

Customer Challenge

CBS Africa is South Africa's first dedicated cloud brokerage marketplace supplier and consultancy. It is a new enterprise in the local ICT industry which has been launched to enable and license businesses throughout the continent to purchase and manage cloud brokerage marketplaces via the Jamcracker platform. With customers located across the African continent, CBS Africa required secure, extensive, and reliable global cloud infrastructure that offers scalability and performance to host their workload. These marketplaces are written in ASP.NET and are running on Windows Server EC2 instances. The databases are running SQL Server Standard Edition on EC2. The developers use Azure DevOps Services as their CI/CD code pipeline to deploy code to the Windows servers hosted in AWS.

CBS Africa chose AWS for many reasons. AWS has the most experience with Microsoft applications in the cloud and they offer the best platform for Windows Server and SQL Server for higher performance and reliability, greater security and identity services. AWS also has the broadest and deepest capabilities, lower total cost of ownership, and flexible licensing options for Microsoft workloads.

How the solution was deployed to meet the challenge

CBS Africa workload is deployed in the London Region across two availability zones with two EC2 instances for high availability. The stable and efficient global infrastructure from AWS gave CBS Africa the platform required to reach customers located in different geographic regions on the African continent. Azure DevOps Services agents are installed on the Windows EC2 instances hosting IIS allowing developers to seamlessly deploy code from Azure DevOps Services into AWS. There are two environments – one for development and one for production. Both environments are isolated from each other to add an additional layer of security. Remote Desktop Services allows developers to securely access the Windows Servers running on EC2. A separate EC2 instance running Windows Server serves as the Middleware 'gateway' between AWS and third-party license providers.

Third Party Application used

Azure DevOps Services runs the CI/CD pipeline.

Date the project entered production

March 2021

CBS Africa



CBS Africa consists of a dedicated, highly motivated team of business analysts, developers and project managers with an in-depth understanding of the cloud software industry.

Within the organisation, key relationships already exist with global world-class vendors of services, and the company is the first in the world to successfully integrate SoftLayer, an IBM Company, within a brokerage model.

Cloud Brokerage Services Africa (CBS Africa) enables and licenses businesses throughout the continent to purchase and manage cloud brokerage marketplaces via the Jamcracker platform.

AWS Services used as part of the solution

Amazon EC2 hosts all the Windows Servers in AWS. The web servers are hosting IIS that serves web content to users. An Application Load Balancer is deployed in front of the auto-scaling group with the web servers. All monitoring in the environment is managed in Amazon CloudWatch. Certificate Manager provisions, manages, and deploys public certificates. Simple Email Service (SES) is used to send email notifications to subscribers to notify them of successful transactions. Amazon S3 is used to securely store all blob data. AWS Systems Manager is used to run admin level such as install Windows updates. AWS Backup is used for disaster recovery to backup all EC2 EBS volumes on a daily basis. Amazon GuardDuty is used for detection of unauthorized access into the environment and uses VPC flow logs and CloudTrail Logs for monitoring and alerting.

Outcomes

CBS Africa can onboard new customers without having to worry about capacity constraints. New customers are onboarded and their marketplace up and running within 3 hours. This is a massive advantage for CBS Africa.

Architecture Diagrams of the specific customer deployment

