ProSoft Technology
Control Tech CZ
11.2014

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ProSoft Technology

ProSoft® TECHNOLOGY
Where Automation Connects.™

Agenda

- Introduction
- Wireless solutions
  - New 802.11abgn radios
  - Radiating Cable
- Standalone gateways
  - New gateways
  - PROFIBUS
  - Energy
  - Factory Utilities
- Rockwell Automation in-chassis solution
  - New enhancements
  - New protocols

ProSoft® TECHNOLOGY

ProSoft Technology
General information

ProSoft®
TECHNOLOGY
Where Automation Connects.

ProSoft Technology EMEA

"ProSoft Technology, with our partners, optimizes industrial productivity with innovative communication solutions"

Rockwell Automation
Encompass
Product Partner
Global

ProSoft TECHNOLOGY

Technical support eng. In PL

- New Support Engineer in Warsaw office
- Support in Polish, English, German and Russian
- Basic knowledge of French, Swedish

- 3 engineers in France
- Support in French and English

- We are hiring Tech support Eng. For Dubai office

ProSoft TECHNOLOGY

20+ Years of innovation

2014 – LDM, ILX34, RLX2-FH …

2013 – RLX2, MVI56E new firmware, MVI69L/E, SIE

2012 – **NEW** range of PLX31 gateways and Micro800 SMS module

2011 – ProLinx IEC61850 gateway solutions and P3 Partners program

2010 – Automation-class **Industrial 802.11n** wireless

2009 – Introduction of "**Message Manager**" in-rack protocol interface

2008 – **Wireless POINT I/O** development

2006 – 802.11 standard +"**Reliable I/O Message Delivery**" to transport EtherNet/IP

2004 – Acquisition of Locus for their 2.4 GHz **Industrial Wireless** technology

2000 – ProLinx standalone **Interface** Gateways

1999 – Regional office in **Asia**, in **Latin America**

1997 – First regional office outside USA, in **France**, to get closer to users

1993 – **Growing range of protocols**, with first **in-rack modules**

1992 – Strengthen **partnership** with Allen-Bradley

1990 – Company is **created**: "**ProSoft Technology, Inc.**"

1988 – Opened **Allen-Bradley PLC-5** to **Modbus** => **EEPROM**

ProSoft TECHNOLOGY

Automation Markets

Oil & Gas

- Pipeline Monitoring
- Pump Control
- Refinery Automation
- Off-shore Platform
- Drilling & Fracturing

Water & Waste Water

- Water Treatment
- Well, Lift Station, Pump & Tank Control

Factory Automation

- Packaging
- Bottling
- Crane Control
- Robotic Automation
- Inventory Retrieval

Mining, Materials & Cement

- Stacker / Reclaimer
- Metal Refining
- Open Pit & Strip Mining
- Underground Mining

Energy & Utilities

- Automatic Meter Reading
- Load Management
- Substation IED Communication
- Wind Farm
- Nuclear Power

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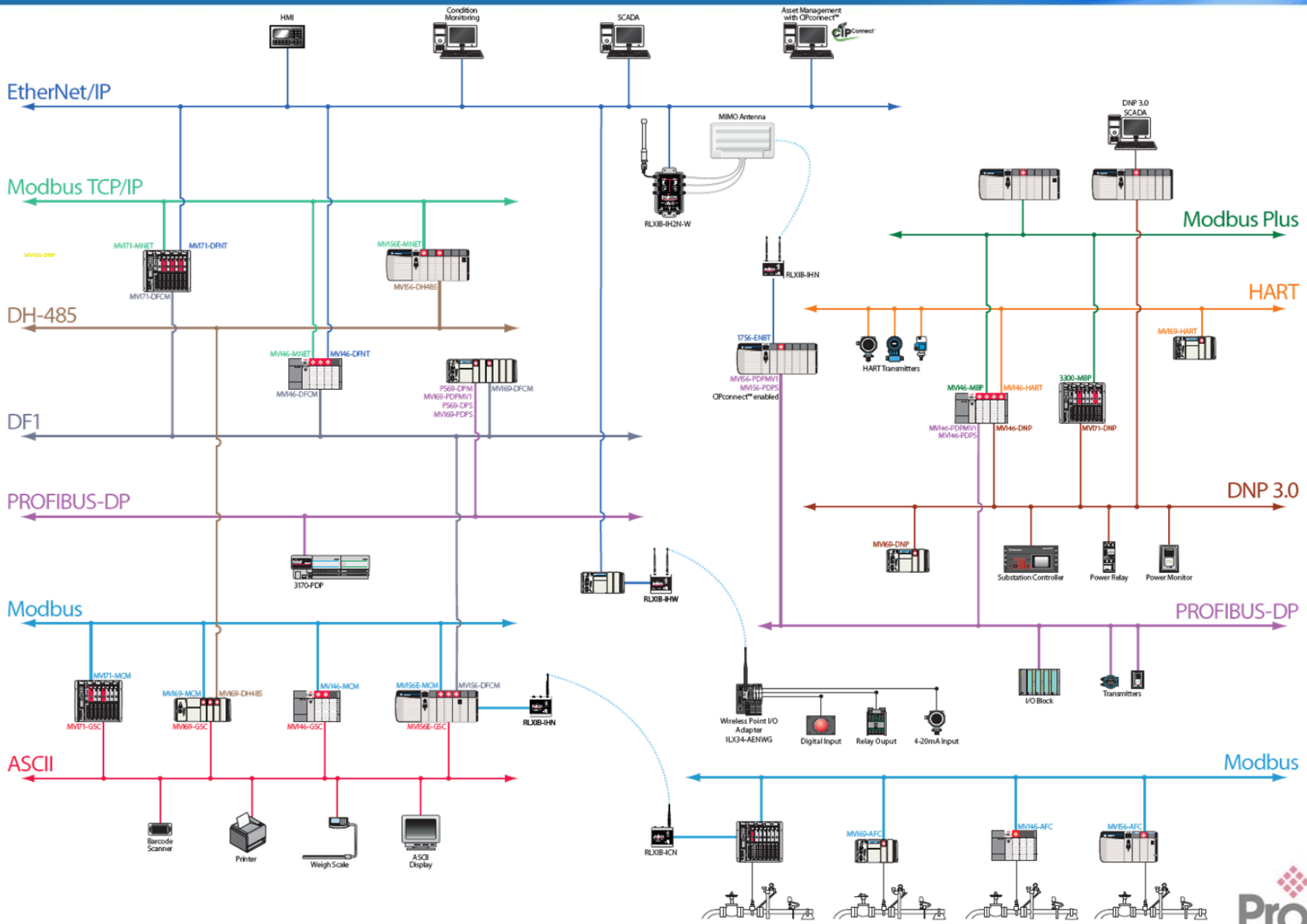

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Hardware Product Solutions

- 185+ in-rack solutions for Rockwell Automation
- 160+ stand-alone interface gateways
- 40+ Industrial Wireless solutions

Communication solutions for industrial automation: **ABB**, **Emerson**, **Honeywell**, **Invensys**, **Mitsubishi**, **Rockwell Automation**, **Schneider Electric, Siemens**, **Yokogawa**…

Rockwell Automation
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Global

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  - New 802.11abgn radios
  - Radiating Cable
  - Application examples
- Standalone gateways & migration solutions
  - New gateways
  - PROFIBUS
  - Energy
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- Rockwell Automation in-chassis solution
  - New enhancements
  - New protocols

Wireless

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Industrial wireless solutions

Why use wireless?

- Save money by saving time
- Save money reducing plant wiring costs
- Communication to moving/spinning equipment
- Harsh environment communications
- Remote access for mobile workers
- Wireless as an alternative to Leased Telephone Line
- Remote access for data recording, alarms follow-up, programming

Don't say ~~NO~~ to wireless just because you don't KNOW wireless...Talk to ProSoft Technology

RadioLinx® Industrial wireless made easy

802.11abgn

- 802.11a/g/b/n
- Up to – 300Mbps
- High speed I/O communication
- Short range SCADA
- Mobile application
- Video
- ATEX approval

Radiating cable

- Installed instead of antenna
- Conducts RF waves
- Ethernet speed up to 300Mbs
- Guaranteed LOS
- Moving/rotating applications with 802.11n radios

Frequency Hopping

- 900MHz & 2.4GHz
- Ethernet & Serial
- 19.2kbps – 1.1Mbps
- 1 Watt
- Long range SCADA

Cellular

- 3G GSM & CDMA
- Remote SCADA
- Remote Machine Access

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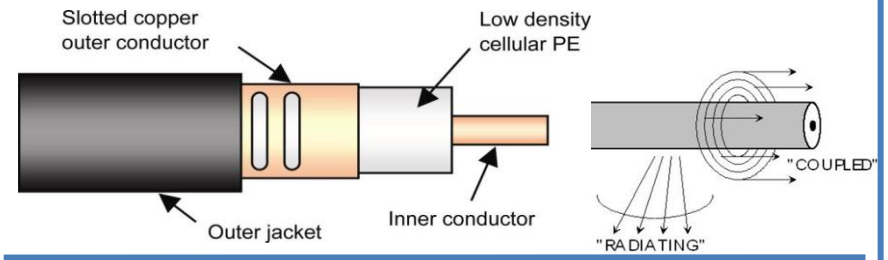
Introducing Radiating Cable

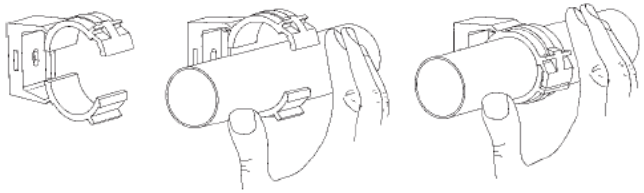
What is Radiating cable?

- **Used wherever normal radio communication is difficult or impossible**
- A coaxial cable which emits and receives radio waves, functioning as an extended antenna.

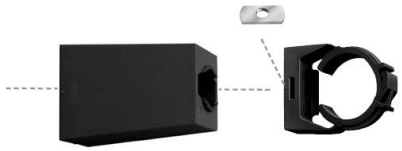


Easy to install

- Cable would be firmly fixed every meter by using clips



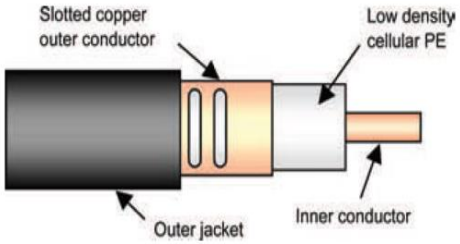
- Clips can be fixed above spacers to keep distance from wall or surface

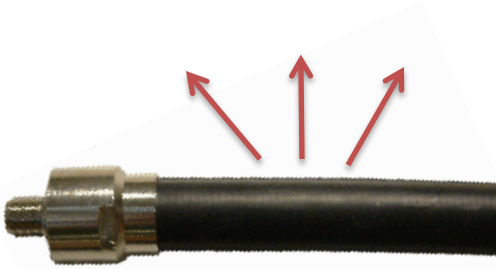


Feature	Benefit
Radiating cables are used wherever normal radio communication is difficult or impossible	**Used in metallic environments, rotating/spinning machines, conveyors, AGV, warehousing, etc**
Avoid signal variation	Wireless signal more stable in terms of response time - useful in communicating with I/O
Good signal coverage in the area you want to cover	Limits wireless coverage Allows radio channel management Reduce the interference from other networks increase security
Pre-assembled cable is easy to install	Save time and money
Adjustable cable lengths of **pre-assembled cable**	Length can be adjusted according to your application
Tested for short and medium range distance application	Up to 100 meters cable long connected with one radio module
Position the radio antenna near to the radiating cable	Easier to keep clear line of sight in metallic environment, obstacles, rotating machines, etc

Radiating Cable System

- Radiating Cable (RC)
  - RF transmitted through slots cut into the shield (under the insulation)
  - Acts as a long, flexible antenna
  - Provides uniform RF signaling along monorail tracks
  - Solves line-of-sight challenges in corridors and tunnels
  - Supports 802.11 2.4 GHz or 5 GHz wireless systems





Radiating Cable System

Terminated Cable

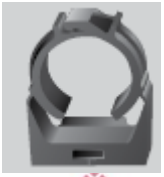
Prosoft Part Number	Description
RCL50-50-20M-US	20m Radiating Cable, N jack - N jack, 2.4 GHz
RCL50-50-50M-US	50m Radiating Cable, N jack - N jack, 2.4 GHz
RCL50-50-100M-US	100m Radiating Cable, N jack - N jack, 2.4 GHz
RCL50-50-125M-US	125m Radiating Cable, N jack - N jack, 2.4 GHz
RCL50-50-200M-US	200m Radiating Cable, N jack - N jack, 2.4 GHz
RCH50-50-20M-US	20m Radiating Cable, N jack - N jack, 5 GHz
RCH50-50-50M-US	50m Radiating Cable, N jack - N jack, 5 GHz
RCH50-50-100M-US	100m Radiating Cable, N jack - N jack, 5 GHz
RCH50-50-125M-US	125m Radiating Cable, N jack - N jack, 5 GHz

Bulk Cable

Part Number	Description
Bulk Cable	
RCLB-500M-BE	500m Radiating Bulk Cable - 2.4 GHz
RCLB-1000M-BE	1000m Radiating Bulk Cable - 2.4 GHz
RCLB-1500M-BE	1500m Radiating Bulk Cable - 2.4 GHz
RCHB-500M-BE	500m Radiating Bulk Cable - 5 GHz
RCHB-1000M-BE	1000m Radiating Bulk Cable - 5 GHz
RCHB-1500M-BE	1500m Radiating Bulk Cable - 5 GHz

RC Hardware

- Spacers, hangers, clamps, connectors & terminators



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Radiating Cable Applications

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Typical applications

- Communication inside a rail tunnel, road tunnel, subway

But today leaky cable is also used for other types of mobile applications :

♦ Distribution warehouse ♦ Cranes in aluminum plant ♦ Baggage handling system ♦ Funiculars ♦ Trolleys ♦ Monorail ♦ Conveyors ♦ Rotating machines ♦ Slip ring communication replacement ♦ Mobile application with I/O communication ♦ …

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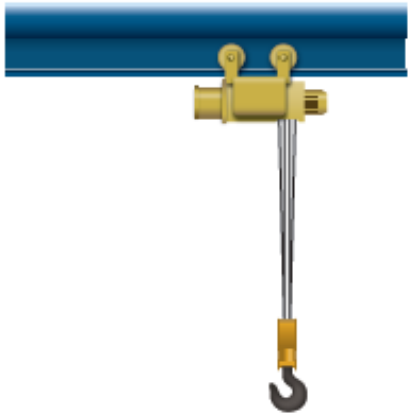
Metal environment

- Warehouse : wireless connectivity for mobile workers, AGV, conveyors,…
- Cranes inside the building, cranes for aluminum production, …



Benefits :

- Metal environment is not an issue
- Easy to install
- No wave outside your building.

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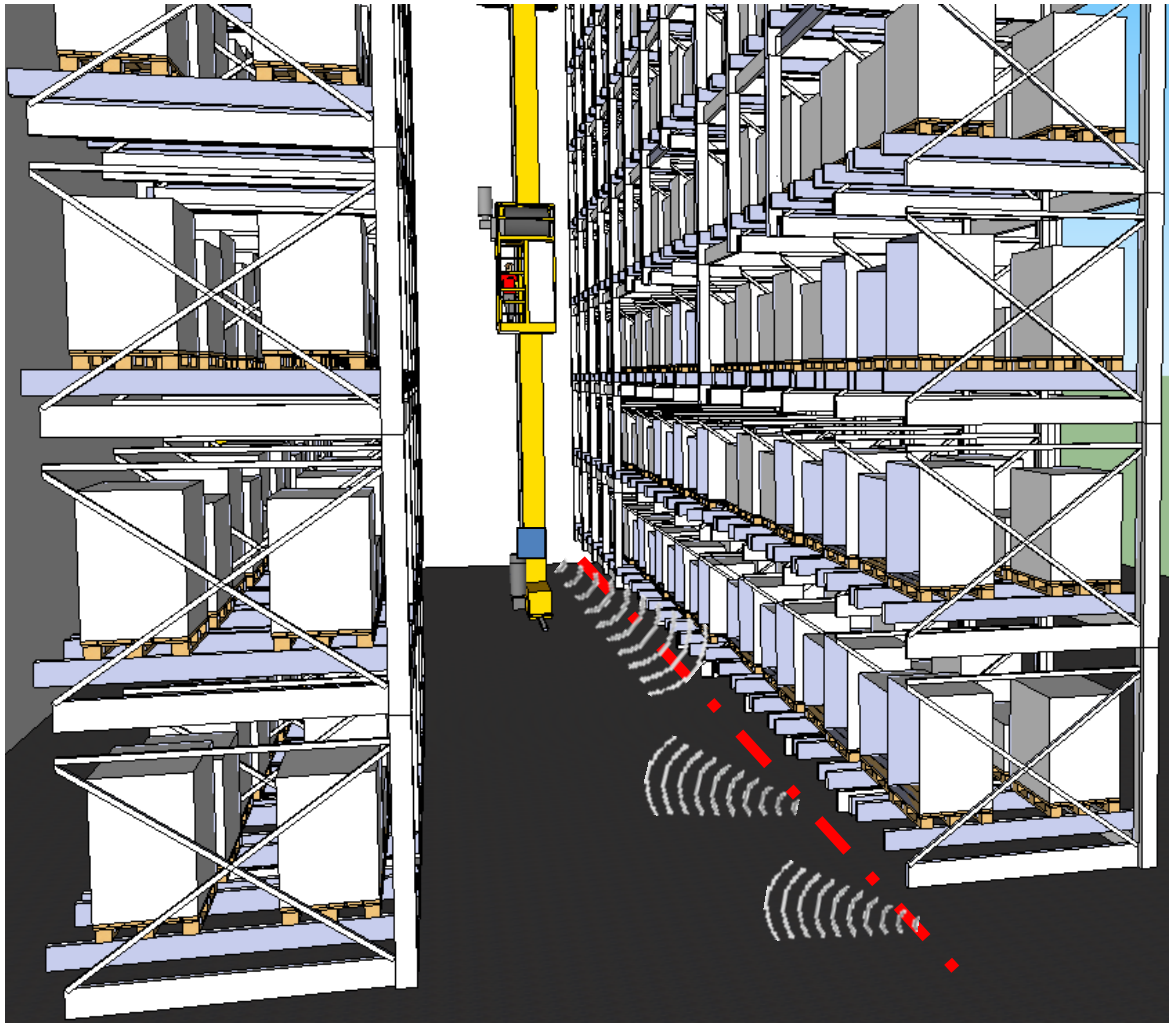
Rackstacker

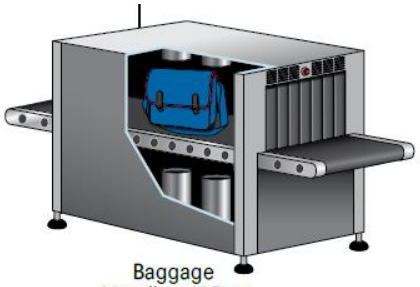


Patch Antenna Solution

Radiating Cable

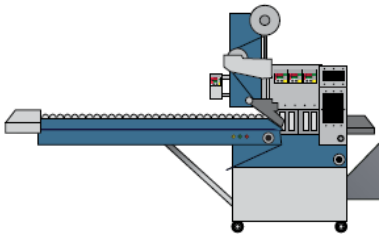
Conveyor technology

- Mobile vessels moving along a trail, like airport baggage handling system, …
- Monorail trolley inside a manufacturing : like car factory, …



Baggage Handling X-Ray

- In general : Path with obstacles (pylons, other machines, …)



Benefits :

Near field application : only few centimeters between mobile antenna and the leaky cable.

→ clear line of sight guaranteed !

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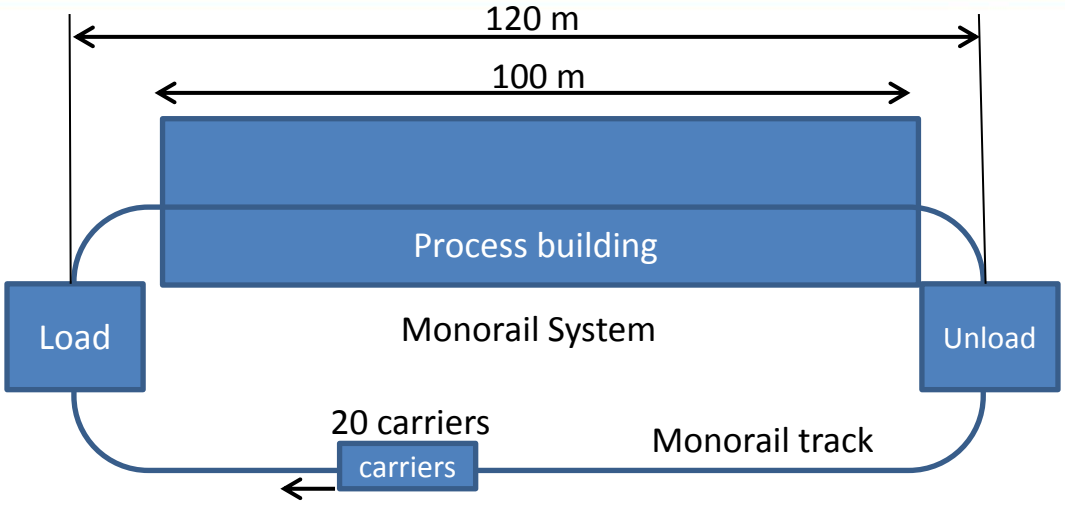
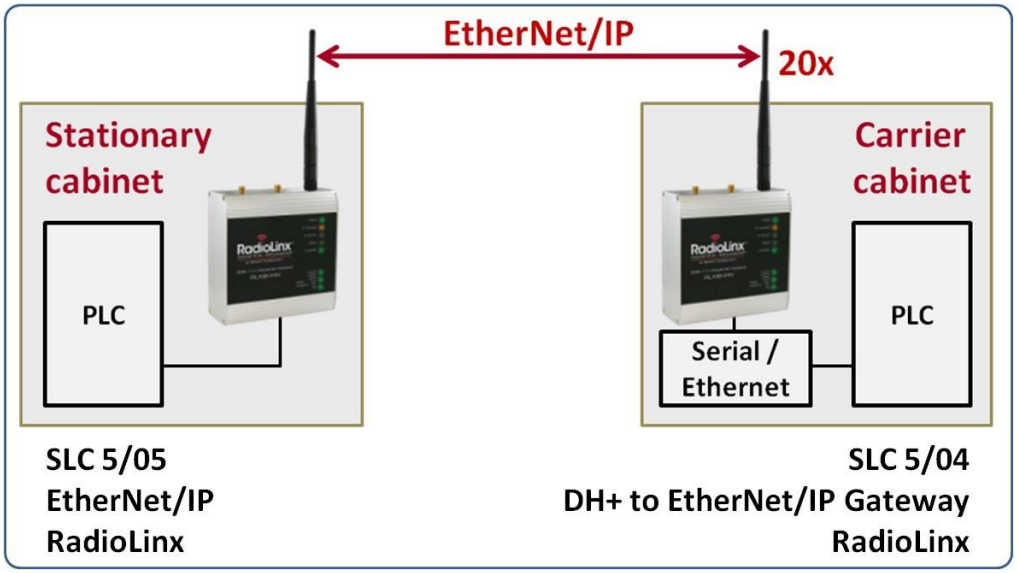
Wireless carries at FORD SPb

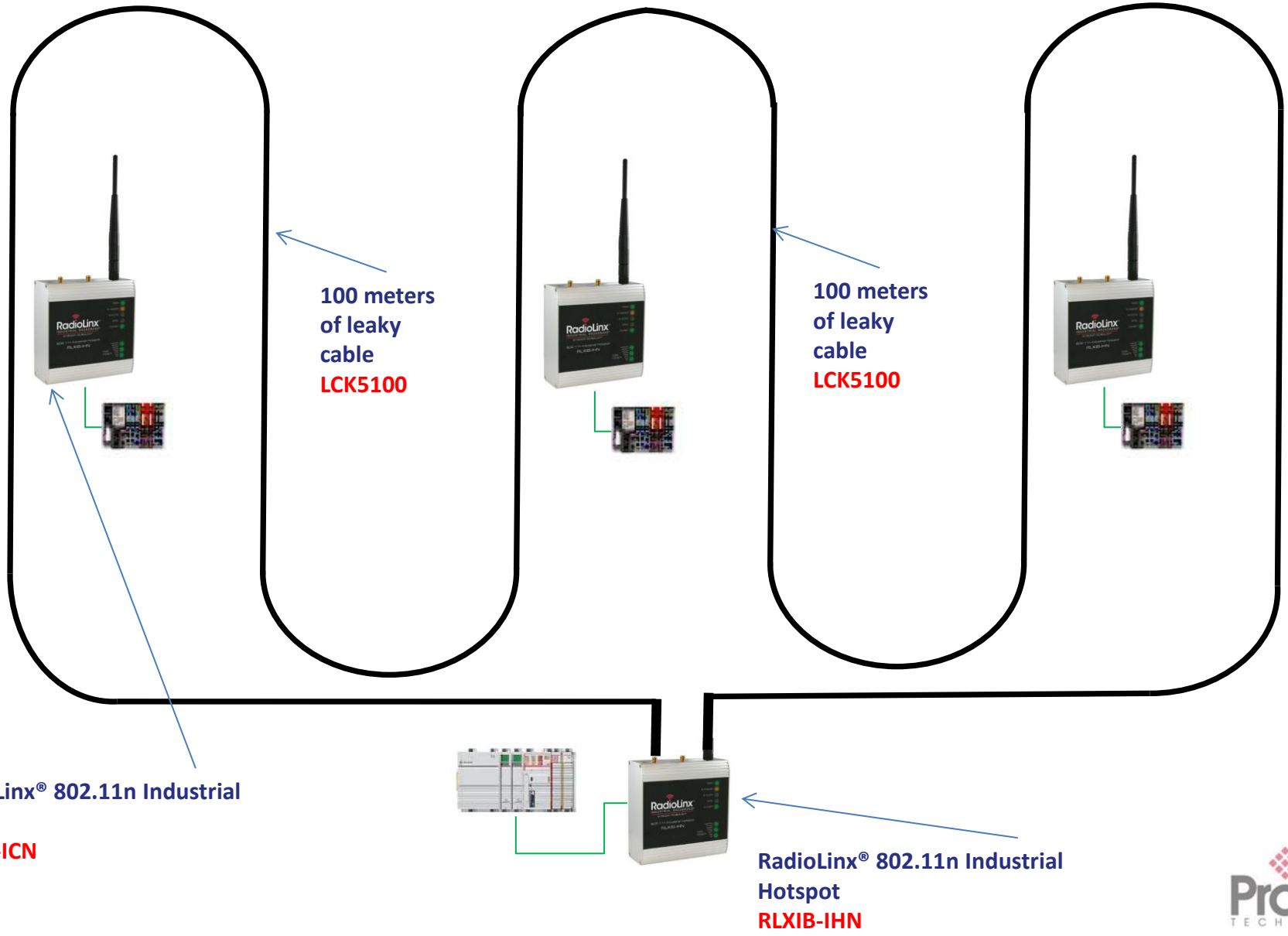




Ford St Petersburg
Vsevolozhsk facility.
The RadioLinx Automation-class wireless solution from ProSoft Technology, allowed the number of carriers simultaneously in use over the loop in the paint-shop, to grow from 13 up to 20. Almost 54% increase!

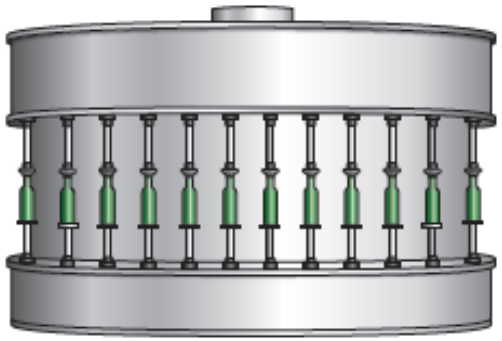
Migrating **DH+** to **EtherNet/IP** and **slip-ring** to **RadioLinx** network

Amusement ride OEM



Rotating machines

- All types of rotating machines : carousels, entertainment equipments, typical applications with slip ring communication replacement



Rotating
Bottling Line

Benefits :

Near field application : only few centimeters between mobile antenna and the leaky cable.

→ clear line of sight guaranteed !

ProSoft TECHNOLOGY

ProSoft Technology Solution

- Our solution
  - 2 radios and 15m Radiating cable working on 5GHz
  - R
  - R
- Cust
  - V
  - P in
  - S Te
  - C

Test environment

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RLX2
New radio familly

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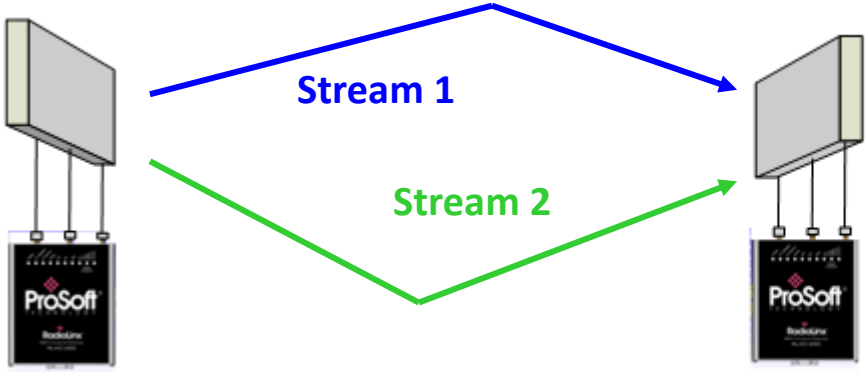
802.11abgn Fast Industrial Hotspot

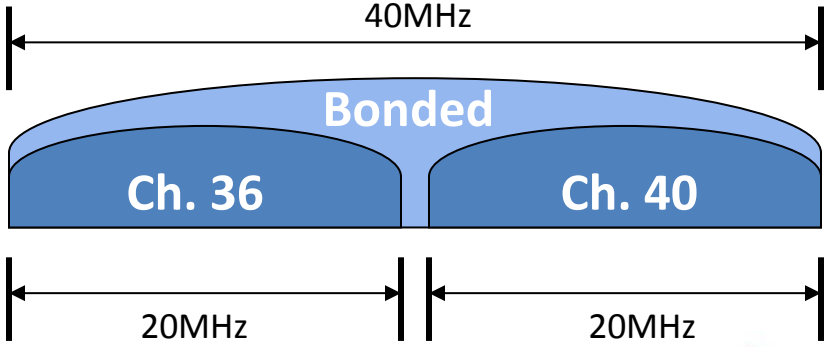
- High speed 802.11n technology
  - Channel Bonding & MIMO Antenna (2 streams)
  - Up to 300 Mbps RF data rate
  - 2.4 GHz or 5 GHz band – including DFS channels
- Optimized for Ethernet IO & Producer/Consumer systems
  - Up to 4,000 packets/sec – very fast scan rates
  - IGMP snooping/packet filtering

NEW

Multiple Data Streams (MIMO)



Multiple Channels (Bonding)



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802.11abg Industrial Hotspot

- High speed 802.11abg technology
  - Up to 54 Mbps RF data rate
  - 2.4 GHz or 5 GHz band
  - For general usage

- RLX2 Famillly Fearutes
  - Fast roaming (less than 50ms) with full bridging
  - Free OPC server
  - SD recovery card
  - IGMP snooping/packet filtering
  - Serial server transparen or with Modbus and DNP ethernet encapsulation

NEW

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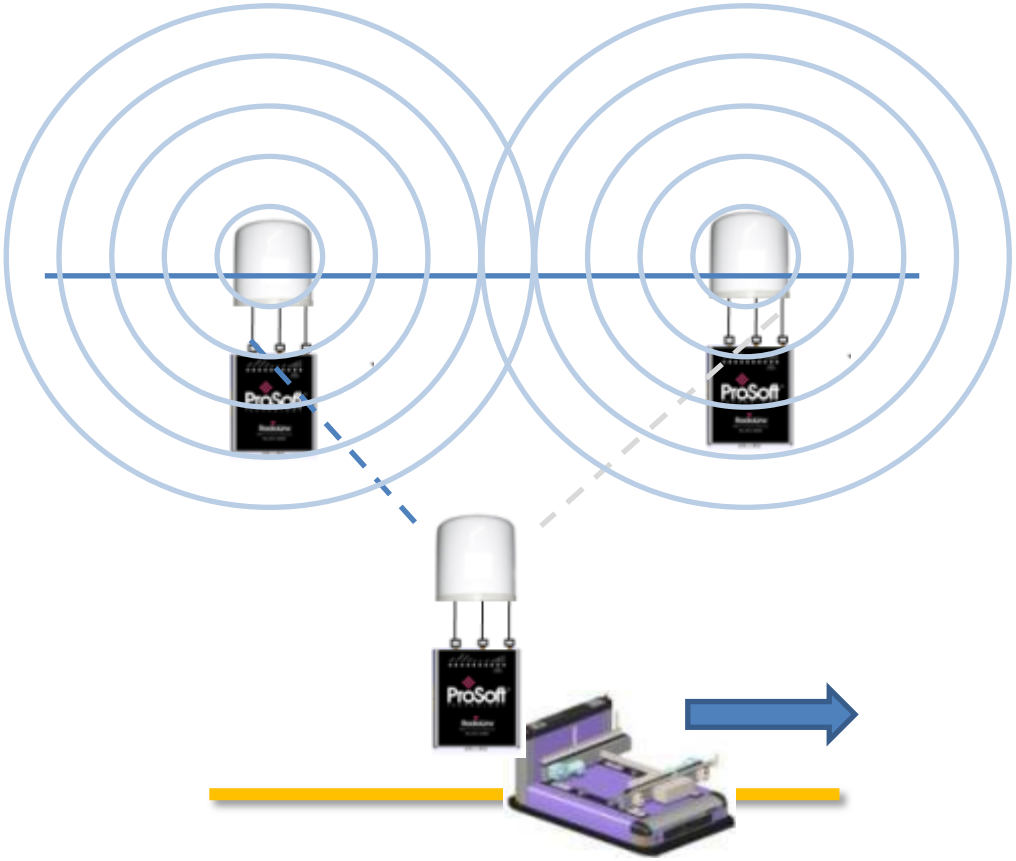
ProSoft FAST ROAM Technology

- *Fast Roam* between Access Points
  - Less than 50 msec roam time
  - Bridging – multiple Ethernet devices on machines/carriers
  - No Wireless Controller required



Overhead Cranes

Automotive Assembly

Automatic Guided Vehicles

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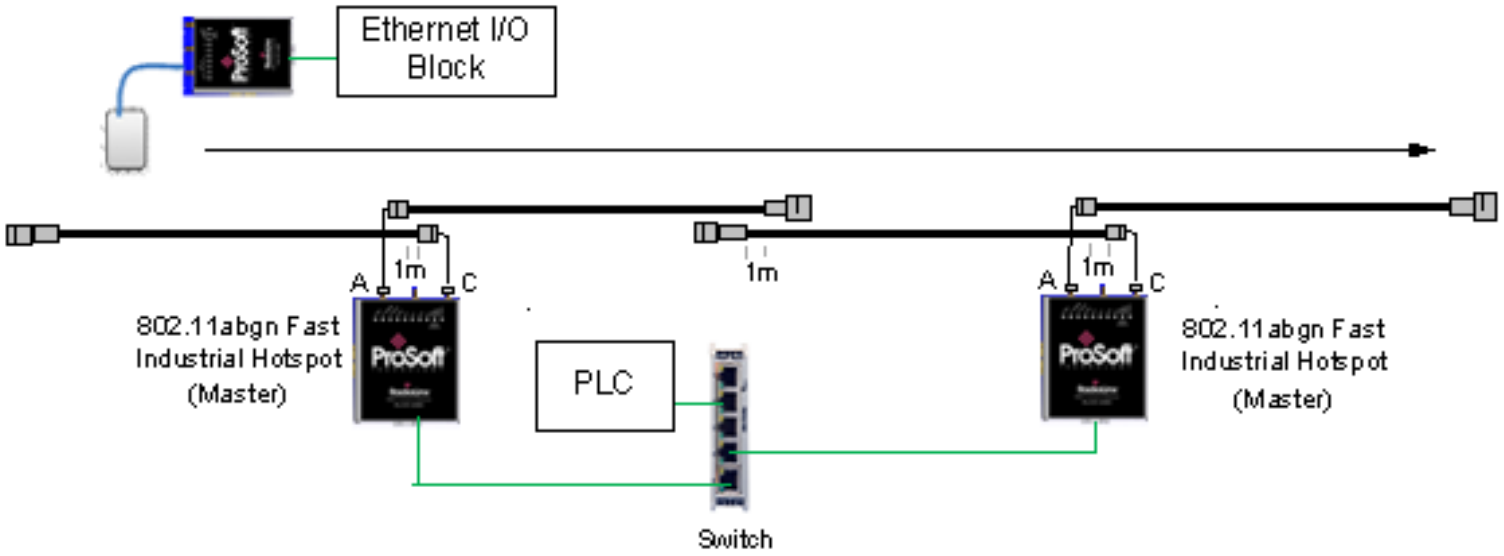
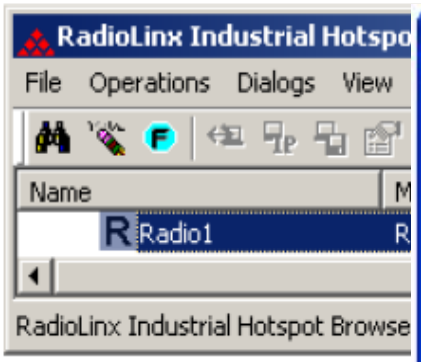
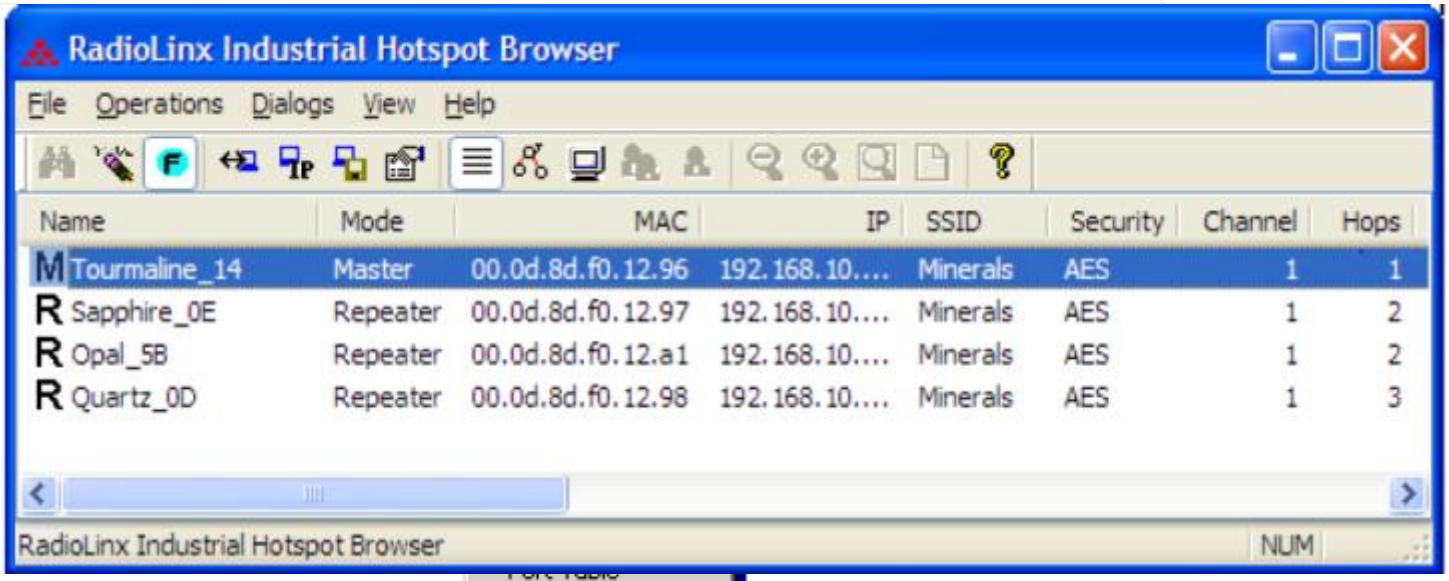
Radiating Cable System

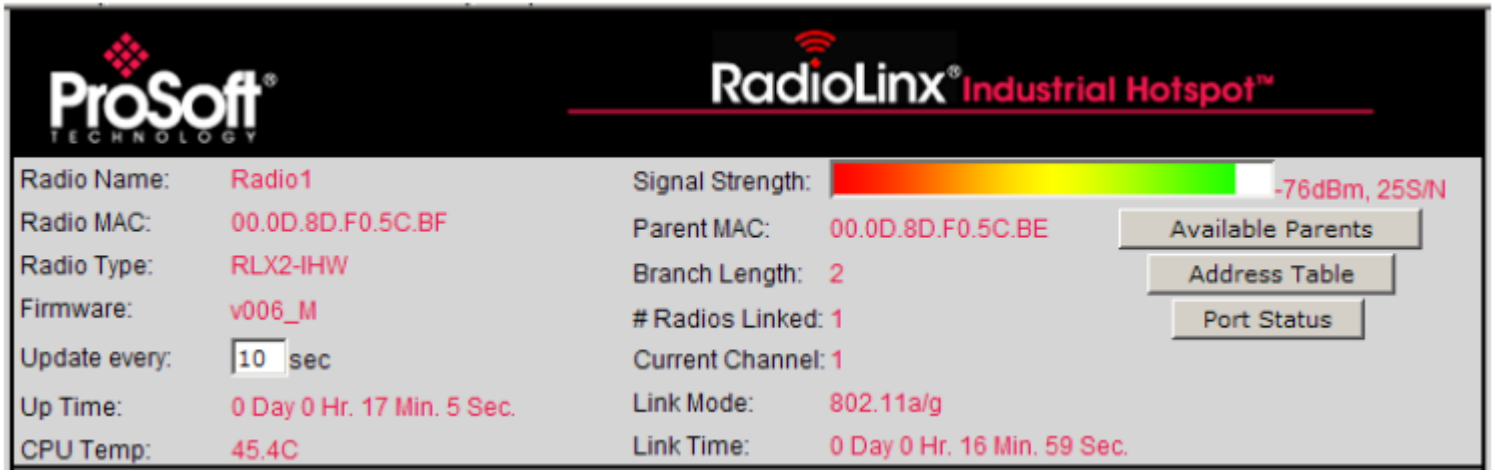
- 802.11abgn Fast Industrial Hotspot Performance
  - 2 RC segments per radio (up to 125m per segment)
  - Fast Roam support
    - less than 50 ms transfer time between masters
  - Up to 150 Mbps



Advanced Management Tools







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Designed for Extreme Conditions

- Extended Operating Temperature
  - - 40 to + 75 C (-40°F to +167°F)
- High Shock/Vibration Rated
- Hazardous Location Certified
  - Class 1, Division 2
  - ATEX Zone 2
- Industrial Power Options
  - 12/24 VDC
  - Power over Ethernet (PoE)

RLX2-IFH24E-E

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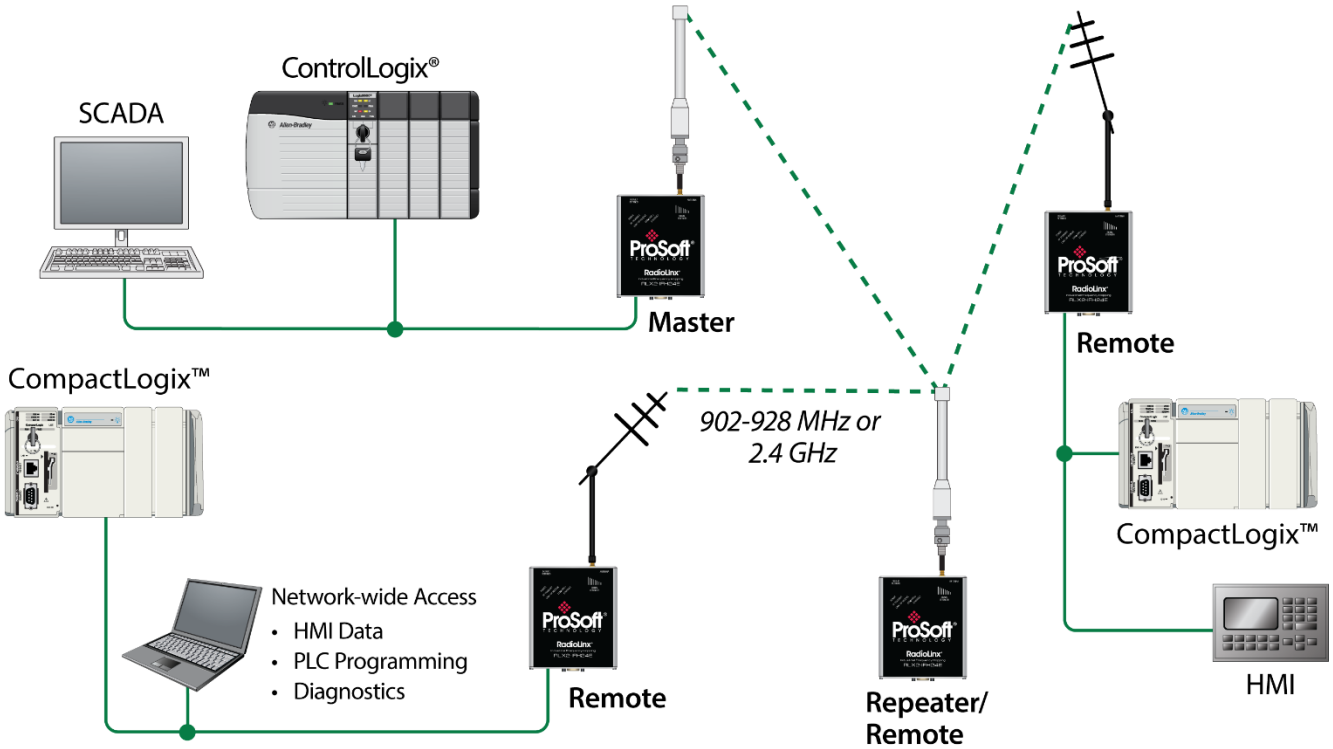
RLX2-IFH24E-E

- New hardware platform
- Full backward compatibility
- Enclosure dimension change



New GSM radio

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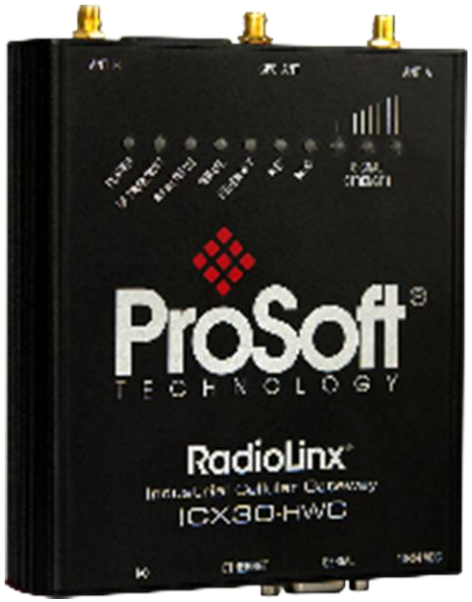
ICX30-HWC

- Main parameters
  - Single unit for all regions, 3G, EDGE, GPRS
  - EtherNet/IP Class 3 Server
  - Serial and Ethernet communications
  - Web page configuration
  - AOI available for quick EtherNet/IP implementations



- Features
  - GPS, Ethernet I/P reporting
  - I/O, 2 programmable DI or DO
  - I/O, 2 Analog inputs, 0-20mA & 0-12VDC
  - Digital I/O SMS reporting
  - VPN tunneling
  - DHCP server
  - Port forwarding and MAC filtering security

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Technical Support

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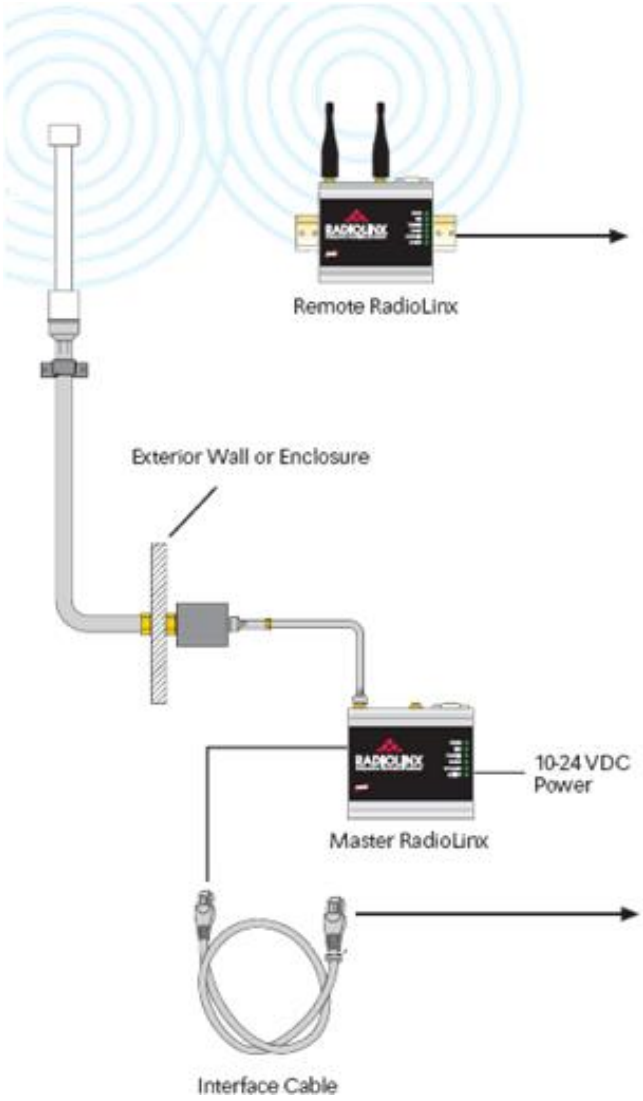
Wireless is easy …

- The solution is **not only radio module**



The solution is not only solved by choosing the radio module.

Cables,
Antennas,
Splitters,
Lightning Protection,
etc.,
build the whole solution.

Wrong choices can generate a lot of problems.

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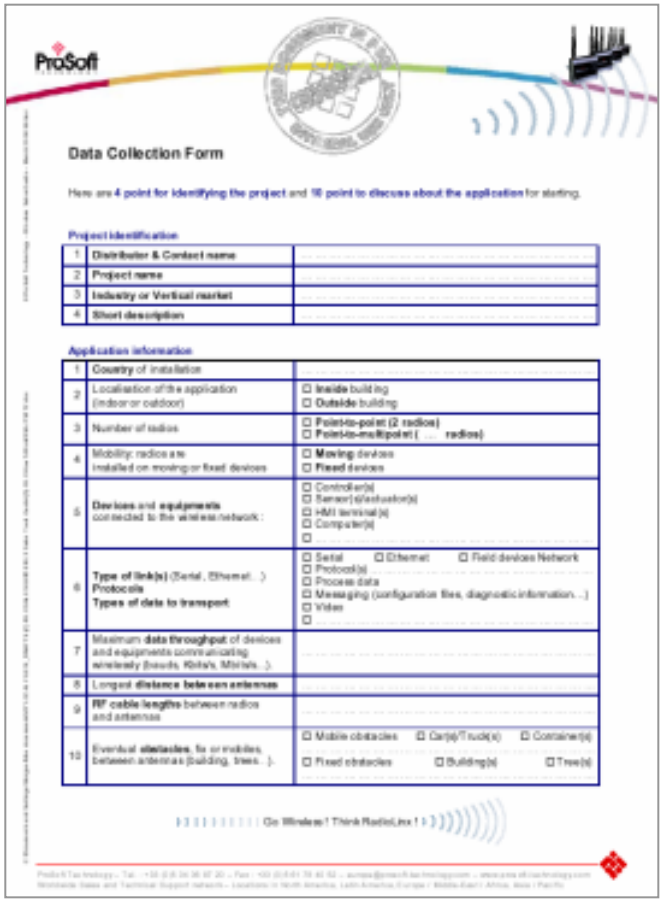
Collect information on application… with skilled people

- Identification of the project
  - Who? Project name? Short description
- Application description
  - What is the **Country of installation**.
  - Localisation of the application : **inside** a building (indoor) or **outside** (outdoor).
  - **The number of radios** (point-to-point or point-to-multipoint).
  - The eventual **mobility** of the radios : they are installed on moving or fix devices.
  - **The devices and equipments** to connect to the wireless network : controllers, sensors/actuators, computers, HMI terminals…
  - **The type of link(s)** (Serial and/or Ethernet) and the protocols and/or types of data to transport.
  - **The maximum data throughput** (bauds, Mbps..) necessary for the connected devices.
  - The longest **distance between antennas**.
  - The RF (Radio Frequency) **cable lengths** between radios and antennas.
  - The eventuality to have **obstacles**, fix or mobiles, between antennas (building, trees…).


ProSoft

Data Collection Form

Here are **4 point for identifying the project** and **10 point to discuss about the application** for starting.

Project identification

1	**Distributor & Contact name**	
2	**Project name**	
3	**Industry or Vertical market**	
4	**Short description**	

Application information

1	**Country** of installation	
2	Localisation of the application (indoor or outdoor)	☐ **Inside** building ☐ **Outside** building
3	Number of radios	☐ **Point-to-point** (2 radios) ☐ **Point-to-multipoint** (… radios)
4	Mobility: radios are installed on moving or fixed devices	☐ **Moving** devices ☐ **Fixed** devices
5	**Devices** and **equipments** connected to the wireless network :	☐ Controller(s) ☐ Sensor(s)/actuator(s) ☐ HMI terminal(s) ☐ Computer(s) ☐ …
6	**Type of link(s)** (Serial, Ethernet…) **Protocols** **Types of data to transport**	☐ Serial ☐ Ethernet ☐ Field devices Network ☐ Protocol(s) ☐ Process data ☐ Messaging (configuration files, diagnostic information…) ☐ Video ☐ …
7	Maximum **data throughput** of devices and equipments communicating wirelessly (bauds, Kbits/s, Mbits/s…)	
8	Longest **distance between antennas**	
9	**RF cable lengths** between radios and antennas	
10	Eventual **obstacles**, fix or mobiles, between antennas (building, trees…).	☐ Mobile obstacles ☐ Car(s)/Truck(s) ☐ Container(s) ☐ Fixed obstacles ☐ Building(s) ☐ Tree(s)

Go Wireless! Think RadioLinx!

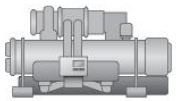
ProSoft TECHNOLOGY

Agenda

- Introduction
- Wireless solutions
  - New 802.11abgn radios
  - Radiating Cable
- Standalone gateways
  - New gateways
  - PROFIBUS
  - Energy
  - Factory Utilities
- Rockwell Automation in-chassis solution
  - New enhancements
  - New protocols

Gateways – 60+ protocols

Connectivity & Migration



AB Remote I/O

ASCII

'C' Programmable Ethernet

BACnet

DH-485

Bosch

'C' Programmable Serial

DNP 3.0

DeviceNet

DNP over Ethernet

DF1 Master/Slave

Honeywell DE Master

IEC 60870-5-104

HART

LonWorks

IEC 61850

IEC 60870-5-103

IEC 60870-5-101

EtherNet/IP

Metasys N2

Modbus Plus

Modbus

Modbus TCP/IP

PROFIBUS

ProSoft TECHNOLOGY

Smart protocol gateways

Features and Benefits:

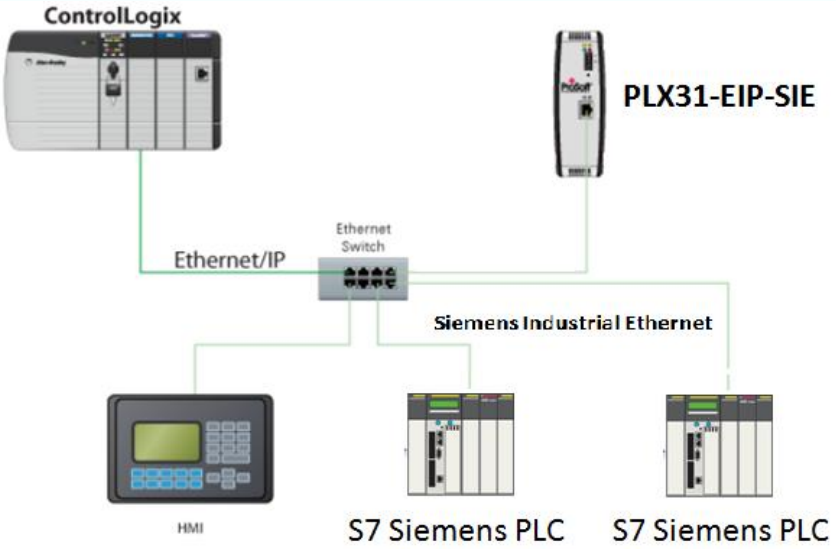
- High performance gateway
  - Supports multiple IO connections
  - Allows combination of PLC/PAC to communicate with various end devices
- Bi-directional data transfer
  - Send and receive data
- Cost effective & easy to configure
  - Configure the unit over Ethernet
  - Maintain the network remotely
  - Remote diagnostic and status information
  - EDS files, and AOP
- Built in SD card slot for storing config.files
  - Reduces downtime – Disaster recovery

Protocols Supported

ETHERNET/IP	MODBUS TCP/IP
EtherNet/IP to Modbus TCP/IP	Modbus TCP/IP to Modbus Serial
EtherNet/IP to Modbus Serial	Modbus TCP/IP to Modbus Serial 4 Port
EtherNet/IP to Modbus Serial 4 Port	ModbusTCP/IP to SIE (Siemens Industrial Protocol)
EtherNet/IP to ASCII	
EtherNet/IP to ASCII 4 Port	
EtherNet/IP to SIE	

ProSoft TECHNOLOGY

PLX30 EtherNet/IP to SIE



PLX31-EIP-SIE

- EtherNet/IP to Siemens Industrial Ethernet

PLX31-MBTCP-SIE

- Modbus TCPIP to Siemens Industrial Ethernet

Key benefits

- Allows EtherNet/IP and Modbus TCP devices to interface easily with multiple S7-200, S7-1200, S7-300, and S7-400 PLCs.
- The multi-Client module improves performance when exchanging data with multiple S7 CPUs on a single network, by supporting up to 20 Clients.
- Supported register types: DB, Inputs, Outputs, Flags, Counters, Timers

ProSoft TECHNOLOGY

NEW PLX3X Gateways

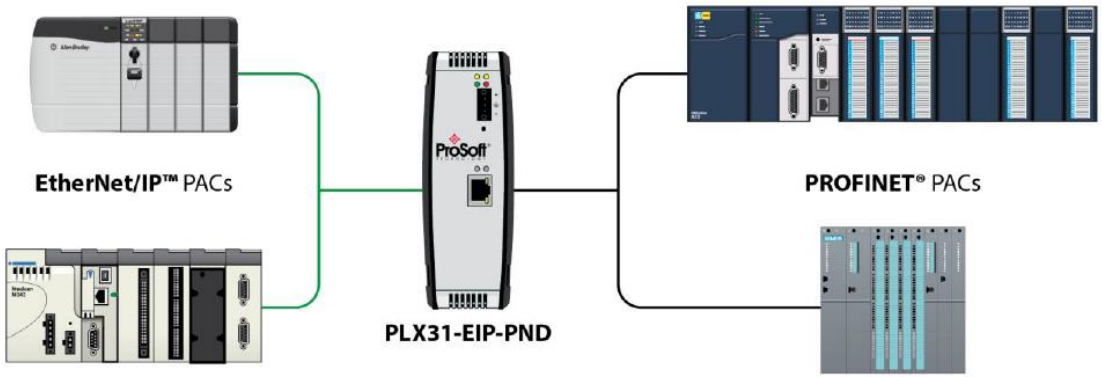
ProSoft® TECHNOLOGY

Where Automation Connects.™

Profinet gateway

EtherNet/IP to Profinet Device

- Embedded EDS Add-On Profile
- No ladder programming is required when using I/O connections.
- Multiple I/O connections
- Communication via an I/O connection
- SD card slot (SD card optional)
- Video setup tutorial provided at psft.com/Ap5



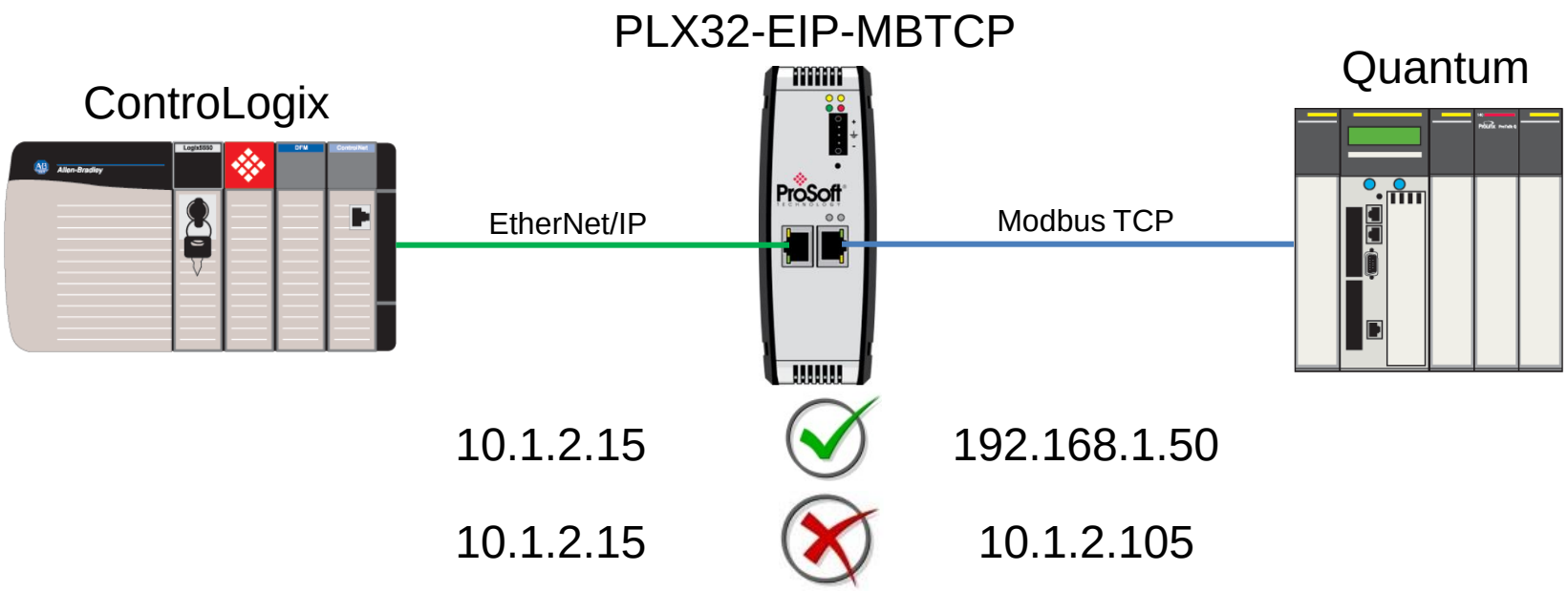
PLX32

- EtherNet/IP to Modbus TCP/IP
  - PLX32-EIP-MBTCP
- EtherNet/IP to Siemens IE
  - PLX32-EIP-SIE
- Modbus TCP/IP to Siemens IE
  - PLX32-MBTCP-SIE

NEW

Difference from PLX31

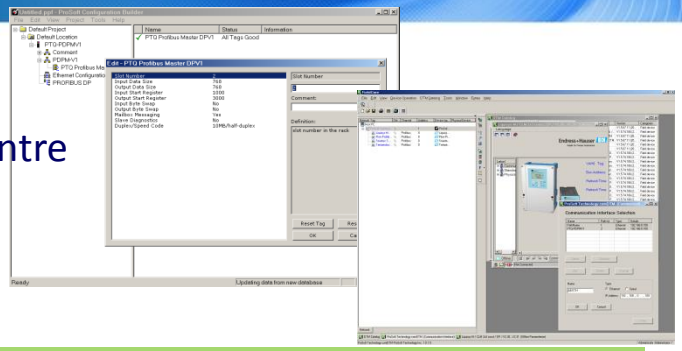
- Two Ethernet ports
  - Each Ethernet **port has to operate** on a different network.



ProSoft Technology has your PROFIBUS solutions

FDT Communication

- FactoryTalk Asset Centre
- FieldCare
- PSFT comDTM



ETHERNET

In-chassis solutions
For Rockwell Automation

PROFIBUS DP V1 MASTER

Stand alone gateways

PROFIBUS

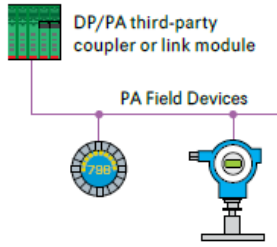
PROFIBUS DP V0 Slave to:

- HART
- ASCII
- DNP3
- IEC 60870-5-101
- IEC 60870-5-103
- IEC 60870-5-104
- MODBUS
- DH485
- DF-1
- and many more...

PROFIBUS DP V0 Slave to:

- BACnet
- LONworks
- XML
- METASYS
- Controlnet
- DeviceNet
- and many more...

PROFIBUS DP Slave Module for
CompactLogix, ControlLogix, SLC, Flex I/O, SCANport



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Energy Protocols

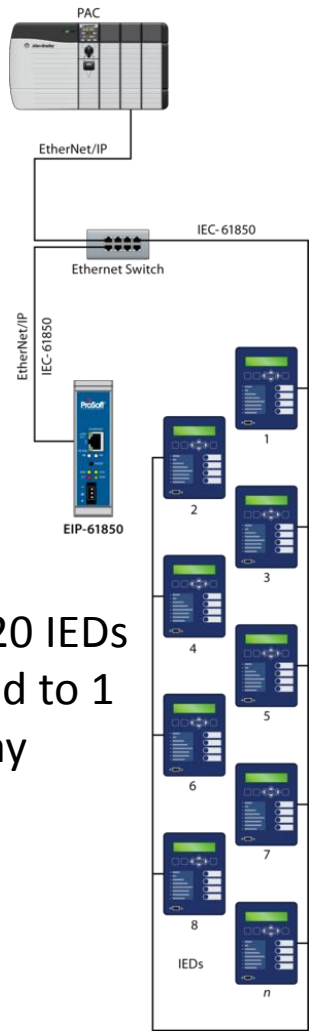
- IEC 60870-5-101
- IEC 60870-5-103
- IEC 60870-5-104
- DNP 3.0
- DNP 3.0 over Ethernet

- **IEC 61850**

NEW

ProSoft TECHNOLOGY

Open up your PLCs to IEC61850



Up to 20 IEDs mapped to 1 gateway

- Integrates tightly with your Rockwell Automation architecture
  - Configurable tag mapping simplifies data reads and writes between protocols
  - View diagnostics for both networks
  - Utilizes “Generic Ethernet/IP CIP bridge” profile in RSLogix 5000 for configuration as an IO device with selectable RPI time
  - Standards-based identification of device types simplifies implementation and maintenance
- IEC 61850 client & Ethernet/IP client & server support
  - Multiple EtherNet/IP Client/Server connections
  - EtherNet/IP implicit & explicit messaging implementation
  - Supports 61850-8-1: MMS, GOOSE, RCB

ProSoft TECHNOLOGY

Central utilities plant control solutions

- **Smoothly integrate your Factory Utilities into your Rockwell Automation Architecture**
- Easy to configure and cost effective
- ProSoft Technology provides technical support, as well as the “option to purchase” custom configuration service.

- Over 100 dedicated protocols....

KNX, NOTIFIER by Honeywell, Cheetah Fire Protection Systems, BACnet, BTL, HOCHIKI america corporation, M-Bus, LONMARK 3.4, ESTI, JCI Metasys® N2, Gamewell FCI Fire Control Instruments by Honeywell, SIEMENS

Slot Server
In-rack module

Quick Server
Stand-alone gateway

BTL Mark

LONwork certified

Modbus-IDA the architecture for distributed automation

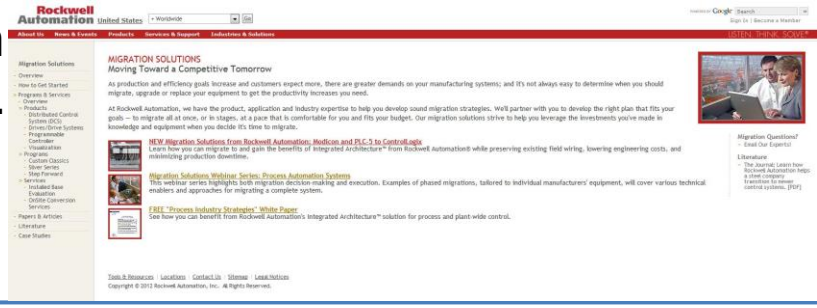
EtherNet/IP conformance tested

- Energy management
- Data centres
- Life safety & fire alarm systems (gas leak detection, plant shut down)
- Legacy Networks
- Chillers, boilers, UPS (uninterruptable power supplies), VFD (variable frequency drives).....
- Building automation and other vertical market applications

ProSoft TECHNOLOGY

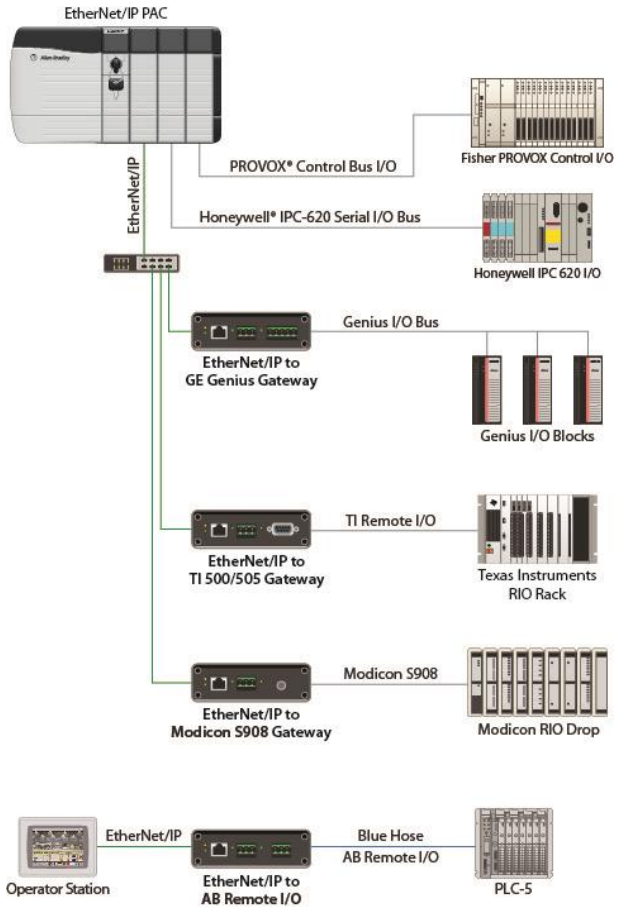
Migration solutions

- ProSoft Technology offer a full suite of migration solutions for Rockwell Automation architectures.
  - Phased migration
  - Life cycle extension



Features

- Connects Allen-Bradley Programmable Automation Controller (PAC) via EtherNet/IP to I/O devices on legacy networks, mitigating the risk of excessive downtime
- Enables a phased based approach for migrating legacy control systems
- Monitor mode enables testing and verification of PAC logic before controlling physical I/O, reducing the risk of production loss due to programming errors
- The Auto-configuration feature creates I/O tags for the PAC, reducing integration time and minimizing risk of configuration errors

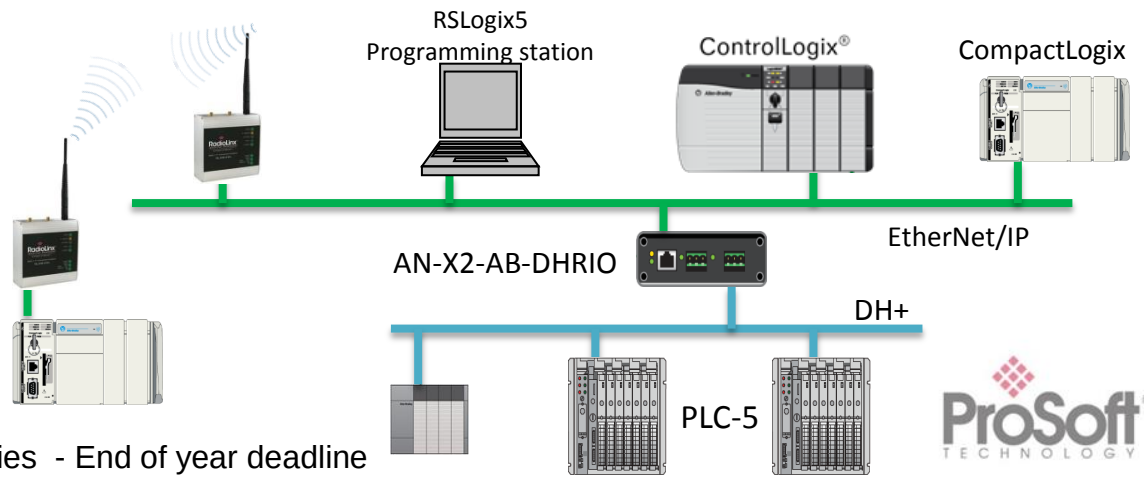


ProSoft TECHNOLOGY

DH+ migration / Life cycle extension

AN-X2-AB-DHRIO with DH+ firmware installed

- Connect a Data Highway Plus Network to ControlLogix *or* CompactLogix PLC via RSLogix5000
  - Enables combinations of HMIs, programming terminals, and/or processors on an EtherNet/IP network access to the legacy processors on a DH+ network
- Can be used with PLC programming software to communicate with A-B Controllers, such as PLC-5, over Data Highway Plus (requires RSLinx)
  - Any computer with an Ethernet port can connect to DH+ using the gateway
  - Removes need for specific hardware cards (ISA, PCI, PC card, etc)
- Supports HMIs that can communicate with Ethernet/IP to rapidly exchange data with controllers
- DH+ network diagnostics, including a station listing all of all active nodes, are available through the web browser

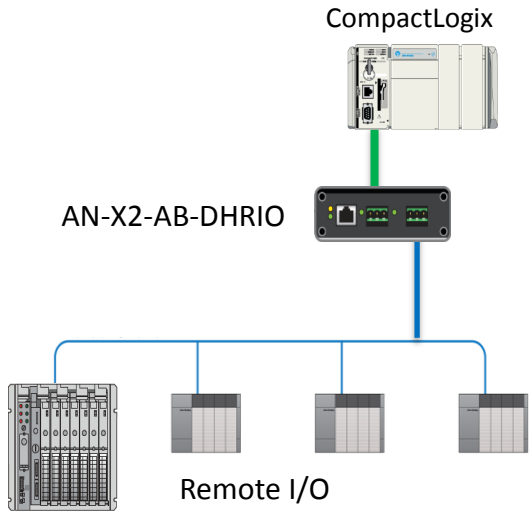


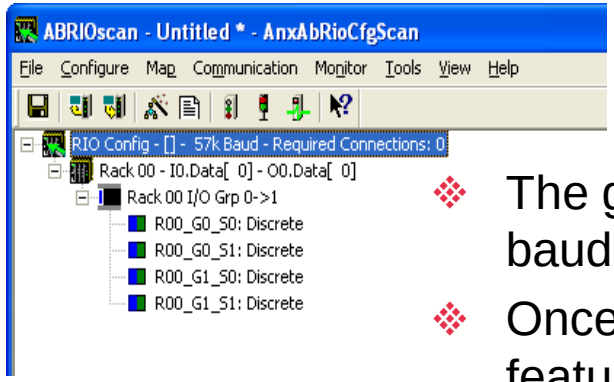
**PanelView Standard in Silver Series - End of year deadline

RIO migration / Life cycle extension

AN-X2-AB-DHRIO with RIO SCANNER firmware installed

- When configured as a Remote I/O scanner, it enables a Programmable Automation Controller (PAC) to control a legacy Remote I/O system facilitating processor upgrades
  - allows a phased approach to be used when upgrading or replacing legacy PLC5 or SLC controllers.





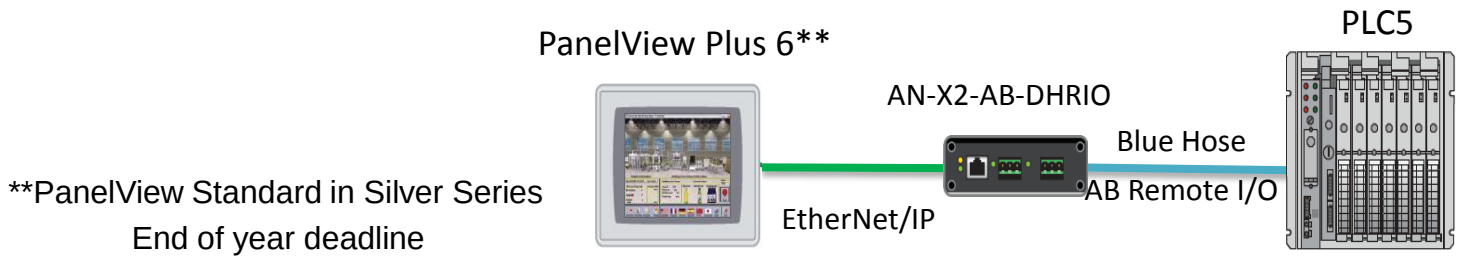
- The gateway provides automatic detection of the Remote I/O baud rate and creation of the Remote I/O racks.
- Once Block Transfers are configured, the Auto-Configuration feature creates RSLogix™ 5000 tags
  - Reduces engineering effort.
- Once the new PAC is commissioned the legacy I/O can be upgraded one module or one rack at a time as scheduled downtime is available.
  - minimizes the risk of excessive downtime when upgrading legacy Remote I/O systems.

ProSoft TECHNOLOGY

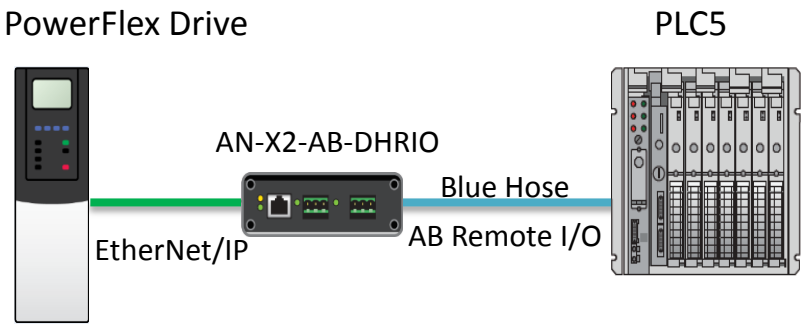
RIO migration / Life cycle extension

AN-X2-AB-DHRIO with RIO ADAPTER firmware installed

- Remote I/O Adapter to Ethernet/IP HMI
- Upgrade your HMIs without replacing your Control System
  - Migrate to the latest PanelView Plus 6 products



- A-B Remote I/O Adapter to EtherNet/IP Drives
- Connect up to 4 EtherNet/IP drives to an existing Remote I/O Network



ProSoft TECHNOLOGY

Agenda

- Introduction
- Wireless solutions
  - New 802.11abgn radios
  - Radiating Cable
- Standalone gateways & migration solutions
  - New gateways
  - PROFIBUS
  - Energy
  - Factory Utilities
- Rockwell Automation in-chassis solution
  - New enhancements
  - New protocols

Rockwell Automation Solutions

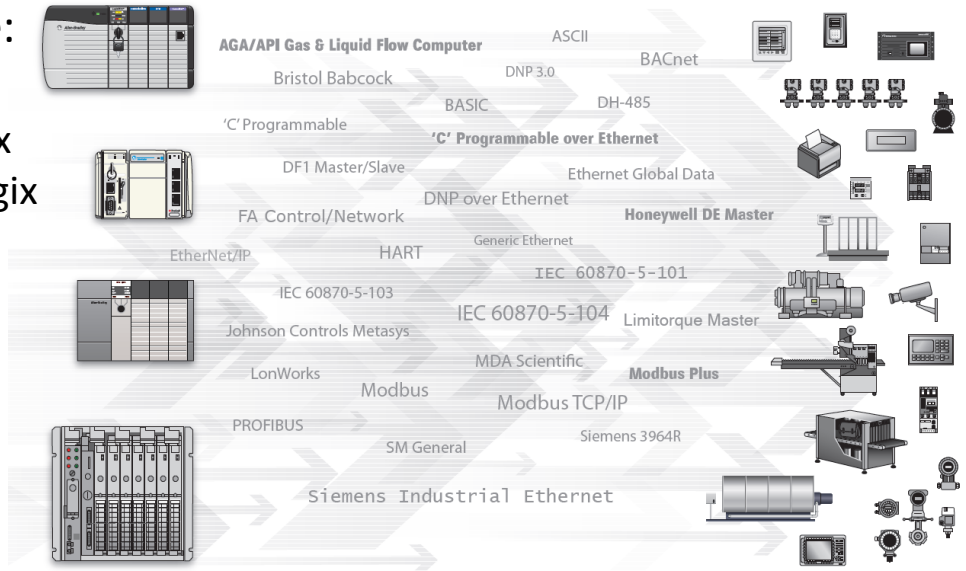
ProSoft® TECHNOLOGY

Where Automation Connects.

inRAx Communication solutions

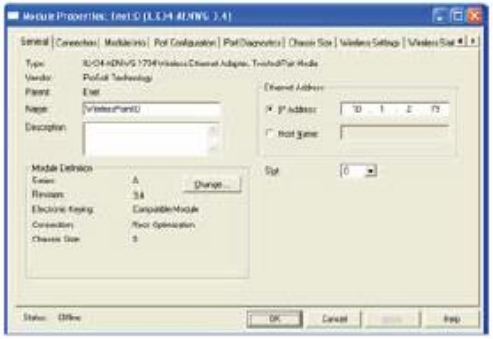
Covering entire Rockwell Automation PLC range:

- ControlLogix
- CompactLogix
- SLC500
- PLC-5
- FLEX I/O
- SCANport
- Micro800



Feature	Benefit
Growing range of over 60 + protocols supported	As a Global Encompass partner our communication solutions allow our customers to connect Rockwell Automation® controllers to competitive PAC and DCS platforms as seamlessly as if they were all from the same supplier.
Tightly integrated in to Rockwell Automation's architecture	Easy integration into Rockwell RSLogix 5000 software 70+ Solutions are in Rockwell Automation's Integrated Architecture Builder (IAB)
CIPConnect enabled modules	Configure and diagnose a CIPConnected module remotely
3 Year warranty Technical support	ProSoft Technology Technology's expertise in the industrial automation world provides our customers with a distinct advantage

Premier Integration Tools



- **AOP – Add on Profile**
  - Installs in RSLogix 5000
  - Simplifies setup and commissioning via predefined tags and a setup wizard
  - Makes ProSoft Technology products easier to deploy in a Rockwell Logix system
  - AOPs are available for the MVI56-PDPMV1, MVI56E-MCM, MVI56E-GSC and the MVI69 CompactLogix family of interfaces.
- **AOI – Add on Instruction**
  - Incorporates the module's ladder logic, controller tags, and user defined variables into one simple instruction.
  - Add-on instructions are available for many products.
- **Faceplates – HMI objects for PV Plus and FTView ME**
  - Free to customers
  - Displays product diagnostics & configuration for operators and engineers to troubleshoot the process
  - Works with AOIs – Add on Instructions to get display data

Rockwell Automation Encompass Product Partner Global

ProSoft TECHNOLOGY

EtherNet/IP modules

EtherNet/IP Client/Server Network Interface Module for **SLC500, CompactLogix, PLC5, Micrologix 1500** allows**:**

- PLC processors to interface with EtherNet/IP protocol (Explicit Messaging) compatible devices and hosts
- remote Ethernet programming and troubleshooting (by PLC com port)
- SCADA access

Perfect for:

- Enabling old PLC's to EtherNet/IP
- Exchanging data with EtherNet/IP PLC's
- Adding additional communication channels
- Adding additional subnet access
- PLC based interface to DH+/ RIO, DH-485 devices
- VPN access
- Ethernet programming (Virtual COM port)
- Building unified network using ethernet

Devices available:

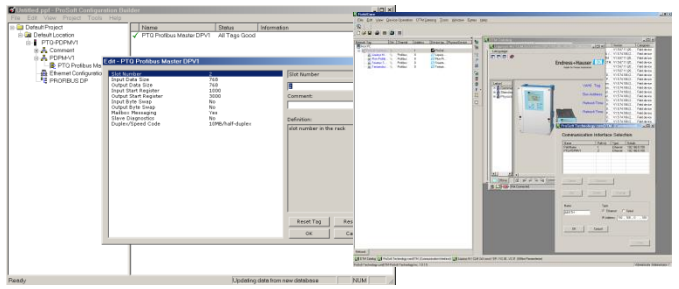
- MVI46-DFNT
- MVI69-DFNT
- MVI71-DFNT

PROFIBUS in-chassis solution

FDT Group

Rockwell Automation Encompass Product Partner Global

FDT Communication
- FactoryTalk Asset Centre
- FieldCare
- PSFT comDTM



EtherNet/IP

PCB Communication
- Module & Network Configuration
- Diagnostics
- Network monitoring

CIP Connect

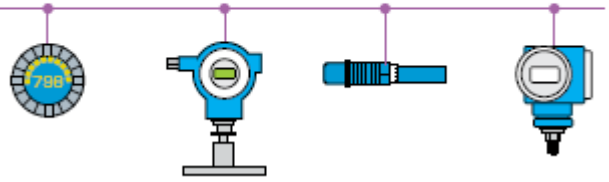
EtherNet/IP

PROFIBUS DP V1 Master module

PROFIBUS DP field devices

DP/PA third-party coupler or link module

PA Field Devices



PROFIBUS DP Slave Module for CompactLogix, ControlLogix, SLC, Flex I/O, SCANport

ProSoft TECHNOLOGY

Profibus DP FDT

- Application description
  - Life since product
  - PROFIBUS connection to E+H field devices and IO
- Customer needs
  - Ethernet programming/ diagnostic
  - Easy of maintenance
  - Online edition of PROFIBUS configuration
  - Integration with existing system
  - Programming E+H devices by EtherNet/IP using FTD technology

- Customer
  - Main producer of tooth past
- ProSoft Partner
  - RAControls Sp. z o.o.
- Location
  - Poland

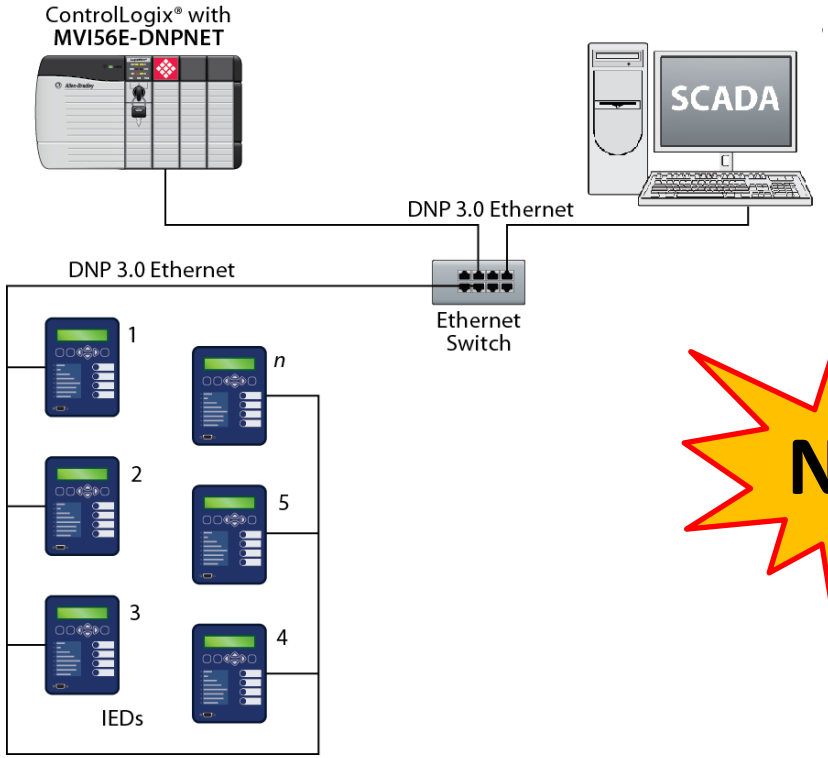
ProSoft TECHNOLOGY

Smart energy solutions – DNP 3.0

- MVI56E-DNPNET is a DNP3 Ethernet communications module providing both client and server capabilities to the ControlLogix® family.
- With the ability to poll multiple devices such as motor and protection relays, the module provides access to a wide range of DNP3 Ethernet devices.
- Additionally, the module can operate as a server, providing a powerful connection to SCADA hosts over a DNP3 Ethernet network.

Other protocols available include:

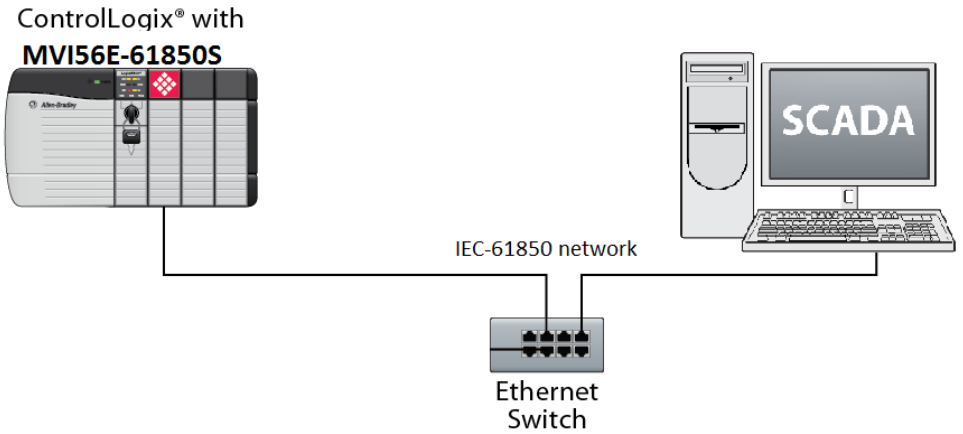
- DNP3
- DNP3 Ethernet
- IEC-61850
- Modbus RTU
- Modbus TCP/IP
- IEC 60870-5-101
- IEC 60870-5-103
- IEC 60870-5-104



NEW

Smart energy solutions – IEC61850

- MVI56E-61850S
  - Module operates as an IEC-61850 **server** exchanging data with SCADA or DCS systems
  - Control Logix can be part of substation and ack like other IED devices (controlling ventilation, relays …)



NEW

Energy application

- Customer
  - IFT InForm Technologies, a.s.
- Location
  - Slovakia
- ProSoft Technology's Partner
  - Control Tech Slovakia
- Application description
  - Alternative energies
    This system is for remote control and data transfer from renewable sources to dispatching distribution companies ZSE, SSE, VSE
  - MicroLogix 1500, CompactLogix, third-party SCADA system, GSM modems

ProSoft Technology Energy Solution

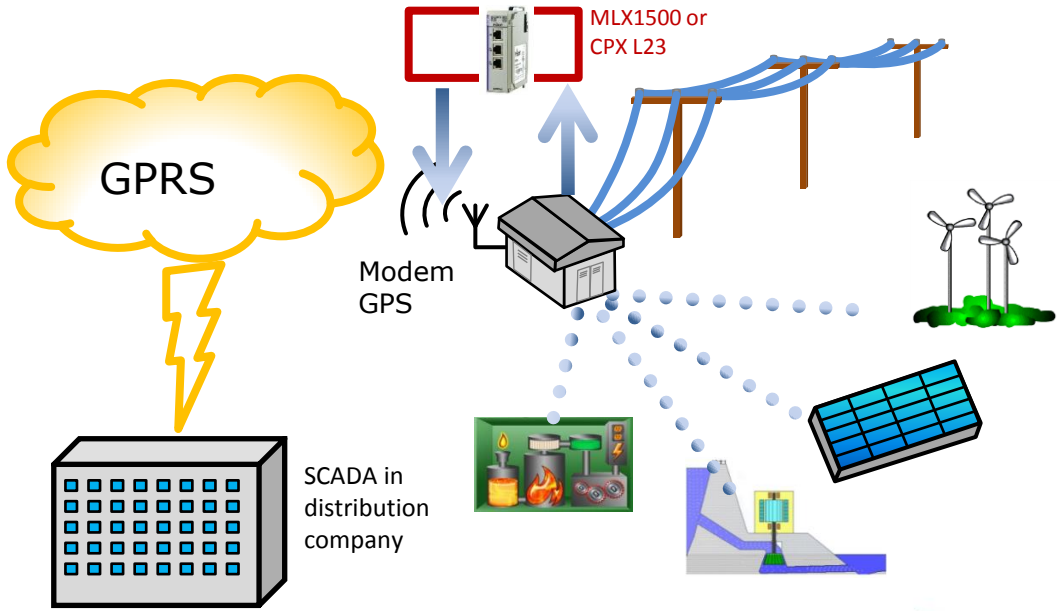
- Customer needs
  - Customer needs to get data from electricity meters and other devices using IEC60870-5-101 protocol
  - All the information is sent back to distribution company.

- Application requirements
  - Application is used with solar systems, wind mills, bio gas turbines and small hydropower.

- Our solution
  - MVI69-101S

- **Customer benefits**
  - Fast implementation
  - IEC protocol compliant
  - Easy extension for other networks
  - This system has passed certification process for energy monitoring

Allen Bradley, Prosoft IEC60870-5-101 Slave Communication Module

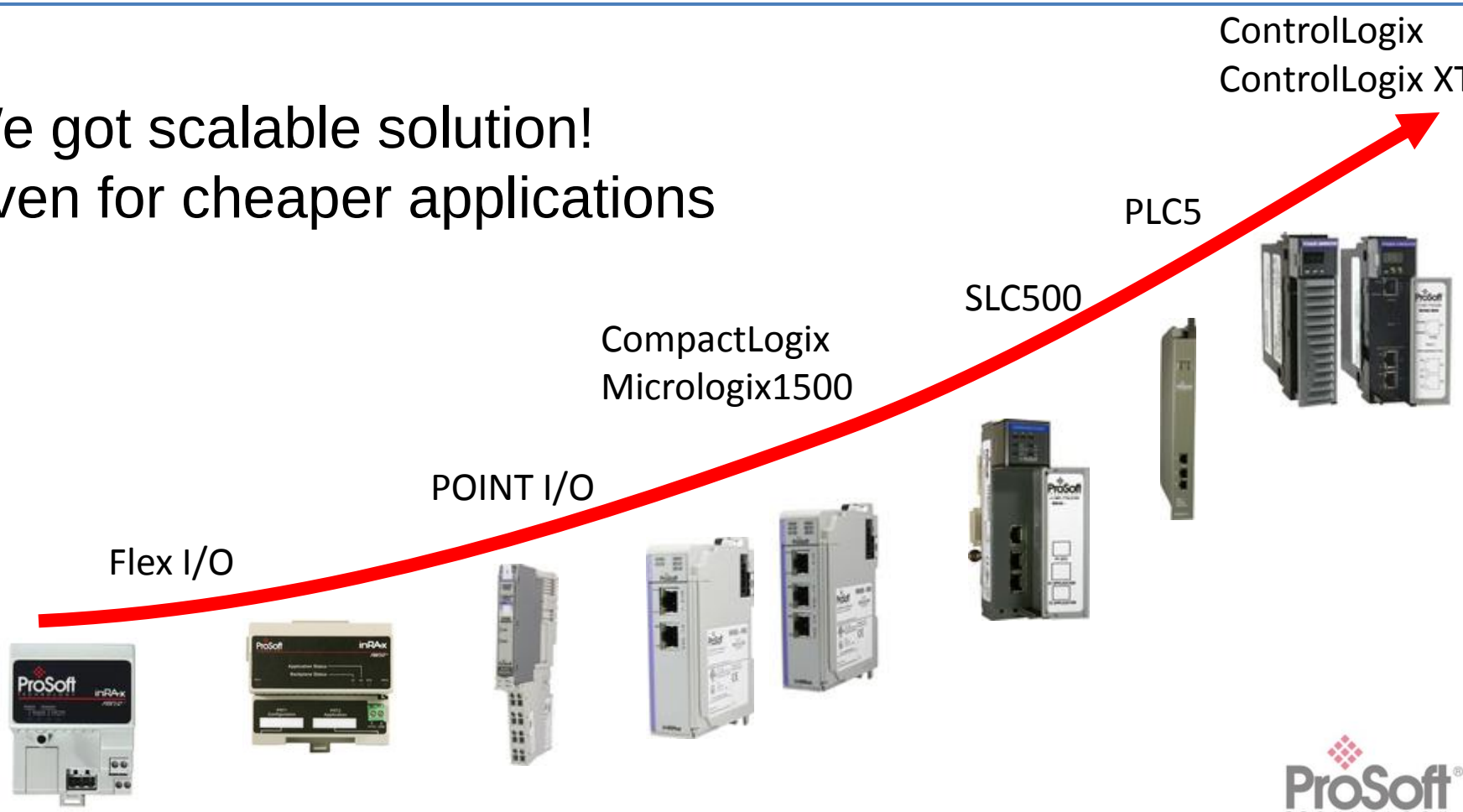


ProSoft TECHNOLOGY

Modbus solutions

ProSoft Technology Modbus solution covers nearly all Rockwell Automation platforms

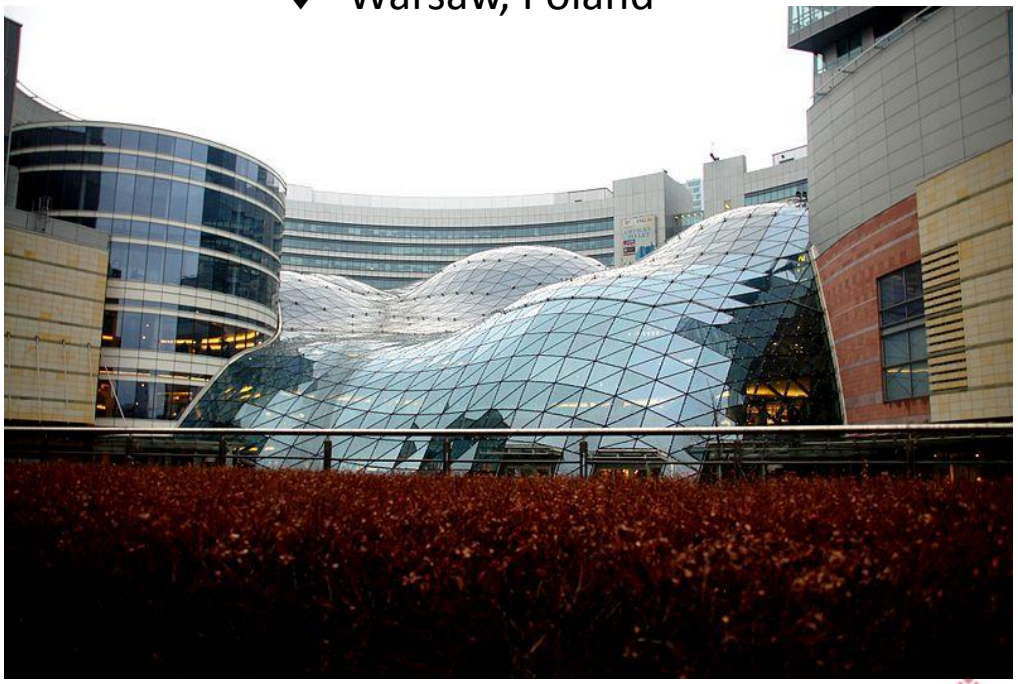
We got scalable solution!
Even for cheaper applications



Application overview

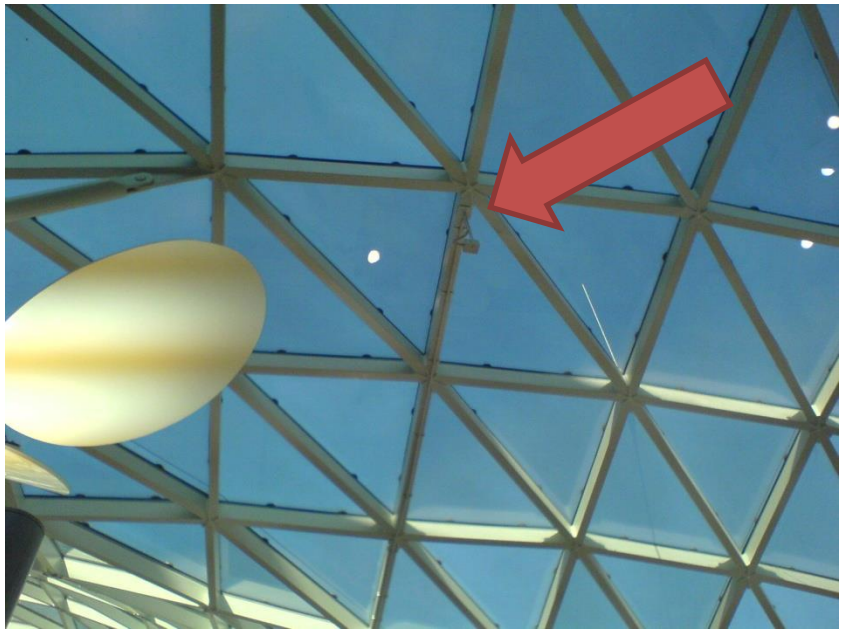
- Application description
  - Gold terraces Mall and Business center
  - Gas detection system
- Customer needs
  - Fast Implementation
  - Easy of maintenance
  - Price of the engineering and gas detection system
  - Integration with existing system

- Customer
  - TYCO Fire and security
- ProSoft Partner
  - Introl Sp z o.o.
- Location
  - Warsaw, Poland



ProSoft Technology Solution

- Application requirements
  - Micrologix 1500
    4x MVI69-MCM
    320 gas detectors



Gas detector on glass roof

- **Customer benefits**
  - System is working since end of 2006. It is connected to central BSM and Fire system. All 8 channels are use to read data from more than 320 gas detectors in whole building.

ProSoft cards were used because:

- Easy of use with so big number of devices.
- Easy to implement
- Easy troubleshooting
- Modbus communication is done outside PLC

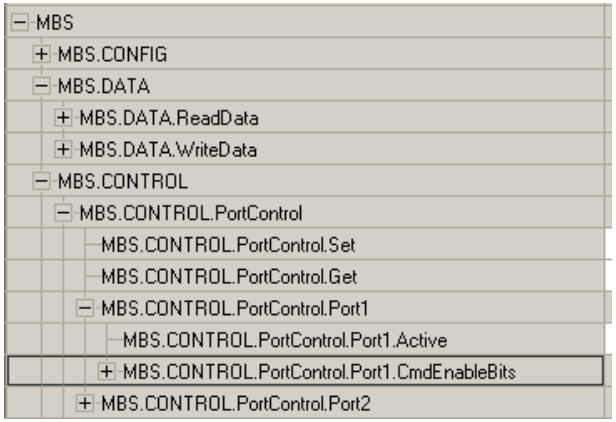
MVI69L/E cards

- New hardware platform
  - Lower power consumption – more cards can be used with L2X
  - Ethernet programming/ diagnose
- Two types of cards
  - E (Enhanced) with better functionality than today
    - For existing MVI69 users
    - For users expecting full functionality
  - L (Lite) lower functionality at much better price
    - OEM applications
    - Small applications where cost is key thing

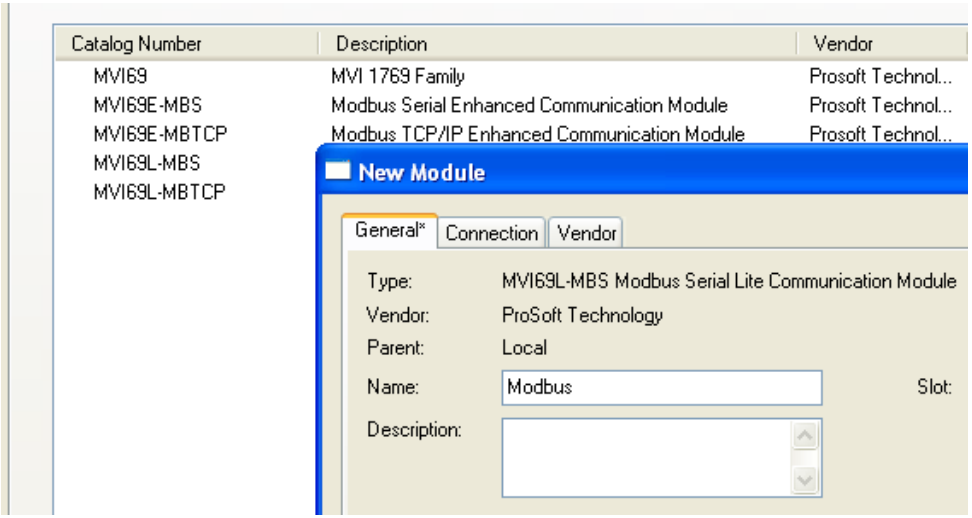
ProSoft TECHNOLOGY

Features

- Add-on Instruction creates UDTs providing logical definitions for I/O, status, and control data



- Diagnostic data available in RSLogix 5000 controller tags, allowing decisions to be made based upon node health



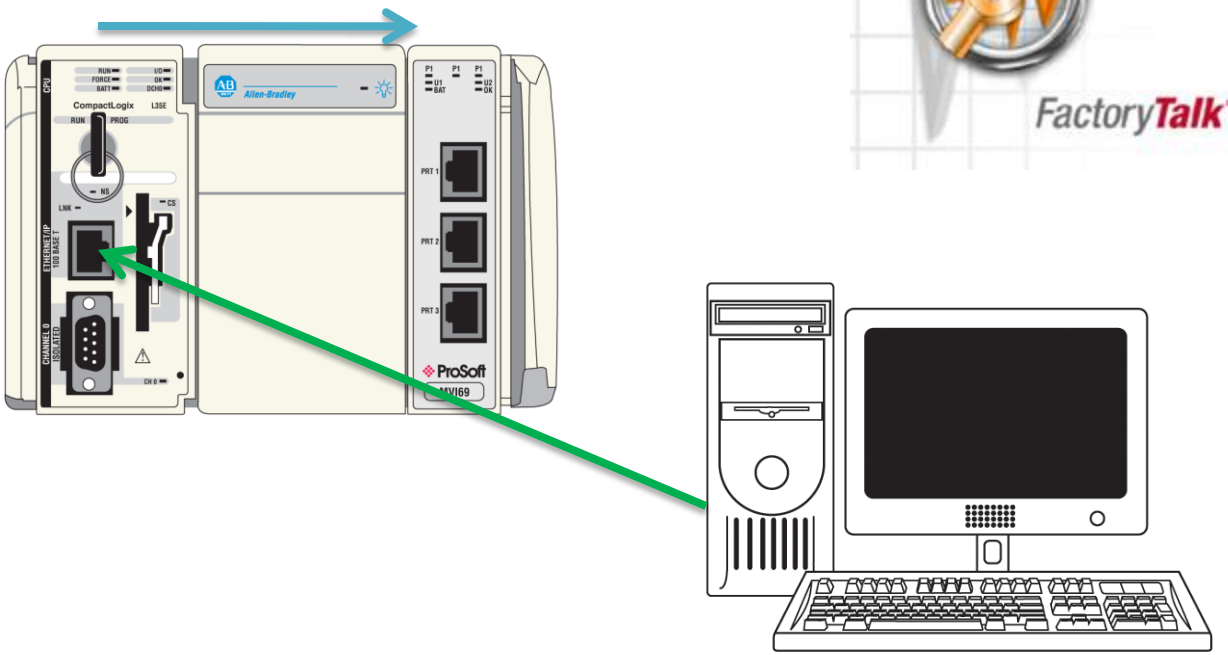
- Add-on Profile support for RSLogix 5000, improving integration in the CompactLogix system

ProSoft TECHNOLOGY

Features

- Module acts as a co-processor reducing impact to PLC scan time

- Configuration is transferred to and then stored in the CompactLogix Processor, is part of the RSLogix .ACD file and can be backed up with tools such as FactoryTalk AssetCentre



MVI69E/L-MBS - Modbus Serial

E Version

- 250 Max Modbus commands per channel
- 10,000 words of data
- 2 Serial ports/ channels
- Master and/or Slave
- For all applications

L Version

- 30 Max Modbus
- 240/240 words of I/O data
- 1 Serial port
- Master or Slave
- For small applications

ProSoft TECHNOLOGY

MVI69E-MBTCP Modbus TCP/IP

E version

- 480 Max Modbus commands
- 10,000 words of I/O data
- Multi Client and/or Multi Server
- For all Applications

L Version

- 160 Max Modbus commands
- 240/240 words of I/O data
- Multi Client and/or Multi Server
- Small applications

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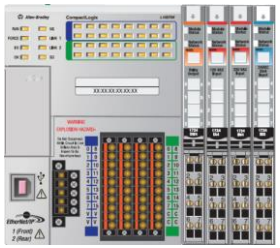
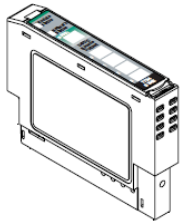
ILX34-MBS

ILX34-MBS232
ILX34-MBS485





Modbus Serial for POINT IO adapters.

Will work with:

- L1 processors,
- EtherNet/IP, ControlNet, DeviceNet Adapters

Key Features:

- Max Modbus Commands - 30
- Max Data per command - 32
- Max Modbus Slaves - 31
- ILX34-MBS485 supports RS422 and RS485
- ILX34-MBS232 supports RS232
- Modules will be shipped with AOI and AOP
- No configuration software. Congiguration done by LOGIX5000

NEW

ProSoft TECHNOLOGY

LDM

MVI56E-LDM

NEW

C programmable modules based on Linux

Key Features:

- 2 Serial Ports
- 2 Ethernet Ports
- Free VMWare image with preconfigured programming environment

MVI69E-LDM

Available soon

C programmable modules based on Linux

Key Features:

- 2 Serial Ports
- 1 Ethernet Ports
- Free VMWare image with preconfigured programming environment

ProSoft TECHNOLOGY

LDM

For ControlLogix & CompactLogix

- Provides a powerful option for custom applications requiring ControlLogix and CompactLogix connectivity.
- Why you should use LDM card?:
  - Protect Know How – key part of code could be moved to LDM and compiled.
  - Lock application – no possibility to change/ copy code
  - Additional features like adapting PID generated form MatLAB
  - Specific communication code
  - LDM as coprocessor – speed up calculations
  - Linux based system – possibility to use web server, ftp, Linux applications …
  - Any application requiring special development for Ethernet or serial connectivity

ProSoft TECHNOLOGY

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