

Servingo – an IT-based Service Platform for Infotainment & Logistics

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During the FIFA World Cup 2006 in Germany, over 3 million spectators are expected to attend the 64 matches in 12 different cities. Additionally, hundreds and thousands of spectators will meet at public places to watch the games on large screens or take part in fan events. But how can they find the events, appropriate restaurants, or to orient themselves in foreign cities?

The aim of servingo, an R&D project partially funded by the German Federal Ministry of Economics and Labour, is to provide a modern, informative, and entertaining »guide« on mobile devices through the FIFA World Cup to answer exactly these questions. By supporting the mobility of visitors and participants at the FIFA World Cup 2006 and offering targeted and entertaining information and communication options, servingo will promote a more efficient and richer experience to all guests.

The main pillars of servingo are the concepts of information, orientation, organization, and experience (figure 1), each provided by target-oriented services assisting the user in different situations, such as mobile multinet routing, hotel and restaurant search and booking, as well as retrieving specific information about a city and events.

While it is the aim to provide the crowd of visitors with the services developed in servingo, some parts of the project will only be implemented prototypically due to their highly innovative research approach. servingo is focused on four main research topics covering various innovative services for mobile support of personal logistics, the generation of personalized information, interactive 3D reconstruction of game scenes and the provision of data via a multi-channel platform.

Mobile Logistics Support

To support the visitor in navigation and organization, servingo offers various services like pedestrian routing, information about public »points of interests« and mobility-related locations like train stations or helpful information about public transport. As the major part of the visitors will use public transport to travel to the different venues, servingo will provide them with information allowing to find their way in an unfamiliar area. Foreign visitors will benefit from servingo as a system offering e.g. timetables and connections to their required destination.

German Abstract

Im Jahr 2006 findet die Fußball-Weltmeisterschaft 2006 als wichtigstes flächendeckendes Großereignis Deutschlands statt. Das vom BMWA geförderte Forschungsprojekt servingo entwickelt in diesem Kontext eine IT-gestützte Serviceplattform, die es erlaubt, eine integrierte Informations- & Logistikunterstützung für unterschiedliche Zielgruppen zur Verfügung zu stellen. Im Mittelpunkt steht ein mobiles Informationsportal, das Benutzern Dienste zum Informieren (z.B. Stadtfios und Ereignisse), Orientieren (z.B. Fußgänger-Routing), Organisieren (z.B. Unterkunft, Parkplätze suchen) und Erleben (z.B. persönliches Tagebuch und interaktive 3D-Spielszenen) kontextsensitiv, d.h. orts- und zeitabhängig, zur Verfügung stellt.



Figure 1: The main concepts of the servingo project

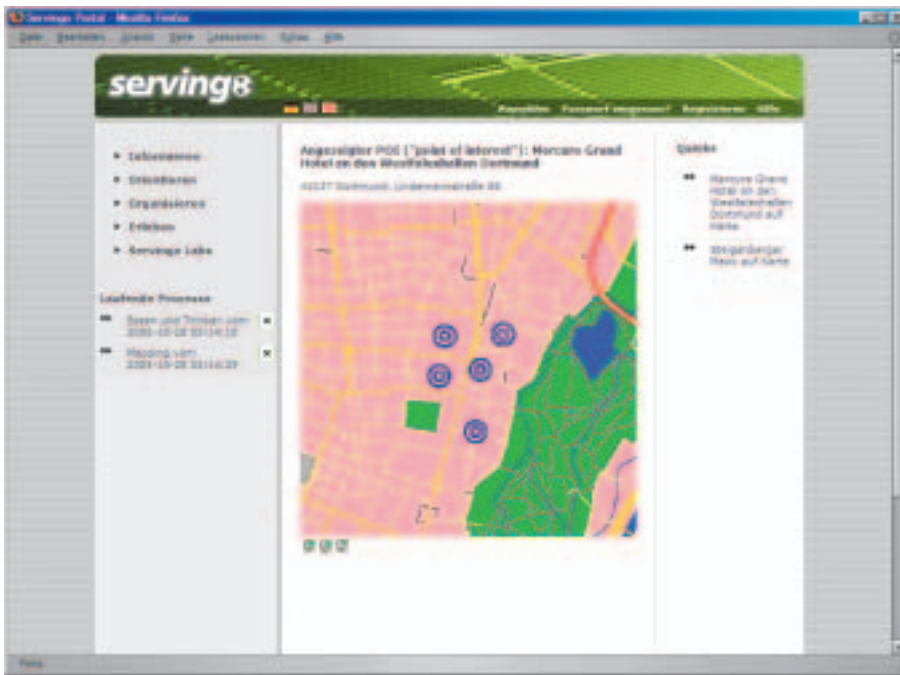


Figure 2: servingo portal with map and context-sensitive quick links (Quinks)

Personalized Portals

A core service of servingo is the provision of personalized portals to accompany the sports enthusiast and to give him an integrated event experience. A registered user will be optimally and appealingly informed with custom-made event-related topics. By submitting pictures or personal experiences to a World Cup log file which is created after registration the user will have the possibility to create his own »diary« allowing to store the user's participation in the tournaments: By combining public information tailored to a particular user with his personal experiences a personalized event »story« will be written. This personalization will mainly be supported by the usage of personal points of interest which represent the most outstanding locations and by that build the foundation of the personal experience log.

Interactive 3D Match Editing

This entertainment component of servingo allows the access to reconstructed key scenes of a match, allowing the user to watch these scenes and to interact with them. The user will become the »camera-man« with possibilities to vary the execution speed and the position of

the camera. So he might watch a goal in slow-motion from the point of view of the field player and in real time from the position of the goal keeper. The integration of additional information like player descriptions and statistics, distances, trajectory of the ball, motion radii, and paths is conceivable.

Multi-channel Distribution

A main aspect of servingo is the realization of a suitable distribution platform providing two essential distribution channels. To provide individual information to a single user mobile network infrastructures (GSM, GPRS, UMTS) are used. The usage of these point-to-point channels allows the transmission of personal data like servingo's personalized portals or personal points of interest. The concurrent transmission of non-personalized broadband information to be used by a large number of users will be realized over a point-to-multipoint broadcasting channel. servingo will use IP-datacast over the DVB-H standard to provide this broadband downstream for mobile devices. By combining both approaches with the point-to-point channel as an interaction channel a hybrid platform is implemented.

Interconnected Services

New about the portal approach chosen in servingo is the logical interconnection between different services. Each service provided to the user requires specific input parameters, and most services provide specific output parameters. The intelligent service interconnection allows to create so-called »quick links« (Quinks) that enable the user to navigate easily between services.

When, for example, the user searches a restaurant in his proximity and successfully selects one to stay for lunch, the selection results in two new quick links: routing to the restaurant and adding the restaurant to his or her personal diary, including address and web link. This interconnection between services reduces the need for inputs on the device, which is essential on mobile phones for a better user acceptance.

servingo is carried out by a consortium of industry and research, led by the

- ZGDV- Center for Computer Graphics Research. servingo is funded by the German Federal
- Ministry of Economics and Labour (BMWA).

The consortium: CAS Software AG, DAI-Labor / TU Berlin, ehotel AG, GISTec GmbH, Fraunhofer Institute for Computer Graphics (IGD), Fraunhofer Institute for Material Flow and Logistics (IML), infoRoad GmbH, Intergraph (Deutschland) GmbH, itCampus Software- und Systemhaus GmbH, T-Systems International GmbH, Center for Computer Graphics Research (ZGDV)

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