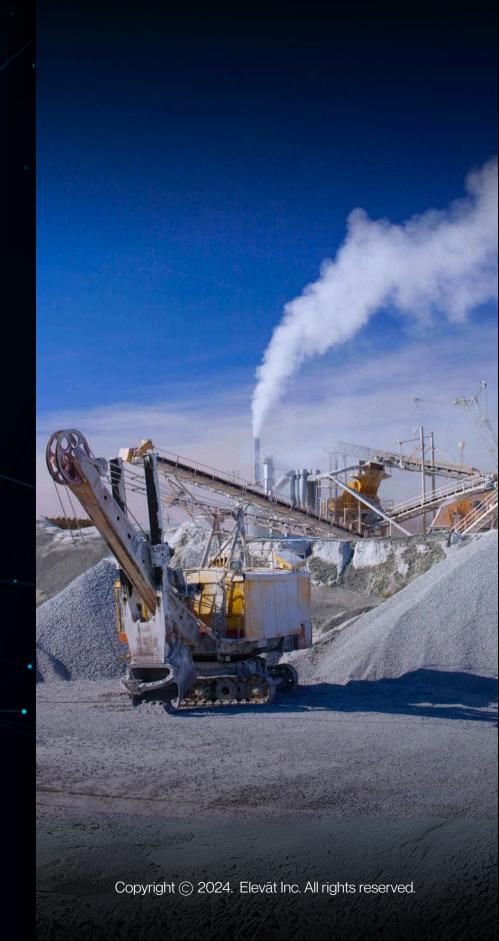


CASE STUDY

IoT Solution for Mining:

Dig Deeper, Operate Smarter



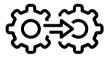


## **Exploring Challenges in the Mining Industry**

A leading mining equipment manufacturer faced significant **challenges in maintaining equipment uptime and operational efficiency.** The company needed to ensure seamless coordination of mining operations, continuously monitor vehicle health, implement predictive maintenance, and manage the integration of new electric propulsion systems. These challenges led to frequent equipment downtime, reduced productivity, and increased operational costs. Recognizing these issues, the manufacturer partnered with Elevāt to transform their IoT strategy and achieve their business goals.

# **Key Transformation Objectives**

Elevat partnered with the manufacturer to achieve a set of objectives aimed at transforming their business operations:



**Improve Operational Coordination:** Ensure seamless coordination of mining operations to prevent costly downtime.



**Vehicle Health Monitoring:** Continuously monitor the health of vehicles to detect and address issues before they lead to failures.



**Predictive Service for Engines:** Implement predictive maintenance practices to anticipate and resolve engine issues proactively.



**Integration of Electric Propulsion Systems:** Manage the transition to and maintenance of new electric propulsion systems in mining vehicles.





## **Elevāt IoT Implementation**

Elevāt partnered with the manufacturer to deploy a fully branded IoT solution that addressed their unique business challenges:

#### **Needs Assessment and Planning:**

 Conducted a thorough analysis of the manufacturer's operational challenges and identified business-critical needs for real-time monitoring, data integration, and proactive maintenance practices.

#### **Building a Custom IoT Solution:**

- Custom Data Integration for Vehicle Management: Tailored integration of vehicle data into a centralized management system, allowing for comprehensive monitoring.
- Unique Signal Collections for Critical System Health: Collection and analysis of unique signals based on historical events to provide critical insights into system health.
- Virtual Technician for Software Management: Manages software releases and updates for high-value equipment, ensuring systems remain up-to-date and effective.

## **Deploying the Custom Solution:**

- Deployed robust telematics hardware across the mining equipment fleet, ensuring reliability under harsh mining conditions.
- Provided reliable cellular and satellite connectivity options for seamless data transmission and real-time machine monitoring.
- o Offered flexible data plans to optimize cost-efficiency without compromising data quality.

# Optimization:

- Ensured platform scalability to support future technological advancements and integration with site management systems.
- Provided continuous updates and improvements based on stakeholder feedback to sustain feature enhancements and maintain key technology segments.
- Enhanced security measures to ensure industry compliance.

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## **Elevāt IoT Implementation**

The implementation of Elevāt's IoT solutions brought substantial improvements to the manufacturer's operations. Elevāt's custom IoT solution significantly enhanced machine readiness, improved operational efficiency, and ensured higher equipment uptime. The proactive maintenance capabilities and real-time performance monitoring provided by **Elevāt's solutions enabled the manufacturer to overcome their operational challenges, resulting in enhanced productivity, reduced costs, and greater customer satisfaction.** 

Discover how Elevāt's IoT solutions can transform your business. Contact us today to learn about our IoT solutions and how we can help you achieve your operational goals.



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### **Elevāt Web Application - Subsystem Monitoring**

