



## AWS Cloud Brings Acceleration, High Availability and Scalability For A Hugely Popular Gaming Company

A vastly popular gaming company offers desktop and mobile platform gaming in 7 countries. They have about 25 million users and are the fastest growing skill games company across South East Asia. Being the first to introduce skill games for cash prizes, the business has grown swiftly from its inception in 2012. Their games are designed with cutting edge technology for a rapidly expanding user base every month. One of their games is a very strong crowd puller and a favourite across the globe.

As a digital and online player, the gaming company needs to keep stepping up the thrill factor in its games with new features and capabilities. They must make sure the large number of existing and growing users are able to play games without delay, disruption or failure. They need a highly available, scalable tech environment that can help them easily develop new games.

When AWS-Umbrella engaged with the business, they had games on two environments, Azure and NetMagic. At this point, AWS made a very persuasive case to them to move all games to a single scalable and easy to manage platform. Additionally, they would benefit from a breadth and depth of managed services for databases, caching, search, content distribution and take advantage of build in features for automation, DevOps, containerization, security, compliance, analytics and more.

The company particularly wanted a Disaster Recovery migration Pilot to be done from the dual environments to AWS first to evaluate Umbrella and AWS efficacy for their functioning.

### Challenges & Umbrella's Approach

#### Client Challenges

- No Disaster Recovery Environment for existing setup
- Multiple platforms was making app management difficult
- Required better scalability and performance
- Wanted ability to innovate and go to market faster

#### Umbrella-AWS Solutions

- AWS hot DR for two different environments for high availability
- AWS deployed as primary hosting environment for all applications to ease management
- AWS application load balancer for better availability and performance
- Enhanced infrastructure and agility to innovate and decrease time to market

With a combination of public cloud and hosting provider, Azure and NetMagic were hosting their key online gaming applications. They did not have a DR environment for Azure and NetMagic and were vulnerable to sudden, unexpected disruption. Secondly, Azure and NetMagic worked differently and efficiency, performance and scalability of different games were scattered and not streamlined.

The company wanted a hot DR so that when one availability zone fails, the other would come up. And the DR had to be compatible with both Azure and NetMagic environments. In the Pilot phase, Umbrella setup the DR environment in one go for both environments. The AWS multi AZ environment that Umbrella deployed brings DR and high availability at no additional cost. The seamless architecture of AWS multi AZ offers a hot DR by default and design and doesn't require a separate DR. This DR is compatible with both Azure and NetMagic.

After the successful Pilot, the client's team realised the advantages of AWS having gained ease of operations and management, along with better security, scalability and monitoring. Having recognised these benefits, they decided to move their other applications to AWS.

In phase 2, AWS became the primary hosting environment for all applications. A combination of lift and shift and refactoring were used to migrate the applications. While the logic of the application architecture did not change much other than adding a few AWS managed services for caching, search, load distribution; the network architecture alone was modified for enhanced security and scalability.

## Technology & Approach

### **Umbrella analyzed the client tech platform to execute more efficiently:**

- Multiple servers with gaming applications on Azure with a maximum of them dedicated to one popular game app alone
- Multiple servers on NetMagic with two gaming apps taking up more servers
- Gaming applications were built on Java and LAMP Stack having both MySQL and Microsoft SQL Databases

### **Umbrella used the following approach to migrate from Azure and NetMagic:**

- Configured separate environments for applications migrated from Azure and NetMagic
- Rehosted application servers; created new servers on AWS EC2 and deployed application after setting up runtime environment
- AWS application load balancer enabled autoscaling and high availability for some applications
- Used Multi AZ RDS for database backup and restoration
- Deployed EC2, Autoscaling, ALB, NLB, VPC, Direct Connect, S3 and Cloudwatch for better scalability and performance
- Strengthened security with VPN and DirectConnect
- Setup infrastructure automation with CloudFormation, and reinforced compliance and governance with AWS CloudTrail and AWS Config

## Result

- High availability, minimum downtime and disaster recovery ensuring a good gaming experience
  - » Nearly 100% availability
  - » Superior gaming experience
- Enhanced agility, scalability and ease of management
  - » Optimal scaling with a minimum use of resources
  - » Increased flexibility and optimisation
- Ability to innovate faster, introduce new features and go to market faster accelerating growth
  - » 75% decrease in time taken to market
  - » Enables Devops team to build infrastructure for fresh games while smoothly supporting existing ones
- Advanced security and compliance and superior quality and delivery through managed services
- Value to customers from lower service costs

Umbrella's efficient and intuitive approach persuaded the gaming company that they would be able to gain a lot more in terms of scaling, agility and speed with AWS migration. The popular gaming company is now able to service customers multifold and offer a great gaming experience that has minimal interruptions and optimal speed. They have been able to increase their player base rapidly within a very short span of time. They are now considering engaging Umbrella for Big Data analytics as the next step in enhancing customer experience.