

Advance **WARNING**

On-board diagnostic technologies enable truck maintenance to begin long before the truck rolls into the workshop, reports Steve Banner

Truck operators dislike the sort of surprises that spell extra downtime. What they do not want to receive when a vehicle goes in for its statutory inspection is a phone call from the workshop telling them that it will have to remain there for longer because an unexpected fault has been discovered that needs rectifying.

This need not happen, argues David Lester, general manager, telematics, at MAN. Vehicles are increasingly capable of telling workshops what is wrong with them long before they arrive, he points out. So a technician with the necessary skills can be on hand – along with any parts that are required – the minute the truck is driven into the yard.

What Lester is talking about is MAN Check. Part of MAN's 'Fit to Go' telematics package developed in conjunction with Microlise, and integrated with MAN's e-workshop system, it offers remote visibility of a truck's state of health.

Data is collected from the vehicle's On Board Diagnostics (OBD) port. The majority of the faults detected are what Lester describes as "amber alerts" –



minor items that can wait. "They're a bit like an 'advisory' when an MOT test is carried out," he says.

"Half a dozen times a day we receive more serious red alerts," he continues. "Maybe oil levels are way too low, for instance." If that is the case, then more rapid action will need to be taken, and the operator alerted accordingly.

Fit to Go has been offered as standard for the first four years of all new MANs since 2015, and over 3,700 of them fitted with it are on the highway. "Customers can opt out of it, however, which means that it is operational on 70% to 80% of all new trucks registered," says Lester.

MAN is by no means the only truck maker offering remote diagnostics.

Launched in May, Mercedes-Benz Uptime continuously monitors the vehicle's systems and fluid levels via the Fleetboard Truck Data Centre on board (see also pp10-12). If repair or maintenance work is needed, then the truck automatically sends an alert to the Mercedes-Benz Service server. The data is analysed using stored algorithms, the fault diagnosed, and a course of action recommended. The manufacturer's service organisation alerts the customer accordingly, and, if necessary, locates the dealer workshop closest to the vehicle. The package is available on all new Actros, Arocs and Antos trucks.

Also transmitting and receiving large quantities of data is Scania's OnBoard black box, a fixture in all new models since 2011. It is central to the flexible maintenance programmes that the manufacturer has introduced, because the data it generates determine when a truck needs to come into the workshop. Non-emergency visits can be aligned

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with statutory safety inspections so that downtime is minimised.

For maintenance service, its Swedish rival Volvo developed Connected Truck. National technical manager Mark Palin says: “It can check the state of health of key items such as the battery, the clutch, and the brakes, as well as lubricant levels, and forms part of our contract maintenance programme,” he says. “It pings the information to a central server which the dealer can then access.”

Technology can suffer teething troubles, and Palin admits that Volvo’s package has not always been 100% dependable. “It’s more reliable these days than it used to be, though, and we’re looking to relaunch it,” he says.

THE HUMAN ELEMENT

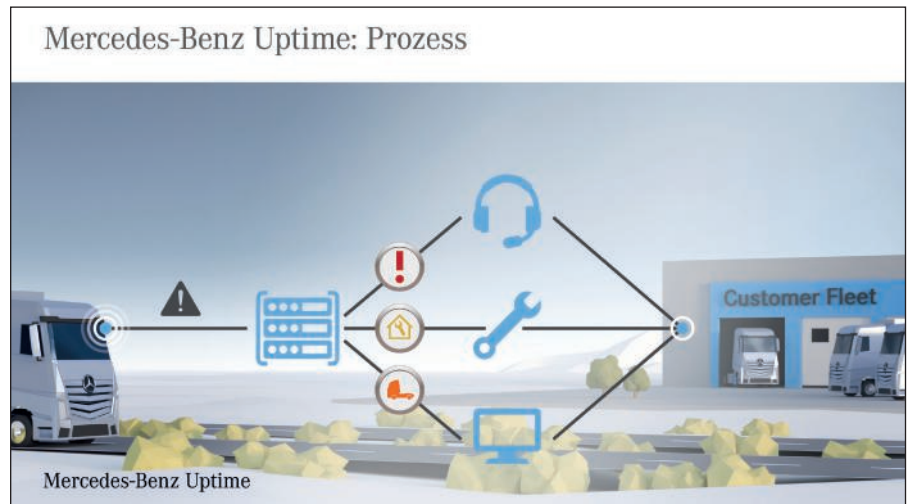
When it comes to remote diagnosis, the human being in the cab still has a role to play, at least for the moment.

Says Tony Owen, transport solutions manager at Renault Trucks: “If there’s a problem, then drivers can always hit the Renault ‘24/7’ button and be connected to our call centre. The call handler will speak their language [16 are provided]; the driver can read out any fault codes shown and the handler can advise them on what to do.”

He adds: “In the near future, the handler will be able to read the codes remotely.”

MAN Check works in the same way; it is the franchised dealer, not the operator, who logs in. That may be the reason why some customers are opting out. Hauliers whose own workshops provide vehicle service and repair, rather than the franchised network, may have concluded that MAN Check will not benefit them at present. Furthermore, they may not want to be tied to one manufacturer if they run a multi-make fleet. So they may want to opt for a package that they can readily access and that can cater for all brands of vehicle.

According to Lester, MAN Check will



be made available to end-users, and can do so now in theory. However, it has yet to launch this facility formally. He explains: “It was mid-to-late 2016 before MAN Check got fully underway, and we wanted to be sure that it worked properly before we opened it up to a wider audience.”

An alternative multi-fleet option that launched in April this year is Truckfile Geotab. It takes data from the OBD port and sends it to the Geotab server, which emails the operator’s workshop if a problem has been detected. It can then be translated into a job sheet within the Truckfile system from Magic Internet Technologies (www.truckfile.co.uk).

The way Truckfile Geotab is set up makes it easy for alerts to be prioritised according to their level of seriousness, managing director Paul Clarke says. “Not all fault codes and warning lights are equal,” he points out. “We can triage the problem and plan the downtime.”

Portugal’s Stratio Automotive (www.stratioautomotive.com) has developed a universally-applicable package, too. The city of Coimbra has used it to help cut the cost of maintaining its 116-strong fleet of buses. During a 50-bus trial, costs were down by 12%, says Stratio.

There seems little doubt that

manufacturers are determined to use onboard technology and the data it generates to push service and repair work towards franchised outlets, and away from non-franchised workshops.

For example, Scania says: “Flexible maintenance is an integral part of every maintenance contract written today for Next Generation Scania trucks. This is a service which is simply beyond the reach of any third party workshop, as they will not have access to the data used to determine the optimised maintenance regime.”

That, of course, begs the question as to who actually owns that data: the truck operator, the truck’s owner (which may be a leasing company), or the truck manufacturer? One for the lawyers to ponder, perhaps, but Clarke at Magic Internet Technologies has no doubts.

“If you operate a truck and it produces data then the data is yours,” he states. “All we are is the filing cabinet.”

FURTHER INFORMATION

MAN Check – <https://is.gd/ujuguj>

Mercedes-Benz Uptime – <https://is.gd/eboyiw>

Renault 24/7 – <https://is.gd/ogisim>

Scania OnBoard – <https://is.gd/xiyebe>

Volvo Connected Truck – <https://is.gd/idawuv>