CASE STUDY

Migrating Legacy On-premise Applications to a Unified Cloud-based Solution

Problem Statement

The client, a premier provider of building automation and safety & productivity solutions, grappled with a critical technological bottleneck stemming from their legacy on-premise applications. These applications, built on monolithic architecture with disjointed databases, inhibited seamless cross-group and cross-department data sharing, impeding operational efficiency and scalability. Managing such a disparate ecosystem had become a daunting task, necessitating a transformative shift towards a unified cloud-based solution.

Challenges

- Legacy on-premise applications lacked the scalability required to accommodate the company's growing needs.
- Disjointed databases hindered seamless cross-functional data sharing, leading to inefficiencies and data inconsistencies.
- Managing multiple monolithic applications on-premise posed significant maintenance challenges and increased the risk of system failures.
- Manual processes and limited automation hindered operational efficiency and agility.
- Increase in operational costs due to the inefficiencies and challenges posed by the legacy system.

Solution

Utthunga offered a customized solution to address the prevalent challenges. Key highlights include:

- Developed a phased migration plan focusing on modernizing both applications and infrastructure components. It encompassed-
  - **Access Phase:** Understanding the legacy system's business/application logic and ensuring seamless continuation.
  - **Mobilize Phase:** Migration phase lasting for 18-24 months with a dedicated 40+ member team following the scrum of scrum model.
  - **Manage Phase:** 3 years of maintenance and management support post-migration.
- Migrated legacy applications to a microservice-based architecture on Azure, enhancing agility, scalability, and maintainability.
- Replaced traditional relational databases (Oracle & MS-SQL) with cloud-native NoSQL databases like MongoDB, enabling enhanced scalability, flexibility, and security.
- Implemented complete automation of the Continuous Integration/Continuous Deployment (CI/CD) pipeline to streamline development, testing, and deployment processes.

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- Implemented Azure Monitor for proactive monitoring of service health, coupled with disaster recovery solutions with multi-region support to ensure high availability and data redundancy.
- Developed Extract, Transform, and Load (ETL) jobs to seamlessly migrate large volumes of historical data (150TB) to the cloud environment.

Benefits

The implementation of the solution resulted in significant improvements:

- ✓ Achieved a 70% reduction in licensing costs through single-group licensing or consolidated agreements.
- ✓ Enhanced data sharing efficiency by 60% through seamless integration and a unified cloud application.
- ✓ Achieved a 70% improvement in scalability, enabling the company to adapt to changing business needs effectively.
- ✓ Reduced maintenance overheads by 50% with centralized cloud-based infrastructure, streamlining management processes.
- ✓ Enhanced security by 40% with Azure Services integration and robust API Gateway implementation.
- ✓ Increased operational efficiency by 55% through Microservice-based architecture and Azure Monitor deployment, facilitating proactive issue identification and resolution.
- ✓ Ensured seamless continuity of critical business logic throughout the migration process.