Innovative technologies adds new dimension to transport

The importance of improved technology to ensure that modern and reliable transport through the continent's corridors is fully and sustainably operational continues to grow, as emerging markets continue to look to transportation and improved railway infrastructure to further their growth.

©Antonio Guillem via 123RF

According to Bruce Pitso, regional manager for Ruckus Wireless, Inc. South Africa, this requires an integrated long-term perspective with technology as a critical cornerstone.

Smart stations

“Transportation hubs - whether focused on cargo or passengers - are changing,” says Pitso. “As governments look at transportation projects to support national objectives such as job creation, strategic growth, and industrialisation, they are looking at ways to optimise transport operations, improve network efficiency and scheduling and increase passenger usage through improved customer experience – and many are turning to technology and Wi-Fi to create smart stations.”

These new smart stations are part of the emerging global trend to create smart cities. The concept involves using state-of-the-art communications technology that improves municipal operations and services to enhance the way of life for residents and visitors of major urban centres. The deployment of Wi-Fi networks here is designed to not only provide high-performance wireless internet access experience for passengers, but they also provide comprehensive, real-time data for station operators.

Real-time information

“Passengers need real-time access to schedules, gate and ticket information, maps and/or other guidance as they pass through the station terminals,” says Pitso. “Wi-Fi not only provides an ideal method for these activities, it also provides a platform for new revenue generating services such as additional Wi-Fi access or 3G/4G offload, as well as support for terminal operational needs such as point-of-sale, digital signage, and video security.

Telematics and fleet management

From a commercial perspective, there is also a global trend for transportation cargo and fleet services to become more

involved in value-added activities such as cargo processing and logistics, which will require new processes, practices and technological advances around stock control and integration, as well as better wireless connectivity."

"As telematics technology evolves with faster networks, more data becomes available to manage fleets efficiently including real-time driver safety coaching, fleet maintenance, fuel monitoring and productivity tools. Telematics solutions provide improved prognostics for vehicle maintenance, thereby preventing breakdowns, unnecessary time delays, and financial losses. The rich data and reports provided by telematics technology, becomes invaluable for the modern transport operator," says Grant Fraser, director of Product and Marketing, MiX Telematics (Africa).

"Smartphone applications provide quick access to telematics data, enabling fleet managers to make real-time decisions and keep track of their vehicles, drivers, and other mobile assets at all times. By implementing technologies that minimise risk and improve efficiency, businesses can optimise transport operations."

Transport has a fundamental role to play in South Africa – not only from a commuter transportation perspective but also critically in regards to the freight industry, taking exports and imports into consideration. The viability of a stable transport sector will rely heavily on new and innovative technologies to drive forth effective, streamlined operations and reduce costs and so it is now that the sector needs to take advantage of the benefits such technologies can offer.

Ruckus Wireless will be exhibiting at this year's Africa Rail 2016. Visit the Ruckus Wireless team at exhibition stand P2 on 28 and 29 June. FOr more information visit Africa Rail 2016.