Performing a lift and shift migration of on-prem servers to the AWS platform

bbd
case study

For a client providing innovative solutions to the dispensing and distribution of medication in the health services industry, BBD was tasked with analysing their existing environment and migrating all the relevant servers from their current on-prem data center to the AWS environment.

The migration, which aimed to help the client reap the full benefits of hosting with AWS, also needed to ensure that all business and operational users and on-site services could be accessed using the newly migrated servers without any interruption.

Objectives

The client required a lift and shift migration of their existing servers into the AWS cloud as part of their initial strategic plan to utilise the benefits of cloud computing to better service their clients and provide modern solutions to the real problems faced in health care.

Benefits

› Save over 50% of the client's previous hosting costs

› Save time and effort on infrastructure support and maintenance

› Reduce down-time leading to better user and client experiences

› Improve security

› Secure sensitive data

› Open new possibilities to leverage AWS tools and services to provide cutting-edge solutions

› Continued use of the system without interruption during the migration

Overview of the solution

After an analysis of the client's existing environment, BBD was able to migrate all the relevant servers from the current hosting provider into the AWS environment, without impacting business operations. This was done through the implementation of a complex network infrastructure which ensured that all sites and business users could continue to use the system without any interruptions. Prior to the migration, the client already had a few servers in the AWS environment, which meant this project further leveraged and strengthened the working and strategic relationship between themselves BBD and AWS. Additionally, AWS provided credits to assist with costs of the migration.

Approach

Following a phased approach, the servers were switched on in stages, focusing on the User Acceptance Test (UAT) environment to save costs and in order for tests to be run. During this phase, most of the effort was spent on creating a secure network that enables all the users to connect to the new environment. However, operating in the public health sector, the servers contain highly sensitive data and storage of such data needs to adhere to strict guidelines to ensure it is protected from unauthorised access. As such, a secure network access infrastructure was put in place to ringfence the servers and the sensitive data. The infrastructure prevents all access from the public except for authorised personnel through the use of a secure VPN connection or site-to-site VPN tunnel. This also blocks access to potentially malicious unauthorised connections.

Further to secured network access, additional infrastructure was put in place to improve security and secure access to the servers, sensitive data, and the AWS account to ensure that only authorised connections are allowed. This added security layer protects both data at rest and data in transit, which means that data being sent over the internet is encrypted and protected from any malicious activity.

Once the newly migrated environment passed testing, the production servers were synced and the switch to the new environment was implemented without any difficulty. In this way, users could perform their day-to-day tasks without disruption throughout the migration.

Impact of BBD's partnership

BBD was able to seamlessly migrate a complex and highly integrated solution into the AWS environment without affecting users' ability to work and perform their regular tasks. The migration, which was aligned with AWS best practices, is a significant milestone that enables the client to benefit from automated services provided by AWS which help to ensure availability, scalability, improved security, and reduced hosting costs. In addition, the solution has also paved the way for the client to leverage AWS services to explore new and innovative solutions to better service their clients.