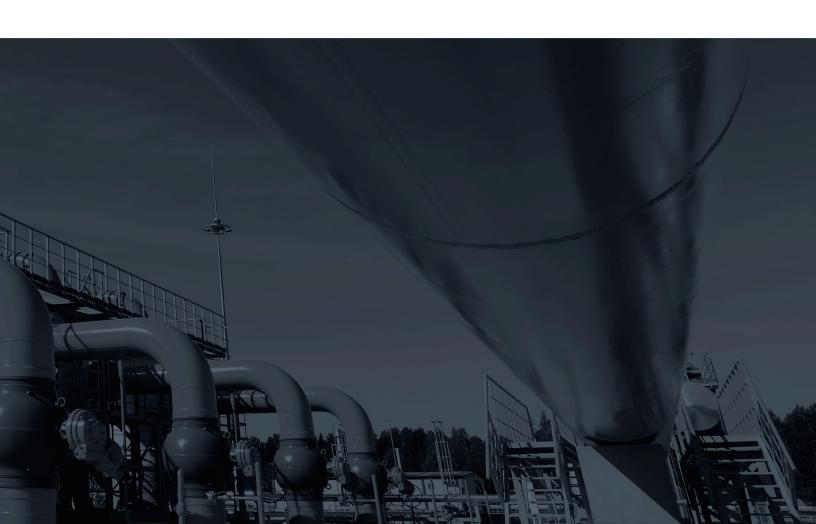# DIGITAL TRANSFORMATION
CASE STUDY

HOW CAPSPIRE HELPED A MINER OF PRECIOUS METALS NAVIGATE A DIGITAL TRANSFORMATION FROM START TO FINISH TO ACHIEVE IMPROVED PROCESSES AND SCALABLE ANALYTICS CAPABILITIES

01   THE ASSIGNMENT

One of Canada's largest mining companies selected capSpire to conduct an assessment, develop a roadmap, and implement a multi-phase digital transformation.

02   THE GOAL

- Streamline and automate many processes within the company.
- Improve operational insight and business decision making.

03   THE PROBLEM

Many of the company's manual business processes were cumbersome, time consuming, and prone to errors and data duplication. The company lacked the means to effectively manage their troves of data and turn this information into actionable insights through sophisticated analytics. Rather than investing further in limited and costly-to-upgrade on-premise infrastructure, the company needed a scalable cloud solution for its analytics and digital efforts.

04 THE SOLUTION

The work that capSpire performed for the client covered these major areas:

MILLING ANALYTICS

Engineers at the company's milling plants needed the capability to perform scenario analysis on extremely large-scale machine data. The purpose of this analysis is to find equipment settings that optimize the desired output. capSpire developed an analytics portal built on top of a large-scale data lake that enables the client's engineers to model the impact of different settings across the various equipment. This portal provides a central place in which to define the settings of the model, kick off analysis, and review the results.

BLOCK MODEL QA/QC AND NSR ANALYSIS

Performing QA/QC on a block model output requires a large amount of data crunching and computational power. The existing process using traditional database tools was slow for larger block models. The solution that capSpire implemented involves a highly scalable cloud data lake that drastically improved the analytics speed and capabilities. In addition, the same data was used to enable the users to easily set up and run dozens of net smelter return (NSR) scenarios in real-time. With these changes, processes that would normally take several days now have results ready for analysis within hours.

GOLD & SILVER INVENTORY MARKETING MANAGEMENT

A core function of the client's business is marketing its core products of precious metals. The process involves a complicated set of steps that start in the refineries and end with clients purchasing the gold and silver bars. Prior to capSpire, the marketing department used massive Excel spreadsheets to track their inventory and shipments. capSpire deployed our own transaction-life-cycle-management system--Gravitate. This system has introduced consistency and transparency into the client's operations by standardizing business processes across mines and providing data that is auditable and secure. It has also eliminated hours of manual work and has optimized the exchange process with third parties.

MAINTENANCE ANALYTICS

capSpire built sophisticated analytics to allow the client to tag its maintenance tickets according to common parts and procedures. The application consolidated the data across the company's various sites, which enables cross-site view of the maintenance processes. This allowed the users to analyze maintenance trends and common breakdowns in order to understand root cause and reduce downtime.

05 THE BENEFITS

+ Ability to handle higher volumes of data and leverage faster, more sophisticated analytics capabilities—and scale without the need to invest in fixed infrastructure

+ Process automation, which eliminated manual effort and saved time

+ Reduction of potential for errors

+ Better pricing on the gold and silver exchange

+ Optimized returns

WANT TO LEARN MORE? ASK FOR A DEMO.

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