



Platform Modernisation in the Public Sector

In 2013, the Cabinet Office published a policy paper that detailed the strategy that the government would employ to become 'Digital by Default'. In essence this policy outlined the plan for public service transition to digital – emphasising the benefits of adopting a 'Digital First' approach to service delivery for both new and existing services. Data forms a critical part of implementing this strategy, whether it's used to identify problem areas, to reform public services or to share information between central government and wider sector partners.

Drivers

James Cherry, Chief Technical Officer of data specialist IT Consultancy, Northdoor - explains: "The drivers behind this 'Digital First' approach are simple - cost savings and services that are quick, convenient and in-line with the digital age.

"The cost savings are compelling with an estimated £1.7 billion saved each year and few could argue that government services lagged behind the services provided in the private sector.

"With data forming the foundation of these services, it was surprising that a quick show of hands at one of our recent public sector events revealed that over 80% of organisations had yet to modernise their data platforms. Whilst this was by no means a scientific approach, it is indicative of the difficulty in transitioning services that the public sector face."

Such an acknowledged lack of data platform modernisation – if it were to be reflected across the sector - would clearly present a significant barrier to improving services and delivering the 'Digital by Default' strategy itself.

The whole cost of running out-of-date and/or unsupported data platforms can easily bring a variety of potential impacts, including:

- Increased support & management costs
- Reduced efficiency
- Issues with compliance
- Difficulty in delivering actionable insights

Barriers

So what's stopping public sector organisations from making the change? Potential barriers to moving on from legacy data systems are many and complex. They include:

Complexity of the Data Estate

The public sector is home to large and often complex data estates. Typically, these have grown over a number of years and suffer from implementation in silos as well as being behind the times. All too often there is a historical lack of a clear data strategy and the critical nature of some of the applications that rely on the data platform result in a 'if it's not broken why fix it?' attitude.

Clarity over Licensing

Licensing is never a straightforward exercise, this is especially true when changing licensing model to a per-core model, where workload density becomes a significant factor.

Large data estates and variation in workloads can make 'cost vs benefit' analysis difficult and make the same appear to be a daunting exercise - especially to staff unfamiliar with the modernisation process.

Vendor Applications

A common obstacle in data platform modernisation is vendor support for database versions. Far too many suppliers fail to keep their products up-to-date and supported on current databases and operating systems. This reluctance to stay current presents a risk to the organisation and an issue for compliance.

Challenges

Unlocking Actionable Insights for Public Sector

One of the biggest challenges facing public sector organisations is unlocking actionable insights held in their data. A modern data platform helps unlock these insights through self-service business intelligence, advanced analytics and Big Data tools delivered across platforms, including mobile.

By delivering these insights organisations can move to being proactive rather than reactive and deliver improved services.

Legacy Systems

Maintaining old infrastructure and platforms is a costly business, but the real loss is in innovation. Remaining on aging technology is a barrier to Cloud, Big Data, Mobile and Social technologies, all of which can be applied to advance services and reduce cost.

“ The cost savings are compelling with an estimated £1.7 billion saved each year. ”

Benefits

In the last decade advances in technology have been huge and this is very apparent when it comes to database technology. Performance is one area that has seen significant gains. SQL Server 2014 saw the introduction of a new cardinality estimator that improved query performance compared to older SQL Server versions such as SQL Server 2008 R2. SQL Server 2016 introduced intelligent query processing and SQL Server 2017, and SQL Server 2019 has further improved on this feature.

Such increases result in a higher workload and server density which in turn can reduce license, management and maintenance costs.

Whilst technology has advanced, so has the intensity and complexity of cyber-attacks. Barely a week goes by without a news headline of a significant security breach. With data being the prime target of many of these attacks and public sector organisations holding a 'gold-mine' of personally identifiable information, data security has arguably never been more important.

The latest database releases include far greater security features than their predecessors. Features such as transparent data encryption and separation of duties reduce the risk of data loss and help maintain security and compliance.



If your current data platform is out of support, you will no longer receive patches and security updates increasing your risk of a cyber attack.



If you have a "cloud-first strategy" you have the option of running your data platform on-premises, in a public cloud or a combination of both with a hybrid architecture.

You can make use of Infrastructure as Service (IaaS), or Platform as a Service (PaaS) offerings such as Azure SQL databases or SQL Managed Instances. PaaS options help you manage the underlying data platform, all you are responsible for is the application and the data.

With Azure SQL Database everything including backups capable of delivering a point in time restore with a backup retention between seven and thirty-five days, patches and security updates are taken care of by Microsoft.

A Modernised Data Platform?

A modern data platform can form the foundation that helps enable public sector organisations to both innovate and prosper. It's clear that transformation isn't a simple task.

James Cherry, Chief Technical Officer of Northdoor, says:

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Careful planning, design and architecture is necessary. Although the benefits of modernisation are obvious, many public sector organisations lack the knowledge and experience to undertake such change – without assistance some will struggle to make the change.

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Northdoor has recently helped a number of public sector organisations achieve lower costs, increase capabilities and gain greater value from their data platform.

Garry Tatton, Assistant Director of Operations, Royal Bournemouth and Poole NHS Trust says:

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Northdoor helped us to clearly understand what our migration options are from a SQL Server environment design and licensing perspective. Their work has helped us to minimise costs and enabled us to make the right decisions with regard to selecting the most appropriate SQL Server licensing model and environment migration path for the future.

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About Northdoor:

Northdoor is an award-winning IT consultancy and services provider specialising in Microsoft solutions.

Proud to hold Gold Status across four different Microsoft Partner categories – Cloud Platform, Data Platform, Analytics and Application Development – Northdoor stands out from the crowd.

We help fast-growing enterprises achieve their business objectives through application development, business intelligence solutions, data platform solutions and cloud enablement.

We have delivered Microsoft solutions to more than 150 businesses of all sizes and from all industries, including major financial services and professional services companies.

Get in touch:

E: marketing@northdoor.co.uk

T: +44 207 448 8500

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