connected
CIO

IDG Connected CIO eBook sponsored by Dell EMC

A guide to digital transformation for IT and business leaders

Dell EMC, part of Dell Technologies, enables enterprises to reinvent their business through Digital Transformation.

"No man is an island." Nor is any system, organization or industry.

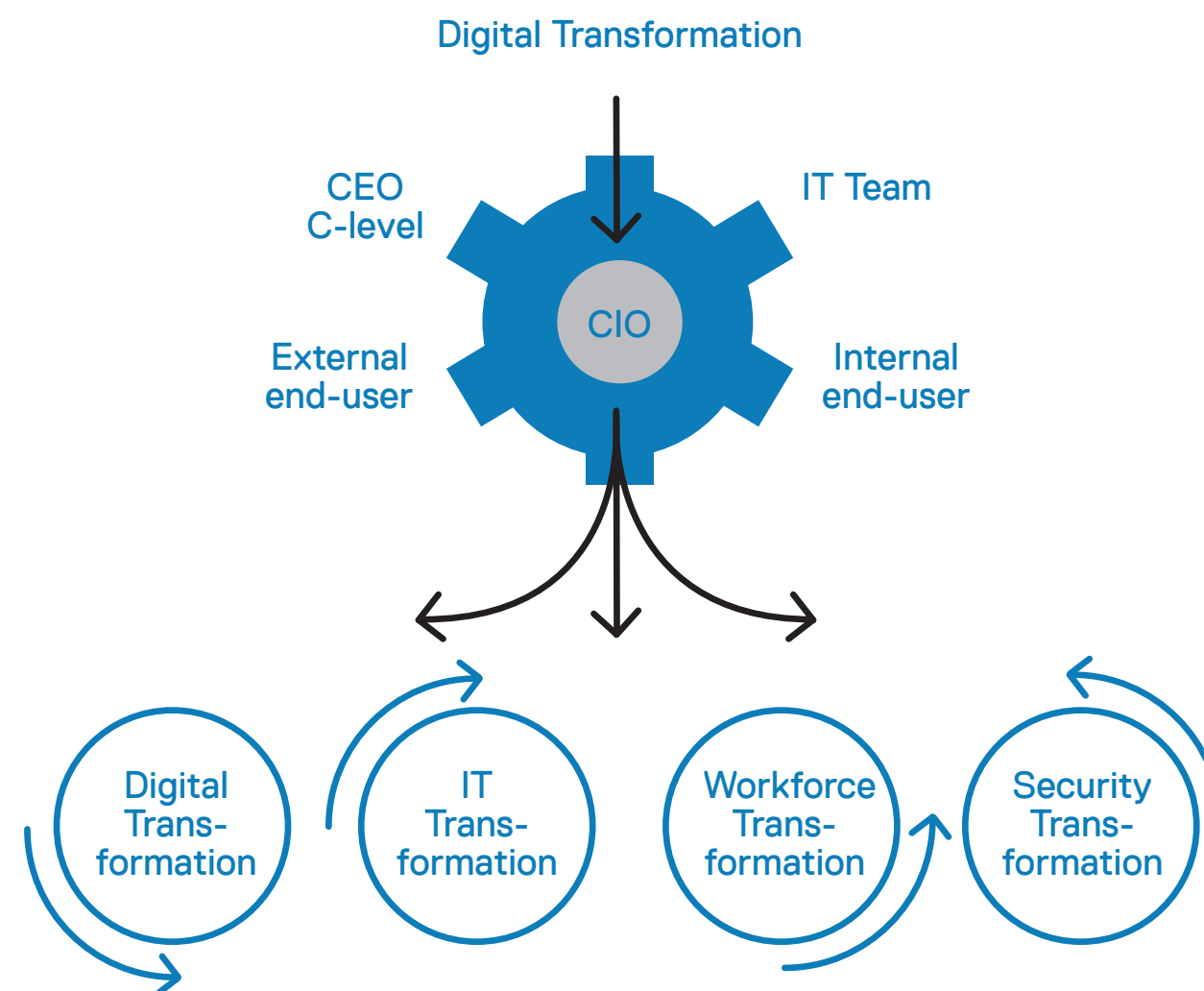Connected CIO dives into this new reality of 'everything connected'. It gives you the latest insights on digital transformation.

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Executive Summary

In a connected world, CIOs should be connected, pushing IT, workforce and security transformation forward.

Digital Transformation

CEO C-level   **IT Team**

CIO

External end-user   **Internal end-user**

Digital Trans-formation | IT Trans-formation | Workforce Trans-formation | Security Trans-formation

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Chapter 1

The inevitable shift to digital

We're going through an unprecedented period of change and there is no sign of things slowing down. These changes are creating IT and board-level challenges driven by forces crucial to the Connected Chief Information Officer (CIO): technology and digitization

The Fourth Industrial Revolution

The World Economic Forum describes the Fourth Industrial Revolution as 'a fusion of physical, digital and biological systems'. We're increasingly entering a hybrid reality of physical and virtual worlds. Technologies like wearables, the Internet of Things (IoT), cryptocurrencies, artificial intelligence and machine learning are changing businesses and industries. What is the outcome?

An increasing number of traditional businesses (and business models) are turning into digital businesses (and models).

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SUMMARY

SHIFT TO DIGITAL

THE STRATEGIC CIO

TRANSFORMING IT

TRANSFORMING WORKFORCE

TRANSFORMING SECURITY

ABOUT

9

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A closer look – IoT-enabled smart salmon farming

Tasmanian Atlantic Salmon producer Tassal[1] is gathering and analyzing IoT data using Dell EMC infrastructure to reduce costs while increasing output.

1 The situation: Each ocean salmon pen is connected using devices including cameras above and below water, along with sensors that measure oxygen, temperature and tidal flows. Salmon feeding is also automatically controlled.

2 The approach: An IoT-connected approach enables better decision making, improved productivity and greater control, ultimately enabling sustainable salmon production.

3 The results: Data can now be processed at a much faster rate providing Tassal with significant operational improvements through better decision making. For example, reducing feed costs by many hundreds of thousands of dollars since implementation, while at the same time improving overall salmon output.

Closing the innovation and agility gap

The competitive landscape is changing with companies facing fiercer competition from two sides:

THE INCUMBENTS
the traditional competitors that have always been on the radar

THE NEWCOMERS
the startups and big technology companies entering the market

The second group has more freedom to innovate and to become true disruptors, not just of businesses, but of whole industries. They are fueled by digitization and have no legacy technology or legacy production capabilities holding them back.

As a connected CIO, you have to look beyond the technology and begin embracing new and different business models:

- **The sharing economy:** Consider shared cloud-computing infrastructure and adopt more public cloud technologies, which can give you the agility you need to innovate faster while reducing costs;

- **The co-creation economy:** Use digital co-creation platforms to leverage third-party intelligence in your innovation projects;

- **The experience economy:** Explore technology such as augmented reality as a way of enriching the customer experience, even in B2B contexts. With a head-up display, for example, smart helmets not only improve safety but also provide real-time job assistance and training.

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Digital Darwinism

The Connected CIO plays a crucial role in creating the safe, collaborative and agile environment that is needed for the seamless integration of technology and people. Unhindered by technological or cultural obstacles, the potential to create growth is enormous.

Such a solid digital foundation is based on:

1. Reliable, real-time data

2. Smart analytics and insights that drive operational excellence

3. Continuous optimization of IT and operational technology costs combined with increased agility

4. Connected experiences between employees, customers and partners

5. A culture of innovation within the entire workforce

"The biggest risk is not taking any risk... In a world that is changing really quickly, the only strategy that is guaranteed to fail is not taking risks."

Mark Zuckerberg,
CEO, Facebook

KEY TAKEAWAYS ON THE INEVITABLE SHIFT TO DIGITAL

- Technology and digitization are creating an era of unprecedented change

- New business models – sharing, co-creation, experiential – are disrupting current models

- A solid digital foundation is based on reliable and real-time data, analytics and insights; IT optimization to decrease costs and increase the agility; and connected experiences and a culture of innovation

1 in 2

10 YEARS FROM NOW, HALF THE COMPANIES ON THE S&P 500 WILL BE REPLACED[3].

Source: *Corporate Longevity: Turbulence Ahead for Large Organizations, Innosight Executive Briefing, 2016*

52%

OF ORGANIZATIONS IN ASIA PACIFIC FEAR THEY MAY BE OBSOLETE WITHIN 3-5 YEARS IN THE FACE OF DIGITAL DISRUPTION[2].

Source: *Vanson Bourne Digital Business Research Survey, 1/16-3/16. 4,000 business leaders from companies with 250+ employees, across 16 countries and 12 industries.*

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SUMMARY

SHIFT TO DIGITAL

THE STRATEGIC CIO

TRANSFORMING IT

TRANSFORMING WORKFORCE

TRANSFORMING SECURITY

ABOUT

Learn more about Dell EMC IT Transformations Solutions.

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Chapter 2

The strategic CIO

The role of the CIO first appeared in the early 1980s, and it was not an easy job. Nowadays, the CIO is a senior decision-maker who must oversee people, processes and technologies within a company's IT organization so IT outcomes support business goals. While the role has steadily grown in importance, today's CIOs are arguably too inundated with operational duties to truly drive necessary business transformation.

Evolving towards a hybrid role

It has recently become recognized that an understanding of business, rather than just IT, is required if IT is to align well with the business goals. In addition to managing the IT infrastructure – including policy and practice development, planning, budget, resourcing and training – the CIO is also expected to contribute to higher profits and business transformation.

Introducing the hybrid CIO: Someone who is both technology-minded and business-savvy.

"The role of the CIO is to extract value for the business, its customers and shareholders. Increasing IT investment must directly relate to increasing value and this is where it should be spent. We must stop talking budgets and start thinking returns[4]."

William Payne, CIO, Boral Australia

Source: *Navigating Uncertainty: Harvey Nash/KPMG CIO Survey 2017*

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Moving away from back office tasks

The CIO has undergone a fundamental shift over the past five years, moving away from an old-school approach – dealing with boxes, wires and data centers – to become a digital leader.

Transitioning to this hybrid role takes time, however, and it requires new skills. Since most CIOs are hired from within the IT department, they need to develop 'softer' skills to help them communicate and collaborate effectively with the business.

The IT organization also needs specific skills in order to take full advantage of the digital possibilities such as big data, analytics, and IoT.

Some companies and CIOs are already making the change, but there is still work to do for the following reasons:

- Too many CIOs are still focused on operational tasks
- IT budgets remain under pressure
- Weak information security is an ongoing cause for concern

31%

CIOS ARE INCREASINGLY ABLE TO DEVOTE TIME TO STRATEGIC TASKS, WHILE MAINTAINING OVERSIGHT OF IT OPERATIONS. THE TIME CIOS SPEND ON STRATEGIC TASKS WILL INCREASE FROM 27% IN 2016 TO 31% IN 2017.
Source: *CIO.com, State of the CIO, 2017.*

15%

ONLY 15% OF ASIA PACIFIC CIOS SURVEYED HAVE ACHIEVED DIGITAL SCALE AND 3% ARE ALREADY AT THE STAGE OF HARVESTING AND REFINING THEIR DIGITAL STRATEGIES[6].
Source: *2018 Gartner CIO Agenda Survey*

"If CIOs don't position themselves to take advantage of the changes that are taking place within IT, they will just get relegated to be non-CIOs. In doing so, the rest of the business will just choose to bypass IT, making it merely an infrastructure provider, rather than an IT partner[5]."
Manish Choksi, CIO and Chief of Corporate Strategy at Asian Paints
Source: *The DNA of the CIO, EY*

"IT is the biggest enabler for all corporations. CIOs are the custodian of that and it's a big responsibility. You need to be creative and open, and drive the change. It's also important to enable through collaboration rather than focusing on control. You're the person who enables everybody in the whole company, from the janitor to the CEO[7]."
Bask Iyer, Executive Vice President and CIO, Dell Technologies and VMware
Source: *PC World*

The CEO drives CIO change

What is driving CIOs to become more strategic business enablers? IT leaders believe there are a number of factors, with digital transformation and the CEO at the forefront.

CEOs are expecting their CIOs to be 'more strategic' and 'add value'. They want CIOs to build digital platforms that push the business forward, lead innovation and use emerging technologies to disrupt and reimagine IT rather than to simply optimize existing business processes.

Strategic CIOs build on the right combination of their own experience and that of external partners, while leveraging the board's understanding of the importance of digital.

56%

OF CIOS ARE SPENDING TIME RELATED TO BUSINESS OUTCOMES VERSUS 44% RELATED TO IT DELIVERY[6].
Source: *2018 Gartner CIO Agenda Survey*

63%

63% MORE CEOS ARE NOW CONCENTRATING ON IT PROJECTS THAT MAKE MONEY (63%) RATHER THAN SAVING MONEY (37%)[8].
Source: *Harvey Nash/KPMG, CIO Survey 2016: The Creative CIO.*

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SUMMARY

SHIFT TO DIGITAL

THE STRATEGIC CIO

TRANSFORMING IT

TRANSFORMING WORKFORCE

TRANSFORMING SECURITY

ABOUT

DELLEMC

The strategic CIO: No longer a choice

In general, CIOs agree that to step up and transform themselves they must learn new skills, court relationships at the top of the business and gain a better understanding of the business challenges from a technological, operational and commercial perspective.

The CEO and the board will increasingly be asking the head of IT to make this transition. Those that fail to do so might even find themselves out of a job in years to come.

"I used to hear language that 'There is IT and then there is the Business.' But the reality is that IT is as much 'the Business' as any other business unit in the company. And the flip side is that our business is all about technology. Our executives really understand this and we're working together to see how we can drive business outcomes through the use of IT.[9]"

Albert Ma, CIO and Vice President,
Toyota Financial Services

Source: *CIO.com, CIO Interview with Albert Ma, CIO and Vice President at Toyota Financial Services*

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KEY TAKEAWAYS ON THE STRATEGIC CIO

- Learn about the business, its pain points and how you can help as CIO
- Empower your own team members to grow into strategic CIOs in the future
- Liaise with senior management, but also search for information lower down in the organization
- Be open to continuous learning, for example, through business courses such as MBAs

i

WHAT IS HEMAL SHAH'S VIEW ON THE STRATEGIC CIO? THE CIOS TOP CHALLENGES

Hemal Shah is Senior Vice President of eCommerce and Regional CIO, APJC, Dell EMC

C-level business executives share a responsibility for positive customer experiences delivered through differentiated customer offerings but CIOs lead business change through technology. CIOs today have a broad set of responsibilities covering business and IT responsibilities from managing costs, to delivering on IT promises, to enabling growth and revenue opportunities. CIOs face a number of challenges in growing digital business:

Leading a Culture of Transformation: Gaining a competitive advantage in this digital era involves making innovation a fundamental part of the company culture. CIOs must lead the organization's journey across Digital Transformation, IT Transformation, Workforce Transformation and Security Transformation – faster than competitors.

Building and Empowering Teams: Smaller, self-sufficient, dedicated teams are emerging in larger enterprises and are focused on innovation and providing opportunities for application developers, data scientists and others in IT to partner with senior executives in identifying new opportunities. It's also important that IT keeps their skills up to date and helps the broader team succeed by providing role-appropriate, up-to-date hardware and best-in-breed collaboration software to do their job without friction. Areas like pair programming, developing cloud native applications, having a modern and self-serving data center, increasing agility etc. are the cornerstone of development now, and there is key focus on technical capabilities of IT. 'Technical' needs to be brought back as key skills into IT.

Budget: In recent years, IT budgets have generally remained flat or have reduced but expectations of IT have grown exponentially. CIOs still need to run the business while they innovate. With budget constraints, CIOs need to look at ways to deliver economies of scale and scope while being able to meet specific business objectives. CIOs can start by Automating, Standardizing, Virtualizing and Rationalizing their services.

Shadow IT: Teams that explore and implement new technology without IT's involvement typically do so when there is a gap in the services being offered or when a strong relationship with IT is lacking. Partnering across the business and providing 'as-a-service' offerings is an effective way support business needs.

SUMMARY

SHIFT TO DIGITAL

THE STRATEGIC CIO

TRANSFORMING IT

TRANSFORMING WORKFORCE

TRANSFORMING SECURITY

ABOUT

19

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Chapter 3

Transforming IT

With the proliferation of mobile services, smart devices, connected sensors and big data on the one hand, and the need for real-time insights on the other, IT has moved from the back office to the heart of the organization. Or, in other words, in today's digital world CIOs hold the key to unlock business value by connecting the digital dots.

Leaders of this digital transformation are delivering new customer experiences thanks to software that makes their products smart or takes their services online. They are expanding the number of customer touchpoints and interacting – increasingly proactively – at precisely the right moment. Yet, only five per cent of businesses are currently differentiating their customer service and product offering in this way. Many CIOs clearly still have transformation work to do.

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44 zettabytes
... OF DATA WILL BE AVAILABLE BY 2020.

Source: Dell EMC's IT Transformation Journey, 2016.

30 billion
... DEVICES WILL BE CONNECTED BY 2020.

Source: Dell EMC's IT Transformation Journey, 2016.

7 billion
...PEOPLE WILL BE CONNECTED BY 2020.

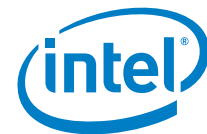**Source:** Dell EMC's IT Transformation Journey, 2016.

20 billion
AS 20 BILLION PHYSICAL THINGS BECOME CONNECTED TO THE INTERNET IN THE COMING YEARS, A NEW FORM OF ECONOMICS WILL ALTER THE WAY BUSINESSES INVEST IN NEW PRODUCTS, PHYSICAL ASSETS, IT AND PEOPLE.

Source: Gartner Symposium, November 2016.

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SUMMARY

SHIFT TO DIGITAL

THE STRATEGIC CIO

TRANSFORMING IT

TRANSFORMING WORKFORCE

TRANSFORMING SECURITY

ABOUT

A challenging task

Organizations that want to create new business designs by blurring the digital and physical worlds, and thus make optimal use of the Internet of Everything, have to transform their IT organization. That requires a long-term commitment and companies usually encounter difficulties in making their existing (legacy) systems digital-proof.

Today's CIOs have to strike a balance between optimizing their operational model, their applications and their infrastructure. How can we optimally support the business? Which applications should we migrate? Which new, rapidly developing apps should we introduce? And which applications can be delivered as a service? The forward-looking CIO is seeking answers to all these questions (and more!).

"Businesses need to develop and rapidly deploy modern applications, a key part of the digital transformation journey. They need to modernize and optimize IT resources as part of their IT transformation efforts while aligning people and processes. This all happens against a backdrop of advanced security operations to minimize business risk."
Hemal Shah,
Senior Vice President of eCommerce and Regional CIO, APJC, Dell EMC

Why IT transformation is a good thing

The Enterprise Strategy Group, in partnership with Dell EMC, performed an elaborate study of organizations' IT transformation maturity. Based on the input from 1000 respondents worldwide, it was found that achieving IT transformation leads to:

1 Increased IT agility and responsiveness: Specifically in the areas of infrastructure provisioning, on-time and on-budget project delivery and on-time application development.

2 Enhanced IT spending efficiency: Organizations that are more mature in their IT transformation spend more on IT, but they spend the least per mission-critical application supported.

3 More IT funding for new projects and innovation: Organizations that are further evolved in their IT transformation spend less on maintaining existing systems and thus have additional budget for innovative projects.

4 Higher levels of internal stakeholder satisfaction: Organizations that are transforming their IT believe that IT transformation is mostly about using IT to speed up innovation and time to market. Automation and 'IT as-a-service' are also key to them.

5 Improved competetiveness and business outcomes: Achieving IT transformation success is important to ongoing business viability. In other words, failure to undertake the journey can put an organization out of business.

In brief, both the IT division and the entire organization benefit from a well-managed IT transformation, with advantages ranging from an improvement in organizational speed and agility to enhanced customer experiences, both internally and externally. With only five per cent of organizations categorized as having achieved a transformed state, there is significant room for IT to reinvent itself across most organizations.

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2x

ORGANIZATIONS THAT ARE TRANSFORMED ARE MORE THAN TWICE AS LIKELY TO EXCEED REVENUE GOALS COMPARED WITH ORGANIZATIONS THAT HAVE NOT YET UNDERTAKEN THE IT TRANSFORMATION JOURNEY.

14%

MATURE ORGANIZATIONS ON THE IT TRANSFORMATION JOURNEY SPEND 14% LESS IT BUDGET PER MISSION-CRITICAL APPLICATION.

12x

ORGANIZATIONS THAT ARE TRANSFORMED SPEND 12% MORE OF THEIR TOTAL IT BUDGET ON INNOVATION THAN ORGANIZATIONS THAT ARE JUST TAKING THE FIRST STEP ON THEIR IT TRANSFORMATION JOURNEY.

47%

OF RESPONDENTS FROM ORGANIZATIONS WITH THE HIGHEST IT TRANSFORMATION LEVEL SAY THAT THEY ARE RUNNING IT AS A PROFIT CENTER RATHER THAN A COST CENTER, COMPARED TO 7% FROM ORGANIZATIONS WITH THE LOWEST LEVEL OF IT TRANSFORMATION.

Source: Dell EMC's 2017 IT Transformation Maturity Study, Enterprise Strategy Group, January 2017.

A new role to play: ITaaS broker

To help the business grow in the digital age, CIOs have to reinvent their traditional approaches to IT delivery to be more like IT as a Service (ITaaS). But it won't be the cloud or IoT solutions themselves that will make organizations more digitized and agile. To win legitimacy, CIOs must shake off their image of 'tool providers' and become 'business strategy facilitators'. As an ITaaS broker, the IT department will need to use its professional knowledge and experience to support the business in properly assessing their needs, shop for the best value and help with specific events or questions.

IT is not about delivering a high-tech content management system, but about creating a better customer experience.

This requires a mindset shift and a focus on an ITaaS management activity, demanding:

New IT business models: IT has to become more service-oriented towards its internal customers and more market-driven towards the end customers. Never lose sight of the P&L, and become a broker and builder of services to all internal and external customers.

New technology architecture: CIOs should consider the cloud as a plausible solution and should explore self-service and automation technology. Adoption of modern data center components – flash, scale-out, software-defined and hyper-converged – should also be on the agenda. Furthermore, it will be increasingly important to create financial transparency and to also offer an application service platform.

Skills, roles and organizational alignment: IT employees should develop front-office capabilities with their colleagues in mind. They must learn to speak the same language as the business. They also have to be held accountable for the service they deliver and they must constantly update their own knowledge to have sufficient technological breadth.

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A closer look – Atos gets more from cloud services

Atos is an IT giant that offers companies, among its range of other services, end-to-end enterprise cloud computing services through a joint venture.

1 **The situation** – To gain critical mass quickly, Atos set up cloud centers across three continents. This base would allow cloud services to be extended into new geographies with a hub and spoke data center model.

2 **The challenge** – Atos wanted to ensure that its customers could access its cloud services whenever and from wherever, from whatever type of device. The task of integrating and managing a complex infrastructure had the potential to divert resources from strategic business objectives.

3 **The approach** –"What matters is bringing value to your end users. And that's all about doing imaginative stuff with applications—not exerting time and resources managing hardware," says Jacques Pommeraud, the joint venture's CEO at that time. As such Atos opted for an end-to-end Dell EMC setup – where Dell EMC standardized the infrastructure platform and delivered consulting services – to lay the groundwork of its customer offering across all of its data centers.

4 **The result** – The joint venture has managed to reduce its data center footprint by 50 per cent, and the setup's hassle-free, resilient cloud environment allows employees to create value instead of managing systems. "80,000 Atos employees worldwide can capture collective knowledge," says Pommeraud, "When a customer selects us they know we'll be with them every step of the way."

A stepwise and two-track approach

No two businesses are alike, and neither are their IT transformation journeys. Nevertheless, each transformation process involves more or less the same phases.

To ensure operational continuity while making strides in the digital transformation, a two-track approach is advised. This entails the IT organization working at two speeds:

- Improving in better-understood areas on the one hand, while
- Experimenting to solve new problems on the other.

The first is about the ongoing concern. The second is a kind of 'turbo mode' enabling the rapid testing of new ideas, which benefits the organization's agility.

1 **Benchmark**
Compare to your peers

2 **Engage the stakeholders**
Gather input to develop a complete vision of the target future state

3 **Build a business case**
Quantify the expected impact of the transformation

4 **Create a roadmap**
As guidance for moving from current state to future state. Define milestones

5 **Agree on next steps**
Prioritize a limited number of projects (<6) with visible business results

KEY TAKEAWAYS ON TRANSFORMING IT

- IT transformation is a long-term commitment
- It demands CIOs balance the ongoing concern with innovation and agility
- Both the IT division and the entire organization benefit from a well-managed IT transformation
- IT should become 'as-a-service' towards the business
- A two-track approach, which entails the IT organization to work at two speeds, can help CIOs and the IT department to reach their goals

Chapter 4

Transforming workforce

As a result of digitization and the increasing demand for agility, IT specialists need to develop different skills. They have to understand whom – rather than what – they are supporting. In addition, companies expect their CIO to help ensure that all employees feel at ease in the organization, for example by providing the right technology and training. Furthermore, CIOs should keep their finger on the pulse of external customer needs: every organization is striving to utilize the far-reaching possibilities of new technologies to offer authentic customer experiences.

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"Every type of worker with the right technology is empowered to transform."

Hemal Shah, Senior Vice President of eCommerce and Regional CIO, APJC, Dell EMC

SUMMARY

SHIFT TO DIGITAL

THE STRATEGIC CIO

TRANSFORMING IT

TRANSFORMING WORKFORCE

TRANSFORMING SECURITY

ABOUT

Learn more about Dell EMC IT Transformation Solutions.

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Satisfying rising end-user demands

The way people are working is changing.

Work is no longer a location, it's an activity.

Employees want to work whenever and wherever it suits them, and technology plays a crucial role in this. Moreover, end-users are – without doubt – becoming increasingly demanding when it comes to technology. An ongoing dialog with employees is crucial; they are the ambassadors of the company and their enthusiasm will largely determine the organization's success. On the other hand, the fluidity of data transcends the notion of physical boundaries. With the majority of security breaches originating from the endpoint – such as the end-user's smartphone or laptop – this should be an important area of focus for CIOs.

In brief, to satisfy internal customers, a CIO must:

1. Attract talent and maximize productivity by providing innovative devices that employees love to use

2. Enable the workforce to work where they want, when they want

3. Simplify device management while delivering security
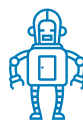
84%

OF EMPLOYEES SAY THAT TECHNOLOGY INFLUENCES WHICH JOB OFFER THEY ACCEPT.

Source: *Our transformation message, Jeremy Burton, President Products & Marketing at Dell EMC*

44%

OF EMPLOYEES THINK THEIR WORKSPACE ISN'T SMART ENOUGH.

58%

OF EMPLOYEES REGARD IOT AND AUGMENTED REALITY/ VIRTUAL REALITY AS JOB PERKS.

2/3

OF EMPLOYEES WORK FROM HOME TO SOME EXTENT.

95%

OF SECURITY BREACHES ORIGINATE AT THE ENDPOINT.

Source: Our transformation message, Jeremy Burton, Dell Technologies

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The emergence of functional buyers

Not only are the devices and technologies we work with changing, but who does the sourcing is changing, too.

Technology choices are being made in a more collegial way. HR, operations, engineering, marketing and other business departments are increasingly choosing the devices their users need.

56%

ACCORDING TO A SIERRA CEDAR HR TECH LANDSCAPE STUDY, ALMOST 56 PER CENT OF ALL ASIA PACIFIC ORGANIZATIONS ARE PLANNING TO INCREASE THEIR HR TECHNOLOGY IN THIS SEGMENT.

Source: *The Sierra Cedar HR Tech Landscape Study for Asia, https://www.shrm.org/shrm-india/ Documents/Sierra-Cedar_2016-2017_HRSystemsSurvey_APAC_WhitePaper-A4-web.pdf*

There are several ways to approach innovative technology and workforce transformation, regardless of the audience:

- **C-suite:** Technology can enable a company to adapt its entire organization more quickly in the face of fast changes in the economy

- **HR, operations and engineering:** Purchasing technology to unleash workforce productivity

- **HR:** Applying technology as a strategic advantage for attracting and keeping top talent

- **IT:** Emerging challenges from 'work anywhere' and multiple devices

- **End-users:** Expecting the best technology at work

To be able to meet all the expectations of the different functional users, it is important that CIOs have good solutions at their disposal for heterogeneous device management, including multi-sites deployment, migration, and maintenance.

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Reskilling the IT workforce

To deliver high-quality services to end-users, the IT workforce needs new skills. Up until now, most IT organizations have been built to provide reliable computing resources and services, and they are neither culturally nor structurally built to enable disruptive change. To stay relevant for the business, the IT workforce must develop:

1. **Strong relationships with the lines of business (LOB):** Being fully responsive to LOB requirements is a crucial first step to improving the performance of the IT workforce. It will also constrain shadow IT. For this, IT employees need to expand their business skills.

2. **A strong service orientation:** Ultimately, all organizations want to achieve outstanding customer satisfaction. The IT workforce can contribute to this overall goal by optimally supporting the LOB. This requires IT employees to see the bigger picture, develop their communication skills and identify new ways of using technology to move the business forward.

3. **An increased focus on financial management:** Leveraging a chargeback method for IT by assigning direct costs for IT services and passing them on to the LOB will improve the prioritization of business issues and needs from a technological perspective.

Training is an important aspect in developing much-needed soft skills such as business and communication competences, but it is also necessary to keep pace with the rapid technological changes.

IT employees increasingly have to cope with a two-speed organization in which they are tasked with leading innovative, high-potential projects. The new emphasis on 'failing fast' and the need to identify suboptimal paths quickly demands a huge shift in mindset for today's IT workforce, who are traditionally used to working on long-term projects.

80%

ENTERPRISES IN WHICH THE IT ORGANIZATION WORKS PROACTIVELY WITH THE BUSINESS REPORT 80% MORE REVENUE GROWTH FROM ESTABLISHED PRODUCT LINES.

Source: IT Organization Imperatives: Key Behaviors to Drive IT Transformation, IDC Market Spotlight, 2017

140%

ENTERPRISES THAT HAVE A STRONGLY SERVICE-ORIENTED IT ORGANIZATION SEE A 140% BIGGER IMPROVEMENT IN THE TIME EMPLOYEES SPEND ON SERVING CUSTOMERS THAN THOSE THAT DON'T.

55%

ENTERPRISES THAT LEVERAGE A CHARGEBACK METHOD REPORT A 55% BIGGER IMPROVEMENT IN CUSTOMER SATISFACTION COMPARED WITH ORGANIZATIONS THAT DON'T.

Source: IT Organization Imperatives: Key Behaviors to Drive IT Transformation, IDC Market Spotlight, 2017

SUMMARY

SHIFT TO
DIGITAL

THE
STRATEGIC CIO

TRANSFORMING
IT

TRANSFORMING
WORKFORCE

TRANSFORMING
SECURITY

ABOUT

35

DELLEMC

intel

DELLEMC

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Transformation Solutions.

A closer look – Onboarding 140K people to transformation

Dell Technologies itself must practice what it preaches in terms of transformation. To lead with vision and from the frontlines, it took a critical look at its own IT department in the Asia Pacific region and around the world.

Hemal Shah, Senior Vice President of eCommerce and Regional CIO, APJC, Dell EMC explains how Dell used workforce transformation as a showcase on how external customers might also use technology to forge ahead in IT leadership:

1. **The situation**– Dell's workforce is diverse and highly mobile, and the business recognized that IT needed to adapt and evolve to address the needs of its workers.

2. **The challenge** – 140,000 global team members. Dell's IT solutions and services were optimized for a traditional office-based workplace, and that led to some specific challenges: tools and apps designed for desktop computers, oversubscribed meeting rooms, difficultly sharing and collaborating on documents and less-than-frictionless access to the wireless network. Working at home or on the road was a big challenge.

3. **The approach** – You can't get user insight without engaging them so we met and survey thousands of colleagues about how they work (Enterprise Personas & Work Styles) and their level of satisfaction with our IT capabilities (IT Pulse Survey). What we learned laid the foundation for our planning and transformation," Shah says.

4. **The result** – Dell Technologies now enjoys a persona-based, work style specific technology roadmap for its 145,000 employees. "Workers, wherever they are, now get a consistent experience," he says. The IT department now serves the company in the same way that every business focuses on its customers.

KEY TAKEAWAYS ON WORKFORCE TRANSFORMATION THROUGH
TECH LEADERSHIP

· CIOs must be inspirational leaders with analytical skills and people skills
in equal measure

· To satisfy the internal customers, a CIO must provide innovative devices
that employees love to use, enable the workforce to work at any time
and from everywhere and simplify the device management while
delivering security

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Chapter 5

Transforming security

In our digital, connected world, companies have a wealth of data at their disposal. Information is the new gold. However, to protect its value, data must always be stored securely, wherever it resides.

CIOs are best-placed to communicate the specifics of the company's IT infrastructure and application services, and they have a unique insight into the possible operational implications of security issues. Besides that, CIOs often have ultimate responsibility for protecting data and guaranteeing business continuity.

IDC's IT Security MaturityScape Benchmark for Asia Pacific (excluding Japan) 2017 found IT security across the region remains low with 84 per cent of organizations operating in an ad-hoc or opportunistic manner. This is mainly due to insufficient attention from the C-Suite, poor internal risk management processes and overall lack of resourcing, according to IDC.

Also, Asia-Pacific led the world in ransomware threats during the first half of 2017, with 35.7 per cent of all ransomware detected globally targeted at companies in the region, making built-in security a necessity rather than a luxury. As digital, IT and workforce transformation create a new architecture, there's also a need for security transformation, with simplified, more connected and more efficient IT security as an enabler for the business strategy.

80%

ORGANIZATIONS IN ASIA PACIFIC EXPERIENCING SOME BREACH RELATED TO IOT SECURITY AT SOME POINT.

Source: *Current IoT Security Trends in Asia Pacific Shaping $12.77 Billion Future Market, Infoholic Research*

24.6%

INCREASE IN CYBERCRIME COSTS IN JAPAN BETWEEN 2016 AND 2017 AS MEASURED BY THE US DOLLAR.

Source: *2017 Cost of Cyber Crime Study, Accenture*

SUMMARY

SHIFT TO DIGITAL

THE STRATEGIC CIO

TRANSFORMING IT

TRANSFORMING WORKFORCE

TRANSFORMING SECURITY

ABOUT

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The growing pressure to transform

Cybersecurity threats are growing in frequency and severity. On top of that, data security-related legislation is being tightened. Even without stricter regulation, data security should still concern all organizations.

"In spite of almost daily revelations about IT security breaches both local and international, many organizations are challenged to understand their own levels of IT security maturity, let alone know what needs to be done to improve," - Simon Piff, Vice President of Security Practice at IDC Asia Pacific.

Add to this the increasingly complex infrastructure, limited security budgets, shortage of skilled resources and a siloed security architecture across strategic IT pillars including cloud, mobility and the data center, and all the ingredients for a security transformation are in place.

60%

BY 2019, 60% OF CIOS WILL REFOCUS CYBERSECURITY AROUND AUTHENTICATION AND TRUST TO MANAGE BUSINESS RISKS, INITIATING THE RETIREMENT OF SYSTEMS THAT CANNOT ENSURE DATA PROTECTION.

Source: *IDC AP Futurescapes 2018*

Making the business case

CIOs can find allies for their security transformation business case in some notable places: the C-level and the customers.

A high 88 per cent of respondents in KPMG's 2017 global cyber security survey reported their organization suffered a cyber-attack during the past 12 months.

Your increasingly demanding external customers reward firms that invest in sufficient security. In that sense, a thorough security transformation will help you to beat the competition.

Another conclusive argument is that aligning security with the new, digitized architecture is more efficient and thus saves money.

"There are only two types of companies: those that have been hacked, and those that will be. And even that is merging into one category: those that have been hacked and will be again."
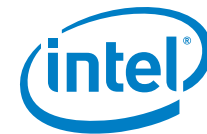Robert Mueller, former Director, FBI

84%

OF THE ENTERPRISES IN THE STUDY ARE WITHIN THE FIRST TWO STAGES OF IDC'S FIVE-STAGE SECURITY MATURITY MODEL

Source: *IDC security maturityscape 2017 for Asia Pacific (excluding Japan) https://www.cloudsec.com/news/idc-research-shows-84-organizations-across-apej-operating-less-ideal-security-strategies-place/*

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Three domains to tackle

When embarking on the security transformation journey, it's important to focus on three key areas:

1. **Secure infrastructure:** Integrate security into your endpoints, network and data to ensure that your infrastructure is proactive rather than reactive.

2. **Advanced security operations:** The security stance must evolve from one focused strictly on protection to one focused on an automated response to intrusion. The IT department can either do this themselves, opt for a Software-as-a-Service (SaaS) model or choose to completely outsource the security services.

3. **Risk management:** Change the approach to risk management, because technology is the business today. Risk management specialists have to evolve to assess the risk to the business itself.

"In light of more sophisticated ransomware and cyber security attacks, modernizing data protection is becoming more of an IT priority for many organizations. To build a more secure and optimized IT environment, make sure that data is encrypted, backed up, and protected, from the users to the application to the cloud and back, and these require a holistic strategy."'

Hemal Shah, Senior Vice President of eCommerce and Regional CIO, APJC, Dell EMC

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A closer look – SEEK takes a global view of risk management

SEEK is a diverse group of companies that encompasses a strong portfolio of employment, education and volunteer businesses around the world. Its global reach touches over 4.1 billion people. Its employment websites receive over 375 million visits every month, have over 3 million job opportunities available at any given time and host over 100 million jobseeker profiles.

1 The situation – SEEK Limited operates a wide range of employment and other services around the world. As a result, it handles a lot of data, much of it sensitive. It needed to ensure it aligned with regulatory requirements in each market, and could demonstrate strong risk management. Also, its existing risk management platform and processes were based on manual tools such as spreadsheets, which were time-consuming to maintain and did not offer a consolidated, real-time view of risk status.

2 The challenge – SEEK was challenged by a number of things but particularly its ability to capture all the risk information it needed and actively report on it in a timely fashion. As its businesses grow, it has increasing compliance requirements and with so many stakeholders across the business – at both an executive and senior management level – it needed a way to report quickly.

3 The approach –The IT Risk team had some lengthy conversations with the management team to explore whether their existing processes could grow with the business as it expanded and it was evident to the company that they couldn't. They looked to some best practice tools and went through a strong business case analysis before they decided on RSA.

4 The result – SEEK is able to have one platform to satisfy all its businesses. It can now create up-to-date, centralized reports for use by executive and senior managers and drill into the details on particular risks where it needs to and make a very quick decision.

KEY TAKEAWAYS ON TRANSFORMING SECURITY

- A security transformation is a necessity, not a luxury
- A security transformation makes CIOs more relevant to the business, helps to beat the competition and leads to long-term profit
- Focus on three key areas: secure infrastructure (endpoints, network and data), advanced security operations (switching from automated response to intrusion) and risk management (assessing the risk to the business itself)

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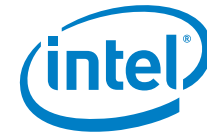
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About Dell EMC consulting services

Accelerate your transformation journey with partners who can rapidly evolve your business through technical expertise, proven planning, tools and execution.

Dell EMC services update today's platforms to tomorrow's technologies and solutions. These will decrease costs, reduce risks and drive innovation in the new digital economy.

Dell EMC Consulting Services delivers strategic guidance and expert integration of Dell EMC products and solutions to help customers transform their business and achieve optimal business outcomes.

Bring in the experts to ensure you get it right from the start.

The proof of the pudding is in the eating

From digitally transforming to implementing modern applications and platforms, revamping and automating the infrastructure and adapting the operational model, people and processes. Dell EMC consultants gladly share their experiences with customers all over the world and help them throughout their journey to modernize, automate and transform their IT environments and build their digital future.

Featured services

Application profiling: Drive out cost from your application portfolio.

Big data vision workshop: Apply data science approaches to identify, prioritize and plan for the right big data use case.

Blueprint for backup architecture: Enable backup infrastructures for hybrid cloud and application-centric initiatives.

Considering your workforce: Work is no longer a location; it's an activity. Workforce transformation attracts talent by offering a work environment where people feel they can be productive and work with innovative technology, giving them the freedom to work where they want and when they want. Workforce transformation streamlines device management and also optimizes security. Dell EMC has innovative, solid solutions for heterogeneous device management that allow CIOs to meet the expectations of the different functional users.

Data Centre Strategy, Consolidation and migration: Ensure a smooth migration with no downtime with Dell EMC patented methodologies and automated tools.

DevOps Advisory and Lean Thinking: Transform teams to use innovative and lean techniques such as Agile, Lean Startup, and DevOps approaches.

Hybrid cloud: Build a hybrid cloud computing platform to broker IT services from internal and external resources.

IT operating model: Create the organization and processes to deliver IT as a service, including service strategy and pricing.

Transformation Strategy Workshop: Envision your transformed future state, validate business objectives and develop your high-level transformation plan.

"Dell EMC didn't just come in, review our requirements and propose a solution. They invested in gaining a deep understanding of our entire digital transformation business strategy and the digital experience we wanted to deliver to brokers and borrowers."
Jonathan Workman,
Program Director, UK
Mortgages, Bank of Ireland.

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About Dell EMC

Dell EMC is a part of Dell Technologies, which groups seven innovative companies: Dell, Dell EMC, Pivotal, RSA, SecureWorks, Virtustream and VMware. Dell EMC enables (public) enterprises and governmental organizations to reinvent their business and services and become more digital.

Business transformation through IT requires changes in the following four key areas:

Digital Transformation

IT Transformation

Workforce Transformation

Security Transformation
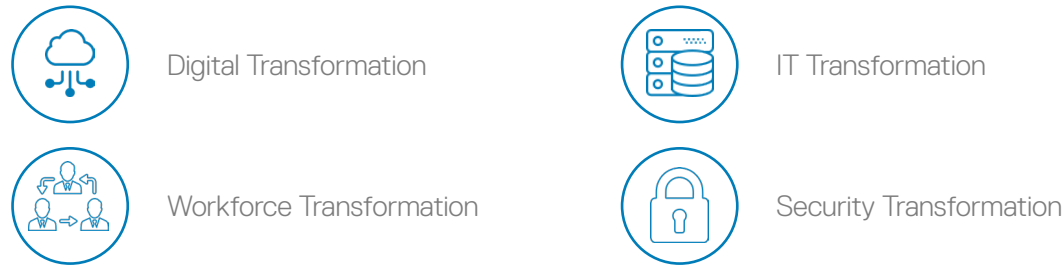
Dell and EMC have joined forces. To deliver a huge breadth of capabilities and expertise that organizations of all sizes need more than ever before—and deliver it in ways no other company can.

Digital transformation

Digitization will soon affect every industry. New business players are entering the market and the products themselves are transforming too. In this new environment, a good software DNA becomes critical. Dell EMC supports you to accelerate improvement through agile development with continuous delivery, to transform your business with new applications and smart devices and to deliver new insights via data analytics.

IT transformation

Dell EMC enables organizations to modernize, automate and transform their data center using industry-leading hyper-converged infrastructure, servers, storage, networking and data protection technologies. This provides a trusted foundation for businesses to transform IT, through the creation of a hybrid cloud, and transform their business through the creation of cloud-native software applications and big data solutions.

Workforce transformation

Where work gets done has changed. Many spend some portion of their day working from remote locations. Mobility is the norm – anytime, anywhere access on any device. The companies who understand and embrace these trends are turning personal technology into a competitive advantage that is allowing them to achieve real business outcomes, increasing workforce productivity and attracting and retaining the best talent. Dell EMC offers PC and device deployment that is a third faster than traditional processes and can cut user downtime in half. Once deployed, support services offering automatic issue prevention as well as priority access all contribute towards significantly improved internal net promoter scores.

Security transformation

Preceding transformations create a new architecture to secure, and hence a security transformation must be undertaken. Dell EMC manages security transformations with a broad portfolio of resilient, compliant business processes, applications, information and systems. From back-up, recovery and archive consulting to business continuity consulting and trusted cloud advisory services. Dell EMC provides endpoint data security, cloud data protection, authentication and threat detection and client virtualization data protection from device to data center.

"Building a digital future starts with putting the right infrastructure in place as the platform for transformation. Dell Technologies' mission is to be the industry's most trusted advisor from edge to core to cloud, helping our customers and partners drive the digital transformation of their businesses."

Hemal Shah, Senior Vice President of eCommerce and Regional CIO, APJC, Dell EMC

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