FMC Technologies is a global leader in providing subsea systems and technology solutions for the oil and gas industry, with a mission of developing solutions that increase energy production and reduce emissions. FMC works closely with its partners to bring technologically advanced solutions to market, including subsea systems, surface wellhead systems, high-pressure fluid control equipment, measurement solutions, and marine loading systems.

**Business Challenge(s)**

With almost 20,000 employees across 30 production facilities in 17 countries, FMC has grown tremendously. The company wanted to refresh its wide-area network to ensure high-speed, highly available connectivity that could leverage both MPLS and IP VPN connections. In addition, it wanted to enhance security to support business growth for the next several years. FMC also wanted to improve visibility into the network for all stakeholders.

**Selection Criteria**

To achieve a total WAN overhaul FMC turned to VirtualArmor, the company’s global solutions provider. With deep expertise in advanced networks and cybersecurity and a Juniper Elite Partner, VirtualArmor has worked closely with FMC for 10 years.

With a strong understanding of FMC’s objectives, VirtualArmor worked closely with FMC to build a highly reliable, secure, and cost-effective WAN that would support both MPLS and VPN connections. VirtualArmor provided a full complement of services, including network design, security policy review, staging, testing, and deployment of the network.

“With our new robust, secure network infrastructure, we now have proven reliability, rich functionality, extensive automation, and improved operational efficiencies, all of which contribute to our ability to bring the best solutions to the industry.”

Will Harkrider, Enterprise Architect, FMC
FMC Technologies Taps VirtualArmor and Juniper for Secure Global Network

Technology Solution

VirtualArmor began by analyzing current application usage at each of FMC’s locations and then determined the optimal network to support its fast-growing energy business and ensure strong security at the enterprise edge. After this analysis, FMC replaced its firewalls with Juniper Networks’ SRX Series Services Gateways, which deliver high-performance network security with advanced integrated threat intelligence. The SRX Series also delivers maximum performance and scale with carrier-grade reliability that connects locations ranging from corporate offices to deepwater oil and gas platforms.

FMC gains comprehensive threat prevention with an advanced, next-generation firewall with application visibility and content security, security intelligence, and an architecture designed for maximum performance, scale, and carrier-grade reliability. Juniper Networks AppSecure security application suite adds security threat visibility, enforcement, control, and network protection to SRX Series platforms, protecting FMC against application-level attacks.

FMC also uses Juniper Networks JSA Series Secure Analytics Virtual Appliance to collect events and flows going to and from devices from Juniper and other vendors, as well as to gain greater network visibility, advanced reporting functions, and the ability to provide advanced threat detection alerts. With JSA Virtual Appliance, FMC has the visibility it needs to protect its high-value assets and stay in compliance with regulatory requirements.

Rounding out the security deployment is Juniper Networks Junos® Space Security Director, which provides a centralized, web-based interface for the entire network’s policy management. With Security Director, teams from both VirtualArmor and FMC can create and enforce security policies consistently and from anywhere.

VirtualArmor leveraged its in-depth knowledge of FMC’s global infrastructure, which was critical not only during design and development, but also when it came time to work with third parties such as MPLS providers, ISPs, and others. VirtualArmor’s expertise also was instrumental in implementing the network without any downtime and troubleshooting when issues arose.

“FMC required a centralized management system. With our partnership with Juniper, we were able to give FMC that visibility, so now the team can more easily and efficiently troubleshoot any issues from a single location.”

Mark Precious, CTO, VirtualArmor

Business Results

“As energy resources become ever more critical, FMC is always looking for the best ways to help our partners in the oil and gas industry reach their goals,” says Will Harkrider, enterprise architect at FMC. “With our new robust, secure network infrastructure, we now have proven reliability, rich functionality, extensive automation, and improved operational efficiencies, all of which contribute to our ability to bring the best solutions to the industry.”

The combination of VirtualArmor’s expertise in security and managed services and Juniper’s strong feature set has given FMC everything the company wanted at the outset of the project. This includes increased network capacity across the global WAN as well as improved security.

The network also features a central point of management and increased visibility for both FMC’s network team and VirtualArmor’s team acting in its role as service provider. “FMC required a centralized management system” says Mark Precious, CTO at VirtualArmor. “With our partnership with Juniper, we were able to give FMC that visibility, so now the team can more easily and efficiently troubleshoot any issues from a single location.”

Next Steps

FMC can be confident that its new network from VirtualArmor and Juniper will allow the company to continue to innovate and solve deepwater challenges to create success for the energy industry, while protecting the safety and environmental sustainability in the communities in which it operates.

For More Information

To find out more about Juniper Networks products and solutions, please visit www.juniper.net.

About VirtualArmor

VirtualArmor is an information technology company that provides advance network and cybersecurity solutions that incorporate a wide range of managed services, professional services, and software development. VirtualArmor provides the most advanced network and cybersecurity support available. VirtualArmor’s services run 24/7/365 by leveraging highly trained engineers through a primary NOC located in Littleton, CO and a secondary NOC located in Middleborough, UK. Learn more at www.virtualarmor.com.
About Juniper Networks

Juniper Networks challenges the status quo with products, solutions and services that transform the economics of networking. Our team co-innovates with customers and partners to deliver automated, scalable and secure networks with agility, performance and value. Additional information can be found at Juniper Networks or connect with Juniper on Twitter and Facebook.