

RCT at the forefront of the digital revolution in mining

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The mining industry is turning to digitisation in order to optimise efficiencies to increase productivity and profitability. RCT's latest Communications Solutions offering ensures it can help clients enter, expand or completely digitise its operations by integrating solutions to a new or existing network.

RCT's point of difference is its versatility with its extensive range of solutions to individual requirements and fortunately, it is just as agile with its Communications Solutions suite.

"We understand that not every site is the same; so it was important that we can cater to different mine sites and their impending needs, while still being able to accommodate any future developments," said RCT's Automation and Control Product Manager Brendon Cullen.

"RCT's agility and adaptability to individual requirements are what sets us apart from the competition. It's the flexibility of our technology offering that allows us to integrate all pieces of equipment and systems to tailor to individuals needs and our communications offer is no exception," he said.

RCT's Communications Solutions suite comprises of four offerings – Analogue, RCT Bridge, RCT Connect and Integration – all of which add significant value to clients operating autonomous machines on site.

Analogue is the traditional, simple and economical communication solution that allows for both analogue vision and autonomous machine control on a secure distributed antenna network. While RCT Bridge acts as a stepping stone to full digitisation by integrating with the existing analogue network on site to deliver larger volumes of machine data. For customers wanting the full-scale digital communications solution, there is RCT Connect. This will see RCT roll out a secure WiFi communication network (operating between 2.4 and 5.8Ghz) from the machine's work area to the operator control station to guarantee autonomous machine performance for existing and future loader and truck fleets.

The fourth option is Integration with site network, where RCT collaborates with the customer to interface the technology into the existing digital network; with the ability to interface Long Term Evolution (LTE), underground WiFi and mesh networks with fibre optics or Ethernet infrastructure for surface or central control regardless if it is controlled by a third party of the site itself.

"The adaptability of the Communications Suite empowers clients to make step-by-step changes, they don't necessarily have to fully digitise their mine straight away," said Mr Cullen.

RCT's Communication Solutions also facilitates real-time feedback and reporting to enable decisions to be made quickly, ensuring targets are met and machine maintenance can be predicted to significantly reduce unplanned downtime.

"Digital connectivity enables RCT to gather data pertaining to machine operating parameters, meaning failures can be flagged before they occur and our service departments are able to remotely diagnose failures and assist with repairs if required."

"The investment in digitisation is justified by specific outcomes such as fewer breakdowns, decreased and unnecessary maintenance, and improved safety for both machinery and personnel, reduced operating costs and increased productivity," he said.

RCT has been at the forefront of technology for 45 years and as the mining industry looks towards full digitalisation of its communication operations; the company will continue to be cutting edge.