

Success Story

Unthinkable helps National Nutrition to AWS; resulting in 40% cost savings in infrastructure management



Customer

National Nutrition

Country

Canada

Industry

Healthcare

About The Client

National Nutrition is one of Canada's largest sellers of vitamins, supplements, and sports nutrition for the last 25 years. They carry the biggest and best names in supplements, vitamins, proteins, shakes, bars, etc. In addition to that, they provide services of certified nutrition consultants to help consumers find the best-suited supplements for their unique nutritional needs. The company has a collective customer base of 1 million from its online and offline markets.

Technology Stack

	
	

Business Situation

With a significant presence offline, National Nutrition was generating 70% of its business through its retail outlets across Canada, while still generating 30% of its sales through its eCommerce portal. However, in order to increase their profit margin and business sustainability in the digital era, National Nutrition wanted to ameliorate their existent eCommerce portal with technical and functional advances.

Due to time constraints and a hurried process, a hiccup was noticed by the team – lack of a responsive website i.e. not optimized for the mobile browser. This was a hurdle that needed a quick and intelligent solution. The team realized that the users could not open the website on a mobile browser and were unable to redeem their vouchers.

Apart from outdated software architecture, one of the major hurdles in the digital transformation of the eCommerce application was its on-premise data center. The infrastructure was built using an obsolete technology stack which was not able to scale as per the rising demand. Moreover, National Nutrition's existing data center support cost kept increasing due to maintenance and contract renewals of multiple infrastructure components such as firewalls, backups servers, etc. Also, a 27x7 availability of the application and data was crucial to sustaining the business growth strategy. Some of the key challenges that National Nutrition was facing were:

- ✓ High costs associated with maintaining on-premises Infrastructure.
- ✓ Inability to rapidly scale and react quickly to customer demands.
- ✓ Sub-par customer experience resulting from slow delivery or queuing for lab space.
- ✓ Lack of automation meant that repetitive build management and customer onboarding tasks were performed manually.
- ✓ Internal labs were shared by many users, resulting in sub-optimal performance from lab resources that were over-subscribed.
- ✓ Securely migrating the sensitive business and transactional data of more than a million individual customers, from one platform to another proved to be challenging.
- ✓ Understanding multiple business-specific backend processes and automating all the key business operations such as inventory, invoices, orders, purchase cycle, etc.

The Solution

Unthinkable's team started with a product discovery phase to understand National Nutrition's processes and figure out the optimal architecture for the application. After initial analysis, our solution architects found that there was an immediate need to re-architect the application and re-build it on containerized architecture. A DevOps team was orchestrated to automate the entire application delivery process. The continuous integration/continuous deployment was automated using Jenkins. The containerizations were delivered through Amazon Elastic Kubernetes Services and developed a centralized log forwarding system from the applications and clusters.

Application Migration: In order to ensure a smooth migration of the application to AWS cloud, technologies such as Amazon EKS, PostgreSQL, Jenkins, and Amazon RDS/ Aurora were used. Unthinkable's team set up the cloud environment and migrated the applications and customer data to Amazon Cloud (AWS). Also, our DevOps experts developed business logic, deployed them to the new environment and made sure they ran smoothly after the AWS migration.

Database Migration: The entire business data of over 1 million customers and 6 million orders, was seamlessly migrated from traditional on-site server to AWS using the AWS Database Migration Service. This allowed us to make sure that the source database remains fully operational during the migration, thus minimizing downtime during the migration process.

The Impact

The modernization of the eCommerce web application of National Nutrition has resulted in more than 40% cost savings as compared to their traditional application infrastructure. The migration has also helped them achieve a better scalability support up to 10x, portability, Cost, CI/ CD through containerization and ensured 99.99 % availability and scalability. It has also reduced the business and operational risks by migrating to a more resilient and secured IT environment.

Is there a digital platform you want to build or take to the next level?

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