Mobile Game on the Cloud

A scalable, highly available, and disaster-resistant cloud infrastructure for enhanced user experience

Introduction

Organizations require a platform that is scalable, cost effective, and highly available in order to cater to the growing needs of mobile game fanatics. Minimal latency (or acceleration) with servers laid out internationally in an efficient and uninterrupted manner is a prerequisite to effectively accelerate online global gaming.

Background

For most organizations, cost overhead greatly increases due to overprovisioning of resources when their infrastructure is not on the cloud. They need a stable, highly available, and disaster-resistant mobile gaming cloud solution that enables development of advanced and unique games with better user experience in a cost-effective manner. Growth of the gaming business and cloud environment go hand in hand, empowering organizations to spin capacity up or down, while only paying for what is consumed. In an age of unpredictable demand, transitioning gaming applications to the cloud drives down hardware and upgrade costs due to a "Pay-As-You-Go" or subscription model.
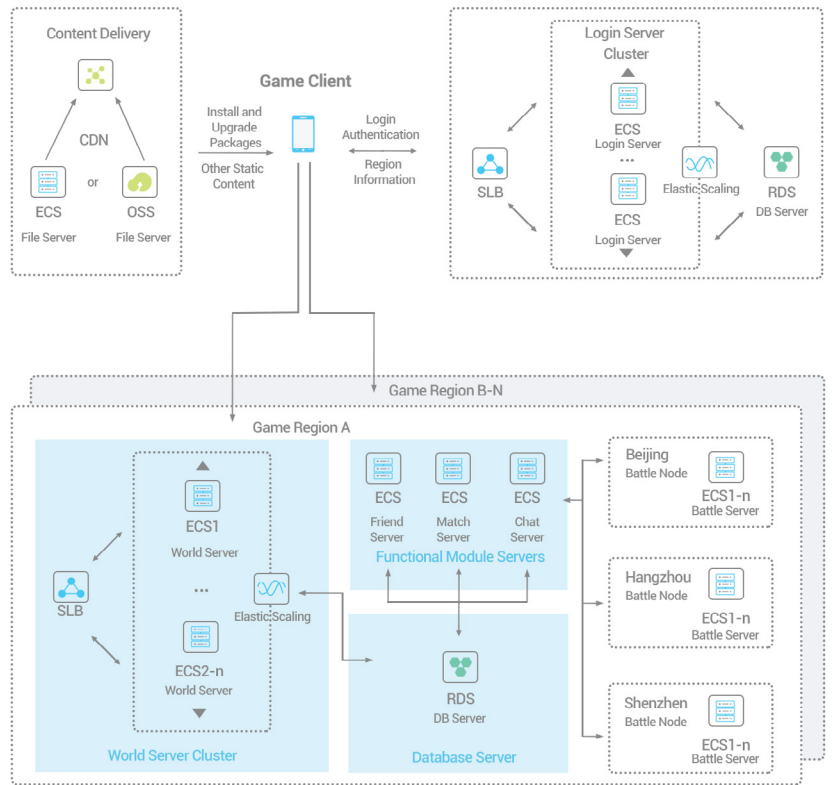
Highlights

- Massive Image/ Video Storage
- Managed Cache Service
- Global delivery
- High Security
- Resilient Elastic Compute

Benefits

✔ Serves high number of simultaneous players in individual zones

✔ Deploys different game servers in Alibaba Cloud data centers in different regions

✔ Conveniently builds automatic server activation system and provides users nearby access, increasing network access quality

Recommended Solution Architecture

1. To serve a high number of simultaneous players in individual zones, mobile games use ApsaraDB for Redis. ApsaraDB is also used for Memcache to construct a cache layer that accelerates the reading/writing of player's game data.

2. Data in the cache is taken in regular batches for persistence storage to decrease backend database read/write pressure.

3. Static file can use the CDN service to accelerate file downloading.

4. Alibaba Cloud Auto Scaling service enables developers to conveniently build an automatic server activation system and provides users nearby access, increasing the network access quality.
Also, security product Yundun can provide Wireless Application Firewall (WAF) and Anti-DDos service.