Enhance the Security of Your Remote Operations

SCADAPack 470i | 474i
Remote Smart RTU and Controller with Integrated Edge Platform

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Edge Control for a Connected World

SCADAPack™ 470i | 474i are rugged IT/OT platforms that provide robust process automation and flexible data logging for remote operations. The SCADAPack 470i | 474i combine OT RTU features such as IEC 61131-3 logic and telemetry protocol support with IT features including Role-Based Access Control (RBAC) management compatible with Microsoft's Active Directory™ and other LDAP compliant services.

Smart Controller for IT/OT Convergence

The SCADAPack 47xi is an Edge platform that can support assets that need IT and OT applications. OT users can use the SCADAPack 470i and 474i to leverage technologies such as web applications, Node-RED®, Docker®, Python™, MQTT®, and SNMP to solve OT problems such as reducing downtime, predicting maintenance needs, and improving production efficiency. At the same time, IT users can use tools such as Active Directory, CyberArk®, SSH, SFTP, and a Cisco® command line interface (CLI) to help secure critical infrastucture.

Edge Computer and RTU in a single unit

The SCADAPack 470i and 474i are configured using RemoteConnect, include a web server, and are designed for users to develop solutions by employing the large ecosystem of tools, forums, and libraries available for rapid development on embedded Linux devices. A software development kit is included to support development using C/C++ and other general-purpose languages, and containers can be used for development in languages such as Python and easy deployment to the field

Industrial-Grade IIoT

Rugged SCADAPack 470i and 474i hardware supports operating temperatures of -40...70 °C (-40...158 °F), robust vibration ratings, and has cULus Class I, Division 2 and ATEX/IECEx Zone 2 hazardous area certifications. SCADAPack x70 RTUs use components that will be available in the long term making them the remote IIoT Edge platform of choice for many years to come.

Internet Protocols

Use applications such as Node-RED or EcoStruxure™ RTU Operations Expert to communicate using:

- LDAP/LDAPS
- SSH
- SFTP
- MQTT
- Sparkplug™ B
- SNMP
- REST API
- and more...

Edge Control for a Connected World

A single edge platform to support the network architectures of IT/OT convergence

Leverage Linux

- Get more data more easily from remote infrastructure/assets using telemetry protocols such as Modbus, DNP3, and IEC 60870-5-104 to your SCADA and/or the cloud, with the capability to use IIoT protocols such as MQTT, Sparkplug B, and OPC UA
- Combine the powerful SCADAPack data logging capability with the ability to use Python to shape, filter, and analyze data to provide information to SCADA or the cloud, or make operational decisions right at the edge
- Develop applications with general purpose programming languages such as C/C++ or Python using the SDK (including a RBAC API) or Docker containers
- Develop custom web applications using tools such Node-RED[1] and more
- Leverage skills, training, and code by exploiting the large online ecosystem of libraries, forums and sample code to develop solutions quickly and easily with standard Linux development environments
- Help technicians in the field focus more on solving operational problems, with a platform that can provide information from the field direct to users' phones and laptops using custom web applications

Cybersecurity at its Core

- Centralized user credentials and role management compatible with Microsoft's Active Directory and other LDAP compliant services
- Local user credentials with optional password management compatible with IT standard tools available with Cisco CLI
- SSH login for Realflo and SCADAPack RemoteConnect software
- Control IP communications using included IP firewall and Network Address Translation (NAT) for communications and Linux applications
- Read-only Linux root file system on the SCADAPack 470i provides a more secure infrastructure with root-like access for user applications using Linux overlay file system technology
- Use the SDK for the SCADAPack 470i to develop applications, and to generate and manage the overlay file system content in a bundle that is cryptographically signed by the user for security
- Load security certificates on to the SCADAPack device using a privileged mode, allowing an administrator to approve which content is permitted
- The SCADAPack 470i and 474i check the digital signature of a customer loaded overlay bundle against the approved security certificate. Unauthorized content is not loaded and does not execute on the SCADAPack device.
- Use AppArmor with individual applications and containers to develop and implement profiles and restrict access to only needed permissions and resources
- Employs a secure boot process to resist software-injection attacks by malware and to help protect data stored on the device
- Designed using the IEC 62443-4-1 Secure Development Lifecycle process for compliance with industry cybersecurity standards.
- Rugged IP communications and RTU operations tested to comply with Achilles® Level 2 and Synopsis Defensics™

Cybersecure Aligned

As a member of the Global Cybersecurity Alliance, Schneider Electric affirms openness and advocacy for securing the digital economy and strengthening cybersecurity policies and laws to benefit customers, partners, and its extended ecosystem.

ISA GLOBAL CYBERSECURITY ALLIANCE Founding Member

Control and Compute

An IIoT Edge platform that combines an RTU with an edge computer

A Powerful Smart RTU and Controller

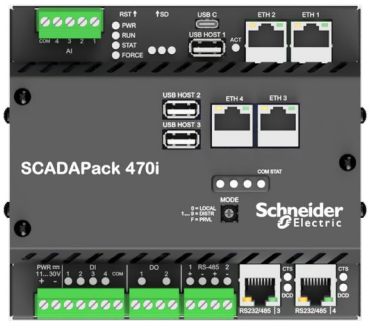
- Integrate easily with EcoStruxure Geo SCADA Expert's ability to remotely manage SCADAPack x70 configurations and firmware
- Tagged (named) object databases allow I/O, configuration, logic, and application information to be communicated using open standard telemetry protocols such as Modbus, IEC 60870-5-104, and DNP3 and exchanged with Linux applications and IIoT protocols
- Create IEC 61131-3 logic, with 5-language support, using the SCADAPack x70 Logic Editor
- Use the SCADAPack's Realflo flow computer to provide gas and liquid flow measurement for pipelines, well test, allocation measurement, production optimization, and well pad control
- Deploy site-specific web applications hosted by the SCADAPack 470i and 474i to provide toolless dashboard-style interfaces for operators to monitor and control sites using their phones, PCs, or tablets reducing the need to maintain and service additional applications

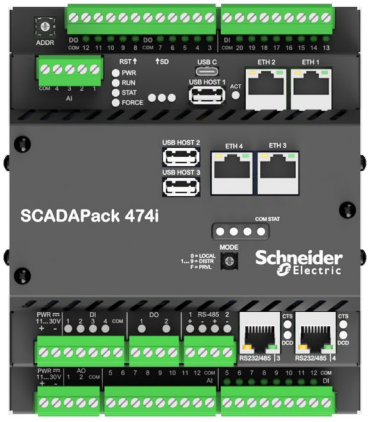
Designed for the Long-term

- Using Schneider Electric's world class supply chain, the SCADAPack 470i and 474i are built with components available to Schneider Electric for the long-term to help ensure the platform is available now and for many years into the future
- Designed to last with an anticipated mean time before failure of over 70 years

Footnotes:

[1] Node-RED is a flow-based programming tool maintained and authored by the OpenJS Foundation & Contributors which can be used on a SCADAPack 470i and SCADAPack 474i.





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