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agile technology

HINKLEY POINT NUCLEAR POWER PLANT WORKERS STAY FED AND HYDRATED WITH A TRUSTED NETWORK FROM CETSAT AND JUNIPER

Summary

Company:
Hinkley Point C Nuclear Power Plant

Industry:
Utilities

Business Challenges:
Build a secure, reliable network to support restaurants and cafes on construction site.

Technology Solution:
- *EX4600 Ethernet Switches*
- *SRX340 Services Gateway with Juniper Advanced Threat Prevention*
- *Juniper Sky Enterprise*

Business Results:
- *Support the serving of food, beverages, and other amenities to thousands of people working on a new nuclear power plant with a highly reliable, flexible network*
- *Safeguard a trusted network with next-generation firewalls and advanced threat prevention*

A new nuclear power plant is rising from the flatlands of South West England. When completed in 2025, Hinkley Point C power station will be the second largest in the world, generating enough electricity for 6 million homes. Building a critical infrastructure project at this scale requires thousands of workers—and those workers need to eat.

Appetites Under Construction

Hinkley Point is best described with superlatives. The largest single pour of concrete in the UK, taking 10 days. The world's largest crane, Big Carl, towers 250 meters over the construction site. The two tunnels that bring in sea water to keep the reactor cool can fill an Olympic sized swimming pool in 20 seconds. And, once Hinkley produces energy using nuclear power, some 600 million tons of carbon dioxide will be prevented from entering the atmosphere.

CETSAT, a leading IT provider in the South West of England, has been involved with Hinkley Point since the beginning. CETSAT leads the cybersecurity consortium that was created to secure the Hinkley Point supply chain and provides managed network and security operations services. CETSAT was commissioned to provide a network to control onsite access for the food and beverage network at Hinkley Point C.

"We chose CETSAT because it is established within the supply chain, a trusted partner, and has the appropriate skills that we need to deliver our network," says Steve Stapenhill-Hunt, commercial and technical director at South West Larder, the tier-one provider supplying food and beverage to the project. "CETSAT also has extensive experience in cybersecurity and risk reduction, as well as being a managed IT service provider."

Up to 8000 people work at the construction site, and they can eat at several restaurants, bars, and cafés. Workers and visitors can choose from a wide selection of food and beverages whether they dine in or grab a snack.

"We were vendor-agnostic until a few years ago. But we now see Juniper as a unique differentiator for our business and customers."

- Durgan Cooper, managing director, CETSAT

CETSAT chose Juniper solutions for the network for food and beverage. The secure, highly redundant network supports point-of-sale, mobile payment systems, and cash machines. It also supports the back-end restaurant systems for food ordering and payment.

"CETSAT has transformed South West Larder's critical network infrastructure at Hinkley Point C," Stapenhill-Hunt says. "Networking operations now run seamlessly, providing users with the means to transact and communicate effectively and securely."

The Juniper-based network has proven reliable in a mission-critical environment. "If payment systems aren't functioning, then people can't eat," says Durgan Cooper, managing director of CETSAT. "The food and beverage network is mission critical to the construction of the power plant."

The network connects multiple buildings, with multiple WAN connections for high availability and redundancy across sites. This design ensures that the infrastructure services can be provided without fail, even when one element may have a temporary operational issue.

The foundation of the amenities network is Juniper Networks® EX4600 Ethernet Switch, a compact, highly scalable switching platform. Equipped with Juniper's unique Virtual Chassis technology, multiple EX4600 switches can be interconnected and managed as a single, logical chassis, simplifying operations.

"Juniper switches are reliable and work well in all environments," Stapenhill-Hunt says. "They are versatile and provide us the ability to adapt and add to our network quickly and easily."

Agility is a requirement in a rapidly changing construction site, and Cooper offers a recent example. "The power plant moved a very long bridge," Cooper says. "The fiber connecting the two buildings was rerouted and reconnected. With a Juniper network, there was a continuity of services and no downtime.

Strong Security

CETSAT has been involved in the Hinkley Point C supply chain since its inception, and it leads the cybersecurity consortium as well as providing managed network and security services. The amenities network is designed with the highest levels of security to meet PCI secure payment and GDPR data privacy requirements.

The network is secured by Juniper Networks SRX340 Services Gateway, which provides high-performance security with integrated threat intelligence. Known and unknown threats on the network are found and blocked by Juniper® Advanced Threat Prevention, a service that runs on the SRX Series firewalls.

The CETSAT network operations centre uses Juniper Sky™ Enterprise to easily manage Juniper switching and security through easy, cloud-based tools. The network team can manage the network from anywhere.

Juniper networking has proven a consistently good choice for CETSAT and its clients, and its engineers are deeply experienced with Juniper.

"We were vendor-agnostic until a few years ago," says Cooper. "But we now see Juniper as a unique differentiator for our business and customers."

For More Information

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

About Juniper Networks

Juniper Networks brings simplicity to networking with products, solutions and services that connect the world. Through engineering innovation, we remove the constraints and complexities of networking in the cloud era to solve the toughest challenges our customers and partners face daily. At Juniper Networks, we believe that the network is a resource for sharing knowledge and human advancement that changes the world. We are committed to imagining groundbreaking ways to deliver automated, scalable and secure networks to move at the speed of business.

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