About SEL

Our mission—making electric power safer, more reliable, and more economical

SEL invents, designs, manufactures, and supports a complete line of products and services for the protection, monitoring, control, automation, and metering of electric power systems. Our solutions range from comprehensive generator and transmission protection to distribution automation and control systems.

SEL teams offer services, education, and support for a variety of industries and throughout the power system. Our Engineering Services team provides engineering expertise and system solutions to customers worldwide. SEL University offers training that helps our customers meet the technical challenges of integrating digital technologies into their expanding power system infrastructure.

Our history

Edmund O. Schweitzer, III, founded SEL in 1982 in Pullman, Washington. SEL introduced the world's first digital protective relay to the electric power industry in 1984. The SEL-21 revolutionized the power protection industry by providing fault locating and real fault data at a much lower cost than traditional electromechanical relays. In 2016, we set the standard for technology with the introduction of the world's fastest transmission line relay, the SEL-T400L Time-Domain Line Protection. And today we've introduced the SEL-T401L Ultra-High-Speed Line Relay that merges time-domain technology with phasor-based protection in a single device.

As part of a long-term strategy for sustained growth, stability, and customer focus, SEL became an employee-owned company in 1994 and transitioned to 100 percent employee ownership in 2009. Our ownership value is at the heart of our employees' hard work to reduce costs, increase quality, and create the superior products that enable us to fulfill our mission.

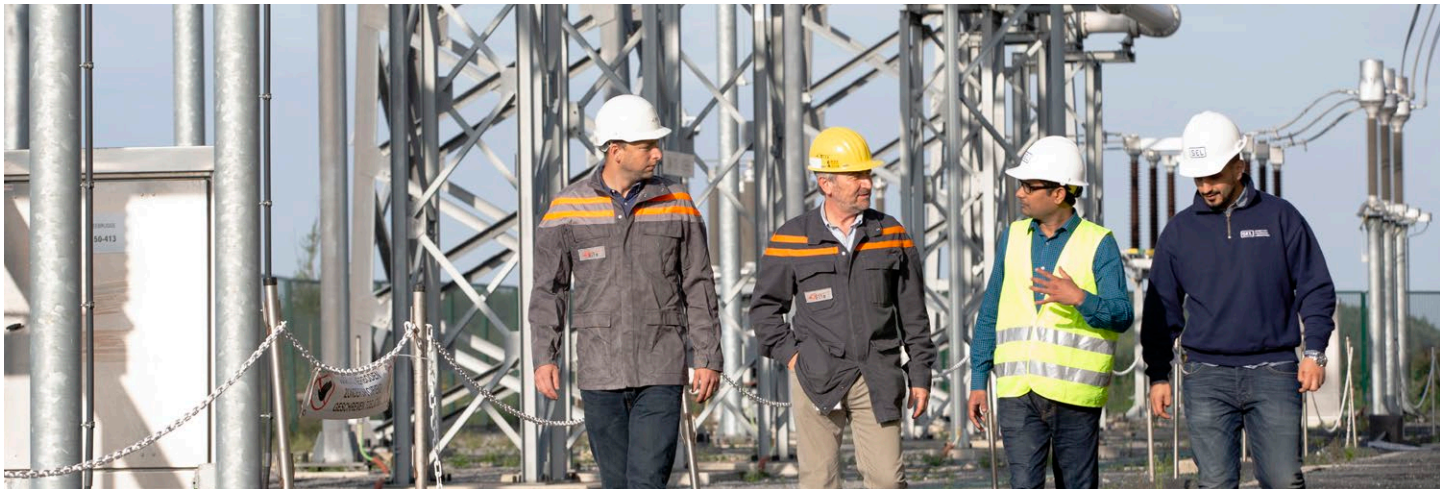
1984
SEL-21

Today
SEL-T401L

Industries we serve

From the beginning, we've provided solutions for electric utilities. As our company has grown, so have our product portfolio and the number of industries we serve. From airports and hospitals to the power grids of entire countries, SEL solutions are protecting and controlling critical operations around the world.

- Electric power generation
- Power transmission and distribution
- Oil, gas, and petrochemical
- Renewable energy
- Metals and mining
- Water and wastewater
- Pulp and paper
- Mission-critical power systems
- Government
- Education and healthcare
- Consumer product manufacturing
- Transportation



Engineering is our middle name

At SEL, we are passionate about our work, knowing it contributes directly to improving the reliability of electric power, keeping people safe, and helping customers conserve resources through efficiency, simplicity, and creativity.

We develop innovative products and services by focusing on the challenges our customers face. This helps us create the best solutions for a wide range of industries and applications. Every day, SEL engineers create new technologies and solutions to solve our industry's challenges.

Our commitment to quality

Because SEL equipment becomes part of critical—and complex—infrastructure, from the electric power grid to processing and manufacturing facilities, we focus on long-term reliability and quality.

We warranty our products for 10 years and design them to last more than 20 years, and after serving our customers for more than 30 years, we still don't charge for repairs—regardless of the age of the product. Our free repair policy generates useful data that we use to drive product and service improvements. Constant improvement is an integral part of quality at SEL because of the lives and critical infrastructure our products protect.

"As engineers, we work every day to invent, design, and support products that monitor, control, and protect power systems installed all over the world. Serving our industry is a tremendous privilege and responsibility that we take very seriously. Listening to our customers' requirements and needs, we strive to make our solutions innovative, reliable, easy to use, and secure. We invest in our people, tools, and facilities in order to produce designs that exceed our customers' requirements. Engineering is our middle name, and it's what we love to do."

—Dave Whitehead
Chief Executive Officer

Service and support you can count on

We understand the importance of local support, which is why we have application engineers, customer service representatives, and sales managers in over 100 offices worldwide. Our network of independent sales representatives and distributors provides additional sales support in many regions. This network of local experts supports SEL products and solutions in 165 countries, ensuring the best possible user experience.

SEL's outstanding customer service and support reflect who we are. Our commitment to serving our industry is consistent with our values and ethics. We believe strongly in our core company values, which are not only an essential part of our working environment but also the way we view our community, industry, and the natural environment.

"Society depends upon safe, reliable, and economical electric power. At SEL, we take our responsibility to this industry seriously. We strive to exceed expectations with extraordinary customer service, with expert application engineers who are always available to provide technical support close to our customers, and with sales engineers who solve problems by teaching and by adding value with SEL technology and innovation."

—David Costello
Chief Sales & Services Officer

Example Product Applications

Generators

Comprehensive Generator Protection (SEL-400G, SEL-700G)

Resistance Temperature Detection (SEL-2600)

Ground Fault Protection (SEL-2664, SEL-2664S)

Distributed Generation (DG)

Intertie/Wind Generator Protection (SEL-700GT, SEL-700GW)

DG Interconnection Recloser Control (SEL-651R, SEL-651RA)

Transmission Lines

Time-Domain Line Protection (SEL-T400L, SEL-T401L)

Traveling-Wave Fault Location (SEL-T400L, SEL-T401L, SEL-411L)

Subcycle Line Differential Protection (SEL-311L, SEL-411L)

Subcycle Distance Protection (SEL-421, SEL-311C)

Merging Unit With Built-In Distance Protection (SEL-421)

Power Transformers

Five-Winding Transformer Differential and Voltage Protection (SEL-487E)

Four-Winding Transformer Differential Protection (SEL-387)

Three-Winding Transformer Differential and Voltage Protection (SEL-387E)

Two-, Three-, and Four-Winding Transformer Differential and Voltage Protection (SEL-787, SEL-787-2/-3/-4)

Transformer Monitoring (SEL-2414)

Distribution Feeders

Distribution Protection (SEL-351, SEL-351A, SEL-351S, SEL-851)

Protection, Automation, and Bay Control (SEL-451)

Feeder Protection With Arc-Flash Detection (SEL-751, SEL-751A)

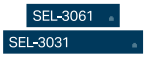
Voltage Regulator Control (SEL-2431)

Capacitor Bank Control (SEL-734B, SEL-734W and SEL-8340)

Fault Transmitter and Receiver System (SEL-FT50 and SEL-FR12)

Overhead and Underground Fault Indication (SEL-AR360, SEL-AR, SEL-ARU, SEL-TPR, SEL-CR)

Recloser Control (SEL-651R, SEL-651RA, SEL-351RS Kestrel®)



Encrypted Wireless Communication (SEL-3031, SEL-3061)

Compact Satellite-Synchronized Precise Time (SEL-2401)

Real-Time Automation Control (SEL-3505)

Wireless Fault Detection and Load Monitoring (SEL-FLT and SEL-FLR, SEL-8301)

Substations

Satellite-Synchronized Precise Time (SEL-2401, SEL-2404, SEL-2407®, SEL-2488, SEL-3401)

Protection, Automation, and Bay Control (SEL-451)

Low-Impedance Bus Differential Protection (SEL-487B)

Capacitor Protection and Control (SEL-487V)

High-Impedance Differential Protection (SEL-587Z)

Power Quality and Revenue Metering (SEL-735)

Programmable Automation Control (SEL-2411, SEL-2440)

Annunciation and Notification (SEL-2522, SEL-2523, SEL-2533)

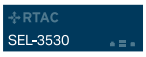
Merging Units With Built-In Protection (SEL-401, SEL-421)

Digital Secondary System Protection and Control (TiDL®, SEL-TMU, SEL-401, SEL-421, SEL-451, SEL-487B, SEL-487E)

Rugged Computing (SEL-3350, SEL-3355, SEL-3360)

Wide-Area Communications (SEL ICON®)

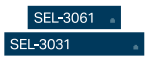
Modular I/O and Real-Time Automation Control (SEL-2240 Axion®)



Real-Time Automation Control (SEL-3530/3530-4, SEL-3555, SEL-3505/3505-3, SEL-3560)

Cybersecurity (SEL-3620, SEL-3622)

Rugged Ethernet Networking (SEL-2730M, SEL-2730U, SEL-2725, SEL-2740S)



Encrypted Wireless Communication (SEL-3031, SEL-3061)

Bluetooth® Serial Communication (SEL-2924, SEL-2925)

High-Speed Remote I/O (SEL-2507)

Fiber-Optic Communication (Fiber-Optic Transceivers)

Control Power Source Diversity (SEL-RPM)

Industrial/Commercial

Motor Protection (SEL-710-5, SEL-849, MOTORMAX®)

Power Quality and Revenue Metering (SEL-735)

Annunciation and Notification (SEL-2522, SEL-2523, SEL-2533)

Programmable Automation Control (SEL-2411, SEL-2411P, SEL-2440)

Feeder Protection With Arc-Flash Detection (SEL-751)

Rugged Ethernet Networking (SEL-2740S, SEL-2742S)

Fast Motor Bus Transfer (SEL-700BT, SEL-451)

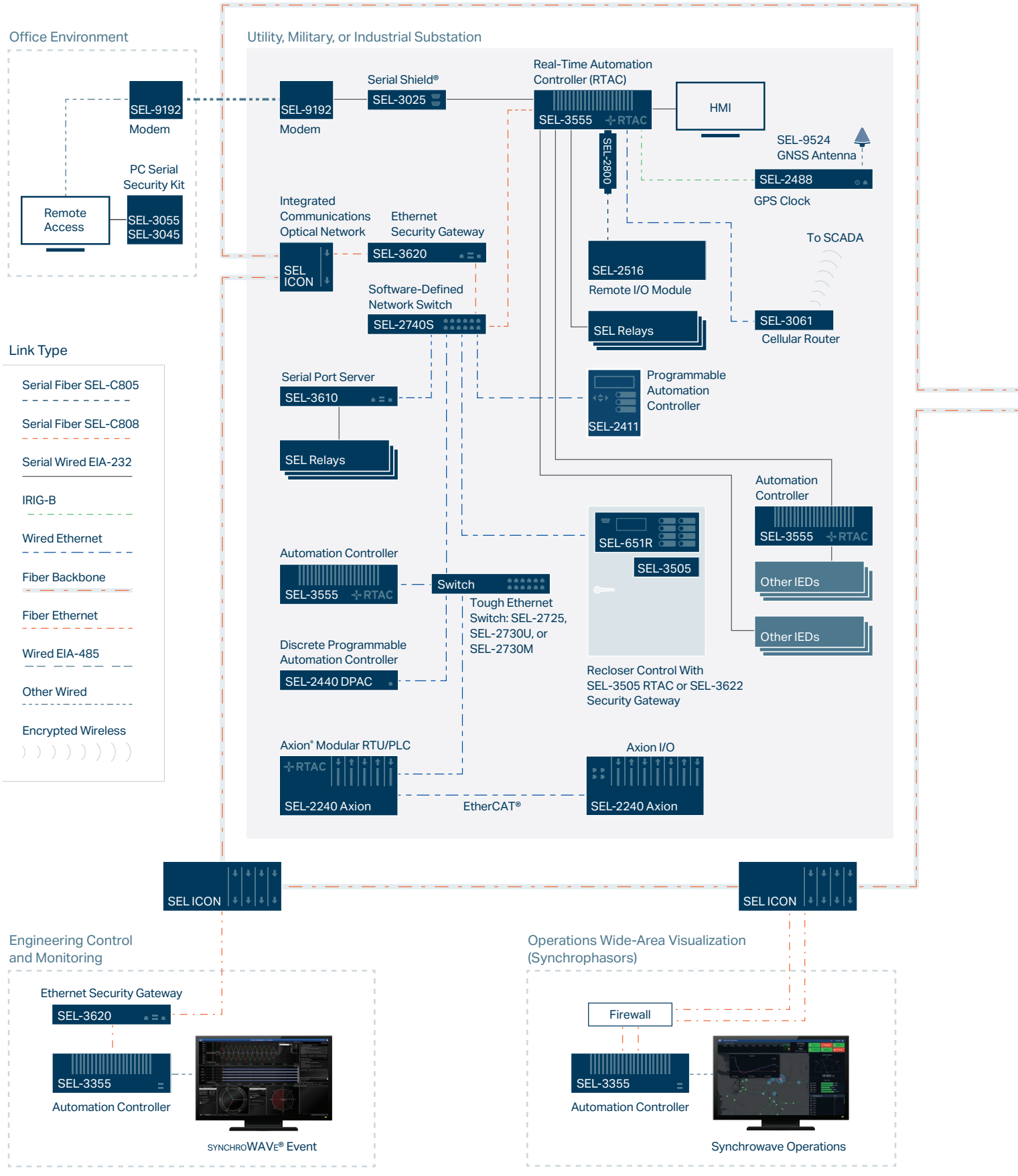
Industrial Automation and Computing (SEL-3350, SEL-3355, SEL-3360)

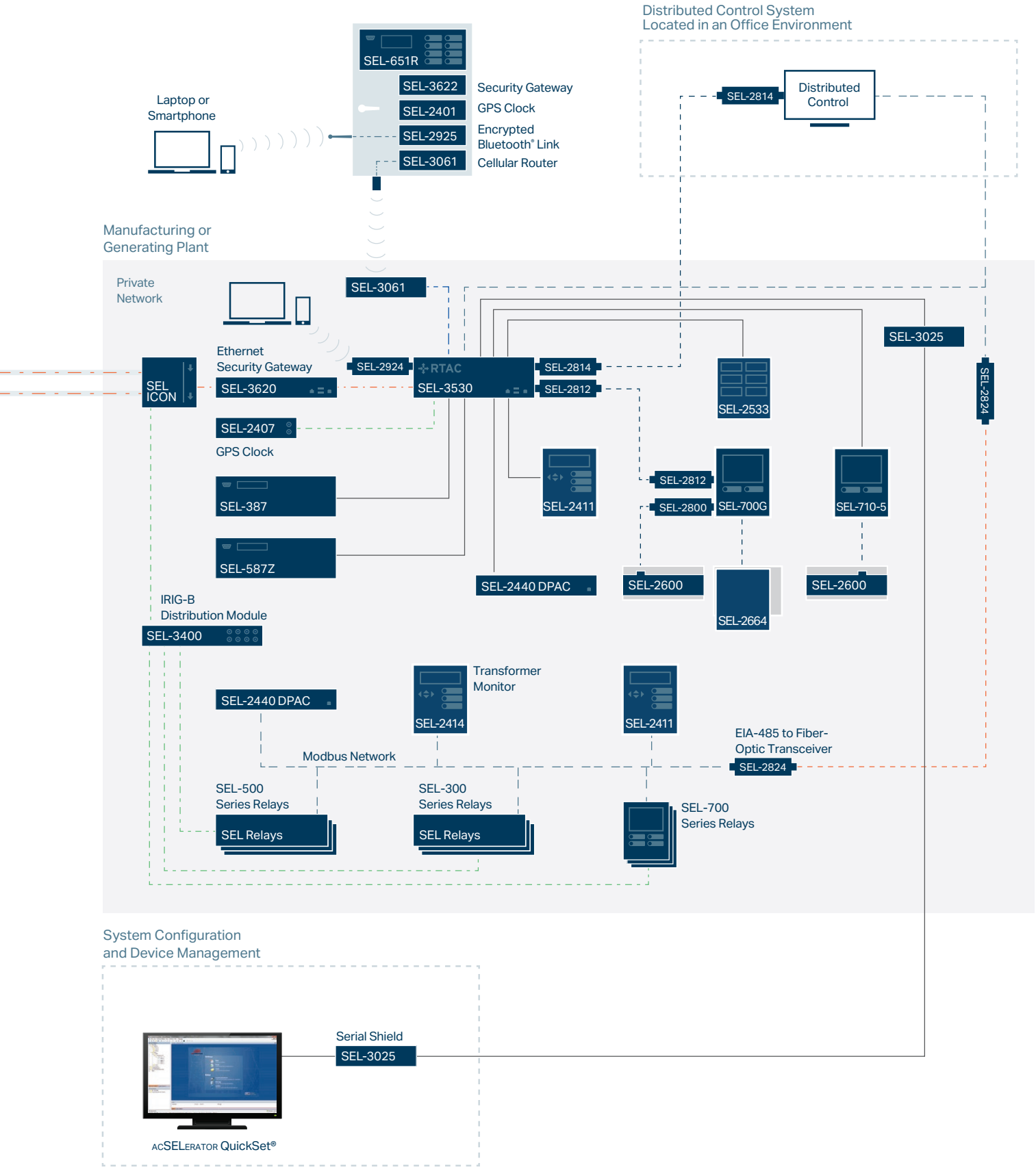
Modular I/O and Real-Time Automation Control (SEL-2240 Axion)

Cybersecurity (SEL-3620, SEL-3622)

Wireless Communications (SEL-3061)

Example Network Communications Diagram




Distributed Control System
Located in an Office Environment
SEL-2814
Distributed Control
Laptop or Smartphone
SEL-651R
SEL-3622
Security Gateway
SEL-2401
GPS Clock
SEL-2925
Encrypted Bluetooth® Link
SEL-3061
Cellular Router
Manufacturing or Generating Plant
Private Network
SEL-3061
SEL-3025
SEL-2824
Ethernet Security Gateway
SEL-2924
RTAC
SEL-3530
SEL-2814
SEL-2812
SEL ICON
SEL-3620
SEL-2533
SEL-2407
GPS Clock
SEL-2411
SEL-2812
SEL-2800
SEL-700G
SEL-710-5
SEL-387
SEL-587Z
SEL-2440 DPAC
SEL-2600
SEL-2664
SEL-2600
IRIG-B Distribution Module
SEL-3400
SEL-2440 DPAC
Transformer Monitor
SEL-2414
SEL-2411
EIA-485 to Fiber-Optic Transceiver
SEL-2824
Modbus Network
SEL-500 Series Relays
SEL Relays
SEL-300 Series Relays
SEL Relays
SEL-700 Series Relays
System Configuration and Device Management
Serial Shield
SEL-3025
ACSELERATOR QuickSet®