

Introduction

One of our Marketing Agency customer suffering from slow performance and service interruption of IT infrastructure which is running in third Datacenter and managing by some cloud services provider based on somewhere in Mumbai. Client facing continuous slowness and service interruption while heavy traffic on infrastructure. Based on the rounds of discussion we had with the client's team, we comprehend that client requires to setup their App/DB workload on AWS Cloud with a solution that is cost-efficient, reliable, secure, scalable, and flexible. Through our eclectic AWS Practice, i2k2 can help client to set up its workload on AWS cloud with manage support services rendered by client.

The challenge

i2k2 needs to simplify the management of client's IT infra and help deliver technology solutions that work exactly the way client want. We have services, which are highly customizable and easily scalable to client's growing business needs.

- ✓ **Simplify the IT infra and provide managed support and consultancy for the same**
- ✓ **Ensure the resource availability at real-time to avoid interruption of IT services**
- ✓ **Manage the resource utilization as per the need in addition to manage load among the resources present in the IT infra**
- ✓ **Deployment of Content Delivery Network to ensure fast delivery of the content worldwide**
- ✓ **Providing highly secure infra with the monitoring and notification**

The Solution

Considering the customers' requirements i2k2 has designed a solution based on AWS to ensure reliability, security and more focussing on managing workload smartly to provide the IT infra which is fast, responsive, and easy to monitor and understand which is also ensuring availability of content in seconds.

- ✓ **Setup the following to AWS Cloud as per best practices**
 - a. **Launching EC2 Instances**
 - i. **App & Web Server Instance (Auto-Scaling)**
 - ii. **RDS Instance**
 - iii. **QA & Testing Server**
 - b. **EBS Volume, S3, CDN**
 - c. **Application Load Balancer, NAT Gateway, API Gateway**
 - d. **SNS, MFA, IAM, Standard Shield, AES-256,**
 - e. **CloudWatch, CloudTrail.**
 - f. **SSL Integration**
- ✓ **User Acceptance Testing (Optional)**

After delivering solution, client finds the fast and responsive network with easy to understand infra. Client never feel interruption of the services and they never thought about the workload on infra because it is handled automatically and effectively. Highly secure platform make them happier and build a faith on the AWS platform that their data is always safe and secure. CDN ensure the fast delivery of the content and autoscaling of the resources are managing heavy traffic on the network. All the components are deployed to ensuring the business continuity and robustness which make client happier.

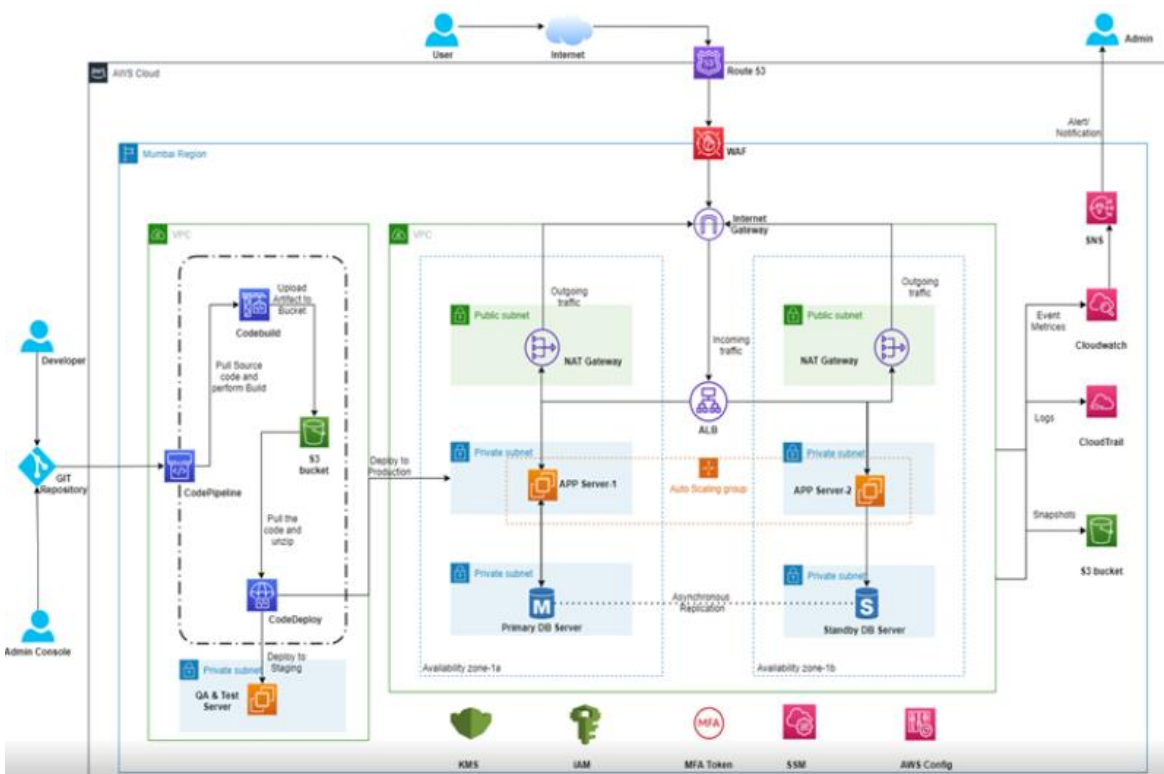
Route 53: Amazon Route 53 is a highly available and scalable cloud Domain Name System (DNS) web service. It is designed to give developers and businesses an extremely reliable and cost-effective way to route end users to Internet applications by translating names like www.example.com into the numeric IP addresses like 192.0.2.1 that computers use to connect to each other.

SNS: Amazon Simple Notification Service (SNS) is a highly available, durable, secure, fully managed pub/sub messaging service that enables you to decouple microservices, distributed systems, and serverless applications. Amazon SNS provides topics for high-throughput, push-based, many-to-many messaging.

MFA: AWS Multi-Factor Authentication (MFA) is a simple best practice that adds an extra layer of protection on top of your username and password. ... You can enable MFA for your AWS account and for individual IAM users you have created under your account. MFA can be also be used to control access to AWS service APIs.

NACL: A network access control list (ACL) is an optional layer of security for your VPC that acts as a firewall for controlling traffic in and out of one or more subnets. You might set up network ACLs with rules similar to your security groups in order to add an additional layer of security to your VPC.

The Architecture Diagram







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.

			
<h3>Scalability</h3> <p>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</p>	<h3>Monitoring</h3> <p>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</p>	<h3>Load Balancing</h3> <p>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.</p>	<h3>DDoS Prevention</h3> <p>AWS Shield is a managed Distributed DDoS protection service that safeguards applications running on AWS. It provides always-on detection and automatic inline mitigations that minimize application downtime and latency.</p>