Securing & Ensuring Fast Access to Critical Data at the Coal Face

Australia is the world's largest exporter of black coal, iron ore, alumina, lead, and zinc. With more than 233,000 employees, representing nearly 20% of the workforce, mining also contributes more than 6 percent to Australia's gross domestic product (GDP) with revenues projected to hit a record AU$400 billion in fiscal 2019/2020. That revenue growth will bring more than 20,000 employees into the mining workforce over the next four years.

Mining's Digital Transformation

Over the past decade mining companies have seen how new technologies can help them improve productivity and maintain their competitive advantage. Today, electrification of mining sites, Internet of Things (IoT) deployments, and automation has transformed mining operations, increasing efficiency, productivity, and safety.

One of the many challenges for most mining companies is that its personnel are typically third-party contractors, not employees. Nearly every one of these individuals, from field engineers to analysts, scientists to production managers, must be able to capture, backup, and quickly recover their data, no matter where they may be. Otherwise, operations are impacted, and productivity may stop.

Challenges from HQ to the Face

Ransomware attacks are on the rise because hackers see mining as a soft target with remote sites, a mobile workforce, and the vulnerabilities any business faces such as social engineering and phishing.

Then there are natural disasters like cyclones and fires. Finally, remote sites by their very nature can be difficult to secure. Today many operators rely on USB drives to store some data. They are notoriously unreliable, can be misplaced or lost, and are easily broken or corrupted.

While remote mining sites bring their own challenges to data security, even secure offices have vulnerabilities. Today data is critical for more than just operations. Compliance with health and safety and human resources documentation requirements means stored data must be available whenever needed.

All of these risks make data security a huge challenge for mining companies to overcome.

IT Pressure Points

IT professionals already have their hands full managing, storing, and securing their companies' data. Remote mining sites add more complexity to their jobs, while time and resources are usually limited by tight budgets. With mining already a labor-intensive business, the pressure to limit IT expenses means tech visits to remotes sites must be minimized.

With a mobile workforce it is also critical that mining IT teams can ensure that all of the company's data generated by mobile workers and at remote sites is backed-up and secured. With low to no bandwidth in some locations that becomes even more problematic.

Solving Mining's IT Headaches

Addressing all of these challenges can be overwhelming. This is where OneXafe scale-out object-based network-attached storage (NAS) can help.

OneXafe is the ideal solution for file server and backup data storage, including larger sets of unstructured data, from 3D surveys to designs and project documentation. OneXafe is also the optimal solution for mining companies with multiple or global offices that need data quickly for analytics and workflows.

Meeting a mining operation's ever-growing data needs is easy with OneXafe. That is important because projects can generate terabytes to petabytes of data over years of planning, construction, and operations, with huge drawing, design, survey, and other data files being constantly added and updated.

OneXafe can be deployed very quickly and is up and running in minutes. Its scale-out storage platform makes it simple to seamlessly add more drives, nodes, or clusters, without any configuration changes to the application. With built-in powerful data reduction technologies, including inline deduplication and compression, OneXafe cuts both storage and operational costs.

> " Securing remote sites is a big challenge for those of us in mining construction and maintenance and, while the cloud is a key part of our remote worker strategy, it's not efficient for major projects and remote sites that don't have the bandwidth to upload or download large amounts of data. We found StorageCraft OneXafe solved these problems by delivering simplicity and security both at our remote sites and in our offices. "

OneXafe

Simplified Operations, Powerful Data Protection and Recovery

Because OneXafe can also be deployed as converged storage solution, it allows IT professionals to manage and combine all storage and data protection requirements on a single, converged data platform. As a result, silos can be eliminated and workflows dramatically simplified. Once enabled, OneXafe's built-in enterprise-class data protection is easily configured.

The recent successful attack on logistics giant Toll Group, which forced the company to shut down some of its systems after ransomware made its way into its network, makes it clear just how critical it is to protect company data.

OneXafe protects data from cyber attacks with continuous data protection (CDP), taking frequent, space-optimized, immutable snapshots of the data that can't be altered or deleted, and can be easily restored. If disaster does strike and any data is compromised, onsite or remote, with OneXafe, mining companies can easily go back to the time of their choosing and instantly restore any compromised data from a snapshot. Snapshot frequency can be set to meet any company's recovery time objective (RTO) and recovery point objective (RPO).

StorageCraft ShadowXafe, which can be used together with OneXafe, protects both physical and virtual machines with image-based backups that can be taken as often as every fifteen minutes.
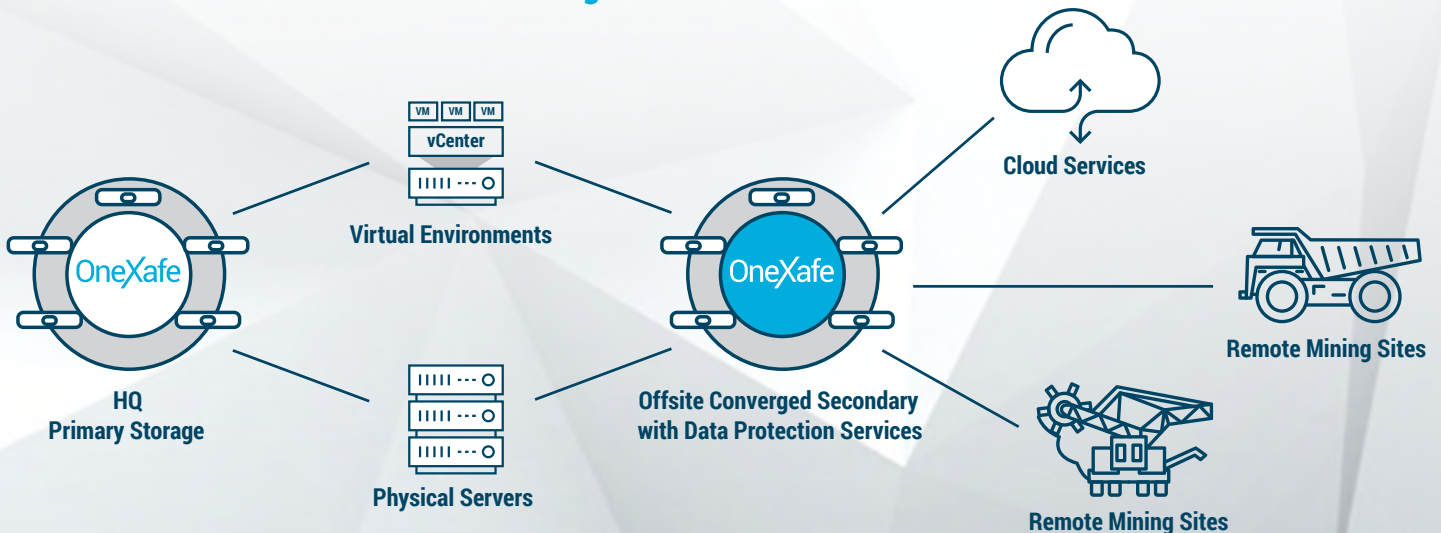
ShadowXafe also makes recovery easy by letting IT spin up a virtual machine (VM) in milliseconds, with the flexibility to recover to dissimilar hardware or virtual environments so there is no waiting for specific resources.

Both OneXafe and ShadowXafe include OneSystem, an intuitive, cloud-based or on-premise management platform for anytime, anywhere real-time monitoring, reporting, and visibility. OneSystem makes it easy to manage an entire infrastructure, whether one location or many, simply and securely. That makes it easy to manage work orders, track work performance, and monitor operations from HQ or a remote location.

ShadowXafe

OneXafe Converged Data Platform

- VM VM VM
- vCenter
- **Virtual Environments**
- **OneXafe** — HQ Primary Storage
- **Physical Servers**
- **OneXafe** — Offsite Converged Secondary with Data Protection Services
- **Cloud Services**
- **Remote Mining Sites**
- **Remote Mining Sites**

OneXafe Solo for Remote Sites

Because so much data, such as dragline maintenance data, is both generated and used in the field, making sure that it is secure and recoverable is imperative. That is where StorageCraft OneXafe Solo is a perfect fit. Designed for smaller, simpler environments, it is a plug-and-protect appliance that is easy to deploy and manage at remote sites.

OneXafe Solo streams data directly to StorageCraft Cloud Services. That ensures 100% business continuity for mining operations with a complete, orchestrated virtual failover to the cloud in case of disaster, while eliminating the need for additional infrastructure at the site.

It also offers the ability to store and protect data locally (NAS, optional internal drive, third-party cloud, etc.). OneXafe Solo includes OneSystem's simple cloud-based management. Solo is the perfect onsite and remote site backup appliance because it can be deployed in a few simple steps, and configured remotely: just plug it in, connect to the internet, and start protecting data in minutes.

Dig Deeper

Excellent service and support are also important reasons mining companies are turning to StorageCraft for their backup and disaster recovery, storage, and DRaaS solutions.

" A personal highlight for me was the StorageCraft customer service experience, as it was one of the standout services we have ever experienced. When we had any questions or queries, they made it easy for us to reach out and their support was exceptional from the start. "

About StorageCraft

For nearly two decades, StorageCraft has been innovating advanced data management, protection and recovery solutions. Together with our channel partners, we ensure medium and small organisations can keep their business-critical information always safe, accessible, and optimised.

Our customers benefit from category-leading intelligent data protection and management solutions, converged primary and secondary scale-out storage platform and world-class cloud backup and DRaaS services. Regardless of whether an organization relies on on-premises, cloud-based or a hybrid IT environment, StorageCraft solves the challenges of exploding data growth while ensuring business continuity through best in class protection and recovery solutions.

For more information, visit **storagecraft.com**

www.StorageCraft.com/au