"REALTIME MULTIPLAYER GAME ONLINE WITH CLOUD COMPUTING"

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ABSTRACT

Massively Multiplayer Online Role Playing Game (MMORPG) become a centered system on a server that will continually to be active to keep game sessions, it is because some of the players connected to the game continuously. However, when one server is experiencing system failure, then it will make any unsaved data will be lost. A failover architecture system with High-Availability Cluster is required to resolve the issue. If one map server failed, the HA-clusters could divert data to another map server so that continuity of game session can be maintained. Expectations time that generated by the failover was 2 minutes, because the time is not too long when the system is implemented in a virtual server failover. From 8 attempts of data transfer, it took between 1 to 3.5 minutes for the map server 1 to map server 2, 1 to 8 minutes for the map to map server 2 server 3, and 1 to 8 minutes for the map server 3 to map server 1. The results showed that the normal time it takes the system to perform takeover is approximately 54 seconds. Experimental results show that the normal time it took the system to perform takeover is approximately 54 seconds. Result time is in to research expectation, so the resulting takeover time is still quite real-time.

Keywords: Massively Multiplayer Online Role Playing Game (MMORPG), Cloud Computing, HA-Cluster, failover.