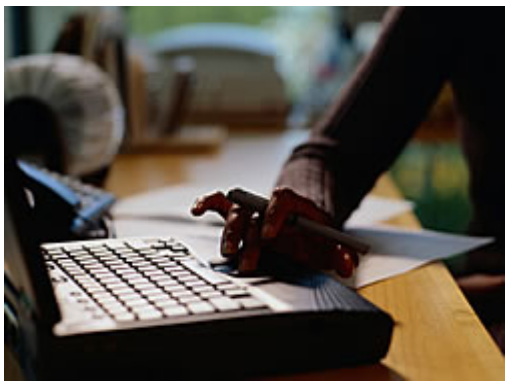
seamlEss multimedia serVices Over alL IP-based infrastrUcTurEs

Results in Brief

User identification on open service platforms

Current networks are converging into unified multi-service networks offering different services at different qualities and costs on open service platforms. Accessing such an infrastructure, wholly based on Internet Protocol (all IP-based), through different types of wireless networks, and enjoying services on the move, requires an easy, user-identification system.

DIGITAL ECONOMY



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Data security and billing of services are just two areas where a system is required for identifying individual mobile users. The EVOLUTE project has developed a full Authentication, Authorisation and Accounting (AAA) infrastructure to support mobile users roaming on IP-based networks. It allows an individual user to be identified, controls user access to data resources and keeps track of user activities over a network.

The structure developed by EVOLUTE integrates multimedia and mobility control components with AAA servers. For example, it integrates the authentication protocol used for initiating an interactive user session involving multimedia elements (video, voice, chat, gaming, and virtual reality) with the authentication and accounting system, used by many Internet Service Providers, called RADIUS (Remote Authentication Dial-In User Service).

Authentication is the process of identifying an individual, usually based on a user name and password. Authorisation refers to granting or denying a user access to network resources once the user has been authenticated. The accounting process then keeps track of a user's activities while accessing the network resources, for example the time spent in the network and the services accessed during the session.

Identification of users allows them to be treated individually and makes it possible to develop and offer personalised, tailored services. It also provides for data security because access to the network can be denied for some users and user groups. In addition, the accounting data can be used for trend analysis, capacity planning, billing, and auditing.

The current AAA development supports authentication only for the current widespread European standards for mobile phones, Global System for Mobile Communications (GSM) and General Packet Radio Service (GPRS). It can, however, be easily extended to third generation (3G) networks using the Universal Mobile Telecommunications System (UMTS).

Further adaptations to mobile devices are still required. The project would like to co-operate with network providers who wish to explore new networking and access technologies and provide their user base with a more flexible service offer. Multimedia service providers wishing to offer their services over heterogeneous environments are also encouraged to enter into contact with the project.

Project Information

EVOLUTE

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Project website

Project closed

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