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Florida Atlantic University Boosts Email Performance and Enhances Security With FortiMail

Florida Atlantic University (FAU) opened in 1964 as the first public university in the Miami metro area. Today, FAU is a public research university focusing on a range of research pillars, including healthcare and environmental protection, and it serves over 30,000 students. Centered on Boca Raton, the university's six campuses span Southeast Florida's coast.

The Challenges of Security in Higher Education

FAU faces several security challenges unique to the higher education sector. Most notably, it is a tempting target for cybercriminals due to the broad range of valuable data it handles, such as intellectual property (IP) from research studies and the banking details of students. Protecting this data is imperative, but so too is maintaining the open access to education and research resources required by faculty. This is a delicate balancing act to pull off.

Dr. Mehran Basiratmand, Executive Director and Chief Technology Officer at Florida Atlantic University, comments: "We face the full gamut of cyber threats, including phishing attacks and ransomware. One key challenge that we share with most higher education institutions is impersonation—where a criminal pretends to be an insider to gain access to systems. We, of course, educate faculty and students about cyber-hygiene best practices, but they are busy people, and the sophistication of spoofs are increasing. We need a way to stop these attacks at the perimeter before they become a threat. That is why email security is so important to us."

FAU maintains 5,000 faculty on Microsoft Office 365 and 30,000 students on Gmail. Its existing email security solution had reached the end of its life and the university was looking for a replacement that could cost-effectively address its security requirements, while also simplifying management processes. "Our legacy provider had offered us bigger appliances to renew the contract," Basiratmand adds, "but that was it; the software code was the same one we had been using for years. All they were offering was a bigger pipe when what we really needed was enhancements to the software. That is when we decided to take a look at what Fortinet could offer."

Securing the Campus With Fortinet

The first step was to run a proof of concept (POC) where the Fortinet FortiMail email security solution was run in tandem with the legacy system. FortiMail delivers advanced multi-layered protection against the full spectrum of email-borne threats, including spam, phishing, malware, zero-day threats, impersonation, and business email compromise (BEC) attacks.

FAU

FLORIDA ATLANTIC UNIVERSITY

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Details

Customer: Florida Atlantic University

Industry: Education

Location: Boca Raton, FL

Business Impact

- Robust protection against email-borne threats, including phishing, impersonation, and ransomware threats
- Granular control to allow legitimate email for faculty
- Vastly improved user experience
- 0.5 full-time equivalents saved by not having to prioritize message queues
- Faster speed to resolve message tracing

Over the course of the POC, Florida Atlantic University measured relative performance against crucial functions, including filtering and quarantining. Basiratmand explains: "We quickly realized that FortiMail met or exceeded many of our expectations, and that it was extremely cost competitive. We therefore moved forward with a pilot phase to hone the system before rolling it out across all our Microsoft Office 365 Exchange accounts."

FAU deployed FortiMail on-premises at two sites: its main campus and its disaster recovery site. But this was just the beginning. "We were so impressed with FortiMail that we looked into Fortinet's firewall solutions," says Basiratmand. "Ultimately, that has led us to where we are today, with the FortiGate NGFW (Next-Generation Firewall) at the heart of our edge security infrastructure. We are also in the process of rolling out the FortiClient endpoint agent to provide visibility of our VPN (virtual private network) tunnels."

Security Without Compromise

Fundamentally, FAU needs a security infrastructure that protects its systems without compromising on openness. With Fortinet, it has achieved this goal. FortiMail provides robust protection against the key threats facing Florida Atlantic, including phishing and impersonation emails. "That feature set has been extremely valuable in preventing people from clicking on emails or links from phishing attempts that they otherwise probably would have clicked," comments Basiratmand.

The university also maintains an appropriate degree of openness through the granular filter controls available in FortiMail, which enable the IT team to open or close specific port addresses to ensure that legitimate messages continue to get through even as potentially risky ones are blocked.

As Basiratmand explains: "Our staff often receive important research surveys, which are sent as bulk mail. Most systems automatically block bulk mail, anticipating that it is spam. FortiMail, on the other hand, allows us to create alist of survey addresses, so we can ensure legitimate bulk mails continue to come through. That is an important feature for our end users, and something we did not have before Fortinet."

Basiratmand sees FortiMail as highly configurable software that can be adjusted repeatedly to better meet the needs of the institution and to adjust to new requirements. "Any organization on a similar journey should recognize that they will need to adjust their security settings along the way. Software-defined solutions like FortiMail make this process easy and granular, and ultimately allow you to tailor your security parameters exactly to your needs," says Basiratmand.

High Security, High Performance

By moving to Fortinet, FAU experienced an immediate boost in email performance. This is because it had outgrown the capacity of its legacy system. With FortiMail, FAU can now process much larger volumes of mail, much faster. This has created a vastly better end-user experience.

"Previously, our mail system would get overloaded, and we had to waste valuable time prioritizing message queues. The user experience was dreadful, with colleagues often having to wait significant periods of time for messages to arrive," comments Basiratmand. "With FortiMail, the delay has disappeared. Our people get their messages instantly, making their work lives much easier, while we no longer spend time prioritizing queues. I estimate that one change alone has saved us half of a full-time equivalent in personnel savings. More importantly, it means we can deliver a world-class email service to our faculty."

Basiratmand's team also reports that the FortiMail user interface is much more streamlined than its previous solution, making it more efficient to navigate and find things. One example of this is message tracing.

The uptick in performance enabled by Fortinet is also apparent in the interaction between the university's core FortiMail system and that used in its disaster recovery site. Despite hundreds of miles separating FAU's campus and disaster-recovery appliances, both systems are seamlessly integrated and operate equally well, with a smooth load-handling process and high availability.

Solutions

- FortiMail—Virtual machines with Advanced Threat Protection

- FortiGate Next-Generation Firewalls

- FortiClient

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Market-leading Support

For Basiratmand and his team, one of the most important benefits of their partnership with Fortinet has been the support they have received. During the transition to FortiMail, the university received direct access to Fortinet support reps, engineers, and developers, which ensured that any hurdles were overcome immediately.

Following the deployment, this level of support was maintained. As Basiratmand explains: "We did not experience any difference at all from the pre-sale to post-sale support, which speaks volumes about Fortinet's commitment to its customers."

Embracing the Security Fabric

FAU's partnership with Fortinet is just getting started. The university has already extended its Fortinet footprint to include FortiGate NGFWs and FortiClient, and its aim is to integrate further with the Fortinet Security Fabric. "Utilizing one vendor for a range of security products is beneficial in two ways," comments Basiratmand. "First, you can build a strong, multi-layered relationship with one constant team. Second, there is no finger pointing or lines in the sand. If a problem needs to be solved, you know who to go to and they are accountable for solving it."

Basiratmand likens the Fortinet Security Fabric to building blocks. One by one, different components can be added as required so that, incrementally, the university can move to a single, cohesive security infrastructure.

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