How to Support Digital Transformation With Edge Computing

EcoStruxure Micro Data Centers from APC™ by Schneider Electric

Design, deploy, and operate physical infrastructure for edge environments with EcoStruxure Micro Data Centers that are:

- Secure: Protect critical IT assets from malicious accidents or environmental incidents that cause downtime. Get device-level cybersecurity with ultra-secure enclosure options.

- Simple to Deploy: Reduce headaches with faster edge rollouts and validated reference designs. Leverage best-in-class design tools to help simplify configuration and deployment.

- Remotely Manageable: Decrease expensive service calls and the need for on-site IT staff.

Edge computing has emerged as a key deployment model for companies embarking on a digital transformation journey. Edge data centers can improve customer experiences, increase operational efficiency, and develop new revenue streams by putting applications and data as close as possible to the users that need them. And with EcoStruxure Micro Data Centers from APC™ by Schneider Electric, you get the reliability, resiliency, and security of a data center in a single enclosure suitable for any edge environment.

The need for edge computing is rooted in the shortcomings of cloud-based applications and services. Cloud computing can't always meet the required performance demands in terms of response time that critical applications require. And for heavily regulated industries, cloud computing can't provide the local storage necessary for compliance.

In the wake of digital transformation demands, IT infrastructure must adapt to improve efficiency and business performance even as technologies like the Internet of Things (IoT) play a greater role in organizational success.

Life Is On

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Why Edge Computing Has Become a Digital Transformation Necessity

OT and IT must come together to create unified IoT architectures that drive digital transformation success. But without a means of addressing challenges at the edge, it's almost impossible to achieve this kind of unification.

When creating micro data centers at the edge, there are three main challenges that must be addressed:

- **Bandwidth:** The volume of data from IoT applications and the cost of sending it to the cloud can be debilitating. Local processing is more beneficial for high-volume applications like HD video streaming and real-time analytics.
- **Latency:** Any application having to do with safety or real-time responses requires extremely low latency. Cloud services aren't optimal in these cases due to inherent delays in the round trip to centralized services.
- **Regulatory Requirements:** With emerging data privacy regulations like GDPR and CCPA, there's a strong focus on the way companies handle personal data. Finding more secure and private means of storing and transmitting data means embracing the need for localized data centers.

When you're faced with these kinds of challenges, it's time to deploy micro data centers at the edge. And with EcoStruxure Micro Data Center Solutions from APC, you can do just that.

Three Key Components of an EcoStruxure Micro Data Center

When it's time to replace an IT room with a micro data center that's capable of supporting any edge environment, the first step is understanding what you'll need to get the job done. EcoStruxure Micro Data Center solutions make it easy with three key components to design, deploy, and operate physical infrastructure at the edge.

- **Shock Packaging:** NetShelter SX and packaging system designed to safely integrate and transport up to 2000 lbs of IT equipment. This component makes rack and stack easy with pre-integrated server solutions that enable fast, risk-free deployments.

- **Smart-UPS Lithium-Ion:** The classic Smart-UPSTM designed specifically for the edge with double the battery life and up to 50% lower TCO. This UPS is all about performance, utilizing leading battery cell technology to ensure edge data centers remain reliably connected.
- **Security and Environmental Monitoring:** Advanced security is an essential piece of any edge environment. Physical threat monitoring solutions consist of rack mount and wall mount appliances designed to provide a wide range of integrated environmental monitoring and surveillance for sensitive equipment.

Conclusion

Micro data centers are configurable, secure, self-contained enclosures with the capability for all essential IT components, often employing converged or hyperconverged infrastructure, along with management and monitoring software devices. They contain all required supporting racks, UPSs, power, and cooling.

But to get the most out of an EcoStruxure Micro Data Center, you need to ensure you're deploying the perfect solution for your specific edge environment. Choose an expert that can help.

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Howard Technology Solution brings to market cutting-edge technology that is high quality, reliable, and affordable. From our own Howard manufactured products, such as desktops, notebooks, servers, kiosks, and medical carts to partner products from other leading technology innovators, such as Lenovo, HP, and Microsoft, you can be sure when you buy from Howard that you are getting the most for your technology dollars. Howard Technology Solutions' mission is to provide an affordable, top-quality product that exceeds your expectations, and our highly trained team of network professionals can provide you with installation, procurement, consulting and many other services to meet your needs.

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