



# Achieving Data Center Independence with Public Cloud Services



## Client Overview

The customer is a large travel agency based out of Japan and with operations around the world with over 500 branches and a large online presence. The customer specializes in package tours around the world and employs over 18,000 people worldwide.



### The Context

The customer's data center was nearing its contract renewal phase and at the same time facing surging demand from end-users resulting in increased usage of its digital infrastructure. IBS Software had a long-standing technology partnership with the customer and was involved in supporting and maintaining the customer's digital applications over the years. When the IBS Software consultants learned about the customer's decision to refresh its data center, they approached the customer to recommend migration to the Amazon Web Services (AWS) Cloud as the best option for its business rather than the data center contract renewal.

### The Challenges

#### Scalability and Performance

The customer was facing a surge in demand for its services and saw an exponential growth in look volume, after metasearch integration. This required its digital infrastructure to scale up on performance to meet the demand spike. It required additional hardware support or upgrades like improved server storage, more bandwidth, and powerful computing hardware. A new server upgrade during the data center refresh would provide only short-term scalability as future needs would require more frequent data center refresh initiatives to keep up with the market growth.

#### Cost of Operations

Frequent data center refreshes would be expensive as there was a need to upgrade hardware infrastructure completely to accommodate the customer's needs which would require them to pay a hefty sum to the third-party data center provider.

#### Business Disruption Challenges

The customer was wary of the challenges the large-scale migration to a cloud environment would bring, and was apprehensive whether daily operations would be hampered, making the initiative too risky. The customer wanted clarifications on how the migration would affect every minor component of its digital applications and whether it would disrupt its business activity by any means.

#### Managing the Transition

The customer wanted to carry out the entire transition without glitches and ensure that every step of the migration exercise happened as outlined in the road map. The customer also wanted strict timeline adherence and transparent reporting to ensure that the transition and cutover were seamless.





## The Solution

IBS Software's long-standing technology support for the customer's digital initiatives and its strategic consulting prowess to build an AWS migration road map were pivotal in winning the customer's trust in the transition program.

Two different teams from IBS Software – consulting team and application management team – worked on the transition program. Even though both teams were from IBS Software, the consulting team worked on behalf of the customer without any bias and created a successful road map with guidelines on how to transition every single component of the customer's digital landscape into AWS cloud. During the AWS migration, IBS Software recommended the customer to re-engineer certain parts of the application platform using AWS managed services such as AWS RDS and AWS ALB. The changes needed in the business application to support this re-engineering efforts were also completed during the project timeline.

A step-by-step migration plan was devised to ensure zero down time. For each step, fallback options were identified and agreed with the customer.

As the first step, scheduled jobs were migrated to AWS environment to sync up the huge data volume with AWS RDS.

End-user facing applications were migrated in the second step with only a percentage of traffic routed to the new environment. AWS Route 53 service was used to manage the percentage-wise traffic routing between AWS and on-premises environments. The traffic was monitored using ELK and AWS CloudWatch to ensure a success response.

Finally, the transaction database was migrated. Even though the real-time replication was possible between on-premises environment and AWS RDS, the old database version deployed in on-premises environment did not support this and a single-shot migration was done for the transaction database.

SSL termination was handled by AWS ALB. Also, the SEO page URL rewriting, which was earlier supported by on-premises Apache load balancer, was migrated to AWS ALB with path-based routing.

EC2 instances and RDS were deployed in multiple availability zones to meet the high availability requirements. To ensure security, instances were deployed in the VPC private subnet and EC2 security groups were configured to open only the required ports in the instances. IP hardcoding was completely removed from the applications to ensure easy auto-scaling of the instances. CloudWatch graphs and alarms enabled the real-time monitoring of the environment.

## Outcomes from the Solution

### Improved Performance and Scalability

By moving the customer's digital applications to AWS cloud, IBS Software was able to help them experience seamless scalability of their computing infrastructure on demand. By leveraging AWS advanced configuration and customization capability, the customer was able to easily drive more performance from their key digital applications.

### Reduced Cost

Cloud migration resulted in huge savings for the customer in terms of operational costs. Computing hardware could be scaled up on demand without having to upgrade to expensive server hardware. Additionally, during the COVID-19 pandemic, when transactional volumes were low, the customer could also scale down fast and reduce costs. The customer had to pay only for the computing resources that were consumed by its digital applications based on their usage-driven by market trends.

### Strategic Road Map

IBS Software consultants held a series of offsite and on-site sessions where they laid out a well-defined road map for the migration exercise as well as demonstrated IBS Software's past experience in cloud migrations for large enterprises in the travel sector. The project team presented a feasibility report for each application which illustrated its readiness to be moved to the cloud and the steps required for each transition.

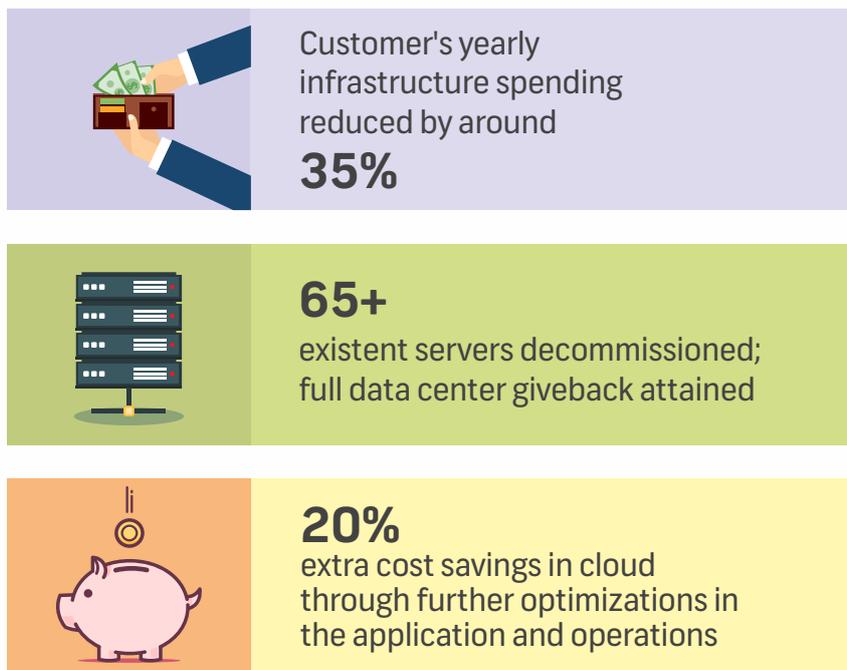
### End-to-end Ownership

IBS Software was able to play the role of both the consultant who prepared the road map for the migration and the implementation partner for the transition exercise. The two teams from consulting and implementation worked together and took end-to-end ownership of the complete project. Weekly reports and sessions held by the consultants, reporting on key progress metrics achieved at each stage, and transparent project management ensured that the customer experienced a successful transition wherein the consultants were guiding the implementation team on behalf of the customer, despite both representing the same organization.



### The IBS Software Advantage

The customer was able to successfully achieve data center independence through the migration of its core business systems to the AWS cloud. The customer was very appreciative of IBS Software's end-to-end transition management from consulting to road map to execution without any business disruptions, and continues to work with IBS Software to propel its digital journey.





## About IBS Software

IBS Software is a leading SaaS solutions provider to the travel industry globally, managing mission-critical operations for customers in the aviation, tour & cruise and hospitality industries. IBS Software's solutions for the aviation industry cover fleet & crew operations, aircraft maintenance, passenger services, loyalty programs, staff travel and air-cargo management. IBS Software also runs a real time B2B and B2C distribution platform providing hotel room inventory, rates and availability to a global network of hospitality companies and channels. For the tour and cruise industry, IBS provides a comprehensive, customer-centric, digital platform that covers onshore, online and on-board solutions. IBS Software is a Blackstone portfolio company and operates from 15 offices across the world.

Further information can be found at <https://www.ibsplc.com>

---



**Redefining the Future of Travel through Technology Innovation**

© 2021 IBS Software | For Private Circulation only | For more information: [sales-support@ibsplc.com](mailto:sales-support@ibsplc.com)