

Mine of the Future – what does it mean for Canadian mining?

Canada relies on mining to keep the economy moving forward. Not only is it one of Canada's most important economic sectors, it is also a major job creator. That is why it is essential that Canada's mines become safer, more productive and sustainable through autonomous mining.

Why autonomous mining? By embedding devices in the machinery that is used to extract, process and transport resources, operational efficiency can be enhanced while boosting profitability, increasing safety and improving the extraction process.

Is the mine of the future coming to Canada? Yes. Already, leading mining operations are using the IoT to understand how equipment is performing. In turn, these operations are remotely detecting and controlling in-service parameters to ensure equipment uptime. By leveraging recent IoT innovations, mines are now able to schedule repairs and maintenance of equipment during the best time in the production schedule. Equipment is monitored to avoid blocking ramps and eliminating work stoppages. Data needed to enhance automation is being provided by advances that leverage the IoT.

Some of the greatest benefits to autonomous mining can be found using autonomous vehicle systems where driverless vehicles deliver their loads more efficiently throughout a mine, minimizing delays and fuel use. In some cases, mines are using fully autonomous, heavy-haulage, long distance rail systems to increase haulage capacity. All of these new IoT advances are vastly impacting the exploration, mining and processing of Canada's mineral resources.

Building a connected mine – maximizing operational efficiency through asset management.

Gaining insight and control in mining is what a connected mine is all about. By managing mining operations and communications on one secure, multiservice IP network, a connected mine can have unified secured access from any device in any location throughout the mine.

What does this mean for Canada's mining operations? It gives them the ability to operate better and smarter. Being able to track a vehicle or a person within the mine enables the company to pinpoint staff in the event of emergencies, automate currently manual functions with extreme accuracy and improve communications and collaboration over a secure network.

The connected mine allows decisions makers to now receive data in near real-time enabling smarter decisions for overall operations. Canada's mines are now positioned to be more profitable than ever.

How can IoT CAN enable the mine of the future?

IoT CAN is committed to leading the way for the mine of the future through its alliance member solutions. The critical combination of hardware, software and industry expertise that leverages IoT innovation is what is required to propel Canada's mining industry to a stronger future.

It's time to realize the IoT potential for Canadians. Join IoT CAN - Big ideas. Big data. Big possibilities. Big country.