

Power new data-driven operational efficiencies at the energy edge



Edge computing is reshaping how energy companies can maximize resources while reducing risk and environmental impact.

▶ Watch video

Oil, gas, and mining organizations are leveraging edge computing to process huge volumes of data with millisecond latency.

By monitoring critical systems and remote assets in real-time via IIoT (Industrial Internet of Things), energy suppliers can create new efficiencies to optimize processes or minimize downtime.

Edge solutions can also help to increase responsiveness to emergencies and proactively enforce safeguarding procedures in potentially hazardous environments.

Powered by progress

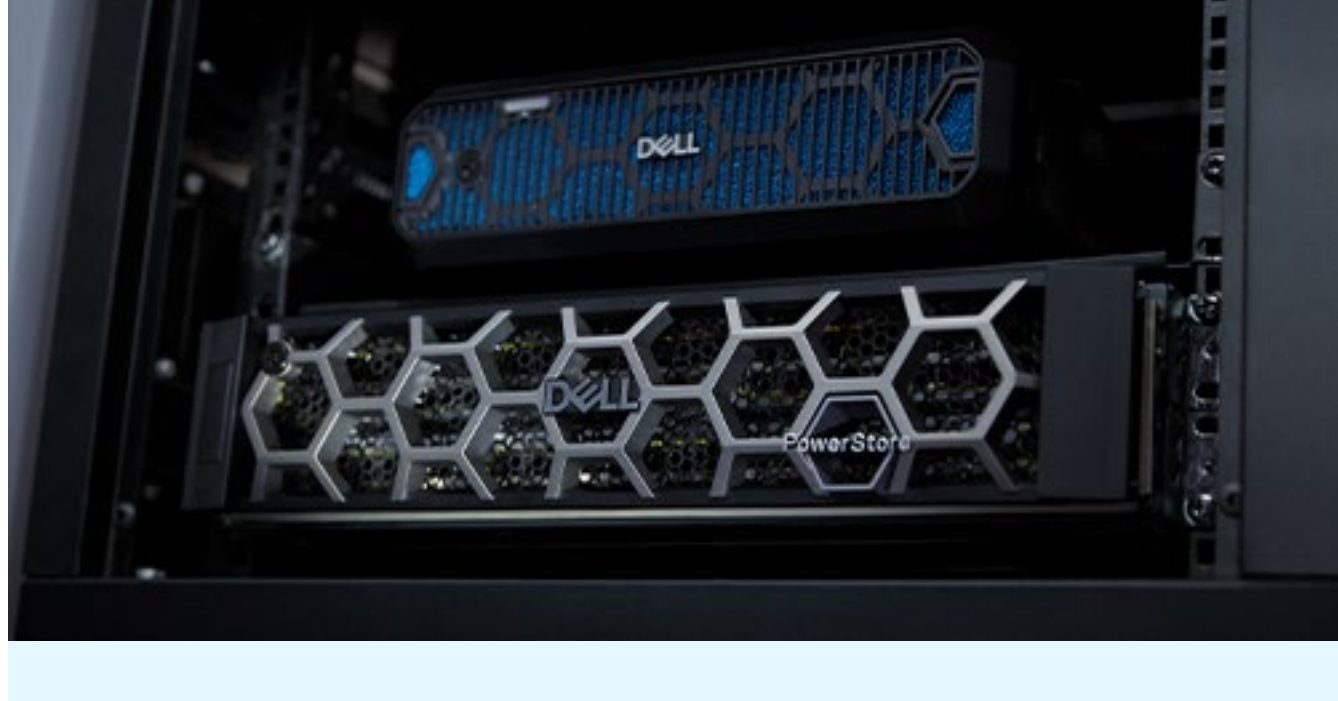
84%

of respondents said they deploy new applications or application updates to their edge locations at least monthly¹.

79%

of business leaders say the edge is central to their IT strategy and is already unlocking innovation across their organization².

Energy suppliers face industry-heightened edge challenges



97%

of energy decision makers said ruggedized infrastructure (e.g., servers) and enclosures for their edge computing environment are important or very important, vs. 90% average response across all verticals³.



90%

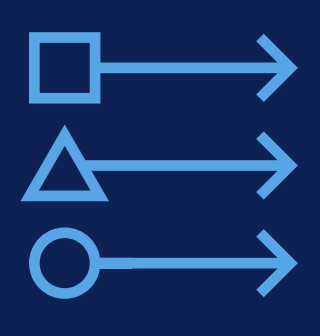
of business leaders in energy agree or strongly agree that an outage to edge infrastructure would likely negatively impact revenue, as opposed to 82% agree or strongly agree on average across all verticals⁴.



91%

of mining/oil/gas decision makers agree or strongly agree that collaboration between IT and OT teams can be complex at edge environments vs. average of 83% across all verticals⁵.

Barriers to deploying an efficient, resilient edge



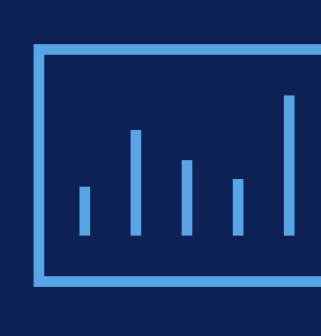
Ineffective management of parallel/inconsistent infrastructure across edge and cloud locations



High infrastructure costs (e.g., network and compute)



Lack of cloud-native tools and processes for continuous integration and deployment of applications



Inadequate data processing tools for the variety of data-generating sensors at the edge



Difficulty finding appropriate hardware that fits remote location constraints (e.g., space, ruggedization, capacity, etc.)

Energizing a new era with edge-based solutions

The ability to integrate emerging edge technologies is shaping a new era of energy production. From AI and machine learning to computer vision, energy suppliers are utilizing new methods to optimize output and reduce human intervention.

Facility and employee safety

Leverage computer vision to manage robotics in hazardous environments

Monitor worker safety in real-time and swiftly escalate concerns when required

Support mission-critical communications above and below ground

Increase efficiencies

Extract maximum value from data using edge infrastructures

Analyze and monitor real-time energy usage

Optimize AI-powered performance of systems and devices

The future of energy production

Integrate innovative new technologies

Scale multi-workload platforms

Rapidly deploy to remote locations

Robust security and resiliency

Automatically discover and protect devices and communications

Intelligently detect and respond across OT and IT networks

Maintain availability through ruggedized infrastructures and enclosures

Dell Technologies, together with Intel, powers digital transformation for energy suppliers.

With edge deployments reshaping the future of energy production, suppliers must include them within their business and technology strategies. Those willing to integrate emerging edge technologies today will find themselves at the forefront of the energy sector going forward.

Brighten your future at the edge.

Discover why Dell Technologies, together with Intel, are best positioned to be your partners at the edge.

Learn more at Dell.com/EnergyEdge

¹ Q27 - ESG Research Edge Use Cases in the Enterprise
² The Innovation Index, Dell Technologies, February 2023
³ Q16 - ESG Research Edge Use Cases in the Enterprise
⁴ Q20 - ESG Research Edge Use Cases in the Enterprise
⁵ Q20 - ESG Research Edge Use Cases in the Enterprise