

HEXAWARE

A Global Mining Major Reduces OpEx by ~1.3 Million Per Annum

Mining Business Value with Digital Transformation

Case study



Client

- | Client
- Challenge
- Solution
- Benefits
- Summary

The client is a leading international mining company headquartered in the US. It is one of the world’s largest publicly traded copper producers and operates large, long-lived, geographically diverse assets with significant proven and probable reserves of copper, gold, and molybdenum.



Challenge

Client

Challenge

Solution

Benefits

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A pioneer in technology adoption for the mining industry, the client continually strived for operational excellence aligned seamlessly with its core priority of employee safety and health. They were looking for the right technology partner who could help accelerate their digital transformation journey.

A critical enabler in the mining industry is haul trucks and the centralized systems that manage their operations. Vehicle automation using intelligent systems can be a game changer for mining companies to ensure they are future-ready. The client's haul trucks were one of the most expensive assets. Hence, there was a pressing need to ensure optimum operations and high safety.

The client wanted to:

- Facilitate efficient, real-time responses with accurate information to enhance operating behavior.
- Ensure adherence to Safe Operating Practices (SOPs) and correct techniques to reduce operational near-misses and accidents.
- Enable quicker disaster recovery, higher efficiency, better analytics, real-time updates, and comprehensive risk mitigation.
- Optimize haul truck utilization and maintenance aligned with their goals, surpassing OEM measures for consistent throughput and cost efficiency.
- Ensure compliance with regulations to encourage safe driving practices, minimize load instability, and enhance efficient brake operations.



Solution

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Hexaware assessed the client’s needs, analyzed the causes, and defined the blueprint for a fail-safe solution. We developed a roadmap focused on risk management tied to safety and sustainability by augmenting the miners’ capabilities with sensors and memory extensions through intelligent technology.

We leveraged Amaze® for migration, our state-of-the-art IP that enables rapid transformation and deployment of data and analytics ecosystems on leading cloud platforms. The journey encompassed the following milestones:

- Migration of applications for monitoring/controlling mining operations, including SOP violations to Snowflake
- Replacement of their dated Teradata data warehouse running on-premises with Snowflake on the Cloud
- Enabling in-depth and swift analysis of data from the sensors onboard the haul trucks for optimized truck operations

The solution offered advanced data analysis within 30 seconds from approximately 600 trucks, each truck armed with 200 sensors, across 30 global sites. The strategic approach and technology-enabled innovation with real-time analytics and reporting for quicker decision-making helped our client gain optimal operational efficiency with enhanced collaboration. They scaled their productivity goals and could reap the benefits of improved safety, healthy performance, smart systems, reduced costs, and safer haulage operations with reduced SOP violations and a marked decrease in Total Recordable Incident Rate (TRIR) counts.

The Haul Truck monitoring and controlling application’s scorecard won the **NIOSH 2020 Mine Safety and Health Technology Innovation Award.**



Benefits

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The digital leapfrogging helped the client drive a positive impact on all growth parameters across the mining value chain. The tangible benefits included:

~1.3 million
OpEx reduction per annum

50%
+decrease in violation counts with
efficiency improvements

3X
improvement in data
load times for analytics

33.33%
improvement in Extract, Transform,
and Load (ETL) data load efficiency

4X
improvement of report execution
time for business objects



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The client’s digital transformation journey aimed at growth, resilience, and safety enabled the client to mine exponential business value. It helped them reinvent process efficiencies and fulfill their objectives of safe, sustainable operations across the production systems, the workforce, and the supply chain. The Hexaware approach of utilizing technology innovation, automation, data science, and an analytics-driven approach ticked all the right boxes in their journey to becoming a truly connected enterprise of tomorrow.



About Hexaware

Hexaware is a global technology and business process services company. Our 27,000 Hexawarians wake up every day with a singular purpose; to create smiles through great people and technology. With this purpose gaining momentum, we are well on our way to realizing our vision of being the most loved digital transformation partner in the world. We also seek to protect the planet and build a better tomorrow for our customers, employees, partners, investors, and the communities in which we operate.

With 40+ offices in 19 countries, we empower enterprises worldwide to realize digital transformation at scale and speed by partnering with them to build, transform, run, and optimize their technology and business processes.

Learn more about Hexaware at www.hexaware.com.

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