

# CASE STUDY

## E d u c a t i o n

### European School of Management (ESMT), Berlin, Germany



EMST Building in Berlin

#### SITUATION

The “European School of Management and Technology” (ESMT) is a private institution that offers university degrees to full-time students as well as continuing education programs for professionals in management careers. ESMT is located in the former “Staatsrat” (National Council) building in East Berlin. The building was remodeled to fit the needs of a modern learning institution. As a technology-oriented institution, ESMT values innovative solutions and sets high demands on the equipment of their information and

communication infrastructure. ESMT moved to their new campus in the renovated building on Schlossplatz in Berlin in February 2006.

Siemens Communications received the job of equipping the ESMT with new information technology and communication infrastructure. Siemens installed an IP-based integrated solution, which included an upgrade of the local area network (LAN), the installation of an IP communication platform, voice-over-IP terminals, campus-wide access to WLAN for voice and data, new PCs and notebooks, media technology and a Smart Card-based security solution. With this solution, ESMT can provide their students and staff with the most advanced communication technology.

#### NETWORK DESIGN

The Siemens concept is based on a real-time IP system. Approximately 250 IP telephones were connected over the LAN. New PCs and notebooks have IP access over to the same network. In this way, the requirements were fulfilled for using IP-based applications and features that integrate data and voice.

A WLAN solution was designed for the classrooms. Through the WLAN, the notebooks have access to the network and brand-new WLAN telephones can be used. Underneath it all, the server, access points, and IP infrastructure products ensure that both data and voice packets are transferred trouble-free.

From the start, both the institute and Siemens decided on using products from the LANscape® Solutions product line from Corning in order to install high-performing solidly structured cabling as a basis for this highly advanced IP-technology. The horizontal LAN transport network uses Corning S/STP 1200 copper data cables, which feature a high degree of security. The data cable is particularly suited for high bandwidths and complete transfer security. Its transferring properties clearly surpass the requirements of Category 7 specifications as currently defined in the standards. It is therefore often used in data centers. Corning cables are low-skew products, meaning the difference in signal transfer times between individual pairs is very low. This is increasingly required with Gigabit Ethernet. Corning S250 Category 6 modules were installed for the data outlets. The modules have an optimized structure with printed circuit boards for bandwidths greater than 300 MHz. The S250 modules feature



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full compatibility with all modular LANscape systems, a wide range of installation options, few individual components, high packing density and individual shielding.

New standards put further demands on fiber optic cabling in local area networks. The transmittable data rate for active components with LED transceivers is limited to 622 Mbps. Data rates much higher than 622 Mbps are required for Gigabit Ethernet (GbE) and other current and future applications; this makes active components with alternative transmitters necessary. This is why Siemens used Corning InfiniCor® fibers for the building backbone, making no compromises on quality. The multi-module fiber cables equipped with laser-optimized InfiniCor fibers are fully compatible with all LED-based transmission processes, such as FDDI, Ethernet, and Fast Ethernet. They are therefore compatible with all standard active components.

## SUMMARY

Students and course participants can use the modern technology for their laptops in the seminar halls. The machines can be easily and safely connected to LAN. The Smart-Card solution allows students, instructors and staff to have access to the data network and school buildings with a "single sign-on" solution. By using the role-based assignment module, all users can have access to exactly the data, documents and rooms that are required during their course of studies at ESMT. The ESMT now has one of the most advanced multi-service networks. By using LANscape Solutions from Corning, the school can compete internationally and offer all students the most advanced technology.

**CORNING**

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