

Security & Site Monitoring

Substation Automation Solutions

Protection & Control Systems

Optical Communication Networks

UTILITY

Integrated Automation for Electric Utilities

SOLUTIONS



GE Power Systems
GE Industrial Systems



FULLY INTEGRATED SOLUTIONS FULLY AUTOMATED

*Delivering innovative and
integrated global utility
solutions...*

...is the GE advantage

Integrated solutions provider

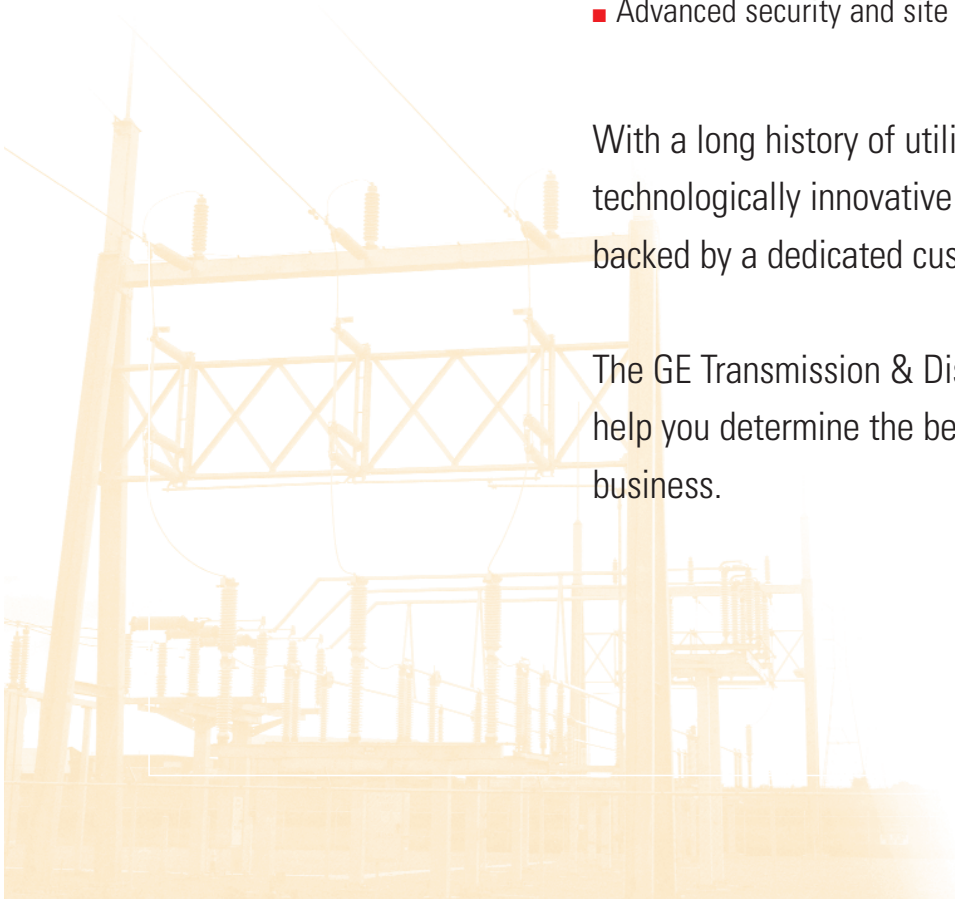
GE leads the industry in providing integrated solutions for utilities around the world. Our complete range of substation automation, security, site monitoring and optical communication network systems ensure a seamless solution for utilities.

We invite you to explore our offerings:

- Complete substation automation solutions including turnkey applications
- Protection and control relays, meters, and switches
- Optical communication network solutions
- Advanced security and site monitoring equipment

With a long history of utility experience, GE delivers technologically innovative products, systems and services backed by a dedicated customer support network.

The GE Transmission & Distribution team is available to help you determine the best solution that is right for your business.





UTILITY AUTOMATION SOLUTIONS

The GE advantage

Our solutions are designed to help our customers optimize and protect existing assets while improving substation electrical system performance, reliability, and security. Working with GE will enable your team to:

Reduce capital costs and improve performance

- GE's integrated solutions are based on advanced modular architecture and designs that can significantly reduce costs. Our state-of-the-art software applications help optimize the use of legacy systems to defer capital expenditures

Increase system reliability, reduce outages and equipment failures

- Our systems are designed to reduce energy losses, increase system availability, and improve overall operational efficiency

Reduce operating and maintenance costs

- GE's solutions deliver key information, enabling personnel to address critical equipment problems and allow quick and efficient resolution, thus lowering the costs associated with unplanned maintenance

Protect your investments

- GE's solutions help protect your employees and property through advanced security and surveillance solutions and reduce unnecessary costs associated with vandalism, theft and unauthorized access

The right solutions for your success:

- Complete engineering, manufacturing, installation and commissioning services
- Substation automation controllers and equipment reduce maintenance costs
- Energy management systems reduce outages through managing reliability and performance of power equipment
- Digital relays for generation, transmission and distribution, protect and monitor power equipment to ensure peak performance and reduced down time
- Remote site monitoring and control to streamline operations and reduce substation trips
- Power quality metering to protect downstream devices from surges and disruptions
- High-bandwidth optical communication networks to integrate teleprotection, surveillance video, substation automation, Ethernet WAN/IP and telephony
- Complete enterprise security systems, including video surveillance, access controllers and remote monitoring to protect physical assets and track access

The bottom line:

Improving your bottom line is our goal. GE's utility solutions can help you reduce power outages, reduce operations and maintenance costs, increase security, improve productivity and streamline operations by providing you with the tools to succeed.



UTILITY SOLUTIONS AT EVERY LEVEL OF

Engineering



Solving customer challenges

Industry leading expertise and experience to complete all engineering aspects of your project - from consulting and design to installation and commissioning.

Software Applications



The tools to control your enterprise

GE offers powerful software solutions that provide utilities with the tools to consolidate the control and monitoring of their assets.



Web-based Remote Site Management Services

GE offers internet-based managed services to monitor remote assets from anywhere, at any time, using any Internet-connected PC. Alarm and Alert Notification is automatically delivered to any cell phone, pager or email address.

Network Telecommunications



Communications enabling devices

GE provides a range of devices for LAN interface, protocol conversion, and integrated communications via SONET fiber optic multiplexer.

Security

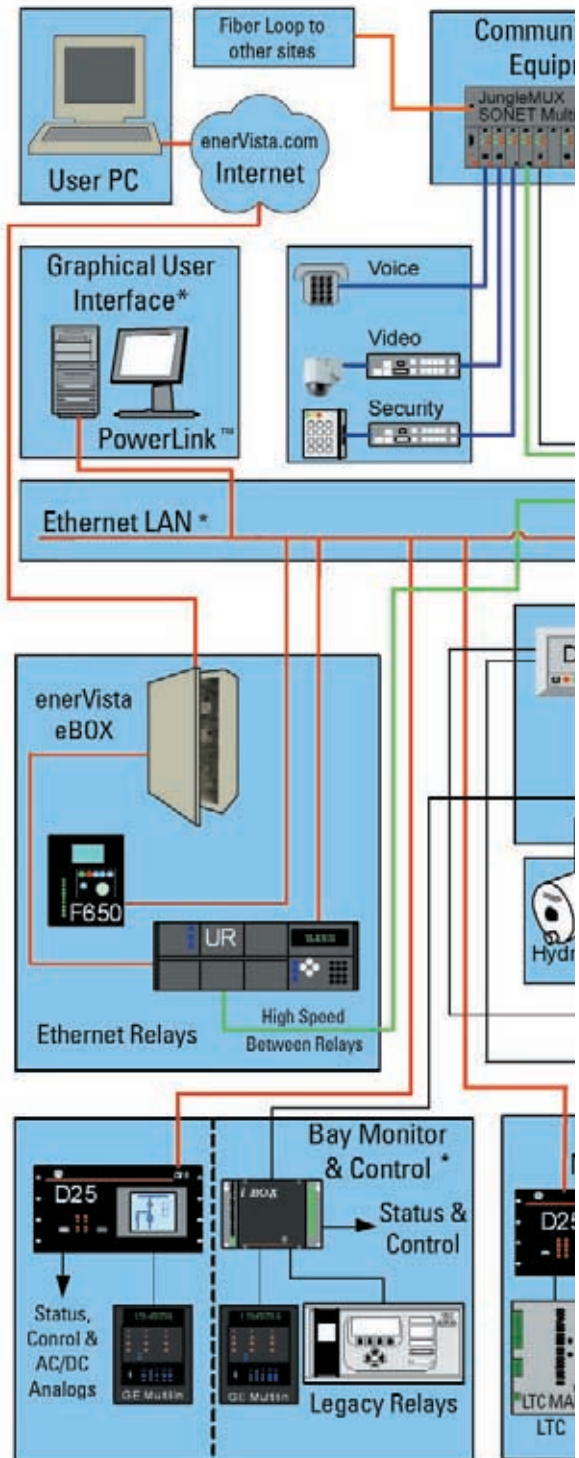


Protect your assets with video surveillance and controlled access

Our security solutions offer centralized monitoring and controlled access to protect your valuable facilities and equipment.

Utility Solutions

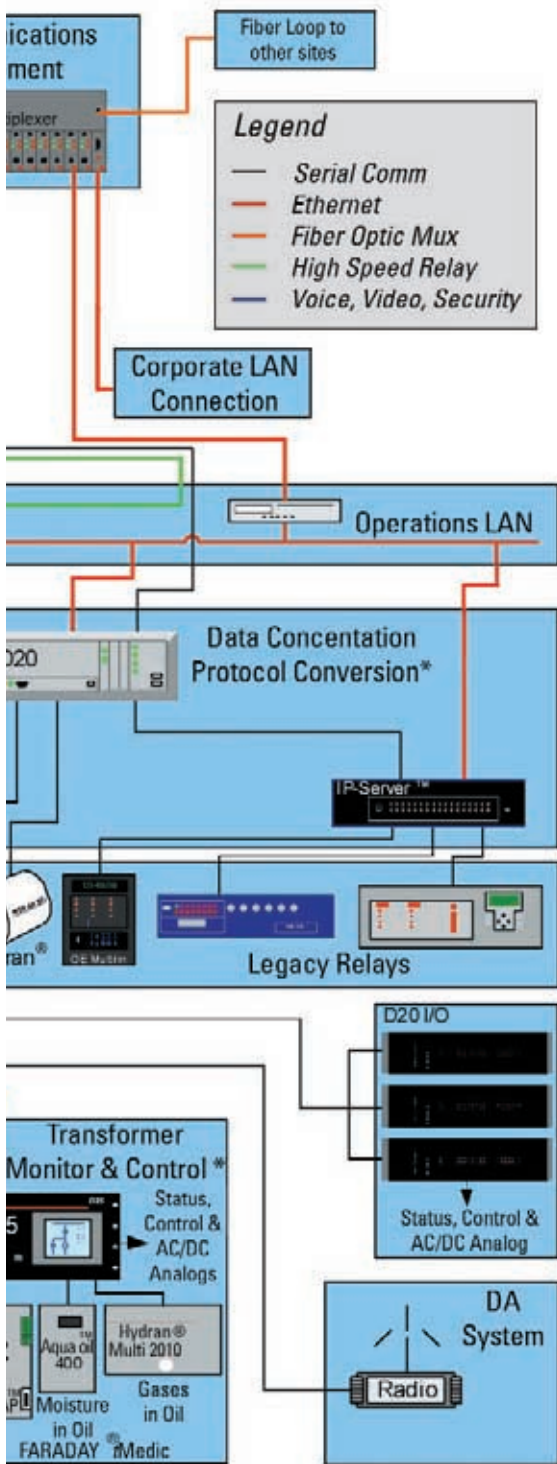
At every level of your enterprise, GE has a p



FOR YOUR ENTERPRISE

sions Provider

product or service that will meet your needs.



Substation Controllers



Automation enabling devices

GE offers a family of substation automation products, from the IP-Server - a gateway for devices from outside the substation - to the D20/200 and D25, for protocol conversion, SCADA and utility enterprise access.

Intelligent Electronic Devices



Advanced relays for protection, monitoring and control

A wide range of devices are available for generation, transmission, distribution and motor protection. High-speed communications and open protocols provide compatibility with all automation and control systems.

Monitoring and Diagnostics



Improve equipment performance and service reliability

GE's wide portfolio of equipment monitoring and diagnostic systems make remote fault detection and performance monitoring easy. Accurate sensors help prolong equipment life and safety.

Portable Test Equipment



Convenient and powerful testing devices

GE offers an array of world-class portable test equipment including: single- and three-phase relay test sets, circuit breaker analyzers, high current test systems, insulation diagnostic sets, micro ohm meters, power quality meters and more.



CONTACT INFORMATION

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Substation Automation Solutions

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Protection, Control, Monitoring & Metering

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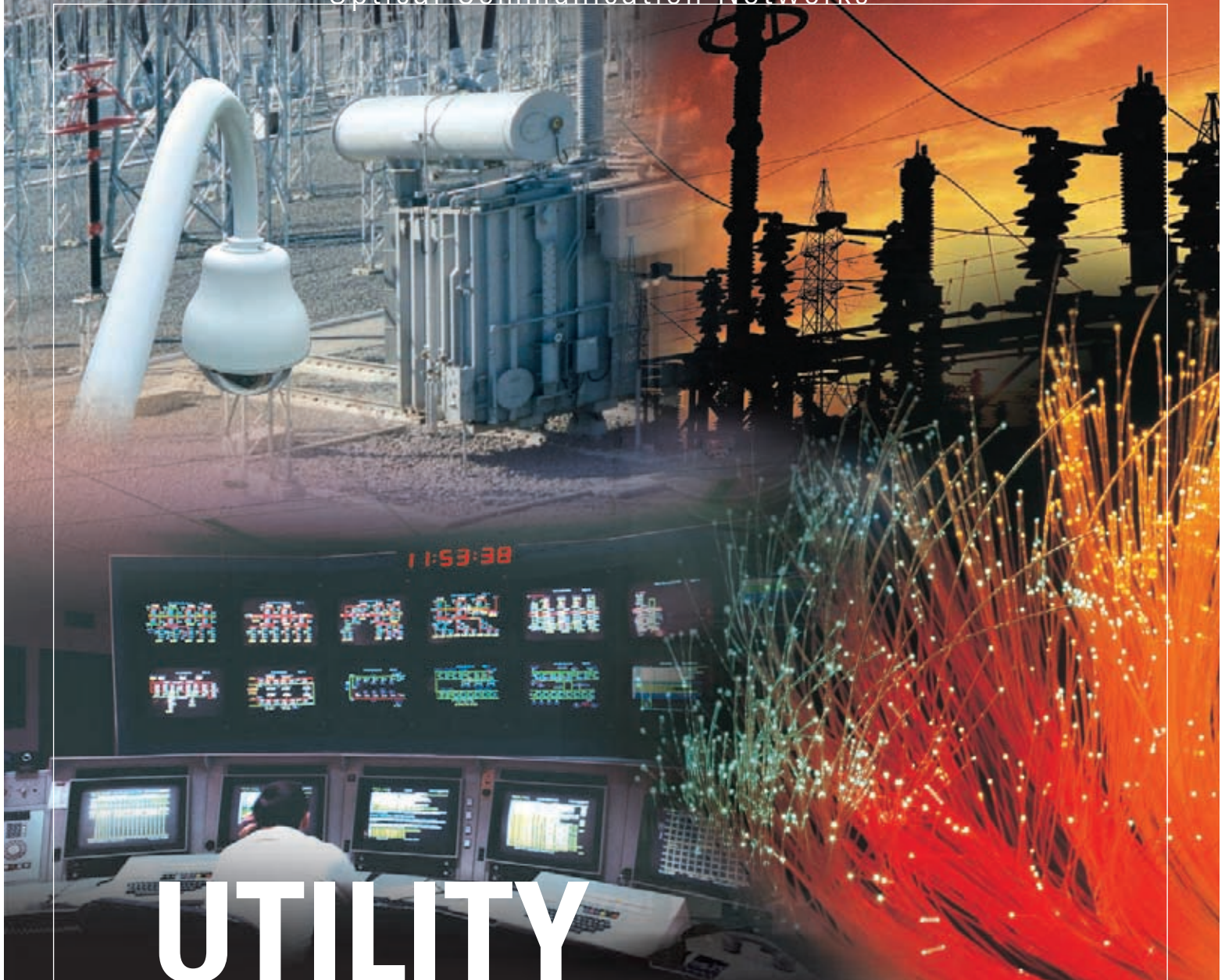
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Scaleable optical communication network solutions provide:

- SONET OC-1, OC-3, OC-12 capacity
- Robust environmental design
- Supports point-to-point, linear add/drop, ring and multiple ring plus spur network topologies
- Extremely fast path protection switching (<3 ms)
- Network traffic visibility down to each individual circuit
- Optional video control system package

GE Multilin

Secure systems

Facing increasingly complex demands for telecommunications services, power utilities are looking for cost-effective and reliable solutions for managing mission critical operations. The JungleMUX SONET Multiplexer is now deployed by over 130 North American electric utilities.

SONET reliability

The robust fiber optic multiplexer has a modular design for ease of maintenance, configuration flexibility, and expandability. The JungleMUX delivers the benefits of the Bellcore SONET telecommunications standards to applications previously serviced by a mix of proprietary and legacy standards based equipment.

High system availability is provided through redundant common equipment and compliance with Bellcore SONET standards for path switched ring protection architecture.

Utility hardened

The multiplexer provides redundancy for critical modules, with guaranteed performance over an extended ambient temperature range of -4° F to +140° F. It meets ANSI/IEEE Surge Withstand Capability (SWC) and Radio Frequency Interference (RFI), as well as Zone 4 Earthquake specifications, providing secure performance in harsh environments.

Telecom solutions

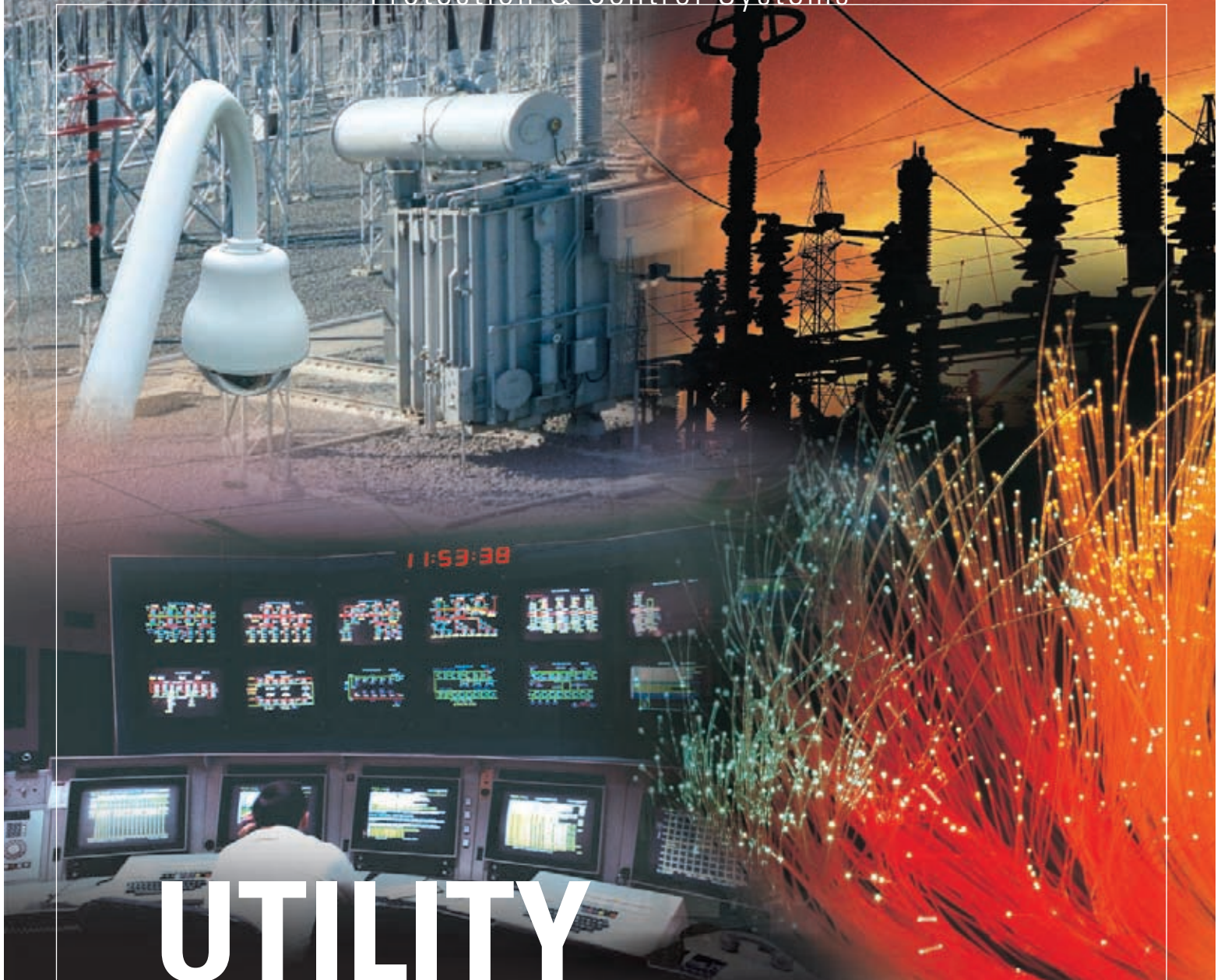
Designed specifically for the unique needs of utilities, the JungleMUX system supports a wide range of speciality traffic, including teleprotection (direct transfer trip, pilot wire, and IEEE C37.94 optical interface to protection relays), surveillance video, substation automation, Ethernet WAN/IP and telephony.

The JungleMUX Operation, Administration, Maintenance and Provisioning (OAM&P) software facilitates remote provisioning, monitoring and alarm logging of the network from any node. The OAM&P software operates on any Windows PC, and is used for system diagnostics and troubleshooting by providing visibility of all JungleMUX equipment, including DS-0 tributary units.



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Innovative products, software and services for the utility market:

- State-of-the-art digital relays
- Unequalled selection of electromechanical devices
- Reliable and accurate power quality meters
- Web-based remote site management services
- Simple and powerful monitoring and control tools
- Industry focused application consulting
- Real-time digital simulation test facilities
- World-class training
- Preventative maintenance and product upgrade services

GE Multilin

GE Multilin is the first choice for protection, metering, monitoring and control systems for utilities. Let our end-to-end spectrum of products, software and value-added services provide you with the competitive edge you need to succeed!

A world leader in utility solutions:

As part of GE Industrial Systems, GE Multilin is an industry leader in the business of monitoring, controlling, and protecting capital equipment. Protecting and ensuring the uptime of our customer's motors, generators, feeders, transformers, bus systems, and transmission lines within the electrical supply chain is our primary goal. Our system installations ensure the daily safe and reliable operation of thousands of utility substations around the world. Whether a stand-alone component or part of a complete system, GE Multilin can provide a solution that meets your performance and value needs.

Robust protection and control products:

From electro-mechanical relays to leading edge digital IED's, our product line is one of the most comprehensive on the market. We offer one of the largest selections of electromechanical devices on the market, including a wide variety of switches and test accessories. Our newest digital relays are modular and scaleable, and feature the latest technological innovations including open UCA technology that allows our relays to communicate with existing legacy devices.

Effective software solutions:

Our offerings include a Web-based remote site management service that provides 24 x 7 monitoring of GE Multilin devices with configurable alarm and alert notification delivered via phone, pager or e-mail. Our Software products provide the easiest and most powerful way to connect, control, set up and analyze your GE Multilin devices.

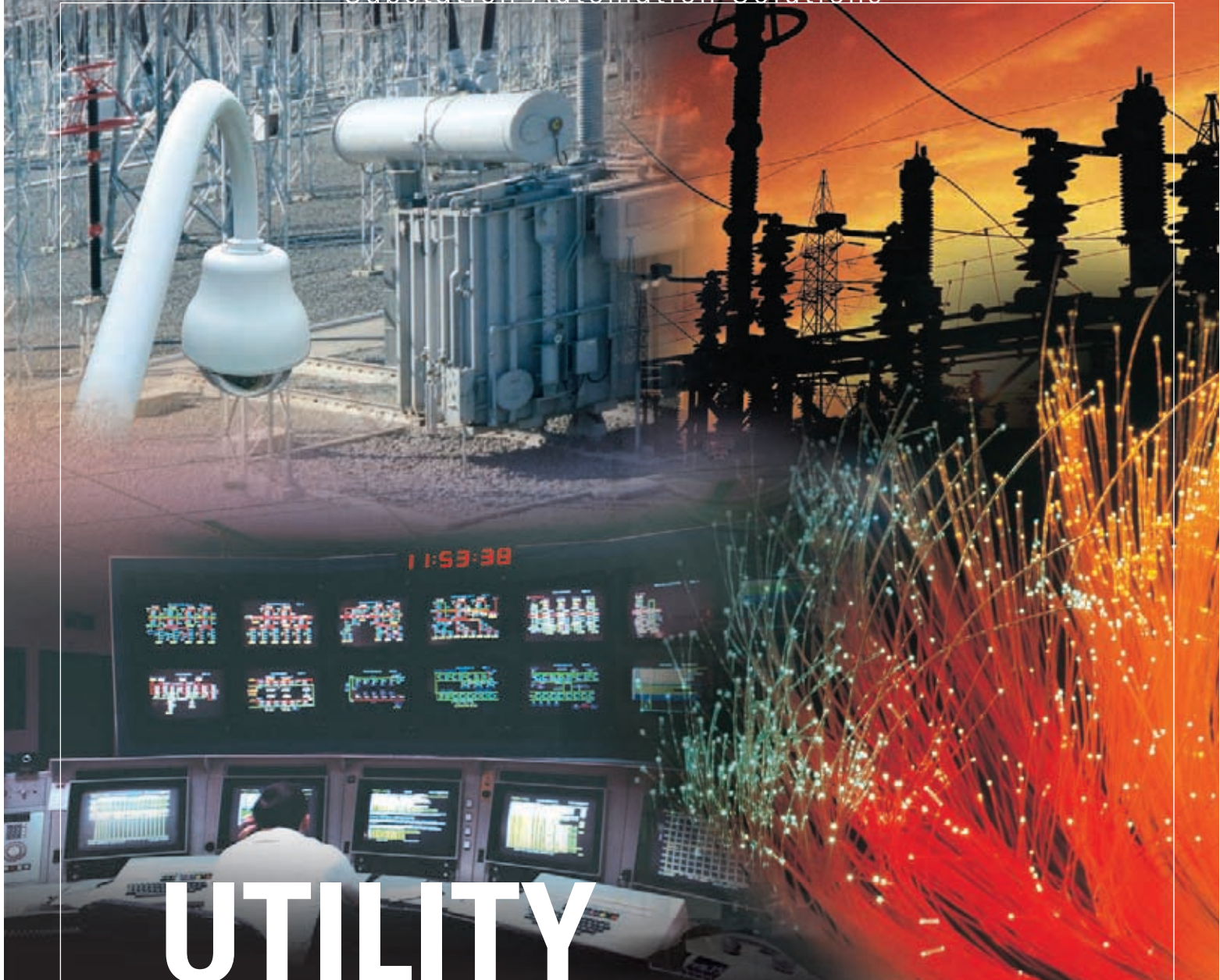
Convenient value added services:

We also offer a suite of value added services that provide convenient and affordable tools to help customers improve their business operations, without sacrificing their bottom line. These services include application engineer consulting, real-time digital simulator testing facilities, relay maintenance and upgrade services and an expanded training center. These services offer customers an opportunity to leverage GE Multilin's expertise, facilities and industry experience in a convenient and cost-effective manner.



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GE Energy Services

SUBSTATION AUTOMATION



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A full array of offerings

To help utilities effectively manage changing conditions in the marketplace, GE offers a full range of innovative automation solutions:

- Program management
- T&D asset management
- Systems integration
- Protection and control engineering
- Substation automation
- Online monitoring and diagnostic solutions
- Substation controllers and IEDs
- Portable test equipment



GE Energy Services

Fully integrated, fully automated

With worldwide experience in implementing successful substation automation programs, GE Energy Services delivers the solutions needed to safely, reliably and cost-effectively automate critical transmission and distribution assets. We offer top-quality hardware and software solutions, as well as on-site installation and project engineering services, custom-tailored to help you meet your automation goals.

Complete services and solutions

Success in today's dynamic energy marketplace requires solutions that optimize transmission and distribution network operations. GE provides complete solutions to support substation automation programs, with migration into distribution automation.

Key elements of our solutions:

Open systems architecture.

Our core technology is designed to be flexible and expandable, providing a bridge between critical monitoring, protection and control data and the corporate business systems. This allows enterprise-wide management of information for effective decision making, from substations to boardroom.

Enabling technology.

Substation controllers and IEDs, along with our sensor technology, allow operators to monitor and diagnose incipient problems in power equipment before failure, thus preventing costly outages. Our on-line enabling technology is complemented by a comprehensive line of portable testing equipment to provide the next level of support for power equipment maintenance programs.

Six sigma quality.

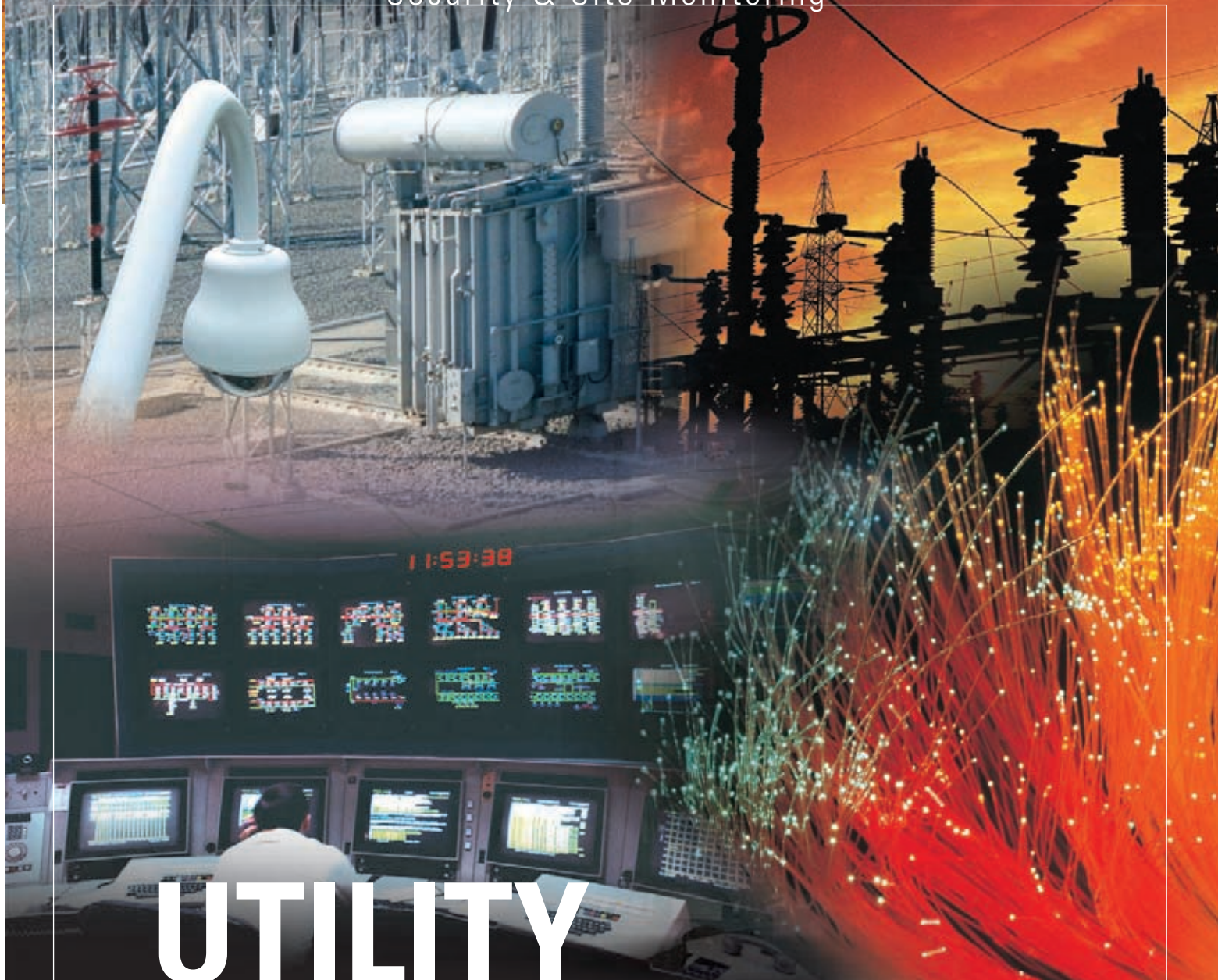
GE's Six Sigma quality-based engineering and project management focuses on issues that are critical to our customers and their success in order to deliver near-perfect products and on-time solutions.

Customer-centric services and support.

From inception to implementation, our support specialists provide customers with on-site expertise and a full range of engineering services.

GE Energy Services

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GE Interlogix

SECURITY & SITE MONITORING



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GE Interlogix can protect a utility substation with products that work together to:

- Resolve security incidents in the field
- Detect and deter after-hours criminal activity
- Protect against liability claims
- Protect transformers and other equipment
- Deter unwanted activities outside the substation
- Improve equipment service
- Accelerate emergency response
- Prevent unwelcome visitors from entering restricted areas

GE Interlogix

Electronic security starts here

Security starts long before the first access card reader, alarm panel or camera is installed. It starts with a relationship. GE Interlogix is a business partner who can discuss the risks your enterprise is facing, analyze the physical layout of your facilities, and help you design an electronic security system that protects your people, your property and your bottom line. Our electronic security products fall into three main categories:

Security and life safety:

Fire, intrusion and motion detection equipment; panic buttons; and notification appliances like bells, horns and strobes. GE is the leading manufacturer of supervised wireless security and life safety systems. Wireless products enable you to install security systems where it is difficult or impossible to run wires for hardwire security. Our Learn Mode® technology has been a key factor driving the growth of the wireless security market around the world.

Enterprise technologies:

Access control; video surveillance; video image storage and retrieval; and fiber optic audio, data and video transmission. GE Interlogix can integrate all surveillance and access control functionality into a single enterprise-wide system for utilities.

Key management:

Products and services for remote site entry, mobile access and information management, and asset tracking and control.

Security products and solutions:

- Keypads - to control your alarm system and view the alarm source
- Digital Video Recorders - provide network access to video and powerful search features including date, time, access code and more
- Proximity Card Readers - provide controlled access to restricted areas
- Motion Detectors - respond to unauthorized movement in your facilities
- Fixed Cameras - deter criminal activity with 24 hour surveillance
- Electronic Key Box - provide emergency personnel with keys
- Magnetic Door Contacts - sense open doors and tampering (UL listed available for equipment bays)
- 360 Dome Cameras - pan-tilt-zoom flexibility for day and night remote viewing



GE Interlogix