

Use Case

Modernize network infrastructure with Lumen® Edge Computing

Lumen Edge Computing enables organizations to analyze and act on data in real time, closer to where it's created. This drives fast decisions, exceptional customer experiences, and enhanced productivity—while supporting security, compliance, and cost efficiency

Challenges

Modernizing infrastructure for next-generation applications isn't easy. As organizations move workloads closer to where data is created, they face critical challenges that impact security, cost, performance, and operational efficiency. Addressing these challenges is essential to unlock the full potential of edge computing and deliver the speed, agility, and resilience businesses need.

- **Cybersecurity risks at the edge:** Edge deployments expand the attack surface and regulatory complexity. Built-in security and governance are essential to protect data and meet compliance requirements across distributed sites.
- **Escalating costs when scaling infrastructure:** Scaling infrastructure without ballooning IT resources or support costs is a major challenge. Edge solutions must deliver cost efficiency, simplified support, and predictable pricing.
- **Latency slowing next-gen applications:** Centralized architectures can't meet real-time demands for next-gen applications like IoT, robotics, and analytics. Delays impact performance and user experience, making low-latency edge compute critical.
- **Operational complexity across multiple sites:** Rapid growth and distributed locations make scaling edge infrastructure complex. Integrating multiple systems and ensuring disaster recovery and 24/7 uptime require advanced orchestration and disaster recovery to keep operations running smoothly.

Key edge applications

- Real-time data analysis at the point of interaction.
- Local processing for fast response and low latency.
- Continuous operations even during network disruptions and outages.
- Quick backup and recovery for critical systems.



Cross-industry impact

Lumen® Edge support critical use cases across key industries

Finance

Secure, low-latency settlement and compliance support for transactions.

Manufacturing

Real-time control and scalable infrastructure for automation.

Tech

High-performance, distributed compute for app development and deployment.

Healthcare

Streamlined IT, compliance support, and enhanced patient experiences.

Retail

Real-time inventory, personalized experiences, and fraud prevention.

Public Sector

Scalable, resilient infrastructure for research and public safety.

Solution

Modernize your network with edge computing to deliver real-time experiences, streamline operations, and strengthen security right where data is created.

Minimize latency and maximize responsiveness

Process and analyze data at the edge to enable real-time decisions, support applications and drive exceptional user experiences..

Simplify management across locations

Centralize control and automate orchestration for hundreds of distributed sites. Rapidly deploy, update, and manage applications and infrastructure with minimal manual effort, to help reduce operational complexity.

Strengthen security and compliance

Keep sensitive data local to help meet regulatory requirements and minimize risk. Apply consistent security policies across all edge environments and leverage built-in threat detection and automated backups for enhanced protection.

Optimize costs and resource efficiency

Address cloud backhaul and bandwidth usage by filtering and processing data locally. Scale infrastructure efficiently to support new digital services and applications—to help optimize total cost of ownership.



Results

Organizations using Lumen Edge Computing can drive meaningful enhancements in areas such as performance, cost efficiency, security, and resiliency—to help support positive experiences and strong business continuity.

Fast performance

Lumen delivers flexible edge computing solutions supporting digital business interactions through 60 edge facilities designed for less than 5 milliseconds of latency. This enables applications to respond in near real time, to help boost productivity and customer satisfaction.

Optimize costs

By optimizing cloud backhaul and bandwidth, Lumen Edge Computing deployments are designed to help organizations drive cost reductions.

Proactive Threat Protection

Lumen solutions deliver enterprise-grade protection tracking over 2.3 million threats per day and immutable backups for ransomware recovery, to help organizations support their regulatory requirements and minimize risk.

Strong resiliency

Lumen Edge Computing helps drive productivity gains and enhance customer experience by bringing data processing closer to the source of digital interaction.

Modernize with Lumen Edge Computing

Discover how Lumen Edge Computing can help support your digital transformation goals. Our solutions are designed to maximize responsiveness, enhance security, and optimize costs—to help you meet evolving business needs.

Learn more: [Edge Computing](#) | [Storage Solutions](#) | [Lumen](#)

Why Lumen?

Lumen is a leader in the technology needed to build a future-ready, optimized edge. Our edge cloud infrastructure is a fully integrated stack of compute, cloud, storage, networking, cybersecurity and orchestration that makes it easy to scale up resources to the capacity, bandwidth, latency, processing power and number of locations you need, so you can unleash your organization's digital potential.

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