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Caterpillar, Minetec partnership adds underground technology to MineStar suite

RESOURCES & ENERGY

Technology from Australia will be used to vastly improve the underground capabilities of the Caterpillar MineStar suite.

Mining technology company Minetec will integrate its leading proprietary products into an expanded Caterpillar MineStar suite for underground and surface mining operations.

Minetec, a wholly owned subsidiary of South Australian company Codan Limited, has entered into a global licensing and technology development agreement with Caterpillar – the world's leading manufacturer of construction and mining equipment, diesel and natural gas engines, industrial gas turbines and diesel-electric locomotives.

The technology is based on WASP (wireless ad-hoc system for positioning), which was developed and licensed by scientists at Australia's CSIRO for mining globally.

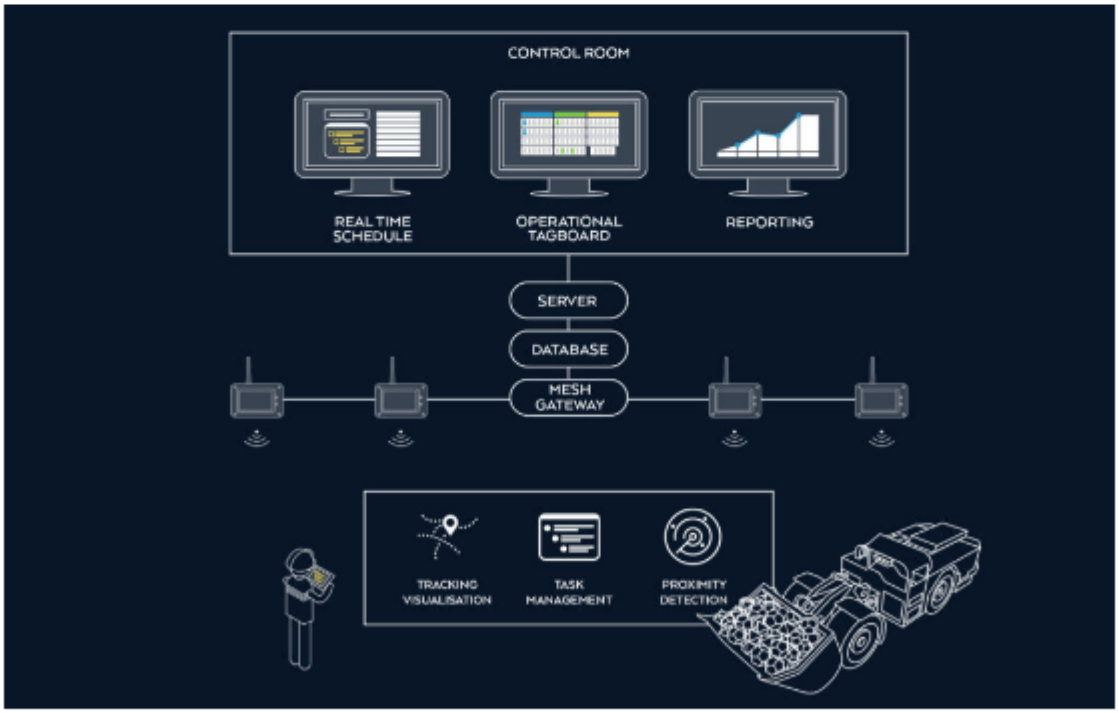
Minetec's proprietary products including SMARTSTM task management, TRAXTM high precision tracking and wireless communications and SafeDetectTM proximity detection will be integrated with Caterpillar's FLEET assignment engine, HEALTH data analytics and COMMAND autonomus operations to form an expanded MineStar technology suite.

Based in the South Australian capital Adelaide, Codan is a technology company specialising in communications, safety, security and productivity problems in some of the harshest environments around the world. It acquired Minetec in 2012.

Minetec Executive General Manager Rory Linehan said the company's technology was world-leading and also had potential applications in other industries such as emergency services.

He said the technology aimed to transform underground mining in the same way as Wi-Fi and high precision GPS transformed surface mining more than two decades ago.

"There is a world of difference between doing that in the surface environment and doing that underground where typically communications are difficult at best and achieving any level of high precision tracking is extremely difficult," Dr Linehan said.



"You need to integrate your communications capability, your tracking capability and the task management capability and all of that is what Minetec has been developing for the past six or seven years.

“The whole industry is going towards data driven mining, data driven operations – what does the data say is the right thing to do now and what does the data say we did either poorly or well in the last shift?”

The next steps in the collaboration are to integrate Minetec’s core products into the MineStar product suite before taking the system to Newmont Mining Corporation’s Tanami Gold Mine in Australia’s Northern Territory for proof of integration.

Dr Linehan said the expanded MineStar suite was expected to be available within six months.

“We’ll use that as a platform and then we’re going to co-develop new technologies and new capabilities to offer the underground mining market over the next number of years,” he said.

Caterpillar has an expansive dealer network covering 172 dealers across 190 countries.

Dr Linehan said tapping into the knowledge and support of parent Codan and partnering with global powerhouse Caterpillar while maintaining its small company agility had been of significant benefit to Minetec.

He said he believed the technology would become the industry standard in underground mining within five years.

“There is a very significant opportunity to transform the industry and transform the profitability of these mines,” Dr Lienhan said.

“Minetec is bringing the enabling technologies for more automated and more efficient underground operation and that starts with the ability to track and communicate.

“We’re trying to replicate the kind of accuracy and functionality you get out of GPS and we’re doing it in one of the most austere environments in the world.”