WHITE PAPER

AmCom

Integrate. Automate. Communicate.

Three Keys to Integrated Mining Communications for Enhanced Safety, Security and Operational Effectiveness

The Need for Fast Communications in Mining Today

Today's mining operations, with their vast scale and advanced, computer-controlled systems and equipment, rely on communications as a prime function of effective management. In this sophisticated and competitive environment, rapid communication can be a factor in any organisation's success. Even brief periods of downtime can lead to delayed production and higher costs, leaving little margin for error. Problems, especially emergency situations that could impact safety, need to be communicated quickly and clearly, so action can be taken.

Fortunately, the technology and equipment exists to help manage this complex world. Monitoring devices for equipment, as well as emergency alarm and even weather alert systems, can now be connected via advanced middleware solutions. This software sends information and alerts directly to radios, pagers, digital signage and other office-based or mobile technologies as part of an integrated, two-way communications capability never before imagined.

Scalable event notification options provide the power to manage alarms and events from start to finish, including follow-up, reporting and measurement. And excellent communications systems aren't just for emergencies. Even day-to-day communications can be included, from notification of crew meetings to human resource and safety updates. All can be sent via a properly equipped and configured communication system.

With all of the technology available, making sure you have the right solution in place, supported by providers that can ensure long-term dependability and performance, can seem overwhelming. Here are three key capabilities that you should consider for creating and managing a well-integrated communications infrastructure.

1. EMERGENCY RESPONSE MANAGEMENT

Worker health and safety, environmental hasards and security considerations are paramount in every manager's mind. Leading providers can help create a system that monitors, alerts, notifies and coordinates response to emergency situations. These systems manage two-way communications, assure measured responses that can automatically be escalated to broader teams as needed, and even provide reports and documentation of the communications flow in virtually any emergency.

Integrated communications at the mining site leverage new or existing onsite paging, radio, and other messaging systems to ensure messages are received within seconds to improve response times. In an emergency situation, every second is critical. By installing a well-designed messaging system, your people and emergency responders will be sure to get the message. Notifications can also be sent to emergency response teams (ERTs) and to incident command centers located either on or off-site, where incident commanders can track the status of the emergency as it unfolds. Top systems keep track of message delivery to designated individuals within key roles as part of the organisation's pre-planned response strategy. If a response is not received in the time allotted, automatic escalation to the next designated person or group is initiated until full response to the situation is confirmed.

Top systems can also track responses to pre-defined questions, such as a request for the individual's estimated time of arrival to a given location or their need for further assistance. Weather warnings can also be part of the system, to notify crews of impending dangerous weather conditions or provide instructions advising them how to best protect themselves. Other potential issues can require the ability to integrate with radio frequency identification device (RFID) monitoring systems, security and man-down alarms. The ability to automatically alert specific team members of an incident and its location can speed response time, enhancing site safety and security.

2. MANAGING RESPONSE TO EQUIPMENT FAILURES

High-volume operations depend on sophisticated systems such as supervisory control and data acquisition (SCADA) systems, programmable logic controllers (PLCs) and other monitoring technology. Examples include air conditioning systems, fire panels, building alarms, and other important machinery and equipment on-site. Responding quickly to failures of any of these systems saves time and money. Part of any integrated communications system should be the ability to provide technicians or engineers with instant alerts via their chosen communications devices. As an alternative or additional means of communication, top systems can provide notices delivered as pre-recorded, automated speech messages, directly to telephones, satellite phones or two-way radios.

3. REPORTING

Any chosen solution should provide comprehensive documentation of all events, including time and date stamps, recipients and their responses. A capability such as this provides data to assist in training and follow-up response plans, quality improvement, equipment maintenance or life-cycle reviews. In addition, the system should be able to provide information from multiple messaging systems involving multiple sites, enabling the comparison of events and staff response times across your entire enterprise.

CONCLUSION

The prime goal of any integrated communications system is to provide a high degree of efficiency and reliability. When equipment alerts are triggered, emergency alarms go off, or even when crews are given routine assignments, the ability to manage communications well can have a positive impact on all aspects of the mining business.

Whether the need is to assemble emergency response teams or send instant notifications of equipment fault alarms to staff, today's technologies enable life-saving and cost-saving communications. Modern systems can provide a robust, reliable and secure method for communicating with workers or emergency responders, improving notification delivery times and enabling activation of standardised procedures in a timely manner.

Note: World Coal Magazine also featured this paper's contents in the spring of 2010.

About Amcom Software

Amcom Software provides technology solutions for organisations that depend on speed, accuracy, and productivity to manage mission-critical, day-to-day, emergency and event-driven communications. Amcom Software's advanced solutions for contact center communications, emergency management, mobile event notification, and paging infrastructure are used by thousands of leading organisations in healthcare, hospitality, education, business, and government. By continually developing its industry-leading technology solutions and strengthening its offerings via the acquisitions of Xtend Communications, Telident E911 solutions, Commtech Wireless and SDC Solutions, Amcom Software has rapidly grown and solidified its market leadership.

Integrate. Automate. Communicate.

www.amcomsoftware.com.au