

SCADA Security & Reliability

Industrial Network Security, Performance & Reliability Services



Industrial control system cyber security should be treated as an engineering problem, and it can be solved. Considering the industrial process, business concerns, and associated risks, we will work with you to create a robust industrial control system (ICS) network.

Considering the ICS Lifecycle diagram, the first step in the solving this challenge and maintaining a secure and reliable network begins with awareness. The organization needs to establish an executive-sponsored corporate philosophy including tolerable risk, policies, and procedures.

Once these objectives are understood and a functional network requirement is available, the network (and associated processes) should be analyzed for risks so that adequate protections can be built into the system. Mechanical devices like over speed trips, over pressure reliefs, and temperature shutdowns should be applied before the network is modified to compensate. We can facilitate a security HAZOP to determine the where additional layers of protection will be required.

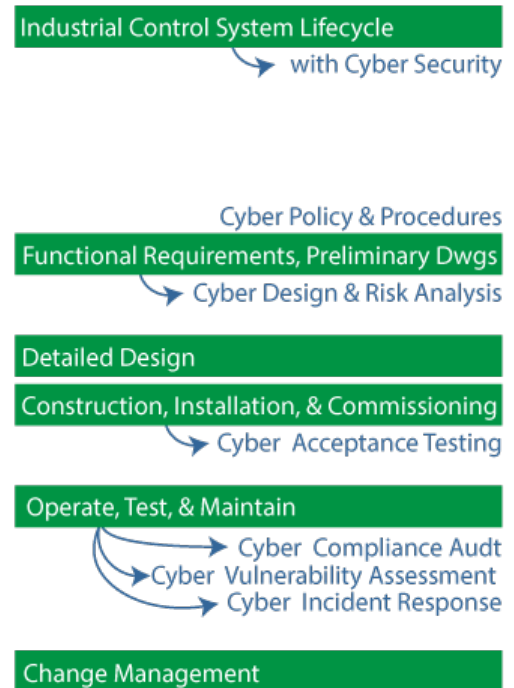
Where a system or process is still vulnerable, we utilize established best practices and standards to architect a logical design including an electronic security perimeter (ESP) for operations with secure connections to the business and remote access including vendors. Inside the ESP, security and performance are evaluated and mitigated with the use of network segmentation including zones of control and conduits as described in ANSI/ISA-62443.

After the network detail design is established and the system is installed, we will work with you to insure that the acceptance test also verifies that the security functions have been met and configured correctly in the commissioned system.

Once operational, compliance audits and vulnerability assessments are designed to determine the awareness, adherence, security and performance of an existing system. A vulnerability assessment can include a nondestructive penetration test also.

A solid network design with secure communication and reliability built in, will serve business well with better visibility; secure remote connectivity, and less unexplained downtime.

Kenexis offers standard services to assist your organization with establishing a secure and reliable industrial network.



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Cyber Policy & Procedures offering includes consulting services to help your organization develop an operational security philosophy including risk matrixes, policies, and procedures. We can also assess these against standards and regulations applicable to your industry and region.

Cyber Design & Risk Analysis provides consulting services to assess risks by zone and develop a logical network design that a system integrator can use to develop a detailed design.

Cyber Acceptance Testing verifies that the detailed design as built, meets the security functions defined in the logical design.

Cyber Compliance Audit service verifies the awareness and policy adherence.

Cyber Vulnerability Assessment evaluates the ICS network for security, performance, and/or reliability. A vulnerability assessment may be designed to check performance or conduct a nondestructive penetration test on the system.

Cyber Incident Response service will help you develop a plan and provide assistance during an incident. Our incident response focuses on remediating the problem as quickly as possible and not forensics.

About Kenexis

Kenexis is an independent engineering consulting firm providing a range of services that are geared toward identifying the risks posed by process plants and manufacturing facilities and then assisting in the implementation of technical safeguards to mitigate those risks. Kenexis services fall into four main categories:



Our services help our clients to comply with appropriate regulations and standards, and benchmark their performance and processes against industry best practices. These services allow our clients to have best in class safety, security, and reliability.

Industrial Control System Lifecycle

with Cyber Security

Cyber Policy & Procedures

Functional Requirements, Preliminary Dwgs

Cyber Design & Risk Analysis

Detailed Design

Construction, Installation, & Commissioning

Cyber Acceptance Testing

Operate, Test, & Maintain

Cyber Compliance Audit
Cyber Vulnerability Assessment
Cyber Incident Response

Change Management