

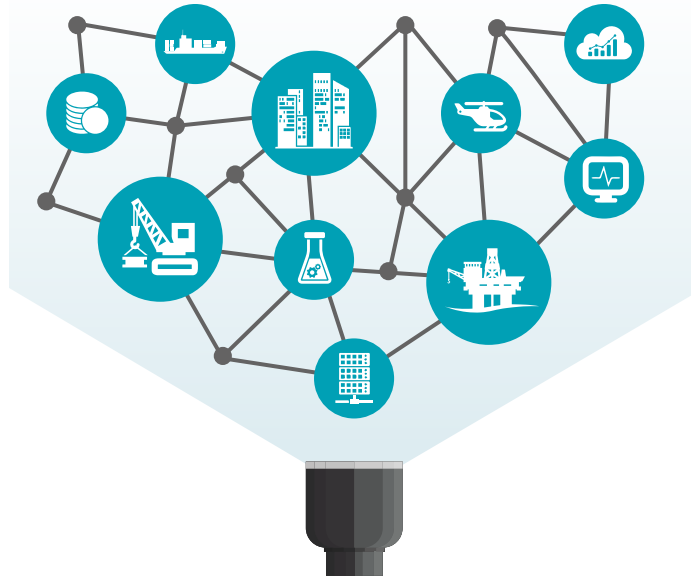


ISO27001, CASS and Cyber Essentials accredited provider of IEC 61511 and IEC 62443 compliant cyber security solutions for industrial control systems and founder members of the IEC 61508 Association.

## Preventing a cyber blackout: Protecting national infrastructure against cyber attack.

The information age and birth of the Industrial Internet of Things (IIoT) has delivered a wealth of opportunity in terms of process efficiency, but it has left the systems which control these processes wide-open to malicious attack. Designing and implementing a resilient industrial network requires core competencies in both cyber security and industrial automation.

Cyber security is no longer a technology issue. Following the change to IEC 61511 the ultimate liability and direct accountability for the security of critical systems stops at board level.



**2010**

**Stuxnet attack on the Iranian nuclear industry:** A computer worm known as Stuxnet was used over several years to sabotage centrifuges inside uranium enrichment sites.



**2013**

**New York dam attack:** Iranian hackers penetrated the industrial control system of a dam near New York City in 2013, raising concerns about the security of US critical infrastructure.



**2014**

**German steel mill:** Attackers successfully infiltrated corporate networks using malware. Once inside they destroyed several control systems and prevented a blast furnace from closing causing significant damage.



**2016**

**SFG malware attacks:** The Labs team at SentinelOne recently discovered a sophisticated malware dubbed Furtim specifically targeting at least one European energy company.



**2017**

**LogicLocker ransomware:** Proof of concept test shows that logic controllers can be infected and used to propagate malware through a control system by bypassing network security and weak authentication, leading to loss of plant control.



## What we hear

Our systems are 'air gapped' from outside networks

We have firewall protection

Hackers don't understand SCADA/ICS/OT

It's an IT problem

We aren't a target, and if we were, our information safety systems would protect us

## Cyber security statistics

A Cyberthreat Defense Report survey found that 52% of respondents believed they will be hit by a successful cyber-attack within 12 months  
(Cyber Edge Group)

The number of cyber attacks on industrial control systems increased by 110% in 2016 compared to 2015  
(IBM Managed Security Services)

Average recovery costs of a data breach are at least £1.2million  
(NTT Security 2016 Risk: Value Report)

77% of energy companies have experienced an increase in successful cyber attacks in the last 12 months  
(Tripwire 2016 Energy Survey)

83% of security professionals believe a cyber attack will cause physical damage to critical infrastructure in 2016  
(Tripwire RSA Survey: Energy Sector Cyber Attacks)

An attack on the UK power grid and water system could cost the country up to £442bn over five years  
(Integrated Infrastructure: Cyber Resiliency in Society)

## How Servelec Controls can help

With Servelec Controls, you have a partner who understands the operational technology landscape, the vulnerabilities attackers seek to exploit and what needs to be done to protect national infrastructure from inevitable threats.

Talk to us today to find out how we can help you stay ahead of the threat landscape, including:

- Infrastructure and risk assessments
- Policy development
- Perimeter defence checks
- Network mapping
- OT network design
- Endpoint risk analysis
- System hardening
- IT/OT application configuration
- Monitoring, reporting and incident response
- Remote access solutions

### The risk



Attackers growing in sophistication



Industrialisation of cyber crime



Weak authentication



Ransomware



Abuse of access authority



Increasing vulnerabilities due to interconnected networks



Alleged state sponsorship of cyber crime



Removable media



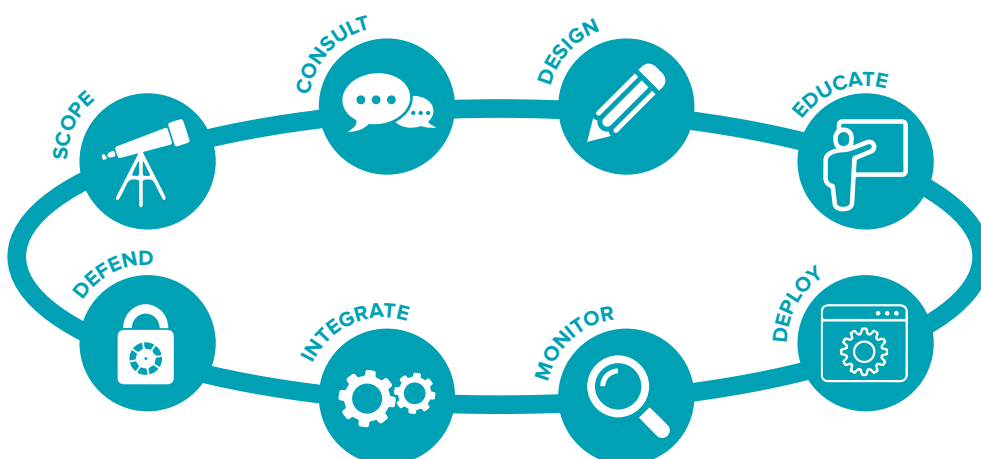
Brute force intrusion



Spear phishing

### Attack routes

## Servelec Controls' steps to security



### Standards & Accreditations

IEC 61511, IEC 62443, ISO 27001, CASS, Cyber Essentials



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