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DIGITAL TRANSFORMATION

AND THE OPPORTUNITY FOR ENTERPRISE

2016

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If You're Not A Software Company, What Are You?

To appreciate how digital transformation is revolutionizing traditional enterprise, go for a drive in a vehicle guided by GPS, controlled by a touch pad and networked to your mobile devices.

Sure, it only comes in green trimmed with yellow, but that's how John Deere paints all its tractors.

The fact that farming — perhaps the very definition of a traditional industry — has embraced digital transformation and the Internet of Things (IoT) simply proves the prescience of General Electric president and CEO Jeff Immelt's 2013 declaration, "If you went to bed last night as an industrial company, you're going to wake up this morning as a software and analytics company."

This is proven not only by traditional enterprises embracing a software-centric business model, but also by native digital businesses like Netflix, AirBnB, Tesla and ING that have reinvented existing products and services or created entirely new ones. It has

been famously observed, for example, that a Tesla isn't a car — it's a computer on four wheels.

The pace of digital innovation is accelerating and broadening. As The New York Times has noted, digital transformation is the driving, defining phenomenon that will determine the future viability of businesses around the world, starting this year. Research firm Gartner goes a step farther in saying, "The future will belong to companies that can create the most effective, smart and autonomous software solutions."

The competitive advantages of this shift cannot be ignored. Digital transformation is the new economy, and that economy is going full throttle. GE has reinvented itself as a software company, as have John Deere and Humana and other familiar names. The question every enterprise must ask itself today — now — is whether they are a software company yet, and why not.

CASE STUDIES IN DIGITAL TRANSFORMATION

"Anything software-defined means it's digital. It means we can automate it,
and we can control it, and we can move it much faster."
Andrew Henderson, CTO, ING Bank.

GE Digital

Immelt wasn't just posturing when he talked about waking up a software company. The 125-year-old GE has already made that shift, with a goal of being a top 10 software company by 2020 and a focus on the Industrial Internet of Things (IIoT). To that end, it launched the GE Digital unit in September 2015, with former Cisco executive Bill Ruh as CEO. It also built a software platform, Predix, to power industrial applications; GE officials say that Predix already drives $6 billion in annual revenues.

John Deere

For John Deere, becoming software-centric meant more than self-driving tractors. At its roots, agriculture has always been about data – soil and weather conditions, rainfall, crop yields, and more. Proper interpretation of that data can reduce costs and increase yields, the most important elements in the delicate economy of farming. So Deere developed its Field Connect system to give its customers that analytical power right on their own computers or mobile devices.

Humana

Employees must be part of this change, as well. Health insurance giant Humana recognized the need for a software-first mentality among its workforce, so it created the Digital Experience Center to train people in agile software development processes and best practices. This promoted a new mentality and toolset for Humana workers, and one result was the redevelopment of an app that allows customers to track their health, and a subsequent 900 percent increase in the adoption rate of that app.

These are the kind of innovative, high-quality experiences that users expect today, and which cannot be delivered effectively outside of a software-centric enterprise. And to become such an enterprise, companies will need to rely on the leadership of their CIOs, CTOs, and IT departments.

DIGITAL TRANSFORMATION IS A CULTURAL SHIFT

As most organizations that have undergone digital transition have discovered, the CIO and CTO are best positioned to lead the transition to operation as a software company without sacrificing existing security and compliance integrity. They also have the perspective to guide companies through the accompanying cultural shift required for a successful transformation: a focus on lean processes, automation, flexibility, and self-service. Key elements of the software-first culture include the following:

Mobilize Everything

Business priorities and IT imperatives become two sides of the same coin. Everyone in the enterprise's ecosystem – employees, customers and partners – must have exceptional experiences. The first step is to make it easy for people to engage with the company anytime, anywhere, on any device. This is most efficiently enabled by mobilizing everything.

Differentiate With Data

The business must offer something of unique value. Since apps are the means for interacting, the data gleaned through those apps is gold. It's critical that technology leaders enable the business to leverage data and deliver innovative products.

Respond Instantly

Digital transformation means being able to modify your application dozens, even hundreds, of times a day in response to both opportunities and disruptions. Operation must be fast, agile and secure, and it needs technology executives to deliver a future-ready cloud strategy that powers all of that.

Safeguard Customer Trust

Any software company is a potential target for attack, and your brand is only as good as your security. A data breach doesn't just make headlines, it loses customers. Constant evaluation of security protocols is necessary to ensure that a digital business is protected.

By realigning the company culture to embrace these ideas, CIOs and CTOs can lead the transition to a software-centric reinvention of their company, provided they are equipped with the proper tools. And today that means cloud-native applications that are specifically architected to address these needs.

THE RIGHT PARTNERS FOR TRANSFORMATION

Building, deploying, and managing cloud-native applications requires harnessing new and adaptive technologies, including microservices, containers, schedulers, and orchestration tools. For their transitions, GE, John Deere, Humana and other companies turned to VMware and Pivotal Labs. Pivotal is a proven leader in cloud-native application development and processes, and VMware counts half a million customers in its portfolio.

As partners for companies undergoing this shift, VMware and Pivotal offer three pillars of support for CIOs and CTOs guiding a digital transformation:

Cloud-native Development

This involves IT working with developers and business units to create applications that can be continuously updated and deployed. IT must drive agile methodology with buy-in from executives and line-of-business leaders.

Unified Platform

One that is scalable and embraces both existing systems and native applications. VMware enables enterprises to run any application on any device in a single, unified cloud.

Analytical Insights

Pivotal data products allow companies to better identify opportunities and serve customers by leveraging customer knowledge into business offers.

VMware's technology, combined with development best practices and tools from Pivotal Labs, enables companies to build the type of cloud-native development, deployment and management capabilities that are critical to an agile application methodology. VMware gives enterprises the ability to run any application on any device in a single, unified cloud, optimizing the speed and scale of cloud-native applications without sacrificing security or existing performance.

PIVOTAL-VMWARE CLOUD-NATIVE STACK

Jointly Pivotal and VMware deliver an integrated, turnkey solution, with straightforward procurement and support that allows customers to minimize time to value through quick installation. The solution can provide a complete, cloud-native software stack – inclusive of IaaS, PaaS, and application framework – friendly to developers and IT operators out of the box. Post-installation, customers can expect speedy application deployment, and worry-free management of their apps and infrastructure. The joint solution can give any organization a fast path to building and running their cloud-native applications on-premises, and to delivering value to customers.

Through Pivotal data products and VMware analytical capabilities, technology executives have the power to drive enterprise-wide strategic initiatives that create competitive advantages.

Creating a Digital Culture

Digital transformation is not to be undertaken likely, but it must be undertaken by any enterprise wanting to be competitive in the new economy, driving value for customers as well as revenue in the process. To secure the viability of their enterprise, the CIOs and CTOs managing this transformation, in cooperation with other stakeholders, need the proper tools and guidance. VMware and Pivotal have the track record, expertise and technology to complete this digital transformation while maximizing benefits and minimizing risks.

TO LEARN MORE:

About Pivotal

Pivotal's Cloud Native platform drives software innovation for many of the world's most admired brands. With millions of developers in communities around the world, Pivotal technology touches billions of users every day. After shaping the software development culture of Silicon Valley's most valuable companies for over a decade, today Pivotal leads a global technology movement transforming how the world builds software.

http://www.pivotal.io/vmware

About VMware

VMware is a global leader in cloud infrastructure and business mobility. Built on VMware's industry-leading virtualization technology, our solutions deliver a brave new model of IT that is fluid, instant and more secure. Customers can innovate faster by rapidly developing, automatically delivering and more safely consuming any application. With 2015 revenues of $6.6 billion, VMware has more than 500,000 customers and 75,000 partners. The company is headquartered in Silicon Valley with offices throughout the world and can be found online at www.vmware.com.

http://www.vmware.com/cloudnative/photon-pcf