Cyber Security Integration

Protecting Oil and Gas Critical Systems

- UK-based cyber security integration engineering team
- 15 years of experience helping Oil & Gas companies with safety and security
- Advanced software to help plan and respond to major incidents

Faced with increasing economic and exploration challenges, Oil & Gas companies are deploying more technology to improve the overall effectiveness of their operations. These technologies are designed to increase the efficiency of their data analysis, the collaboration between employees and the connectivity of their mobile workforce.

To achieve these efficiencies, technologies such as cloud, big data, mobility and internal social media platforms are being deployed. While these technologies may bring significant benefits to organisations that deploy them, they can also introduce significant security risks to the intellectual property and commercially sensitive data held within their computing infrastructures.

Oil & Gas companies need to ensure that the risks of implementing these new technologies are understood and that the security of them is managed properly throughout their lifecycle.

Ultra Electronics have worked with the Oil & Gas industry for over 15 years and understand the challenges of identifying risks and mitigating potential threats before they impact operations. Its Cyber Security Integration Service designs, integrates and supports complete solutions based on best-of-breed products. These solutions ensure that production is not interrupted and safety is not compromised as a result of a cyber attack.

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Threats

The specific threats faced by Oil & Gas companies can be broken down into the following areas:

- The deployment of ***new technology*** such as industry control systems, condition monitoring, dynamic positioning systems and cloud-based services which may be vulnerable to sophisticated probes and attacks when first deployed.
- ***Greater connectivity*** between previously isolated legacy industry control systems and corporate networks to improve operational efficiency can introduce potential threat gateways into industry control networks.
- ***Temporary networks*** set up at the well site to provide communications to allow different companies to collaborate. If they are not set up correctly, they become a potential entry point into a company's corporate networks due to their open nature.
- Due to the distributed nature of their operations, Oil & Gas companies have ***global mobile workforces*** that carry commercially sensitive data on their laptops, tablets and smart phones. Lost or stolen devices could pose a significant threat to the security of their operations. In addition, like in many other industries, there is an increased risk of insider threats from disgruntled employees.
- The deployment of ***digital oilfield technology*** allows Oil & Gas companies to run almost every part of their operations centrally. While this increases their operational efficiency, if compromised, these systems would present a significant threat due to both the commercially sensitive data they contain and their significance in running real-time operations.

Cyber Security Integration Services

Ensuring that high value targets such as Oil & Gas production networks are adequately protected against cyber attack as well as protecting their data-at-rest and data-in-use requires the complex integration of multiple point-products from a variety of security vendors.

Ultra Electronics understands these challenges and has relationships with key security vendors. Ultra Cyber Security Integration Services helps organisations design, install and integrate these best-of-breed security point products to protect against a wide variety of security risks including Advanced Persistent Threats (APTs), Distributed Denial of Service (DDoS) attacks, and endpoint malware.

When integrated with Ultra Electronics' advanced software to help plan and respond to major incidents, the overall integrated security solution allows organisations to ***protect, monitor and manage*** their core network infrastructures.

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