



Optimising Mining Operations

Mission Critical Edge Computing for the Mining Industry

SOLUTION BRIEF



Mission Critical Edge Computing for Mining Operations

Mission critical Edge Computing revolutionises the way mining companies operate by allowing for real-time monitoring and control of mining processes. The technology collects data from various sources and analyzes it at the edge, allowing for immediate decision making. This enhances efficiency, reduces downtime, and improves safety in areas such as ore extraction, processing, and transportation. The implementation of mission critical Edge Computing results in optimized operations, cost savings, and a competitive advantage for mining companies.

Overcoming Challenges

- Remote & harsh environment
- Connectivity
- Downtime and data loss
- Security
- Integration
- Maintenance and upgrades
- 24/7 availability

Benefits of Mission Critical Edge Computing

Improved operational efficiency

By automating and streamlining processes, mission critical computing helps reduce downtime and improve the overall efficiency of operations.

Improved reliability and availability

Processing data closer to the source reduces the risk of network failures and delays, increasing the reliability and availability of mining operations.

Enhanced data management

With real-time data processing and analytics, mission critical Edge Computing provides a centralised platform for managing and analysing large amounts of data from various sources.

Increased safety

By providing real-time monitoring and control of critical processes, mission critical Edge Computing helps reduce the risk of accidents and improve safety in mining operations.

Better decision making

With access to real-time data and analytics, decision-makers in the mining industry are better equipped to make informed decisions that drive business growth and optimise operations.

Increased competitiveness

By improving operational efficiency, reducing downtime, and making better use of data, mission critical Edge Computing helps mining companies to remain competitive in an ever-changing industry.



Protecting critical operations at the edge, where speed and efficiency meet.



Use Cases for Edge Computing

Automated equipment monitoring: Monitoring the performance of mining equipment in real-time to detect potential issues and schedule maintenance accordingly.

Mine safety monitoring: Real-time monitoring of key safety parameters, such as air quality and ground stability, to improve worker safety and reduce the risk of accidents.

Ore processing optimisation: Analysing real-time data from ore processing operations to improve efficiency and reduce downtime.

Fleet management: Monitoring and managing mining vehicles and equipment in real-time to optimise their use and reduce maintenance costs.

Predictive maintenance: Using real-time data to predict when equipment is likely to fail, reducing downtime and improving efficiency.

Environmental monitoring: Monitoring environmental parameters, such as air and water quality, to ensure compliance with regulations and minimise environmental impact.

Resource tracking: Real-time tracking of resources such as fuel, water, and chemicals to optimise their use and reduce waste.

Stockpile management: Monitoring and managing stockpile levels to optimise the movement and processing of ore.

Not all Mission Critical Computing Platforms are Equal!

Our secure, rugged, highly automated computing solution delivers redundant virtualised industrial applications quickly and easily, improving productivity and reducing risk.

- Integrated virtualisation and availability
- Redundant server design
- Automated protection and recovery
- Industrial interoperability
- OT maintainability
- Health monitoring and fully managed support



About Stratus

Stratus ensures the continuous availability of business-critical applications for the most demanding environments. For over 40 years, we have provided reliable and redundant zero-touch computing, enabling organisations to turn data securely and remotely into actionable intelligence at the Edge, cloud, and data center – driving uptime and efficiency.

Our Service offering:

- System design and sizing
- Proof of Concept and Testing
- Full solution stack deployment
- Site Commissioning
- Education and certifications
- Fully managed services

Expand your knowledge.
Talk to us today!

www.stratus.com

