Data Center Professional Insights

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IN FOCUS

Resiliency is Key.

Proactivity is the driving force behind business continuity. No matter the operational context, the most resilient companies build a strategic plan that ultimately helps them identify and protect vital processes within their organization.

There has been much progress with digital tools and cloud-based applications. These new cutting-edge digital platforms use analytics and AI to give stakeholders access to more accurate data, helping them monitor their data center activity. This digitalization is a key driver in ensuring businesses are resilient in times of crisis.

Stakeholders expect the best, most up-to date information about how a company is responding to an emergency. They also need assurance that they can work quickly to understand what needs done next if there's ever another disaster at hand.

The end goal for these organizations is to use constantly evolve with new technology to increase visibility, improve operational resiliency and ultimately, future-proof their data centers to reduce the risk of unexpected downtime.

We have compiled the key insights and trends that data center professionals are evaluating today to help boost the resiliency of their data center infrastructure.

INSIGHT 1

A new metric to measure resiliency

As a data centre industry, the tools we currently use focus on "how can I ensure a single data center is as robust as possible." However, given this inter-connected hybrid environment, the way businesses operate has dramatically changed. Data center professionals must ask: do we need to rethink how we talk and measure criticality and redundancy? As the saying goes, "you can't manage what you don't measure".

Schneider Electric recognize why we need to rethink resiliency and shift the paradigm on how we identify data center failures. Currently, failure is defined as disruption to any IT equipment, but there is more that needs to be considered:

Old paradigm	New paradigm
Focused on the centralized data center	Focused on the hybrid environment
Failure is when IT equipment in a rack is impacted	Failure is when user experience is impacted
Doesn't comprehend remote sites or people/functions	Critically is impacted by number of employees impacted and job functions

New tools and metrics need to contemplate dependence on multiple data centers, the number of users impacted by failure, the criticality of business functions, and application (software) failures.

The metrics must also adapt the shift in employees expectations. The wave of millennials entering the workforce were raised with an "always on, always connected mentality." IT devices and systems are expected to work at all times. Therefore, data center resiliency and uninterrupted uptime is more important than ever.

Read this report on how data center professionals can look at more holistic ways of reporting resiliency of data centers.

INSIGHT 2

Minimizing downtime risk with resilient edge computing

Industry 4.0 is taking manufacturing to a smarter future through emerging technology innovations such as data analytics, autonomous robotics, and AI. These technologies drive increased productivity and performance throughout the value chain, and often require information technology (IT) systems deployed on-premise, often referred to as edge IT.

At the same time, new IT systems need to be introduced into production manufacturing environments to provide sufficient computing capacity to enable these technology innovations. This has led to concerns over reliability, security, and continuity, and above all, downtime—which may hinder the adoption of the new IT systems.

Downtime can cost manufacturers an average of $260,000 per hour

Resilient edge computing best practices will be instrumental in minimizing downtime risks and ensuring the efficiency, productivity, and product quality of manufacturing operations. These include:

- Choosing IT enclosures designed for manufacturing environments

- Using effective power protection and cooling approach

- Invest in monitoring and management software

- Leveraging an ecosystem of partners to provide complete edge IT solutions

Learn more about the best practices and solutions for deploying resilient edge IT in a manufacturing environment.

Solving the resilience and sustainability paradox

In our private and professional lives, we rely on technology more than ever before. Businesses now have an intense dependency on data centers—relying heavily on video conferencing, remote monitoring and management access, and streaming content for day-to-day operations.

To meet increasing demand, data centers need to be resilient and reduce the risk of outages. However, historically to ensure greater resilience, it came at the cost of sustainability.

But with great power comes great responsibility! At a time when we are globally becoming increasingly dependent on data centers, data centers must be both sustainable and resilient. But can you accomplish both?

The challenge for data center operators is ensuring their company balances these four pillars:

- **Resilient** – Reduce vulnerability to unplanned downtime

- **Sustainable** – Responsibly meeting business needs without compromising our shared future

- **Efficient** – Optimize cost, speed, and capital to increase return on investment

- **Adaptive** – Future-ready designs to accommodate new technologies

Read more insights into why data centers need to ensure greater resilience without compromising their sustainability.
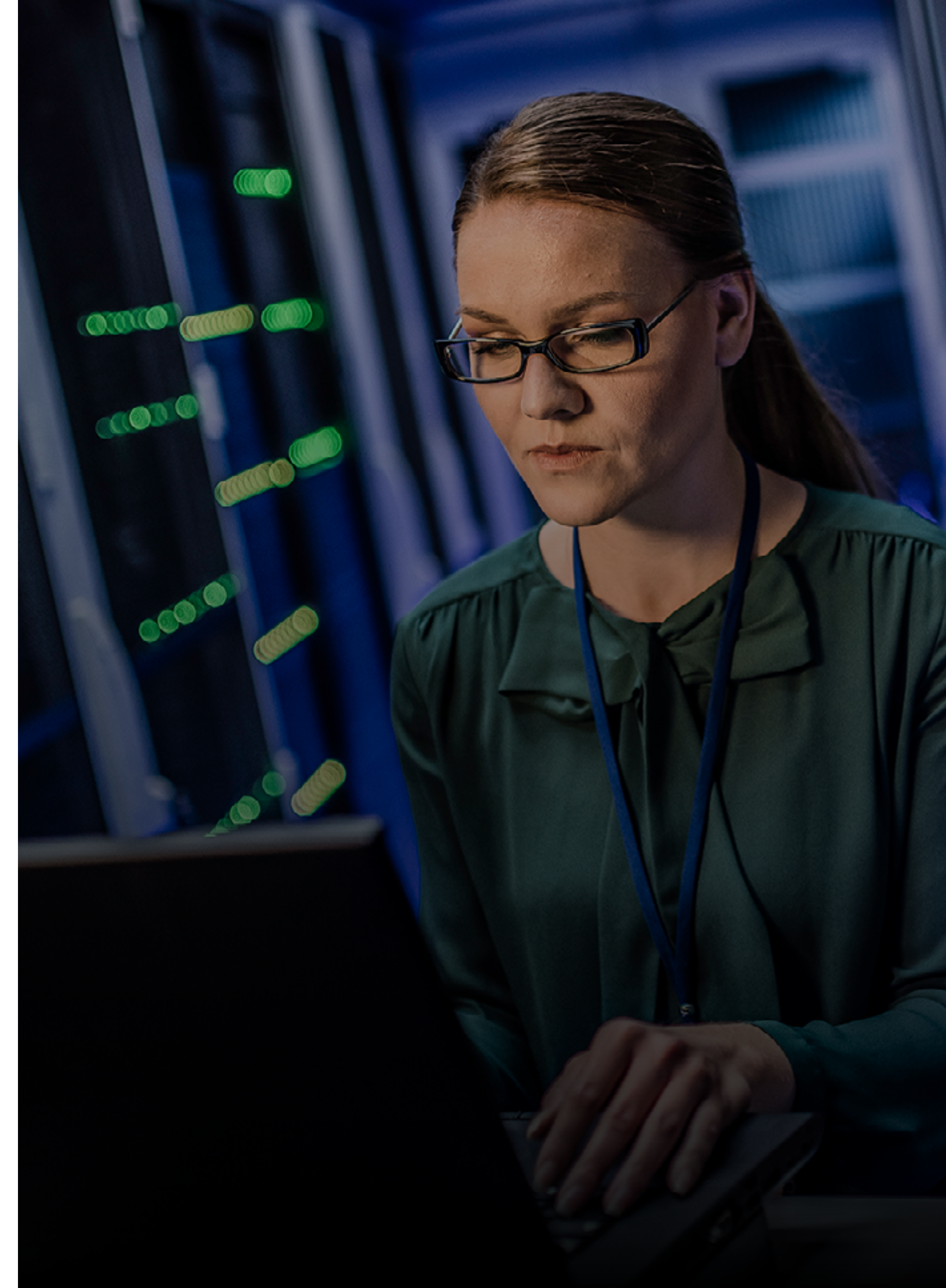
INSIGHT 4

DCIM for operational resiliency

Previously, the long-term resiliency of mission-critical digital infrastructure had been a blind spot, it often lacked funding and strategic thinking. However, for Puget Sound Energy (PSE), ensuring continuity is a matter of life-or-death as their sites provide electrical power to the Emergency Medical Services in Washington State.

PSE were looking for a solution that minimized the risk of human error and promoted uninterrupted uptime for critical IT infrastructure.

> **"Once we saw that it (EcoStruxure) had that capability to extend beyond the data center, that was something we wanted to leverage immediately."**
>
> **Christopher Perez**
> Advisor for Enterprise Technology Solutions at Puget Sound Energy

After commencing work with Schneider Electric, the data center professionals at PSE immediately benefitted from the comprehensive data center infrastructure management (DCIM) platform. The DCIM platform was fully integrated so that the team at PSE could experience a complete view of their data centers from a single console.

> **"We're now in a position that we're reacting to situations before they actually become a situation visible to anybody else."**
>
> **Christopher Perez**
> Advisor for Enterprise Technology Solutions at Puget Sound Energy

By eliminating the silos of information, PSE could keep tabs on all their infrastructure and boost their operational resiliency. A further benefit was the DCIM software helped monitor their energy efficiency with a 75% improvement in power usage effectiveness rating.

Watch this short video to see how PSE utilize Schneider Electric's DCIM to manage the distributed IT environment all on the one device.

# Data center resiliency in the retail industry

In response to the global pandemic, the retail industry accelerated the digital transformation by years. Immediately, retailers started to integrate cloud computing and, more critically, in-store edge infrastructure.

Virtually overnight retailers, who once completely relied on brick-and-mortar sales, quickly adapted to emerging digital tools and solutions. With newly localized edge infrastructure, retailers can host applications to improve the in-store customer experience—where digital and physical components are interconnected. Beyond happy customers, these digital tools help boost the efficiency of IT staff:

"Hosting these applications at the edge can improve logistics, inventory and supply chain management to reduce costs."

By choosing connected edge infrastructure, retailers are helping their IT support staff easily manage multiple sites through remote software. Another benefit is that the edge technology is more resilient. Retail businesses can't afford to frustrate their customers with malfunctioning software and a delayed purchasing process.

Discover how Schneider Electric is helping evolve the IT infrastructure for retail and helping retailers stay up and running.
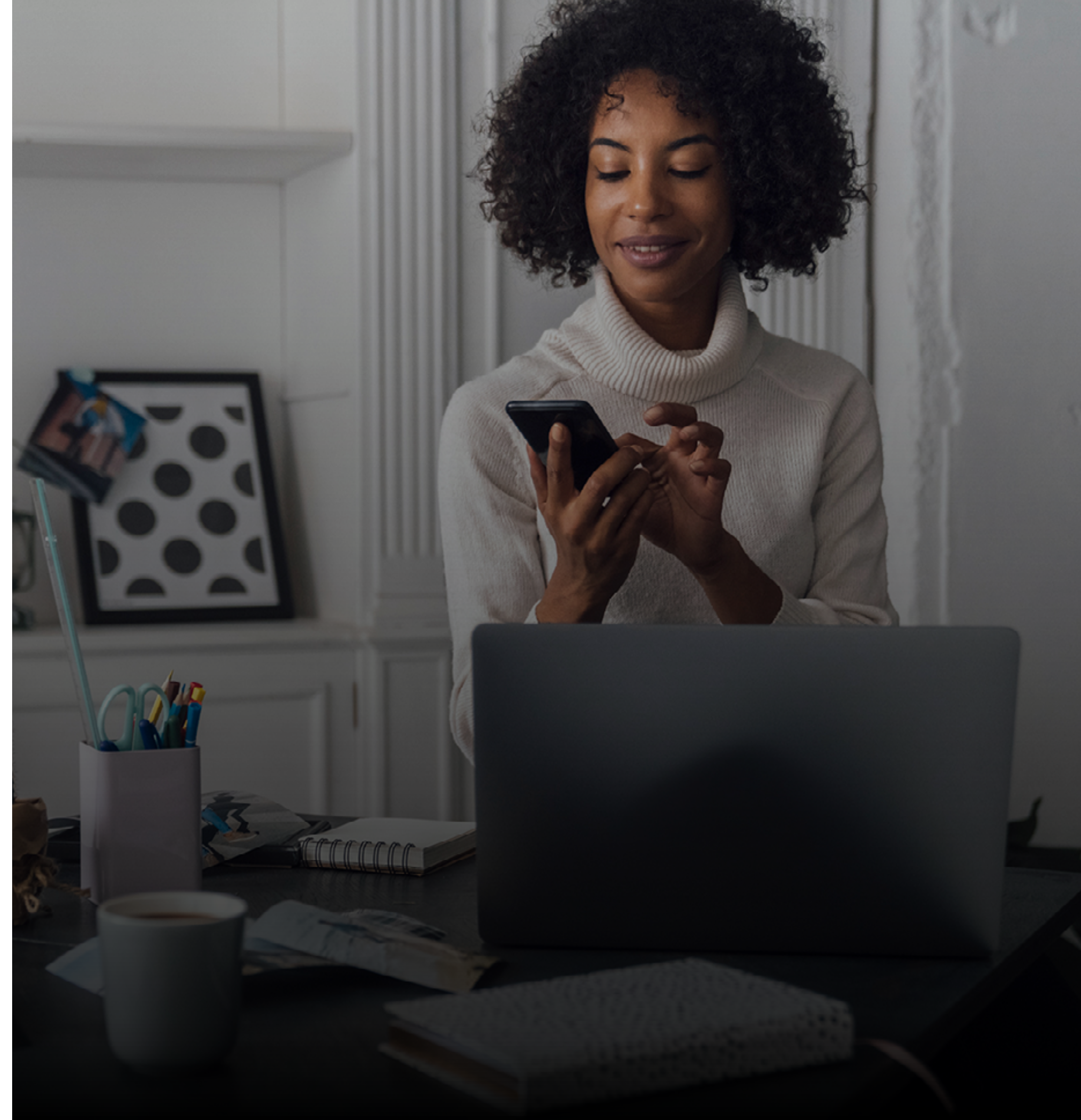
INSIGHT 6

Resiliency from data-driven data centers

The rapid pace of digital innovation has created a boom in data, resulting in a surge in the number of edge data centers across the world. New technologies that drive competitive capabilities—from IoT to AI—depend on the continued and successful operation of these facilities.

IDC predicts that the collective sum of the world's data will grow from 33 zettabytes in 2020 to 175ZB by 2025

Resilience is key. It will determine how well organizations' infrastructures can perform, scale, and keep pace with the speed of business and data growth. Limitations such as geophysical dispersion, however, will prove to be a challenge that could potentially disrupt their positive momentum.

To build, operate, or maintain agile and resilient infrastructures, the focus will need to be on implementing efficient, digital strategies built around visibility, standardization, and remote command and control.

Visibility
With insight into the performance of all assets and equipment, difficult questions become easy to answer.

Standardization
Having a common user interface, standards, and operating procedures simplifies management and planning.

Remote command and control
Providing cross-functional teams with the right information and the right context to make the right decisions.

Join Schneider Electric in this on-demand webinar and find out we are empowering our customer, Equinix, in their digital journey by helping them harness data to better benchmark, and improve their data center performance.

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