



KINECTRICS

Cyber Security for Critical Infrastructure

Providing engineering for the rapidly evolving cyber
security landscape





CYBER SECURITY SERVICES

Kinectrics offers a wide range of Cyber Security services for Industrial Control System (ICS) to our clients in the critical infrastructure sector:

Cyber Security Program Planning, Development & Auditing

- + Participation in Cyber Security Assessment Team meetings to determine Critical Digital Asset (CDA) classifications and necessary remediation actions. Multiple employees have attended the Technical Assessment Methodology (TAM) training at EPRI and are capable of preparing assessments and providing input through the modification process using the TAM.
- + Third party review of Cyber Security upgrade Design Changes and Work Packages, resulting in fewer field changes and ensuring compliance with regulations.

Cyber Security Program Implementation

- + Engineering, design and implementation support to specific Cyber Security Program Controls, including, but not limited to:

- Boundary Isolation Device Installation (Data Diodes, Network Taps)
- Defense-In-Depth Bypass Identification and Elimination
- Intrusion Detection, Intrusion Prevention, Real-time Network Monitoring and Logging Hardware Installation
- Cyber Security management system installation including, but not limited to, antivirus, whitelisting, and WSUS
- Time distribution utilizing NTP (UTC, EST, DST) and IRIG-B timecodes
- Installation of analog, deterministic KVMs to allow for switching between various layer workstations



- + Evaluation of new or existing equipment for Cyber Program compliance and vulnerabilities
- + Development of specifications for new equipment procurement
- + Design and implementation of physical security requirements in support of Cyber Security Programs, e.g. lock & alarm devices
- + Plant and Security Computer (including Video) upgrades
- + Remediation for network connections that cross the Protected Area Boundary
- + Cyber security tool implementation including, but not limited to: Security Information & Event Management – including real-time network monitoring, alerting, logging and syslog storage, Antivirus, Whitelisting, NIDS & HIDS, IPS & IDS, Centralized Management, and WSUS



Kinectrics has qualified engineers and analysts in the US and in Canada. This paired with our experience in systematically assessing and understanding client processes and procedures positions us to ensure all Cyber Security needs are met.

Value-Added Solutions

- + Development of Cyber Security One-Line Diagrams - Plants may have network components represented on dozens of plant configuration drawings. This can make it difficult to see the full defensive architecture, identify Cyber Level bypasses, or to prove that bypasses do not exist. Kinectrics has created drawings that succinctly map a plant's computer network by Cyber Security Level, identify network borders and boundaries, and identify air-gapped and DMZ networks. These can be used as a permanent plant drawing or as an informational sketch to help with Cyber Security planning and audits.
- + Development of contingency and manual actions used in the event of a cyber threat - This allows for proper planning and design development of permanent or automated Cyber Security solutions while ensuring compliance with regulatory deadlines.
- + Modernizing and retrofitting existing ICS in a highly regulated environment requiring compliance with guidelines/standards such as NEI-13-10 and CSA N290.7.
- + In-house team of Human Factors Engineering (HFE) specialists to provide input to Design Engineering based on HFE Analysis (Operating Experience Review, Function Analysis and Function Allocation, Task Analysis, Human-System Interface Design) and validation evaluation.
- + Kinectrics has developed strong working relationships with vendors and suppliers to ensure that assets are classified and remediated properly. This includes obtaining schematics and interfacing with component manufacturer's engineers to ensure proper identification. We work hand in hand with the vendors who provide cyber compliant systems to validate the solutions being provided. This includes Factory Acceptance Testing and Site Acceptance Testing support.

Kinectrics has been supporting the successful implementation of **Cyber Security** programs and modifications in the critical infrastructure sector for **over 10 years**. Our Cyber Security services are comprehensive and address all stages of program implementation.

Kinectrics engineers have experience with implementing a solution that works within client physical and procedural framework. Kinectrics understands the challenges that face the critical infrastructure sector and provides solutions that functionally support both the **Operational Technology (OT)** and **Information Technology (IT)** Security-focused teams within the client organization.



www.kinectrics.com

Head Office

800 Kipling Ave., Unit 2
Toronto, ON M8Z 5G5
Canada
416-207-6000

Canada

393 University Ave. 4th Floor
Toronto, ON M5G 1E6

USA

2135 City Gate Lane, Suite 100
Naperville, IL 60563

United Kingdom

17 Frederick Sanger Road
Surrey Research Park
Guildford, Surrey GU2 7YD

Germany

Hertha-Lindner-Strasse 10-12
01067 Dresden

Romania

59 Grigore Alexandrescu Street.,
2nd Floor Bucharest 010623

India

Sy No. 125,
Bandan Mailaram Village
Mulugu Mandal, Siddipet District
Medchal, Telangana – 502336