PARKAR DIGITAL

NEXGEN CLOUD PLATFORM USED MICROSERVICES TO REDUCE TCO BY 30% WITH APPLICATION REENGINEERING

The client is a leading company offering an exotic array of wines & spirits to global consumers. Based in Chicago, the company has a strong international presence with global offices. The company was started in 2014 with an aim to offer the finest array of Bourbon Whiskey, Tequila, COGNAC, Vodka, Gin, Rum, Cordials & Liqueurs, and RTD with the best human connection.

BUSINESS VALUES

- 40% reduction in time-to-market (TTM)
- 20% boost in productivity
- 30% reduction in TCO

BUSINESS INDUSTRY

WINE & SPIRIT

MORE THAN

5000+ EMPLOYEES

INTEGRATED BUSINESS BENEFITS

- Reduced app development time from months to days.
- Saved cost by automating the app development lifecycle.
- Enabled containerization to ensure scalability.

IMPLEMENTED TECHNOLOGIES

- Drupal
- NoSQL
- .Net Core
- Azure Cloud
- Software-Defined Architecture

PROBLEM OUTLINE

Being one of the leading and fast-growing spirit companies, the client could not keep up with the business requirements due to its monolith architecture and legacy codebase. Major processes were manual and deployment of minor updates took several weeks in production. The client needed a complete overhaul and, fast!

LARGE AND COMPLEX APPLICATION

The client had all applications based on monolithic architecture and they were large in size and complex. The development time of such large applications was long (several months) and deployment was critical. It was also difficult to separate the frontend and backend of these applications and sometimes, developers needed to start developing from scratch. Also, the large applications were taking more loading time as the servers needed to reload all resources with every interaction.

REDEPLOYMENT FOR SINGLE UPDATE

Each minor & major update was a long pause for the client. Due to the monolith architecture of the applications, the development team needed to deploy the whole application only to update some minor changes. Deployment of the minor update was not independent at all and such loopholes of monolith architecture were leading to low productivity.

IMPACT OF CHANGE

Having large and complex applications was an absolute challenge faced by the client. When the development team deployed new features, they were not able to view the impact the change brought forth to the whole application. And to figure out the impacts, the client needed to carry out an extensive range of manual testing which was equally time & resource consuming.

PERIODIC DEPLOYMENT AND INTEGRATION

Periodic deployment & integration was one of the major challenges faced by the client due to old codebase and monolith architecture. Each piece of code was needed to be deployed and integrated separately once tested. The development and IT teams needed to do more back-and-forth between them for each deployment & integration. It was creating a functional gap between development & operation in the software development pipeline.

DIFFICULT TO SCALE

All the different modules of the applications had conflicting resource requirements. As all the modules were deployed in a single framework, each of the modules had different requirements and it was hard to scale up the applications for such disparity. Hence, the client was finding it difficult to scale-up such large applications.

LOW RELIABILITY

Low reliability was one of the major issues faced by the client due to difficult testing situations. It was hard to test bugs in all modules due to their large sizes & complexities. A single major bug used to bring down the whole applications. All modules looked the same and it was creating chaos in the IT department of the client.

DIFFICULTY IN ADOPTING NEW TECHNOLOGIES

The client was facing barriers to adopt new technologies due to the complex & monolith architecture of the applications. Any change in the framework or language was affecting the whole application. Due to constant application breakdown, the client was facing a problem in adopting new technologies to meet modern business needs.

As solutions, we offered to segregate the applications into independent divisions with the deployment of cloud-native microservices. Also, we proposed to implement DevOps through the Parkar NexGen Cloud Platform to automate the app development lifecycle.

PARKAR NEXGEN CLOUD PLATFORM

The Parkar NexGen Cloud Platform is empowered with Microsoft Azure & DevOps and a polyglot platform that can grow with the changing need for technology. This platform enables application reengineering via microservices implementation. Besides application reengineering and automating the app development lifecycle, Parkar NexGen Cloud Platform offers cutting-edge solutions for modernizing legacy applications.

We designed an architecture to deploy native-cloud microservices with DevOps pipeline.

PARKAR SOLUTIONS FOR APPLICATION REENGINEERING

- **Containerization:** We bundled the applications together with all configuration files and libraries to run in different computing environments. We used native-cloud microservices architecture to enable each functionality to be deployed independently. The application was broken into manageable chunks or services without changing the functionalities.

- **Hassle-free Update:** With containerization, we enabled the client to release minor updates hassle-free. As we segregated the application into manageable & independent chunks, it became easy to release the updates without affecting the whole application.

- **Clear Visibility of Impact of Changes:** While releasing the updates, the impact of changes became visible. The client was able to understand the changes created by the updates in the application. Relying on this, the client was able to trace the progress.

- **Continuous Integration & Continuous Deployment:** We implemented DevOps to automate the app development lifecycle. It enabled automated testing, releasing, deployment, integration, and monitoring of the apps. Such automated streamlining decreased the app release time from months to days.

- **Independent Scaling:** Our microservice architecture enabled the independent deployment of each chunk of the complex applications. It also allowed scaling the services independently.

- **Self-Services:** We also implemented self-service for the containers with an automated infrastructure. It allowed the developers to start a new container with a few clicks. With automated deployment and provisioning, we also automated the logging setup. We also enabled horizontal autoscaling so that adding new containers would be successful upon meeting the threshold of CPU or memory. The developers were able to configure the threshold during deploying from the backend.

- **No Barrier in Adopting New Technologies:** We decreased the barrier of adopting cutting-edge technologies as the developers were free to select any technology that suited their service and not obligated to the choices made at the beginning of the project.

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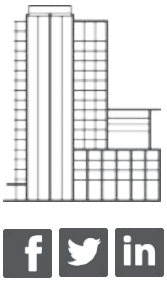
ABOUT PARKAR DIGITAL



Parkar Digital, a Gold Certified Microsoft Azure partner, provides technology solutions for Digital Healthcare, Digital Retail & CPG. Our solutions are powered by the Parkar platforms built using Cloud, Opensource, and Customer experience technologies. Our goal is to empower a customer-first approach with digital technologies to deliver human-centric solutions for the clients.