Optimizing service creation and deployment for different service providers' scenarios

Armin Lehmann, Ulrich Trick
Fachhochschule Frankfurt/M. - University of Applied Sciences, Kleiststraße 3, 60318 Frankfurt/M., Germany
E-Mail: lehmann@e-technik.org, trick@e-technik.org;
Steffen Oehler, Detecon International GmbH, Oberkasseler Straße 2, 53227 Bonn
E-Mail: Steffen.Oehler@detecon.com

Abstract

Future Networks require detailed analysis for creation and deployment of new services. Relating to solutions of Service Delivery Platforms (SDP) for providers, new questions will appear. Which of the today's solutions are relevant for creating and deploying services in Next Generation Networks (NGN)? How to evaluate these service platforms? Which opportunities are given by the IP Multimedia Subsystem (IMS) for service creation and deployment? These questions will be covered in the speech.

First the differences between NGN and NGN/IMS are exposed. The relevance of the IMS for services in today's solutions will be shown clearly (see **Figure 1**). Based on IMS different variants of deploying services are displayed. The question of relevance for future variants will be depicted.

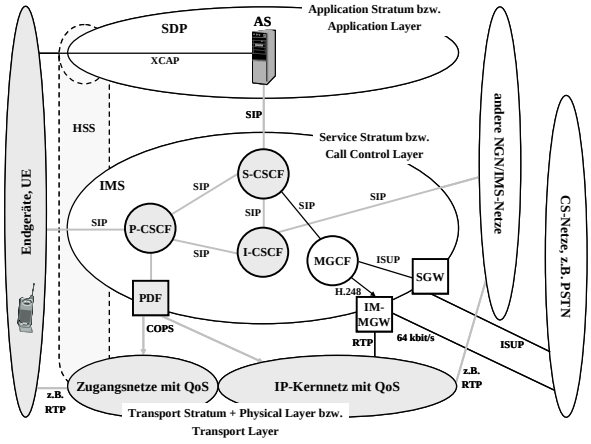

Figure 1 NGN/IMS

Future solutions for creating and deploying services are based on a so called service delivery platform (SDP). Relevant technologies like the Open Mobile Alliance Service Environment (OSE), Open Service Access (OSA)/Parlay, and Java API's for Integrated Networks (JAIN) will be illustrated.

Completely new options of service creation for service providers are resulting. Future services can be fitted exactly to users' needs and be deployed rapidly. Which technologies will be proper for service providers and end users? By presenting different scenarios this question will be covered. Specific scenarios for service providers and their customers have been worked out in the joint research project "Services in NGN" with the Detecon International GmbH.

The result of the research project is a system for all shown business models (see **Figure 2**), which will lead to concrete recommendations for specific service scenarios. One of these scenarios will be shown on the basis of a specific scenario.
A national service provider could deliver services to many "normal" customers. The services to be delivered are so called Value Added Services (VAS). The complexity of these services is small but the number of services is large. The service provider owns a call control system and purchase the needed core network and access networks from a communication network provider (NetCo).

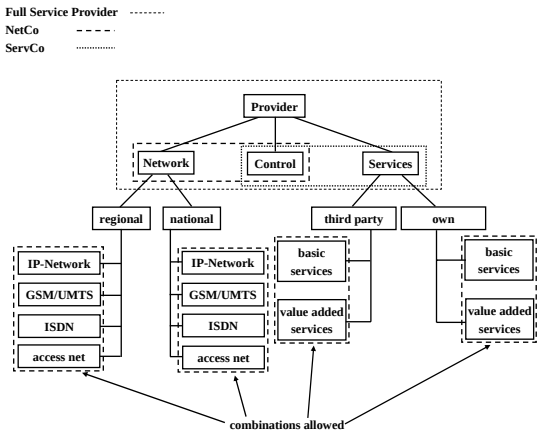

Figure 2 Business models

Regarding to the possible solutions and their valuations concerning specific criteria, conclusions for adequate technologies can be recommended. Key criteria such as performance and security and development effort will lead to particular solutions.