Introduction

A start-up digital agency facing lots of challenges while making their presence over Asia pacific region by organising web events on which they are planning to invite huge audience during their live web events. During their web events they are also planning to deliver some marketing content to all attendees. To achieve these tasks this client decided to take consultancy and managed support from i2k2. In addition to achieve reliable and robust platform to provide seamless live streaming with other marketing content, they decided to move on AWS.

The challenge

This client is eagerly looking to achieve AWS infra and excited to run their first live web event. Being a start-up digital agency they want cost optimization with best services to achieve their all tasks like

- ✓ *Consultancy to get optimized AWS platform*
- ✓ *Real-time scalability*
- ✓ *Setup a content delivery network*
- ✓ *Reliable infra to ensure seamlessness*
- ✓ *Managed Support*

The Solution

After discussion with this client, i2k2 designed a solution diagram to achieve all the expectations of client. i2k2 decided to use the following services of AWS to facilitate this client:

- ✓ *Setup the following to AWS Cloud as per best practices*
    - a. *EC2 (in Auto-scaling)*
    - b. *RDs (in Auto-scaling)*
    - c. *S3*

- ✓ *Amazon CloudFront*
- ✓ *Elastic Load Balancer*
- ✓ *User Acceptance Testing (Optional)*

i2k2's solution architect team decided to put EC2 instances inside the auto-scaling group so that in case of heavy load on their webserver it will automatically spin new instance to manage the load at real-time. To ensure fast speed of DB, RD instances separately provided in active passive mode inside an auto-scaling group. RDs deployed in MultiAZ zones to ensure availability of Database at any cost. As this client want to distribute some marketing content during their web event, team has decided to deploy Amazon CloudFront for the CDN services. S3 also deployed to putting all the marketing and media content which will be given to the audience during that live web event. To distribute load over the available instances i2k2 also decided to deploy ELB which will automatically distribute the requests coming from the open network in the infra. Client also wanting managed support which is free of cost provided by the i2k2 to its all clients, 24X7X365 over the phone, chat and email.

S3: Experience Reliability & Scalability With AWS Online Storage Solutions. Sign Up For Free. Instantly Access Cloud Storage Designed for 99.999999999% (11 9's) of Durability. No Upfront Commitment. Secure Solutions. In-Memory Caching
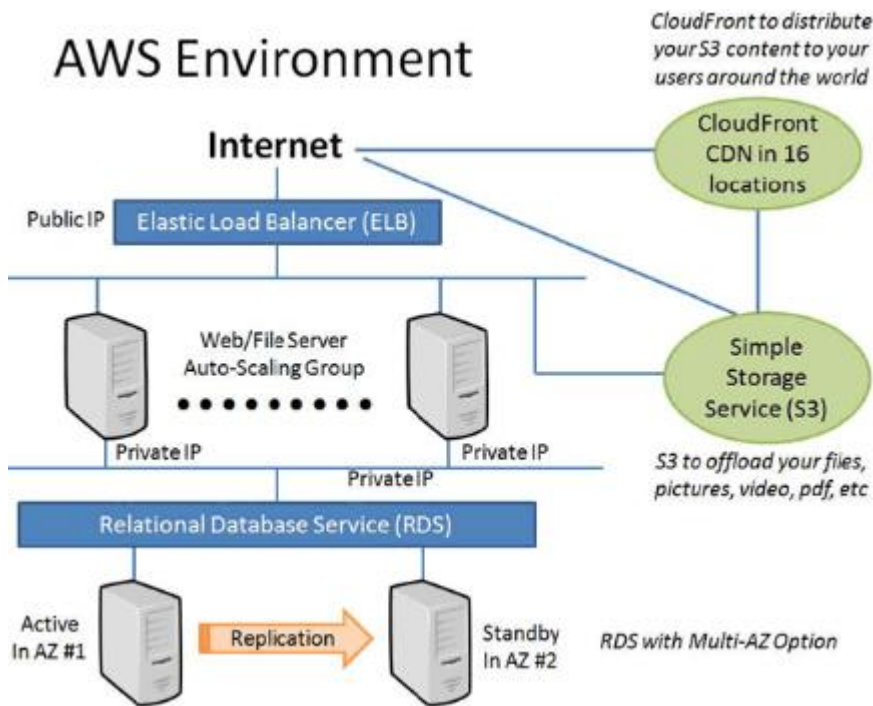
CloudFront:
Amazon CloudFront is a fast content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to customers globally with low latency, high transfer speeds, all within a developer-friendly environment.

ELB: Elastic Load Balancing automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, IP addresses, Lambda functions, and virtual appliances. It can handle the varying load of your application traffic in a single Availability Zone or across multiple Availability Zones. Elastic Load Balancing offers four types of load balancers that all feature the high availability, automatic scaling, and robust security necessary to make your applications fault tolerant.

RDS: Amazon Relational Database Service (Amazon RDS) makes it easy to set up, operate, and scale a relational database in the cloud. It provides cost-efficient and resizable capacity while automating time-consuming administration tasks such as hardware provisioning, database setup, patching and backups. It frees you to focus on your applications so you can give them the fast performance, high availability, security and compatibility they need.

i2k2 Networks
living everywhere...

Spring Meadows Business Park
A-61/B4, First Floor, Sector-63, Noida-201301

+91 971 177 4040
+91 120 466 3031

www.i2k2.com

The Architecture Diagram

AWS Environment

CloudFront to distribute your S3 content to your users around the world

Internet

Public IP — Elastic Load Balancer (ELB)

Web/File Server Auto-Scaling Group

Private IP   Private IP

Private IP

Relational Database Service (RDS)

Active In AZ #1 → Replication → Standby In AZ #2

RDS with Multi-AZ Option

CloudFront CDN in 16 locations

Simple Storage Service (S3)

S3 to offload your files, pictures, video, pdf, etc

Benefits

Scalability

During virtual events, when the number of audiences increase the resources gets auto scaled to meet the demand by launching new instances. The ALB load balances the traffic among all the instances

Monitoring

Cloudwatch provides data and actionable insights for AWS, hybrid, and on-premises applications and infrastructure resources. You can also collect/access all your performance and operational data

Load Balancing

Distributing incoming application traffic across multiple targets, such as EC2 instances, in multiple Availability Zones. This increases the availability of application. Add one or more listeners to your load balancer as per your need.

Powerful CDN

Amazon CloudFront is a fast content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to customers globally with low latency, high transfer speeds, all within a developer-friendly environment.

Why Amazon Web Services (AWS)

AWS is a secure cloud services environment, offering compute power, database storage, content delivery and other functionality to help businesses scale and grow. Explore how millions of customers are currently leveraging AWS cloud products and solutions to build sophisticated applications with increased flexibility, scalability, and reliability.

By moving to AWS, organizations are realizing benefits such as a broad IT infrastructure, support for a variety of use cases, feature sets, enhanced visibility, and the ability to deploy globally within minutes.

Why i2k2 Networks

As an AWS Advanced Consulting Partner & DevOps competent Managed Amazon cloud services provider, i2k2 provides comprehensive folio of cloud solutions along with prompt and reliable support. Our partnership with AWS goes several years back, even before we formalized our association with the company in 2013. Key reason to choose i2k2 was 20+ years of proven business. Talent is vast due to extensive IT exposure in India.

i2k2 Networks living everywhere . . .
Benefits

Spring Meadows Business Park
A-61/B4, First Floor, Sector-63, Noida-201301

+91 971 177 4040
+91 120 466 3031

www.i2k2.com