Mining

The mining industry is seeing an increasing trend to support remote automation processes and to meet growing requirements for strong bandwidth. For business success, today’s mining organisations must provide best-of-breed network infrastructure to deliver the same performance levels as corporate head office, ensuring remote operations do not feel isolated. An essential element in mine site connectivity for more than three decades, satellite communications have firmly secured their vital role within remote mining operations. However, communication still remains an afterthought for many large projects and remote operations.

Always on connectivity; critical for mine operations
In Central Asia, economic growth has been projected to rise to 3.0 percent in 2016, from 2.1 percent in 2015, as oil prices slowly decrease or begin to stabilise in the region. With this strong economic growth coming from the mining industry, it has never been more important for organisations to have effective and reliable communications networks to ensure the smooth running of operations and a high ROI. In terms of organisational efficiency, remote communications have a disproportionate effect for the amount of capital expenditure. Combined with the inability to access important information when required, it has been suggested that the downtime costs in mining can exceed US$50,000 per hour, and this will only increase as the remote communication demands of...
Resolute’s bandwidth capacity from 1794Kbps to 2048Kbps symmetrical. Utilizing its unique network and human infrastructure and understanding of the importance of strong partnerships, SpeedCast has delivered a high quality optimised managed satellite service which enables better and faster voice and data communications for Resolute.

Flexible solutions for constantly changing environments
Mining operations are complex and often found in the most remote and difficult to access locations. The user communications requirements fluctuate significantly depending on the stage of the project. In these environments, a solid and reliable communications partner who understands the business values is necessary to provide services to help advance, protect, secure and support the achievements of business objectives and corporate goals.

Ideally, a network service provider should understand the importance of delivering tailored satellite communications networks for the constantly changing environments of mining operations. They should work closely with suppliers to find best-of-breed solutions in the industry. During the initial exploration and discovery stage of mining projects, immediate data transfer and the sharing of information with head office is a necessity to ensure the right site is found for the needs of the operation. As such, flexible and mobile satellite communications infrastructure which enables real-time analysis and decision making regarding the site’s viability is essential at this stage. With the combination of the latest satellite and wireless technologies, broadband ‘cells’ can be created in the field. By truly delivering fast and reliable Internet access, secure video or data transmission and quality Voice over IP (VOIP), communications are provided to the exploration teams in remote locations. Once production and the full scale mining operation is in place, it is essential to have high-speed satellite communications networks to support ongoing production, with reliable communications for operations, safety, redundancy and welfare. Key user requirements for all mining operations once in full production include high CIRs and SLAs, proven reliability, voice, VLAN and VPN and video streaming abilities. The need to establish a replica head office environment at the remote site, to ensure key decisions are made and provide continuity for the workers, is also a key priority.

Technology has redefined connectivity
Even the most powerful, reliable tools need expert guidance to reach their full potential. In a world where the future of communications relies as much on data and analytics as it does reliability, the true measure of success will be the people and the partnerships behind the technology, not the technology behind the people. Today’s mine operator has the ability and flexibility to work with a communications partner to develop a solution that reflects its exact business needs and budgetary requirements in true partnership, therefore ensuring profits are maintained, essential information is transmitted when needed, and the safety and welfare of the workers is never compromised.

Ultimately, technology has redefined connectivity and shrunk the world. Old borders have been crossed, and historical limits surpassed. Today, there’s no such thing as ‘off-grid’; people and companies can be connected anytime, anywhere, even in the remotest of mining sites.