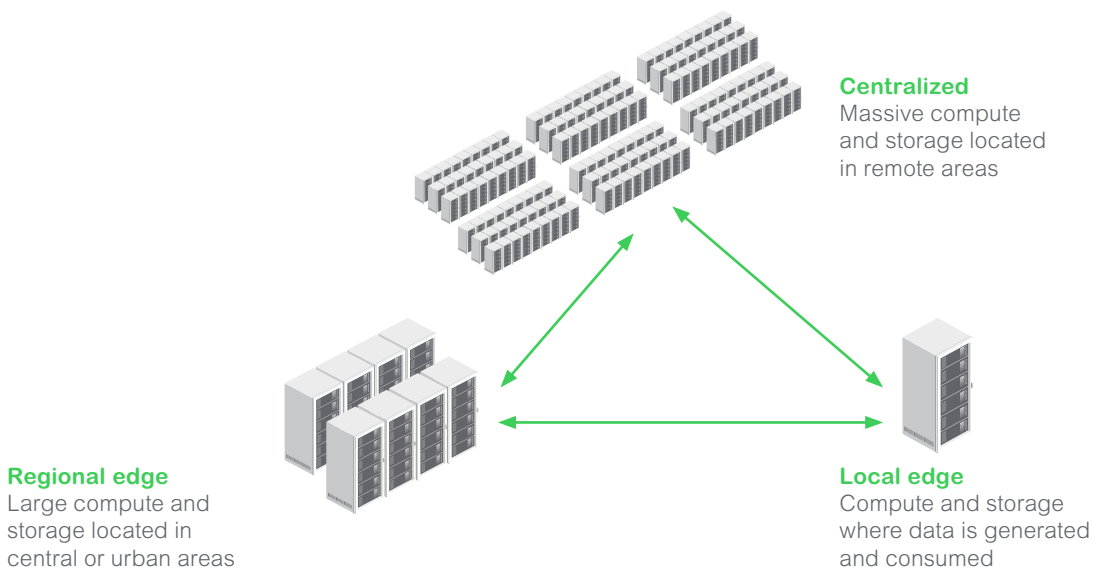# A guide to successful edge computing deployments

Enable digitization with the help of edge solutions

Digitization is helping companies improve efficiency, business performance and customer satisfaction. Yet, the applications that enable digitization require a lot of bandwidth, low latency, and reliable performance. A centralized data center or a cloud solution may not fully address all of these compute needs. This is where edge computing solutions come in, putting applications and data as close as possible to the users or things that need them.

Centralized
Massive compute and storage located in remote areas

Figure 1
The hybrid data center architecture

Regional edge
Large compute and storage located in central or urban areas

Local edge
Compute and storage where data is generated and consumed

However, deploying edge solutions can be challenging and time-consuming. And managing the sites post installation is just as challenging since most organizations cannot physically staff every site. That's why Schneider Electric and Cisco have teamed up to deliver turnkey hyperconverged edge solutions that will help get you up and running quickly. These remotely managed solutions simplify, standardize, and accelerate edge deployments to support digitization environments.
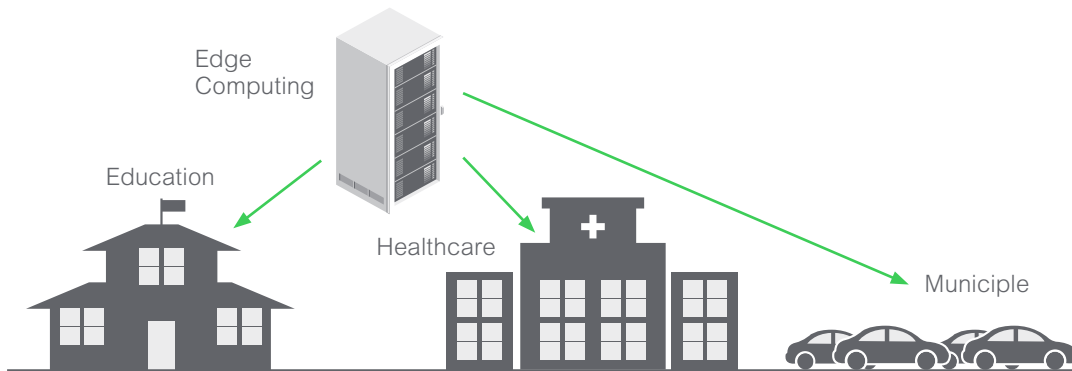
The path to digitization is through the edge

Consider the following scenarios where edge computing can enable various applications:

A school district wants to launch remote learning.

A hospital needs real-time connectivity to patient records to enhance patient care.

A municipality is looking to ease congestion through a smart traffic system.

A digital transformation can make all of these scenarios possible. Today, most organizations are at various stages of their own digitization journey. While goals vary from one organization to another, digital transformation typically focuses on these objectives:

- Enable automation

- Increase data quality, and collect and structure the data in order to apply advanced technology for increased quality of life

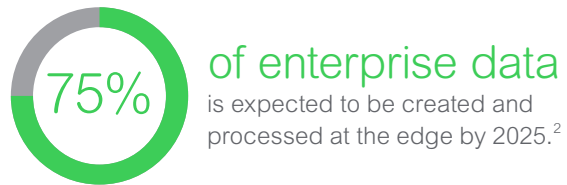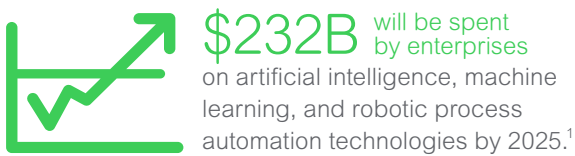- Maintain business continuity by preventing interruptions in production lines

Digitization is a powerful and proven way to achieve these goals. It's what gives organizations the agility and responsiveness to more successfully compete in the marketplace.

IT/OT convergence

For industries such as manufacturing, energy, and oil and gas, a major part of digitization is the convergence of IT (information technology) and OT (operational technology) environments. OT consists of software and hardware that runs industrial equipment. Traditionally, IT and OT have operated in separate domains, with IT focused on computer and data systems, while OT runs industrial and manufacturing processes. Keeping them separate is no longer efficient. Convergence will drive efficiencies and boost productivity. Some examples:

- Oil and gas companies are combining operations that run wells and pipelines with IT-driven functions to capture data and derive business insights.
- Building management systems are automating mechanical functions such as HVAC and power supplies to drive efficiencies and improve energy consumption.
- Manufacturers have been automating production processes and supply chains to drive down costs and improve energy consumption.

$232B will be spent by enterprises on artificial intelligence, machine learning, and robotic process automation technologies by 2025.[1]

75% **of enterprise data** is expected to be created and processed at the edge by 2025.[2]

Schneider Electric and Cisco *hyperconverged solutions help protect your edge and digital environments.*

Success at the edge

For most organizations, the road to digitization can be long. And it can get fairly complex. But no matter your industry, all roads typically lead you to the edge.

Edge computing, that is. Edge deployments support the infrastructure needed for digitization projects, such as converging IT with OT or launching an internet of things (IoT) network. Here's why an edge component is essential to any digitization strategy:

Speed
Without edge sites to process data locally, data can travel hundreds or thousands of miles to cloud centers, creating latency.

Security
As with the cloud, edge security is centralized and delivered consistently across the entire infrastructure.

Scalability
Even the most visionary of companies cannot fully anticipate all future needs, so they require flexibility to scale rapidly as they grow.

Resilience
Edge deployments provide resilience through remote monitoring, consistent security policies, and deployment of repeatable solutions that boost reliability and availability.

[1] https://advisory.kpmg.us/content/dam/advisory/en/pdfs/ready-set-fail-avoiding-setbacks-in-the-intelligent-automation-race.pdf

[2] https://www.gartner.com/smarterwithgartner/what-edge-computing-means-for-infrastructure-and-operations-leaders/

Overcoming traditional edge challenges

Deploying, staffing, and managing a large network of edge sites to support digital environments is a near impossibility for most organizations.

That's where Schneider Electric and Cisco come in as two industry leaders with hyperconverged solutions to accelerate edge deployment and provide resilience and availability through remote management and power backup. The solutions simplify, standardize and speed your digitization journey with pre-engineered, and pre-validated hyperconverged bundles. When the solution is delivered, it is ready for quick, easy integration into existing infrastructure by a partner or the end customer.

Schneider Electric and Cisco *hyperconverged bundles set the standard for easy installation and setup.*

Whether you're a school district providing virtual classrooms to students at home, a hospital connecting doctors in real time to patient records, or a municipality using digital technology to ease congestion downtown, you can get your edge sites up and running quickly and start deriving value from your investment faster than ever. That's what Schneider and Cisco delivers with HyperFlex™ Edge solutions that support these types of edge deployments and many more. Schneider and Cisco hyperconverged solutions deliver:

- Standardized, repeatable solutions for easy deployment
- Physical security and cybersecurity
- Remote monitoring and visibility

EcoStruxure™ Micro Data Center C-Series for Commercial Environments

What the Schneider Electric and Cisco alliance means for you

Edge deployments must be quick, straightforward and replicable across multiple sites. That's what channel partners and end customers need for digitization projects. And that's what you get when leveraging the Schneider and Cisco alliance to accelerate outcomes.

Rapid deployment
Pre-validation of converged solutions from Schneider and Cisco accelerate deployment and provide assurance of compatibility and easy integration into data center design. This translates to faster go-to-market strategies and ROI.

Repeatable solutions
Converged infrastructure packages combine multiple IT and physical infrastructure components, such as uninterrupted power supplies from Schneider and Cisco UCS (unified computing system) servers, into a unified plug-and-play package that can be replicated across multiple sites.

Risk-free shipping
Damage to equipment incurred in shipping often leads to significant costs and delays. To safeguard against transportation damage, Schneider and Cisco solutions travel in purpose-designed packaging resistant to impact and vibration.

Integration with existing infrastructure
Besides speedy deployment, Schneider and Cisco bundles are designed for easy integration with existing edge and data center infrastructures, helping to accelerate your time to market.

Downtime prevention
IoT systems that manage traffic lights, telesurgery or autonomous vehicles cannot tolerate even short transmission delays, never mind protracted downtime. Schneider and Cisco solutions deliver high availability and outage prevention through intelligent monitoring and management with power backup.

The value of leadership

Schneider Electric and Cisco have a 15-year relationship. The alliance brings together two leaders in their respective markets and drives innovation for channel partners and end users.

Schneider Electric – Leadership and expertise in energy management, automation, and industrial solutions offered with industry leading and reliable APC power solutions.

Cisco – A world leader in IT and the #1 provider of networking and security solutions.

The alliance delivers value in multiple ways:

- Working with partners to deliver excellent products, but also complete solutions that help solve customer problems and deliver business outcomes
- Running complex operations to boost agility and competitiveness
- Delivering essential solutions that enable customers to adapt quickly to support business growth
- Connecting a large ecosystem of various partners to serve end customers

Peace of mind

Digitization projects and edge deployments are complex endeavors that can pose risks if not planned and executed properly. The Schneider and Cisco approach removes as much of that risk as possible, from pre-validating solutions that ensure easy integration to shipping equipment in special containers to replicating solutions across large environments.

Schneider Electric and Cisco bundles provide peace of mind by minimizing uncertainty, complexity and frustration from digital and edge deployments.

Speed and simplicity

In the digital era, customers have been conditioned to expect more from their technology investments. They expect measurable improvements in their operations and customer experience. But most cannot produce such outcomes on their own. They need help along their digital journey, and that's where Schneider and Cisco come in. We've done a lot of the hard work so you don't have to.

Schneider and Cisco partnered to simplify and accelerate the digital transformation journey, setting you up for success in the digital future.

Learn how the Schneider Electric and Cisco alliance can help your business thrive. **Discover more.**

cisco Schneider Electric