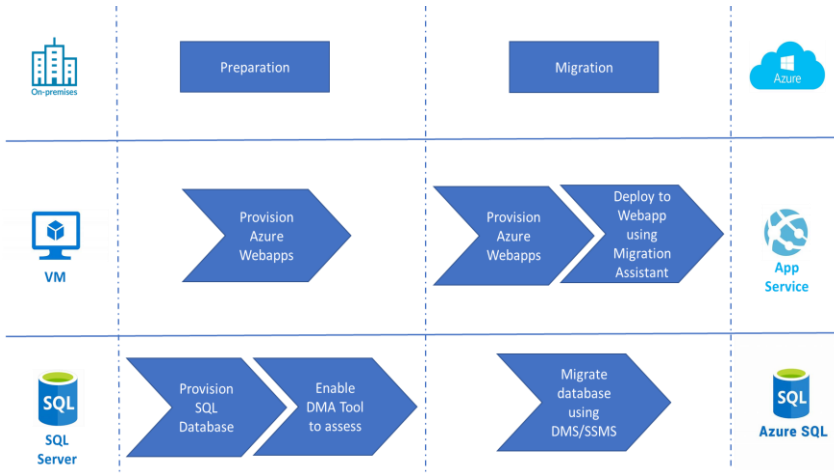


A leading clothing manufacturer modernizes legacy applications to drive business growth.



As part of its vision to create the factories of the future, one of the world's leading manufacturers of clothing modernized its applications by embracing cloud to take advantage of availability, performance, scalability, cost savings, security, and reduced administrative, operations & management overhead.



Customer

The customer is one of the top American manufacturers of apparel and footwear.

The company has more than 50 brands and are organized into outdoor, active and work categories.

Industry

Retail

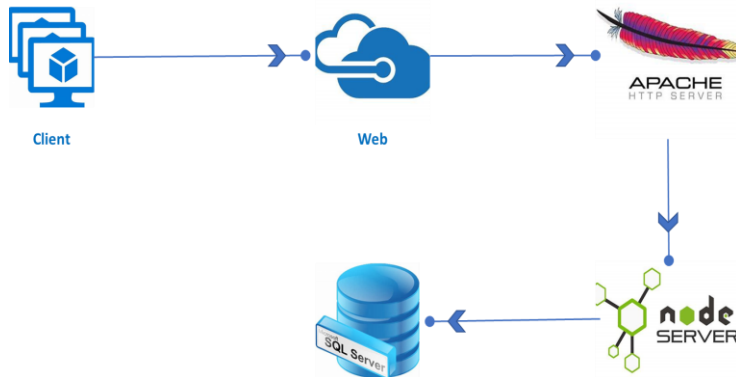
Technology

Azure PaaS

Business Challenge

The client's application was built using ReactJS for front-end and NodeJS/ ExpressJS for back-end development. For databases, they were using Microsoft SQL Server. For front-end application deployment, the client used the Apache Server, and for back-end service, the deployment client used node server in a Linux virtual machine. The current system could not scale on-demand or control system downtime. It can neither supported high-capacity requirements nor did it have the latest security updates.

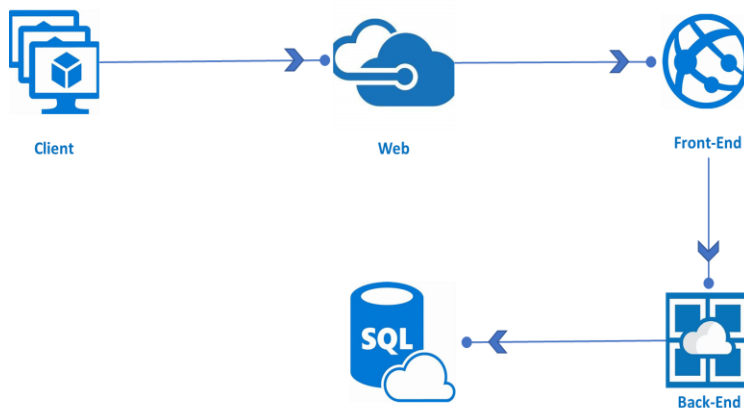
Therefore, the client wanted to transition this legacy application to Azure as a Platform as a Service (PaaS). They wanted to revamp the application to offer more advanced and secure access to their customers. The other key reason to choose migration to Azure PaaS was to reduce maintenance requirements, maximize performance, minimize costs, achieve minimal downtime, and zero data loss.



On-premises Environment Architecture



- Application was built with Spring Boot, and Angular was deployed on Apache webserver. Spring Boot application was deployed on the Tomcat server. It could be accessed internally on the intranet and externally via Internet.
- The app relied on Microsoft Active Directory (AD) services for authentication.
- The app used a standard SQL Server database for storing app data.
- Application stored the images uploaded or created by using network file storage. The application was hosted on two instances.



Cambay Approach

Cambay understood the customer's current situation by engaging in conversations with key stakeholders, project teams and assessing the existing functions, methods, and systems. We used workshops and questionnaires to collect information from stakeholders. The questionnaire gave the team a good understanding of the organization's current setup.

With stakeholder support, we finalized the implementation objectives and an appropriate timeline for cloud migrations. We documented their current processes, tools, and systems despite little documentation existing at the customer. Before starting the project, some measurements to indicate the existing tools and capabilities were noted and compared after the engagement was completed.

After all the analysis was done and processed, the ideal end state from a migration standpoint was documented and presented. This included the process and tools that would fit the customer's requirements.

Cambay Solution

Cambay team conducted a detailed study that focused on understanding the legacy system architecture and deployment setup. The study helped in abstracting the source system's complexity and re-engineering an architecture compatible with the target infrastructure. Azure PaaS platform was decided as the cost-effective and flexible solution for resilience, performance, and security required to host the apps and data. Deploying the legacy system using Azure PaaS reduced the required physical infrastructure and provided zero downtime. The solution steps include:

- Create development, QA, and production environments.
- In each development and QA environment, create an app service to run the application and Azure SQL database.
- In the production environment, create app services to run the application and another to run the jobs. Also, create an Azure SQL database and storage account.
- Setup app/database backup and recovery.
- De-commission the on-premises application.

Azure Cloud Environment Architecture

- Web apps are mapped to cloud components (web roles).
- Active directory authentication replaced with ACS passive federation with Active Directory Federation Services (ADFS).
- Azure cache in-role is used for session state.
- Components that persist data onto disk are re-written to persist in Windows Azure Storage (Blob).
- Azure VPN is used to provide interaction between cloud applications and on-premises databases.
- Azure diagnostics is enabled for diagnostics support.
- The application uses an Azure SQL database server for storing application data.

Thus, in this case study we have seen how Azure provides a complete development environment in the cloud with resources that enable you to deliver everything from simple cloud-based apps to sophisticated, cloud enabled enterprise applications.

About Cambay

Cambay Consulting is a global digital transformation firm leveraging Microsoft Azure, Dynamics 365, and Microsoft 365 to drive transformational services, innovation, and growth in the digital age. We are a Microsoft Managed Gold Partner with several Gold Certifications.

For more than 15 years, Cambay has served customers by delivering expertise, IT services, and solutions that transform organizations and provide tangible business value. W: <https://cambaycs.com/>

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