

# Product Selection Guide:

Product	WAN Connectivity	Cellular	Ethernet Ports	Serial Ports	Input Output	Power Supply	Certifications
IG601P-PS08	Cellular	AT&T 3G	10/100Mbps x 1	RS-232/RS-485 Dual Mode x 1		12-24V DC	CE/FCC, UL, PTCRB, RCM, AT&T Approved
IG601P-VS08		Verizon Wireless 3G					CE/FCC, UL, PTCRB, RCM, Verizon Wireless Approved
IR915P-EN00-S	Ethernet	None	10/100Mbps Configurable LAN/WAN x 5	RS-232 x 1, RS-485 x 1	In x 1, Out x 1	12-48V DC	CE, UL, RCM
IR915P-PS08-S	Cellular + Ethernet	AT&T 3G					CE/FCC, UL, PTCRB, AT&T Approved
IR915P-VS08-S	Cellular + Ethernet	Verizon Wireless 3G					CE/FCC, UL, PTCRB, Verizon Wireless Approved
IR915L-FS18-S	Cellular + Ethernet	AT&T 4G LTE					CE/FCC, UL, PTCRB
IR915L-FS18-W-S	Cellular + Ethernet + Wi-Fi	AT&T 4G LTE					CE/FCC, UL, PTCRB
IR915L-FS28-S	Cellular + Ethernet	Verizon Wireless 4G LTE					CE/FCC, UL
IR915L-FS28-W-S	Cellular + Ethernet + Wi-Fi	Verizon Wireless 4G LTE					CE/FCC, UL
Verizon Wireless 3G&4G Data Plan			Monthly 75MB per line.				
			Monthly 250MB per line.				
			Monthly 1GB per line.				
InHand Device Network Suite			The InHand Device Network Suite includes InHand Device Manager, InHand Device Touch and InHand Device Sense.				

## InHand Networks Inc.

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# Remote Automation

**InHand Networks** integrates industrial grade cellular routers and cloud technology to enable real remote applications for the automation world.

Featuring VPN technology, 3G and 4G LTE and DeviceTouch, the InRouter enables reliable, secure remote monitoring and maintenance applications for global industrial partners.



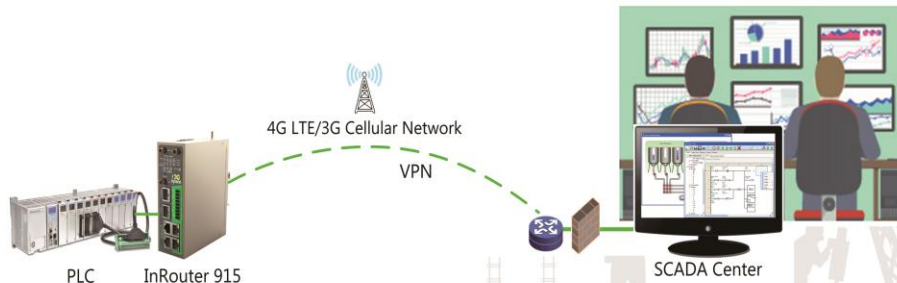
InRouter 900 Series

InGateway 601



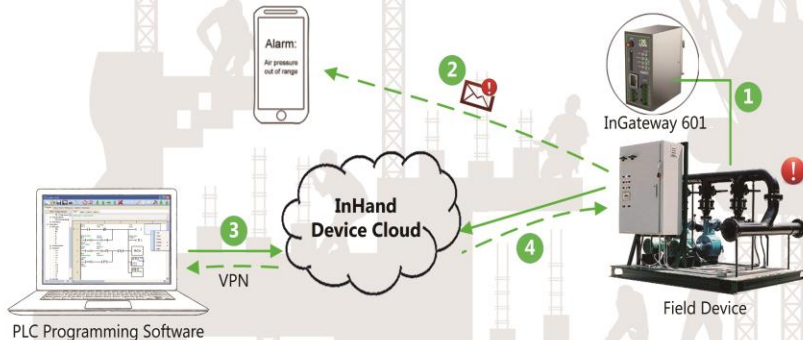
## Secure Web-based SCADA

The InRouter creates a secure VPN tunnel, connecting field devices and PLCs to the SCADA center. The InRouter extends the SCADA network to new locations, allowing operators to monitor and analyze data from new domains.



## Automatic Alarms

- 1 The InGateway 601 monitors telemetry data by polling device operational status with Modbus RTU or TCP.
- 2 When a malfunction occurs on a field device, a text message alert will be instantly sent to the administrator.



## Remote Diagnostics and Maintenance

- 3 Access a secure VPN tunnel by logging into the InHand Device Cloud. The VPN automatically secures communications between the InGateway 601 and your laptop.
- 4 Use native PLC programming tools to perform maintenance without travelling on-site.

# Why Choose InRouter

### Simplify Machine Communication

- + The 4G LTE or 3G network offers easy access, low latency and high-speed transmission.
- + 4G LTE, 3G, Wi-Fi, and ADSL connect remote field devices without expensive cable installations.
- + Offers multiple layers of redundancy with WAN link backup, dual SIM cards, redundant serial ports and VRRP. WAN link backup will automatically failover to the cell network when land-lines fail.

### Reliable Remote Communication

- + EMC level IV and -25 to 70 °C temperature range guarantee lifelong performance in industrial environments.
- + Three levels of link detection and failure recovery ensure high network availability: PPP callback, IP detection and VPN recovery.
- + CE, FCC, UL and PTCRB certifications for global partners.

### Robust Data Security

- + Secure, reliable VPN protocols are designed for use on the cell network. Keepalives and reconnect policies ensure VPNs stay connected.
- + Stateful, granular firewall protects against attacks. Multi-level authentication controls user access.
- + OAuth2.0 authentication databases isolate the Device Touch platform, protecting against internal privilege escalation.

### Scalable Deployment and Management

- + Accessible and scalable, the Device Touch platform provides access to millions of devices without bottlenecking system performance.
- + Supports both browser and command line configuration tools for managing thousands of devices in a single click.

### Communication Solutions

- + InHand offers total industrial communication packages including the InRouter, InSwitch, Device Touch and M2M data plans to provide a complete platform for industrial networking.

### Approved by World-class Partners

- + AT&T and Verizon Wireless certified.



**InHand Networks**, Your M2M Technology Partner



# Product Selection Guide:

Product	Transmission Rate	Ports	Unmanaged	Redundant Power	Power Input	Protection Marking	EMC	Working Temperature	Certifications
ISE 1005D -5T-24	100 Base-Tx or 100 Base-Fx	5*100 Base-Tx	✓	✓	12~48V DC	IP40	EMC Level III	-49~185°F (-40-85°C)	CE, FCC, UL
ISE 1008D -8T-24		8*100 Base-Tx	✓	✓					CE, FCC, UL
ISE 2005D -5T-24		5*100 Base-Tx	✓	✓					CE, FCC, UL
ISE 2008D -8T-24		8*100 Base-Tx	✓	✓					CE, FCC, UL
ISE 2008D -6T-25403 -SC-24		6*100 Base-Tx +2*Fx^A	✓	✓					CE, FCC, UL
ISE 2016D -16T-24		16*100 Base-Tx	✓	✓					CE, FCC
ISE 2016D -14T-25403 -SC-24		14*100 Base-Tx +2*Fx^A	✓	✓					CE, FCC
ISE 3010D -8T-2GSFP -24	Gigabit (SFP)	8*100 Base -Tx+2*G (SFP)	✓	✓	12~48V DC	IP40	EMC Level III	-49~185°F (-40-85°C)	CE, FCC, UL
ISE 3010D -4T-2GSFP -4S403-SC -24		4*100 Base -Tx+2*G (SFP)+4* Fx^A	✓	✓					CE, FCC, UL
ISE 5005D -5GT-24	All Gigabit	5*GTx	✓	✓	12~48V DC	IP40	EMC Level III	-49~185°F (-40-85°C)	UL
ISE 5008D -2GC-6GT -24		6*GT +2*G combo	✓	✓					UL

^Fx=Single Mode Dual-Fiber, 40km, Tx1310nm/1310nmRx, SC.

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## Rugged Communications

**InHand Networks'** full range of industrial Ethernet switches is the backbone for reliable industrial-grade networks. Featuring iRING and G.8032 standard industrial protocols, a loop recovery time of 5ms and EMC III or above, the InSwitch raised the bar on industrial Ethernet.

Through the years, InHand Networks has developed reliable, intelligent communication systems for our customers in manufacturing, process automation, distribution automation, transportation and surveillance.



Industrial Ethernet Switches



Encompass Product Partner

# Why Choose InSwitch

## Local Devices

- Industrial sites such as printing, packaging and automobile production facilities require ruggedized, low latency high-speed communications. InHand Networks' InSwitch is the Ethernet backbone for devices such as visual inspection cameras, control units and Ethernet PLCs.

## Reliable Low-latency Transmission

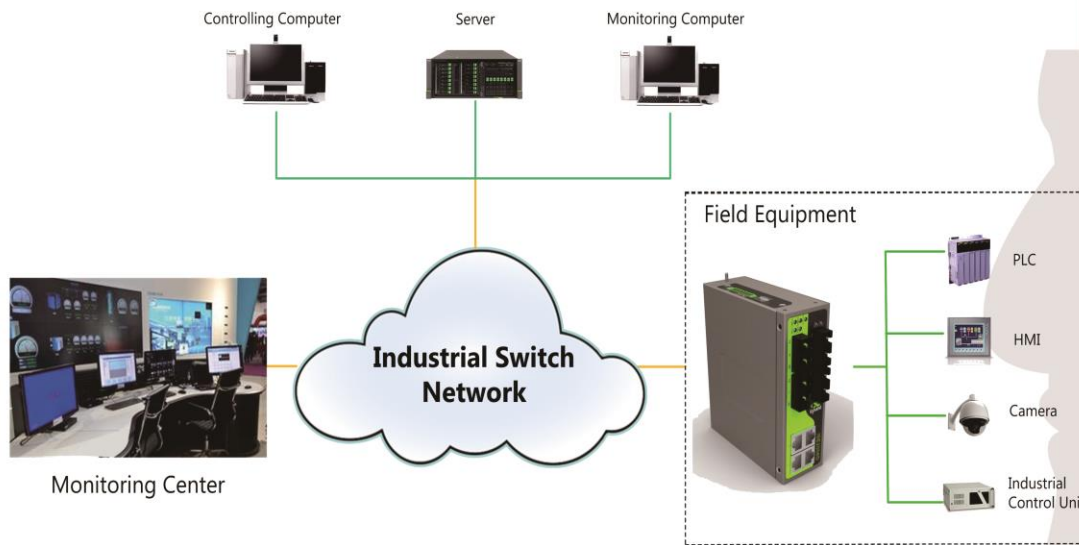
- Switches in a factory LAN must be high-speed devices intended to operate for many years in unforgiving conditions. Latency is also critical in applications such as visual surveillance, video monitoring and process control.

## Industrial-grade Design

- InSwitch's industrial build quality and design can withstand drastic temperature changes, shock and vibration and complicated electromagnetic interference from industrial environments.

## Automatic Alarms

- When a faulty power supply or port connection is detected, the InSwitch can utilize digital relay outputs to raise an alarm. Technicians can react before an incident occurs.



Concerned about power failure?

- InHand Networks' InSwitch features dual-redundant power supplies to safeguard continuous operation in the event of power failures.

Demand high build quality and workmanship?

- The InSwitch is enclosed in a seamless metal shell with fan-less cooling and IP40 anti-dust casing for the ultimate in protection.

Have electromagnetic interference issues?

- InHand Networks' InSwitch protects industrial data from interference with EMC Level III, the industry leading certification for electromagnetic surges, interference and discharges.

Operate in extreme temperatures?

- The InSwitch is designed for long-term operations in temperatures of -40 to 85 °C, and extensively tested with our in-house facilities. Even in the harshest of temperatures, the InSwitch maintains unbreakable performance.

Worried about frequent device failure?

- The InSwitch is tested to a 35 year MTBF (Mean Time Between Failures) as an industrial leader in device lifetime and reliability.

Require long distance Ethernet?

- InSwitch supports both multimode and single mode fiber connections, reaching up to 5km transmission distances for multimode and 80km for single mode fiber. With industrial fiber-optic technology, the InSwitch meets the needs of very large manufacturing plants.



**InHand Networks**, Your M2M Technology Partner

■ WAN - Industrial Cellular *InRouter, InGateway, InDTU*
■ LAN - Industrial Switch *InSwitch*
■ Industrial Computing *InBox, InPortal*
■ Wireless Sensor Network *InMesh, Power Line Analysis*
■ Cloud Platform *InHand Device Networks Cloud*