

Turner Industries Boosts Application Availability with Virtual Load Balancing

Network Solution

A10 Thunder CFW

A10 Harmony Controller

Critical Issues

Ensure round-the-clock application availability to support heavy industry construction and maintenance at job sites and offices.

Results

- Ensure business-critical applications are highly available, accelerated, and secure with global server load balancing (GLSB)
- Improve application performance and relieve web servers of encryption burden with SSL/TLS offload
- Gain deeper visibility into applications and simplify troubleshooting to minimize user impact

Company

Turner Industries Group

Industry

Manufacturing

" The cost of downtime can rack up quickly, and Turner Industries does everything possible to avoid it. Thunder CFW enables our applications to be available, accelerated, and secure."

Chris Milton

Technology Manager, Turner Industries Group

Introduction

For 60 years, Turner Industries has moved the world forward by providing turnkey services and solutions to the companies that produce the fuel, energy, and materials essential to modern life. Serving heavy industry, Turner Industries enables clients to reduce downtime, minimize cost, and achieve operational excellence. With \$3.1 billion in 2019 revenue, Turner Industries is among America's largest privately held companies.

Challenge

Oil refineries, chemical plants, and paper mills operate around the clock, making always-on application availability critical for Turner Industries.

"The heavy industry sector never stops," says Chris Milton, technology manager at Turner Industries. "Providing high availability uptime for our applications is critical."

Turner Industries is a leader in applying digital technologies to industrial projects and the company relies on a portfolio of applications to empower clients to make data-driven decisions, reduce costs, save time, and improve safety. At job sites, supervisors use custom mobile applications to manage safety and regulatory compliance and streamline workflow. In addition to proprietary applications, employees rely on a variety of productivity, administrative, and enterprise applications.

Turner Industries wanted to mitigate the risk of increasingly unpredictable weather and ensure continuous operations. The company is headquartered in Baton Rouge, La., close to many customers, but also in the path of frequent hurricanes.

"We wanted to relocate our data out of the path of hurricanes and other natural disasters," says Milton.



Selection Criteria

The IT team at Turner Industries set out to build a state-of-the-art data center in Houston in addition to its existing data center in Dallas. It needed a global server load balancing (GLSB) solution to ensure the availability and security of its proprietary and commercial applications. Virtualizing application delivery and load balancing functions would deliver greater flexibility.

Turner Industries worked with Sirius, a Houston-based national technology integrator, to select the best-fit solution for global server load balancing. Sirius introduced Turner Industries to the advantages of A10 Networks' solutions for secure application delivery.

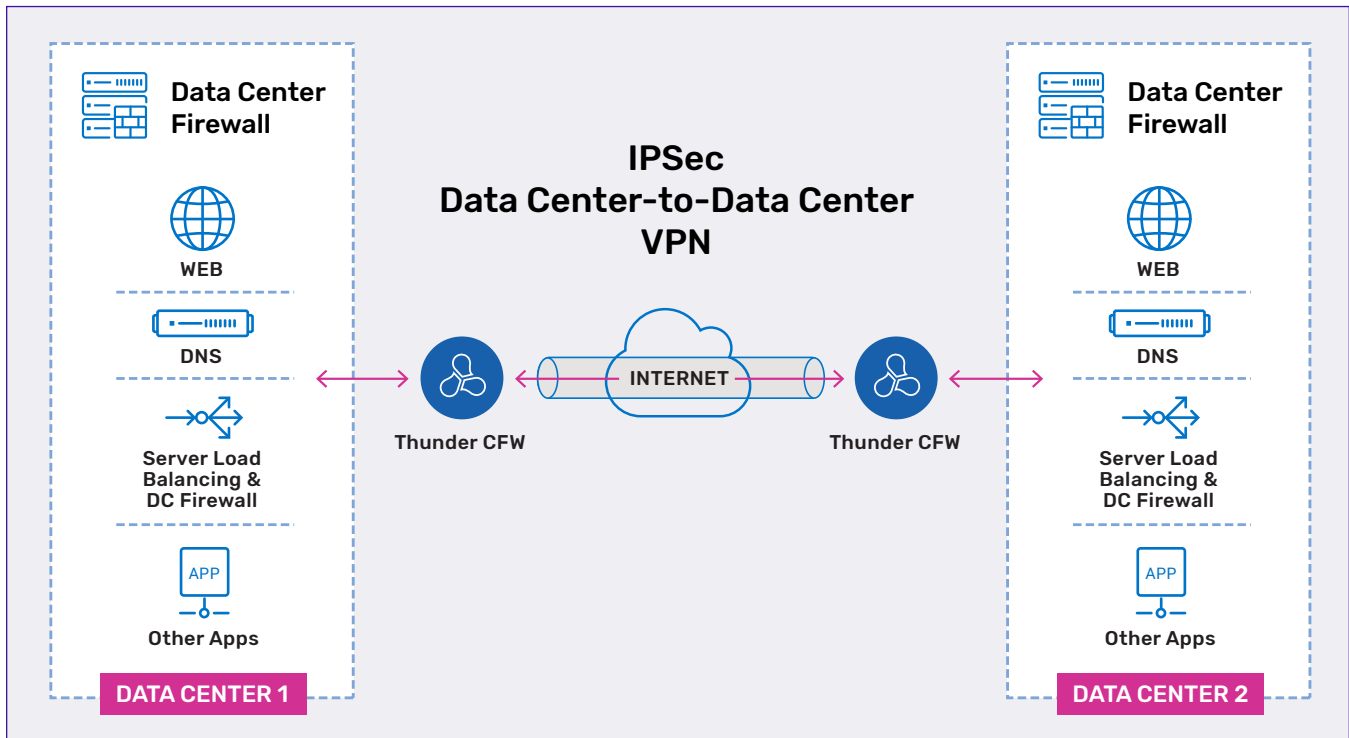


Figure 1: By unifying IPsec VPN, firewall and application delivery controller (ADC) capabilities, organizations are able to both load-balance traffic and protect the data center, services and related applications from DDoS attacks and other threats.

Solution

Turner Industries chose A10 Networks Thunder[®] Convergent Firewall (CFW) virtual appliance to enable global load balancing so that applications are always delivered swiftly and securely.

“We want to ensure high availability for every application we deploy,” says Milton. “Thunder CFW securely delivers all of our applications to our offices and frontline workers in the field.”

Thunder CFW is a high-performance and cost-effective approach to meet Turner Industries’ integrated security and application needs. In addition to ensuring application availability and global server load balancing, Thunder CFW enhances the users’ application experience by minimizing network latency.

Thunder CFW increases application security with advanced SSL/TLS offload, single sign-on, and web application firewall capabilities. Thunder CFW relieves web servers of the burden of SSL/TLS encryption and decryption, ensuring a responsive and secure application experience. IT also can eliminate the SSL/TLS blind spot in its defenses and restrict access to undesirable websites and known malicious traffic, protecting workers from encrypted cyberattacks.

Harmony[®] Controller, A10 Networks’ centralized management and analytics solution, provides deep per-application visibility and comprehensive controls for secure application delivery. Harmony Controller simplifies management of Thunder CFW and streamlines operations. Real-time analytics provide visibility and actionable insights into application traffic and simplify troubleshooting.

Results

More than 4,000 Turner Industries employees in 12 corporate offices as well as 15,000 technicians and supervisors on job sites across the nation can count on secure, responsive, and highly available applications.

Thunder CFW ensures secure application delivery and global server load balancing for enterprise software such as Oracle's JD Edwards EnterpriseOne as well as the company's custom applications for job estimation, personnel logistics, project control, plant improvement, and risk quantification.

"The cost of downtime can rack up quickly, and Turner Industries does everything possible to avoid it," says Milton. Thunder CFW enables our applications to be available, accelerated, and secure."

Investment protection was a key decision factor in choosing Thunder CFW for application availability and server load balancing. A10 Networks' FlexPool consumption-based licensing delivered the economic flexibility Turner Industries needed. With FlexPool, the company can nimbly allocate and redistribute its capacity pool across its applications and data centers. FlexPool® eliminates the need for overprovisioning while guaranteeing capacity is available.

"A10 FlexPool licensing gives us the option to deploy Thunder CFW on multiple smaller appliances and select the exact amount of throughput for each," says Milton. "Managing one central license pool also gives us better visibility into usage patterns."

The IT team was deeply experienced with load balancing, but new to working with A10 Networks solutions. The team ramped up quickly with A10 Networks training. A10 Networks professional services assisted with the first Thunder CFW deployment, then the Turner Industries team took control moving forward.

"Implementation of Thunder CFW was straightforward and took less time than anticipated," says Travis Leuthauser, network administrator at Turner Industries.

Success and Next Steps

Operational efficiency is another advantage of data center modernization, and with the industry's best data center footprint for integrated security and applications needs, Thunder CFW contributes to that savings.

"As we virtualized more applications, we went from eight racks of equipment in our Baton Rouge data center down to four racks in each of our Texas data centers," says Milton. "Our footprint got smaller at the same time we substantially expanded capacity."

With A10 Networks, Turner Industries workers can count on fast, secure, and reliable applications so they can build and maintain the infrastructure that brings us the ingredients of our everyday lives.

About Turner Industries

Turner Industries employees build, maintain, and service the nation's heavy industrial sector, helping make the life we live possible by supporting the companies that produce fuel, energy, and products essential to modern life. Since 1961, Turner has steadily worked to provide one solution for our clients success. To do this we find, develop and support the very best people for the jobs we perform throughout four main operational divisions: Construction; Maintenance and Turnarounds; Fabrication; and Equipment and Specialty Services

About Sirius Computer Solutions

Sirius is a national integrator of technology-based business solutions that span the enterprise, including the data center and lines of business. Built on products and services from the world's top technology companies, Sirius solutions are installed, configured and supported by our dedicated teams of highly certified experts. Learn more at www.siriuscom.com.

About A10 Networks

A10 Networks (NYSE: ATEN) provides secure application services for on-premises, multi-cloud and edge-cloud environments at hyperscale. Our mission is to enable service providers and enterprises to deliver business-critical applications that are secure, available and efficient for multi-cloud transformation and 5G readiness. We deliver better business outcomes that support investment protection, new business models and help future-proof infrastructures, empowering our customers to provide the most secure and available digital experience. Founded in 2004, A10 Networks is based in San Jose, Calif. and serves customers globally.

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