

The Nitor logo features the word "nitor" in a lowercase, sans-serif font. The letter "o" is stylized with a red circular graphic element that resembles a swirl or a stylized 'e'.

Brilliance @ work

An Ascendion company

Bridging the DPAX Divide

How an aviation and hospitality company bridged the gap between Airlines and Hotels to serve distressed passengers with ease

Extreme weather conditions, natural disasters, technical glitches, air traffic congestion, security alerts, and other disruptions can severely impact airline businesses on ground or in the air and in turn impact the revenue of the airlines. To deal with such delays, airlines need the agility to restore normal services swiftly and cost-efficiently.

The idea of the customer was to build a Disrupted Passenger (DPAX) cost accommodations solution that helps stranded passengers to be quickly and smoothly accommodated in a hotel according to their preferences. DPAX acts as an all-in-one application serving various sides of the travel and hospitality industry.

Business Need

- Build an application catering to disrupted passengers that automates the hotel-booking process
- Provide the functionality for airlines and hotels to manage and conduct digital bookkeeping for these accommodations, as well as handle transactions from anywhere, anytime
- Integrate with external systems such as hotel Global Distribution Services to provide accommodations real-time, especially during peak seasons
- Get real-time notifications like Push Notifications, SMS, emails etc.

About the Customer

With over 84 airline partners, 20,000 crew accommodations managed daily, and 8,000,000 room nights booked every year, the customer's technology platform offers a powerful combination of crew accommodation services delivered through innovative technology, unique software solutions, and a highly experienced team of service

Why AWS

The wide range of services was the key factor that turned the customer's attention towards AWS. The customer wanted a cloud platform to serve their end-to-end needs that is part of the application hosting lifecycle. Our expertise in AWS services gave us an edge towards taking this decision.

Increasing competition, demand in the industry, and proven advantages of AWS services in terms of security, scalability, and pay for what you use were some of the features why the customer was inclined towards choosing AWS.

Why the Customer Chose Nitor

Nitor is a service-based software development company and is a reputed name. Nitor helps build disruptive solutions for businesses using readily deployable and customizable accelerators. Our previous work and the acknowledgement from various customers across the globe and our core values of customer engagement were few of the things that impressed the customer. Most importantly, the customer was confident to work with us because the proposed solution to their long-standing challenges was technically and economically suitable to their business model. While the customer was solely responsible for creating the product roadmap, Nitor deployed the right team of architects and technology experts to execute the roadmap to perfection.

Solution Approach

Based on one of the requirements i.e. to create separate infrastructure for each client – it was clear that we needed a cloud solution. Providing an automated one-click solution for on premise was practically not viable.

We evaluated various public cloud platforms and services that were the core of our application. As an outcome of the assessment, Nitor came up with:

○ **Current State Architecture Consolidation (Business Functions and Technology Landscape)**

Shared the understanding of the systems, data platforms, monitoring, and logging tools across different application along with technology landscape.

○ **To-Be State Architecture**

Proposed cloud-based architecture which includes a solution to all the observations found during the assessment. Provisions were made in architecture to make it serverless ready as per requirement.

○ **Security Architecture**

Evaluated various aspects like resource level security, User Authentication and Authorization, Role base resource access, Cognito, and segregated resource across various environment etc.

○ **Hosting Options – Due Diligence**

Compared multiple hosting platforms like EC2, Serverless, AWS Beanstalk, etc.

Finally based on the various pros and cons – we decided to go with AWS as it has proven solution for our need i.e. Network infrastructure automation.

Solution Details

- Create a separate application as a part of DPAX suite
- Develop Front end using Angular
- Develop Backend using Java - Spring boot
- Use AWS Aurora Serverless database
- Leverage AWS platform for various needs like hosting, API Management using API Gateway, IAAS automation etc.
- Deploy one-click Infrastructure management (For onboarding new client, Scaling Up/ down infrastructure as per need)
- Utilize security from:
 - IAM
 - Cognito
 - WAF
- Use AWS SNS for notifications

Value Delivered

- 1 Ensured Infrastructure automation using AWS cloud formation template and created automation scripts using YAML
- 2 Increased cost efficiency with AWS's Pay-As-You-Go subscription model
- 3 Improved operational efficiency with cloud based serverless architecture
- 4 Reduced API management overheads using AWS API gateway
- 5 Implemented distributed tracing for tracing log life cycle across different applications

About Nitor Infotech

Nitor Infotech, an Ascendion company, is an ISV preferred software product development services company. We serve cutting edge GenAI powered services and solutions for the web, cloud, data, and devices. Nitor's consulting-driven value engineering approach makes it the right fit to be an agile and nimble partner to organizations on the path to digital transformation.

Armed with a digitalization strategy, we build disruptive solutions for businesses through innovative, readily deployable, and customizable accelerators and frameworks. Our seasoned domain experts provide top-notch services ensuring advanced, rapid, highly efficient development for any product design, engineering, development, testing or deployment initiatives.