Flexible Access Concepts for Distributed Information Systems

(in German: Flexible Zugriffskonzepte für verteilte Informationssysteme)

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After the rapidly growing penetration of personal computers in offices and households during the last decade, both *mobile telephony* and the *Internet* represent current *key technologies*. At the same time, the desire for *extended* and *flexible* data access in the context of enterprise-wide information systems is increasing.

Facing this background, the application system called PERFORMIS (Performance Management Information System) delineates a prototype of an enterprise-wide management information system for the development of large software. It realizes a *flexible* data access concept using *heterogeneous* and *distributed* enterprise data sources. *User-defined performance indicators* can be instantly accessed or used to compose reports, which describe the current status of development projects.

In a first step, the *heterogeneous* data of the worldwide distributed mainframe data sources are summarized in a local database, which can be accessed through Intranet technology. Here, the challenge lies in the transformation of heterogeneous data into the *homogeneous* context of the PERFORMIS data base.

As next step, management tools and defined contents are introduced, which enable an access to the local PERFORMIS server. A special focus is placed on the *flexible* composition of reports and graphics, incorporating condensed data of the underlying Management Information System.

In addition, *mobile data access* concepts allow the user to efficiently use familiar information services which are independent of the transmission technology. For this purpose, tools for creating and maintaining *user profiles* are needed in order to reflect the users' preferences when transmitting information over the limited bandwidth of the air interface.

Finally, a *performance evaluation* based on simulations demonstrates the efficiency of the developed system.

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