



Commercial Fuel & Fluid Management Systems



Case Study

Installation of the MCS Sapphire fuel management system
across Motive Fuels hydrogen refuelling network

www.motivefuels.com

www.mcscardsystems.com/real-time-fuel-management

www.octane.uk.com/fuel-management-systems

MOTIVE

CASE STUDY

Who are Motive Fuels...

Motive's turnkey green hydrogen refuelling stations generate and store hydrogen fuel on site. All they require is a source of water and power, meaning they are able to generate an endless source of zero emission fuel.

Their stations are completely self-contained and able to generate, dispense, and store all the Green Hydrogen you may need.



“They are making meaningful positive change as the world races to Net Zero...”

Motive's mission is to decarbonise transport. They are making meaningful positive change as the world races to Net Zero by enabling the uptake of hydrogen vehicles in hard to decarbonise sectors.

Fleets, industry and local authorities looking to clean energy to help them achieve net zero.

Their stations can help your fleets run as normal without downtime or loss of range... all with zero emissions.

Motive's largest refuelling station at Tyseley will be fully opened early 2022 and is already being used by National Express on their new zero emission double decker buses operated for Birmingham City Council.

The station is open to cars and will also fill mobile refuellers and hydrogen tube trailers and shows Motive's model for providing zero carbon infrastructure - built for a dedicated fleet and without capital investment by the fleet operator.

The site at Tyseley is the model for Motive's next generation of refuelling stations providing green hydrogen for HGVs and buses as they decarbonise. The station which has been open for cars since early this year was funded through a combination of private investment, EU and UK Government funding.

What were Motive's needs...

Motive were in need of a fuel management system that was reliable and supported, as the downtime caused by the previous fuel management system was having a serious impact to their business that would ultimately result with entire stations going offline, sometimes for many days. These stations not only supply hydrogen to business and the general public, but also to frontline emergency service vehicles, so the need for the stations to be online was critical.

The need for immediate remote support when required was also imperative to quickly assist with both the online web portal and to carry out any remote diagnostics and repairs to the fuel management system terminals when it was urgently required.

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What were Motive's Goals...

The goal was to implement a fuel management system that was reliable, supported & cost effective, and that would seamlessly integrate with their existing hydrogen dispensing hardware.



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The fuel management system needed to support the existing internal Motive fuel cards and the fuel cards of an external fuel card supplier.

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All information transferred to and from the fuel management system, such as fuel card information and transactional information, needed to be sent and received in real-time.

The web portal platform also need to capture transactional information from hydrogen dispensers that did not have our fuel management system connected to it.

The format of the information needed to directly integrate with Motive's accounting system to automatically generate invoices to customers.

How did the MCS Sapphire fuel management system, installed and supported by Octane meet Motive's needs?

Initially, Octane attended the Rotherham depot to carry out testing on the existing hydrogen dispenser to verify that the software protocol the hydrogen dispenser was using was compatible with the MCS Sapphire's range of different pump protocols. Testing was also carried out with Motive's inhouse fuel cards to confirm that the existing fuel cards in circulation being used by Motive's many customers were transferable to the MCS Sapphire fuel management system meaning that the customer could continue to use their current fuel card.

Once this was verified, Octane provided a quotation and installation plan to roll out the hardware across the Motive network of refuelling stations.

The MCS Sapphire is a fully online, real-time fuel management system with a full QWERTY keypad and card reader which allowed Motive to capture all information needed at the point of refuelling.

“To achieve the software goals, a web developer from the MCS technical support team was assigned to the project...”

To achieve the software goals, a web developer from the MCS technical support team was assigned to the project to carry out two bespoke requirements. The first requirement was to be able to import and export fuel card data to and from the fuel management system from an external national UK fuel card supplier. A direct connection was developed to the fuel card suppliers' network and the MCS Sapphire's servers to give the ability to import external fuel card numbers and export external fuel card users transactional data. The second requirement was to be able to import transactional information from dispensers on site that were not connected and controlled by our fuel management system. A path to import the information to the hose web portal TSM was developed using an FTP server which provided Motive with the ability to import these transactions at a frequency of their choice. Once imported, the Sapphire web portal TSM already had the ability to automatically generate and automate reports with all transactional information in one place back to Motive, in a format suitable so they could import this into their accounting software.



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How did the MCS Sapphire fuel management system, installed and supported by Octane meet Motive's needs?

Continued...

Octane, as the UK distributor for MCS, has the ability to setup, program, install, commission and support the MCS Sapphire from our head office in West Yorkshire. Each fuel management system terminal was built to the bespoke specifications of the site in our inhouse workshop and test centre.

Octane's integration with MCS gives us the ability to project manage the software development and the hardware installation. Having full control over the Sapphire fuel management system allows us to seamlessly implement the MCS Sapphire system into a business such as Motive Fuels, from start to finish.

Our engineers have been able to respond to any hardware issues across Motive's hydrogen refuelling network the same day as an emergency call out being placed which has significantly reduced downtime of Motive's refuelling depots and Octane's technical support team have dealt with technical queries immediately. Octane's 24/7 emergency support number acts as reassurance that any emergencies will be dealt with promptly.



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James Cross
Commercial Director at Motive Fuels

“The MCS Sapphire has saved us around £4,000 per station per year compared to our previous solution. But more importantly, our station availability has been significantly improved due to a reduction in faults and the quick response of the Octane team.

The Sapphire/MCS solutions and its links to our other systems has simplified our accounting process and administration by allowing an automated link between the hydrogen dispensers, the MCS portal and our accounting system. This means we can view our sales records, in our accounts system on a daily basis and save time on invoicing and reconciliations.

Octane have provided us with an exceptional service and gone above and beyond to make the installation of the equipment and continued support seamless. I don't think any other provider would have been able to make an existing fuel management solution deliver with the new hydrogen technology we offer.”

For further information visit:

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