Database management services to support Coventry City Council

Marion Shanly tells us how WellData provided critical database management services to support Coventry City Council and its residents

The issue

Coventry City Council is a metropolitan authority that, like most local authorities in the UK, has tremendous responsibilities in promoting the sustainable growth of their city while caring for their most vulnerable residents.

Such a large remit requires a strong and robust database estate that can cope with the amount of information, often sensitive, that the Council needs for their day-to-day operations. However, Coventry City Council's entire estate of Microsoft SQL Server and Oracle databases, which comprised of hundreds of database versions running on different operating systems, was lacking any internal database management. As such, the databases were at significant risk of failure, with unimaginable consequences for the Council and their residents.

The solution

With limited funds and the challenges of employing more than one in-house database administrator to ensure the required 24/7 management of their database estate, the Council opted for outsourcing: in April 2017 WellData was selected as a partner to ensure that the databases were available, efficient, and secure at all times.

In agreement with the Council, WellData's scope of works included:

- Managing and supporting the Council's databases
- Data extraction, translation, transfer, conversion and backup and recovery

Immediately, a primary database administrator and a secondary database administrator (DBA), both with over 15 years of experience and qualifications, were assigned to the project.

WellData then proceeded to run a comprehensive system audit covering the whole Council's SQL server and Oracle estates. This was essential to analyse the state of databases and identify the support activities required to bring reliability, efficiency and security to the database estate.

Once the foundation of the project was laid, WellData proceeded to implement:

- **Daily business-ready checks.** These cover database capacity, corruption checks, availability, performance, index and statistics maintenance, backup status, jobs and error logs and are essential to spot and proactively implement any required measures.

• **Monitoring and reporting on space management metrics** to avoid severe impact on database performance and for corrective measures to be implemented.

• **Incident management** through a warning system for database outages, service outages, database performance and other events. All incidents are immediately escalated to the primary DBA for action.

• **Back-up and recovery** through the production of bespoke recovery plans and procedures

Patching and updating
Most critically, the WellData team has proactively worked to ensure continuous improvements to the Council's system as opportunities are identified and implemented, thereby ensuring that the Council's SQL Server and Oracle estates take advantage of and mirror the Industry Best Practice.

Ad hoc project
As part of the team's commitment to making sure that Coventry City Council's database estate runs on the latest and most updated solutions, in 2019 WellData led the migration of the Council's numerous SQL Server instances from physical servers to a virtualised cloud environment.

The reason for the move was that the team soon came to realise that many instances were running on software versions and hardware that were nearing the end of their lifecycles. Something had to be done, and fast.

To address the issue, and in consideration of the size of the required migration, WellData designed an implementation strategy that maximised client involvement and to also incorporate opportunities for upskilling from the Council's side. After all, WellData's commitment is to being part of our client's team, even if from the outside.

"...in April 2017 WellData was selected as a partner to ensure that the databases were available, efficient, and secure at all times."

A series of workshops were run with Coventry City Council's employees from various relevant departments, including IT infrastructure and the in-house application support team. These workshops were an opportunity to share knowledge and work collaboratively on the migration, and they were instrumental in maximising the project's success by ensuring that the migration was carried out in line with the Council's operational requirements.

Critically, by disseminating knowledge with its employees, the Council was empowered to maintain server instances independently, hence minimising the requirement for support tickets.

The results
The project was ultimately successful, and Coventry City Council now runs all SQL Server instances in virtualised environments, leveraging significant cost efficiencies. To date, the platform has been highly stable and undergone zero downtime (excluding pre-planned patches).

Additionally, to the systems that WellData put in place as part of the service management offered to the Council, today:

• All incidents are addressed within 1 hour, with an average response time of 2 minutes.

• All incidents within SLA are resolved in an average time of 17 minutes.

• All service requests are addressed within 1 hour, with an average response time of 30 minutes

• All service requests within SLA are resolved within 30 minutes.

The feedback
"Who would have thought we did not need an onsite DBA.

With the technical skills and service, WellData have it covered all remotely.

From managing our operational Databases but also being involved in SQL design to move our SQL estate into the future. Working together to build relationships and improve services that have benefited us and WellData."

DataCentre Services Lead, ICT & Digital.

welldata 20 years

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