



Application Modernization for a Global Solution Provider of Edge-to-Edge Information Technology Services

The customer has embarked on an application modernization initiative which includes modernizing the custom built .net application along with the associated database and data warehouse components on to Microsoft Azure environment. Success factors of the projects were being measured by effective utilization of various Azure components which handles Scalability and availability with ease.

Key deliverables of this transformation projects were (i) Applications Assessment (ii) Container Imaging and (iii) Application Migration along with Azure SQL managed instance.

Key tasks accomplished while configuring Azure SQL Managed Instance are as below:

- Create Azure SQL managed instance db
- Configure Azure SQL Tiers, DTU's
- Remediate DMA changes on premise with iterations
- Back up the SQL db to Azure storage
- Restore as Azure SQL managed instance
- Configure azure monitor
- Configure Advanced Threat Protection (ATP)
- Configure Application changes to target new Azure database
- Configure Diagnostics Logs - Azure SQL
- Testing
- Import on-Prem database to Visual studio project
- Validate all DB objects in VS project
- Test Imported DB locally
- Integrated it with CI/CD pipeline

Technology Landscape

- ASP.NET, MS SQL Server, Azure DevOps/VSTS for CI/CD & Source Code Mgt
- Azure Kubernetes Services (AKS) for Application and Azure SQL managed instance for database
- Azure Database Migration Services for migration of DB from on premise to Azure MI

Solution Highlights

- Assessment of current state/implementation of tools, DevOps/CI/CD workflows and identity & access management
- Container base image identification and image catalogue finalization
- Containerization of the two-tier on-premise application to run on Azure
- Moved the SQL Server instances which were hosted in the datacenter to an Azure SQL Managed Instance. Noticed that the application performance saw a good amount of improvisation in terms of throughputs.
- Freed up more time for the client's DBA team to focus on strategic initiatives since patch management and backup management is taken care of in a PaaS environment by Microsoft.
- Configuration and setup of CI/CD tools for application and database deployment

Key Benefits

- Auto deployments & release management resulted in eradication of disruption due to manual interventions
- Auto scaling of application leads to better cost management
- Reduced Failure and Service downtime improved end user experience
- 99.99% uptime Service Level Agreement (SLA)
- Automated Database patching and version upgrades.
- Automated Database backups and backup retention protocols.

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