

One Energy Secures Wind Turbines with Managed Security Service from CentraComm and Juniper

Summary

Company:

One Energy

Partner:

CentraComm

End Customer Vertical:

Energy

Business Challenges:

The energy company needed to secure its SCADA infrastructure to ensure that customers' wind turbines are protected from cyberthreats.

Technology Solution:

- SRX110 and SRX300 Services Gateways

Business Results:

- Ensured secure VPN access to wind turbines for One Energy engineers and customers
- Protected critical SCADA systems and networks
- Created customized managed security solution that will scale easily

Having the wind at your back is definitely a good thing, but harnessing the energy of wind to lower your energy costs is a *great* thing. That's exactly what One Energy does. Fortune 500 corporations, including Ball and Whirlpool, trust One Energy's Wind for Industry® solutions to deliver energy cost savings while improving sustainability. The company's management team has installed more than 1,000 utility-scale wind turbines, and has managed more than \$1 billion in construction assets for some of the largest utility-scale wind projects in the world.

Business Challenges

One Energy prides itself on making a wind project as simple as possible while minimizing risk, ensuring that projects are fully auditable, and reducing customers' time and resource commitments. With a corporate mandate to "challenge everything" as it designs, delivers, and operates energy projects, One Energy is on the forefront of protecting critical infrastructure against cyberthreats. "We run very public and high-profile wind projects. I can't think of a more attractive target for a potential hacker or intruder attempting to harm us or our customers," says Jereme Kent, founder and general manager at One Energy.

Wind turbines are remotely controlled through supervisory control and data acquisition (SCADA) systems, but SCADA, which was designed long before Internet access was commonplace, lacks modern security measures. To protect its wind projects while allowing its engineers to remotely manage the turbines, One Energy needed to find a way to apply a contemporary security solution to SCADA systems.

"The challenge was figuring out how to take existing static technology that was never designed for today's security threats, and create a system that allows it to function seamlessly in the modern world."

Jereme Kent, Founder and General Manager, One Energy

Selection Criteria

One Energy wanted to provide secure access to its wind turbines for authorized users. Different levels of access were required so, for example, customers would be able to only view systems while One Energy technicians could perform diagnostics or troubleshoot. "We spent a lot of time trying to find a solution ourselves," says Kent. "The problem was that we couldn't fit into anyone else's mold. We needed to fit our specific requirements."

One Energy turned to CentraComm, a leading managed IT solutions provider, based in the Midwest. One Energy had worked with CentraComm before and knew its network



and security experts would challenge the status quo. With a clear understanding of One Energy's requirements and the difficulties of protecting SCADA systems, CentraComm's engineers quickly went to work. "CentraComm did an excellent job starting with a clean slate, defining the problem, understanding the problem, and developing a solution that fit our very specific needs," says Kent.

Technology Solution

CentraComm created a managed security service based on Juniper Networks security to provide One Energy staff and clients with secure access to their wind turbines from any mobile device, anywhere. "The entire point is to make it secure, seamless, and easy access for us," said Kent.

The connection to the wind projects is secured through a site-to-site VPN. In the data center, the Juniper Networks® SRX300 Services Gateway provides both next-generation firewall and advanced threat mitigation with routing, switching, and WAN connectivity. In the field, the Juniper Networks SRX110 Services Gateway provides consolidated security, routing, switching, and WAN connectivity in a small desktop device.

Business Results

In the absence of any industry standards for securing turbines, One Energy worked with CentraComm and Juniper to create a simple, secure, and effective solution. "The challenge was figuring out how to take existing static technology that was never designed for today's security threats, and create a system that allows it to function seamlessly in the modern world," says Kent. "The technology must adapt to the constraints, instead of having the system adapt to the technology. That was a big distinguishing factor for us."

With its previous solution, One Energy staff could only open one VPN connection at a time, which meant it needed multiple computers to access different customers' wind systems. With the CentraComm and Juniper solution, One Energy employees and clients can use any device to access any client system without creating a security risk. "Prior to the Juniper solution, we couldn't open a VPN to two customers at the same time, because that created cross-project risk," says Kent. "By utilizing the Juniper gateway, the two projects don't touch each other and technicians can open multiple projects without introducing any security threats."

One Energy engineers and customers can use any mobile device to access the system. Access is secured through two-factor authentication, and there is granular control over who is accessing which systems and resources. "To the users, it seems so simple. That's the charm of elegant security," says Kent.

Since CentraComm delivers the security as a managed service, One Energy doesn't have to worry about security operations and can focus on running its business of helping customers take control of their energy costs. "With Juniper's scalable security solutions, CentraComm can expand the service easily as One Energy grows," says Kevin Mueller, solutions designer at CentraComm.

Next Steps

The CentraComm and Juniper security solution is deployed in nearly 10 sites, and One Energy plans to continue the rollout to more customers. "The technology has done what we've wanted it to do, and it's a simple way to provide security," says Kent. "The Juniper and CentraComm solution has become an integral part of how we deliver Wind for Industry®."

For More Information

To find out more about Juniper Networks products and solutions, please visit <http://www.juniper.net>.

About CentraComm

CentraComm is a woman owned and managed IT solutions provider headquartered in Findlay, Ohio. CentraComm serves Fortune 50 to mid-market organizations throughout North America and manages networks across the globe. CentraComm has built its reputation by offering leading network security, routing, and switching expertise while nurturing a culture of engineering and customer service excellence. CentraComm's security offerings are enhanced by the ability to leverage our carrier-class data centers including a nuclear hardened, former United States defense department facility. Learn more at www.centracomm.net.

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](https://twitter.com/juniper) and [Facebook](https://facebook.com/juniper).

Corporate and Sales Headquarters
Juniper Networks, Inc.
1133 Innovation Way
Sunnyvale, CA 94089 USA
Phone: 888.JUNIPER (888.586.4737)
or +1.408.745.2000
Fax: +1.408.745.2100
www.juniper.net

APAC and EMEA Headquarters
Juniper Networks International B.V.
Boeing Avenue 240
1119 PZ Schiphol-Rijk
Amsterdam, The Netherlands
Phone: +31.0.207.125.700
Fax: +31.0.207.125.701