

## Case Study

# Medical Equipment Company Migrates from On-Premises VM to Cloud-based Microsoft Azure SQL Database

Datavail helped a medical equipment company save tens of thousands annually through a migration from an on-premises VM to the cloud with Microsoft Azure SQL.

## The Challenge

The medical equipment company had an on-premises VM machine and multiple databases in an IBM data center. Datavail managed these databases for the customer, and they showed an interest in moving to Microsoft Azure for a cloud migration. The customer wanted to reduce their costs and the number of resources required for maintaining a VM Machine.

## The Solution

We proposed a move to Microsoft Azure's cloud-based solutions to overcome the dependency that the customer had on IBM's on-premises data center environment. Both Azure VM Machine and Azure SQL Database were prospective options. We presented a comprehensive list of the advantages and disadvantages of both technologies to allow the customer to make the selection that best fits their requirements and business goals.

## Azure VM Machine

### Advantages

- Similar to the customer's current on-premises VM
- Best suited for migrating existing applications
- More secure
- Supports high availability and disaster recovery solutions for cloud and on-premises assets
- Supports applications that run partly in the cloud and partly on-premises

### Disadvantages

- Variable price based on number of cores and SQL edition
- Requires licensing
- A secure tunnel is necessary for applications accessing on-premises resources
- Requires IT resources for support and maintenance

## Azure SQL Database

### Advantages

- Lower cost
- More user-friendly
- Easy to scale performance
- No need to manage the underlying operating system, hardware, or configuration settings
- Built-in fault tolerance
- Range of business continuity features, such as Point in Time Restore, Geo-Restore, and Geo-Replication
- Supports on-premises applications accessing data in the cloud-based databases

### Disadvantages

- Azure SQL database is best suited for brand new cloud-based applications
- Limited set of maintenance jobs
- Lack of feature parity with the latest versions of SQL Server
- Not as secure as VM machine
- As a shared service, other database applications may consume additional resources from the Azure pool, resulting in unpredictable performance
- More difficult to set up a development environment with a production backup

The initial migration used Azure VM Machine. The process went smoothly, and the customer redid their application to take advantage of the cloud-based infrastructure. A second migration took place from Azure VM Machine to Azure SQL Database, as the customer wished to access more significant cost-savings and eliminate the need to support the underlying technology.

Because of the greater restrictions in place on the PaaS platform versus the IaaS platform, we needed to use a different mechanism to write out the different codes used for managing the server.

## The Results

The customer is saving approximately \$40,000 annually by moving from the on-premises VM Machine to Microsoft Azure SQL Database. They realized many performance improvements following the migration and spent less time and resources maintaining the infrastructure. Datavail is providing ongoing optimization and proactive support for the customer's databases.