

SCG Chemicals ensures compliant, secure OT with secure-by-design cloud and network solution

Client profile

SCG Chemicals is one of Thailand's largest integrated petrochemical companies. As a key industry leader in Asia, SCG Chemicals offers a full range of petrochemical products, ranging from upstream production of olefins to downstream production of three main plastic resins: polyethylene, polypropylene and polyvinyl chloride. SCG Chemicals is committed to business growth and contribution to the sustainable advancement of the Association of Southeast Asian Nations and local communities.

Which technologies?

- OT Security
- Next-generation Firewall
- Privilege Access Management
- Virtualization
- Antivirus
- Backup
- Centralized Log Management and Monitoring
- Windows Patch Management



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We're aware of the rapidly evolving cyberthreats facing operational technology environments and it was vital that we took steps to protect ours.

Worasiri Rongkaprayoon, Head of Big Data & Intelligence, SCG Chemicals Co.,Ltd.

Summary

Working closely with SCG Chemicals, we envisioned a customized network and cloud solution which would help them achieve compliance goals in their industry control systems. A segmented solution further allowed improved cybersecurity through efficient automation and control systems management in their operational technology. Equipped with a multi-layered security solution, SCG Chemicals is well-placed to deliver secure, efficient production at their manufacturing plants.

Business need

Securing growth and operations for optimal productivity

Operational technology (OT) enables manufacturers to manage their operations on the factory floor and leverage sensors and monitors on a secure OT network to minimize risks.

SCG Chemicals was looking to improve the confidentiality, security, integrity and availability of their systems and components on-site at their manufacturing plants in Thailand.

Part of this goal included implementing secure industrial control systems which complied with the IEC-62443 guidelines for cybersecurity across automation and control systems in OT.

SCG Chemicals was looking to create full visibility of the status of operations across their plants to make it possible to better manage and secure their current operations, as well as enable data-driven planning and decision-making for future operations when expanding the solution to other locations.

Solution

Advancing industrial control systems to ensure secure OT

Working closely with SCG Chemicals' IT and OT teams, we developed a roadmap to enable them to reach their goals.

We implemented an OT network with multiple layers of security built into the initial architecture. Our familiarity with industry standards, such as IEC62443, which relate to cybersecurity standards for OT in control and automation systems, meant we were wellplaced to bring SCG Chemicals' goals together with the standards and deliver an effective solution which meets their needs.

Starting with the wide area network, we further helped SCG Chemicals build out several layers of secure architecture to meet specific on-site needs based on the requirements at each plant. This enabled supervisors and operational control exist as separate layers within SCG Chemicals' secure infrastructure, with further layers enabling operational technology with limited access based on industrial needs, as well as an enterprise layer controlled by the in-house IT team for on-premises office requirements.

Building on the network and the implementation of on-site infrastructure, we supported SCG Chemicals in moving core applications to the cloud using Microsoft Azure. This helped to centralize corporate applications and enabled better productivity by leveraging the benefits of cloud.

Advanced firewall and antivirus solutions also provide SCG Chemicals with resilient cybersecurity for any attacks or security threats which may arise.

Outcomes

Moving towards a more secure, productive future

With the new multi-layered security solution working on a secure-by-design network, SCG Chemicals is better able to ensure both physical and cybersecurity at their manufacturing plants. SCG Chemicals is building a secure foundation for their operations, their employees and the local communities they operate in.

Integrity and availability

By leveraging the benefits of cloud, and combining them with effective, customized cybersecurity solutions, SCG Chemicals ensures the integrity of their production and that all their people have the right access to the applications they need, when they need them.

Compliant industrial control systems

We worked with SCG Chemicals to implement solutions which meet the industry standards for automation and control systems in operational technology (IEC-62443). Ensuring compliance with these standards grants both SCG Chemicals, their employees and customers peace of mind.

Minimizing risks

The multi-layered secure network and solution architecture supports SCG Chemicals in reducing the risk of confidential information being compromised or the degradation of their manufacturing control systems.



Working with NTT we were able to create a multi-layered security architecture that fully complies with IEC-62443 standards.

Worasiri Rongkaprayoon, Head of Big Data & Intelligence, SCG Chemicals Co.,Ltd.