Case Study

Infrastructure as Code (IaC) for speed & agility of infrastructure deployments

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The Goal

Enable ongoing continuity and access among existing simulator local audiences, and ongoing expansion to new markets, via the newly gained online operations for users interested in a flying simulation experience. On a tech level, our goal was to allow the IT team to deploy the cloud infrastructure quickly and automatically from end to end, depending on the location (region) of those customers who want to access the simulator.

Allow the IT team to provide the resources in the cloud according to the actual need and to optimize cost control and flexibility - while containing scalability controls that can increase and decrease servers according to the actual need, thus ensuring both maximizing scalabilities, while maintaining full control over ongoing costs.

The Challenge

Following the COVID19, an advanced virtual reality simulator was forced to close its physical location and transform it online to enable business continuity and growth, thus providing users with online access.

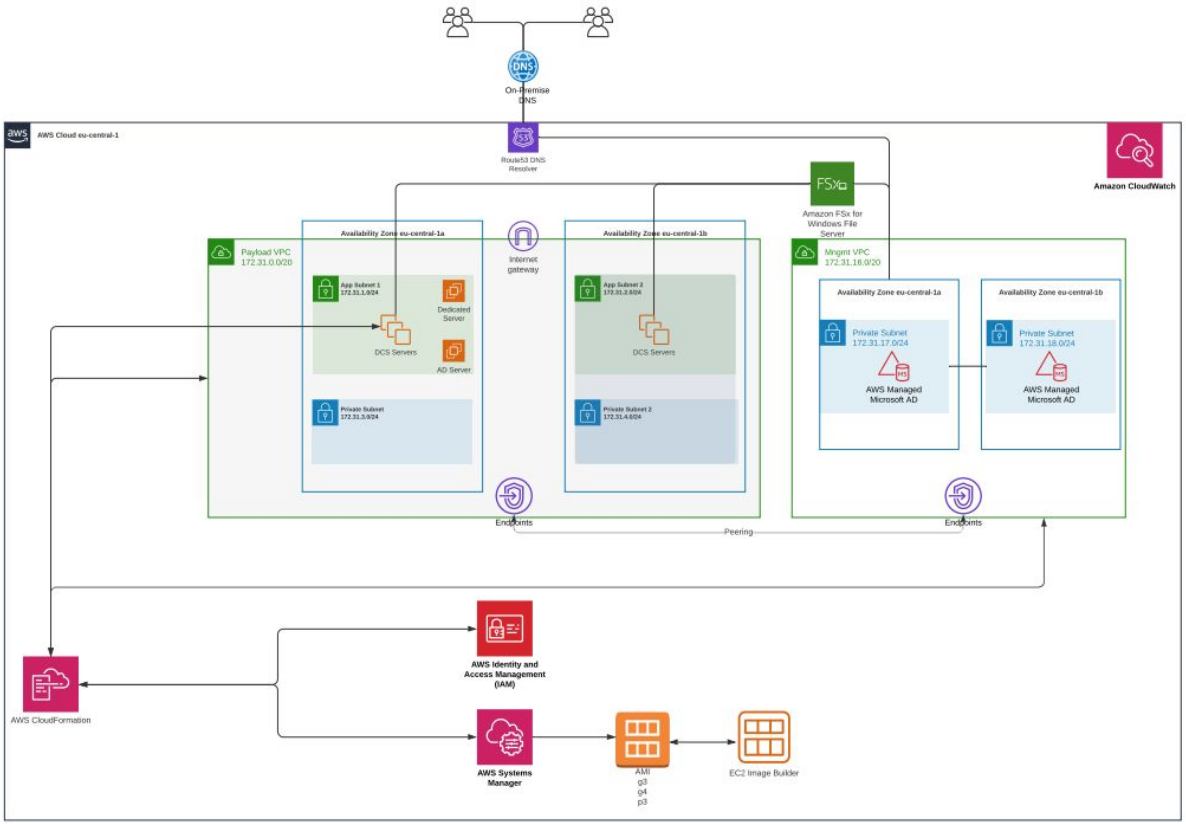
- To scale up the design for implementation when needed in few hours instead of days
- Need to create and destroy large scale environments in a matter of minutes on-demand or by a trigger.
- To takes care of maintaining continuous contact with its customer base through customer service which is available at all times

Solution

Using AWS Cloudformation - Infrastructure as Code (IaC) we bring automation to the provisioning process, which was traditionally done manually. Rather than relying on manually performed steps, both administrators and developers can instantiate infrastructure using configuration files. IaC helps avoid configuration drift through automation and increases the speed and agility of infrastructure deployments across multiple regions. It also helps reduce errors and enhances the ability to apply changes through different stages consistently.

We used AWS Managed AD that makes it easy to set up and manage users and groups, create and apply group policy, join Amazon EC2 instances to a domain, as well as simplify the deployment and management of cloud-based Microsoft Windows workloads.
All the maps and the user configuration files of the game were uploaded to the FSx and used as a drive for each user on the login process.

For managing the AMI and keep them up to date and sync across all the regions we used AWS EC2 Image Builder which is a fully managed AWS service that makes it easier to automate the creation, management, and deployment of customized, secure, and up-to-date server images that are pre-installed and pre-configured with software and settings to meet specific IT standards.



Results

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Cloudride created a fully automated, high availability, scaled, and elastic solution that allows the PIlots to focus on what they do best in highly speed while keeping the cost as minimal as possible without any implication on the customer experience.

A new era. Whatever digital future demands, we will keep developing the right solutions for our customers.