MODERN PROTECTION AGAINST ATTACKS FROM THE INTERNET

Firewall and e-mail security for the University of Applied Sciences Kiel (FH Kiel)

Firewall on the Baltic Sea coast: The FH Kiel is the biggest university in Schleswig-Holstein. Students, professors and employees communicate, carry out research and develop innovative ideas with the help of the campus' own IT infrastructure. To ensure that mail correspondence and all of the university's sensitive data are optimally protected, T-Systems has implemented a modern firewall system and a highly effective e-mail security solution.

AT A GLANCE

- Modern firewall solution / intrusion prevention system
- Development of the firewall design including documentation, implementation, training and briefings
- E-mail security appliances with anti-spam and anti-virus outbreak filter as well as advanced malware protection
- Setup, migration and service for the solution by T-Systems

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THE REFERENCE IN DETAIL

THE CUSTOMER

Campus life on the Kieler Förde: Situated right on the Baltic Sea, the FH Kiel offers around 35 Bachelor's and Master's Courses as well as additional study courses. Students here can also study agriculture, IT and electrical engineering, mechanical engineering, media, social work and health or economics alongside their jobs or as further education. 140 professors, 250 members of teaching staff and 340 employees teach and look after the young students. Over 7,700 students are current enrolled at the institutes. Although the biggest university in Schleswig-Holstein has its roots in the region, it has an international focus and is both traditional and innovative at the same time. Its own Campus IT department with a central IT, network and telecommunications infrastructure as well as a data center with space to accommodate over 300 servers provides the technical basis for the university.

THE CHALLENGE

Fresh ideas and innovations are compulsory at the FH Kiel. The technical basis for these ideas: the campus' own IT infrastructure. IT-based applications, services and processes are becoming increasingly important to employees and students for teaching and research purposes. At the same time, the security of data and functions on servers and databases has top priority. The existing firewall in the university network provided this security. However, it had become rather outdated. What Campus IT wanted was a new, expanded solution offering comprehensive protection – from access control lists and port-based firewall rules to the facility to detect corrupt data traffic. In order to achieve this, the existing firewall service modules from Cisco were to be updated and expanded – ideally during operation. To prevent any risks during loading, a fallback should be possible at any time. Additional requirements: Through clusters, the solution should be highly available and software updates as well as configurations should be possible in a centralized manner via the system. Higher security standards were called for in the e-mail system in Kiel too. The aim: to ensure greater protection against spam and malware such as viruses and Trojans.

THE SOLUTION

Thanks to a next generation firewall, the security system at the FH Kiel is now up to date. T-Systems has developed its own firewall design for this purpose – including documentation, implementation, briefings and training. The result: modernization of the existing system to produce a highly available intrusion prevention system which recognizes the signs of imminent attacks or security risks and fends off or prevents them. Before the new system was rolled out and configured, the university's entire data network was analyzed and all of the customer's firewall rules were migrated to the new, modern platform. An anti-spam and anti-virus outbreak filter as well as an advanced malware protection system also offers comprehensive protection for students' and employees' mail correspondence at the university. The new e-mail security appliances from Cisco filter and backup incoming and outgoing messages and block unwanted spam. T-Systems took on the entire setup and migration of the customer's old hardware and software platforms to the new environment.

THE CUSTOMER BENEFITS

Personal information, examination or research results, confidential mail correspondence – much of the data saved and sent within the campus infrastructure at the FH Kiel are highly sensitive. And they require the best possible protection. "The new modern firewall and e-mail security solutions offer maximum security. They are proven to provide comprehensive protection against attacks and malware," said Robert Heinze, Head of Campus IT at the FH Kiel. The two systems from Cisco were configured and implemented by certified T-Systems employees, and the IT staff at the university have been briefed and trained accordingly.

"T-Systems assists us not only with its service for the systems but also if problems should occur or expansions or replacements are needed," said Heinze.

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