Distributed Computing Systems IN4391
The Dragons Arena System

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Abstract

a description of the problem, system description, analysis overview, and one main result. Size: one paragraph with at most 150 words.

1 Introduction

(recommended size, including points 1 and 2: 1 page): describe the problem, the existing systems and/or tools about which you know (related work), the system you are about to implement, and the structure of the remainder of the article. Use one short paragraph for each.

2 Background on Application

The Dragon Arena System (DAS) is a online warfare game of WantGame BV between human players and computer controlled dragons. The game consist of a battlefield of 25x25 on which players and dragons reside. The goal of the game for the players is to kill all the dragons and survive (vice versa for the dragons). WantGame want the game to be able to support many concurrent users and has therefore decided to invest and design a distributed game engine which needs to be consistent, scalable and fault-tolerant.

As stated, the game needs to support multiple concurrent users playing on the same battlefield. This means that the system must be able to scale up in order to handle all these users and the requests they make to the servers. In order to achieve this, it is important to have multiple server nodes to handle requests of all these users. (This will be explained in more detail in the next section).

Multiple nodes means that different players may be performing actions which impacts a second player's actions. In order to detect this, the system needs to be able to detect whether another players action is still valid.

Last but mot least, players must be able to continue their game even if some server crashes. A possible approach may be, that there needs to be at least more than one copy of a running instance of the game to make sure that clients can silently reconnect to another server without disrupting the users game experience.

3 System Design

4 Experimental Results

5 Discussion

6 Conclusion

7 Appendix

References