IMPLEMENTING CLOUD APPLICATION DEPLOYMENT ARCHITECTURE FOR HEALTH INSURANCE PROVIDER

About the Client

The client is the 2nd largest health insurance provider for US Government employees, with approx. 2 million policy holders. They are a self-insured, not-for-profit association providing health and dental plans to federal employees and retirees and their families through the Federal Employees Health Benefits Program and the Federal Employees Dental and Vision Insurance Program.

Business Challenge

The client realized the profound impact digital and cloud technologies had across businesses and industries and did not want to be left behind. They hired a leading consulting firm to strategize on their business and technology landscape for the future – with the goal of capturing market share and drive profitability. This could be attained by gaining a larger share of the customer’s wallet and attaining higher customer satisfaction levels.

One of the key assets that would play a role in attaining their business objectives was the online customer portal – the main point of interaction with customers. Approx. 70% of their customers would interact with the client solely through the portal.
The client decided to re-engineer the customer portal from the ground up to create a technologically advanced and modern platform that would be easier to maintain and manage. It also had to support their new business and product initiatives with agility, performance and scalability goals.

The new customer portal was developed in-house. Now that the application was developed, the client was looking for a competent vendor to help define the deployment architecture in the Cloud and implement an end to end DevOps toolchain.

With deep DevOps, and Cloud transformation expertise, and health insurance domain knowledge, Silicus was recommended by Microsoft as a preferred services partner.

During initial engagements with the customer for Application deployment and DevOps implementation, a few challenges came to the forefront:

- Using existing tools and policies to work in the Cloud.
- Security and compliance management
- Integrations between customer portal and other key business applications
- Reliable, resilient and high-performance solution

Defining a Cloud Deployment Architecture that works with Existing Tools & Security Practices
The client already operated a suite of technology tools to monitor various aspects of the portal. For eg: Stackify for application monitoring, F5 for web application firewall, Splunk for logging etc. Besides, the development and IT teams had mature policies and procedures around security, performance and data flow that evolved over several years of operating the on-prem customer portal.

Silicus proved through a proof of concept (PoC) how these tools and policies can be configured and replicated to work on Azure IaaS and PaaS.

Security & Compliance Management

The client already operated a highly mature and extensive security practice to ensure user data was never compromised. Re-architecting the customer portal in the Cloud was a sensitive subject given mis-conceptions about security in the Cloud.

Silicus helped the client implement the required security policies and posture for the PaaS platform, leveraging Azure’s App Service Isolated product. Security and access policies were recreated around Azure Key Vault and Azure Activity Directory (AD).

Data Protection & DR

Silicus implemented full scale disaster recovery for the client, conducting several DR tests before going live. This included configuring high availability data protection, and disaster recovery.

Integration with business applications

Silicus facilitate seamless integrations between the customer portal and the ERP and claims management applications with reliable connectivity between both networks.
### DevOps Toolchain Implementation

The client already operated several 3rd party tools for monitoring and managing the application while it was on-prem. Silicus helped the client implement and deploy the same tools in the new cloud-based environment.

<table>
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<tr>
<th>Technologies Used</th>
<th>SECURITY INFORMATION &amp; EVENT MANAGEMENT</th>
<th>INFRASTRUCTURE &amp; PLATFORM MONITORING</th>
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<td>APPLICATION PERFORMANCE MANAGEMENT</td>
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### Client Benefits

- **GETTING IT RIGHT FIRST TIME**
There was just a week between the implementation of the Azure deployment architecture and the client’s open enrollment season. With Silicus involvement and expertise, the client seamlessly moved over to the new deployment.

SOLUTION BUILT AROUND EXISTING POLICIES & TOOLS
While the deployment architecture and concepts were brand new, Silicus built the solution around existing tools and policies the client had in place. This brought familiarity to the client’s security and application management teams in terms of working with the new customer portal.