

Explore how migration to AWS and automated custom backup of school ERP application helped Franciscan Solutions to ensure seamless application functioning



About Franciscan Solutions

Incorporated in 2007, Franciscan is an innovative venture that seeks to redefine businesses by providing unique & strategic e-solutions. Franciscan is an ISO9001:2015 certified company. Franciscan's service line primarily includes School Management System (known as e-Care), e-Communication System and World Class Security Management System for the Schools. Serving a clientele of 1000+ satisfied customers with an average growth rate of 170% every year, Franciscan is one of the fastest growing EdTech organization in K-12 Schools Educational ERP.

AWS Services used

- EC2 Compute - hosting MS SQL server 2016 web edition
- S3 – Storing the Backup
- AWS Lambda
- AWS SNS

Other Services used

- Microsoft PowerShell Script

About Challenge

Franciscan Solution's School ERP system with mesh structure of 60+ modules, was providing the application services to various education centers. The application was hosted on private Data Centers and facing the following challenges.

- Infra scaling issues causing poor performance during load on server with their existing service provider.
- 300+ Operational Databases on MS SQL Server with inconsistent backups
- Management and Infra Cost was a major pain area for Franciscan as they were using Standard Edition of SQL server and were incurring large storage costs for the backups.

Details of the Workload (Proposed)

OS Platform: Windows Server 2016

Application Stack: .Net application (School ERP) with Internet Information Service (IIS)

Database: MS SQL server 2016 web edition

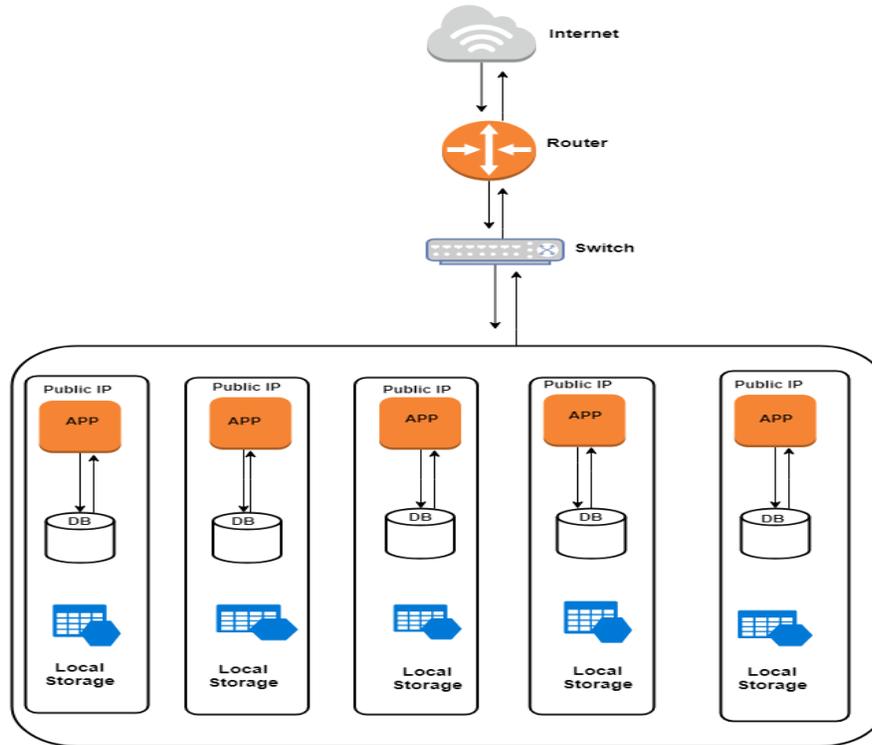
Proposed Solution

- Migration of the entire on-premise ERP application and its 300+ SQL Server Databases to the cloud using offline backup.
- Automation of backups using Power Shell scripts, where in single go, data is backed up, compressed and uploaded in S3
- Under business continuity plan, daily, weekly, monthly, yearly backup copies of these databases are stored in S3 storage.
- To reduce the cost MIND recommended using SQL Web editions that are very cost effective as compared to SQL Standard edition, which has approximately, twice running cost per month.
- Monitoring and alerting for detecting infrastructure issues (i.e. High load) and remediating with minimal impact
- Hosting the application and databases on optimally sized EC2 instances and using Amazon CloudFront (CDN) to address the performance issues.
- Using 3rd party Palo Alto for end point security

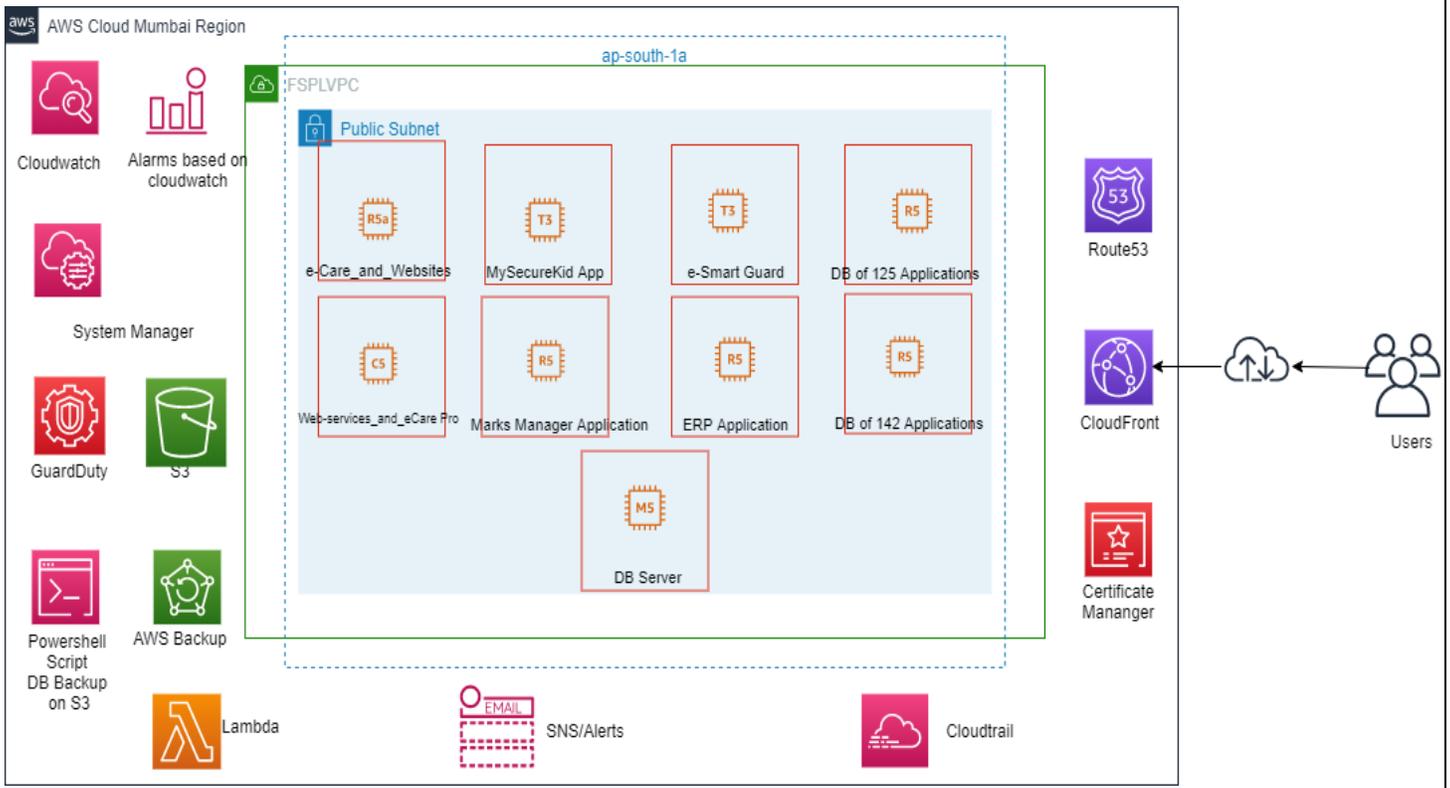
Solution Outcome

- Better performance and improved detection of Infra issues for remediation
- Cost saving on SQL Server licenses and also transparent view of the incurred costs
- Automation of backups and monitoring Increased productivity and user experience

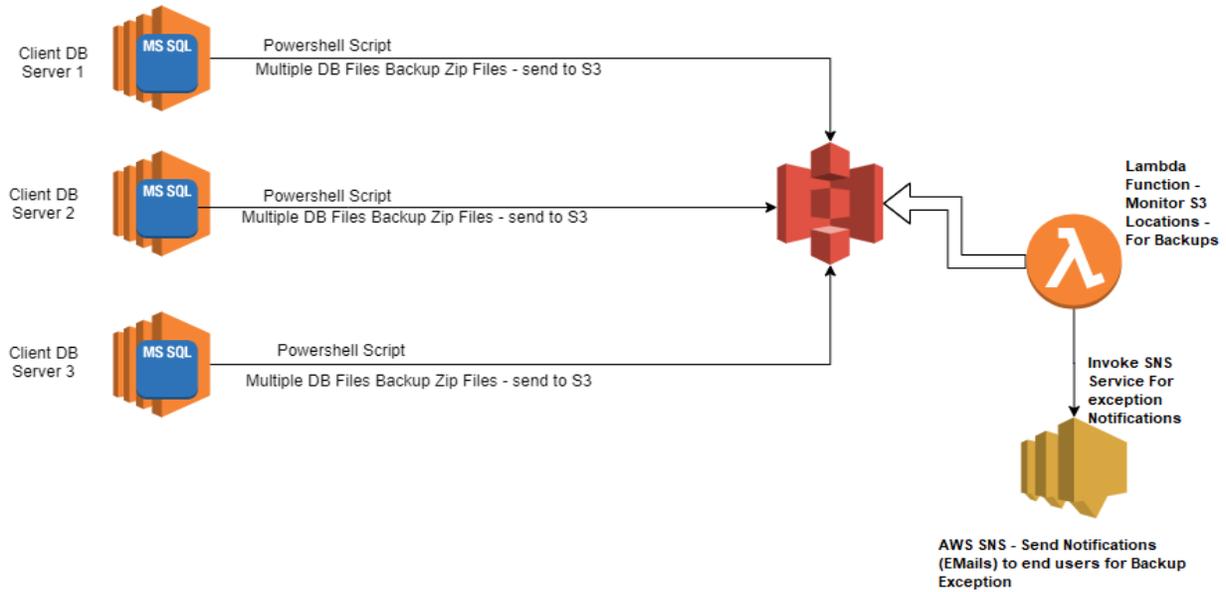
Existing On-premise architecture



Hosting Architecture – AWS Cloud



DB Backup Architecture



How AWS services helped Franciscan Solutions in Data Resilient improvement and cost

SQL Web edition backup Automation using Power Shell helped Franciscan Solutions in protection of Data with Cost saving

SQL Web edition doesn't have compression while doing native SQL backup. Automation is done using **Power Shell** scripts, where in single go, data is backed up, compressed and uploaded in S3 Cloud.

This way client saved cost in term of using web edition and storage space where instead of landing up using 300 plus GB daily space for storing these backups, only 30 GB cloud storage space is used.

Maintaining backup and DR approach as per defined policy

With AWS backup service, Franciscan Solutions was able to centralize and automate the backup of their database as per the defined policy. We are following Backup & restore process for DR approach.

About the Partner

MothersonSumi INFotech & Designs Ltd.

MothersonSumi INFotech & Designs Limited (MIND), a SEI CMMI Level 5 IT services company and the IT back bone of Motherson group. MIND is a trusted technology partner to over 200 clients globally. Our value proposition is in our strength in specific Industry segments and years of experience in the areas of intelligent warehousing, Supply chain enablement, software application development, smart ERP customization, infra managed services, cloud, IoT & Analytics. MIND is serving customers in 41+ countries with a strong team of 1500+ professionals.

