

Implementing an Azure cloud solution for a leading insurance platform



BBD has developed a state-of-the-art online 24/7 premium collection and disbursement software platform within the Microsoft Azure cloud technology stack. The solution implements a microservices, cloud-native architecture that offers autonomous service capabilities across business domains.

Objectives

- › Redevelop an outdated, previously delivered bespoke premium collection and disbursement software system
- › Migrate data from legacy system to the newly developed solution
- › Leverage cloud scalability capabilities to cater for a growing subscription base and user demands
- › Leverage cloud Pay-As-You-Go offerings to manage costs in line with organic business growth
- › Leverage cloud High Availability (HA) and Disaster Recovery (DR) capabilities for maximum up time and to cater for the business'24/7 service offering
- › Cost benefits of baked-in infrastructural, maintenance and upgrade capabilities

Benefits

- › Secure, reliable, and globally accessible solution in the Azure cloud
- › Allows for consistent service to clients with high availability
- › Utilises a modern microservices-oriented architecture
- › Optimises operational costs associated with running applications
- › Reduces need for maintenance and upgrades
- › Scales as required

Overview of the solution

BBD was approached to build a custom premium collection and disbursement system that would be used both internally by service consultants and made available to brokers online. Brokers would be able to manage premiums collections and disbursements to insurers via a web interface and mobile app. Highly secure web services also allow brokers to integrate their policy administration systems with the platform. BBD completed the system in 2014 and have continued to provide production support as well as enhancements based on changes within the industry.

At the beginning of 2021, we migrated the system onto the Azure cloud to help the client leverage cloud capabilities as user demands continue to grow. As part of the expert consulting services provided, BBD assisted by implementing and designing the architecture for the system, optimising costs associated with running applications on the Azure platform while taking the appropriate availability, scale and security concerns into consideration.

| Approach

As the client offers 24/7 service to its customers, they rely heavily on high availability. With Azure providing this level of availability in various forms, the BBD team utilised a modern microservice-oriented architecture on Azure, provisioning the components and services to operate the solution's pre-production and production environments.

Steps taken include:

- › Building a full DevOps CI/CD pipeline using Team City and Octopus Deploy
- › Teamcity retrieves the latest changes from the source repository, builds the complete solution and packages the files for deployment
- › Octopus Deploy deploys the packages created by Team City to Microsoft Azure
- › Front-end UI and back-end web services hosted using Microsoft Azure App Services
- › Make use of Application Services which use the Azure Service Bus to process messages
- › To provide security, reliability and ease of access, the database is hosted in Azure SQL with the addition of Data Masking to comply with privacy laws

The technology stack used consists of:

- › HTML 5.0 and JavaScript front-end web UI
- › C# back-end MVC web services
- › Windows Service applications for processing of background tasks (C#)
- › Mobile Application (Xamarin Forms, C#)
- › File upload via a custom-built web services enabling external services providers to upload client files

| Impact of BBD's partnership

This bespoke software platform on Microsoft Azure has helped the client with operational cost savings as well as delivered a system that is always available and fully secure by leveraging Microsoft Azure security protocols. The client has also saved on the maintenance and upgrade costs of having to manage their own inhouse infrastructure and resources.