Architecture Thesis Unified Communication

This thesis first describes what Unified Communication (UC) is und which Services UC contains. It points out the concrete benefits of UC for enterprises and their employees and attempts a look at the future of UC. The leading providers of UC-Solutions and their products are also described.

The authors realised through extensive study of related literature that the most important issue of a UC-Architecture is its individuality. Based on this and on the fact that UC has a high potential to optimize processes in business, work, communication and collaboration, the present thesis reaches the following conclusion: The construction of UC-Architecture pays off for many enterprises if they design UC individually, tailored to the user requirements.

Different users have different expectations from a UC-Architecture. This thesis points out that users should be categorized according to their requirements. Afterwards, a user-role should be designed for each category. Five typical user-roles are introduced. They all contain a description of the working environment and the role-user activities as well as, finally, the knowledge of how this user can benefit from a UC-Architecture and which services he or she can actually employ for which activities.

For the acceptance of a UC-Architecture, it is essential that its usefulness is demonstrated. In 20 scenarios, consisting of several concrete use cases, typical interactions are shown between users and services of an UC-Architecture. In addition, an overview, ordered according to UC service categories, shows more than 50 concrete use cases. Their development was mainly based on findings which the authors could reach from practical tests with a UC-Architecture based on MS Lync. The present study describes a typical UC-Architecture and its components as well as central functions and protocols. Furthermore, it also shows the design of a Reference Architecture for a Swiss service company which employs about 5000 employees. The authors have been able to benefit from several interviews with representatives of enterprises where UC solutions are currently used or planned.
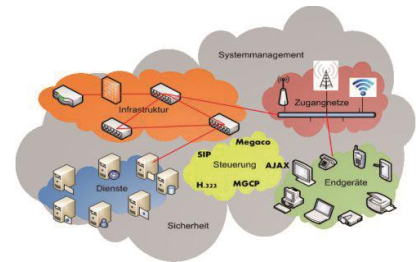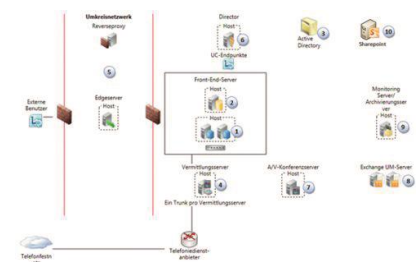
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UC-Architecture Overview

Lync Servertopology