



CASE STUDY

Delivering Personalized Medications to Patients Around the World



As a multinational medical company, this organization specializes in customized pharmaceutical products. Many of its patients are allergic to standard prescription ingredients; others require a unique dosage. Each condition is addressed by the personalization of medications to enable every person to live the healthiest life possible. The specialty pharmaceutical company has several thousand employees serving patients in dozens of countries. An extensive companywide bring-your-own-device (BYOD) program was launched to promote ease of access to its extensive infrastructure.

No Room for Error

The company operates multiple facilities spread around the globe, each interconnected to data centers located in North and South America, and at the company's headquarters in Europe. The network topology is designed to ensure operational continuity in the event of major outages occurring anywhere in the world, and cloud-based services are being utilized to further enhance connectivity and access to information.

For the pharmaceutical giant and its clients, data integrity is a matter of life and death. The global IT manager explains, "It is imperative that we protect our intellectual property and customer-sensitive data at all times. We're constantly moving information between our pharmacists, our manufacturing facilities, and medical teams scattered across the globe. Any missteps or compromises with the data can literally have life-threatening consequences."

Growing Fast but Needing To Stay Secure

Since its founding, the custom pharmaceutical company has experienced spectacular success. Supporting the ensuing growth has placed its own demands on the IT environment: "We've expanded extremely quickly and therefore need an infrastructure that can not only grow with the business, but also guarantee security, reliability, and performance," remarks the IT manager. "We made the decision to partner with Microsoft and utilize the Azure cloud-computing platform, but we wanted to implement an additional layer of security to ensure that we had bulletproof end-to-end protection."

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– Global IT Manager, Pharmaceutical Company

Details

Customer: Specialty pharmaceutical company

Industry: Healthcare

Location: Europe

The concept of end-to-end integrity is critically important to pharmaceutical companies. The IT manager describes, “It’s mandatory to have traceability from the point a prescription enters our systems all the way through to the medication leaving our factory. With lives at risk, not only can we not afford to lose data, but we absolutely cannot have any site become unreachable for more than a few hours.”

He continues, “It also means that we have to make sure that every doctor—wherever they are in the world—can always transmit medical information in a secure way to our data centers. And because of this, we have to synchronize data between the data centers and make it available on a global scale to other colleagues throughout the company.”

Making the Cut

To identify the optimal solution to secure its global, cloud-based infrastructure, the company embarked on an extensive evaluation process, examining both the technical and financial features of products from multiple vendors. “We quickly developed enthusiasm for the Fortinet FortiGate virtual appliance [VM],” recalls the IT manager. “We benchmarked the performance of the FortiGate VM against alternative approaches—including physical appliances—and it outperformed every one of them across a wide range of scenarios.”

Continuing its evaluation process, the team then simulated failures of critical IP segments across its infrastructure, even replicating a countrywide Azure outage. The IT manager notes, “The FortiGate virtual appliance handled the challenges with ease, re-establishing connections and rerouting traffic wherever necessary. The FortiGate VM outperformed in every benchmark; at the end of the day, it wasn’t even a competition.”

To round out its due-diligence phase, the team constructed a business case to compare on-premises and virtual configurations from different vendors. “We found that the Fortinet appliance was far and away the most financially compelling,” states the spokesperson.

As an early adopter, the company’s technical team had to accept that Azure was not fully mature in all regions in which the company operated. This led to a mixed Azure and Amazon Web Services environment in parts of South America. The ability of the FortiGate VM to support both Amazon and Microsoft public cloud offerings—as well as multiple private cloud platforms, including hypervisors from VMware, Citrix, Linux, and open source—further reinforced the decision to invest in the Fortinet solution.

Securing the Cloud

Deploying the FortiGate VM into the company’s infrastructure was a straightforward process. The IT manager recounts, “Inserting the additional layer of security across our Azure environment went very smoothly. We received expert guidance from the Fortinet Professional Services team, and we’ve been able to leverage that advice around the world.”

Data encryption is deployed throughout the company’s operations, enabling employees to travel around the world without physically carrying sensitive information. “By using the Fortinet devices, we can guarantee that everything is secure from end to end. The ability to utilize SSL [secure sockets layer] functionality is of great benefit, especially to our in-the-field medical teams and BYOD users, as it enables them to always connect in a safe way, even when using their own devices,” the manager explains.

“Fortinet is very different in that regard,” the IT manager continues. “Every element of the Fortinet Security Fabric is fully integrated into the whole, and every part of the security architecture is visible through a single pane of glass. And we have a single vendor to deal with from an administrative perspective. These are incredibly powerful and cost-effective benefits for a business like ours.”

Business Impact

- Deployed a scalable, reliable global infrastructure capable of securely supporting dynamic business growth
- Guaranteed integrity for the end-to-end transfer of sensitive information
- Automated failover and redundancy, ensuring business continuity across worldwide environment
- Substantiated economic benefits, as well as compelling technical advantages

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Delivering on a Global Scale

The globally distributed infrastructure—employing physical and virtual components—and the highly diverse nature of the pharmaceutical company’s collection of endpoints represent a perfect scenario to experience the full benefits of the unifying Fortinet Security Fabric architecture. The fabric unites security solutions for network, endpoint, application, data center, and cloud into an integrated and collaborative single entity. The IT manager observes, “The way Fortinet has designed its portfolio of solutions enables us to scale our operations and remain secure. Even in our hybrid environment, the FortiGate takes away the complexities and hassles that frequently occur. As we continue to push the Azure platform, this is a huge advantage for my team.”

He summarizes, “With Fortinet, I feel that I have found a partner that really understands security and what it takes to protect a worldwide infrastructure. Fortinet is extremely customer-oriented, and with the Fortinet Security Fabric, the company has a roadmap that leverages its expertise and leading-edge technology to deliver on a global scale.”

Solution

- FortiGate VM

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