Cost-effective AWS Infrastructure for Social Media Application

AWS Cloud

Content to cache

S3 Bucket

Region us-east-1

Compressed Media to S3

VPC

Availability Zone us-east-1a

Availability Zone us-east-1b

Public subnet 10.1.0.0/21

Public subnet 10.1.32.0/21

Auto Scaling Web Server Group

Auto Scaling Web Server Group

A1

A1

(10) a1.2xlarge

(10) a1.2xlarge

Application Load Balancer

Static Web Content

CloudFront

Users and devices

devices

Authenticate

Amazon Cognito

users

DNS

Route 53

Upload Content API

Media Compression Function

NAT Gateway

Private subnet 10.1.64.0/21

Private subnet 10.1.96.0/21

SQS

Invoke REST API

API Call

API Gateway

Internet Gateway

Auto Scaling Application Server

Auto Scaling Application Server

T4

T4

(10) t4g.xlarge

(10) t4g.xlarge

Application Load Balancer

notification

Messaging API

Message Formatting Function

User to User Communication

Push Notification

SNS

Master DB RDS MySQL (db.r6g.xlarge)

Multi-AZ replication

Read Replica DB

Design, Provision and Monitor

AWS Infrastructure at Scale

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