

Intelligent solution for "clever heads"

TU Chemnitz chooses a modern IP solution & Unified Communications

After the implementation of a Voice over IP solution, the staff and students of the Technical University (TU) Chemnitz can now use additional communications services such as fax and voicemail, as well as telephone and e-mail.

When it comes to innovative solutions, Germany's universities often take a leading role. The TU Chemnitz has distinguished itself in matters IT by completely replacing its old TK infrastructure by a new Voice over IP solution. In doing so those responsible in the management of the education side and IT decided they needed one uniform and future-proof infrastructure for data and voice communication. The basis for this technology is the mature server architecture of the Cisco Callmanager. Within one year the TU Chemnitz, in collaboration with Teamplan, Cisco and T-Systems, implemented an extremely modern, and powerful, VoIP solution. By 2006 it had already completed the changeover of more than 3,000 end devices to IP. "As we had extensive IT expertise available to us directly on site, we were able to guarantee a smooth changeover for the 1,700 staff" described Ronald Schmidt, leader of the VoIP project at the TU Chemnitz.

Advances through Unified Communications

Through additional solutions for Unified Communications and billing the TU is now "Communication 2.0"-capable and can demonstrably that it has saved a lot of time and money by moving its telephony to the data network and more efficient communications processes. When choosing a Unified Communications solution the TU's choice fell on Ferrari electronic AG's *OfficeMaster* software. The tailored combination of hardware and software components supplied by Ferrari electronic, the Unified Communications expert from Berlin, enables different communications channels to be combined in one uniform application environment. Across Germany, *OfficeMaster* is already being used by more than 20,000 customers. The University was especially impressed by the fact that the open solution allows its own scripts and upgrades to be run at any time. The software was easy to integrate with the TU Chemnitz's Cisco Callmanager and offers user-friendly integration of fax, SMS and voicemail. University staff and students can use the e-mail system to access the Unified Messaging-functions over IMAP and SMTP. The solution can be used independently of whatever mail system is in use. When a user is set up in the University's Identity Management system the different functionality is automatically activated. Due to the close integration with the existing mail system, users can send and receive with *OfficeMaster* in a similar way to the e-mail system they are used to:

Instead of an e-mail address the user simply enters a fax or mobile number, using the format telephone number@fax.tu-chemnitz.de or telephone number@sms.tu-chemnitz.de, or clicks on it in their Contacts and adds text or file attachments. "This has reduced the effort involved in sending faxes considerably", said Roland Schmidt. The voicemail box has a similar structure to the well-known formats used by mobile telephony providers and are intuitive to use. New messages are displayed in the mail Inbox, and can also be checked remotely.

individual solutions

Despite the fact that the infrastructure is excellent today, the staff in the computing centre at TU Chemnitz are always searching for new starting points to enable them to introduce further improvements.

For example, the project team developed pyAXL, the completely script-based management framework, to provide a way to administer several thousand connections with a minimum of effort. This not only simplified work in the computing centre but also added value for the users: They also now have a Personal Address book designed by the TU Chemnitz, which can also be maintained via the web browser. Other interesting extensions to the VoIP environment now enable university staff to check the canteen menu, by telephone, or get reminders of deadlines and meetings. As its next big future projects the TU Chemnitz plans to introduce video conferencing technology in HD quality, across the board, and also a campus-wide media system based on Cisco Unified Signage.



Figure: Behind the historic facade of the Technical University (TU) Chemnitz there is a state of the art IP infrastructure. Source: TU Chemnitz