This project is included in a set which have the objective to develop an UMTS emulation platform in real time, for QoS performance evaluation of multimedia applications, with the use of radio resource management algorithms. The part that this document is centred is in adapting and supplying the simulator with tools that allow it to manage information received that the ends of the UMTS system, that is, what represents to be the terminal equipment and the core network.

One essential part of the project consists in the integration of AMR (Adaptive Multi Rate Codec), mandatory speech codec for Third Generation Systems, inside an application for audio conferencing and streaming called RAT. With the objective of having a tool that lets you analyze network applications we have developed a group of programs that obtain relevant information to characterize them.

In order to measure the quality of the communications environment we make use of PESQ, a tool normalized by ITU that obtains a MOS (Mean Opinion Score) punctuation that gives idea of channel disturbance introduced to signals. To avoid delay effect result of test process, that isn't considered by PESQ, we have developed a WAV files synchronizer that helps to get more real measures when comparing RAT audio files.