

**A Proposed Quality Model for Gaming as A Service (GaaS)
Through Comparative Analysis of Cloud Gaming Platforms**

By

Rand Naser Albustanji

Supervisor

Dr. Ahmed Alkhatib

Co-supervisor

Dr. Ameen Shaheen

This Thesis was submitted in Partial Fulfillment of the Requirements for the

Master's Degree in software engineering

Faculty of Science and Information Technology

May, 2024

A Proposed Quality Model for 'Gaming as A Service (GaaS) Through Comparative Analysis of Cloud Gaming Platforms

By

Rand Naser Albustanji

Supervisor

Dr. Ahmed Alkhatib

Co-supervisor

Dr. Ameen Shaheen

Al-Zaytoonah University of Jordan, Year

Abstract

In this thesis, we have proposed a quality model for Gaming as a Service (GaaS) Through Comparative Analysis of Cloud Gaming Platforms and the users' perspective. The objective was to enhance user satisfaction by identifying the quality factors that have a big impact factor on building cloud gaming platforms and directly impact User satisfaction. The methodology involved conducting a comparative analysis between three leaders of cloud computing to extract key factors of quality of service, a survey questionnaires, and a literature review. A selected benchmark data was applied on each of the three virtual machines that were already created on the cloud side and the questionnaire was distributed to a diverse group of GaaS users, gathering insights on most essential quality factors. Additionally, a literature review complemented the survey findings, resulting in a quality model for GaaS. The proposed model will provide a valuable framework for GaaS providers and enabled users to make informed decisions.

Keywords: Cloud Computing, Cloud Gaming, Framework, Gaming as a Service, Quality Model.