

Seamless Connectivity & Edge Solutions with InHand & Solwise

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Europe Webinar



Louise Barrett

Director
Solwise



David Sims

Field Application
Engineer, Europe
InHand Networks



Cathy Li

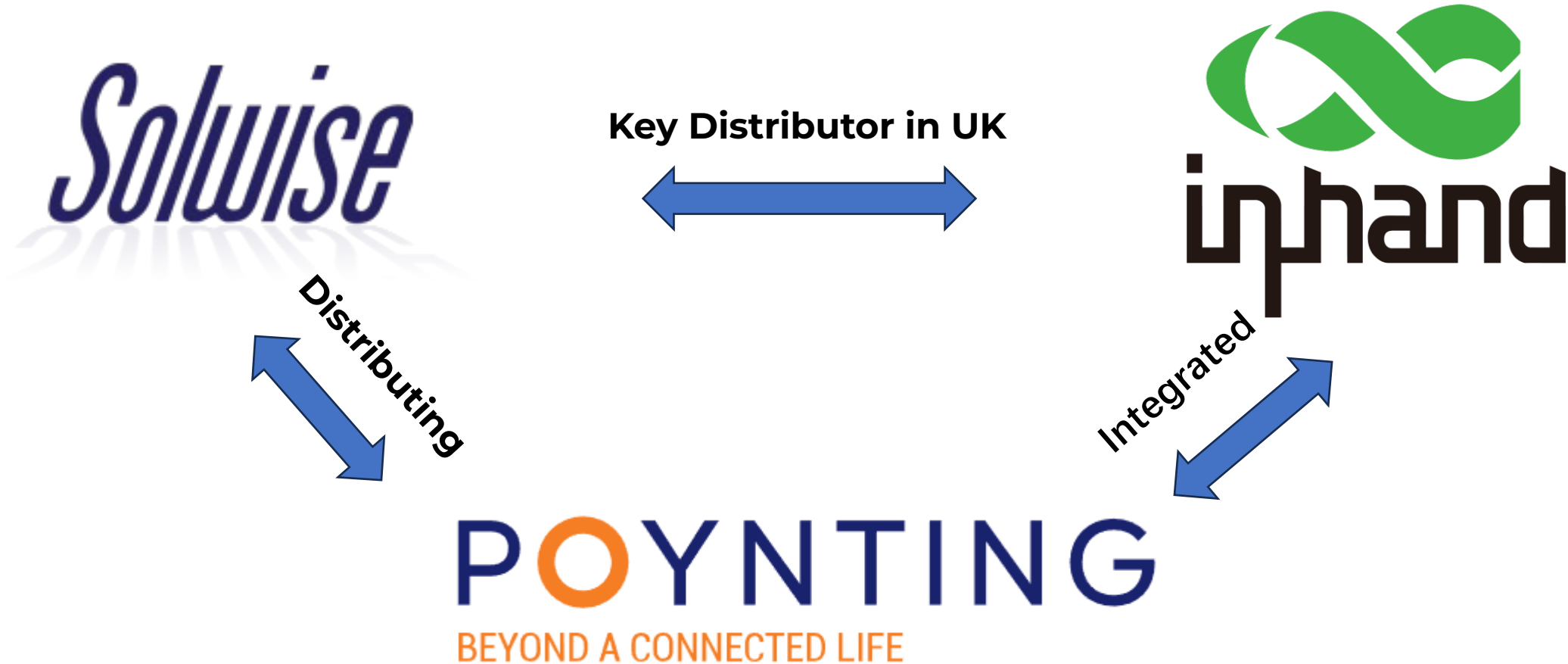
Business Development
Manager, Europe
InHand Networks

Who is Solwise



- Established 1991
- Solwise started with supplying computers into schools, quickly moving into Internet connectivity distributing 56k Modems, ISDN, ADSL, WiFi Applications, HomePlug, with 4G/5G now being our largest line in hardware.
- Solwise has a strong reseller community covering web shops, installers, and networking professionals. Solwise also cover some retail requirement with the largest group of retail consumers coming from the VanLife community.

What Solwise offers



Solwise offers a fully integrated InHand + Poynting solution to UK customers.

Contents

Introduction of InHand

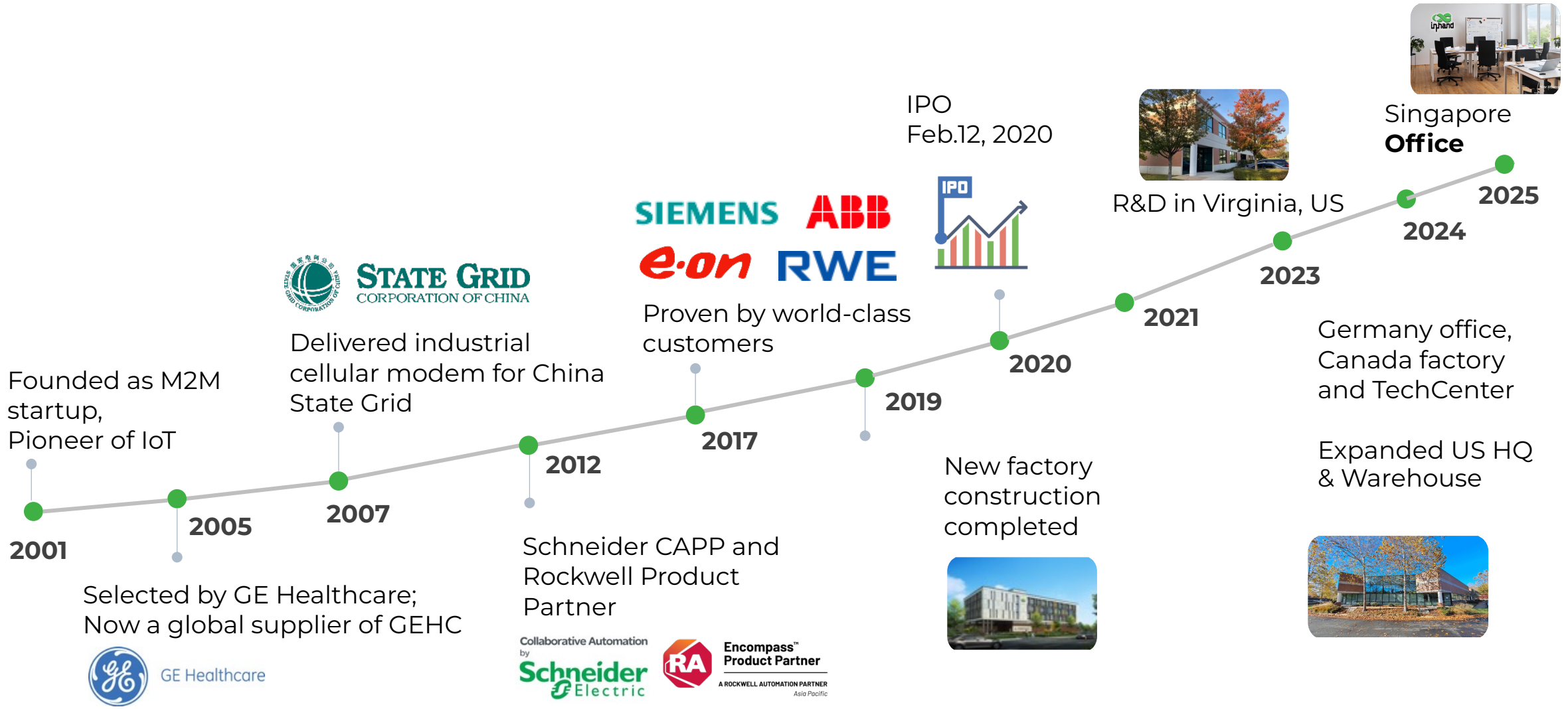
InHand Product Portfolio Overview

Cloud Platform

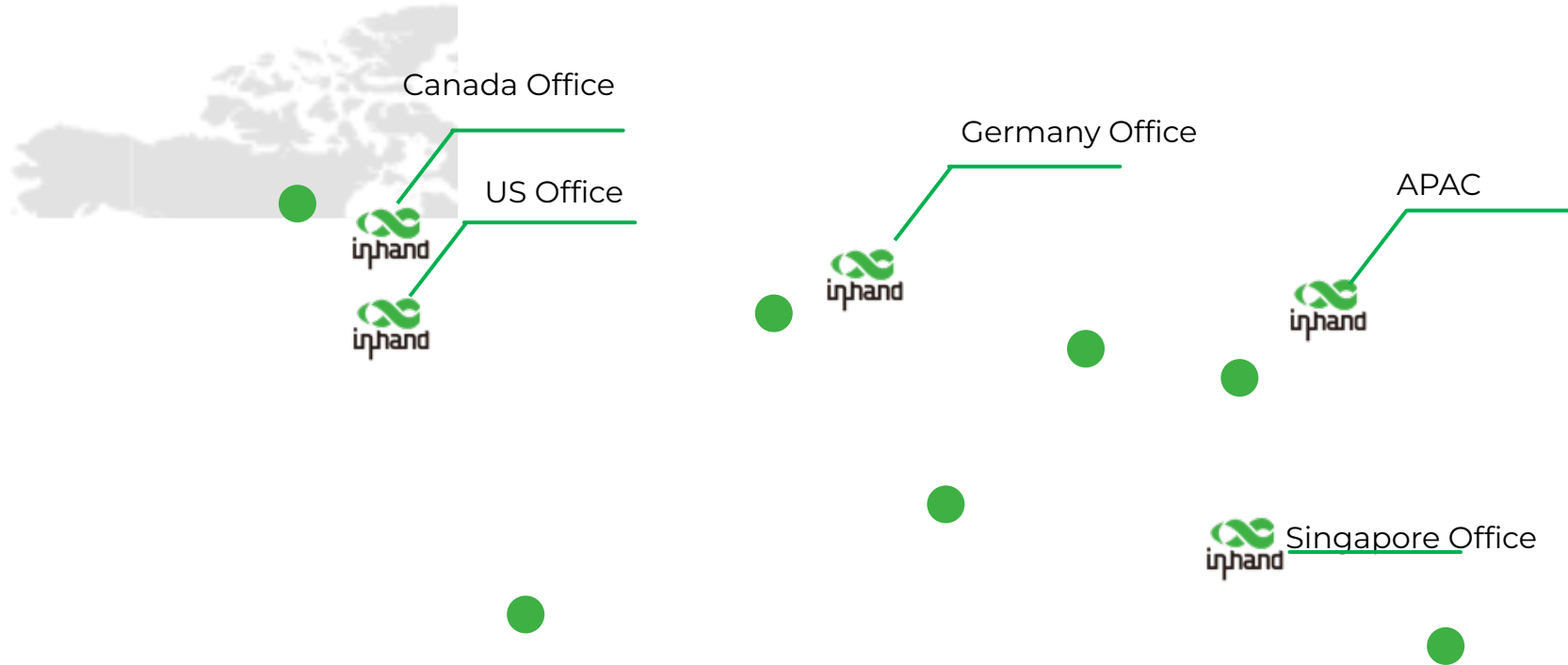
Poynting Antenna Pairing

Solution Summary & Demo Support

Pioneering IoT for 24 Years



Global Coverage



Employees **400+**

R&D Team **140+**



Continued growth,
listed among **Top** IoT gateway
vendors by Berg Insight



Free Technical Support
Around the Worldclock

Supply Chain: Self-owned Factory with Ensured Capacity and Quality



2 Manufacturing centers: Jiaxing (China), Toronto (Canada)

15 Production lines with a high level of flexibility

4,500+ Units produced per day

19,800 Square meters



Globally Certified, Globally Recognized



Five Pillar Segments



InHand Industrial IoT



Routers Portfolio

High performance

- High-End Manufacturing
- Smart Energy
- Smart city
- Smart healthcare



COMING
SOON

InRouter925

- 5G R16, SA/NSA
- 1*2.5 GbE+4*GbE, WAN/LAN
- Wi-Fi 6, Maximum speed: 1800Mbps
- TPM
- Serial Port/IO/GPS
- IPv6
- Support eSIM
- Cloud management
- 9-48V DC, -40~75°C

Device Management Platform

Device Manager | DeviceLive |

DeviceLive
DM



- Centralized device management
- Visualization user interface
- Easy operation
- Remote configuration, upgrade, and update of devices

Enhanced

- Intelligent Manufacturing
- Smart Energy
- Smart Industry
- Smart City
- Safe and Smart Transportation
- Healthcare Industry



InRouter624

5G gigabit industrial router

- 5G R16
- Wi-Fi 5, Max DL: 1200Mbps
- 4*GbE, WAN/LAN
- Serial port
- IPv6
- Support eSIM
- Cloud management

InConnect | Remote Access

InConnect



- Network Building with One Click
- Advanced Security for Data Transmission
- Convenient End-to-end Remote Access
- Easy Management and Configuration

Economical

- Business Networking
- Smart Energy
- Smart Industry
- Smart City
- Safe and Smart Transportation
- Healthcare Industry



InRouter302

- CAT1/CAT4
- Wi-Fi 4, Maximum speed: 150Mbps
- 2*ETH, WAN/LAN
- Serial port/IO
- Cloud management



InRouter315

- CAT4/CAT6/5G Redcap
- Wi-Fi 4, Maximum speed: 300Mbps
- 5*ETH, WAN/LAN
- Serial port/ IO/GPS
- Cloud management

Industrial Routers – Simple Connectivity



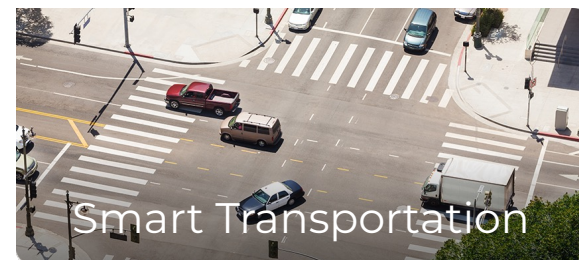
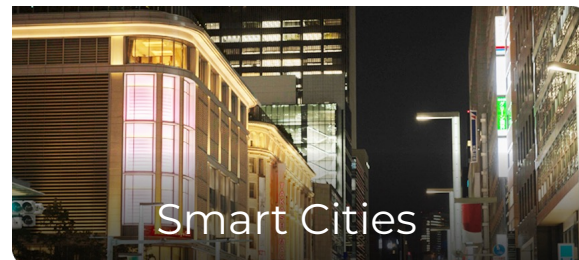
IR302 (4G)

Highlights:

- high stability
- **IEC62443**
- VPN security
- industrial-grade design
- **free** cloud management



IR624 (5G)



IR302 – Industrial LTE Routers for Critical Applications

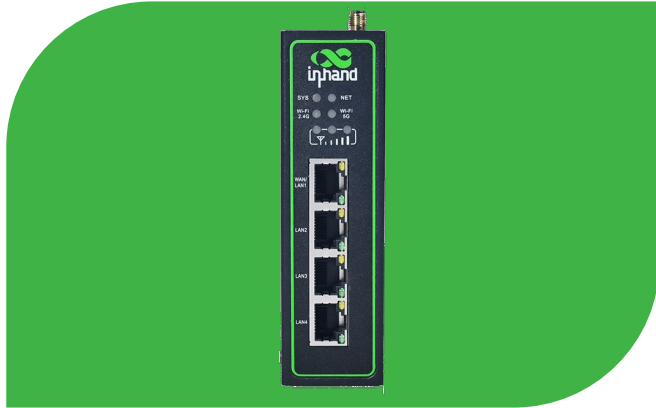


IR302: Cost-effective Compact Router

- EV Charging – reliable connectivity for payment and monitoring systems
- Smart Kiosks – secure transaction and content delivery
- Elevators – remote monitoring and safety communication
- Medical Equipment – dependable connectivity for diagnostics and telehealth devices

Feature	IR302
Cellular	4G LTE CAT1 / CAT4
Interfaces	2 × ETH, RS232, 2 × DIO, Wi-Fi (2.4G)
Industrial Design	-20~70° C, 9~36V, IP30, EMC L2, DIN rail/wall
Reliability	Dual-SIM failover, VRRP, watchdog
Security	Firewall, VPN
Management	Device Manager (Free)
Certifications	CE, FCC, UKCA, IEC 62443-4-2, EN 18031

IR624 – 5G High-Performance & Reliable Connectivity



IR624

Feature	IR624
Cellular	5G SA/NSA, LTE fallback
Interfaces	4 × Gigabit ETH ports, RS232 + RS485, Wi-Fi 5 (802.11ac), dual-band 2.4/5GHz
Design	-20~70° C, 9~48V, IP30, EMC L3, DIN rail/wall mount
Reliability	Dual-SIM, link backup, watchdog
Security	Firewall, VPN, Policy-based Routing
Management	InHand DeviceLive
Certifications	CE, FCC, UKCA, UL

IR624 Applications

- Smart Factory – continuous production with optimized efficiency
- Warehouse Automation – intelligent control to reduce costs
- Remote Healthcare – secure, reliable telemedicine connectivity
- Inspection Robots – high-definition imaging for fault detection
- Distribution Automation – real-time response in smart grids
- Smart City – sustainable and resilient IoT networking

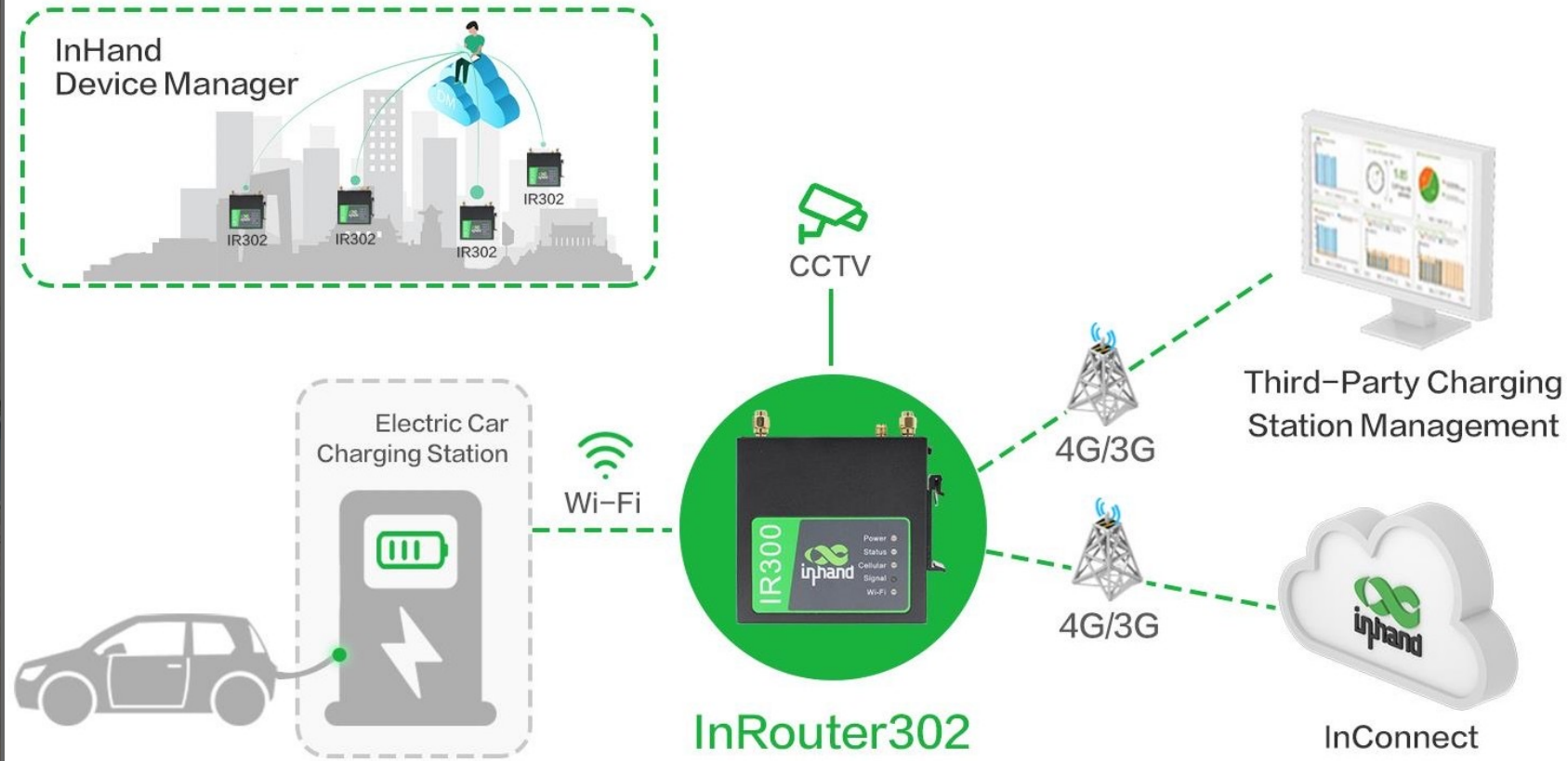
EV Charging Points: Simple Networking Solution

The networking of charging points:

- A management platform
- Enabling real-time data monitoring Remote control
- Intelligent scheduling

Requirements:

- Industrial design,
- Reliable & Secure networking
- Free Remote Management Platform
- Easy for deployment



Solution value:

IR302+ICS provides real-time remote maintenance tunnel for charging piles, quick positioning, and timely response to faults

Edge Computing Portfolio

Edge AI Inference Computer

Cloud

NEW



EC3300

- RK3588, 8 cores, 4 cores Cortex-A76 and 4 cores Cortex-A55, @2.6GHz
- GPU: 4-core Mali-G610 MC4
- 6.0 TOPS · Expandable up to 26TOPS
- Ubuntu 22.02

NEW



EC5350/EC5550

- NVIDIA Jetson Orin Nano, 40 TOPS; NVIDIA Jetson Orin NX, 100 TOPS
 - GPU: 1024-core NVIDIA Ampere GPU with 32 Tensor Cores
 - Ubuntu 22.02
- High-End Manufacturing
 - Smart city
 - Smart healthcare
 - Safe and Smart Transportation

Edge Computer



EC312

- TI AM6231, Cortex-A53@1.4GHz
- 1G SDRAM+8G eMMC
- Debian 11



EC942

- RK3568, 4-core Cortex-A55@2.0GHz
- 1.0 TOPS
- Debian 10



EC954

- RK3568, 4-core Cortex-A55@2.0GHz
- 1.0 TOPS, Expandable up to 26TOPS
- Debian 10

Edge Gateway



IG502

- TI AM3352, Cortex-A8@600MHz
- 512M SDRAM+8G eMMC
- Custom linux



IG902

- TI AM3352, Cortex-A8@1GHz
- 1G SDRAM+8G eMMC
- Custom linux

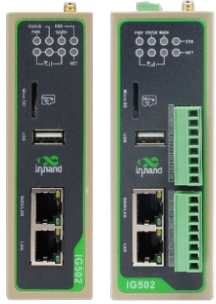
- Smart Energy
- Smart Industry
- Smart City
- Healthcare Industry

DeviceLive | Device Management Platform



- Centralized device management
- Visualization user interface
- Easy operation
- Remote configuration, upgrade, and update of devices

Edge Gateways & Computers



IG502



EC312

Highlights:

- **Linux** based
- **80+** protocols supported
- **Cloud** integration to AWS & Azure
- Secure boot & **TPM, IEC62443**
- **1-100** TOPS AI computing
- **free** cloud management



EC3000



EC5000



Smart Manufacturing



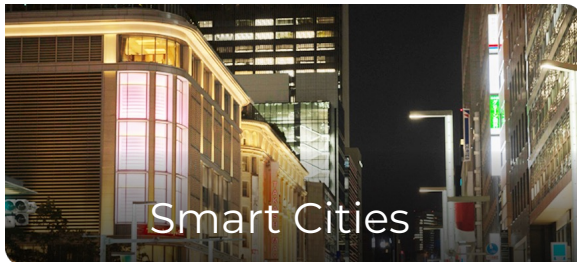
Smart Energy



Smart Utility



Smart lighting



Smart Cities



Smart Transportation



Smart Security



Smart Medical

IG502 – Compact, Secure & Cloud-Managed IoT Edge Gateway



Compact Edge Computer

Cortex-A8 CPU with Python and DeviceSupervisor Agent

Benefit: Local data processing and protocol conversion without cloud dependency

Multi-Protocol Integration

80+ protocols: Modbus, OPC UA, DNP3, IEC 101/104, BACnet, EtherNet/IP

Benefit: Bridge legacy equipment with modern SCADA/EMS

Secure & Reliable Connectivity

Dual SIM failover, VPN, firewall, watchdog, link self-healing

Benefit: Stable, secure connections for critical assets

Rugged Industrial Design

Fanless metal housing, -20 °C to +70 °C, wide voltage, DIN-rail/panel mount

Benefit: Reliable deployment in harsh environments



Edge Computer EC312 – Compact, Secure & Cloud-Managed Edge Computer

IEC 62443



Reliable Remote Connectivity

Dual-SIM LTE failover, Secure backhaul via IPsec, OpenVPN, WireGuard

Benefit: Maintain always-on, resilient connections for critical remote sites.

Legacy Protocol Bridging

RS232/RS485 passthrough, Modbus RTU ↔ TCP, supports PLCs, IEDs, meters

Benefit: Connect and modernize legacy serial equipment for seamless SCADA/IoT integration.

Secure Edge Networking

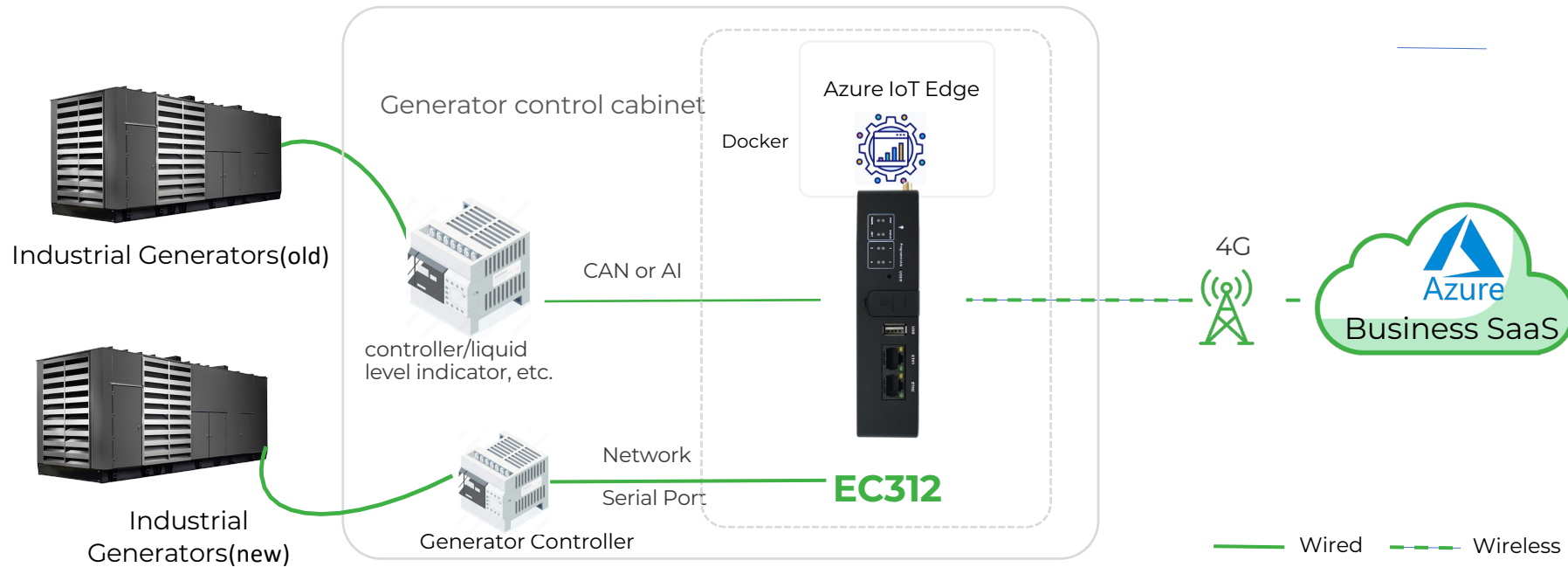
Firewall, NAT, SNMP, diagnostics, DeviceLive management.

Benefit: Protect assets and enable centralized monitoring, troubleshooting, and control.



Success Story: Generators

- **Standard Linux OS**, easy to use for developers.
- Global cellular network access, reliable connectivity anytime, anywhere.
- Rich interfaces (including AIN, CAN) enable easy access to even existing old machines.
- EC312 supports supercapacitor, hold power down for 500ms, and can work normally when the main power and the generator power are switched.
- Efficient cloud management through DeviceLive.



Use Case: EC5000 in Action: AI-Driven Substation Safety & Monitoring



EC5350/ EC5550



AI-Powered

Runs NVIDIA Jetson AI for edge inference, real-time video analytics.

Benefit: Detect faults, smoke, fire, or intrusions early to prevent outages..

Multi-Sensor Integration

Combines data from cameras, thermal, and environmental sensors.

Benefit: Enable holistic monitoring across substation assets

Secure, Standards-Compliant Connectivity

Supports Modbus, MQTT, REST APIs, VPN, IEC 62443-4-2 compliance.

Benefit: Ensure secure integration with SCADA/EMS platforms.

Rugged Industrial Design

DIN-rail or wall-mountable, built for harsh environments.

Benefit: Deploy reliably in critical substations with minimal maintenance.

Vehicle Gateway Portfolio

High performance

- Public transportation
- ITS
- ITxPT
- Railway
- Robo Bus

VG814



- 5G / LTE
- M12X 4x Gigabit Ethernet
- WiFi5 2x2MIMO
- Audio/Voice
- 1RS485 , 1RS232, I/O
- 1xCan FMS
- 1xCAN
- ITxPT

NEW

VG824

- 5G R16, SA/NSA
- M12X 4*GbE, WAN/LAN , PoE+ PSE
- Wi-Fi 7 5.7Gbps ~11.5Gbps
- TPM
- Serial Port/IO/GPS/CAN
- IPv6
- Support eSIM
- Cloud management
- ITxPT

Enhanced

- Public transportation
- ITS
- Ambulance
- Utility Vehicles
- Industrial Machinery

VG710-H



- 5G or LTE CAT6
- 4x Gigabit Ethernet WiFi5 2x2MIMO
- CAN/LINE/J1708
- J1939
- GNSS with DR
- Audio/Voice
- FirstNet, ITxPT

NEW

VG710-M



- 5G / LTE CAT6 /LTE CAT4
- Global Wi-Fi5
- GNSS with DR
- 1 x xM12 X Gigabit Ethernet
- 3 x M12 D Ethernet
- 1 x CAN 2 x DI
- Antenna FAKRA Connector

DeviceLive | Device Management Platform



- Centralized device management
- Visualization user interface
- Easy operation
- Remote configuration, upgrade, and update of devices

Vehicle Router / Gateway



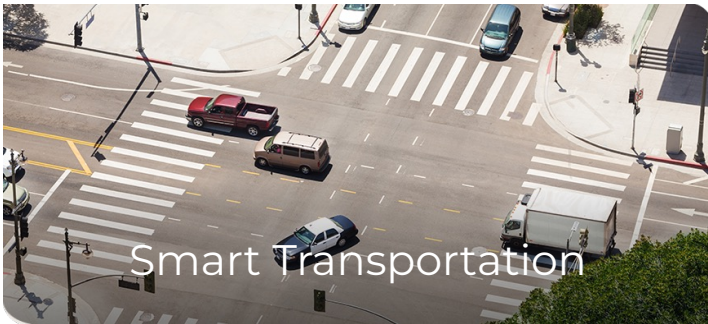
IR315 (E-mark/GPS)



VG710



VG814



Highlights:

- **Vehicle Interface**
- **Positioning**
- Vehicle-standard **certifications** (E-Mark, **ITxPT**, EN50155, ECE R118)



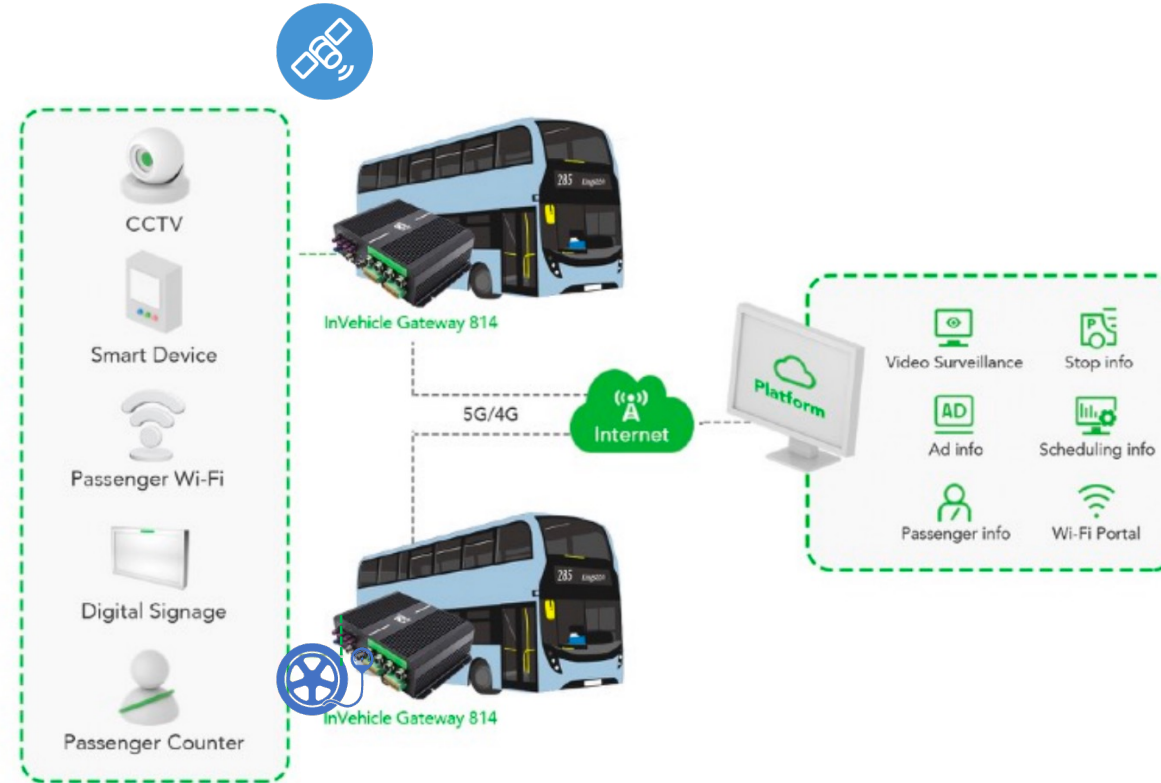
Retrofit Project in Rome Region

One bus operator in Rome region has run their bus for more than 10 years, most on-board IT systems were old and need to upgrade

CUSTOMER REQUIREMENTS

- 5G Connection
- Accurate location data in real-time to provide passengers schedule information
- Connection for On-board cameras and passenger counter to monitor the passenger behavior
- CAN FMS data collection to track the bus status information
- Quick installation and replacement time to control the breakdown influence to minimum

BUS Retrofit Project



- One 5G VG814 per bus to provide connection for all on-board terminals
- ITxPT complied to allow customer upgrade the system easily , Replacement time reduce 50%
- Customer's software running in our VG814 using Docker
- Pre-installation of FW in our factory

InHand Instant Connectivity Solution Portfolio



Portable 4G Router



CR202
Portable router

5G Indoor Router



FWA02
Indoor 5G FWA

- Wi-Fi 6



CPE02
Indoor 5G router

5G Outdoor Router



ODU2002
5G Outdoor Unit

Instant Connectivity



FWA02



ODU2002



CR202



CPE02

Highlights:

- **Instant** deployment
- **Multi-terminal** connectivity (220+ users)
- Long-term stable operation
- Easy remote management



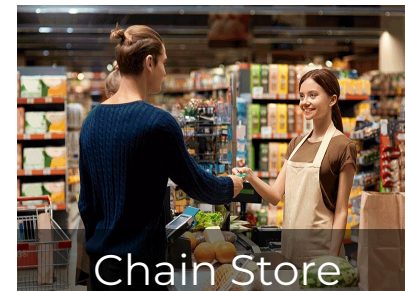
Retail Outlets



Energy



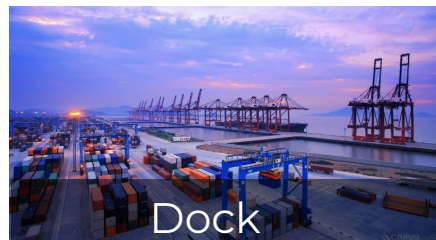
Camper Van



Chain Store



Retail Pop-up



Dock



Business Trip



Day-1 Network

CR202 Portable 4G Router



4G LTE



Rich Interfaces

2 WAN/LAN, Wi-Fi,
external SIM and eSIM



Cloud Management

Device Manager



Built-in Battery



Security



Firewall, invasion detection, access
control, content filter

Compact



Small size, easy to installation and
carry out

FWA02 5G Router



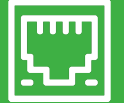
CE FCC PTCRB

4G 5G

5G/4G,
SA/NSA

2.4G / 5G

Wi-Fi 6



Full Gigabit
Ethernet



220 hosts



eSIM



App Intelligent
Management



Security
Features



Zero-touch
Deployment



Cloud
Management

Cloud-Managed 5G CPE02

 **5G/4G Cellular Network**
SA/NSA

Wi-Fi 6 802.11.ax
2x2 MIMO, 3000Mbps



 **Full Gigabit Ethernet**
WAN/LAN, 2*1G

 **Network Security**
Firewall, Port forwarding
SNAT, DNAT
IPsec VPN, L2TP VPN

 **APP**
Intelligent Management

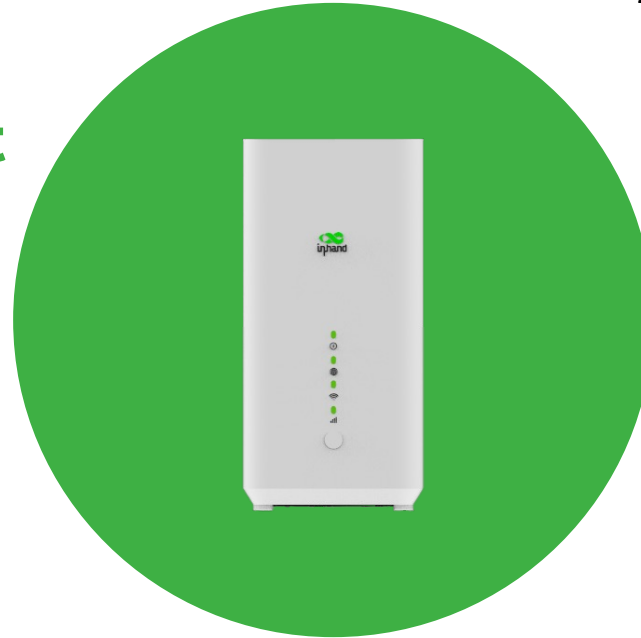
200 user terminals
Wi-Fi 128 terminal



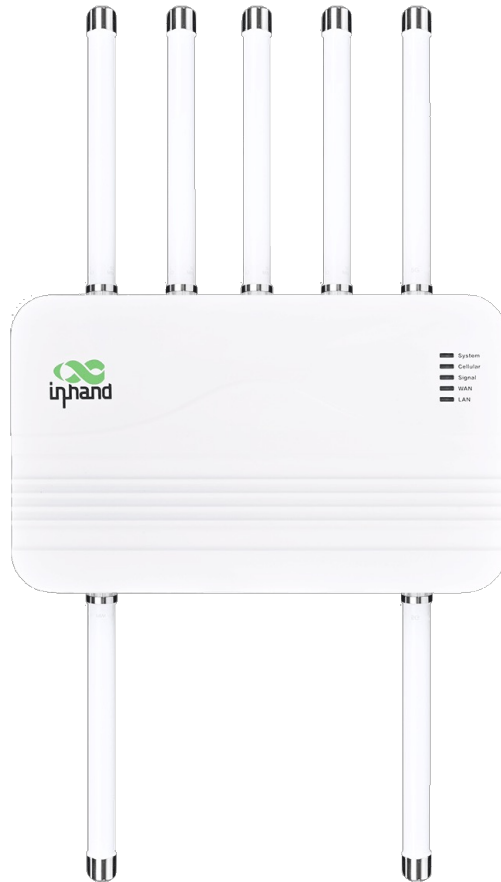
Internal
Antenna design



Simple Cloud Management



ODU2002 5G Outdoor Unit



4G 5G

5G/4G



Omni Antennas

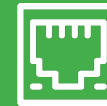


Throughput:
2Gbps, clients:

200



eSIM



2.5G Ethernet
PoE



Zero-touch
Deployment



IP67



Wall/pole mounted



Cloud
Management

Background

Campervan users need reliable internet for streaming, navigation, and remote work. Traditional routers often struggle with unstable signals and limited portability.

Requirements

- **Reliable Connectivity in remote area**
- **Multiple Device Support**
- **Easy Setup and Portability**

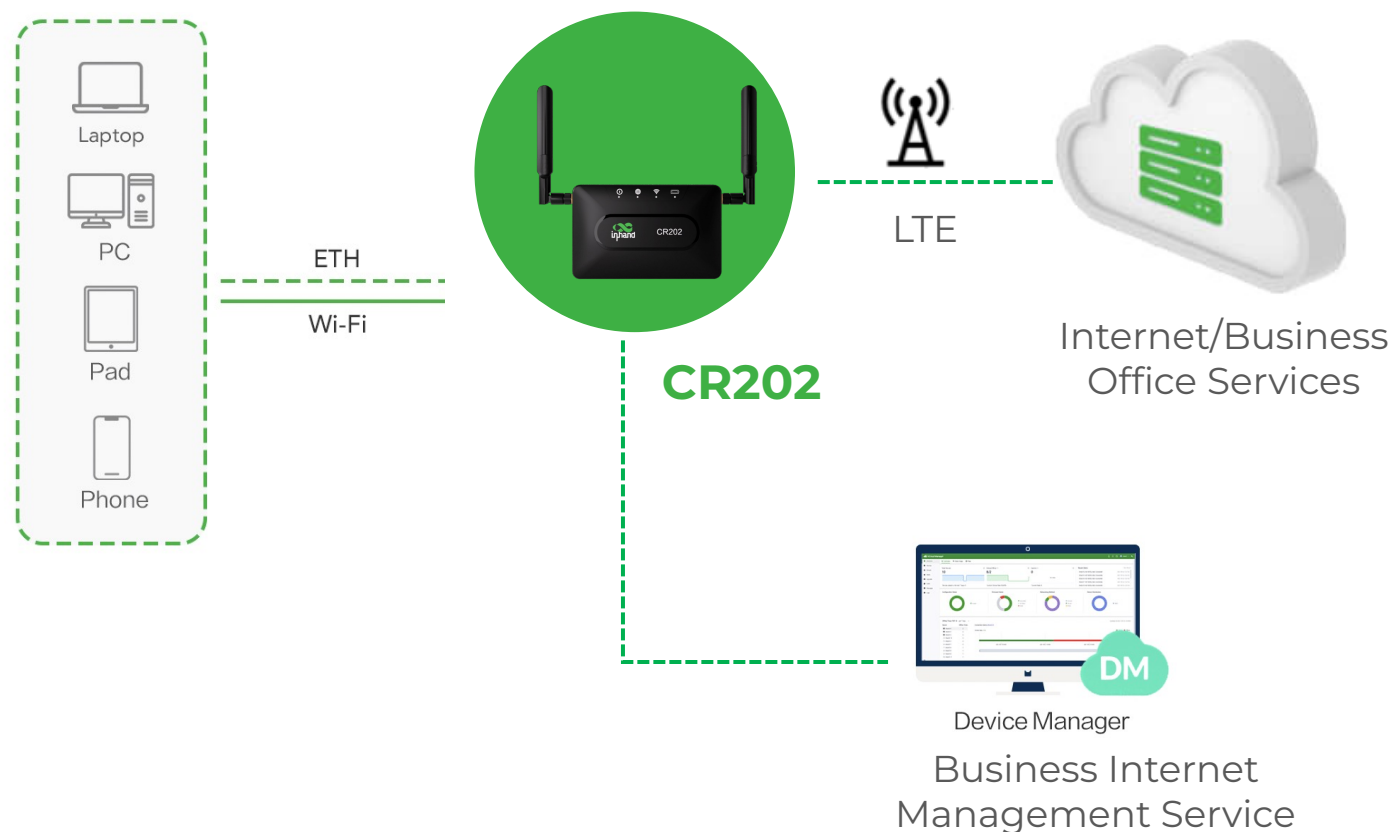
CR202: Instant Network for Camper Vans

Highlights:

Built-in battery – works for 8 hours without external power

Stable Wi-Fi – stable connections for a maximum of 32 clients even in remote areas

Plug & play: Small size, easy to carry, easy to use



Management Platforms



mand.com

Management Platform Comparison



Comparison	InCloud Manager	DeviceLive	Device Manager	InConnect
Position	Network Management Platform	IoT Device Management Platform	Device Management Cloud	Remote Access Service
Hardware Support	ER805\ER605\AP\FWA\ODU	EC900\EC300 IG900\IG500 IR624\IR925 InBOX710 VG710\VG814	IR200\IR300\IR600\IR900 IG101\IG500\IG900 VG710\VG800 CR200	IR300\IR600\IR900 IG500\IG900 VG710\VG800
Key Features	Network management Network monitor SD-WAN network Client management DPI/Network behavior analysis	Device management (Essential) Device monitor (Essential) Edge computing management Remote access to on-site machines	Device management Device monitor Edge computing management	Remote access to on-site machines
Application	Enterprise network	Industrial IoT	Multiple industries	Industrial IoT
Price	Subscription for specific licenses No free plan	Essential plan is free Advanced features need a subscription for specific licenses with limited duration.	Free	Subscription for VPN data.
Upgrade	Future upgrades with new features	Future upgrades with new features	Regular maintenance only	Regular maintenance only

InHand + Poynting Antenna Pairing



IR302

Reliable 4G Industrial Router

Small All-in-one Solution

- All-in-one antenna: 4/5G and Wi-Fi in a single enclosure.
- Small and compact design for discreet placement in any environment
- Multiple mounting options out of the box – fits any installation scenario
- Anti-vandalism design
- Best fit when: needs to be small; all antenna ports are needed; urban environment.
- DIMENSIONS: Ø99.3 mm x 36 mm



PUCK-3

Low Gain Omnidirectional

- Omni-directional design with consistent coverage in all directions.
- Cost-effective solution providing affordable and reliable connectivity for low complexity applications.
- Best fit when: low data needs and urban applications with strong cellular signals.
- DIMENSIONS: 157 mm x 61 mm x 44 mm



OMNI-280

Ultra-Low Profile Omnidirectional

- Ultra-low profile design for discreet and space-saving deployments
- Rugged IP68-rated enclosure ensures long-term weather and dust resistance
- Low-gain performance for reliable connectivity in dense environments
- Versatile indoor & outdoor use with consistent performance in any setting
- Flexible mounting options – adhesive or screw mount for fast, secure installation
- Best fit for: Smart Metering, M2M, and IoT applications
- DIMENSIONS: 135 mm x 20 mm x 10 mm



OMNI-510

InHand + Poynting Antenna Pairing



IR624

**High-performance
5G Router**



MIMO-4-17

Versatile All-in-one Solution

- All-in-one antenna: 4/5G, Wi-Fi and GPS in a single enclosure.
- Multiple mounting options out of the box – fits any installation scenario
- Anti-vandalism design
- Optimal balance between size and performance.
- Best fit when: needs to be small; all antenna ports are needed; suburban or urban environment.
- DIMENSIONS: Ø160 mm x 65 mm



PUCK-2 & PUCK-7

Small All-in-one Solution

- All-in-one antenna: 4/5G and Wi-Fi in a single enclosure.
- Small and compact design for discreet placement in any environment
- Multiple mounting options out of the box – fits any installation scenario
- Anti-vandalism design
- Best fit when: needs to be small; all antenna ports are needed; urban environment.
- DIMENSIONS: Ø99.3 mm x 36 mm



XPOL-1-5G (41)

Cross-Polarized Omnidirectional

- Omni-directional antenna elements: Increased range, ensuring connectivity even in areas with weak coverage.
- Cross-Polarized Antennas, reducing interference & improving throughput (up to 2x)
- Compact design for discreet placement in urban environments (suction caps for window mount).
- Best fit when: installed in locations with limited cellular infrastructure; obstructions close to the antenna.
- DIMENSIONS: 247 mm x 157 mm x 88 mm

InHand + Poynting Antenna Pairing



VG814



SWIRL-4



MIMO-3-17



MIMO-4-17

High Performance X-polarized

- All-in-one antenna: 4/5G, Wi-Fi & GPS
- Bigger antennas ensures superior performance even in most remote locations.
- Cross-Polarized Antennas enhance reception in all sorts of scenarios.
- Optional router enclosure can allow for easier installation and no cable losses
- Minimize holes in vehicle's roof.
- Best fit when: higher data needs; vehicle moves in all types of locations; best of the best is needed.
- DIMENSIONS: Ø382 x 127 mm

Vehicle Gateway

Multi-Technology Long-Range Solution

- All-in-one antenna: 4/5G, Wi-Fi & GPS
- Multiple mounting options out of the box – fits any installation scenario
- Larger than traditional puck-shaped antennas, allows for better performance in areas with poor coverage.
- Best fit when: vehicle moves in all types of locations; keeping connected is paramount.
- DIMENSIONS: 254 mm x 128 mm x 145 mm

Multi-Technology Versatile Solution

- All-in-one antenna: 4/5G, Wi-Fi & GPS
- Multiple mounting options out of the box – fits any installation scenario
- Best balance between size, cost and performance.
- Best fit when: needs to be small; all antenna ports are needed; suburban or urban environment.
- DIMENSIONS: Ø160 mm x 65 mm

Conclusion

Industries	InHand Solutions	Highlights	Application
Industrial Construction Energy Utility Security	Routers: IR302 (4G) IR624 (5G)	1. High stability & Industrial-grade design 2. IEC62443 3. VPN security 4. Free cloud management	• Factory automation networking • Construction site connectivity • Energy substation monitoring • Digital signage • Security cameras
	Edge gateway: IG502 Edge computer: EC312/EC3000/EC5000	1. Linux based 2. 80+ protocols supported 3. Cloud integration to AWS & Azure 4. Secure boot & TPM, IEC62443 5. 1-100 TOPS AI computing 6. Free cloud management	• Industrial IoT data collection • Predictive maintenance • Protocol conversion for legacy machines, • AI-based monitoring
Education Commercial RV Field Network	Instant Network: FWA02 / ODU2002 / CR202 / CPE02	1. Instant deployment 2. Multi-terminal connectivity (220+ users) 3. Long-term stable operation 4. Easy remote management	• Temporary stores Wi-Fi • Hotel Wi-Fi • Retail pop-up stores • Chain store internet • RV network • Field monitoring
Transportation & Fleet	Industrial router: IR315	Other highlight: E-mark, GNSS	Connected buses, taxis, and trucks Onboard video surveillance and dispatch Smart fleet management
	Vehicle gateways: VG710/VG814	1. Mobile-ready with 4G/5G, GNSS, CAN, audio, Bluetooth, and M12 ethernet. 2. Supports Docker/C++/Python development 3. Certified ITxPT, E-Mark, EN50155, ECE R118	•ITxPT compliant networking for public transportation •Rail transit data collection •Onboard diagnostics and remote operation and maintenance •Fleet intelligent application development

Why InHand?

Comprehensive Product Portfolio



- Not only routers, but also vehicle gateways, edge computers and instant network

Seamless Antenna Compatibility



- Works well with Poynting antennas for ready-to-deploy solutions.

Local commercial and technique Support



- Fast, reliable assistance on-site.

Free Unified Management Platform



- Centralized device management at no extra cost.

Now, which model are you interested in?

Get A Demo with Special Price!



Q & A



www.inhand.com