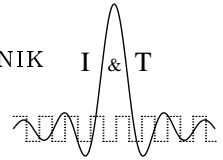


Fachhochschule Wiesbaden

FACHBEREICH INFORMATIONSTECHNOLOGIE UND ELEKTROTECHNIK I & T

FACHGEBIET INFORMATIONSTECHNIK & TELEKOMMUNIKATION

Prof. Dr.-Ing. K.H. Hofmann



22. August 2003

Vortragsankündigung

Am **Freitag, dem 31. Oktober 2003**, 14⁰⁰ – 15⁰⁰ Uhr, findet im **M-Lab** (Raum 406, 4. Stock, Gebäude A1 Nord), folgender Vortrag statt.

Seamless roaming between heterogeneous access networks (LAN-WLAN-GPRS) using Mobile IP

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Abstract:

The landscape of today's telecommunications portrays an amazing patchwork of heterogeneous networks, with very few (and complex) bridges between them. In this context, IP technology has emerged as a natural means of initiating network convergence and the "All-IP" paradigm has become the implicit assumption for most studies on the next generation architecture design. However, the real added-value of such networks from the user's point of view will consist in offering seamless and transparent services through any kind of network. This can only be achieved with a global solution for mobility management and some believe it to be Mobile IP.

The purpose of this presentation is to describe and evaluate the use of Mobile IP in an IP core network, acting as a mobility management protocol federating various access network technologies such as PSTN, WLAN or GPRS. Using Mobile IP as the enabler for inter-access technology handoffs will be the first step towards providing always-on access to IP applications (e.g. VoIP, VPN, mobile Internet). The impact of the Internet has now started to embrace mobile nomadic users. In fact "Mobile Internet" is now at the point of becoming an obsolete term as the Telecom and Datacom worlds are merging. There is an increasing pressure on Telecom providers to supply their customers with access to their customized services anywhere, on any terminal and access technology. In order to come up to such high expectations for unified and personalized service provisioning, a global solution for mobility management is the primary goal. It should embrace mobility as a whole, that is, address the issue from three points of view: personal mobility, terminal mobility and session mobility. Considering that maintaining constant IP connectivity can be the vehicle for building wider telecommunication networks and opening new markets, the greatest challenge will consist in supporting mobility across heterogeneous access technologies without losing the connection (i.e., "seamlessly") thereby preserving the user's service environment. Mobile IP is a transparent routing solution that allows mobile nodes to move between IP domains without losing transport-level connections. This IETF standard is seen as one of the candidates for handling mobility management in the "All-IP" architectures designed for the future 3G/4G mobile networks.

The presentation will introduce recent results of some national and international projects (EU-RESCOM FIT-MIP, MOBIDICK) that investigated the potential of an "All-IP" solution for the evolution of mobile networks. The FIT-MIP project focused on federating several access

networks based on different technologies (fixed or wireless) using Mobile IP and assessed its potential in a European trial. MOBIDICK focused on the usage of Ipv6.

Moreover the presentation will provide a short description of Mobile IP, going on with the reference architecture designed in FIT-MIP. Ending with the description, analysis and discussion of the results of the tests done on top of this architecture using different services (VPN, VoIP, Mobile Internet, ...) to identify the strenghts and limitations of this architecture

Der Vortrag ist öffentlich und alle Interessenten sind dazu herzlich eingeladen.

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