

PRESS RELEASE

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Madrid, 8th of March, 2010

Excellent grades for CARMEN

The Audit of the European Project CARMEN (CARrier grade MESH Networks) conducted in Madrid on March 3rd and 4th has been concluded with excellent results. Testbed demonstrations and presentations won the approval of European Commission reviewers present for their successful account of the project's research objectives.

The performance of theoretical presentations supported by on-site demonstrations goes in hand with CARMEN's aim to design and validate sound functionalities that can be implemented on a use-case practical basis, and adapting to the specific coverage/capacity requirements of mobile and fixed network operators.

Whilst current backhaul solutions for radio access networks consist mostly of wired leased lines or point-to-point, high capacity radio links (both of which are slow to deploy, expensive and are not always available), mesh networks, in turn, are typically very reliable as they are "self-healing", (each node in the network may act as an independent router, which means that the network is still able to operate when a node breaks down or the connection fails). Thus, CARMEN project proposes carrier grade wireless mesh networks as an alternative and complementary fast and low-cost access technology to the common-core and multiple-access network infrastructure characteristic of future telecommunications.

Mesh-based solutions are particularly well suited to temporary scenarios or incremental deployments as they provide an economical network infrastructure, reusable and adaptable to short-time demands, and significantly easier and faster to deploy than current backhaul solutions. Scenarios which may greatly benefit from the outcome of the CARMEN project are, for instance, emergency events, such as natural disasters, where the challenge of providing a massively increased number of fixed and mobile wireless users with high quality triple- (high-speed Internet access, television and telephone) and quad-play (integrating mobility, for example, WiFi) services for the duration of the event, requires the deployment of heterogeneous and complementary technologies



that are able to ensure efficient service delivery of at least the typical carrier grade service offerings: voice, video and data.

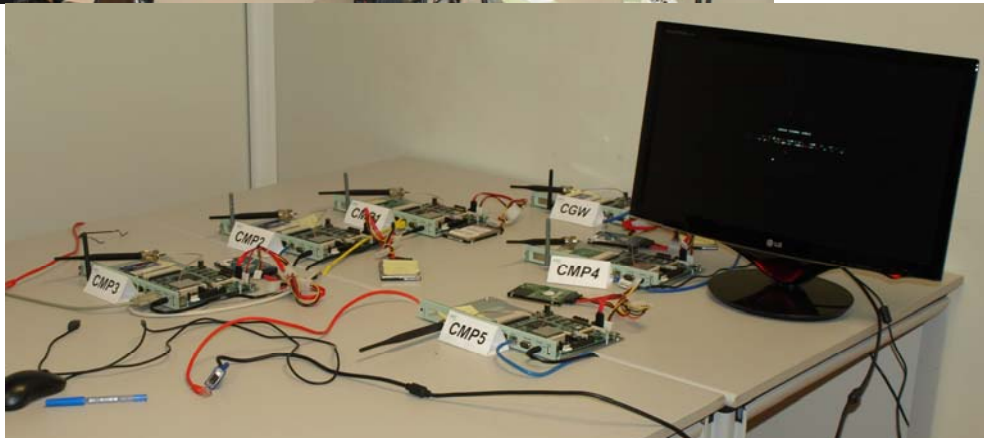
CARMEN project proposes to achieve the advancement of state-of-the-art mesh networks in the following aspects: Firstly, with the creation of a cost-effective mesh network that supports ubiquitous, triple and quadplay carrier grade services, that is, services offering quality levels comparable to those of carrier companies, and including hardware, availability, clustering, security, operation and performance. Secondly, support for mobile unicast and broadcast services in a mesh environment aimed at maximizing bandwidth costs. Thirdly, support for multiple radio technologies, by designing an interface to provide an abstraction of radio based Media Access Control (MAC) layers for mesh, in order to expand the flexibility and compatibility of the network and bringing it closer to the ideal deliverable of a “ubiquitous” and “pervasive” service.

The findings of the CARMEN project will be presented in a joint proposal to international standardization bodies such as the IEEE and the IETF.

CARMEN Project is composed of the following organizations, representing the private and public sectors: University Carlos III of Madrid, AGH University of Science and Technology, Alcatel-Lucent Deutschland AG, British Telecommunications PLC, Deutsche Telekom AG, Fraunhofer Gesellschaft Zur Foerderung DerAngewandten Forschung E.V., NEC Europe Ltd., University College Dublin, National University of Ireland, Dublin.



CARMEN Project's Audit at University Carlos III of Madrid: Demonstration 1



CARMEN Project's Audit at University Carlos III of Madrid: Demonstrations 1-2-3

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ABOUT IMDEA NETWORKS

IMDEA Networks is an international research institute supported by the Regional Government of Madrid and the European Union. The Institute brings together distinguished and young scientific researchers to develop cutting-edge science and technology in the field of networking. In order to ensure a truly international perspective, the Institute's working language is English. Promoting interdisciplinary collaboration, the Madrid-based Institute works in partnership with leading businesses and scientists from around the globe. By generating new knowledge and understanding through its activities, the Institute supports the continued development of Madrid and Spain as a centre for international scientific and technological research.

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