

Bell Equipment's product manager for Fleetm@tic®, Brad Castle.

Fleetm@tic® is a purpose-designed telematics system for Bell Equipment machines that enables mining and construction operators to get the very best value from their assets. "By using Fleetm@tic® to take ownership of the entire operational fleet on a mining or construction site, machine owners can keep projects on schedule, maintain machine health, reduce downtime and running costs, all while maximising productivity," says Bell Equipment's Brad Castle.

He says that today's earthmoving industry faces the challenge of improving efficiency: doing more with less. Information is critical to meet this challenge and Bell has harnessed technology to be able to offer customers the right information at the right time, helping them to manage their fleets with greater than ever precision and efficiency.

"Fleetm@tic® is designed to be the eyes on the worksite, keeping track of every Bell machine in operation on a continuous basis – a fleet management partner that never sleeps. The cornerstone of our company is to provide lowest cost per tonne equipment solutions to

Smarter fleet management for Bell Equipment

Fleetm@tic®, Bell Equipment's South African-developed telematics solution, collects, stores and communicates information in three key areas: machine productivity; machine utilisation; and machine condition, to enable fleet operators to maximise the value of their assets and the efficiency of their operations. Bell Equipment product manager, Brad Castle, explains.

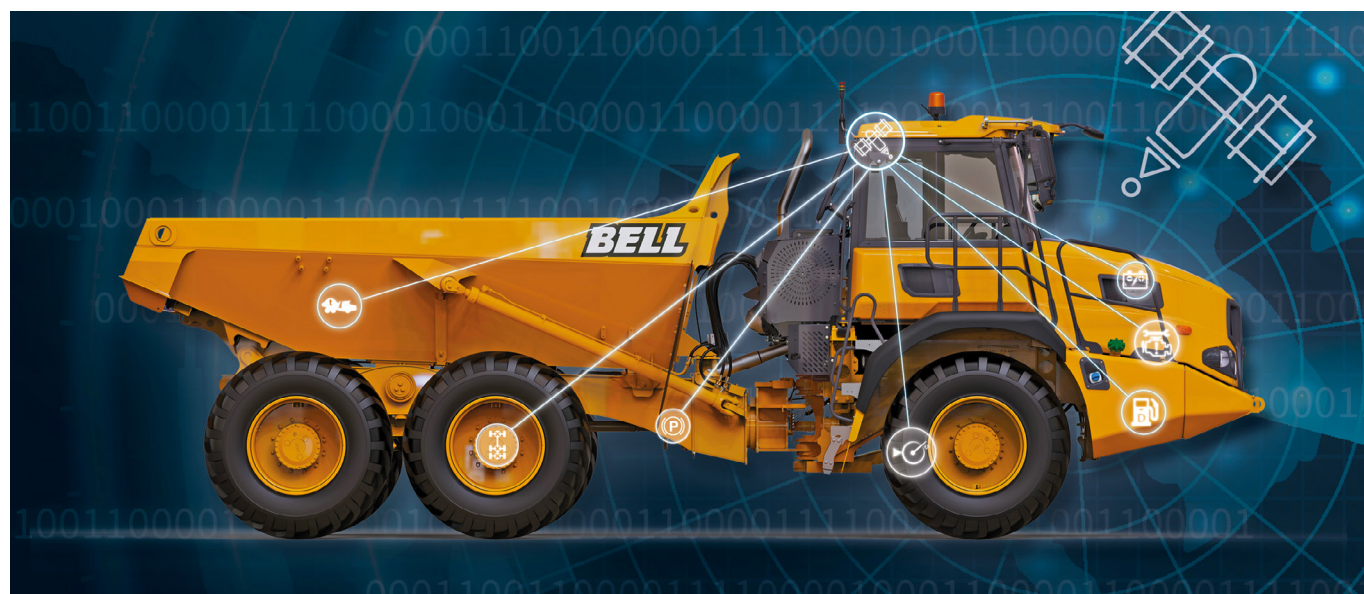
our customers. Fleetm@tic® adds this exciting dimension, enabling operators to maximise their return-on-investment," says Castle.

The appeal is that it is simple to use. Working machines can be watched via the Fleetm@tic® website or WebApp from the comfort of a home or office, or even while travelling abroad. A confidential login and password are used for secure access, and automated reports are emailed to authorised managers on a daily, weekly or monthly basis, depending on the need.

"This always keeps Bell Equipment owners in touch with their machines. Accurate, up-to-date operational data, production data, fault data as well as the machine's location and movements are all presented via user-friendly interfaces," he assures.

Key features include:

- Remote monitoring of Bell machines includes vital details such as fuel consumption, when and where a machine is operating, vehicle speed, all aspects of machine health, driver access and much more. From a reliability perspective, not only is the machine being continuously monitored, but the embedded service indicator ensures that the closest Bell Customer Care Centre automatically
- receives notice that a service on a specific machine is due, thus avoiding machines running over their service hours.
- The system is satellite based, driven by a series of satellites with worldwide coverage. Production, machine and precise location data is gathered and stored, then sent via a machine-mounted satellite modem to the Bell server. From there the raw data is analysed and compiled into reports that make it easy for users to access and understand.
- A selection of reports is available for each machine, ranging from shift, daily, weekly or monthly, and including loading and event reports, amongst others. These can all be customised, and the automated system will ensure that they are delivered promptly, providing detailed information that is always in time.
- Fleetm@tic® also includes a Driver ID Access feature that enables productivity and the driving style of each specific driver to be tracked, building up a use history of how the machine is driven and used. This ensures that drivers take responsibility for the machine during their shift, while also highlighting training needs and productivity enhancement



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opportunities.

- A significant differentiating feature of Bell's Fleetm@tic® system is on-board weighing, which has been a standard feature on all Bell ADTs for more than a decade. "With ongoing development to fine tune accuracy and reliability, our on-board weighing can now highlight exactly how much useful work a machine is doing and how much money it is earning," adds Castle.
- GPS tracking enables site machines to be configured for specific applications requiring extensive control. Sites can be segmented on Fleetm@tic®, with vehicles made aware of their current location. Speed limits can be activated based on the vehicle's current position, which ensures that the machine is driven at a safe and legal speed in specific areas. A warning and limp mode will also be automatically activated should the vehicle leave a predefined geofenced area.
- Fleetm@tic® software is integrated into the CANBUS system of each machine, which collects vital information from the machine's data receptors. GPS location and machine operational information from the CANBUS is stored in an onboard memory module ready for transmission.
- Communication is key. A state-of-the-art GPS antenna works in collaboration with a satellite modem and GPRS modem receiver to deliver repeatable high-quality information. The satellite communication capability provides true worldwide coverage while the global SIM card allows large amounts of data to be communicated over cellphone networks around the world when the machine is within range – via one service provider that delivers worldwide coverage.

"Ongoing developments to fine tune accuracy and reliability now enable our on-board weighing to calculate exactly how much money each machine is earning. This, along with idle and unladen time tracking and shift summary reports, offers managers insight into how to optimise daily production schedules, while offering a very clear perspective of operational costs," Brad Castle points out.

Bell offers three Fleetm@tic® packages, depending on the preferred level of fleet management required: daily, per shift, per cycle, or even per minute with the premium package.

- The Basic Package is available on all Bell-supplied machines and provides machine hours worked per shift, average fuel burn, and a productivity report.
- The Classic Package is standard on all new ADTs for two years from the date of delivery to customers. Thereafter, it can be renewed at an additional charge. It supplies enough information to give



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a thorough understanding of how the machine is operating: measuring shift productivity, shift fuel burn, shift fault codes and numerous other metrics.

- The Premium Package is available as an upgrade at any time. Geared for customers who need detailed operational information, this package offers similar information to the Classic package but for each individual laden-unladen cycle. Live tracking is also available on the Fleetm@tic® website on a per minute

basis. This function is used by some customers in their site control rooms to continuously track and manage their fleet operations.

"Fleetm@tic® is a definitive management tool that adds real value to mining and earth moving operations. It can be customised to suit the needs of fleets of any size and to ensure that machines are used effectively and safely, and that their asset value and operational life is maximised," Brad Castle concludes.

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