



Digging Deep for Data Protection: How Freeport McMoRan Struck Gold with Rubrik

Fortifying Global Mining Operations with Immutable Data Protection and Rapid Recovery



PRODUCTS

- Rubrik Security Cloud
- Active Directory Backups
- Anomaly Detection
- Threat Hunting
- Sensitive Data Monitoring
- Enterprise Data Protection
- Cloud Data Protection

CHALLENGES

- Seven fragmented legacy backup solutions
- Complex immutability hindering recovery during cyber attack
- Limited malware threat visibility, making a global unified view challenging
- Protection of regulated and sensitive data globally

RESULTS

- Consolidated seven legacy tools into a single pane of glass
- Unified cyber resilience platform – with immutable backup, anomaly detection, and threat hunting– accelerates recovery on-prem and in the cloud
- Visibility and control over 3.8 PB of data across 23 sites and five edge locations globally
- Reduced RTOs from days/weeks down to hours, and can pinpoint the initial point of infection and confidently restore data to a clean recovery point
- Automatic detection and classification (built-in and custom) of regulated and sensitive data helps mitigate data exposure and exfiltration risks

Freeport-McMoRan Inc. (Freeport) is a leading international metals company with the objective of being foremost in copper. Headquartered in Phoenix, Arizona, Freeport operates large, long-lived, geographically diverse assets in challenging environments, from deserts to jungles, across the globe. To remain a leader in an ever-evolving industry, Freeport prioritizes innovation, blending traditional mining practices with cutting-edge technology to create value for its shareholders.

Chuck Searle, Freeport's former Director of Enterprise Architecture, highlights this duality: "We naturally go where the copper reserves are. But what sets us apart is our focus on embracing change – we are always looking to elevate old processes with cutting-edge technology."

While core operational systems at the mines run on-premises for safety and reliability, the company has rapidly adopted cloud services like Microsoft Azure to accelerate innovation. Data science workloads analyzing IoT sensor data help optimize everything from equipment utilization to mineral recovery rates. Searle's team supports a sprawling hybrid environment spanning on-prem Nutanix and VMware infrastructure as well as cloud workloads on Azure and AWS. This hybrid approach ensures that Freeport can leverage the best of both worlds – the stability of on-premises systems and the flexibility and speed of the cloud.

Protecting this globally distributed, heterogeneous estate was an escalating challenge. "We needed a global, consistent data security solution across all those environments," Searle explained. "Previously, we used seven different point products. Getting a unified view of backup status and restoring data was a challenge. The complexity of managing multiple backups consumed valuable IT resources."

THE CYBER THREAT THAT STRUCK AT THE CORE

That fragmented backup architecture was put to the ultimate test when Freeport experienced a cyber incident. In August 2023, ransomware operators encrypted business systems residing on cloud IAAS and on-prem Nutanix HCI infrastructure. The ransomware attack without Rubrik was a lesson for Freeport, highlighting the challenges in their existing legacy backup and recovery processes. Searle stated, "Not having a unified playbook and set of tools complicated our data recovery during the crisis. Recovery required extensive institutional knowledge of the complex environment unlike Rubrik's unified cyber resilience platform, which simplifies recovery across systems with uniformity and speed."

Searle described the incident as a “learning experience’. Two primary issues hindered Freeport’s recovery response: the complexity of immutable backups in legacy backup tools and weaknesses in recovery of identity management services.

“They went after Active Directory and Azure AD,” Searle continued. “We didn’t appreciate how quickly threat actors could move laterally. Regaining control required rebuilding and re-securing core identity services. This experience was a stark reality check for us and underscored the critical importance of having reliable data security measures in place to protect against sophisticated cyber threats.”

SECURING THE FOUNDATION OF ENTERPRISE IDENTITY

“After experiencing a critical incident targeting our Active Directory (AD) infrastructure, we’ve learned firsthand that AD isn’t just another element of the IT environment—it’s the backbone of enterprise identity and security. Without rapid and reliable AD recovery, our entire global operation could come to a halt,” said Searle.

Given the importance of AD and all components for the ecosystem, including Entra, Entra Connect, and Infoblox, the Freeport team elevated protection of these identity platforms to a top strategic priority. Recognizing that any compromise or outage within this ecosystem would have severe global implications, Freeport chose Rubrik’s comprehensive approach to safeguard its critical identity infrastructure.

Rubrik provides unified, [immutable backups across all identity components](#)—simplifying management and enabling rapid, granular recovery of critical AD objects. “With Rubrik, we have confidence we can swiftly restore enterprise identity systems, securing sensitive identity data and ensuring continuous business operations, even under relentless cyber threats,” emphasized Searle.

THE PATH TO IMMUTABLE PROTECTION

Recognizing the need for an industrial-strength, enterprise cyber-resilient solution with immutability, Freeport turned to [Rubrik Security Cloud](#). Rubrik’s ability to protect all workloads consistently, whether on-premises or in the cloud, was critical. “With one tool, I can back up our Nutanix and VMware infrastructure, SQL and Oracle databases, Azure workloads, and more,” Searle notes. Rubrik was the unanimous choice. It was the strongest solution, combining hardened, immutable backup with software data security components seamlessly,” Searle said. “Our team was impressed by the completeness of a solution in one product.”

“Additionally, Rubrik’s [native cloud backup](#) capabilities allow us to efficiently replicate data offsite for disaster recovery. We needed a solution that could protect against an entire site being compromised,” Searle says. “With Rubrik, we get the best of both worlds. This ensures swift recovery in the event of a disaster, minimizing downtime and data loss.”

ACCELERATING MINING’S DIGITAL TRANSFORMATION

Today, Rubrik supports Freeport’s digital transformation across 3.8 petabytes of data at 23 production sites and five edge locations globally. Rubrik’s [Live Mount](#) and [cyber recovery](#) capabilities have radically accelerated Freeport’s recovery workstreams. “We can get files, databases, and entire systems restored in minutes rather than days or weeks,” Searle marvels. This quick recovery has significantly reduced downtime and improved operational efficiency, enabling Freeport to maintain business continuity and drive growth.

In addition to reliable backups, Rubrik has given us end-to-end cyber resilience capabilities. [Sensitive Data Monitoring](#) automatically discovers, classifies, and reports on sensitive data for aiding compliance with mining regulations, and [Anomaly Detection](#) identifies and analyzes suspicious deletions, modifications, and encryptions for rapid investigation and recovery,” Searle states. “[Threat Hunting](#) quickly analyzes the history of our backups for indicators of compromise to identify the initial point, scope, and time of infection to prevent malware reinfection. These security capabilities are our superpower.”

Rubrik’s cloud capabilities have also enhanced Freeport’s cyber posture. “Rubrik gives us the flexibility to handle daily recoveries, cyber incidents, and physical disasters, all with rapid RTOs,” Searle says. “Not to mention – the availability and expertise of Rubrik’s [Ransomware Response Team](#) provide additional comfort, ensuring comprehensive support during breaches.”

As mining operations advance with digital transformation, Freeport is well-positioned with a modern cyber resilience strategy. “Rubrik allows us to focus on our business rather than backup,” Searle concludes. “We can keep our mines operating while driving new value from emerging technologies.” With Rubrik, Freeport not only enhances its data protection capabilities but also leverages new technologies to drive innovation and growth, ensuring robust and resilient operations globally.

“After experiencing a critical incident targeting our Active Directory (AD) infrastructure, we’ve learned firsthand that AD isn’t just another element of the IT environment—it’s the backbone of enterprise identity and security. With Rubrik, we have confidence we can swiftly restore enterprise identity systems, securing sensitive identity data and ensuring continuous business operations, even under relentless cyber threats.”

– **Chuck Searle**,
Director of Enterprise Architecture, Freeport-McMoRan



Global HQ

3495 Deer Creek Road
Palo Alto, CA 94304
United States

1-844-4RUBRIK
inquiries@rubrik.com
www.rubrik.com

Rubrik (NYSE: RBRK) is on a mission to secure the world's data. With Zero Trust Data Security™, we help organizations achieve business resilience against cyberattacks, malicious insiders, and operational disruptions. Rubrik Security Cloud, powered by machine learning, secures data across enterprise, cloud, and SaaS applications. We help organizations uphold data integrity, deliver data availability that withstands adverse conditions, continuously monitor data risks and threats, and restore businesses with their data when infrastructure is attacked.

For more information please visit www.rubrik.com and follow [@rubrikinc](https://twitter.com/rubrikinc) on X (formerly Twitter) and [Rubrik](https://www.linkedin.com/company/rubrik) on LinkedIn. Rubrik is a registered trademark of Rubrik, Inc. All company names, product names, and other such names in this document are registered trademarks or trademarks of the relevant company.

cs-freeport-mcmoran / 20250606