

FIVE STEPS TO SUCCESSFUL
DIGITAL
TRANSFORMATION





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Transition to Digital Transformation Requires a Disciplined and Methodical Approach

With born-on-the-web companies disrupting centuries-old industries and technologies like cloud and big data reshaping the way organizations use information, digital transformation has become one of the hottest topics of the past two years.

Improved customer experience is a prime driver of digital transformation in businesses, but there are many other applications as well, many of which are less transformative than incremental.

Nearly any type of business can benefit and find value in strategies that improve process efficiencies and exceed customer expectations.

One common myth about digital transformation is that it requires a wholesale restructuring of the business. In fact, organizations can achieve substantial incremental benefits by automating manual processes, streamlining decisions and improving collaboration using digital tools. In fact, few experts advise organizations to attempt major transformations without first testing technologies and ideas on a small scale.

A disciplined approach begins with looking at the areas of most immediate opportunity, running some test projects and expanding from there. Remember that digital transformation can be disruptive; proceeding incrementally gives the organization a chance to adapt to change and to embrace a culture of continuous improvement.

"89% of enterprises plan to adopt or have already adopted a digital-first business strategy; those who have successfully made the transition say they are seeing average revenue growth of 23%."

IDG - 2018 Digital Business Survey¹



Start in areas in which new technology can achieve tangible and measurable results, such as improving workflows, speeding up turnaround times, and improving employee productivity. The benefits of automating these functions with digital tools are often immediate and can set the stage for a more ambitious rollout. A slow-and-steady approach also helps convince the skeptics that digital transformation doesn't have to be scary or disruptive. It can just be good business practice.

This is not to say that transformation is easy. In many cases, it involves challenging existing organizational boundaries, conventions and hierarchies. Employees who are grounded in the old way of doing things can be a significant impediment. The good news is that they can usually be won over with demonstrated results.

However, organizations should also be prepared to respond to negative voices who stand in the way of change.

Incremental digital transformation projects also don't obviate the need to prepare for disruption. Organizations should establish an ongoing ideation process to imagine how parts of the business could be transformed fundamentally and to watch for threats on the horizon. In this e-book, we outline five steps any organization can take to build a methodical approach to digital transformation. By following this model, a company can find the low-hanging fruit and gradually expand its scope and expertise to transform more fundamentally.



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ESI Technologies

Modernize Platforms

Data is increasingly the source of competitive advantage for companies in nearly all industries. Data analysis provides insights about your company, your market and your customers that drives business opportunity and organizational efficiency. Our ability to use data to give customers insights into the products and services they buy from us increasingly drives sales.

For example, the elevator maker whose analytics software helps customers optimize maintenance schedules and perform preventive service at the least disruptive hours of the day will sell more elevators than its competitors. The same is true for the maker of security cameras whose software can match faces to known criminals or detect signs of suspicious behavior. While these companies may not sell software as a discrete product, it is crucial to the success of their business.





Aging applications burden companies with costly on-premises equipment and limit their latitude to enjoy the flexibility offered by cloud platforms. At many companies, maintenance still **consumes up to 80% of the IT budget.**

Speed is essential in getting new innovations to market quickly. Organizations can no longer afford the luxury of waiting to modernize their IT infrastructure. Legacy equipment and software are prone to failure and require expensive skills to support.

Leverage Cloud Computing

Adopting a “cloud-first” strategy is a good way to begin the process of modernizing platforms. New applications should be licensed from cloud providers or deployed on cloud infrastructure by default. Modern hybrid cloud platforms enable organizations to develop and test software on their own infrastructure and then migrate seamlessly to the cloud.

Legacy applications should be migrated or replaced. While it is often impractical to move every application to the cloud, organizations can typically redeploy about 80% of their workloads, according to IBM research.

Cloud infrastructure offers some appealing short-term cost savings as capital expenses are converted to operating expenses and users pay only for the resources they consume. But while cloud is cheaper in the short term, it is often more expensive in the long term, particularly for customers who don't take a disciplined approach to managing cloud resources.

Don't look to the cloud to save money but rather to enhance organizational agility.

One benefit of the cloud is that the time needed to provision applications and infrastructure falls from weeks to minutes. Software maintenance and updates are automatic. Most public cloud providers deliver world-class security. Customers can pick and choose from a wide assortment of applications, databases and development platforms.

Many Cloud Options

As the cloud market has matured, customers are increasingly adopting a multi-cloud strategy in which workloads are deployed to the most appropriate infrastructure based upon factors such as performance and cost. Services have even emerged that enable companies to shift workloads flexibly across cloud platforms using portable technologies such as software containers. As cloud providers adopt more standard platforms, customer choice will continue to improve.

The cloud concept is also coming to on-premises environments in the form of private clouds. These are essentially cloudlike environments constructed within the four walls of the customer's data center. For customers who have a pressing need to keep data or processing on-site, this model gives them the flexibility of public cloud while maintaining full control. Research firm Wikibon calls this new model "true private cloud" and estimates² that it is already a \$20.3 billion market growing at twice the rate of public cloud.

Do More With Virtualization

Virtualizing or separating software from the underlying hardware layer is an essential part of creating an on-premises cloud environment. Most organizations have virtualized at least some of their server infrastructure, but many more resources can be virtualized as well, including storage, networking and even desktops.

Think of ways to expand virtualization beyond servers. For example, companies with remote offices can virtualize their wide area network to deliver secure, reliable connectivity to branch locations without the need to dispatch service personnel to manage local servers, firewalls and storage. Virtualizing the storage layer enables organizations to treat all of their underlying storage assets as one or more virtual volumes, giving them the flexibility to allocate flash, disk and tape drives for the best possible combination of performance and cost.

One of the principal advantages of virtualization is to take much of the need for human intervention out of the equation. Automation tools can make changes programmatically, eliminating the need for a visit by a service technician and the error-prone process of managing wires and switches.

Adopt the Hyperconverged Infrastructure

Hyperconverged infrastructure (HCI) is a new and increasingly popular choice for virtualizing on a large scale. HCI combines computing, storage and software in a single hardware appliance running a cloud operating stack. Appliances can be clustered for high scalability and organizations can run applications either on local HCI infrastructure or in the cloud and shift easily between them.

Many organizations now use HCI to test legacy applications before moving them to the cloud or scale out from local HCI appliances to public cloud services at times of peak demand, a technique called "cloud bursting."


According to MRC³, the simplicity and convenience of running a cloud-like appliance is one of the reasons the global HCI market is expected to expand at a 42% compound annual growth rate to reach \$17 billion by 2023.

Don't Pass on PaaS

Once you adopt a cloud-first strategy, your software development productivity can improve dramatically with PaaS (Platform-as-a-Service), a special kind of cloud service optimized for development. PaaS includes not only dedicated servers and operating systems, but also a variety of database, middleware and productivity tools for developers. Instead of waiting days for servers to be allocated and software installed, programmers can be productive in minutes using their own dedicated environments for development and test. All cloud infrastructure providers offer PaaS options, and there are also dedicated PaaS providers, as well as on-premises PaaS software stacks.



PaaS can help speed organizations along the path to DevOps by giving developers the means to fully control the software platforms and tools they choose, as well as the freedom to experiment without wasting the time of the operations staff.



Adopting PaaS is an important step in moving to DevOps, an agile development technique that gives developers full control over both code and the environment in which it runs. DevOps is based upon the concept of modularity. Applications are subdivided into functional components that are assembled either prior to deployment or on the fly. Each component is developed independently in a rapid and iterative fashion, with new code releases coming as frequently as every day.

Puppet Labs has reported⁴ that high-performing DevOps organizations deploy code 46 times more frequently and are nearly 100 times faster at fixing errors.

Developers can easily test NoSQL or graph databases as possible alternatives to relational engines for their application. They also have a full range of languages, editors, test suites and runtime environments at their fingertips. The task of provisioning these resources is removed from the IT organization, which can focus on more mission-critical affairs. The growing adoption of software containers, which are portable mini-virtual machines, is making DevOps practical for more companies because they can choose from libraries of preconfigured software stacks.

Automate

As you modernize infrastructure, look for ways to apply the new tools to your business. Start by examining existing practices. Many day-to-day processes become so embedded into an organization's operations over time that people fail to even question why they do things the way they do. These processes are excellent candidates for automation.

Automation is the core of digital transformation. It's what makes it possible for web companies like TaskRabbit to manage an army of more than 60,000 self-employed service people with a staff of just 65 employees or for Airbnb to coordinate a network of 4 million rooms with a staff of 3,100. Quite simply, they have automated everything that can be automated.



Where to Start?

1

Choose your own candidates for automation by looking for processes that have changed little over time. For example, phone calls and paper forms are **easily replaced by digital platforms**. You will eliminate several steps that generate delays and errors, and at the same time, several irritants.

2

Parallelizing serial processes is one of the fastest and easiest ways to achieve short-term digital transformation benefits. Take communications, for example. Rather than using email, **collaborate on a single, shared document**, leveraging one of the many collaboration suites available on the market.

3

Another example of an opportunity to apply parallel processing is the onboarding of a new employee, a paper-intensive process at most companies. Instead of a sequential process, why not **base the process on automation and shared resources**? This way, requests are automatically forwarded to the appropriate stakeholders and each step is recorded in a log for audit and troubleshooting purposes as needed.

Reduce the Use of Paper

Automating manual processes is based upon two essential elements of digital transformation: digitization and programmability. McKinsey has estimated that the average employee spends eight hours each week searching for information. When all documents are digital and searchable, that figure falls dramatically, workers are relieved of monotonous jobs and the whole process is documented automatically.

Eliminate Phone Calls

Telephone calls are one of the least productive forms of communication for routine tasks. Not only does the time needed to initiate a call and wait for the right party to connect introduce delays, but phone conversations are intrusive, distracting and prone to misinterpretation. Limit phone calls to necessary instances. Consider options for moving your processes to a self-service customer portal or a simple web form.

Digitization

When digital documents replace paper, information can be easily shared, copied, tagged, searched and archived. Access can be granted with fine levels of control and documents are never lost. Digitization also reduces error rates, floor space and confusion over the source of information.

Programmability

Programmability is about taking the human element out of processes. When workflows are coded in software, decision points can be automated. New tasks can be initiated based upon the complication of previous ones as well as thresholds, deadlines and other factors, thus greatly reducing delays.

Find Out About Automation Possibilities

Artificial intelligence technology is constantly introducing new opportunities for automation. For example, robotic process automation software monitors employee keystrokes and identifies frequently repeated patterns that indicate tasks that can be performed programmatically. New AI-powered calendaring engines can automatically schedule appointments and even coordinate meetings with multiple participants without human intervention. Keep an eye trained on the industry literature for new innovations that can apply to your business.

Empower

When was last time you interacted with a bank teller? If you're like most North Americans, you probably don't visit a bank branch more than a half-dozen times a year. ATMs and online banking take care of nearly all our banking needs, in the process reducing banks' per-transaction costs from dollars to pennies.

But self-service banking is about more than just saving money. Most customers prefer it. Taking care of their own banking needs is faster and less error-prone than explaining things to a teller.

The same holds true for making travel reservations, buying concert tickets and even hailing a cab ride: many people would rather just do it themselves.

Empower Your Customers

This human proclivity for self-service can be a powerful force in digital transformation. For some businesses, it's the center of their strategy. If you look at Netflix's earnings statement, one thing that may jump out at you is that the company has no sales costs. That's because it has no sales people. Netflix has made it so simple for customers to create and manage their own accounts that there is no need for intermediaries.

Another figure that jumps out is Netflix's general and administrative expenses, which comprise less than 0.7% of the company's total sales. That compares to nearly 20% at large retailers and more than 50% at Netflix competitor Blockbuster the year before it filed for bankruptcy. Netflix's low overhead enables it to service more than 170 million customers with just 5,400 employees, a staggering average of \$1.5 million in revenue per employee. By contrast, a traditional retailer generates about \$200,000 per employee.

Not every company has a Netflix business model, of course, but the principles of empowering customers to service their own needs can be applied to nearly every business. Self-service portals can make information available on a variety of devices at any time of the day or night, enabling businesses to forego the costs of call centers.

"This trend is gathering steam, as evidenced by forecasts that the customer self-service market will grow to \$13 billion by 2023, a compound annual growth rate of nearly 17%."

Global Customer Self-Service
Software Market
Growth, Trend and Forecasts (2018-2023)⁶

Most of the prominent, high-growth web-scale companies use self-service as a fundamental building block of their businesses, such as Amazon or Airbnb. The ubiquity of smart phones makes this opportunity even more compelling. Hailing a cab or booking a hotel room with an app is not only faster than calling on the phone, it also gives customers more latitude to make their own choices.

Self-service isn't appropriate to every situation. For example, many business-to-business transactions depend upon trusted relationships, and those dynamics should remain in place. However, by applying a critical lens to long-standing procedures, you may be surprised at how many opportunities you identify.

Your service center often answers the same questions? Compile the most frequently asked questions and answers into a searchable database, to redirect many of these questions online. Use online forms for your customers to enter their own information. Look for solutions that will improve the customer experience and save you time.

Empower Your People

The same principles apply to your own employees. Interview your people to pinpoint areas in which their productivity is limited by access to information. Are there technologies that could make that information searchable? Are you capturing information about customer interactions to a database that you can analyze to spot opportunities for automated decision-making? If you already provide self-service features, do you also make them available via a mobile app?

Empowerment isn't necessarily a technology issue. When interviewing your people, also look for areas in which decisions are slowed down by unnecessary approval cycles. Feel free to question processes that prove to be ineffective.



One of the best-known examples of employee empowerment is Ritz-Carlton hotels⁷, which authorizes every employee to spend up to \$2,000 per guest per day to fix or improve a customer's experience - no questions asked. Abuse is rare, and employees appreciate the trust the company shows in them. As a result, employee turnover is low and Ritz has been the top-ranked hotel in J.D. Power's customer satisfaction ratings⁸ four years in a row.

The hotel's management understands the benefits of pleasing guests. Alexandra Valentin, Ritz-Carlton Corporate Director of Culture Transformation, gives the example of the guest so impressed by a \$36 gift of scotch and cigars that he directed more than \$150,000 of business to the hotel the following year.⁹

This is not to suggest that every business should emulate this approach, but given the high cost of turnover and the consequences of customer dissatisfaction, it's worth evaluating all of your customer-facing processes to see how improved employee access to information can cut down on frustration and delay.

Implement and Measure

You can't improve what you can't measure, and that applies just as much to digital transformation as to any other business improvement initiative.

Most organizations have more measurement options at their disposal than they know. The key to evaluating returns is to select a limited number of metrics, gain broad agreement on their appropriateness to the scenario and evaluate performance at regular intervals. Metrics are important not only for quantifying success but also for convincing often-skeptical executives that payoffs exist.

Choose Short-Term Benefits

Early in your digital transformation journey you'll want to select projects that show short-term benefits, whether in costs avoided or revenues generated. In most cases, the former is the low-hanging fruit.

As you see results and others in your organization come on board, you can tackle bigger projects with long-term gains. Most metrics fall into either the category of business expansion or cost reduction. Within those major categories there may also be subcategories that lead to either of these outcomes. In rare cases, your digital transformation initiative may yield benefits on both sides of the continuum.

Examples of Measurable Outcomes

Business Expansion

- Increased overall revenue
- Increased revenue per customer
- Net expansion rates
- New geographies or customers
- Extended product lifecycle
- Improved lead quantity
- Improved lead quality
- New partnerships or channels

Cost Reduction

- Increased revenue per employee
- Headcount reduction
- Shorter cycle times
- Faster closing times
- Improved process efficiency
- Increased output per employee
- Shorter time to market
- Improved product quality
- Reduced sales costs

Within each of these categories there may be several options for measuring results. For example, shorter cycle times may be measured by total time-to-market, the number of steps required to complete tasks or defect rates. The important thing is that metrics can be applied to each output.

There are also intangible benefits that may be relevant, such as increased customer satisfaction and positive word-of-mouth. These can also be measured. For example, Net Promoter Score is a popular way to gauge customer loyalty. The quantity of positive mentions in social media, the press and customer feedback channels can provide hard evidence of positive word-of-mouth, as well as a reduction in the number of complaints or calls for assistance.

Identify Likely Outcomes

Before tackling any transformation project, you should engage with executives and stakeholders to agree on likely outcomes.

Focus on three to five metrics and set targets that will determine if the project should go forward. Don't cast these decisions in concrete. Many projects fall short in some areas but yield unexpected benefits in others. Follow up with stakeholders on a regular basis, such as once per quarter, to review and adjust measurements as needed. Midcourse corrections are inevitable, but you will learn a lot along the way.

Gradually Expand Your Ambitions

As you show success, continue to seek input from employees and customers about processes that can be improved. Prepare employees for changes they will have to make. Some resistance is inevitable, but you can usually silence the naysayers by emphasizing that payoffs will accrue to them personally as well as the business.

Making your digital transformation a win-win proposition for everyone is the fastest way to break through the roadblocks.

The point is that disruption is nothing to fear, but it is something to anticipate. If you're already on your digital transformation journey, you've got a head start. Digital transformation forces companies to think about how their businesses might work differently, which sparks innovative new ideas. "Out of the box" thinking is one of the most important steps in preventing disruption.

Watch and Listen

So much has been written about technology-driven market disruption in recent years that it's tempting to think that the entrance of a new disruptive force is cause for panic. In fact, that's rarely the case. Disruption seldom happens quickly. For example, despite Amazon's enormous success and trillion-dollar market valuation, the company owns only about 5% of the total US retail market. Ridesharing services have not driven taxis from the streets and hotel occupancy rates hit a 30 year high in 2018 despite the influence of Airbnb and Couchsurfing. In fact, disruptors can often grow the entire market, and lifting the fortunes of all players.

Disruption also doesn't necessarily come from below. The entrance of a large and well-heeled competitor into a new market can have far greater consequences than disruption by a startup.



Nevertheless, disruption does sometimes destroy good companies, as Compaq, Toys R Us, Kodak and the U.S. newspaper industry can attest. In most cases, however, the fate of those companies was as much a consequence of their inability to respond to disruption as it was the disruptive forces themselves. Debt, global forces and simple bad luck may also play a part.

Another is humility. It's tempting for leaders of successful businesses to come to think that they are the source of all wisdom about their markets and customers. They develop a "not invented here" mindset that shuts out external ideas. These companies often fail in spectacular fashion because arrogance blinds them to changing customer preferences.

Despite your best efforts, it's unlikely you will anticipate all potential disruptions to your business, but if you have built an adaptable culture and a solid set of digital platforms, you are well-equipped to respond. Upstart competitors may also be partners or acquisition candidates. Or a better strategy may be to merge their innovations into your own business. In either case you have advantages. If your customers are loyal and satisfied, they are unlikely to defect. You probably have experience that new entrants lack. Or perhaps your channel partners may be a barrier to entry. Understand your strengths, but also your vulnerabilities. Digital transformation is about being the best at what you do, which is the ultimate competitive advantage.

To further explore the subject, contact us for a presentation

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Resources

¹ <https://resources.idg.com/download/white-paper/2018-digital-business>

² <https://wikibon.com/wikibon-2018-true-private-cloud-forecast-market-shares/>

³ <https://www.prnewswire.com/news-releases/the-global-hyper-converged-infrastructure-hci-market-is-accounted-for-145956-million-in-2016-and-is-expected-to-reach-1702674-million-by-2023-growing-at-a-cagr-of-420-from-2016-to-2023-300617557.html>

⁴ <https://puppet.com/resources/whitepaper/state-of-devops-report>

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⁸ <https://www.jdpower.com/business/press-releases/2018-north-america-hotel-guest-satisfaction-index-nagsi-study>

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