



## Leader's Guide

# BREAK THROUGH BY SCALING YOUR IT TO ANY OPPORTUNITY

The new imperative for increasing capacity with intelligent, as-a-Service technology

## Resources are finite. But ambition shouldn't be.

People's capacity is finite. But technology has exponentially more capacity.

In this equation, technology should take people and organizations where they need to go.

Yet, when technology becomes so complex or outdated that using it is referred to as a "manual process," it's time to reevaluate your IT environment.

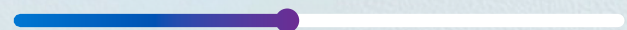
The good news for CIOs is that the technology to reduce or eliminate manual processes exists today. Tools that maximize cloud consistency, simplicity and automation make this possible. An organization's limited time and resources can be augmented when they are paired with an as-a-Service technology experience, in which the burden of infrastructure management is outsourced to a trusted partner.

By implementing intelligent technologies—those infused with automation and designed to adapt with your needs—you can augment the human ability of your team and enable your brightest minds to focus on innovation. Like any change, this takes the right strategic vision and active stakeholder endorsement.

That can be a challenge when familiar legacy systems are up for replacement, so it's important to stay focused on outcomes instead of processes, whether it's a faster response to a cyberattack, generating real time data on the factory floor or adapting your infrastructure as quickly as software can generate code.

According to the [Breakthrough study](#),

**43%** say they need more time, support and/or incentives to change habits and learn new skills than they are normally afforded.



In modern organizations, IT has more influence than ever. That means it's up to you, as CIO, to avoid playing catch up with your tech stack and to drive the outcomes that will set your organization apart.

Here's how you can increase your team's capacity so your organization can focus on more strategic initiatives.

Dell Technologies' [Breakthrough study](#), based on 10,500 respondents from 40+ countries, demystifies the adoption lag and implementation gaps. The reasons for this lag are varied and complex, but the common denominator is people. As CIO, you need to prepare everyone in your organization to embrace all that technology has to offer. As simple as this may sound, for many it will be an uncomfortable, uphill battle.

# 64%

of respondents report the failure of their digital transformation programs is often due to their people.

# 48%

say they're habitual creatures—they like routine. They need more time/support/incentives to change habits and learn new skills.

# 49%

are overwhelmed by complex technologies and/or too many solutions or settings to navigate.



Technologies that are automated and can be dynamically scaled let you seamlessly serve users and effectively shift the management burden from your staff to systems. Modernizing your IT encompasses creating an environment of agility, simplicity and control across your data centers, clouds and edges. When businesses take these steps, they can compete in a hyper-distributed, hyper-connected and hyper-speed world—a world in which 83% of respondents envision being able to scale to any opportunity. That's the goal.

Here's what you need to do to effectively increase capacity and scale.

**This three-pronged approach will help your business break through:**

1. Deliver a consistent cloud experience anywhere you need it
2. Embrace as-a-Service
3. Apply automation



**As CIO, you set the digitization agenda. That agenda should start with where you are today and lead you to where you need to be. Can you confidently answer these three questions?**

- ▶ Have you unified your multicloud environment and applied consistent standards to make it easier to manage your multicloud ecosystem?
- ▶ Is infrastructure management consuming a lot of your team's time and attention?
- ▶ Are you applying automation as broadly as you need to in order to reduce manual and mundane tasks?



Based on employee experience, the

# #1 barrier

to digital transformation is **complex technologies.**

## Deliver a consistent cloud experience anywhere you need it

Organizations are increasingly using a mix of private cloud, public cloud and on-premises infrastructure to achieve their objectives. Each environment brings individual benefits but can also cause stifling complexity for operations and data management.

The key to reducing complexity is to unify your cloud management experience across your multiple clouds, data centers and edge environments. You can achieve this with consolidated tools that let you easily connect data and migrate workloads to the right place—even as your cloud environments evolve and your needs change.



“Cloud is an operating model, not a location or destination. We are looking to enable an ecosystem of cloud operating environments that can be deployed everywhere and operated by anyone. Companies don’t have to choose between public or private cloud; they can have the best of both. **This should happen by design, not by happenstance.** Those who choose a multicloud environment also choose their ecosystems, and they can and should be picky about cloud services based on how effectively they enable their developers and operations staff to drive their organization’s digital initiatives. That’s an important criterion.”

**Matt Baker, Senior Vice President,  
Corporate Strategy, Dell Technologies**

### **Moving to the cloud or across clouds is time-intensive and takes a strategic approach to ensure success.**

- ▶ Have you undertaken a review to assess which of your workloads are suitable for a cloud environment?
- ▶ While staying in control of clouds is difficult for any discipline, perhaps it is most challenging when it comes to data management. How are you tackling staying in control of your data, and eliminating operational silos across your clouds?



### An innovative retailer creates a scalable solution

Woolworths, one of Australia and New Zealand's most innovative retailers, needed systems availability and near real-time data integration across its support offices, stores and distribution centers to enable 24 x 7 operations. To achieve this, it implemented a unified, managed operating environment for its numerous public and private clouds to eliminate silos and complexity. This strategy paid off. The retailer can now scale applications to meet spikes in demand throughout its supply chain, logistics, warehouse management and other mission-critical areas.

## Embrace as-a-Service

Any technology by itself isn't a solution. You also need to consider how it can be accessed, how people will use it and how easily and cost-effectively your IT team can manage it.

Organizations leveraging an as-a-Service technology experience can readily adapt their IT resources to meet evolving needs and seize new opportunities. They have greater simplicity, agility and control in their environment with less technology complexity and risk. And with as-a-Service infrastructure wherever they need it, they can more effectively run their business on their terms and drive their innovation priorities.

That's because the on-demand model ensures you always have the right technology aligned to your needs, while letting you offload the burden of managing IT infrastructure to a trusted partner. By consuming technology as-a-Service, you can take advantage of that technology wherever needed, including across public cloud and on-premises environments. By easing

or eliminating this management strain on your teams, you free their time and capacity to focus on innovation and high-value work.

Other benefits of as-a-Service include cost and sustainability advantages. You'll only pay for the technology you use and move from traditional IT ownership (CapEx) to an operational expenditure (OpEx) cost model. OpEx is tax-deductible and can be subtracted from the business revenue when working out true profits and losses. In addition, by moving away from a "buy and replace" model, you'll be decommissioning and retiring hardware with much less frequency, contributing to less e-waste.

However, it's important to be careful when considering a new IT partner. Your number one priority should be data transparency. This means quick and easy access to a unified view of all parts of the as-a-Service experience, from ordering, deployment, management, and optimization to growth.



### IDC interviewed 17 organizations using Dell Technologies APEX as-a-Service solutions.

"We're able to do more planning and projects, to be more preemptive instead of reactive. When you look at capacity use for most users, we can react to that without having to worry about legal processes or changes .... We can react fairly easily and in a matter of a few days or a few weeks. Before, it would have to be a quarterly or annual preparation."

- Healthcare organization

"We're actually able to use what we need instead of overconsuming resources and spending money that we didn't need to spend, as we had in the past."

- Non-profit organization



**GE uses an as-a-Service model to scale its IT infrastructure across 170 countries** and quickly rebalance workloads across its business units, without creating a significant impact on its businesses and spending.

“When your business is as diverse as a multinational company like GE, the simplest changes in your infrastructure can create a domino effect, impacting a complex global network,” said Bill Scannell, president, Global Sales & Customer Operations, Dell Tech.



“We need to have the ability to change as quickly as the world does regardless of whether we’re manufacturing a new jet turbine in Ohio or AI-based ultrasound technology in Bangalore.” With as-a-Service, “The right IT resources are making it to the right teams when they need them most.”

**Nancy Anderson, Chief information Officer at GE**



**A flexible consumption model can meet your Board’s priorities, save costs and time, improve resilience and enable innovation. Consider these questions when evaluating bringing on as-a-Service options.**

- ▶ Have you explored to what extent the cost and physical resources associated with over-provision of data storage and management can be reduced with an as-a-Service approach?
- ▶ How would a flexible/elastic consumption model make your organization more resilient/better able to adapt to changing market demands?
- ▶ In what ways would a modern IT environment with more investment in an as-a-Service model foster innovation at your organization?

# Apply automation

Against the backdrop of limited budgets, the challenges of running an increasingly complex, data-driven digital organization and the related strain and workload that complexity can put on your best IT talent, chances are you need to automate more of the IT function. Considering how crucial IT is to driving organizational success, making the most of their time should be a top priority. Otherwise, your most talented and ambitious people are less likely to hang around.

To retain your best IT talent, you'll need to automate tedious tasks associated with managing IT infrastructure, like preparing and executing SQL statements, performing daily back-ups and spinning up VMs. And by adopting technologies that empower nontechnical users to automate processes on their own, your best IT talent can lighten their lower priority workload. With these intelligent updates in place, your IT team can serve users AND have time to do more satisfying, higher value work that drives the business. You can shift the operational burden from people to systems.

## There are six levels of autonomous operations:



### No Automation

Exclusively driven by manual actions



### Operator Assisted

Scripted and manual driven IT actions. Human input is required for all.



### Partial Automation

Rules-based decision making to achieve explicit outcomes. Systems is dependent on human for all input and intervention.



### Conditional Automation

Inferred decision making to achieve generalized outcomes, including insights, recommendations and actions. System can handle most operations with some exceptions.



### Supervised Autonomy

Automatically takes actions to achieve service-level objectives. Automatic alignment with these outcomes is expected. System can handle all operations with few exceptions.



### Full Autonomy

Automatically takes action to align with organizational priorities. Alignment with these priorities is expected with or without human input. System can handle all operations without exception.

Use cases for each level abound. From level three and above, you might look to manage a fleet of devices without needing to rely on a local IT team to gain access to performance and availability for each device.

By harnessing telemetry data and AI, you will achieve a simpler and more secure IT management experience. You can predict system failures before they occur and then instruct the system to self-heal where

appropriate. This could encompass identifying when to retire certain assets or replace certain parts. For some, this self-healing might include creating automatic security defenses that adapt to the latest security breach and compliance requirements.

When your IT operations are appropriately automated, you can create an IT strategy that's software-defined, open, scalable and available as-a-Service.

According to the Breakthrough Study, IT workers are eager to move beyond tedious, error-prone tasks and to contribute more meaningfully to their organization.

**Only 37%** of respondents say they are currently experiencing mentally stimulating, non-repetitive work.

When faced with the opportunity to automate more work, **69% look forward to learning new, sought-after skills and technologies** and/or focusing on more strategic opportunities to elevate their roles.

**More than three quarters (77%)** of respondents look forward to mitigating human error



“When working with a Japanese automaker several years ago, my team concluded that the company would need to process over a zettabyte of data to build its autonomous fleet. The gargantuan projections didn’t startle us. The calculation that you would need 100,000 storage administrators working for the company to store and manage that much data did, however. There just aren’t that many storage administrators available. And even if there are, most businesses can’t afford to hire them. Our calculations underscored the necessity to crank up automation.”

**John Roese, Global Chief Technology Officer,  
Dell Technologies**



**Every organization should identify and use the right levels of automation based on their objectives and desired outcome. How would you identify yours?**

- ▶ Looking at the five levels of automation, which level of automation best fits your current needs and future?
- ▶ Have you considered what new skills your team will need as you move toward higher levels of autonomous operation?
- ▶ As you transition to the top two levels of autonomous operation, the system is expected to self-align. Are you confident you can identify and evaluate all your process, including undocumented ones?



## Scale up to meet (and create) new opportunities

When you automate tedious workloads and invest in modern, as-a-Service systems, your IT team will become more responsive, more productive, and better positioned to help your organization become more profitable and resourceful. You'll be able to quickly and effectively scale to a changing world.

Dell's Breakthrough survey respondents agree:

**In this hyper-distributed, hyper-connected world, 83% see the potential to become a business that can scale to any opportunity.**

By augmenting human talent with simple, intelligent and flexible technologies, you can accelerate innovation and drive productivity and satisfaction to new heights. It's why Dell believes that breakthroughs happen at the intersection of people and technology.

Learn more at [dell.com/cio](https://dell.com/cio)

Learn more about the Breakthrough study at [dell.com/breakthrough](https://dell.com/breakthrough)

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