



What does digital transformation really mean?





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- Digital transformation projects cry out for a human touch
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In this e-guide:

What exactly is digital transformation? You probably hear the term often enough, but with so many different definitions floating around how are you supposed to know how to digitally transform? Is it a move to the cloud, an introduction of Agile methodology? Is it a wholesale move away from legacy applications?

See what our experts have to say on the matter in this e-Guide, and learn how to get started on your digital transformation today.



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▼ Your digital transformation initiative is probably not future-proof

Dan Morris, Principal

http://searchcio.techtarget.com/tip/Your-digital-transformation-initiative-is-probably-not-future-proof

This is not just another article on digital transformation. Frankly, I think most of the digital transformation advice out there really misses the boat. To me, digital transformation is not about a new ERP or going paperless or updating all the other same ol' same ol' of the past. A digital transformation initiative — if approached as an add-on or a new tool — is going to fail. As CIOs know, dumping new tech into an old tech black box just adds complexity to systems that are already so complex they impede the company's ability to compete and, thus, stay in business.

I believe digital transformation is a move to fundamentally change the whole approach to IT automation. It demands a total rethinking of what can and should be done with rapidly evolving technology and with the new customers -- and competition -- new technology creates. A digital transformation initiative answers the need to interact with internal and external customers the way they want you to. That will require adopting and integrating new tools to transform the way a company operates.

Today, companies are adopting new technology, including business process management suites (BPMS), robotic process automation (RPA) and Al. Some are also looking at the technology horizon and seeing next-generation



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tools, including 3D phones, holographic tables, quantum computers and more. Tomorrow's technology is being invented right now, as we watch.

But as exciting as this technology is, it is not the real issue in a digital transformation initiative. The challenge for CIOs and their companies is to rebuild their existing infrastructure to accommodate these new technologies. Equally important is the need to reduce or eliminate both operational and IT complexity and then streamline the work.

Defining the problem

Many of today's IT operations are 60 years old with a cobbled together mix of old and new technologies that have been made to work together. Applications I helped write in the 1970s are still running as legacy batch systems. Some companies still use green screen systems that have been changed to the point where little of the original code remains in use. Some of these applications and their operating environments are no longer supported by the vendors, and change is up to specialist programmers who still deal with these technologies.

Complexity is so rampant that few IT shops can tell you how the data really flows through the legacy applications or how it transforms as it moves. Documentation on the myriad changes in the legacy applications is virtually nonexistent, and change is based on reading program code and embedded notes. Everything is out of context and generally out of date -- there is no real source of truth for the systems or the data. The result is that we cannot change anything fast. Even worse, when we implement new technologies,





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we have to handle them as separate tools that have little interaction with the legacy world.

But to succeed in a technology-enabled, customer-centric business environment, these constraints must be overcome. Speed, flexibility, cost efficiency, reduced risk and operational simplification are the characteristics that define the IT and business operating platform companies need to build.

Focus on what it will take to gain market share

So, the challenge in a digital transformation initiative is not to keep up with changes in technology -- you can't. (Technologies such as robotics, Al, holographic phones and quantum computing are coming too fast for any one person to keep up with.)

The challenge is to create a type of business and IT operating environment where the old and new tools and, thus, applications can work in harmony. This is easy to understand and to recommend, but is hard to accomplish.

Some companies, as they tackle integrating old and new tools, have a firm focus on cost reduction. Some are focused on upgrading a particular system. I recommend that you focus instead on what it will take to gain market share. In a rapidly evolving marketplace, your ability to remain relevant in the eyes of your customers is paramount. Building the flexibility to adopt and integrate new technology as you adapt to evolving customer



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demands supports this ability; a focus on cost reduction or on a particular system upgrade does not.

I believe that many companies are at a crossroads -- and time is running out for choosing the right path forward. Many of the new technologies you need to incorporate have been adopted by the millennial generation. These young people know how to use technology and they are constantly demanding more. They have no patience with mobile apps or websites that don't work easily or do what was advertised. Soon, they will also have no use for apps or other interfaces that aren't fun.

If companies build a very flexible IT operation, capable of quickly incorporating whatever emerging technology that will help them compete, they will be able to keep up with customer expectations -- and evolve as the customer evolves.

Digital transformation initiative quiz

So, how ready is your company to start building the business and IT operating environment required to compete and, therefore, stay in business in the emerging digital market? Here is a readiness assessment quiz to take:

- 1. Can the company change both the business operation and its IT support in days or weeks -- or is months the norm?
- 2. Is there a large IT backlog of changes that need to be made to old application systems?







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- 3. Has IT expenditure allowed the company to keep up with emerging technology or has it fallen behind?
- 4. Is your IT operation modern or primarily comprised of old legacy applications and old technology? Does the company have a BPMS or RPA tool that it actually uses? Is anyone looking at the role of AI in automating processes?
- 5. Is the technology infrastructure flexible enough to support modern technology and rapid application change?
- 6. Is your IT budget adequate to support a multiyear design and construction of a new IT infrastructure?
- 7. Is there a corporate vision for a digital operation that's focused on interacting with the customers on the customers' terms?
- 8. Is the corporate digital marketplace vision global? Does your business transformation plan address the digital expectations of employees and business partners?
- 9. Does your strategy map out a digital foundation that will allow you be competitive in 10 years?
- 10. Does senior management support the need to invest in new digital business operating environment?
- 11. Is the company focusing on cost reduction or market growth?
- 12. Has downsizing stripped the company of knowledge workers? Can the company support both the ongoing business operation and the research and ideation needed to really apply innovation to business redesign?
- 13. Has the company fallen behind its competition in preparing to operate in the emerging digital marketplace -- does anyone know what technology the customer is obtaining and what they will have in five years or longer?



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14. Is there any plan in place to track the evolution of the customer's technology use or buying pattern? How well has the customer been defined and what will the company do when millennials reach 50% of the buying public in a few years?

Takeaway

These questions will help you to gauge your operational readiness for a digital transformation initiative. If you honestly confront these issues, you should be able to tell if your company is on track in adjusting to the evolving digital market, or if it really needs a new strategy. If you think you are in good shape and ready for a move into the future, great. Many CIOs will see that their companies are not only unready, but also not even thinking in these terms. Now is the time to change that.

The constant stream of new technology will likely continue far into the future. Success will depend on your ability to use technology for business gain. Companies that have taken the time to rethink and rebuild their IT infrastructure and approach to applications support will remain relevant in the eyes of the buyers. They will also be able to avoid the additional complexity and costs of continuing the past approach of cobbling new technology into inefficient legacy environments.

Please feel free call or email me with questions or different points of view. (Dan Morris, 630-290-4858, email daniel-c-morris@comcast.net)





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Digital transformation projects cry out for a human touch

Jason Sparapani, Features Writer

http://searchcio.techtarget.com/news/450420520/Digital-transformation-projects-cry-out-for-a-human-touch

NEW YORK -- At your next tech convention, try playing this daytime, IT variation on a classic college drinking game: Every time you hear the term *digital transformation*, take a sip of coffee. You'll be awake until self-driving cars outnumber ones driven by humans -- that is, for years.

Michael Herman, of New York consulting outfit KPMG, challenged several hundred IT leaders gathered in a gleaming midtown tower on Tuesday to think differently about their digital transformation projects.

"What really is digital transformation?" Herman asked at the Argyle CIO Leadership Forum. Is it every digital initiative underway at organizations today, from building a mobile app to moving IT operations to the cloud?

"Or is it an enabler around, 'We need to get more intimate with our customers; we need to understand our business better?"

Digital transformation can be a powerful force in business, government and society, leading to wholly recrafted products and services, CIOs and industry watchers attested at the event. But without a strong tie-in to business needs, it's merely a solution in search of a problem.



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Connect IT

Herman said digital transformation projects should be fashioned with a human experience in mind -- how an end user will interact with a process, whether it's a bank patron transferring money on a mobile phone or a community awaiting emergency food aid after a natural disaster.

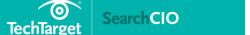
"All this transformation people are talking about has to be embedded in understanding what people really want from their experiences -- what's the value proposition?" he said. "That's the blueprint and the DNA for how digital transformation layers into that."

To get there, IT and business need to move in lockstep, Herman said. The stark dividing line between them in organizations is eroding, but now they need to work toward "a true partnership."

Building in an Agile methodology, which is designed for fast project delivery, is a way to focus on meeting business needs, said Herman, who likened the method to a jazz session.

Agile moves

Kenneth Corriveau is CIO at New York-based Omnicom Media Group, which helps companies determine where and how to distribute advertising. The entire company -- business and IT -- is shifting from "an old-school line of thinking into an Agile direction," he said.





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So that means basing new products not solely on key performance indicators and ROI but also on a "fail-fast" mentality. So a software project, for example, might be given a month to get to an experimental phase.

"And then [we can] say, 'OK, what did we learn? Can we iterate on that? Is there an opportunity here?' and then move forward?" Corriveau said. The collaborative, informal approach has "impacted the way we've gone to market with new ideas and solutions."

A similar transition is happening at Wyndham Destination Network, the rental accommodation and timeshare division of hotel chain operator Wyndham Worldwide, based in Parsippany, N.J.

CIO Barbara Spengler said ongoing IT initiatives like moving applications from an externally operated data center to a cloud service provider will give the company the flexibility and scalability needed to make the move to Agile and DevOps, a collaboration of IT operations and software developers.

"Once we shift, then we'll assess the applications and the services available with the cloud provider and assess which of those make more sense -- are more practical, economical," Spengler said during a panel discussion among IT chiefs. She expects the project to be live by October. "We have to change things pretty significantly in terms of when we develop new software."





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'Adapt or die'

At Wyndham and Omnicom, the transition to cloud and Agile required significant changes to the cultural fabric of the companies, Spengler and Corriveau said. And for organizations today, that's not only critical to driving innovation -- it's critical to survival, said Greg Bledsoe, a consultant at Accenture.

Bledsoe was across town at the jumbo Jacob K. Javits Convention Center, at the cloud computing conference Cloud Expo, preparing to speak on culture plays in DevOps on Tuesday.

To be successful in the fast-moving digital age, Bledsoe said in an interview, organizations need to ensure that culture is based on a "core set of values," such as openness, honesty and blamelessness -- so no pointing fingers at people. And the stakes are high.

"The companies that don't adapt will die. The average life span of a company on the Fortune 500 was 75 years 100 years ago, and now it's 15 years," Bledsoe said. "It truly is an adapt-or-die situation."

Customer focus

At the Argyle conference, Amanda Mihaela Titiliuc looked at the mandate for digital transformation through an industry-specific lens. She's served in





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healthcare as CIO and IT manager and is now senior director in an IT competency center at Optum, a subsidiary of UnitedHealth Group.

The company has embraced cloud computing, emerging technologies such as the connected-device network the internet of things, and Agile project management to devise products and services. That will help physicians and executives better do their jobs and ultimately better serve patients.

"The core of what we do is for the patient," Titiliuc said. "In healthcare, we don't exist without the patient. Because of that, we have to make sure that we don't lose sight of the experience -- not just technology for the sake of having technology."

CIO news roundup for week of June 5

SearchCIO was in the Big Apple talking to CIOs about digital transformation projects. Meantime, here's what was grabbing headlines.

SoftBank scoops up Boston Dynamics. Japanese telecommunications giant Softbank is buying Waltham, Mass., robotics firm Boston Dynamics from Alphabet, SoftBank announced Thursday. "We look forward to working with SoftBank in our mission to push the boundaries of what advanced robots can do and to create useful applications in a smarter and more connected world," Marc Raibert, CEO and founder of Boston Dynamics, said in a statement. SoftBank strives to make smart robotics a key driver of the next stage of the "information revolution," and the company aims to aid Boston Dynamics in its journey to advance the field of robotics, SoftBank



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chief executive Masayoshi Son said in a statement. As part of the deal, SoftBank is also buying bipedal robotics firm Schaft. The terms of the deal have not been disclosed.

Apple unveils Siri-powered HomePod. Apple launched HomePod, a voice-activated wireless speaker powered by its digital assistant Siri, at its annual Worldwide Developers Conference on Monday. With HomePod, Apple is "making a long-term play for the concept of ambient computing, in which everything you own is connected and powered by an underlying artificial intelligence," according to a *Business Insider* article. Apple also unveiled macOS High Sierra, the latest version of its desktop operating system that features new core storage, video and graphics technologies. "macOS High Sierra delivers important forward-looking technologies and new opportunities for developers wanting to tap into the power of machine learning and create immersive VR content on the Mac," Craig Federighi, Apple's senior vice president of software engineering, said in a statement.

Microsoft acquires Hexadite. The Redmond, Wash., tech giant is acquiring Israeli startup security firm Hexadite, Microsoft announced Thursday. Hexadite, headquartered in Boston, uses artificial intelligence and machine learning to detect and defend against cyberattacks. Microsoft didn't disclose the terms of the agreement, but *TechCrunch* reported the deal price to be \$100 million. "Our vision is to deliver a new generation of security capabilities that helps our customers protect, detect and respond to the constantly evolving and ever-changing cyberthreat landscape," said Terry Myerson, executive vice president of Microsoft's Windows and Devices group, in a statement. Hexadite's technology and talent will help expand





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Microsoft's existing capabilities, while adding new tools and services to Microsoft's portfolio of enterprise security offerings, Myerson added.

Assistant editor Mekhala Roy contributed to this week's Searchlight.

Check out our previous Searchlight roundups on the MIT Sloan CIO extravaganza, the WannaCry ransomware attack and the OpenStack Summit Boston.

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John Moore, Site Editor

http://searchcio.techtarget.com/feature/Digital-transformation-consulting-offers-CIOs-tech-cultural-change

An emerging category of IT service providers is stepping forward to assist enterprises with the task of digital transformation.

This subgroup of digital transformation consulting firms, sometimes referred to as digital solutions integrators, depart from traditional service providers in a number of ways. They often aim to combine elements of more familiar channel businesses such as digital agencies, systems integrators and management consultants. Some offer virtual CIO/CTO services, serving in an advisory capacity and staying away from the traditional IT channel function of product resale. Many are smaller, boutique firms as opposed to massive companies with worldwide brands.

Enterprises are tapping this crop of companies for projects that go well beyond a conventional IT infrastructure upgrade. Baystate Health, a healthcare system based in Springfield, Mass., hired a company in this digital consulting category, VertitechIT Inc., for help on a data center project. The engagement quickly took on an increasingly transformational aspect with respect to technology, culture and project management philosophies.



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Patrick Streck, senior director of IT services at Baystate Health, said the health system planned to build out a new data center for redundancy. The health systems' director of infrastructure, however, left the company, leaving a knowledge gap at a critical time. Baystate then brought VertitechIT, based in Holyoke, Mass., on board to help find a way forward.

VertitechIT recommended a hyper-converged infrastructure for the new data center, a move that helped Baystate Health shrink its space requirements from 10,000 square feet to 2,000 square feet. The cost of the data center dropped from an estimated \$10 million to \$3 million.

The price tag reduction was "mostly tied to the reduced footprint in hardware," Streck explained. Baystate Health, he said, adopted VMware's NSX network virtualization technology and Cisco's Unified Computing System as the foundation for hyper-convergence.

Cultural shift

The transition to hyper-converged infrastructure, however, is only one dimension of Baystate Health's transformation.

"The technology is almost secondary," Streck said, noting the cultural change that VertitechIT helped initiate.

Healthcare institutions, by their nature, emphasize doing things in a safe, conservative way, Streck said. That thinking extends to the IT department, which tends to focus on holding IT together as opposed to pursuing

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innovation. Indeed, much of VeritechIT's early work with the healthcare system involved addressing skepticism and building consensus.

"The fundamental aspect of this [transformation] really is the cultural change and the way in which VertitechIT catalyzed our own staff," Streck said. "They didn't come in and do it for us; they came in and it with us."



Michael Feld

A case in point: With the top infrastructure post vacant, Michael Feld, CEO of VertitechIT, became the acting CTO. But rather than calling the shots on his own, Feld convened a panel of directors from Baystate Health to mull over the technology direction and cultural changes, according to Streck.

In addition, VertitechIT helped cultivate a pragmatic approach to change, based on incremental improvements rather than a single "grand design," Streck said, who likened the process to agile development and the Scrum framework. Baystate Health's IT team sells transformation to its in-house customers on a piece-by-piece basis.

"If we can prove these first steps, would you be willing to consider the second step?" Streck summarized.

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Digital transformation consulting starts at home

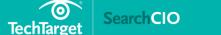
As it turns out, IT services providers may need to pursue their own IT transformations in order to help customers through their digital journeys.

"The traditional IT consulting approach thinks from a technical standpoint: You've got a problem and we'll come in and fix it," Feld said. "We were that traditional technology fit-it provider. We have changed our model."

When VertitechIT launched a dozen years ago, the company's first hires were all networking specialists. Since then, the company has hired personnel with business acumen, experience in finance and expertise in the regulatory environment. The company now aims to provide strategic resolution to customers' issues, assessing both IT systems and business processes.



Will Clevenger





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Will Clevenger, chief strategy officer at Quisitive, a digital transformation consulting firm with offices in Dallas and Denver, acknowledged the IT services industry has to transform alongside its customers.

"The customers you are selling to are trying to do the same thing," he said.

In turn, Quisitive, reorganized to address customers' digital transformation needs. "We had legacy services that fit in the IT services world [but] didn't make sense for us in the new world," he said.

For example, Quisitive had built a base of business creating internet portals for customers. But that service became commoditized. The company transitioned out of that business, redirecting its technical talent to build customer experience platforms using technologies from vendors such as Sitecore and Adobe.

Some of the largest IT vendors, including Cisco, IBM and Microsoft, are now cultivating relationships with digital transformation consulting firms. Cisco, for example, is rolling out a worldwide program for companies it has termed digital solutions integrators. The company has about 20 such partners in the U.S., including VertitechIT, and plans to sign up partners in Asia and Latin America as well.

At Microsoft, a handful of digital consulting firms are now part of its Microsoft Customer Engagement Alliance. Those companies act as a sounding board for Microsoft's digital transformation initiatives. Quisitive is among the alliance's members.





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The vendors view the ability to change people -- as well as deploy emerging technology -- as a hallmark of their digital transformation consulting allies. A Microsoft spokeswoman cited the capacity to drive people- and process-centric change management in a digital transformation project as a core characteristic of a digital consultant.

He cited the launch of Baystate Health's TechSpring innovation center, in which technology firms collaborate with healthcare professionals, as a sign of change.

But perhaps the biggest cultural development is philosophical.

IT personnel, Streck said, now "look forward to the next thing, as opposed to worrying about what is going to break next."