

Migrating to Windows

How WellData transferred Devon Council's IT systems to a newer, more reliable infrastructure



The issue

Devon County Council has relied on WellData for the management of their database estate for over 8 years. At the very beginning of the project talks were held about the opportunity to change their servers and migrate their Oracle Databases running on AIX servers to up-to-date Windows Servers as well as the daily Business-as-Usual database management that the current estate required.

Often migrations appear to be very complex projects. This is not surprising, considering that a migration frequently involves changing the operating system, storage and database version all at the same time, whilst keeping the downtime to a minimum.

The risks of a poorly planned migration are high, as they can cause damage to the integrity of the data and unplanned outages.

This is why migrations tend to be postponed indefinitely.

“sometimes it’s ok to wait and let the systems get a bit older, but when systems get too old, they can’t be properly managed. The risk of a severe data loss increases exponentially, until eventually the risk becomes too high to be ignored”.



As Chris Jones, the WellData DBA in charge of Devon County Council, says “sometimes it’s ok to wait and let the systems get a bit older, but when systems get too old, they can’t be properly managed. The risk of a severe data loss increases exponentially, until eventually the risk becomes too high to be ignored”.

Devon County Council’s database estate was getting to the stage where risk was starting to get too high: in June 2021 the operating systems were nearing end of support, the servers were at a point where the cost of maintenance was becoming too expensive, and the Oracle version needed upgrading.

When the request for a migration to newer and better performing servers and databases came through from the Devon County Council’s IT department, the WellData team was ready.

The solution

Being well acquainted with the Council’s database estate, the team knew that there were currently five databases hosted on only two servers. This situation had developed over time and was not ideal as it complicates the daily management of the databases and prevents database replication should that be necessary.

For this reason, the very first recommendation was to build five servers, one for each database. These five servers had to be identical, built to the same specification, so that if a server failed it would be possible to replicate a database on to another server; this also allowed for an easier and more effective database management regime.



Data Pump Migration

With regards to the actual databases, a decision was made to move to the latest Oracle version Oracle 19c; however, the version of Oracle used at the time didn't allow for a direct jump to this version. Instead, the team had to use Oracle's Data Pump utility, as that was the only viable option to extract the data from the existing databases and import the data into the new Oracle 19c databases.

Not only did this streamline the process, but it allowed for the opportunity to clean up the existing data, removing redundant pieces of information and reducing the overall size of the database.

As so often happens in these situations, minor obstacles were encountered along the way, like an incompatible character set, but the team worked fast to find the right solution.

The Results

The migration process was completed in less than five months with no disruption to Devon County Council's operations: the servers were built, Oracle 19c installed, daily maintenance plans established, each database was cut over, testing carried out and the migration completed.

In the words of Graham May, Application Analyst, of Devon County Council (DCC):

"WellData were critical in aiding a hardware refresh of our on-premise Oracle DB real estate. The hardware refresh necessitated a switch of platform, as part of DCC's long term goals to reduce the number of platforms that we support.

WellData managed the process from cradle to grave ensuring that we stayed within our Oracle licensing agreements.

WellData were on hand to perform the migration of the Production Environment outside of our core corporate support hours"

Conclusions

It is important to remember that while migration might feel like a daunting task, waiting for a database failure or the inevitable end of support is not a good decision to take.

Relying on the expertise of professional DBAs who have migrated servers for innumerable clients, allows you the peace of mind of migrating your servers knowing that your database estate is in safe hands.

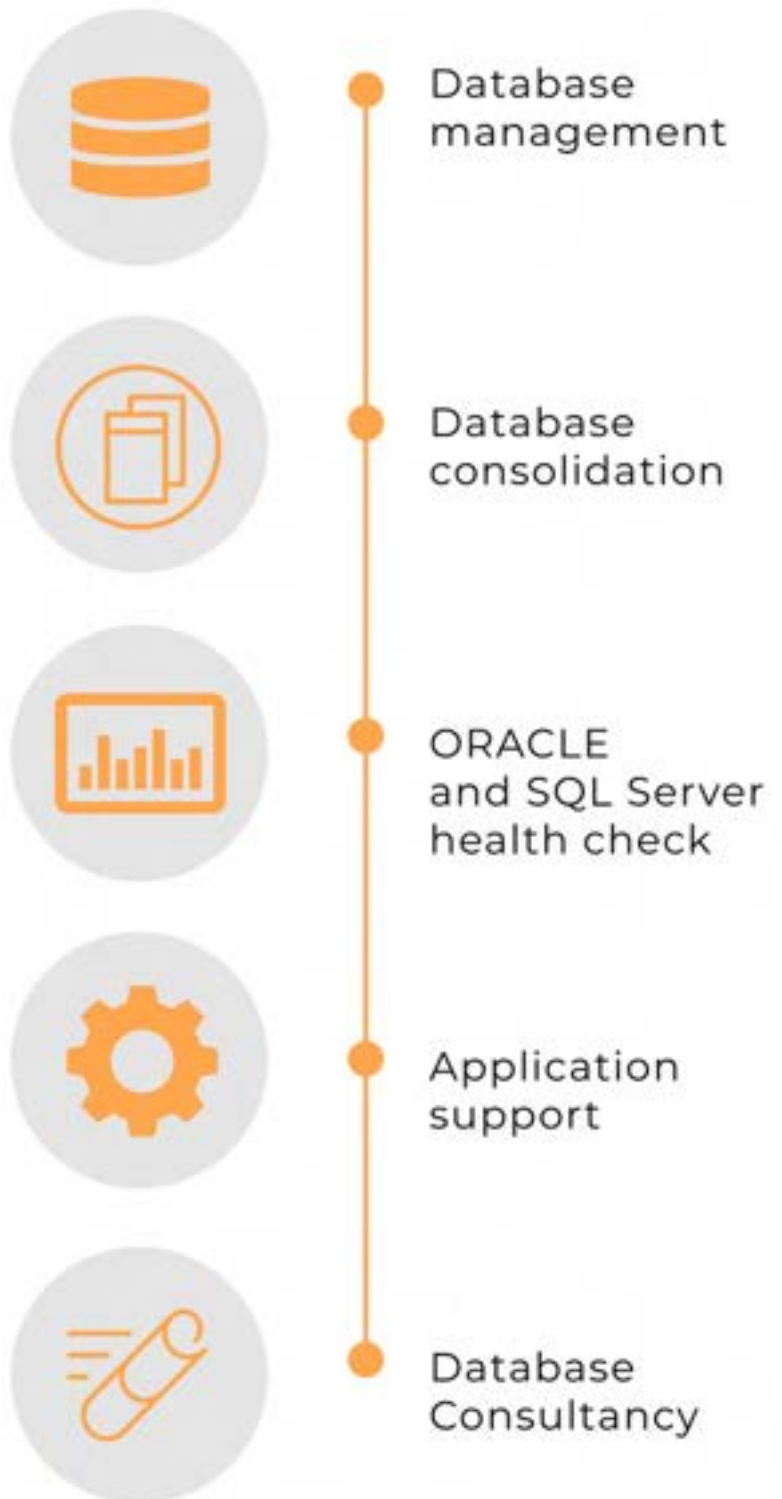
Are you considering migrating your databases? From on-premise migrations to cloud migrations our expert DBAs are here to assist you. Contact us.



What WellData can do for your organisation


With a proven track record of effective partnerships with organisations across different industries and sectors the U.K., we look forward to becoming "part of your IT team".

These are some of the services that WellData can offer to support your IT requirements:



WellData look forward to working with your organisation and are confident that we can meet the challenges and requirements of the support service you are looking for.

If you have any questions or would like to find out more about how WellData can help you, please feel free to contact our team at your convenience by email at enquiries@welldata.co.uk or by phone on [0800 389 4051](tel:08003894051)



**Thank you.
Let's talk and
discuss an
action plan.**

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