***Multimedia Systems –***

**C-WG3#1**

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**PURPOSE OF THIS DOCUMENT**

This document contains everything concerning the implementation phase of the Cloud Gaming project and further development ideas.

**REVISION HISTORY**

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| Revision # | Date | Author(s) | Comments |
| 0.1 | 26.11.2009 | Lauri Majamaa | First version |
| 0.2 | 29.11.2009 | Lauri Majamaa | Some text and notes added |

**ABBREVIATIONS**

|  |  |
| --- | --- |
| Scrum | Iterative incremental framework for agile software development |
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**REFERENCES**

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# INTRODUCTION

This document is a final report for our Cloud gaming project done for Multimedia Systems course in University of Oulu fall 2009. Our group consisted of five members, Lauri Majamaa, Antti Lampela, Tuomas Vähänen, Pasi Keski-Korsu and Antti Väyrynen. The project was done as an agile software project, meaning the team was called a Scrum and development cycle was divided into sprints. During the implementation phase we went through one sprint, lasting one month, from 1.11.2009 to 1.12.2009.

# Final Analysis

The aim of this project was to create a solution for playing games with cloud architecture. The game is run on a server instead of your own personal computer, and its video is streamed to your computer over the net. Your game controls will be also forwarded from client to server in the process. The playing experience is aimed to match what you would have if the game was run locally. Cloud architecture makes possible to play power consuming games on a relatively powerless computer, so you wouldn't have to invest in state-of-art hardware anymore, because video rendering is done on server. Possible future developments could also allow the game to access many servers at once to receive more calculation power if needed by the game. This and heavy increase of network bandwidth is needed for cloud gaming to become a serious choice for personal gamer.

**Problems**

**Solutions**

# Project outcome

Here is listed the overall project outcome that is delivered on the project DVD.

• Project plan – MMS\_Project\_plan.pdf

• Final Report – MMS\_Final\_Report.pdf

• Project web-site

• Requirement Specification – MMS\_Requirement\_Specification.pdf

• Design Specification – MMS\_Design\_Specification.pdf

• Executable binaries for client on Windows and Linux platforms, server scripts and source code

# Improvements for the future

Software

* Portability
* Buffer optimization
* Better codec
* More powerful server platform

Development

* Strict documentation cycle
* More code-aware people on the team
* More scrum-like development, not normal cowboy coding.