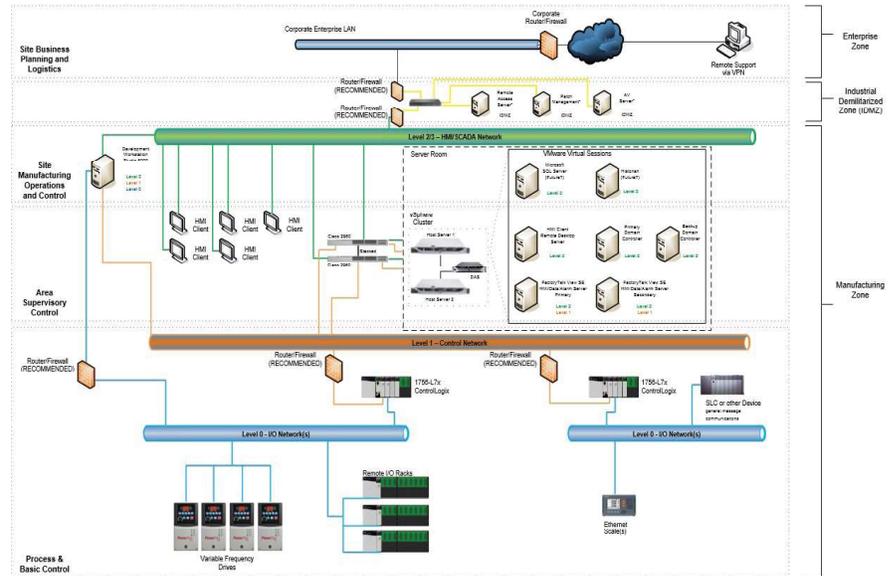


ICS Network Security and Reliability

▶ In today's manufacturing facilities, Industrial Control System (ICS) networks form the very heart of the operation. Office Ethernet networks, plant floor Ethernet, and a multitude of device networks are found in virtually every manufacturing operation. As the use of networks grow, their security and reliability are key to the plant operation. The risks extend beyond the loss of production to loss of Intellectual Property and even safety implications.



▶ Proper network design and segmentation is essential to process operations.

Three Key Services that Matrix Provides:

Assessment of Existing Network

Networks are constantly evolving in every organization. Equipment is changed and upgraded, new software is installed, devices are added by vendors and employees, and any number of people can have authorized and un-authorized outside access to the equipment. To perform an upgrade, you must first know your starting point. Matrix can help with the following services:

- Diagram Existing Networks
- Review/Document Installed Assets
- Cyber Security Evaluation
- Network Loading
- Existing Network Statistics
- Network Gap Assessment

Network Design

When considering a new installation or expansion of an existing system, the entire network infrastructure should be reviewed. Matrix will work with your team to evaluate the requirements of the new network equipment, current and future data collection and control requirements, and the security measures that should be considered in the implementation. Some of the design elements considered during this effort are:

- Network Architecture
- Network Media (Fiber/Copper)
- Network Levels and Segmentation
- Performance Improvement
- Network Upgrade Road Map
- Remote Access
- Access Control
- Security
- Testing and Validation

Network Security

Today's need for connectivity, real-time information and reporting and ever increasing desire for access to data increases the reliance on process control networks. Just like other critical infrastructure, steps must be taken to ensure that your process control systems are not put at risk. There is no single solution that fits all of our customer's needs, so we will design a solution that best fits your needs and goals.

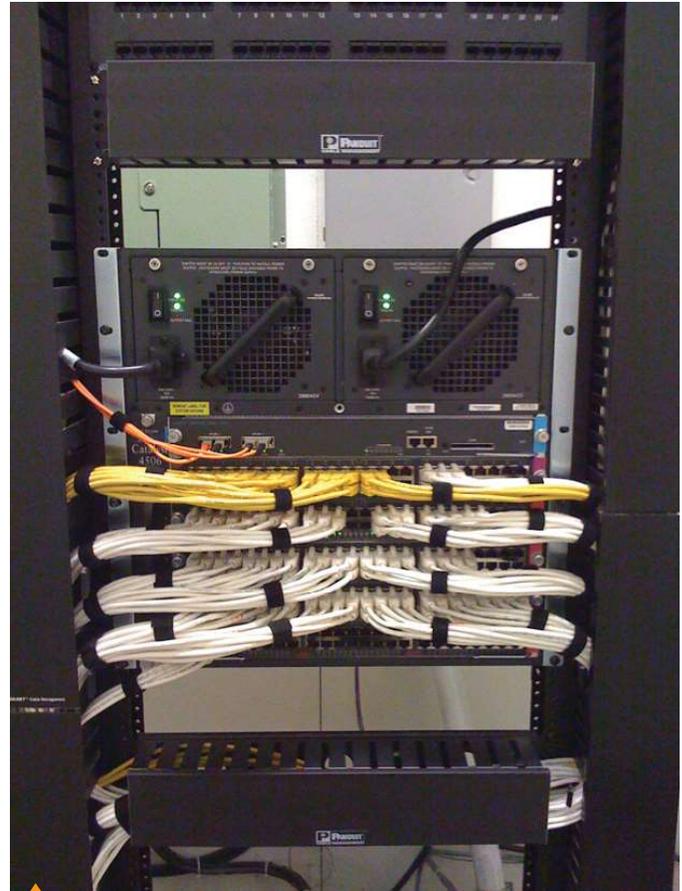
- Identify Vulnerabilities
- Documented Gap Assessment
- Mitigation plan
- Security Hardening
- Defense-In-Depth
 - Firewalls/IDMZ
 - Segmentation
 - Virtual LANs

ICS Network Security and Reliability

▶ There are a myriad of considerations to make when designing a network, are you sure that you are addressing them all?

- Speed
- Standardization
- Disaster Recovery
- Growth
- Data Flow
- Redundancy and Fault Tolerance
- Rings
- Security (Hardware and Software)
- Data Encryption
- Virtual Private Networks (VPN)
- Virtual Local Area Networks (VLAN)
- Connectivity (Wired and Wireless)
- Management Tools
- Firewalls
- Access Points
- Isolation
- Backup Plan/Disaster Recovery
- Surveillance/Intrusion Detection
- Regulatory compliance
- Password Policies/Maintenance
- Documentation
- Many Others such as Virtualization

At Matrix Technologies, we have been designing and deploying industrial networks for over 20 years. We understand the unique risks of the industrial network and can provide a design that will address your security and reliability concerns.



▶ *Organized and well documented enclosures ease maintenance and increase reliability.*

▶ The Matrix Difference

People: A versatile, knowledgeable team of design and engineering experts.

Process: A proven project approach designed to embrace a customer's proprietary methods.

Performance: Over 40-year track record of successful projects, completed on time and on budget.