Custom Cloud Solution Architecture Design

Avenga and a360inc partnership - Cloud solution for a legal case management platform. Testimonial

a360inc™

Scott Brinkley
CEO of a360inc

Cloud services   Solution engineering

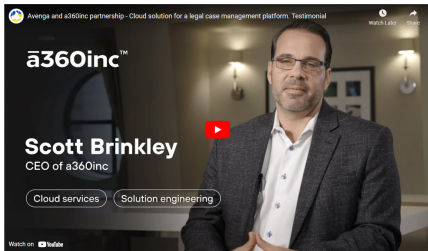Watch on YouTube

Introduction

a360inc partnered with Avenga to design a platform for legal case management in the residential mortgage industry. The goal of the system was to challenge the existing market leaders and become a new industry standard.

Project info

Client
a360inc is a leading US-based technology and outsourcing solutions provider to the legal, financial services and mortgage industries.

Industries
Fintech

Offerings
Technology consulting , Solution engineering

Expertise
Cloud

Challenge

a360inc already owned 4 legacy case management systems with significant customer databases, but the systems had different deployment models, incompatible data schemas, and outdated user experiences. The client needed to create a new modern solution with reimagined case management experience and eventually migrate all their customers to the new system.

Due to the industry specifics, the solution was to be hosted within their own data center, but they intended to move it to the cloud eventually, as soon as their customers were ready.

Solution

The Avenga team started with discovery workshops together with subject matter experts in the existing case management systems in order to analyze functionality provided by the legacy systems. Based on the analysis results, we developed a set of requirements that cover the needs of the existing system's stakeholders alongside new requirements realizing their vision for the unified system.

As the next step, we designed alternative architecture candidates based on primary system use cases and quality attribute requirements. After a trade-off analysis and POC experiments, we opted for a hybrid cloud-agnostic SaaS architecture that can be deployed either in an on-premise environment or in the cloud. The solution would utilize a combination of custom-developed and off-the-shelf microservices running on Kubernetes to decouple the system from the underlying infrastructure. IT, DEV, and QA environments were planned to be in the cloud so as to reduce the burden on their data center.

The team also designed a domain model for core entities and mapped it to legacy systems' data models. A migration plan was established in order to ensure the successful migration of all customers by maintaining migration scripts hand-in-hand with the evolution of the domain model.
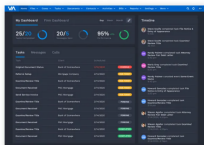

> *Their affinity for collaboration and innovation is their greatest strength. The team has a record for developing cutting-edge software with minimal guidance. There's no web solution that their disciplined team can't resolve immediately. They have the perfect amount of commitment, producing detailed deliverables at a rapid pace.*

a360inc™   **Scott Brinkley**
CEO, a360inc, Texas, USA.

Results

Avenga's partnership with *a360inc* resulted in an industry-level architecture documentation for a new extended case management system, including architectural views, technology trade-off, POC results, etc. The team also prepared a detailed multi-year implementation plan covering key activities, milestones, roles, and costs of iterative solution implementation and phased customer migration.

Technology used

Kubernetes	Istio	Kibana	Grafana
Redis	Elasticsearch	Terraform	Ansible
Azure	Camunda	PostgreSQL	Greenplum
Apache NiFi	Jaspersoft TIBCO	ASP.NET Core	C#
Angular	Typescript	IdentityServer	