

Awakening of heroes

Multiplayer game hosting



19CSE447 – CLOUD COMPUTING
CASE STUDY

THE GAME

Awakening of heroes is a free-to-play 5v5 Multiplayer Online Battle Arena featuring Role playing and battle royale elements available for iOS and Android devices



Challenges

1 Resource scalability

2 Server Stability

3 High Coverage

4 DDoS attacks

5 Deployment

6 Maintenance phase



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Resource scalability

Challenge 1

Scalability

- Persistent deployment of resources is required to handle the workload statically.
- Automatically **add or remove VM instances** from a managed instance group based on increases or decreases in load.
- **Load Balancer**



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Server Stability And Security

Challenge 2

Server stability & Data Security

- **Stream line troubleshooting**
 - Checks the player server is secure or not and checks the stability of the players connection.
- **Data Security**
 - Failing in data security leads to hacking and loss of players data.
 - Encryption



High
Coverage

Challenge 3

High Coverage

- Location based servers
 - Asia
 - Europe
 - USA
- Third party servers
 - For inaccessible locations



4

DDOS attacks

Challenge 4

DDoS attacks

- Hackers intervene the game to make virtual money or progress in the game by cheating
- Failure of load balancer
 - DDos protection platforms



5

Deployment

Challenge 5

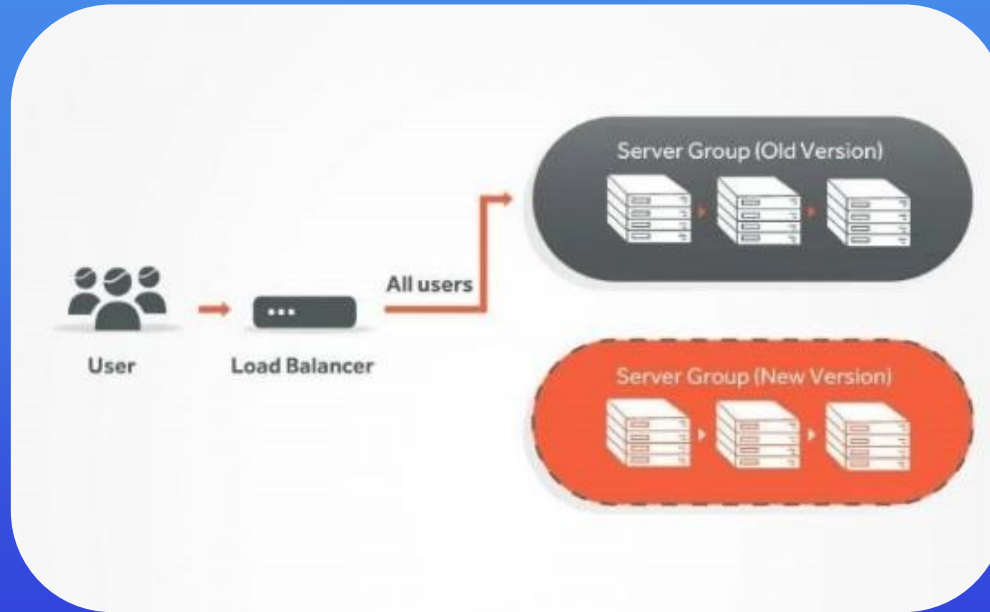
Deployment

- Continuous integration continuous deployment
 - service that automates the building, testing, and deployment of your software into production.
- Git push
 - push commits made on your local branch to a remote repository.

Blue green deployment

A server group is withdrawn from the auto-scaling group and new servers that hold the updated app version are added using the blue-green deployment technique. Internal tests are conducted, and when there is no friction between any of the moving pieces, the new server group takes over as the primary server, and the new version is automatically scaled.

Deployment





6

Maintenance Phase

Challenge 6

Maintenance Phase

- Maintenance of server
 - Load Balancer
- New versions of the game
 - Published in 5 hours or 5 mins by Play store or App Store.
 - **Both Old and New versions** need to be supported



Thanks!

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