

Open Energi



Overview

Industry

- Energy and Utilities

Challenge

- Complex and sophisticated threat landscape
- Protect sensitive intellectual property
- Maintain competitive industry position
- Address threats in both corporate and operational environments

Results

- Self-learning approach
- Next-generation detection of emerging anomalies
- Addresses both external and insider threat
- Complete visibility of network activity

Business Background

Open Energi is a British smart grid company whose 'Dynamic Demand' technology allows National Grid to balance the UK's electricity supply and demand in real-time. This patented demand response technology uses the power of the internet to harness flexibility in our demand for energy, making invisible adjustments to the timing of equipment's electricity consumption. This is helping to deliver a cleaner, cheaper, more efficient and more secure energy future. By 2030, National Grid aims to meet over 50% of grid balancing requirements by adjusting energy demand to meet supply in this manner.

Open Energi partners with companies that manage commercial, stored energy equipment, such as refrigeration systems, air-conditioning units, water pumps, ovens and boilers. Flexible demand from this equipment is aggregated to create a 'virtual power station' that replaces some of the grid balancing work performed by traditional power plants, thereby reducing carbon emissions and lowering costs.

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Mike Somers, Information Systems and Security Manager

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Challenge

In the context of an increasingly sophisticated threat landscape, including advanced, state-sponsored attacks against parts of critical national infrastructure providers, cyber-attacks are difficult to preempt.

A wide range of risks are now being played out in the cyber domain, and pose a real and growing threat to the energy and utilities industry.

With these progressively complex attacks penetrating network boundaries and sensitive operational systems, Open Energi recognized that a new approach to cyber security was required in order to safeguard its infrastructure and data. Open Energi needed a new approach that could manage incidents across corporate and operational technologies with the ability to detect and respond to emerging threats in real-time.

Solution

Open Energi chose to deploy Darktrace's award-winning Enterprise Immune System technology to help secure its digital infrastructure. Following a month long trial, Darktrace's technology, powered by unsupervised machine learning and mathematics developed at the University of Cambridge, was selected to address the combined challenge of an increasingly sophisticated attacker landscape and the risk of internal threat. During this Proof of Value period, Darktrace demonstrated the inherent value of its self-learning threat detection solution, which is uniquely capable of forming an understanding of normal and abnormal behaviors without any prior knowledge or rules.

After its rapid and easy installation, Darktrace also provides Open Energi with total network visibility. From day one, Darktrace started to analyze user, device and network behaviors, in real time, detecting emerging anomalies and surfacing these to Open Energi's team. Additionally, Darktrace's proprietary Threat Visualizer, a 3D graphical visualization interface, allows analysts to investigate any detected anomalies in great detail and address potential issues proactively.

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Benefits

The Enterprise Immune System provides Open Energi with complete, real-time visibility into all of its digital interactions and communications, promptly alerting the company to any emerging anomalous or suspicious behaviors. Open Energi found that Darktrace's unique Enterprise Immune System, powered by new machine learning and mathematics, was the only technology capable of identifying emerging cyber-threats within networks, by understanding the 'pattern of life' of every device, user and network. This self-learning approach allows Open Energi to protect itself in the context of constantly-evolving threats, and mitigate any potential problems before they arise.

“Open Energi takes security extremely seriously and we are constantly striving to stay at the forefront of development and best practice in cyber security. We chose Darktrace because it recognizes the realities of today's threat landscape. Rather than putting rules in place to prevent specific actions, it focuses its technology on recognizing the abnormal and providing intelligence on what is going on throughout the entire network,” said Mike Somers, Information Systems and Security Manager, Open Energi.

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