

MIGRATION OF THE WELSH GOVERNMENT BUSINESS SUPPORT SERVICE FROM AN IAAS PLATFORM TO MICROSOFT AZURE PAAS

About the Welsh Government

The Welsh Government is the devolved government for Wales that works across key areas of public life such as health, education and the environment. Kainos and the Welsh Government have been collaborating for over five years and have developed a genuine partnership through creating solutions encompassing cloud, data, design and digital transformation.

The challenge

The Welsh Government provides services for businesses in Wales through the Business Wales Platform. The platform is accessed by Welsh Government civil servants and businesses and is used to provide information, administer training, manage funding applications (Business Account System - BAS) and host internal Welsh Government applications. Our challenge was to migrate the existing platform to Microsoft Azure and help modernise the platform by taking full advantage of modern cloud services. We had to ensure that the solution reduced complexity and that data would be secure.

The solution

Our goal was to create a fully cloud-based service with enhanced security that would be more flexible and reduce complexity for the Welsh Government while continuing to deliver an excellent user experience. We understood the need for data to be secure, so we utilised Azure security services to ensure data was secure at both rest and in transit. Moving to a fully cloud-based service also allowed the platform to scale to meet seasonal demand, something that the original platform struggled with.

How we did it

The application stack and supporting servers were transformed by adopting native Azure services including:

- Web Apps inside App Service Environments (ASEs)
- Web Apps (multi-tenant for Dev\Test)
- Azure SQL (w. Elastic Pools) deployed with cross-region HA
- Azure DevOps repos
- Azure DevOps pipelines
- Azure Blob storage
- Azure SQL with regional replication

Infrastructure as code was used to deploy PaaS components in ARM templates and create the automated application deployment pipeline. The application was updated to use to .NET Framework 4.7 and use APIs to handle document upload, download and to process Blob storage.



Outcomes



Flexibility: autoscaling across all application components. New applications can be added quickly to meet changing business needs.



Security: a significant increase in the security of data in both transit and at rest. Reduced risk from out of date patches or components.



Reduced complexity: complex, manual processes were removed and replaced with fully automated delivery.



// Kainos's expertise proved invaluable in the delivery of this project. They helped us to significantly reduce complexity without compromising the end user experience. We now have a system that supports the needs of our end users while having the ability to add new applications quickly, allowing us to respond to changing business needs.

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