



# Lumen<sup>®</sup> Edge Computing Solutions

Accelerate the data lifecycle, boost app performance and help drive revenue growth with low-latency, distributed compute.



## **Turbocharge your data engine**

You excel at being connected—to your customers, employees, suppliers and partners. This connectivity helps you become increasingly data-driven. And data enables you to deliver innovative products and services, driving revenue growth and enhancing customer satisfaction. But to harness the power of your data you must become proficient in acquiring data from all sources, analyzing it for actionable insights and acting on it to help improve your business.

Edge computing can help by bringing computation and storage closer to the devices that generate data, empowering you to obtain real-time market insights quickly and efficiently from more sources—and to use that knowledge to differentiate your enterprise. How quickly you can acquire, analyze and act on these insights to transform operations, products and customer experiences will define your differentiation.

## **Solutions that move your data and compute closer to the action**

Moving workloads to where digital interactions occur can help improve user experiences, increase application performance, lower costs and minimize risk. Edge computing empowers organizations to achieve these outcomes by supplying the capability to store data efficiently, secure the environment and deliver applications that meet your IT and operational requirements.

Delivered over the largest ultra-low-loss fiber network in North America in high-performance, secure edge compute facilities, the Lumen Edge Computing platform combines edge cloud and IT agility capabilities for exceptional application experiences. By leveraging our solutions as an extension of your premises, you can also minimize your IT footprint and optimize your real estate and energy costs.

## **Storage**

Operational data used to generate actionable insights shouldn't go to waste. Avoid missing out on opportunities to improve products and services by building a data "base camp" in the network where you can store valuable data created from remote digital interactions to support more effective on-demand, data-based actions. Storage as-a-service has the power to ingest and reduce data, make smart decisions about how and where to move data, and send simultaneous copies to multiple locations.

Lumen® Storage Solutions for the edge include Network Storage and Layer-2 Ethernet connectivity enhanced by Data Access Accelerator and Layer-3 IP-VPN, providing enterprise-grade storage for any IoT use case that produces significant amounts of data. Our solutions are especially useful in situations where data is not being consistently acquired, such as offloading connected-vehicle data, sensor readings, video capture, maintenance telemetry, large data sets and healthcare monitoring.

Driven by the need for organizations to maintain consistent, predictable performance within an optimal cost structure, our storage solutions offer flexibility and reliability. Once your data is stored in the network, you can leverage it to create business value while reducing your storage footprint.

## Security

Technology is revolutionizing our world—not for its own sake, but for the experiences it enables us to create. But as applications become more distributed and move toward the edge of the network where they are consumed, security needs to be an inherent part of these experiences that is:

- delivered as a distributed, virtualized and dynamically scaled capability rather than an appliance in a private data center
- orchestrated and automated as an ingredient of application workloads you leverage to modernize your business
- essential protection from the exponential growth in security attacks—including extortion—as you evolve and grow your business

With our robust Web Application Firewalls (WAF), Bot Management and API Protection service, as well as one of the largest distributed denial of service (DDoS) deployments in the world, Lumen® Security Solutions for the edge are seamless, built-in, automated and informed by high-fidelity threat intelligence to help protect and accelerate application experiences for you and your end users.

## Application Delivery

Running high-bandwidth applications and workloads at global scale is challenging. To boost application performance and efficiency, your enterprise needs a solution designed for edge facilities using content delivery network (CDN) technology, software-defined networking (SD-WAN) and a cloud foundation with secure, private connections.

Lumen® Application Delivery Solutions for the edge combine our CDN, CDN Edge Compute, Edge Hosting Environment, Private Cloud and Dynamic Connections products with our strength in managed services. This helps optimize application performance for uses such as IoT software updates, video streaming and analytics, online gaming, location-based analytics and branch transformation across retail, financial and consumer segments, respectively.

By localizing traffic delivered at the edge, you can run delay-sensitive applications and workloads (e.g. IoT, trading/financial, utilities/water, manufacturing) and other apps that require instantaneous acknowledgement between control and feedback—helping to improve business outcomes and user experiences.

## Intelligent Solutions

Processing data efficiently for asset or interaction-intensive industries requires increased application and workload availability. Lumen® Intelligent Solutions help businesses boost efficiency by providing an environment on-premises and at the metro-edge locations closest to where digital interactions occur.

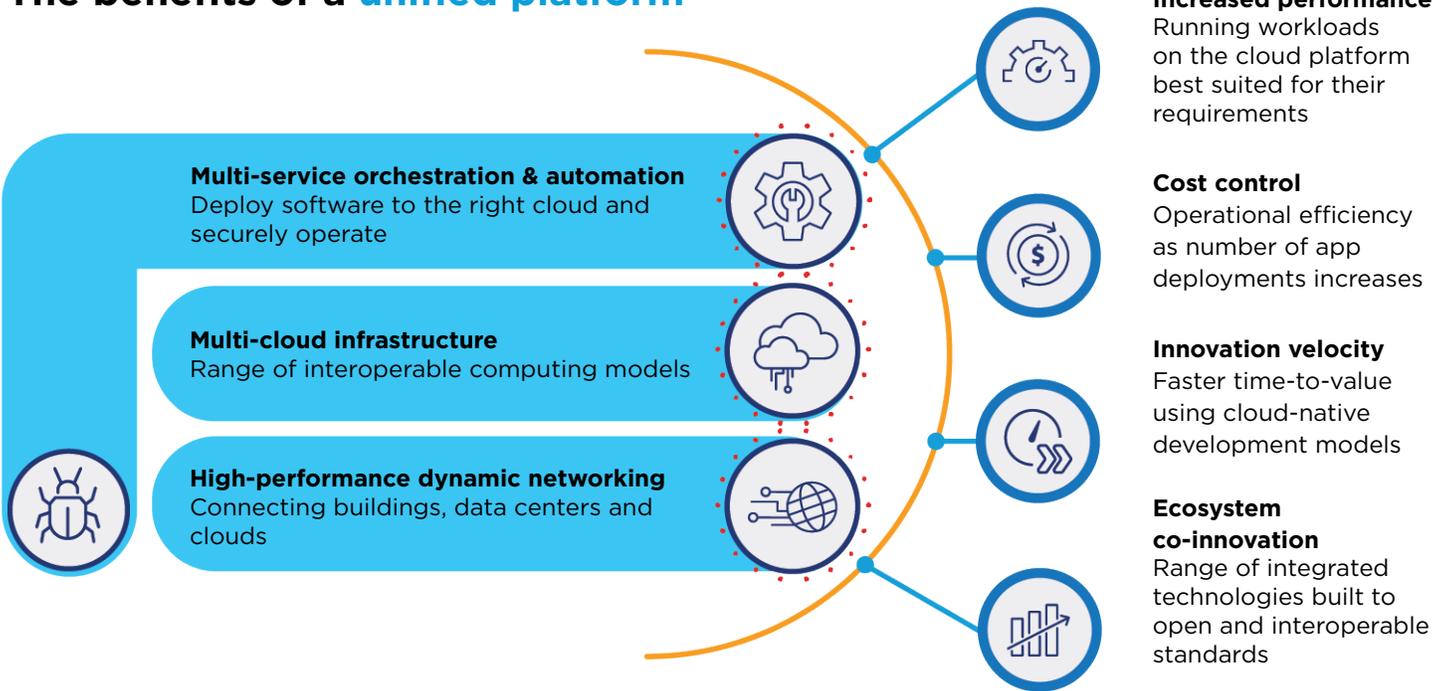
With these solutions you can tackle latency, economic, regulatory and autonomy challenges for use cases such as inventory management, connected factories and robotics for smart manufacturing flow controls. Our edge hosting environment is backed by our global network and strengthened by our expertise in managed services, enabling you to optimize data acquisition and analysis.

## Designed for digital interactions

Specifically designed for edge compute use cases, flexible and adaptable Lumen® Edge Computing Solutions help solve the challenges of moving workloads closer to digital interactions—delivering powerful experiences, boosting performance and outcomes, and helping your organization evolve.

Lumen offers the infrastructure choices and services you need on a platform that enables and supports agile application development while allowing your enterprise to address initiatives such as governance, security and economic efficiencies.

## The benefits of a unified platform



## Power innovation on the fastest, most secure platform for apps and data

What sets us apart from other providers is our combination of network strength, data center footprint and extensive managed services experience in operating and integrating hybrid environments—enabling us to bridge clouds, IT infrastructure and the edge for low-latency, high-capacity, secure workloads and applications.

Our ability to deliver compute on customer premises with near-zero latency or within our deep metro facilities designed for 5ms of latency or better provides you with the infrastructure to acquire data from more sources, analyze patterns in real time and act upon business logic closer to digital interactions—whether you're coordinating robotics and control systems or analyzing data with AI and machine learning. We accomplish this by offering a portfolio of solutions designed to support next-gen applications—and through our robust data center and cloud industry partnerships, we enable innovations not possible with traditional IT infrastructures.

Visit Lumen today at [lumen.com/edge](https://lumen.com/edge) for more information or contact a Lumen expert at [lumen.com/en-us/contact-us](https://lumen.com/en-us/contact-us) to explore how to get started at the edge.