

ACCELERATE YOUR LEGACY TRANSFORMATION

An iterative approach to fast-track change



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The legacy impact on UK Public Sector

The ripple effect of the pandemic, Brexit, and the climate crisis looks set to impact the way we live our lives for years to come and increase the need for digital interaction.

As a result, digital transformation has proven essential to the public sector's response to the extreme circumstances we have found ourselves in, **with 51%¹ of UK government agencies agreeing digital trends are improving their ability to respond to threats or changes.**

Yet still, as much as **50% of UK government IT budget is being spent on legacy tech².** So why the reluctance when it comes to upgrading your legacy IT and truly transforming your organisation?



At Kainos, we are fully invested in helping our customers successfully modernise citizen services, with minimal impact on data, users, and other services.

To provide some guidance, we've created this eBook to highlight the key challenges relating to legacy IT systems and the urgent need for change, along with some of the common barriers to transformation.

We'll guide you through how to overcome these barriers in order to support innovation and reduce IT spend, with an iterative approach to transforming legacy systems.



Barriers to transformation

It's often the case that legacy systems that are deemed to be "working ok" are given just enough investment to keep them running, with the funding emphasis being put onto new systems. Unfortunately, this is not sustainable in the long term.

Technology moves on, skills and knowledge are lost, outdated hardware starts to fail, and systems stop being fit for purpose - often at the worst possible times. Moreover, these systems require constant attention from the IT department, draining employee time and resources, and of course, budget.

To further exacerbate this challenge, the inability for organisations to extract useable data from these legacy systems has been cited as one of the greatest barriers to process modernisation and innovation across government.

Outdated systems that require manual intervention often result in an increased human error and a lack of understanding when it comes to risk. Subsequently, transformation becomes difficult and something many departments struggle with.

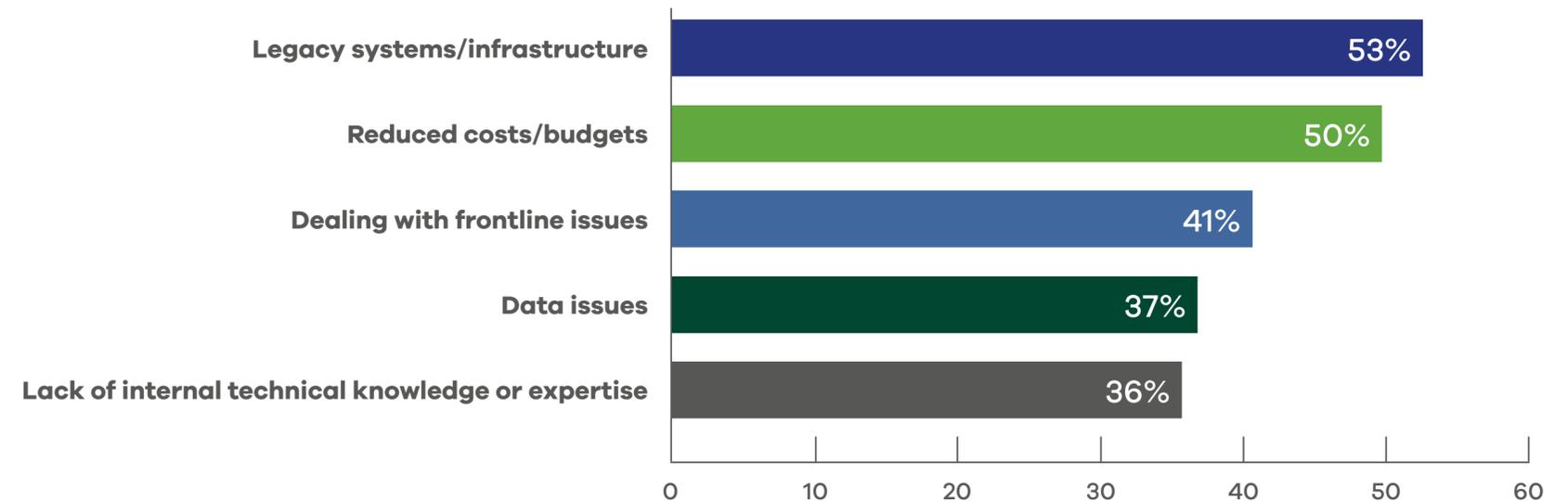
Addressing large scale legacy issues with big-bang approaches by definition requires big-bang funding and can be prohibitively expensive with budget challenges.



Funding for targeted legacy transformation that delivers value where, and in the order that you need it, can be much more palatable to stakeholders



THE TOP 5 BARRIERS TO DELIVERING DIGITAL TRANSFORMATION



Source: Dods Group PLC Research - The Future of Work , 2020

The Kainos Difference and Approach



The House of Commons Committee of Public Accounts identified legacy systems as a barrier to digital change, while the Director of the Central Digital and Data Office cited it as one of the public sector's greatest challenges³.

Diminishing user experience, a lack of accessibility and engagement, cybersecurity failings, and difficulties surfacing and using accurate data are just some of the legacy IT challenges the government has been working for years to address - but with little traction.



We understand that our rapidly changing landscape demands the need to work in more agile ways, with a greater reliance on data to understand the world.

With proven **transformation experience across UK government** and a deep **understanding of legacy challenges** gained through **extensive digital agile delivery**, using **our multidisciplinary teams** we can help organisations transform their infrastructure and become digital-first organisations.

The breadth and depth of our digital expertise positions us to move your organisation forward to meet its Digital Transformation goals.

Our Legacy Transformation Method is proven to:



Help customers deliver value fast



Provide a structure to successfully modernise services



Minimise the impact on data, users, and other services

We take our proven, agile, user-first approach that focuses on services rather than servers, and identify the highest value transformations or migrations to implement early-stage releases. Then we ensure that we regularly iterate for continuous improvements.

Iterative Legacy Transformation



User-led focus to minimise disruption

Build support with users & enable effective business change activities.



Take a front-end led approach

Allowing back-end changes to be done without impacting users.



Identify opportunities for change

Automate manual tasks, remove redundant processes avoiding just re-building the as-is.



Analysis of legacy

Include analysis of legacy dependencies/requirements during the discovery phase.



Highlight dependencies

To support the longer lead time for change.



Clearly articulate the boundaries

& dependencies between legacy and digital.



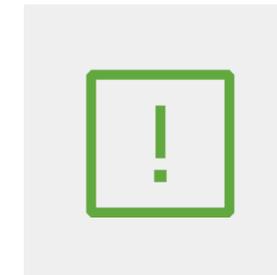
Small changes for big results



Our iterative approach to transforming legacy IT enables services to still be delivered while the transformation takes place. Small changes and incremental wins are the building blocks necessary for a successful transition and offer several advantages, **including:**

Focus on business benefits

Approaching this from a business perspective ensures money is being spent on what matters most.

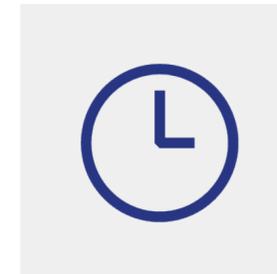


Minimise business disruption

Through an incremental approach and mechanisms such as parallel running, change can be achieved more seamlessly.

Time to Value

Breaking the work down into smaller elements allows value to be realised early on and incrementally.



Reduction of overall cost

Utilising Cloud Economics tooling, TCO (Total Cost of ownership) can be reduced with transformation whilst still providing higher levels of resilience and performance.

True digital transformation

Our recommendations will focus on enabling a strategic shift to digital, unlocking your data and simplifying future change.



Supporting benefits:

- User assessment of desirability
- Business assessment of viability
- Technical assessment of feasibility

Small changes for big results continued

Other benefits include:

- De-risk future service and product development
- Learn on a small scale and experiment
- Increase clarity of future product and service strategy
- Support better outcomes for users and the business
- Increase opportunities for digital transformation
- Embed a repeatable process

Identify opportunities for innovation

Successful digital transformation across an organisation is more than just addressing your outdated IT. Rather than just reimplementing legacy, finding areas to improve by using automation, AI, or cloud platform services, such as replacing manual tasks can add value and deliver real tangible benefits for public sector organisations.

Part of digital transformation is about delivering value cost effectively and having the right tools to maximise productivity and efficiency, by leveraging technology, people, and processes.



Our success stories

We've helped many public sector organisations transform successfully, positively impacting **more than 65 million UK citizens** so far with services we've delivered.

HMCTS

JUSTICE TRANSFORMATION IN 'DIVORCE AND FINANCIAL REMEDY' AND 'FAMILY PUBLIC LAW'

MIGRATION OF LEGACY SERVICES

HMCTS had many legacy systems across England and Wales local authorities that were expensive, not fit for modern day purpose, and nearing end of life at almost 50 years old.

The main aim of the transformation was to reduce the running costs and improve the service efficiencies on two services 'Family Public Law' and 'Divorce and Financial Remedy' with the aim to reduce the dependency on the legacy system, Familyman.

Using the Kainos Legacy Iterative Transformation Method, began with high-volume, low-complexity transactions. New applications for these transactions ran in parallel with existing applications, maintaining a single source of truth for data via automation.

As digital uptake increased and services incrementally progressed, remaining paper applications were migrated onto the new service and legacy applications were decommissioned, for example, this resulted in a reduction from 4/5 weeks from application to first hearing for Family Public law to a new record time of same day.

RESULTS

50% reduction in time for local authorities to submit applications

95% drop in application errors

Divorce Applications processed in **17 weeks** instead of 40 weeks

Reduction in Admin checks by **90%**

Service satisfaction at **90%**

OUTCOME



Proven approach

to transitioning services off legacy systems



Improved

operational efficiencies such as reduction in hearings being cancelled at the last minute



Streamlined

process for Local Authorities across England and Wales

DRIVER AND VEHICLE STANDARDS AGENCY (DVSA)

IMPROVED MOT TESTING QUALITY AND EFFICIENCY MODERNISING THE LEGACY MOT SERVICE

The high-profile MOT system processes **42 million MOTs annually**, supporting 80,000 users and 24,500 garages. Kainos developed an MVP service to replace the legacy mainframe system, and during the programme also migrated the MVP from private cloud hosting to a scalable public cloud platform in just 10 weeks. Since then, we have continuously improved the service, passing GDS Alpha, Beta, and Live assessments and enabling new citizen facing services such as Check MOT History and Get MOT Reminders

Challenge

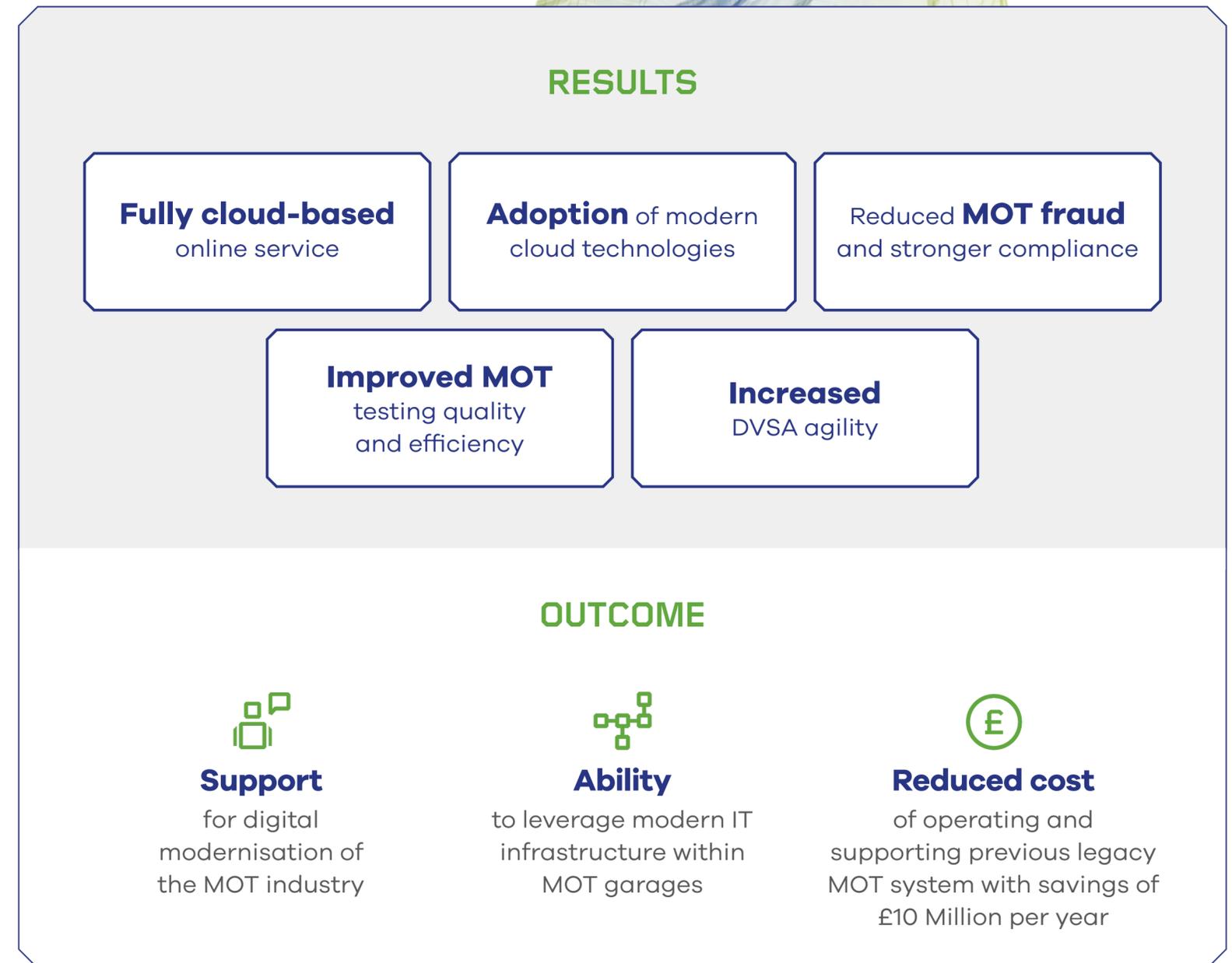
Our challenge was to create an online service to replace the national mainframe-based MOT system and utilise digital transformation to support DVSA's strategic objectives. These included improving MOT testing quality and efficiency, reducing MOT fraud, increasing MOT on time compliance, and exploiting DVSA data.

The service had to be highly scalable, robust, and secure, with over 42 million MOT tests conducted per year, accessed by 66,000 MOT testers across 24,500 sites in Great Britain, underpinning a £1bn per annum industry. Finally, the new service needed to reduce operating costs by 50%.

Solution

Kainos partnered with DVSA to create the MOT Testing Service and developed a Minimum Viable Product (MVP) service to replace the legacy mainframe system. During the programme we also migrated the MVP from private cloud hosting to a scalable AWS cloud platform in just 10 weeks, with support from AWS engineering teams.

Since then, we have continuously improved the service, passing Digital Service Standard Assessments Alpha, Beta, and Live assessments and enabling new citizen facing services such as View MOT History and MOT Reminders.



NHS DIGITAL

NATIONAL INTEGRATION ADAPTORS

Challenge

The National Integration Adaptors project provides modern gateways into the NHS Digital legacy estate. The present legacy proprietary interfaces to NHS services were difficult to work with and were stifling market innovation. No new suppliers had entered the GP foundation system market in the past twenty years. The adaptor project was to provide a new open standards-based façade making it considerably easier for new suppliers to enter the market.

To deliver on this goal, NHS Digital engaged Kainos in February 2020 to design and deliver a suite of open standards-based adaptors to breakdown these technical barriers and thus help accelerate the entry of new suppliers into the primary care (GP) market.

Solution

Using agile delivery techniques and rapid iteration, Kainos delivered seven services from an idea in Discovery to a pre-assured status in 15 months.

Kainos delivered two types of services:

- Centrally managed APIs provide strategic replacements of legacy protocols
- Adaptors running on the supplier's own infrastructure provide a tactical, simplified integration pattern

Kainos ran a selection process to 'recruit' a number of integration partners to independently test the adaptors and validate the approach, Kainos also built a 'documentation portal' to provide self-service advice and guidance on the adaptor ecosystem, informing suppliers on how to integrate their software with the growing list of supported NHS national services.

Initial feedback from suppliers has compared the solution to removing 20 miles from a marathon.

RESULTS

Our continuous integration and delivery approach provided an automated, test driven, repeatable production line approach for code deployment. Using our comprehensive onboarding documentation suite, coupled with our infrastructure-as-code approach (based on Terraform technology), GP suppliers are able to configure and deploy an adaptor on their own infrastructure using opensource, pre-assured software and save money and time.



Book your Public Sector Digital Transformation Workshop

Secure your place on our Legacy Transformation workshop to discuss your organisations legacy IT issues and fast track your Digital Transformation.

During your session we will:

- Review your user needs
- Define your policy/business objectives
- Identify key constraints, size and scope of the problem to solve
- Assess the current legacy landscape
- Understand current challenges and pain points
- Identify 2-3 achievable opportunities
- Establish a first set of potential services for prioritisation

To sign up for our Digital Transformation workshop please get in touch below

Whatever your requirements, Kainos can help unlock everything your organisation needs for success. Plus, thanks to our longstanding track record of delivery to the public sector, we're already a pre-approved provider on every major UK and Ireland procurement framework.



65 million UK citizens
positively impacted by services we've delivered

170+ Agile projects
successfully delivered

98% of customers
rate our service as good, great or excellent

Award-winning
40+ national industry awards

Global Customers
550 blue-chip customers

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About Kainos

Kainos are specialists in secure digital transformation focusing on user experience and business process transformation. We have deep engineering expertise and have delivered complex legacy modernisations. From data management and platforms to advanced analytics, we deliver end-to-end data solutions to overcome client challenges. Our proven, business-led approach ensures your transformation is a success.

¹Digital Leaders ²National Technology News ³Tech Native



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