i2k2 Networks
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Introduction

A leading digital agency providing the digital event management and content related services to its client. Company facilitate its client to search across the matadata in the databases, create, use and publish the business content. Company believes in providing seamless services with reliability and robustness to its clients when they are doing their business related events.

The challenge

This client wants to use highly available AWS infra with auto-scaling and load balancing facilities. The secondary and most important requirement is that they want content management solution by which they can access their content from anywhere, connect information with users everywhere and deliver apps to any devices. To achieve this client want to use Alfresco over AWS

- ✓ *Want to use Alfresco on AWS platform*
- ✓ *High available infrastructure*
- ✓ *Real-time scalability*
- ✓ *Access Management*
- ✓ *Monitoring*
- ✓ *Highly Secure Infra*

The Solution

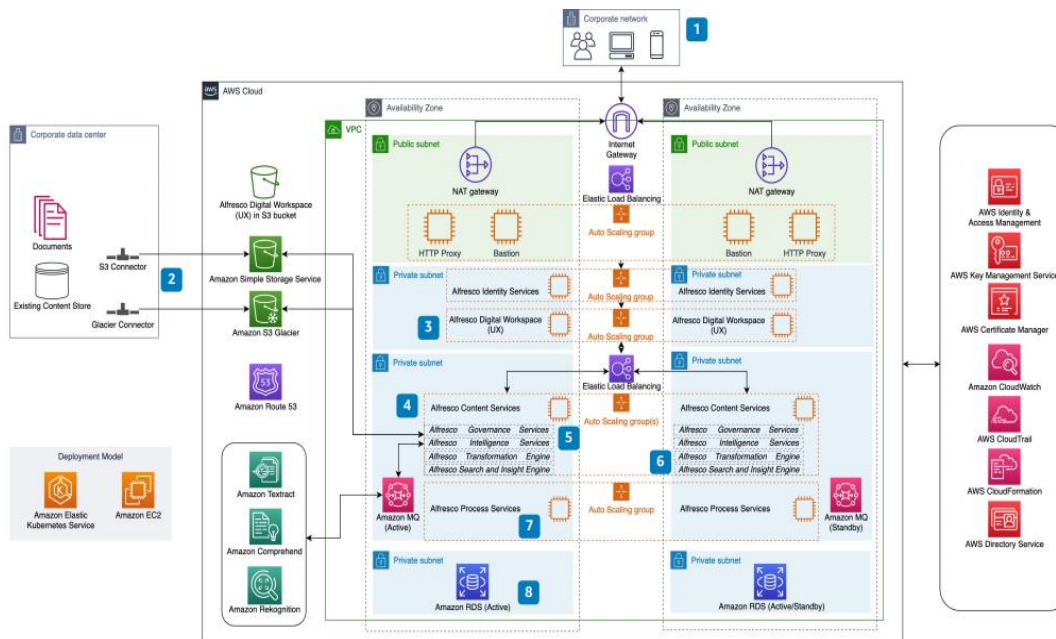After deep observation of the requirement, i2k2 provided the following solution

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

- ✓ *Elastic Load Balancer*
- ✓ *Alfresco Content Services*
- ✓ *MultiAZ Setup*
- ✓ *AWS identity and Access Management*
- ✓ *AWS Key Management Service*
- ✓ *AWS certificate manager*
- ✓ *AWS CloudWatch*
- ✓ *AWS CloudTrail*
- ✓ *AWS CloudFormation*
- ✓ *AWS Directory Services*

The whole infra split into two availability zones to ensure high availability. Mechanism like Identity and Access management, Key management, and Certificate manager deployed to ensure high security. To manage content the alfresco content services also provided in the solution. Each instance deployed using auto-scaling group to manage real-time traffic on the infra and to distribute the load upon multiple similar resources there is ELB also deployed by the i2k2. To ensure high response from the Databases there is RDs instances as active and standby scenario also deployed to ensure high availability of the DBs.

- Users connect to applications via web browser, mobile device, or offline with Desktop Sync
- Alfresco Content Connector enables extended content store in Amazon S3 or Amazon S3 Glacier
- Alfresco Digital Workspace provides out-of-box, extendible user experience that can be hosted in an S3 bucket as a static website or containerized deployment
- Alfresco Content Services provides Enterprise Content Management capabilities with information governance
- Alfresco Intelligence Services, addon module to Alfresco Transform engine, integrates with Amazon Textract, Amazon Rekognition, and Amazon Comprehend for metadata extraction and image/text analysis
- Alfresco Search and Insight Engine, enabled by Solr on Amazon EC2 and Amazon EBS, provides full text search across metadata stored in the database
- Alfresco Process Service is a business process management offering that can create, publish, and use business operations
- Amazon Aurora, MySQL Oracle, PostgreSQL, and SQL engines are supported.

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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

KMS

AWS Key Management Service (KMS) makes it easy for you to create and manage cryptographic keys and control their use across a wide range of AWS services and in your applications. AWS KMS is a secure and resilient service that uses hardware security modules that have been validated under FIPS 140-2, or are in the process of being validated, to protect your keys.

CloudFormation

AWS CloudFormation gives you an easy way to model a collection of related AWS and third-party resources, provision them quickly and consistently, and manage them throughout their lifecycles, by treating infrastructure as code. A CloudFormation template describes your desired resources and their dependencies so you can launch and configure them together as a stack.

Certificate Manager

AWS Certificate Manager is a service that lets you easily provision, manage, and deploy public and private Secure Sockets Layer/Transport Layer Security (SSL/TLS) certificates for use with AWS services and your internal connected resources. SL/TLS certificates are used to secure network communications and establish the identity of websites over the Internet as well as resources on private networks.

Elastic Load Balancer

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.

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.

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Benefits

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