

Proactive safety solutions for connected mines

The global mining industry is characterised by several key trends, including geographical disparity, capital intensive operations, a declining skills base, high levels of safety risk and extreme complexity. In order to help address these unique characteristics, Dimension Data has developed a range of comprehensive solutions and services that cater specifically to the mining sector.



"With the many challenges that modern mining operations face these days, it's imperative that we are able to provide a comprehensive and customised range of IT services to mining operations around the world," says Bruce Taylor, GM: Vertical Solutions at Dimension Data.

"Mining companies tend to operate in remote, difficult areas to reach since they are dependent on the location of the metal or mineral resource deposits. Not only are these operations capital intensive thanks to the need for heavy equipment and large production plants, but they are required to operate around the clock, and therefore demand agility in maintenance and a high level of safety to ensure peak production is maintained," he says.

Challenges faced

Some of the challenges faced include the need to manage supply and demand, ensure compliance and regulations are adhered to, and the day-to-day management of cash flow and costs. All this needs to be delivered in the realm of realising that a safe, profitable resource is delivered to the market. The fact that metals and minerals mining operations are production-focused and people-based means there's an ageing workforce and a resultant escalating demand for skilled resources, as well as an ageing asset base that is more risky to operate, creating unnecessary demand on the operating safety environment. How can organisations be more proactive in the safety space?

"Dimension Data has a proven track record and the necessary expertise in its ability to understand these challenges and to propose workable technology-based solutions that mitigate or reduce safety risk, for example, while also catering to the need for mining operations to streamline complex processes, simplify asset management and maintenance," he adds.

The Metals and Minerals Solutions Framework developed by Dimension Data is supported by proactive safety management

processes and includes location-aware safety management of people and assets; integrated information to enable decision support; asset tracking; emergency evacuation, muster control and clearance check; and environment monitoring and emergency signalling.

"The proactive safety management solution fully integrates into the mining automation and control system, thereby enabling the creation of an integrated operations control centre. The mine of the future integrates a converged network with smart, connected devices able to provide real-time intelligence and information using smart applications, IP sensors, video surveillance, radio and wi-fi connectivity, unified communications via both wired and wireless networks that is securely integrated and connected using a standards-based common platform," he says.

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