



CASE STUDY

Biotech Leader Secures Its Future with an Integrated Network Security Solution



Cybersecurity is one of the fastest-growing concerns in the healthcare industry. The last few years have seen hacking and IT security incidents steadily rise, and many healthcare organizations have struggled to defend their network perimeter and keep cyber criminals at bay. With providers now needing to secure more connected medical appliances than ever before, and Internet-of-Things (IoT) devices proliferating across all industries, the attack surface is growing.

New York-based Enzo Biochem, Inc. is a leading life sciences and biotechnology company focused on harnessing genetic processes to develop research tools and therapeutics while providing reference laboratory services to the medical community. As a global company, Enzo Biochem utilizes cross-functional teams to develop and deploy products, systems, and services that meet the ever-changing and rapidly growing needs of the healthcare sector.

Enzo Biochem is made up of three wholly owned subsidiaries. Enzo Therapeutics develops antisense technology to fight illnesses such as HIV and Crohn’s disease. Enzo Clinical Labs provides diagnostic testing services at more than 30 locations across the tri-state metropolitan area around New York City. And Enzo Life Sciences develops reagents for use by pharmaceutical and biotech research companies and academic institutions around the world.

Getting Ahead of the Curve

Enzo Biochem recently embarked on a project to build a new data center as a disaster recovery site and concurrently replace the technology at one of its existing data centers. This provided an occasion to reassess the company’s network security infrastructure, so the team sought to conduct a highly structured evaluation process. The overall goal of the project was to ensure that the network would be optimally positioned to handle the highly volatile demands placed on it in the future.

“We embraced this as an opportunity to assess and upgrade our entire environment,” explains Mike Soldinger, Enzo Biochem’s lead network engineer. “We wanted to fully leverage the expanded capabilities of the leading security appliances and implement the advanced functionality that has become available, such as web application protection, virus scanning, and intrusion prevention software.”

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– Mike Soldinger, Lead Network Engineer, Enzo Biochem, Inc.

Details

Customer: Enzo Biochem, Inc.

Industry: Healthcare

Location: New York City

Partner: ePlus, inc.

Doing Due Diligence with a Trusted Partner

Enzo Biochem found that longtime partner ePlus, inc. was the perfect fit for their strategic assessment. “We had worked with Enzo Biochem on a number of small projects over a 15-year period, so we knew them well,” explains Scott Wolfson, a senior account manager for ePlus, a leading Fortinet technology partner. “When they came to us with the need to do a comprehensive, strategic assessment, we were excited because that approach is core to our business,” Wolfson continues. “We help customers assess their technology needs and advise them on the most effective IT strategy to meet those needs—enabling them to stay ahead of the innovation curve in the digital economy and the multi-cloud world.”

Consultants from ePlus helped Soldinger’s team create a comprehensive set of requirements for the newly architected environment. “ePlus represents a wide range of high-profile security vendors,” Soldinger notes. “But as ePlus walked us through multiple proofs of concept that evaluated different solutions against our criteria, the features and functionality of the Fortinet solutions consistently pushed them to the top of our list.

“Rather than being forced to consider individual point products from multiple suppliers,” Soldinger continues, “we quickly realized that the Fortinet Security Fabric offers a highly scalable, integrated set of solutions that consolidate everything under a single pane of glass.” The Security Fabric integrates Fortinet and non-Fortinet solutions to ensure that incident detection, response, and remediation efforts are fully coordinated and optimally effective.

After Enzo Biochem completed its due diligence with the help of ePlus, the team placed an order for a broad set of Fortinet appliances and services and engaged ePlus to assist with deployment.

Implementing the Next Generation of Protection

Enzo Biochem and ePlus developed a phased approach to rolling out the Fortinet Security Fabric solutions. They started with the FortiGate next-generation firewall (NGFW) and the FortiWeb web application firewall (WAF). Deployment went very smoothly. “Everything was very easy, and we found the training to be of good quality,” Soldinger describes. “A lot of detailed documentation is available, and the Fortinet ‘cookbooks’ provide even further value.” The team then quickly added FortiAP wireless access points and FortiClient endpoint protection to the deployment.

Mail security was another big priority for the team, as the team had seen increasing problems with spam, ransomware, viruses, and other malware after migrating from an on-premises mail application to Microsoft Office 365. “Neither Office 365’s built-in mail security features nor our legacy solution were giving us the protection we needed,” Soldinger remarks. With the help of ePlus, Enzo Biochem moved to FortiMail Cloud for stronger protection. “Now, we can follow the flow of email and see exactly what’s coming into Office 365,” Soldinger reports.

Upcoming phases of deployment for Enzo Biochem include FortiAuthenticator, which will help the company expand its use of multi-factor authentication, and FortiManager, which will help the team to administer the growing number of Fortinet products.

Realizing Tangible Benefits

Enzo Biochem is already seeing significant benefits from the Fortinet Security Fabric. “The FortiGate and FortiWeb products we selected deliver all the advanced capabilities we were looking for—including application filtering, sophisticated virus scanning, in-line intrusion protection, and botnet filters,” Soldinger comments. “Integrated with the FortiGate and FortiAP access points, FortiClient mitigates endpoint vulnerabilities and helps us with third-party patching.

“Each Fortinet component continuously receives threat intelligence from FortiGuard Labs, ensuring that we’re always using the most up-to-date information to protect our infrastructure,” Soldinger continues. “We’re catching everything before it has the opportunity to do harm.”

Business Impact

- Multivector protection with consolidated administration simplifies support and enhances protection across 35+ distributed locations
- Ability to secure all endpoints—including connected medical devices—irrespective of location
- Elevated security ensures data integrity and contributes to superior patient support
- Automated features help expedite tasks and optimize resource utilization

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– Mike Soldinger, Lead Network Engineer, Enzo Biochem, Inc.

Beyond the enhanced security, Enzo Biochem is seeing significant operational benefits. “The elimination of manual processes with patching, administration, and maintenance is a key benefit for us,” Soldinger asserts. “The operational overhead of our Fortinet solutions is extremely low, enabling us to make better use of our team members’ skills.”

Another benefit revolves around compliance. As with any healthcare organization, Enzo Biochem is subject to a wide variety of industry standards and governmental regulations, including the Health Insurance Portability and Accountability Act (HIPAA) and the Sarbanes-Oxley Act (SOX). “Part of our selection process focused on a solution’s ability to streamline audits and reduce the labor needed to prove compliance. Our Fortinet suite is able to make a significant contribution in both of these areas,” Soldinger explains.

Benefiting from a Unified Security Framework

The Fortinet Security Fabric delivers a unified security framework that provides Enzo Biochem with the ability to dynamically evolve and defend a rapidly expanding attack surface without compromising data integrity. Even as mergers and acquisitions bring in new security solutions in the future, operations and analytics can be consolidated into Fortinet’s single, common console.

“Fortinet has enabled us to implement state-of-the-art security and centralized management across our entire infrastructure,” Soldinger explains. “The ‘one-stop shop’ approach eliminates the gaps that can frequently occur when using solutions from different vendors. At the same time, we have gained a trusted advisor through our deepened partnership with ePlus. We intend to continue working with them to keep our security infrastructure on the cutting edge.”

This improved security has an impact on human lives. “For Enzo Biochem, everything comes down to improving patient care and patient outcomes,” Soldinger concludes. “The healthcare industry is experiencing a massive increase in the volume and sophistication of threats, so it’s imperative that we have the necessary strength and agility to stay secure. This is why we chose to partner with Fortinet and ePlus.”

Solutions

- FortiGate
- FortiGuard Labs
- FortiAuthenticator
- FortiAP
- FortiClient
- FortiMail
- FortiWeb

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