

Dissertação de Mestrado em Engenharia Informática (2017/2018)

Title: Platform for communication using a special User Datagram Protocol.

Supervisor: Prof. Nuno M. Garcia (UBI)

Co-Supervisor: Prof. Krzysztof Grochla (Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Poland)

Summary

The User Datagram Protocol is a protocol proposal that counts on transmission of from one specific port to another specific port. This proposal will focus on building a platform for communication using different types of UDP transmission methods, with particular interesting in video and audio streaming.

Objectives

The main objective of this research is to assess the performance of a modified UDP by means of the implementation of a platform that uses the modified version of the UDP protocol. The dissertation work will consist in the evaluation of existing streaming software and in building the intermediate layers of the new UDP protocol, whose efficiency will later on be assessed in terms of QoE.

Tasks

- T1 – Technological background study;
- T2 – Review the State-of-the-art;
- T3 – Adaptation / development of a new UDP protocol;
- T4 – Performance assessment of the modified protocol using real streaming;
- T5 – The writing of the dissertation.

Expected result

In this research work the following deliverables are expected:

- A conference paper describing the process;
- The dissertation.

Timeline

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
T1	X	X									
T2		X	X								
T3			X	X							
T4				X	X	X	X				
T5							X	X	X	X	

References

N/A

Requisites

The student will be selected after an initial screening process that will include the assessment of his/her ability to work in this area, his/her skills on analyzing a scientific paper and his/her skills on writing text for a scientific paper.