

Introduction

One of the leading Event Agency customer of i2k2 facing security, cost and reliability related issues over on-premises Infrastructure. Client was suffering from hackers attacks on their IT infra they need to enable a highly capable security system which is easy to handle and enough to protect their data from the hackers. Client also need to put all IT related workload on AWS to avoid various on-premises challenges and limitation in an optimized cost. Client's core business is to manage digital events and campaign in for their customers across the globe and they don't want to put extra effort to manage their IT infra which is obviously is an extra task for them, so they also want managed support and consultancy partner.

The challenge

i2k2 needs to provide highly scalable solution which can handle any kind of workload in real-time scenarios with high security to provide prevention from hackers and other malicious activities over the network.

- ✓ **Providing Highly scalable infra to handle any workload in real-time scenarios**
- ✓ **Ensuring highly capable security mechanism to protect any kind of hacking or other malicious activities**
- ✓ **Providing managed support and consultancy to facilitate client in their IT related activities**
- ✓ **Providing monitoring services to ensure the clear understanding about the infra and inside activities**

The Solution

According to client's need, i2k2 designed the solution to ensure the high security and reliability in the proposed IT infra. We provide pointwise solution to this client for meeting his all expectation as follows:

- ✓ **Setup the following to AWS Cloud as per best practices**
 - a. **Launching EC2 Instances**
 - i. **App Server Instance (Auto-Scaling)**
 - ii. **DB Server Instance**
 - b. **EBS Volume, S3, VPN**
 - c. **Application Load Balancer, NAT Gateway,**
 - d. **SNS, MFA, IAM, Systems Manager, GuardDuty**
 - e. **CloudWatch, CloudTrail, Flow Logs**
- ✓ **Test Environment Security**
- ✓ **User Acceptance Testing (Optional)**

Getting the new IT infra on AWS with all the recommendations made by the i2k2, client is very much satisfied. After using that solution client never get hampered by the malicious activities. The "Pay as use" model of AWS provides the extra benefit to use extra resources only when needed in case of high traffic and during specific campaigns and events by the client. So overall the client now have an IT infra which can be connected through VPN only and secure with the AWS GuardDuty to prevent almost all kind of malicious activities and extra protection form hacking. Features like Autoscaling, High Security, Monitoring etc. made the clients infra reliable, robust and easy to manage. Managed support and consultancy provided the i2k2, make client's life very easy and now they are more busy to handle their core business instead of managing the IT related issues.

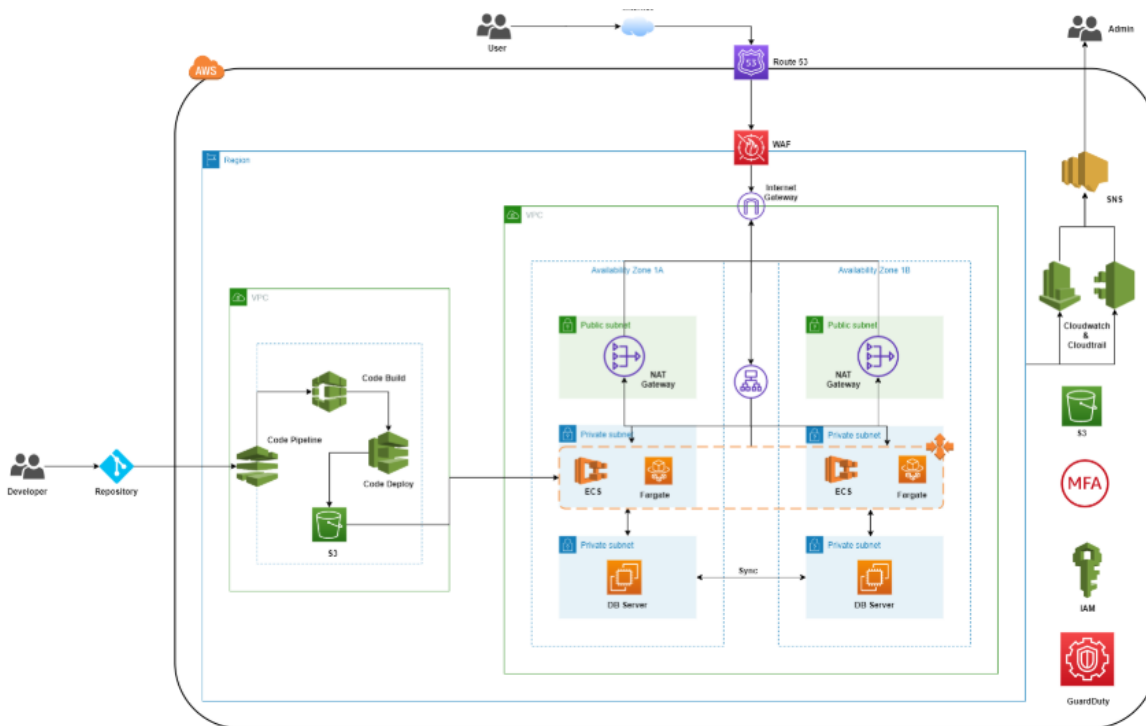
Route 53: Amazon Route 53 is a highly available and scalable cloud Domain Name System (DNS) web service. It is designed to give developers and businesses an extremely reliable and cost-effective way to route end users to Internet applications by translating names like www.example.com into the numeric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

CloudWatch: Amazon CloudWatch is a monitoring and management service that provides data and actionable insights for AWS, hybrid, and on-premises applications and infrastructure resources. With CloudWatch, you can collect and access all your performance and operational data in form of logs and metrics from a single platform.

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.

Benefits



Scalability

During virtual events, when the number of audiences increase the resources get 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.



Highly Secure Environment

AWS has highly capable resources like AWS GuardDuty to put extra security in the network and protect infra from almost all kind of malicious activities and hacking. This kind of security features giving extra benefits to customers.

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.