



CASE STUDY

Access Enabled Utsav to Migrate Business-critical Resources from GCP to AWS in Just 3 Weeks

With support from Access, Utsav smoothly migrated to the AWS cloud environment with high availability, application load balancing, automated backups, and inventory reports.

ABOUT ACCESS.IO

Access.io, an AWS Advanced Consulting Partner offering world-class Managed Cloud Services, Cloud Advisory, and DevOps Automation

ABOUT UTSAV

India's social community platform for Faith and Divinity. Utsav is formalising this existing behaviour. It is India's social network for the religious communities.

THE CHALLENGE

- Utsav's application servers, database, object store, domain, and other resources were hosted on the Google Cloud Platform (GCP). This environment couldn't ensure high infrastructure availability, which Utsav needed to operate in a highly dynamic business environment.
- The Utsav team was also worried about database and application security since both were open to the Internet. They also needed a highly available database, automated backups, application load balancing, and inventory reports. Utsav also wanted an Infrastructure-as-Code (IaC)-friendly environment to speed up future infrastructure deployment, ensure configuration consistency, and prevent environment drift. GCP had proved insufficient to meet all these needs.
- To eliminate these challenges, Utsav chose Access.io as their preferred migration partner. We recommended they migrate from GCP to AWS.

THE GOALS

The three key goals of Utsav's migration project were:

- i. Migrate all application servers, database, object store, domain and other resources from GCP to AWS
- ii. Configure the virtual network with resource isolation using public and private subnets
- iii. Provision object storage on AWS S3, move the data from GCP object store to AWS S3, serve static content without exposing the S3 URL

THE SOLUTION

- Access successfully migrated Utsav's resources and applications from GCP to AWS. After completing the AWS environment provisioning, we conducted thorough testing to ensure that the migration did not impact application functionality, usability, or user experiences.
- Since IaC capability was one of the key requirements of the Utsav team, we set up the AWS environment to support future infrastructure deployments using IaC. We also ensured that the environment would remain highly available, fault-tolerant, and secure with auto-scaling and application load balancing.
- Finally, we ensured that all internal and external traffic would flow seamlessly and continuously for production resources.

SOLUTION DETAILS

Access.io managed and streamlined the entire migration process from GCP to AWS for Utsav. For this project, we implemented the following solutions:

A CloudFront distribution and enabled OAI (Origin Access Identity) so:

- If the request originated from the CloudFront, the static content stored in AWS S3 would be served
- The CloudFront URL would be used in the application code whenever static content was to be served
- Frequently-requested content would be cached at the Edge location to serve the content faster

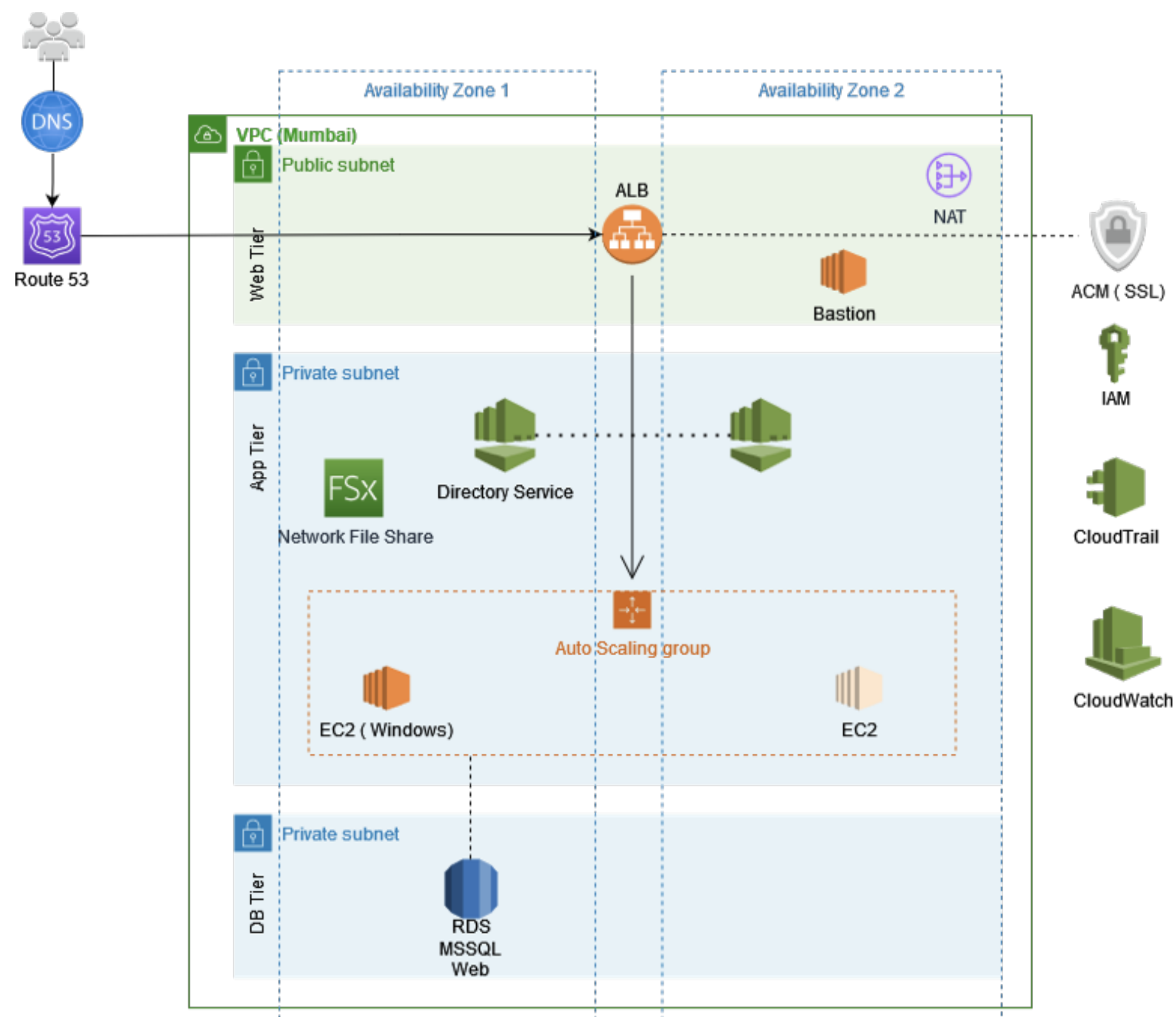
A three-tier Virtual Private Cloud (VPC) to create a fault-tolerant and secure application environment with three kinds of private subnets:

- 2 x web subnets: In the web subnet we had the ALB and a Bastion/ Jump server which was used to SSH into the App EC2 instances.
- 2 x application subnets: To host the application servers in an autoscaling group with fault tolerance
- 2x database subnets: To host the PostgreSQL database and connected only from the application server
- Application load balancer to auto-scale application per traffic demand and automatically serve content to the Internet from the application server

PROJECT TIME DURATION

- The vanilla resources as per the Architecture was created in four days and for the deployment and configuration of the application was done in two weeks..
- For moving objects from GCP Object storage to AWS S3 it took around 6 hours using RClone tool.

SOLUTION ARCHITECTURE DIAGRAM



CLIENT TESTIMONIALS:

“

I'm glad we chose Axxess was the best possible partner for our migration journey. They advised us on best practices, supported us with technical expertise, and held our hands from start to end. Thanks to Axxess, we now have a more robust cloud environment that allows us to meet our business and customer objectives.

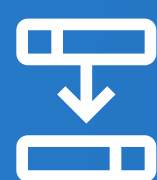
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THE BENEFITS



Enhanced scalability

Fault-tolerant infrastructure with auto-scaling to ensure high availability, low latency, and high performance



On-time migration

Migration from GCP to AWS completed on time, within scope, and within budget



Infrastructure as Code

IaC capability to spin up new infrastructure components quickly without environment drift