AWS infrastructure for Social Media Application (50,000 single-region users)
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AWS Cloud

Region us-east-1

Virtual Private Cloud 10.0.0.0/16

us-east-1a [AZ1]

Public Subnet 10.0.1.0/24

Private Subnet 10.0.11.0/24

Elastic IP

EC2 Web
m5.4xlarge
Auto Scaling Group
Initial Values (before tuning):
Min 2 / Max 2 / Desired 2

NAT Gateway

EC2 App
m5.4xlarge
Auto Scaling Group
Initial Values (before tuning):
Min 2 / Max 2 / Desired 2

Write

RDS Master DB
db.m5.4xlarge

Read

Users

Mobile Clients

Desktop Clients

*.domain.com

Route 53

Amazon CloudFront

Internet Gateway

Application Load Balancer

S3 Bucket (Static Content)

Network Load Balancer

Write

Synchronize

us-east-1b [AZ2]

Public Subnet 10.0.2.0/24

Private Subnet 10.0.12.0/24

Elastic IP

EC2 Web
m5.4xlarge
Auto Scaling Group
Initial Values (before tuning):
Min 2 / Max 2 / Desired 2

NAT Gateway

EC2 App
m5.4xlarge
Auto Scaling Group
Initial Values (before tuning):
Min 2 / Max 2 / Desired 2

Read

RDS Read Replica
db.m5.4xlarge