Global Data Center

DIGITAL

Transformation Benefits Report

Contents

Introduction

Data centers are the beating heart of digital transformation, and Schneider Electric™ is driven to accelerate this revolution. As businesses digitize operations, products, and services, their success increasingly depends on reliable service providers.[1] Without data centers, cloud facilities, and colocation sites, digital transformation simply can't happen.

Data centers themselves are also revolutionized with digital transformation, as these digitized facilities are far more efficient, secure, and reliable than conventional alternatives. High-performance power and cooling systems, along with the software that connects this infrastructure, are together reshaping the data center environment. What was once diffuse and wasteful can now be consolidated and highly efficient. And all of this is attainable using solutions available today — solutions that not only change but anticipate future needs and improvements.

This report documents four core benefits of digital transformation in data centers, cloud facilities, and colocation sites, based on real data aggregated from Schneider Electric's global network of customers. The results reveal what efficiency gains, reliability improvements, and cost savings are realistic and achievable using these solutions.

[1] International Energy Agency, "Digitalization and Energy," November 2017, https://www.iea.org/digital/.

Digital transformation in data centers

Digital transformation is a business imperative in today's competitive environment. To meet the needs of the new digital world, data centers are transforming how they deploy and manage IT. This need for an expanded IT infrastructure is increasingly eating into budgets — cooling alone can account for 40 percent of a data center's total energy costs.[2] Concurrently, it's forecasted that by 2025, energy use by the information and communications technology industry will balloon to 20.9 percent of the global total, accounting for 5.5 percent of global greenhouse gas emissions.[3]

Against these concerning projections, successful cases of digitally transformed data centers are emerging around the world. These new data center models are driving digital transformation through innovative, resilient systems that are cost-effective, fully integrated, and dependable in the cloud and at the edge. These digitally transformed data centers are also able to be deployed 20 percent faster thanks to their modular design.[4]

Cases such as China Unicom paint a hopeful picture of what is possible today: In two of its hyperscale cloud data centers, which total over 600,000 square meters, the company achieved 99.999 percent uptime while cutting operational costs by over 30 percent. This ability to achieve greater compute with less cost was made possible through the integration of resilient, efficient, connected, and reliable solutions.

---

[2] Z. Song, X. Zhang, and C. Eriksson, "Data Center Energy and Cost Saving Evaluation," Energy Procedia, August 2015, https://www.sciencedirect.com/science/article/pii/S1876610215009467.

[3] Nicola Jones, "How to stop data centres from gobbling up the world's electricity," Nature, September 2018, https://www.nature.com/articles/d41586-018-06610-y.

[4] Internal data, 2018.

A bounty of benefits, despite barriers

Enterprises on the leading edge of digitization realized a 70 percent increase in productivity, compared to just a 30 percent increase for organizations that were slower to digitize operations.[5] Though most of the benefits are reaped by industry leaders, a World Economic Forum and Accenture analysis, using data from 16,000 companies, found that there is an overall positive return on investment.[6]

These companies understand digital transformation as a matter of "disrupt or be disrupted,"[7] as demonstrated by the fact that half of the Fortune 500 companies from the year 2000 have disappeared from this prestigious ranking.[8] These findings bring the business case for digital transformation into crystal-clear urgency.

Despite the potential for significant efficiency and reliability boosts, many countries are operating below their overall digital potential. For example, even though the U.S. is achieving just 18 percent of its digital potential, it's ahead of Europe's average of 12 percent.[9] The reason for this lag is largely a matter of complexity. A survey of chief information officers identified "complex legacy technology" as the primary barrier to digital transformation.[10] Another survey of business and IT professionals echoes this sentiment, with a majority reporting "increasing complexity of their technology ecosystem" and low confidence in resolving digital performance problems.[11]

[5] World Economic Forum, in collaboration with Accenture, "Maximizing the Return on Digital Investments," May 2018, http://reports.weforum.org/digital-transformation/files/2018/05/201805-DTI-Maximizing-the-Return-on-Digital-Investments.pdf.

[6] Note: These percentages vary by industry segment. World Economic Forum, in collaboration with Accenture, "Maximizing the Return on Digital Investments," May 2018, http://reports.weforum.org/digital-transformation/files/2018/05/201805-DTI-Maximizing-the-Return-on-Digital-Investments.pdf.

[7] Jean-Pascal Tricoire, "Disrupt or Be Disrupted: Innovation for the Sake of Customers," April 2018, https://blog.schneider-electric.com/energy-management-energy-efficiency/2018/04/05/disrupt-or-be-disrupted-innovation-for-the-sake-of-customers/.

[8] World Economic Forum, "Digital Disruption Has Only Just Begun," January 2016, https://www.weforum.org/agenda/2016/01/digital-disruption-has-only-just-begun.

[9] McKinsey Global Institute, "Digital Europe: Realizing the continent's potential," June 2016, https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-europe-realizing-the-continents-potential.

[10] Logicalis, "Logicalis Global CIO Survey 2017 – 2018," 2018, http://www.us.logicalis.com/globalassets/united-states/downloads/cio-reports/2017-cio-survey-report.pdf.

[11] Dynatrace, "The Global Digital Performance & Transformation Audit," 2018, https://assets.dynatrace.com/en/docs/report/digital-performance-transformation-audit.pdf.
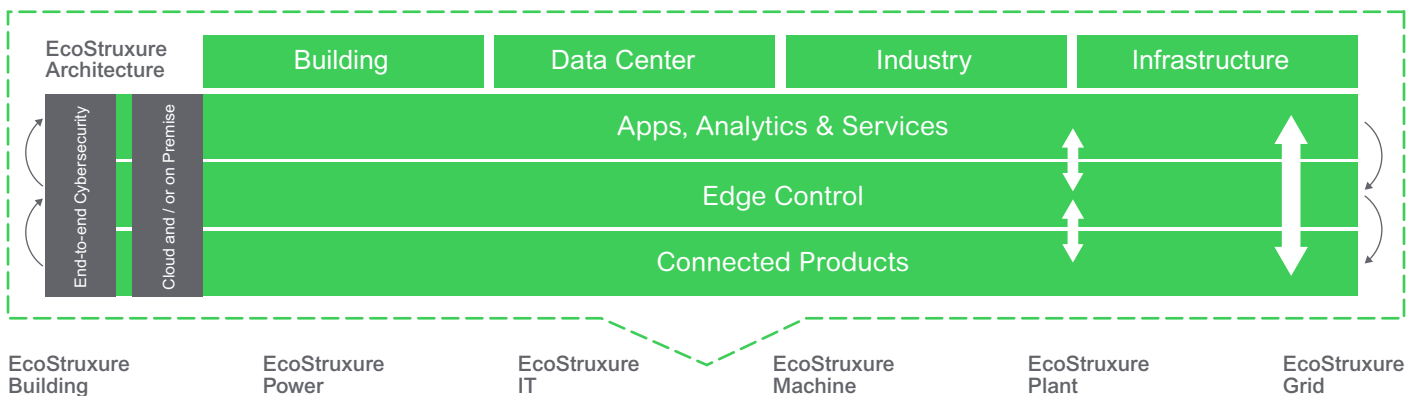
A blueprint for success in data centers

The barriers cited by IT decision-makers should not get in the way of embarking on digital transformation journeys. If complexity is the challenge, expertise is the solution.

Schneider Electric has travelled the road of digital transformation for decades. Twenty years ago, a prototype of the Schneider Electric flagship EcoStruxure™ solution was developed. Transparent Factory was an Ethernet-based architecture that connected the factory shop floor to the internet. This early investment in digital transformation paid off; digitization is a significant portion of Schneider Electric revenue,[12] and the company is still transforming.

In an always-on, always-connected world, it's more important than ever to protect critical information and data. EcoStruxure IT cloud-enabled DCIM software monitors your data centers and hybrid IT locations, making operations more efficient and scalable, ensuring visibility wherever you go.

EcoStruxure — the engine for digital transformation

EcoStruxure drives the digital transformation of energy management and automation in data centers. It is an IoT-enabled digital platform consisting of connected products; edge control solutions; and apps, analytics software, and services. The platform affords visibility and control across the enterprise via real-time monitoring, mobile insights, digital twin capabilities, and proactive risk mitigation. Today, EcoStruxure covers 500,000 sites globally, connecting some 20,000 software developers, 3,000 utilities, and 650,000 service providers and partners as a community.

EcoStruxure Architecture	Building	Data Center	Industry	Infrastructure
End-to-end Cybersecurity / Cloud and / or on Premise	Apps, Analytics & Services			
	Edge Control			
	Connected Products			

| EcoStruxure Building | EcoStruxure Power | EcoStruxure IT | EcoStruxure Machine | EcoStruxure Plant | EcoStruxure Grid |

Quantifying the benefits of digital transformation

After helping dozens of customers with data centers navigate successful digital transformation, Schneider Electric is ready to present a comprehensive report on the state of digital transformation among a global sample of customers. The Global Data Center Digital Transformation Benefits Report puts forth concrete evidence of the power of digitization in the context of this industry.

This evidence takes the form of 57 data points developed from a sample repository of 47 customer projects Schneider Electric completed in the last five years across 22 countries. In addition, the report features stories from eight customers, providing overviews of the goals they started with, the challenges they faced, the solutions they chose, and the results they achieved.

At the core of this report are four key business benefits of digital transformation. These benefits (Table) revolve around two statistics: our customers' average (mean) performance on these benefits, as well as the up-to or best-case scenarios. The goal of this report is to provide a useful and realistic benchmark on the potential of digital transformation.

BENEFIT	UP TO	AVERAGE
Energy consumption savings	38%	24%
Energy costs savings	30%	24%
Productivity (Improved material intensity)	60%	35%
Data center uptime	100%	99.9922%

Table: Benefits at a glance

Benefit #1:

Energy consumption savings

One key to unlocking business value in data centers is to consume less energy without sacrificing reliability. These two goals, often thought to be contradictory, are perfectly complementary thanks to the digital transformation of energy management and automation. New software management tools bring sweeping visibility and control over enterprise-wide energy consumption. With a central dashboard, businesses can now easily locate and execute performance enhancements. The results here attest to these capabilities — our customers have reduced energy consumption by as much as 38 percent, while on average, they saw reductions of 24 percent.

XDC+ Data Center reaches 96.82% energy efficiency with EcoStruxure IT. **LEARN HOW.**

BENEFIT	UP TO	AVERAGE
Energy consumption savings	38%	24%

# A turnkey data center solution for Thailand

Thai Government

"I love that the system constantly adjusts, ensuring that cooling is always balanced with IT load."

— Government Facility Manager,
Thailand Government

The government of Thailand needed a way to cut cooling costs and shrink the carbon footprint of its 70-rack data center. In a country famously hot and humid year-round, any solution proposed needed to include real-time environmental monitoring for optimal temperatures and humidity levels — not just in the data center, but in every single rack.

Data Center Expert was the solution the Thai government was looking for, so it teamed up with Schneider Electric. Along with Data Center Operation software, Data Center Expert focuses on decreasing the data center's carbon footprint and providing the real-time monitoring and reporting the government needed. And since cooling was a primary concern, Schneider Electric's Cooling Optimize module was used in conjunction with NetBotz wireless sensors. By using two sensors in the front and one in the back of each rack, operators can see the temperature and humidity levels for each component.

The result was an immediate 38 percent reduction in power used for cooling. The Cooling Optimize module continuously learns the influence of every cooling unit and automatically adjusts to deliver just the right amount of cooling to every rack. Beyond that immediate result, the solution also empowered facility managers with the tools they needed to better understand the thermal environment in the data center and steps they can take to further improve reliability and efficiency.
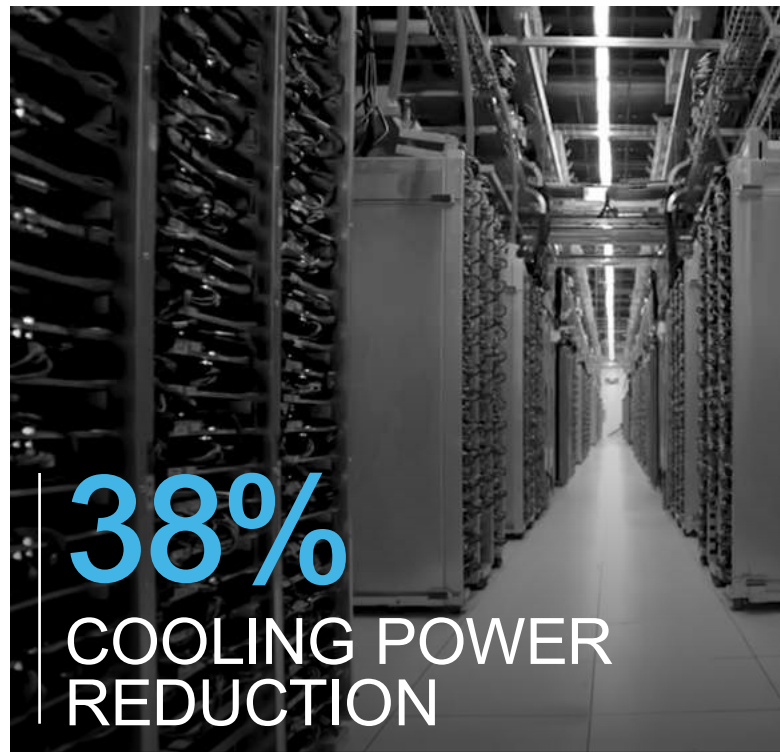
38%
COOLING POWER REDUCTION

EcoStruxure Architecture

APPS, ANALYTICS, AND SERVICES:

EDGE CONTROL:
EcoStruxure Data Center Operation
EcoStruxure Data Center Expert

CONNECTED PRODUCTS:
NetBotz Wireless Sensors

CO_2

More than 171 tons CO_2 reduction

More than $36,000 in annual cost savings from power reduction

70-rack government data center

Chasing 100% uptime in a hyperscale data center

China Unicom Cloud Data, China

"With the critical facility operation services provided by Schneider Electric, the two cloud computing bases in Hohhot and Langfang have finally achieved zero interruption to users' key workloads."

— Kang Nan,
General Manager of the Operations and Services Department
China Unicom Cloud Data

Telecommunications company China Unicom had an ambitious plan: to build 12 super-scale cloud data centers and 335 regional data centers throughout China. The company needed a strategic partner with strong experience in hyperscale data center operations to achieve this goal.

The company chose to outsource the on-site critical power operation services for its Hohhot and Langfang sites to Schneider Electric — from utility entrance to rack power distribution units, with emergency generators and direct current power supply systems. China Unicom trusted Schneider to help achieve 99.999 percent availability while reducing energy consumption at the hyperscale level through efficient operation, maintenance management, and continuous optimization.

By combining and complementing the knowledge bases and expertise of both companies, the two sites readily met the Rating 3 requirements of ANSI/TIA-942 standard and reached Rating 4 for its electrical power system. Both sites achieved a goal of zero interruptions to key user workloads. In addition, a staff of Schneider Electric experts are always on site, providing 24/7 operation and maintenance services. China Unicom has been able to improve reliability and efficiency, offering 99.999 percent uptime while realizing a 30 percent savings in operational costs. In addition, through a laser focus on performance and energy evaluations, China Unicom reduced energy consumption by six percent.

6%
ENERGY CONSUMPTION REDUCTION

EcoStruxure Architecture

APPS, ANALYTICS, AND SERVICES:
Data Center solutions
Critical Facility Operation services

EDGE CONTROL:

CONNECTED PRODUCTS:

Saved ¥17M ($2.46M) through efficiency achievements

Instituted 24/7 predictive maintenance and risk control

Achieved zero interruptions to key user workloads

Benefit #2:

Energy cost savings

The cost of energy touches every part of the economy, but it especially impacts the data center industry. One estimate by the U.S. Chamber of Commerce finds that 40 percent of a typical data center's OpEx goes toward power costs.[13] Decreasing the cost of energy has thus become a strategic differentiator pursued through renewables, demand response, and other digitally driven approaches. The stories from customer projects analyzed in this report provide a clear sense of how businesses are shifting toward a decarbonized, decentralized, and digitized future. Our customers saw 24 percent energy cost savings on average, while one customer achieved 30 percent savings.

Green Mountain Data Center cuts its energy usage by a third with EcoStruxure IT. **LEARN HOW.**

BENEFIT	UP TO	AVERAGE
Energy costs savings	30%	24%

[13] "U.S. Chamber of Commerce Technology Engagement Center, "Data Centers: Jobs and Opportunities in Communities Nationwide," 2017, https://www.uschamber.com/sites/default/files/ctec_datacenterrpt_lowres.pdf.

A data center with a dual major in reliability and efficiency

Manchester Metropolitan University, England

"We're seeing annual savings in energy costs exceeding 30 percent at the same time as gaining better control over our data center capacity utilization."

— James Woodward,
IT Client Services Manager,
Manchester Metropolitan University

The most basic task of an institution of higher learning is to ensure that information flows freely, without disruption. This is as true in a classroom as it is in a computer lab. So when the largest campus-based undergraduate university in the U.K. needed to ensure its IT infrastructure could reliably — and more efficiently — support every one of its 37,000 students, it enrolled Schneider Electric. A high-density data center was what Manchester Metropolitan University (MMU) needed to improve the reliability of IT services and reduce its environmental impact.

The data center serves numerous departments and faculties, from HR and finance to all of the academic departments. MMU requires services on a 24/7 basis, so any breaks in continuity may negatively impact the students' experience — and the university's reputation. A whole class of smart solutions guards MMU against downtime and boosts its energy efficiency, including Data Center Expert, Resource Advisor, and Cooling Monitoring Expert — all of which contributed to cooling costs being cut by 30 percent. The solutions are modular, allowing the university to use existing space on campus to house the data center. A phased approach allowed MMU to save funds until expansion was necessary.

All of this together resulted in a data center tailored to the needs of MMU's tens of thousands of students and the departments that support them. It's saving £3.8 million ($4.77 million) every year on energy costs and are on track to reduce its overall footprint by 25 percent by 2021.

CUT ENERGY COSTS BY
30%

EcoStruxure Architecture

ANALYTICS AND SERVICES:
StruxureWare for Data Centers software

EDGE CONTROL:
Resource Advisor
Power Management Expert
Data Center Expert
Cooling Monitoring Expert

CONNECTED PRODUCTS:
Symmetra™ PX UPS

Reduced overall emissions by 4%

CO_2

Significant progress made toward goal of reducing CO_2 footprint by 25%

Largest campus-based undergraduate university in the UK

A partnership from the data center to the red carpet

Animal Logic, Australia

"We selected Schneider Electric based on their engineering capabilities and ability to meet the businesses needs quickly."

— Alex Timbs,
Head of IT,
Animal Logic

With more than 25 years experience, independent Australian production company Animal Logic has been at the forefront of creating digital content, award-winning visual effects, and animation for film and television. Its credits include "The Matrix" 1 and 2, "Guardians of the Galaxy Vol. 2," "Avengers: Age of Ultron," the LEGO® movies, and many more. As one of the world's most highly regarded digital production studios, Animal Logic needed agile infrastructure that could be easily optimized to fit the cyclical nature of its industry. It also needed this solution to be standardized across its entire operation, which includes locations in Sydney, Los Angeles, and Vancouver. And it needed it deployed in less than five months.

Understanding Animal Logic's unique needs for capacity and delivery, Schneider deployed a custom prefab data center in just under 18 weeks. The new infrastructure delivered a major boost in data processing, which in turn enabled greater performance and operational agility. The newly implemented 30 kW per rack power density empowers Animal Logic's facility to process 1.25 petaflops per second on average — exactly the depth of capability the graphics house required for advanced animation production and design.

Its new on-premise system is more reliable than its previous one; it removes the creative bottlenecks it used to suffer, reduces latency, and saves money on the utility bill. And with 24/7 support and real-time monitoring, Schneider Electric is helping Animal Logic keep drama on the silver screen and away from the data center.
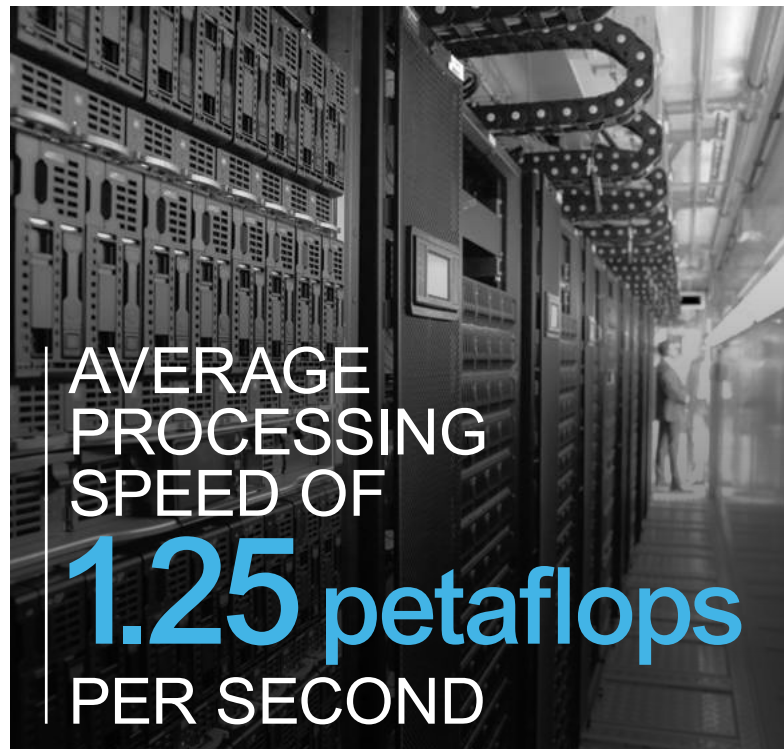
AVERAGE PROCESSING SPEED OF
1.25 petaflops
PER SECOND

EcoStruxure Architecture

APPS, ANALYTICS, AND SERVICES:

EDGE CONTROL:
EcoStruxure DCIM
EcoStruxure IT Expert

CONNECTED PRODUCTS:
Symmetra PX UPS
Rack PDUs
Netbotz
In-Row RC
Access Control
Chillers and controls

90% of data center houses high-density compute for image rendering

10% remaining space is dedicated to high-capacity storage for production

Turnkey solution deployed in just 4.5 months

Benefit #3:

Increased productivity

In data centers, space is precious. In the U.S., a typical data center's capital expenditure per net rentable square foot was listed at $1,305 in 2017.[14] Companies are thus looking for ways to do more computing with smaller footprints. A 2018 Uptime Institute survey found that rack densities are creeping steadily upward, with over 20 percent of respondents reporting 30 kilowatts (kW) per rack or above. Compare that to a 2012 version of that same survey, when the highest single density reported by the global sample was just 26 kW.[15]

Digitally transformed data centers can accommodate more density because tools now exist to manage the complexity. By bringing all these assets under the digital umbrella of data center infrastructure management, IT managers can maintain full visibility and control over this intricate dance, thus keeping their data centers operating reliably and efficiently. Customers that have digitally transformed their data centers were able to improve material density by an average of 35 percent, and up to 60 percent.

Puget Sound Energy achieves 24/7 data center resiliency with EcoStruxure IT. LEARN HOW.

BENEFIT	UP TO	AVERAGE
Productivity (Improved material intensity)	60%	35%

[14] U.S. Chamber of Commerce Technology Engagement Center, "Data Centers: Jobs and Opportunities in Communities Nationwide," 2017, https://www.uschamber.com/sites/default/files/ctec_datacenterrpt_lowres.pdf.

[15] "Uptime Institute Global Data Center Survey," Uptime Institute, 2018, https://uptimeinstitute.com/uptime_assets/f7bb01a900c060cc9abe42bb084609f63f02e448f5df1ca7ba7fdebb746cd1c4-2018-data-center-industry-survey.pdf.

Doubling in size while halving the data center footprint

Genpact, India

"We experienced up to 70 percent in savings, and derived 90 percent ROI, since deployment."

— Shyamashis Brahma,
Vice President Infrastructure and Logistics,
Genpact

Genpact, a former business process outsourcing unit within General Electric (GE), became an independent company in 2005 to bring their process expertise to clients outside of GE's family. When Genpact began in 2005, it had 32,000 employees and revenue of $823 million. By 2012, it had 60,000 employees and revenue exceeding $2 billion. And while Genpact appreciates its success, the fast pace brought IT challenges. In 2011, it discovered flaws in its IT infrastructure — it had expanded considerably for the sole purpose of maintaining uptime, but the quick pace of expansion overtook the ability to manage IT components. The company's pressing need to overhaul this mission-critical infrastructure was further complicated by vendor management issues.

Genpact decided to forge a new relationship with Schneider Electric to revamp its IT infrastructure with remote monitoring and management tools. This would enable it to easily monitor every piece of equipment across its operation, allowing for informed, proactive maintenance rather than its old model of "detect and react." As such, maintenance time has been reduced by 75 percent and outages by 25 percent. Modular and hot-swappable data center solutions are used, as the requirement to scale IT need accordingly was a lesson Genpact refused to repeat.

Today, Genpact's standardized data centers take up half the space of its old data center and have significantly reduced its carbon footprint. With its new IT infrastructure, Genpact has also gained a team of skilled service specialists who ensure equipment is always ready to handle the next phase of growth.

75%
LESS TIME SPENT ON MAINTENANCE

EcoStruxure Architecture

APPS, ANALYTICS, AND SERVICES:

EDGE CONTROL:

CONNECTED PRODUCTS:
3-Phase UPS
Modular UPS

Savings of up to 50% of floor space

25% savings on generator capacity

20% savings on upstream cable and switchgear cost

Outlasting the competition in a competitive cloud market

F12.net, Canada

"The Toronto data center marks the next step in our journey to advance the technology posture of [small and medium businesses] across Canada, by offering fully managed geo-redundant data centers from Edmonton to Toronto."

— Calvin Engen,
Director of IT
F12.net

In a tight cloud and colocation market, Edmonton, Alberta-based F12.net realized its single location presented vulnerabilities to its business model, and that a second data center would boost resiliency for its customers across Canada. Its decision to build a new data center in the greater Toronto area was made easier with the knowledge that new IT infrastructure would integrate and scale quickly, last significantly longer, and take up less space.

F12.net used the EcoStruxure IT On-Premise solution to enable power usage effectiveness monitoring. This way, the company could guarantee the delivery of clean, reliable power to its IT infrastructure and thus ensure exceptional customer service. It also installed EcoStruxure-ready lithium-ion Galaxy VM UPSs, which deployed quickly. Together, these upgrades extended equipment lifecycles and deferred future CapEx.

F12.net's digitally integrated infrastructure is built for a reliable, resilient future. It extends UPS longevity by up to three times the expected life of lead-acid (VRLA) alternatives, reducing total cost of ownership by 30 to 50 percent. In addition, these UPSs take up less space, weigh less, and feature a modular design, so the facility can increase capacity as needed, without needing to build out more space.

40 – 60%
LESS FOOTPRINT

EcoStruxure Architecture
APPS, ANALYTICS, AND SERVICES:

EDGE CONTROL:
EcoStruxure IT On-Premise
CONNECTED PRODUCTS:
Galaxy™ VM UPS with Li-ion batteries

Lowered total cost of ownership by 30 – 50%

Reduced weight by 50 – 70%

Extended battery life three times longer than VRLA

Benefit #4:

Data center uptime

Data center managers are on constantly on guard against downtime. Outages can result from cybersecurity breaches, extreme weather events, and — quite frequently — human error. And outages can be extremely costly: A widely cited study found that, on average, downtime costs $7,908 per minute.[15] In most cases, these outages are preventable; in a 2018 global survey, 80 percent of respondents reported their outages as such.[16] Digitally transformed data centers stave off downtime through predictive maintenance and enhanced visibility. This allows for hotspots to receive fast, precise cooling, overloaded servers to be unburdened, and more. The data center becomes a more limber, agile space where IT managers can see obstacles coming and dodge them easily. This section shows our customers average 99.9922 percent uptime, while 100 percent uptime is achievable with digital transformation.

DataHub Biel offers unmatched security and availability with EcoStruxure IT. LEARN HOW.

BENEFIT	UP TO	AVERAGE
Data center uptime	100%	99.9922%

---

[15] "Cost of Data Center Outages," Ponemon Institute, 2016, https://www.vertiv.com/globalassets/documents/reports/2016-cost-of-data-center-outages-11-11_51190_1.pdf.

[16] "Uptime Insitute Global Data Center Survey," Uptime Institute, 2018, https://uptimeinstitute.com/uptime_assets/f7bb01a900c06 0cc9abe42bb084609f63f02e448f5df1ca7ba7fdebb746cd1c4-2018-data-center-industry-survey.pdf.

Opening digital doors to a whole continent

Interxion, Spain

"Schneider Electric is one of the rare international groups that understands the perspective of this specific data center activity and what it represents for the future of our economies. They're a partner of choice whom we can count on."

— Fabrice Coquio,
President,
Interxion France

Flexibility is crucial to providing customers with solutions today's competitive colocation market requires. Though no two customers are exactly alike, they all share the same goal: to stay current in a digital world. To do this, colocation enterprises must build faster, reduce costs, and anticipate the demands of the digital economy.

To meet the needs of a growing European colocation market, Interxion partnered with Schneider Electric to get its third data center in Madrid, Spain online. Though this project was different than previous deployments in Paris and Marseilles, France, the goal was the same: to build a secure, future-forward data space for minimal downtime to keep pace in the digital marketplace. The end result of this joint effort was a data center deployed ahead of schedule, with all the continual support Interxion had come to expect.

Through a long-standing, successful partnership with Schneider, Interxion has been able to expand into emerging markets in Africa and the Middle East, while continuing to provide innovative, energy-efficient solutions that up the ante for its global customers.

99.999%
UPTIME

EcoStruxure Architecture

APPS, ANALYTICS, AND SERVICES:

EDGE CONTROL:
EcoStruxure Building Operation
EcoStruxure Power Monitoring Expert

CONNECTED PRODUCTS:
Okken & Blokset iPMCC
Galaxy UPS
Premset™ switchgear

99.999% uptime data point

11% reduction in CAPEX

End-to-end solution to maximize energy efficiency

The unexpected owner of one of North America's most reliable data centers

Retirement Systems of Alabama, US

"We provide the connectivity to our clients and Schneider Electric helps us to perform that task by providing us with the reliability. For us, there's no connectivity without reliability."

— Jeff Gardner,
Critical Facility Manager,
RSA

The Retirement Systems of Alabama (RSA) owns a data center that was built to securely manage the state's pension fund. It also functions as a colocation provider, managing data space for customers ranging from PGA golf courses to healthcare institutions and emergency services. With 2.6 megawatts of backup power and 300 racks, RSA is perhaps one of the most unlikely owners of the most efficient, resilient colocation data centers in North America. It's been in operation for six years without a single second of downtime, and it has multiple redundant systems to thank for that. But with all that equipment, it needed help keeping tabs.

RSA wanted full visibility to every single piece of equipment across its 44,000 square-foot space. It also wanted to make certain that its facility housed the most resilient power and cooling infrastructure available, as its ability to attract clients depends on maintaining uptime. RSA turned to Schneider Electric not only to provide the necessary hardware, but to also deploy IoT-enabled architecture EcoStruxure IT for its cloud-based monitoring tools.

Once the solutions were in place, monitoring and troubleshooting work dropped to just minutes instead of hours. And RSA's IT and administrative staff gained peace of mind knowing that Schneider Electric Service Bureau experts are acting as additional supervision, monitoring the data center 24/7.

800 devices
IN DATA CENTER MONITOR 24/7

EcoStruxure Architecture

APPS, ANALYTICS, AND SERVICES:
EcoStruxure IT Advisor
EcoStruxure Asset Advisor

EDGE CONTROL:
EcoStruxure Building Operation

CONNECTED PRODUCTS:
Megawatt UPS
NetBotz camera
InRow Cooling Units
Symmetra UPS

Maintain 0% downtime

Off-hours monitoring and troubleshooting reduced to minutes instead of hours

24/7 data center monitoring

Conclusion

The 2019 Global Data Center Digital Transformation Benefits Report highlights the tangible value digitization delivers. The expansion of the data center, cloud, and colocation markets are aligned with the transformation of not just business, but entire industries and ever-shifting trends. As business sectors increasingly depend on data for survival, the limitations of non-digitally transformed data centers will become more apparent — and less tolerated — day by day.

These eight customer stories are a glimpse at the myriad ways Schneider Electric's EcoStruxure software and connected products help enterprises gain firm footing in an evolving digital market. Schneider Electric accelerates the pace of digital transformation by delivering reliable compute exactly where and when it's needed, ensuring deep visibility into the distributed IT network — while leveraging technologies like AI and machine learning to drive predictive data center operations. The innovations detailed in this document show it's not only possible, but expected, to shrink your physical and environmental footprint while dramatically improving IT capability. These are products and solutions that benefit data centers of any size in any geography, designed to propel the data space forward into an ever more digital world.

APPENDIX:

Customers included in this report

- Animal Logic
- China Unicom Cloud Data
- F12.net
- Genpact
- Interxion
- Manchester Metropolitan University
- Retirement System of Alabama
- Thai Government

About the report

The 2019 Data Center Digital Transformation Global Report is the first installment of what will become an annual, evidence-based publication. This report presents an analysis of 330 customer data points from projects implemented over a five-year period. An analysis of these data across three ROI categories and a total of 12 key business benefits form the foundation of this report. All of the projects analyzed in this report are publicly available on our website.

About Schneider Electric

At Schneider Electric, we believe access to energy and digital is a basic human right. We empower all to make the most of their energy and resources, ensuring Life Is On everywhere, for everyone, at every moment.

We provide energy and automation digital solutions for efficiency and sustainability. We combine world-leading energy technologies, real-time automation, software and services into integrated solutions for Homes, Buildings, Data Centers, Infrastructure and Industries.

We are committed to unleash the infinite possibilities of an open, global, innovative community that is passionate about our Meaningful Purpose, Inclusive and Empowered values.

About EcoStruxure

EcoStruxure is Schneider Electric's IoT-enabled, plug-and-play, open, interoperable architecture and platform, in Homes, Buildings, Data Centers, Infrastructure and Industries.

EcoStruxure delivers Innovation at Every Level from Connected Products to Edge Control, and Apps, Analytics and Services, on 6 domains of expertise – Power, IT, Building, Machine, Plant and Grid – delivering enhanced value around safety, reliability, operational efficiency, sustainability, and connectivity to our customers.

Discover more stories on successful digital transformation.

se.com/lifeison

Life Is On | Schneider Electric