ONLINE TICKET BOOKING

CLOUD BASED

FOR A REPUTED AIRLINE SERVICE

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.

TAKE IT TO THE CLOUD!

There was only one way to extend visitor engagement without touching the Server and GNTS provided just that: a highly esponsive, scalable solution to accommodate and queue the concurrent visitors with efficiency. GNTS 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 GNTS team. The highly proficient GNTS 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 50Xtimes i.e., 50X more hits from customers!

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

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"

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.

TAKE IT TO THE CLOUD!

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

OUR SOLUTION

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

TECHNOLOGY

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

THE PROCESS

- Scheduling Algorithms
- Sequencing the requests
- Directing requests to Amazon VP

GET IN TOUCH WITH US

Contact us to learn how we can help you innovate and succeed!