-Fi networks with the help of smart tags. When help and equipment are needed for a patient, administrators can quickly ascertain their location and deploy them to treat the patient. The result: health-care customers receive a higher level of service.

In the realm of automobile insurance, telematics is being studied to understand driver behavior. When a driver follows low-risk driving practices, such as avoiding adverse weather conditions and maintaining moderate speed, telematics technologies keep track and send the information to the driver's insurance company, which in turn rewards the driver with lower premiums. The result is a customer who feels more closely involved with and better served by his or her insurance company.

A manufacturing company, particularly one born long before the digital age, can take a quantum leap in improved quality and lower cost. For example, manufacturers are feeding real-time data into Asset Performance Management (APM) applications to improve plant operations, supply chain, product design, and quality control. The IoT data may come from sensors tracking temperature, humidity, air pressure, and other ambient conditions that affect manufacturing and related processes. IoT data may also be gathered from the very items that are being manufactured, then fed into the factory machines to improve quality and efficiency. Result: Customers will soon notice the difference in higher-value, higher-quality goods.

With plant floor machines, delivery trucks, and warehouse shelves all connected, IoT data can also be fed into analytics applications to generate actionable insights for such things as just-in-time inventory. The results are faster and more reliable customer deliveries.

Digitization also enhances productivity and increases job satisfaction through the digital work-



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place. Millennial employees, in particular, expect broadly functional collaboration, mobility, and content management capabilities, and they are likely to gravitate to companies that can provide those things. While in-person interaction is still the favored method of communication, a significant number of millennials prefer to work collaboratively through digital channels. **In one study, PwC found** that 41% preferred electronic communications over face-to-face conversations. And a **Network Computing survey** said that 40% favored online meetings over in-person sessions.

SECURITY

Because it engenders the trust that is needed for successful customer relationships, data security is a foundational requirement for both business and IT. The stakes are high: Failure to protect data could mean losses in the hundreds of millions of dollars, not only in outright theft, but from settlements with customers whose personally identifiable information has been compromised. Even worse, breaches may lead to irreparable reputational damage to a corporate brand or the dissolution of a company entirely.

Security should be addressed as an intrinsic part of each of the other CADs disciplines — cloud, analytics and digitization. For example, data moving to and from the cloud must be protected, and attacks against IoT devices must be detected and stopped.

Security measures such as access policy control, encryption, and intrusion detection should be woven into every digital business initiative, not bolted on afterwards. And rigorous penetration and availability testing should be conducted across all attack vectors.

Security requirements and regulations differ across industries, requiring special expertise in each. Whether addressing HIPAA, PCI DSS, ISO 27001, NIST 800-53 or other regulations and standards, security is the focus of customers, regulators, businesses and lawmakers across the globe and across industries. To address the business needs of any given customer, adherence to multiple regulations and standards is required. Expertise in security also requires an understanding of business models, data and data protection and a depth and

breadth of business and technical solutions to ensure controls are designed and supported in a way that enables the business and supports the use of cloud, analytics and digitization solutions as a means of securing data and reducing business risk.

THE RIGHT PARTNER

To achieve success in this demanding context, businesses should move beyond the traditional execution model of forming relationships with multiple partners, each with a different field of proficiency. Instead, they should embark on a new execution model, seeking a single partner that possesses both business and technology expertise across all CADs disciplines. Such a simplified and streamlined single-vendor relationship enables the greatest agility in an era when organizations must move quickly to address fast-changing customer needs.

The use of repeatable processes is particularly important to successful transformation initiatives. Rather than compose elaborate processes on a custom basis, the best partners execute clear-cut and repeatable processes that incorporate deep industry and subject matter expertise to achieve the greatest speed and economy. In addition, the partner should be skilled in measuring return on investment and in communicating business benefits to executive management. Doing so will drive home the value of the transformation project to management and ensure the project is funded to completion.

CONCLUSION

In the era of the customer, businesses must move quickly as they conceive and execute new strategies across a global competitive landscape. The most successful businesses will map integrated CADs solutions to their end goals, such as the creation of a new product or the rollout of a breakthrough customer experience. Because of the special expertise required by this new execution model, businesses should seek a partner that understands CADs holistically. With the assistance of a partner that possesses both business and technology expertise, any organization, in any industry, will be well positioned for a successful business transformation.

For more information and additional resources, **please visit Trianz's site.**