Where Sales soar sky high.

The Airlines Company & the 8K Miles' AWS Midas touch

8K Miles
Cloud | Identity | Big Data | Mobile

ABOUT THE CLIENT

- Asia's largest low-cost, no-frills airline
- "A people company in the Airline business"
- Established in 2001
- Operations across 88 destinations
- Winner of Skytrax's 'World's Best Low-Cost Airline' for 7 years in a row
- Prime focus on "Safety, Cost efficiency, Collaboration & Innovation"

Catch me if you can.

That describes how it was to book a ticket online on a big Sale Promotion day, on the website of Asia's largest low-cost airline carrier. The client's seasonal promotional campaign made tickets available for a limited time window, at a savory sale price. Every flyer wanted to get his hands on it, thanks to the Company's strong media presence. With the demand for tickets rocketing during the sale hours, the Server was receiving more requests than it could handle – causing a Booking Engine Overload.

Consumer reviews were beginning to reflect the opinion of unhappy visitors, who never made it to the tickets. The Airline was making profits, with sales from a limited percentage of customers who got lucky and hit the site on time for a ticket. But the untapped profit prospect was too good to let go. The Opportunity Cost was quite high, for an enterprise that leveraging on Economies of Scale – providing high value service at a low cost. Expert analysis told them that their profits would go further up, if the Server engagement bar could be raised and enabled to accommodate and convert all visitors into customers.

THE CHALLENGE

The Booking Engine Server was not to be touched, despite the magnitude of concurrent ticket requests they were receiving. The Client needed a solution that would stretch its capabilities to let the Server do just that, without really altering it.

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OUR SOLUTION

At 8K Miles, we converted the challenge the client was confronting into a strategic, high-return business opportunity, with our deep technology expertise.

Take it to the Cloud!

The client needed a solution to extend visitor engagement without touching the Server; 8K Miles came up with a highly responsive, scalable solution through Cloud Computing, to accommodate and queue the concurrent visitors with efficiency.

TECHNOLOGY

• Amazon Web Services – VPC, ELB, EC2, Custom Auto Scaling, CloudWatch
• Redis
• RabbitMQ

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The Process

• Scheduling Algorithms
• Sequencing the requests
• Directing requests to Amazon VPS

8K Miles Solution: Take it to the Cloud!

There was only one way to extend visitor engagement without touching the Server – and 8K Miles provided just that: a highly responsive, scalable solution to accommodate and queue the concurrent visitors with efficiency. 8K Miles created a Queuing App that was to precede the Booking Engine. Visitors, therefore, would be led to a **Waiting Room**, from where they would be sequentially moved over to the Booking Engine. The key idea was to engage more visitors and extend the promise of a great flying experience at affordable prices to each one of them.

How we did it

The set-up comprised of a fully automated, elastic cloud computing architecture, to be provisioned two hours before the Promo was to go-live and torn down two hours after its closure.

Building up the waiting room, also meant the migration of User database & Authentication system to the cloud, for the 8K Miles team. The highly proficient 8K Miles DevOps and SysOps teams, worked in close cohesion with the Client in understanding the requirement and bridging the technical gap.

THE WAITING ROOM

• Logical allotment of a queue number to concurrent visitors.
• Reduction of overall wait time in Queue.
• Moderating migration of the Visitor from Waiting Room to the Booking Engine, based on the queue number allotted.

• Responsive infrastructure-designed to expand from 100 to 600 servers.
• Total duration of the Promo: 6 hours
• Capacity to handle 864 million requests during the Promo - scaled up by 50X times i.e., **50X more hits from customers**!

"8K Miles provided us the exact solution we needed, without altering any of our basic technology infrastructures that needed to be left alone. We, being a people company, sincerely appreciate the simple clarity with which they leveraged technology to optimize our scope to do business and reach out to a larger base of our customers."

- Client Testimony

Migrating to the Cloud-
Deploying the 8K Miles Technology
Expertise

- Architected Amazon VPC based Logical allotment of a queue number to concurrent visitors.
- Implemented BGP routing between Amazon Web Services (AWS) at Singapore* and the Airline Company's on-premise Data Center at Malaysia.
- Accomplished migration of the Java & MS Windows based User Authentication System aided by SQL Server & MySQL Database to Amazon VPC
- 8K Miles DevOps & SysOps team developed a Custom Load Balancer using HAProxy and NGINX.
- Enhanced flexibility and scalability of the Client's existing system through implementation of Amazon ELB

*Data Center at Singapore (Hybrid Cloud structure – Partly on AWS and partly with on-premise Data Center at Malaysia.)

The Business Impact

- The Airline's Q3 2012 operating statistics revealed a 12% increase in total number of seats sold, inclusive of no-shows, than in Q3 2011.
- A strong passenger growth by 40.7% was recorded in the same quarter.
- Revenue had increased by 13%, on a year-over-year basis.
- Number of hits on the Airline's ticketing website had risen by 30% around the promo time.
- International and domestic market shares improved by 3% and 1% respectively
- The Cost per Available Seat Kilometers (CASK) maintained at a low 4.1 billion USD

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ABOUT 8K Miles

8K Miles is a Cloud solutions company that helps Enterprises and SMBs integrate cloud computing into their IT and business strategies. Our team of certified AWS experts – located in North America and India provide Cloud transformation solutions on Cloud Security, Migration, Big data Analytics, Mobility, IOT, Managed Services, DevOps and Engineering over AWS. We have specialized expertise in handling secured workloads Life Sciences, Pharmaceuticals, Healthcare, Retail and Media Verticals.

For more solutions to your business challenges, visit us at http://www.8kmiles.com

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