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Target Scenarios specification: vision at project stage 2

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Abstract:

This deliverable provides an up-dated version of the selected scenarios in order to consider the latest evolutions of the 3GPP and IETF specs as well as any other outstanding technical information coming from the standardisation bodies.

The scenario descriptions are focusing on those parameters that are relevant for the common Radio Resource management in cellular heterogeneous networks. The heterogeneous network comprises evolved 2G and 3G cellular systems as well as wireless local area networks (WLANs).

Keyword list: Scenarios, Mobility and Propagation models, Layouts, Traffic Characterization, Traffic mix, QoS parameters

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EXECUTIVE SUMMARY

The scope of this document is to update the target scenarios to be addressed during the second stage of the EVEREST project. The scenario descriptions are focusing on those parameters that are relevant for the common Radio Resource management in cellular heterogeneous networks. The heterogeneous network comprises evolved 2G and 3G cellular systems as well as wireless local area networks (WLANs).

Four target scenarios from stage one and one additional multi floor building scenario are given in this deliverable based on the requirements of the four operators in the project. They are described by four main items, which are considered most relevant for RRM strategies. The selected five target scenarios and the corresponding evaluation procedures are compliant with 3GPP specifications in order to facilitate the impact of the project result in 3GPP. The scenario vision encompasses a heterogeneous network supporting end-to-end QoS for users with multimode mobile terminals in the time frame of 2009-2010.

The document gives a short introduction in section 2 and overview of the scenarios that will be used within EVEREST stage two. Section 3 presents new items relevant for the reference QoS architecture assumed. The architecture is aligned with the evolution carried out in 3GPP and IEEE 802.11. Section 4 addresses the updated service and traffic characterization. The main characteristics of the environments to be assumed in EVEREST: Dense Urban; Urban; Suburban and Indoor "Hot Spot", are described and the corresponding propagation characteristics are identified. The most important characterization of the Radio Access Technologies (RAT) for simulation and evaluation of heterogeneous radio access network is done in section 6. The description of the final five selected target scenarios is done in section 7. A conclusion about the scenarios and descriptions in this deliverable is given in section 8.

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