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Customer Story
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Prestigious German University Connects Researchers and Protects Groundbreaking Discoveries with Forcepoint NGFW

Dedicated to the free exchange of information, this university turns to Forcepoint for high availability network protection

Located in Frankfurt, Germany, this internationally renowned university is a hub of global discovery; it conducts and collaborates on some of the world's most advanced research and shares the results with students, fellow universities, and international partners. As experimentation and data analysis rely on digital connectivity, a network outage or successful intrusion could interrupt the world's next big discovery. The university turned to Forcepoint to ensure those interruptions don't happen.

Customer Profile
Internationally renowned research university serving nearly 50,000 students from more than 100 countries.

Industry
Education

HQ Country
Germany

Products
Forcepoint Next Generation Firewall with SD-WAN

This German university serves 48,000 students and is the fourth-largest university in the country. It has been influential in almost every field of study, including scientific breakthroughs like an experiment that allowed scientists to observe separation between discrete quantum states for the first time. It is associated with no fewer than 18 Nobel Prize winners. To keep this momentum going, its researchers have to be able to move fast, accessing information when and where they need it, running networked experiments without slow-downs or glitches, and connecting researchers in the field back to their home network.

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>
> **Head of Networking,** German University

Safeguarding an environment without sacrificing connections or the free flow of information

In research, learning, and collaboration, connecting the dots is everything—literally. The university is set up as a mesh network, so its infrastructure connects directly, dynamically, and non-hierarchically to as many other points on the network as possible. Research and development can be done with traveling students or faculty, or with third-party research partners in international locations. Scholars must have access in order to search for information within the university's vast databases. Experiment locations or distributed research centers must be fully connected. If network downtime got in the way of a connected device monitoring and collecting data on a real-time experiment, the results could be devastating, leaving researchers weeks or months behind in their quest for the next great discovery.

Other challenges unique to higher education make creating a secure IT environment difficult. Many universities across the globe are staggering in their size, enrollment, and output. As they've grown, they've also grown particularly decentralized, and each university may have different standards around who owns security protocols and who decides what's important. This can lead to a lack of consistency in the precautions taken to protect such a large and complex environment.

Between the personal information of students and staff and the vast amount of intellectual property created by researchers, universities can make a ripe target for hackers. For example, in 2019, the U.S. Department of Justice indicted nine foreign hackers over alleged attacks on more than 300 universities around the world, stealing an estimated $3 billion worth of intellectual property.

A stable, resilient solution from a next generation firewall

The university needed a solution that could stably and securely connect its people wherever they are located, across its large and distributed network. At the same time, it needed to safeguard the intellectual property generated by this esteemed institution's research teams. With a deep understanding of the university's particular needs, Forcepoint implemented its next generation firewall (NGFW), which offers the best in both network security and high-availability connectivity. In a recent test by NSS Labs, Forcepoint's solution ranked highest in security efficacy for the seventh year in a row, and is differentiated in the market by its built-in SD-WAN technology that improves the performance and reliability of network links.

"If you take away the next generation firewall, the university could face a lot of problems," explained the university's head of networking. "Forcepoint NGFW is really mandatory for protecting the networks and providing high security."

Challenges

Connect and protect large, distributed networks with minimal downtime.

Protect intellectual property generated by high-level research.

Approach

Implement scalable Forcepoint Next Generation Firewall, centrally managed to provide consistent security across all environments.

Customized security for a decentralized environment

To address each location's unique requirements, the university deployed Forcepoint NGFW virtual contexts. Virtual contexts are multiple individual services running concurrently on a single system, in isolation, as if they were on separate devices. These virtual contexts enabled the IT staff to define customized routing tables and traffic policies, according to site. Up to 250 virtual contexts are supported, which will allow the university to scale as needed and still operate based on its own requirements.

Despite having a seemingly complex environment, Forcepoint Security Management Center (SMC) allows IT staff to manage all of their Forcepoint NGFWs, including the virtual contexts, from a single pane of glass. Policy changes and software updates can be pushed to all NGFW devices within a few minutes without the need for service windows, further accommodating the university's requirement for zero downtime. Centralized management significantly reduces the amount of time dedicated to management, giving the IT team the opportunity to complete jobs more efficiently and also think more strategically.

Network connectivity and security to create a safe research environment

Forcepoint works hard to be a partner in the university's security journey and beyond. On a regular basis, Forcepoint invites its German university customers to exchange experiences and discuss feature requests with product development.

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>
> **Anke Pelz,** Forcepoint Account Manager

"In our experience, universities are one step ahead in comparison to average organizations. So, if they have a request for specific features or changes, those issues and requests often come up before they do in our normal corporate business," said Forcepoint Account Manager, Anke Pelz.

Every few years, the meeting goes international. "We set up a forum with all universities that are Forcepoint customers, and they get in on the discussion and thought exchange, and to exchange information with our developers in Finland," said Pelz.

With Forcepoint NGFW, the university has the connectivity and security which its students, faculty, staff, and partners have come to depend upon.

"The university is providing networking and network security in a highly reliable way, and the whole campus and its research teams can rely on this environment," said the university's head of networking.

Results

Reduced administration time for increased IT staff efficiency.

Eliminated downtime from software upgrades and policy changes.

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