

Kainos and The Driver & Vehicle Standards Agency (DVSA): Modernising the UK's MOT testing service



"Re-testing is a lot easier to use, the new system is quicker, enabling us to get through more tests"

Andrew Merchant Locke, Windsor Road Garage, Bristol (MOT Tester)

The DVSA is the UK government agency responsible for improving road safety in Great Britain. It does this by setting standards for driving and by making sure that drivers, vehicle operators and MOT garages follow roadworthiness standards. As part of its wider ICT modernisation programme, Kainos was appointed to build a new online service to define, test and enforce driver and vehicle standards.

Reducing costs. Improving service

Starting from scratch in 2013, the new MOT service went live on schedule in September 2015 – a fraction of the time taken to deliver the previous MOT service, a mainframe-based development implemented in 2006.

Kainos worked hard to design and produce a system that matches the needs of users, is easy to understand and simple to use.

"Last week we completed our 10 millionth MOT, which is a major milestone for us."

Alex Fiddes, Group Service Manager (MOT), DVSA (Nov 2015)

Meeting present and future needs

By embracing the GDS 'Digital by Default' service standard and using agile development, DVSA has not only been able to reduce the operational costs of the MOT service, but also deliver a service that meets the needs of today's mobile online workforce. Just as importantly, the new service will evolve to deal with future user needs, as they emerge down the line.

The new service now captures the results of up to 150,000 MOT tests every day from 66,000 testers in 22,700 separate MOT locations. It allows garages and mechanics to use modern technology such as iPads to access the web-based service.

Read on to find out how we delivered this important project.



The background

The DVSA is a relatively new organisation, formed in April 2014 as the result of a merger between the Vehicle and Operator Services Agency (VOSA) and the Driving Standards Agency (DSA). The new agency became responsible for improving quality of services and reducing costs, and as part of this, it committed to take forward the programme of modernisation of the existing mainframe-based MOT service.

Ambitious business benefits

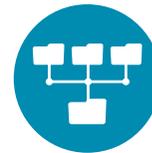
The modernisation programme set out to achieve several ambitious business benefits:



Reduce the operation cost of the new service by up to 50%



Allow testers to use their own in-house hardware



Simplify the technology and make it easier to operate



Build digital skills in-house



Adopt robust, agile and cost-effective IT infrastructure to make coping with business change easier

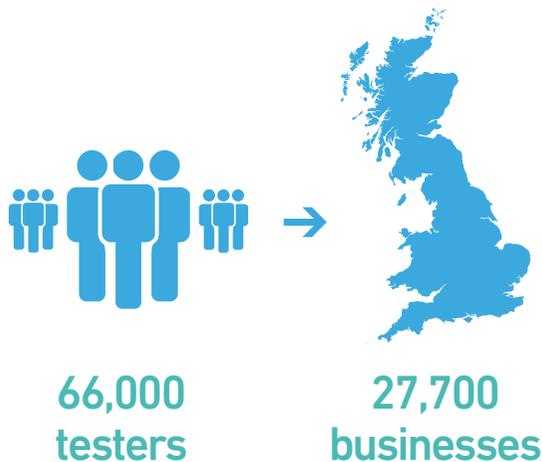
This modernisation programme is helping to reduce the overall cost of providing the MOT service to garages, whilst improving test quality in a modern online environment.



The challenges

In the workplace

The new digital service is used by over 60,000 testers across 22,700 locations in England, Scotland and Wales. Testers are hard-working mechanics, often dealing with several vehicles at the same time in noisy, busy workshops, so the technology they use needs to be intuitive, robust and easy to use. The old MOT system operated using a dedicated workstation, with specific links to a centralised mainframe. Although users were familiar with it, the system was based on old, inflexible technology, and was becoming increasingly costly to install and maintain. In addition, many testers were frustrated that they could not use more modern, mobile-enabled technology to do their work.



Seamless, enhanced performance

The new web-based service had to perform better than the old system and operate on commercially available tablet/desktop hardware. In addition, it was imperative that links with other transport-related systems should remain fully available over the course of the programme. This included the Electronic Vehicle and Licensing Service (EVL), which manages online payment of vehicle excise duty and generates approximately £8billion revenue collection.

Meeting deadlines

Critically, the new service had to be operational by 23 September, 2015. The old MOT system was to be decommissioned on that date, and had the MOT modernisation project not met that deadline, huge penalty fees would have been incurred.

“From the beginning, Kainos took real ownership of achieving the major milestones set, and we worked towards a common goal.

We successfully moved 27,000 businesses across to the new system before the deadline, which was a major achievement.”

Alex Fiddes, Group Service Manager (MOT), DVSA



Resolving the unexpected

The project was not all plain sailing. Vehicle testing is complicated, and because it is subject to regulation, it is liable to change frequently. Therefore, it was important at every stage to involve all of the various stakeholders, which included: multiple technology suppliers; the Department for Transport; DVLA; GDS; and others. This proved challenging. Furthermore, some daunting technical issues arose: for example, it became clear at a late stage that some fundamental elements of the cloud infrastructure needed to be changed to meet the required levels of performance and stability. This necessitated undertaking a hugely complex move to Amazon Web Services in a matter of weeks – even though by that stage many thousands of users were already testing using the new service!



The solution

The new service – now hosted on Amazon's cloud and underpinned by robust web-based technology - allows garages to use their own computer equipment. The service was designed specifically with the testers' needs in mind, so it is easy to use, intuitive and designed to cope with various IT skill levels. Testers continue to be consulted and their feedback is being used to continuously improve the service.

Migration of the new service onto the more stable and robust Amazon Web Services hosting platform not only meets DVSA's immediate needs in terms of service delivery, but also provides a secure base for future development of the service.

Meeting and exceeding expectations

Some of our service delivery and development highlights include:

- 1 Large scale, agile delivery of a high-volume public service using co-located, multi-disciplinary teams
- 2 User-centric design, featuring User Research and User Experience specialists in the development teams, resulting in a service that is intuitive and easy to use
- 3 Smooth rollout of the new services to garages in time to meet a tight and immovable deadline
- 4 Collaborative working with multiple client and technology suppliers during the development of the service
- 5 Successful use of a distributed agile delivery model, with Kainos development teams based in Bristol, Belfast and Gdansk (Poland)

Tangible proof of our successes

66,000

66,000 testers successfully registered to the new MOT system

17.7m

Over 17.7 million tests* now completed on the new system, with over one million of these completed in the first week of use



The service is **fully compliant** with the Government Digital by Default Standard and has successfully passed both Alpha and Beta assessments

150,000

The service is designed to cope with periods of high load - up to **150,000 tests** conducted per day, with around **500 tests per minute** at peak

* Tests completed by February 2016

What the client had to say...

"One of our greatest challenges was to ensure that, in line with the GDS principles, we could deliver a streamlined and robust IT process that would best meet users' needs and support their businesses. The prompt manner in which we passed Alpha and Beta GDS assessments is validation that we have achieved this. Kainos has been with us throughout this journey and continues to help us improve our service."

James Munson
Director of Digital Services & Technology, DVSA

To find out how we can help deliver your digital aspirations contact us:

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