



MEDNET PROTECTS PHI, ENSURES HIPAA COMPLIANCE AND GROWS THE WEB PLATFORM WITH WALLARM

“Ensuring the ability to meet HIPAA guidelines for PHI compliance and to be able to provide the service at a reasonable price point were also important in the decision to go with Wallarm

WAF security is very important to help manage and support a complex application such as iMedNet. Wallarm is a perfect fit for providing a WAF solution to MedNet.”

**Gary Johnson, Infrastructure Architect,
MedNet Solutions**



COMPANY OVERVIEW

www.mednetstudy.com

Since 2001, MedNet Solutions’ eClinical technology platforms have been deployed worldwide to support the clinical research initiatives of its global partners—from pre-clinical through phase IV studies—across medical device, pharma, biotech, and animal trials. While on the surface, MedNet may look like other eClinical/Electronic Data Capture (EDC) providers, the way they treat their clients – and truly partner with them – separates them from the rest. Some point to MedNet openness and integrity year after year; others say it’s iMedNet’s flexibility and configurability—all backed by MedNet’s unmatched 24/7 customer support. Key facts about MedNet Solutions include

- More than 16 years of providing eClinical solutions
- Support of 1000+ clinical studies in 70+ countries
- Currently more than 300 active trials
- Rapid database builds for any clinical trials-small or large, simple or complex
- Best-in-class operational support

THE OBJECTIVES

Security is a priority for MedNet Solutions. As a part of migrating MedNet Solutions' EDC product, iMedNet, to AWS, implementing reliable, scalable security was of paramount importance. MedNet Solutions needed to implement Web Application Firewall (WAF) security at the request of customers and to meet HIPAA compliance requirements.

THE SOLUTION

The most important factor was the ability to monitor and secure our web-based application, iMedNet.

Several WAF competitors met the requirements but required the traffic to be routed through their proxy servers. This, in turn, then required the execution of a BAA agreement and higher costs.

Wallarm is a perfect fit for providing a WAF solution to MedNet for several reasons:

1. It is a managed service with Wallarm security professionals monitoring the traffic to and from iMedNet. This is a huge service to MedNet Solutions' saving because we do not have that expertise in house.
2. Wallarm leverages proxy servers to concentrate traffic at a central point.
 - Unlike some of their competitors, the proxy servers are located on MedNet's infrastructure.
 - Proxy servers may have PHI data on them because they terminate SSL connections so they examine the contents of the network flow.
 - This is also when the Wallarm node examines the traffic flow.
 - Since the Wallarm servers are deployed on MedNet Infrastructure, MedNet is not required to have a BAA with Wallarm as a vendor.
3. The Wallarm solution is simple to update and deploy.
 - MedNet utilizes the Wallarm Docker container deployment option.
 - We deploy the containers to multiple servers behind load balancers.
 - This allows MedNet to bring up new Wallarm WAF servers and rotate them in behind the load balancers while allowing us to drain traffic off old Wallarm WAF servers.
 - This allows MedNet to react quickly to identified vulnerabilities while minimizing the impact to the operations of iMedNet.
4. Web-based management interface provides a near real-time view of the traffic being managed along with information about attacks and incidents that we may be experiencing. In addition, Wallarm provides vulnerability scanning, checking exposed IP addresses that it associates with MedNet Solutions.

THE SUMMARY

- MedNet solutions provides an EDC product called iMedNet. Application level security was implemented to satisfy customer requests and to satisfy HIPAA PHI compliance requirements.
- The Wallarm solution provided MedNet a simpler solution to meet compliance guidelines with advanced services such as incident monitoring and vulnerability scanning.
- MedNet relies on the Wallarm cloud managed service and the expertise of Wallarm security professionals instead of developing this expertise in-house.
- Wallarm works well in AWS infrastructure and meets iMedNet scalability and performance requirements.



The team initially deployed it as a proof of concept to ensure it would meet our requirements, including performance testing with our application to be sure that the WAF did not introduce a bottleneck.

Once we were comfortable with the WAF, the team started to think about how to deploy the Wallarm WAF as a docker container, and how to configure it and the Nginx proxy. Finally, the team put logging and monitoring in place so that issues are identified and fixed as quickly as possible.

Operationally, we have found the Wallarm WAF easy to support. We collect the log files and ship them to Sumo Logic. We have identified a couple of key items to watch for, and the operations team believes they are leading indicators of potential issues to come. Those alerts prompt a proactive restart of the containers.

Customer stack

- AWS EC2 instances in multiple regions
- Container management tools
- Sumo Logic SIEM
- Micro-services infrastructure with Docker's containers

THE RESULT

MedNet Solutions found that Wallarm deployment architecture in AWS is an excellent fit for securing iMedNet. It deploys as a Docker containers within the MedNet account, which allows MedNet to scale the solution with the load balancers and, at the same time, avoid the extra costs of additional BAA agreements. In addition, Wallarm integrates well with existing infrastructure management tools like Sumo Logic. Beyond traditional WAF features, Wallarm provides managed service and advanced features such as vulnerability scanning and incident monitoring.

Wallarm has been very customer-focused and willing to work with MedNet to address the company's concerns. This cooperation has resulted in a partnership that MedNet is happy to talk about.

<https://wallarm.com>

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