Dynamic Media Content for Games

Build a serverless solution for customized in-game media content. This reference architecture uses request parameters and edge computing to provide a flexible way to serve dynamic content in loading screens or other parts of the game.

Game developers often build custom solutions to engage with their players through daily messages and custom media content including Message of the Day (MOTD). This architecture provides a reference architecture for serving customized content based on request parameters.

1. Game clients send request with parameters to Amazon CloudFront to download dynamic content. Request parameters represent attributes about the player, but are low-cardinality values to maintain high cache-rates and reduce cost.

2. CloudFront invokes an AWS Lambda@Edge function closest to the user. The Lambda Function is used to dynamically modify the content that should be retrieved from origin based on request parameters.

3. Amazon DynamoDB Global Tables is used to provide a multi-region rules engine for custom routing. Lambda queries the table closest to the user to determine the content to serve.

4. Amazon CloudFront uses the response from Lambda to fetch the relevant content from Amazon S3 (origin). Amazon CloudFront returns the content to the client and caches the response in edge locations to reduce cost and improve performance for future requests for the same content.

https://content.mygame.com?platform=pc&firstTimePlayer=true&isWhale=false

AWS Cloud

- AWS Lambda@Edge (Origin Request)
- Amazon CloudFront
- Amazon S3
- Amazon DynamoDB (Global Table)

Query rules engine

Cross-Region Replication

Region (US)

Region (EU)