

Cloud migration to Microsoft Azure achieves reliability, flexibility and efficiency gains for the London Borough of Barking and Dagenham

Find out how Agilisys used it's tried and tested cloud delivery methodology to successfully deliver a migration to Microsoft Azure Cloud.

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Barking & Dagenham

London Borough of Barking and Dagenham Microsoft Azure Migration Case Study

At a glance

- Migration from legacy hosting and community cloud to Microsoft Azure
- Programme completion required as long-term managed ICT service was ending
- Data centre exit enabled and managed

- Cost reductions delivered through optimisation process
- Tried and tested, structured cloud migration methodolog followed
- Programme was delivered entirely remotely during the peak of the COVID-19 crisis









Challenge

- Azure migration needed to be completed within a four month migration window to meet a fixed deadline
- 252 servers across 68 discreet systems and applications migrated to Azure
- Separate physical data centre exit also managed

Methodology

- Migration delivered in five phases: Prepare, Discover, Migrate, Manage, Optimise
- Proven methodology ensured effective on-time rollout
- Migration delivery actively involved business users as part of the programme

Impact

- On-time and on-budget delivery of migration programme and data centre exit
- Reliability, flexibility and efficiency gains realised
- Combined optimisation approach delivers further cost reductions in excess of 40%

Organisational Information

- Industry & Core Business Local Regional Government
- Geography United Kingdom
- Approximate number of employees 3,566*
- Workloads migrated, Windows, Linux Servers & SQL Databases
- * Latest published information



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Challenge

The time-sensitive need for a cloud migration

Faced with the end of a managed ICT service, Azure was chosen to replace a legacy hosting and community cloud solution

With the end of a long-term managed ICT service approaching in early December 2020, the London Borough of Barking and Dagenham (LBBD) needed to migrate from its legacy hosting and community cloud solution and chose Microsoft Azure as the primary destination.

Having delivered an earlier programme to implement Azure Site Recovery to provide Business Continuity services for LBBD, Agilisys was selected to deliver this migration.

The scope of the programme covered 252 servers across 68 discreet systems and applications moving to Azure. Project management was also provided for a separate physical data centre exit. This data centre exit was conducted over six main phases and was run in parallel to the Azure migration.

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Methodology

Following the Agilisys Cloud Lifecycle Methodology

Tried and tested Prepare, Discover, Migrate, Manage, Optimise process delivers effective Azure migration

Agilisys provided the migration programme following the Agilisys Cloud Lifecycle methodology. This is delivered in five phases, Prepare, Discover, Migrate, Manage, Optimise.

Prepare:

The initial preparation and business case had been previously established during the Azure Site Recovery solution delivery. This phase therefore involved:

- The LBBD Azure platform went through a process of formal Infrastructure Verification Testing (IVT) to ensure production readiness
- Early Life Support (ELS) and Bring into Service (BIS) processes were agreed and implemented to ensure a smooth transition of services into support once migrated

Discovery:

A comprehensive discovery process identified 252 servers within the LBBD environment, along with hosting requirements and interdependencies between systems. Three primary objectives were worked to:

- 1. Identification of business stakeholders and key application details recorded into SharePoint CMDB
- Determining real-time interdependencies between systems that could impact system performance and grouping dependent systems into migration groups
- 3. Determining back-end interdependencies that need to be considered when migrating systems to ensure that 3rd party and batch processes continue to run effectively. This

included working with additional dependent projects. For example, a transition from LBBD's Citrix environment to Windows Virtual Desktop.

These outputs were consolidated into a playback deck that provided valuable system information and informed the Azure Landing Zone design, using a High-Level and Low-Level Design approach. System destination and migration wave planning was also completed.

Migration:

The existing Azure landing zone required enhancements and network connectivity, including Express Route to support the full production environment. The enhancements were deployed and tested prior to the commencement of migrations.

The migrations were delivered in three main phases including 25 cutovers, with each phase's migrations grouped according to dependency to ensure minimum impact to production systems. A total of 302 SQL databases were migrated as part of the application migrations. The main technique used was primarily synchronise and cutover (Rehost) using Azure Site Recovery (ASR) to replicate data to Azure. The more complex systems were built ahead and tested before synchronising data and cutting over. This approach means failbacks are straightforward should a migration fail acceptance, although at LBBD no failbacks were necessary.



The crucial element with any migration programme is testing. We recognise that the leading cause of migration failbacks are that previously undocumented issues are identified during acceptance testing. Our approach tackled this at LBBD in two ways:

- 1. We actively involved end-users (not ICT staff) to perform pre-migration baseline and migration acceptance cut-over testing.
- 2. We ran baseline tests, before migration, and used the same baseline tests following migration. A total of 828 User Acceptance Tests were successful during the project and were documented

The benefit of this business focussed approach was that pre-existing issues were identified and remedied before migration, and, as business users were involved in the migration effort, we had greater buy-in from non-ICT users. We further encouraged engagement by migrating most systems during working hours. This both allowed end-users to fully participate in the migration and develop confidence in the programme.

Manage:

Following acceptance and early lifecycle support, systems were handed over to the Agilisys Cloud Management team. Documentation from the migration, including discovery outputs, designs and runbooks were provided to LBBD and the Cloud Management team, co-ordinated by a Service Transition Manager.

Operational teams were involved in the ELS and BIS processes for all migrated services. The managed service operates 24x7 and is UK-based. The service is accessed through our ServiceNow portal and is provided on a utility basis. Governance and reporting is provided through online dashboards and monthly service reviews.

Optimise:

Initial optimisation took place through the migration programme, consolidating SQL servers and right-sizing systems as they were migrated. As part of the managed cloud service, using RIs, recommending alternatives to storage types and further right-sizing, we have continued to optimise the Azure environment.





Impact

Delivering the benefits of Azure Cloud

Successful completion of Azure Cloud migration delivers reliability, flexibility and efficiency gains for the London Borough of Barking and Dagenham The programme was delivered on-time and on-budget, with all systems migrated onto Azure with a limited number to the Town Hall (predominantly telephony). What's more, the programme was delivered entirely remotely during the peak of the COVID-19 crisis.

As a result of the migration, the Council has secured:

- Reliability: a future-proofed stable ICT infrastructure, with security and governance to adhere to PSN, CESG and best practice standards.
- Flexibility: reducing the time-to-provision of new services, enabling LBBD to benefit from new technologies and cloud services, providing a springboard for digital innovation and transformation.
- Efficiency: an Azure environment built for straightforward optimisation with lower cost through scale and higher utilisation, paying only for the services they consume.

Through our combined optimisation approach, further cost reductions in excess of 40% of the initial legacy estate "As Was" cost of the Azure estate have been identified.

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Partnership Integrity Innovation Passion

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Agilisys, an employee owned organisation, is one of the UK's fastest growing and innovative cloud and digital transformation specialists, enabling organisations to adopt technologies, platforms and processes that promote new ways of working.

An established partner for both the public and private sector for nearly two decades, we have earned a strong reputation and hold deep domain expertise delivering change and innovation, particularly within local and central government.

We support our customers through a network of offices and centres of excellence throughout the UK, employing over 1,500 staff across the UK.

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