

# Digital Transformation and the New Breed of Enterprise Systems



Around the world, companies are embarking on costly but crucial digital transformations. Their goal is to leverage new and still-emerging technologies to provide a truly differentiated customer experience that will attract new customers, retain old ones and drive revenue. Those that have had enterprise systems for years in order fulfillment and finance (ERP), manufacturing and logistics (supply chain management systems), customer-relationship management (marketing, sales and service), human resource management and other cross-functional processes have a big leg up in digital transformation. They already possess the crucial enterprise applications upon which new digital systems such as wireless sensors embedded in products (IoT), AI and analytics tools, and other technologies must be built.

Therefore, enterprise systems are not going away; if anything, they are becoming more important to digitizing a business. Yet many businesses with enterprise systems face a decision: whether keep the multimillion-dollar enterprise systems they installed in their data centers a while ago (the so-called “on-premises” versions), or whether to update to the latest cloud-based versions of them, at a considerable expense.

In our view, the answer to that question is simple. It will largely depend on whether they will need the capabilities that the cloud-based versions of their enterprise systems uniquely offer, or not. Companies that won't need those capabilities for the foreseeable future, we argue, should continue to run and maintain their on-premises enterprise applications. However, those that will need those capabilities should seriously consider when they will need to shift to the cloud versions.



## Most Companies Today are Sticking with On-Premises Enterprise Systems

The numbers reported by enterprise system companies like SAP and Oracle show that revenue from their cloud subscriptions is growing fast but is still much lower than traditional license revenue from on-premises software. For example, SAP said cloud revenue was 19% of total revenue (cloud plus software license and support) in 2017.<sup>1</sup> However, that is changing. In July, SAP told stock analysts that cloud's share of its new business contract value was nearly 60%.<sup>2</sup>

With that data in mind and our client experience, we expect many companies to continue running the on-premises versions of enterprise systems from Oracle, Microsoft, SAP and other companies for the foreseeable future. (Salesforce.com's CRM system has been a cloud-based enterprise application from the start.)

Yet we expect other companies to switch to the cloud-based versions of their enterprise systems over the next few years for two primary reasons:

- Only cloud-based versions of enterprise systems will offer business capabilities that are possible because of the unfettered on-demand computing power that cloud data centers can offer. Cloud-based enterprise software computing power can expand or shrink as needs change to provide the breakthrough digital customer experiences.
- Major vendors of enterprise systems—such as Microsoft, SAP and Oracle—are themselves switching their focus to their cloud products and will, sooner rather than later, cease supporting their on-premises systems while encouraging their clients to switch to the cloud by offering tempting benefits such as lower prices, security enhancements and software updates with new features.

*Cloud-based enterprise software computing power can provide the breakthrough digital customer experiences.*

<sup>1</sup> ZDNet article, Jan. 30, 2018. Accessed July 27, 2018. <https://www.zdnet.com/article/sap-q4-2017-stable-profit-with-a-cloud-sales-surge/>

<sup>2</sup> Comment from SAP CFO Luka Mucic in transcript from SAP's Q2 2018 earnings call on July 19, 2018. Accessed July 27, 2018. <https://seekingalpha.com/article/4188501-saps-sap-ceo-william-mcdermott-q2-2018-results-earnings-call-transcript?part=single>

Even if the enterprise system vendors stop supporting the on-premises versions of their software, other organizations will be there to provide support. So we believe the first reason is the far more important one: That cloud-based enterprise systems will enable companies that periodically (or more often than that) need huge amounts of computing power to provide some digital product or digital experience. The story of Netflix's switch to the cloud more than 10 years ago is a great case in point.



## The Instructive Story of Netflix

Cloud-based applications can be truly transformative, as Netflix, one of the early adopters of large-scale cloud computing, discovered more than a decade ago. Launched in 1998, Netflix started out with a mail-order business model, selling and renting out DVDs. But in 2007, it started a new online streaming service, offering customers about 1,000 movies—only 1% of its catalogue. To enable that, it invested \$40 million to build out its data centers and pay for the license fees to stream movies to early-adopter customers.<sup>3</sup> And that was for 1% of its catalogue!

It did not take Netflix's executives long to realize that they would not have enough money (or data processing expertise) to stream the remaining 99% of its movies to its growing customer base. Accordingly, in 2008 Netflix turned to Amazon Web Services' cloud computing platforms. This allowed Netflix to offer customers a vastly improved experience as they could gain immediate access to their favorite movies rather than wait for snail mail to deliver a DVD and then be bothered with mailing it back.

The rest is history. By 2017, Netflix had 117 million subscribers to its streaming service, which generated more than 90% of its \$11.7 billion in annual revenue. As Netflix grew, adding new customers and keeping old ones, the company has evolved into a media services provider, moving into the content-generation business. By 2017, it had created \$6 billion worth of original content.<sup>4</sup>

Today, Netflix no longer owns a single data center. Yet by 2015, 37% of all peak internet download traffic in North America came from Netflix's streaming service.<sup>5</sup>

<sup>3</sup> Quartz, "Ten years ago, Netflix launched streaming video and changed the way we watch everything," <https://qz.com/887010/netflix-nflx-launched-streaming-video-10-years-ago-and-changed-the-way-we-watch-everything/>

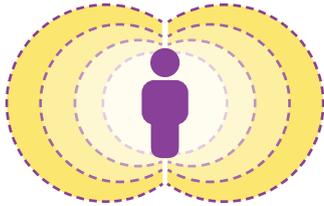
<sup>4</sup> Ibid.

<sup>5</sup> Apple Insider, "Netflix boasts 37% share of internet traffic in North America, compared with 3% for Apple iTunes," <https://appleinsider.com/articles/16/01/20/netflix-boasts-37-share-of-internet-traffic-in-north-america-compared-with-3-for-apples-itunes>

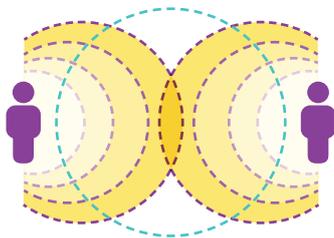


## The Capabilities Cloud-Based Enterprise Applications Will Offer

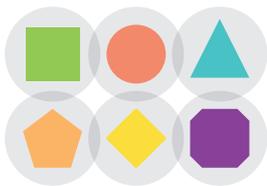
Companies are starting to benefit from a range of new technologies in cloud-based enterprise applications software—capabilities that are creating a revolution in the digital customer experience. Three advancements are particularly important:



- Advances in data analytics technologies** are making it possible for companies to better detect and respond to customer trends. Forrester Research has identified more than 50 so-called “insights-driven businesses”—including not only Netflix but also Amazon, Facebook, Google, Tesla, AOL and GE. In 2015, they generated cumulative revenues of around \$300 billion, and this figure is expected to grow to \$1.8 trillion by 2021.<sup>6</sup> According to Ted Schadler, a Forrester Research vice president and principal analyst, “These companies harness and apply data at every opportunity to differentiate their products and customer experiences.” And for those companies that are resisting the switch to cloud, he has this warning: “That makes them faster and fleetier than you.”<sup>7</sup>



- The rapid adoption of agile product development approaches** means (among other things) that customer feedback can be fed directly into the product development cycle. That allows companies to alter course and respond quickly to changing customer desires and needs, as well as market conditions.



- The evolution of automation capabilities**, which allow companies to experiment cost-effectively and test many product ideas at the same time, to bring products to market faster than ever.

To seize these opportunities, many companies will need computing power and real-time response capabilities in the cloud-based versions of their enterprise applications.

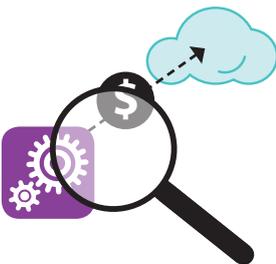
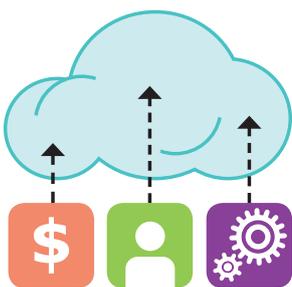
<sup>6</sup> Forrester, “The Insights-Driven Business,” <https://www.visioncritical.com/wp-content/uploads/2017/06/Insights-driven-business-forrester.pdf>.

<sup>7</sup> Forrester, “Insights-Driven Businesses Will Make \$1.2 Trillion in 2020. Wanna Join Them?” [https://go.forrester.com/blogs/16-08-01-insights\\_driven\\_businesses\\_will\\_make\\_12\\_trillion\\_in\\_2020\\_wanna\\_join\\_them/](https://go.forrester.com/blogs/16-08-01-insights_driven_businesses_will_make_12_trillion_in_2020_wanna_join_them/)

*Cloud-based enterprise applications software—capabilities are creating a revolution in the digital customer experience.*

Many companies are beginning to realize this. For example, earlier this decade, KLM, the Netherlands' flagship airline, found it could improve customer service through its interactions with customers through social media. In 2010, when an Icelandic volcano erupted that year, KLM was overwhelmed by hundreds of thousands of posts from its 24 million followers on social media channels.<sup>8</sup> Passengers were providing the airline with important feedback, but it was finding it difficult to respond in a timely way. Contact center agents struggled to deal with associated calls from customers. To address the problem, KLM used Salesforce's CRM cloud service—which included Facebook and Twitter private message functionality—and "Digital Genius" artificial intelligence capability, which provided intelligent chatbots for rapid customer service responses. Very quickly, the airline saw an uptick in customer satisfaction, with a significant reduction in call center handling times.<sup>9</sup>

Another way cloud-based enterprise applications can transform the customer experience is by allowing companies to receive, process and distribute huge numbers of digital files simultaneously. As part of its routine customer interactions, Fiat Chrysler Automobiles must issue warranty and recall notices. It is a complex undertaking, and the automotive giant elected to use Salesforce's cloud-based software to institute automated recalls. The technological solution led to an improved customer experience across the board as response times were better and service agents were freed up to spend more time on other customer-facing activities.



## Two Key Steps to Migrating to Cloud-Based Enterprise Applications

Again, moving to cloud-based versions of an enterprise system will not be mandatory for many companies in the next few years. But for those that want to shift to the cloud versions, we suggest they follow a two-stage process:

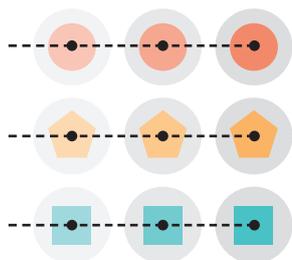
### 1. The Strategic Review

Corporate leaders should audit their company's existing business requirements, processes and enterprise applications, then calculate the impact of migrating those applications to the cloud, taking into account upfront costs, the implications for business processes, and the likely improvements in performance and security.

<sup>8</sup> Salesforce, KLM Royal Dutch Airlines customer story, accessed at <https://www.salesforce.com/customer-success-stories/klm/>.

<sup>9</sup> DigitalGenius, KLM Royal Dutch Airlines case study, accessed at <https://www.digitalgenius.com/casestudy/klm-royal-dutch-airlines-news/>.

This lays the foundation for creating a business case for cloud migration aligned with the company's overall business strategy. This should include information about the competitive landscape and prevalent market trends for enterprise applications (in particular) and technology (in general). As part of this process, they should look for opportunities to simplify the company's IT infrastructure.



## 2. The Implementation Plan

Once the strategic review has been conducted, a clear implementation plan is essential. After addressing critical data issues—such as security and privacy, the amount and type of data to be migrated, and data cleansing requirements—leaders should create a series of work streams to ensure a seamless migration from on-premise to cloud-based enterprise systems.

Companies must address the context of the initiative, covering the quality of the user experience, the alignment of business processes with the firm's goals and objectives, and change management challenges (including the creation of an internal communications strategy as roles and jobs will be transformed along with technology).

All work streams should focus on the core components of a successful migration from on-premises to cloud-based enterprise applications. For instance, there should be one process for data migration that covers not only all the different types of data (from basic user login details to sophisticated transaction data) that will be loaded onto cloud-based enterprise applications but also the digital tools required to extract the data from the legacy on-premises systems.

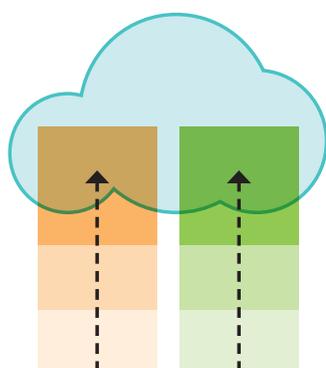
Another work stream should cover the integration of all the cloud-based enterprise applications—for example, how CRM sales and customer service applications will be integrated with HR, supply chain management, financials, data warehouse and external data feeds.

Two separate work streams should cover mobile devices and social media. It will be important that the new cloud-based enterprise applications can be accessed on mobile devices, which is how customers and employees increasingly expect to use them. Social media must be leveraged for generating sales leads and capturing customer feedback on products and services.

Other work streams should cover key performance indicators (and how the information should be presented on dashboards), dedicated portals for customers and employees, and global requirements (and the extent to which the selected cloud-based system can take a “follow the sun” approach by catering to local needs around the world).

With so many work streams, migrating on-premises enterprise applications to their cloud versions can be immensely complex. As a result, we recommend two other work streams that address some very practical implementation issues: user adoption and testing. The user adoption work stream should draw up the detailed programs for training those employees who will be key users of the cloud-based enterprise applications. The testing work stream should devise stress tests for the whole enterprise system and build in time for fixes and retesting to confirm quality.

If the new cloud-based enterprise system passes tough stress tests, it will be ready to be rolled out across the company. Yet another work stream should take charge of drawing up a series of go-live plans based on business needs. Ideally, the plans should be rolled out in phases, possibly starting with a pilot run. In such a complex environment, problems will arise, and a phased roll-out will give corporate leaders, working with their cloud provider partners, the chance to address and overcome them.



## Migration Stories: How Two Companies Moved to Cloud-Based Enterprise Applications

Consider the case of a Japan-based global cash solutions company that had made multiple acquisitions over several years and developed numerous lines of business in more than 25 countries. In 2015, it was faced with a chaotic set of legacy enterprise systems that were degrading operational efficiency and preventing it from growing effectively.

To solve the problem, the company decided to launch a digital transformation with the aim of creating a fully digitized and integrated operation using Oracle’s cloud-based applications. It then carried

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out a phased-in, three-step approach to migrating from on-premises applications to Oracle hybrid cloud applications. This strategy reduced operational and other risks. In addition, it enabled the company to learn from any difficulties that arose while demonstrating both real and potential returns on investment.

The first step, set up to reap early business benefits through quick wins while ensuring business continuity, was implementing customer-facing customer experience components: service, customer relationship management, marketing and configure-price-quote (CPQ). These were chosen for their relative ease of implementation and because if the implementation went sideways, it would have a relatively trivial impact on the overall business.

The second major step the financial services firm took was migrating core business functions such as manufacturing, finance and the supply chain operation. This step involved integrating different types of applications: software as a service, infrastructure as a service, and on-premises applications. The company selected a "pilot site" for implementing the standard global Oracle cloud solution, which mitigated the risk to its global business.

The third step—implementing additional components such as financial planning and budgeting, compliance and executive reporting—provided data integrity and a "single source of the truth" for improved corporate governance, transparency and traceability within the company's consolidated reporting platform.

The strategic three-step approach proved a success, yielding significant reductions in the legacy IT costs as well as in the customer's purchase and sales order cycle-times. The financial services company is now implementing multiple planned rollouts of its digital transformation across 23 countries.

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Similarly, a British engineering firm employing 25,000 people had amassed many disjointed HR systems with ineffective controls and reporting. As a result, the HR team had little visibility into staffing levels, and this was leading to poor operational efficiency and an underwhelming customer experience.

To tackle the problem, the firm integrated its HR operations with the business suite offered by SuccessFactors, which provides cloud-based human capital management software solutions. As a first step, it set up a steering committee to provide strong governance and oversight of the implementation program. Then, the new cloud-based HR system was deployed in a series of modules (including an employee portal, training, recruitment management, recruitment marketing and on-boarding) and then trained key users who, in turn, were tasked with training their fellow workers.

The results have been substantial. The engineering firm now has what it calls “one version of the truth” when it comes to HR management. And there have been several other benefits: a seamless flow of data for the recruitment process, the capacity to adopt best practices, reduced costs from a cloud applications subscription model, and improved employee engagement.

## It's Decision Time for Companies That Must Shift to Cloud-Based Enterprise Systems

Enterprise systems, operating on-premises or delivered from the cloud, are a foundation for digital transformation. For companies that soon will need the cloud capabilities of an enterprise system, the time has come to decide when and how to move to the cloud.

Those that already determined they needed the immense on-demand computing power of cloud-based enterprise systems are reaping the benefits.

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