

Scada Security [Internet Of Things]

1. Overview of Industrial Control Systems

Overview of SCADA, DCS and PLCs

ICS operations and components

SCADA Systems

Distributed Control Systems

Programmable Logic Controllers

Industrial Sectors and Their Interdependencies

2. SCADA Characteristics, Threats and Vulnerabilities

Threats

Vulnerabilities

Risk Factors

Possible Incident Scenarios

Sources of Incidents

Documented Incidents

3. Security Program Development and Deployment

Business Case for Security

Developing a comprehensive security program

4. Network Architecture

Firewalls

Logical Separated control network

Network Segregation

Recommended Defense in depth Architecture

General firewall policies for ICS and SCADA

Specific ICS firewall issues

Single points of failure.

Redundancy and Fault Tolerance

Preventing Man in the middle attacks

5. Security Controls

Management Controls

Operational Controls

Technical Controls

6. SCADA in action

Detecting Cyber Attacks on SCADA systems

Vulnerability Scanning

Security Patch Management

Anti-Virus Protection and Management

SCADA security Standards

Incident Handling and Forensics

SIEM and SCADA