Drive better business decisions in the Azure cloud with Northdoor

Even in the age of Big Data, data warehouses remain an exceptional source of business value, helping decision-makers and analysts work smarter and faster. However, their reputation for being complex, expensive and inflexible is not entirely undeserved. Many organisations struggle to keep their data warehouses available, relevant and working fast enough to meet business needs – and cost is another major challenge.

For companies looking to out-think their competitors without breaking the bank, Microsoft's SQL Data Warehouse is an Azure cloud-based data warehouse that offers enterprise-class scalability, availability, performance and flexibility on a pay-as-you-use basis.

Falling behind the times

In many businesses, the data warehouse is a key strategic asset that helps drive better decisions that are based on real data rather than gut-feeling.

A well-designed and well-maintained data warehouse provides a window into historical business activities, enabling decision-makers and analysts to work faster and more intelligently. When it comes to analysing structured business data, the data warehouse continues to be a practical and proven tool.

Of course, business never stands still, and many organisations that have invested in developing and running a data warehouse may find that their solution has not evolved in line with changing requirements and increasing data volumes.

These organisations typically do not want to lose the investment already sunk into the data warehouse, but equally, they may not be able to justify the additional costs of bringing an on-premises solution up to date and ready for the future.

Growing pains

There are potentially many reasons why a data warehouse may no longer serve the needs of the business; one of the most crucial is often the technology platform. Here, typical problems include:

- Capacity: rising data volumes may mean that additional storage and/or computing resources are needed. For an on-premises solution, this may mean large investments in the SAN and server infrastructure.
- Performance: larger numbers of users combined with faster business cycles may mean that the data warehouse can no longer deliver analysis fast enough. This also implies the need for further investment in the server and storage infrastructure.
- Resilience: even where the data warehouse is performing well, it may not be sufficiently protected against downtime and/or loss of data. Ensuring business continuity and disaster recovery are essential yet potentially complex and costly activities.
- Administration: specialist skills are required for the effective upkeep and development of data warehouses, and it may not be practical for smaller organisations to maintain these skills in-house.

Flexible and scalable

SQL Data Warehouse is a highly elastic cloud-based solution that can scale seamlessly to manage petabytes of data. Provisioning takes less than five minutes, and computing/storage resources scale up or down in seconds.

Fast and secure

Massively parallel processing across distributed computing resources delivers ultra-fast results, even on huge volumes of data. SQL Data Warehouse provides integrated security and threat detection, keeping valued data safe.

Cost-effective

Storage and computing power can be scaled independently and on a pay-as-you-use basis, so SQL Data Warehouse can track peaks and troughs in business requirements without requiring businesses to over-pay or over-provision.

Microsoft SQL Data Warehouse is a platform-as-a-service (PaaS) offering that runs on the Azure cloud. The solution delivers true cloud elasticity, enabling companies to flex their storage and computing resources up or down independently and in a matter of seconds as their needs change. This means that organisations can ensure their data warehouse always delivers the required capacity and performance without needing to over-pay for spare resources.

Reduced management

As a PaaS offering, SQL Data Warehouse enables organisations to focus on designing the right data warehouse for their changing business needs rather than on managing and maintaining the underlying platform. The solution also removes the need to plan capacity upgrades, license separate software components, and manage hardware and operating systems.

Optimised performance

The massively parallel architecture of SQL Data Warehouse gives it exceptional capabilities in processing and analysing huge volumes of data at high speed. Queries are distributed across all available computing nodes, processed, and the results returned to the user. Additional performance can be accessed in a matter of seconds by simply increasing the computing resources.

Right-sized solution

As a fully flexible and dynamic platform, SQL Data Warehouse is always the right size for any organisation's needs. In addition to flexing storage and computing resources up and down to match peaks and troughs in demand, companies can manually or automatically pause their data warehouses when not in use, greatly reducing costs.

Enterprise-class resilience

Compared with on-premises or hosted physical infrastructure, the fully virtualised cloud architecture underpinning SQL Data Warehouse makes it far easier and less costly to achieve extremely high levels of availability and redundancy. For example, geo-redundant storage snapshots can be hosted in an Azure data centre on a different continent, enabling the data warehouse to be recovered in a matter of seconds even in the unlikely event of an entire data centre going down. True enterprise-class RPO and RTO are within the financial reach of even small businesses with SQL Data Warehouse on Azure.

Take the next step

Choosing SQL Data Warehouse on Azure could help you achieve higher performance and availability at far lower cost, and scale up and down without any limitations. To find out more and access expert help in making the move, speak to Northdoor today. Our team of Azure experts can help you get the most out of the solution and ensure a fast, non-disruptive migration.