

PROJECT / Gestão de Mobilidade Centrada no Utilizador Final

UMM

Main Objective:

The work to be developed in this project relates to the topic of global mobility management in spontaneous wireless environments, i.e., environments that self-adjust to any network topology change. Global mobility management is addressed from a network perspective, and the purpose is to ensure a transparent access to Internet services (e.g Triple Play) for the end-user, who will be able to access his/her subscribed services independently from access attachment point, location, and based upon his/her own requirements ("Quality of Experience", QoE). In addition, global mobility management is to be analyzed from a de-centralized perspective, given that environments to be considered will incorporate wireless local-loops that are based upon end-user willingness to cooperate. Main aspects to focus upon are:

1. Handover management optimization
 - a. Consider QoE as well as available (aggregated) spectrum to provide the user with the best possible connection seamlessly at any time and independent of location, having in mind user expectations.
 - b. Analyze and validate adequate cost functions and metrics to estimate QoE levels on-the-fly.
2. User-centric mobility management
 - a. Investigate and validate algorithms for a self-organized selection of anchor-points, aiming to insure system robustness to highly frequent changes.
 - b. Devise a global mobility management mechanism taking into consideration the aspects analyzed in relation to handover optimization and incorporating mobility models that support adequate anchor point selection.

Reference: PTDC/EEA-TEL/105709/2008, Funding: FCT/PTDC, Start Date: 01-04-2010



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