



# ADVANTECH



## ICR-2000, ICR-2400, ICR-2500

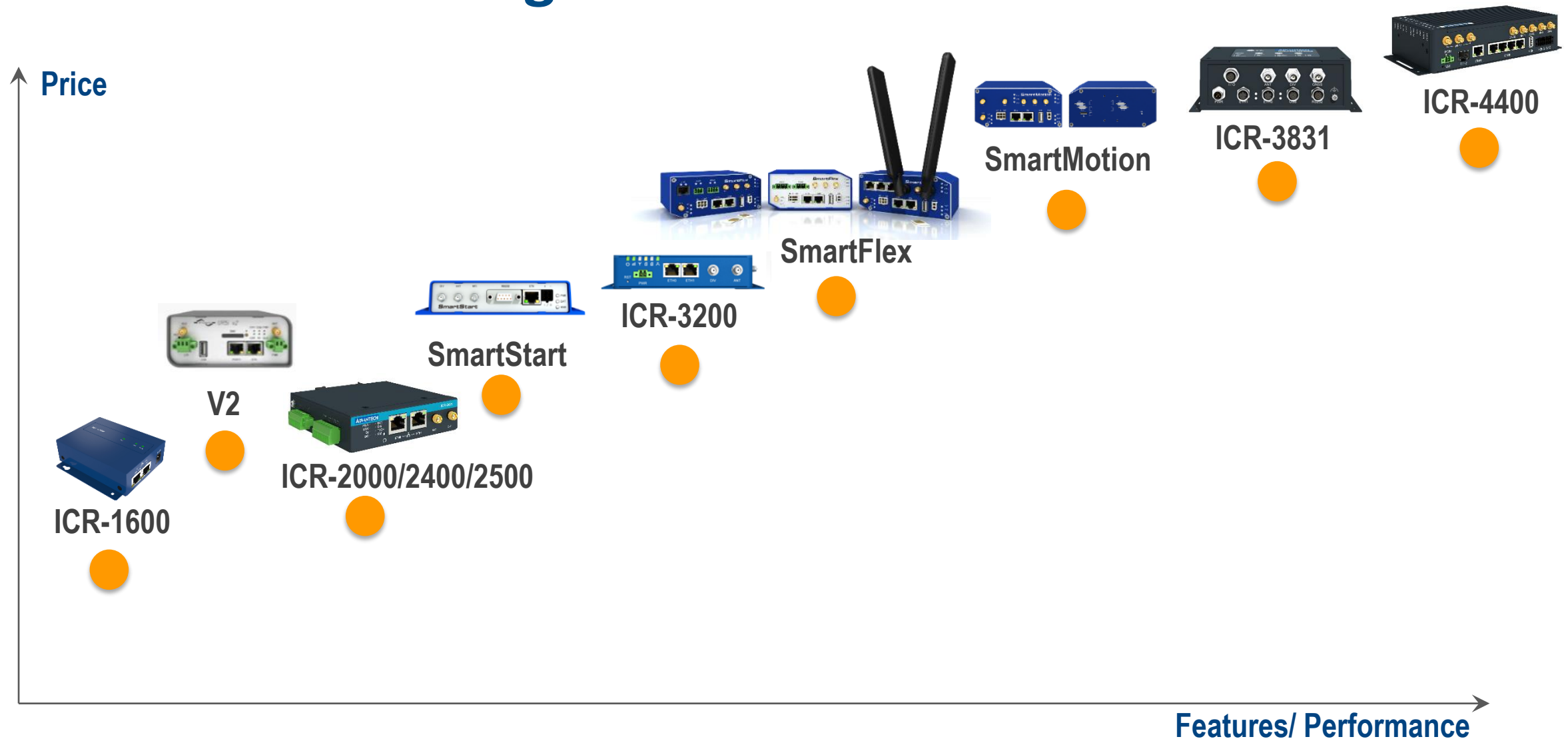
Industrial Cellular Routers & Gateways

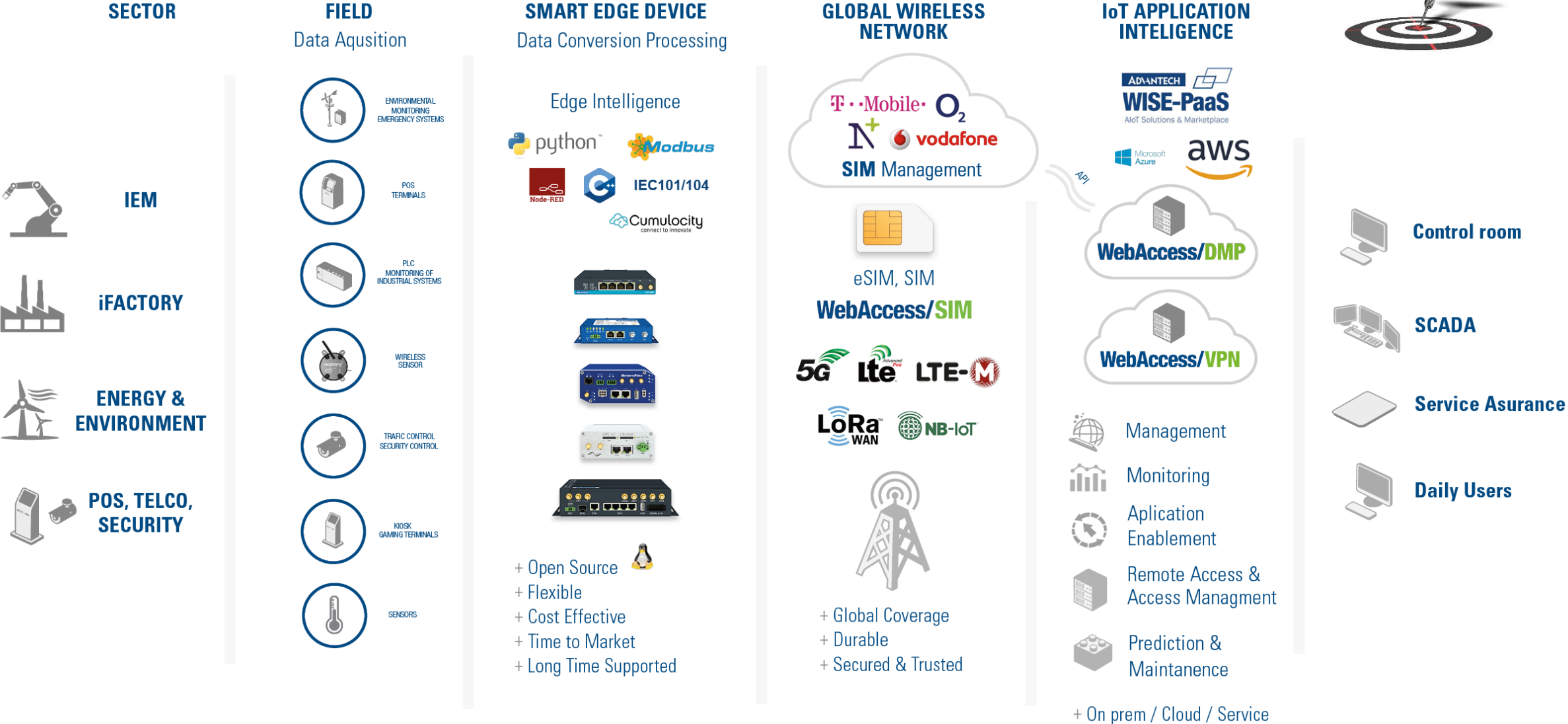
# ICR Family – Shared Features & Benefits

Feature	Benefit
Dual SIM, multi-carrier support	Always use the best available carrier
License-free Enterprise routing software, 2/3 year warranty	Low Total Cost of Ownership
Free App Store	75+ apps to support MODBUS, Python, Node-RED, Azure, and MUCH MORE
Linux OS with User Available memory and programming tools	Custom Scripting and App development
Remote Device Management and VPN Portal (WebAccess)	Empower customers with remote troubleshooting and security
Wide range of tested accessories (antennas, power supplies, mounting)	Add value (and \$) to each account



# Product Positioning





# Entry Level Industrial 4G Router Families



## ICR-2000, ICR-2400, ICR-2500



- Hardware Platform v2i
- **LTE Cat.4** 150 Mbps (DL), 50 Mbps (UL)
- 3G/2G fallback
- Operational temperature  $-40^{\circ}$  to  $+75^{\circ}\text{C}$
- Power 9 – 48 VDC
- Robust Metal Chassis
- **Wall** and **DIN** mount options
- Linux based OS & SW customization




# Hardware Platform v2i - System resources

Platform	v2i router platform
CPU	CPU 600 MHz
RAM	128 MB
M-RAM	No
Flash memory	64 MB
Router App (User Modules) space	12 MB
Customer data space	2 MB
ICR-OS	
IPv6	

# Operating System for **ADVANTECH** Industrial Cellular Routers



- Linux based operating system with software customization  RouterApp
- Application Development Tools – Python, BASH, C/C++
- Security features – HTTPS, SSH, VPN Tunneling, Authentication, Encryption
- Implementation of industrial protocols – IEC 101/104, DF1, DNP3
- Firmware management – Automatic updates, Over The Air
- Diagnostic and Log functionality – Status, One Click Report, Log
- Configuration – Web Server, SSH, Profiles, Backup/Restore
- Advanced Software Tools **WebAccess/VPN** **WebAccess/DMP<sub>2</sub>**







# RouterApp

- RouterApp (User Module) – Extended functions
- Free for download
- Can be developed by our R&D, partners, or by users themselves
- Easy installation via webinterface or
- Converting of Industrial protocols
- IoT, Security, Networking, Tools, **WebAccess/DMP<sub>2</sub>**



# WebAccess/DMP<sub>2</sub>

Remote device provisioning, monitoring and management platform

- Performance at Scale
- Extensible Architecture
- AssureAuth PKI
- Multi Tenancy
- AssureSync Configuration Management
- Secure Device Health Monitoring
- Built for Interoperability
- Fully API Enabled



# WebAccess/VPN

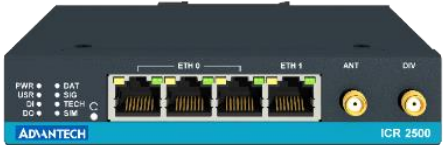
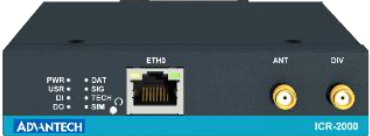
Advanced Secure Networking Platform  
& Remote Access Solution

- Secure Private Networks in Internet
- Encrypted & Reliable Communication
- Centrally defined VPN topology
- Managed LAN & 1:1 NAT modes
- Firewall & Access Control
- User-friendly Management
- Easy Deployment
- Extensive Platform Compatibility



# Industrial Cellular Routers & Gateways

... not just a router but an IoT Gateway



IEC101/104

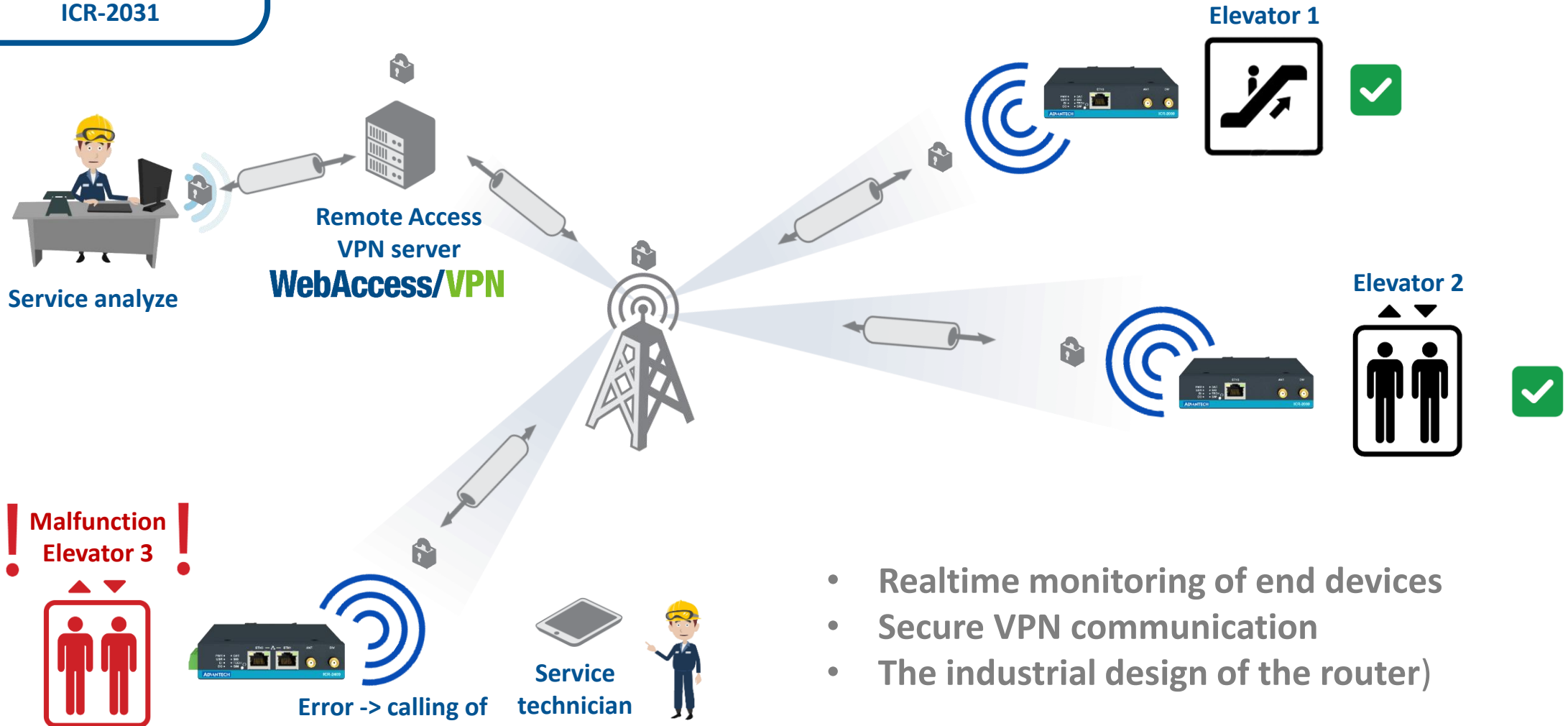
# CASE 1



ICR-2031

# INDUSTRIAL EQUIPMENT MANUFACTURES

## Simple Remote monitoring of Elevators



- Realtime monitoring of end devices
- Secure VPN communication
- The industrial design of the router)

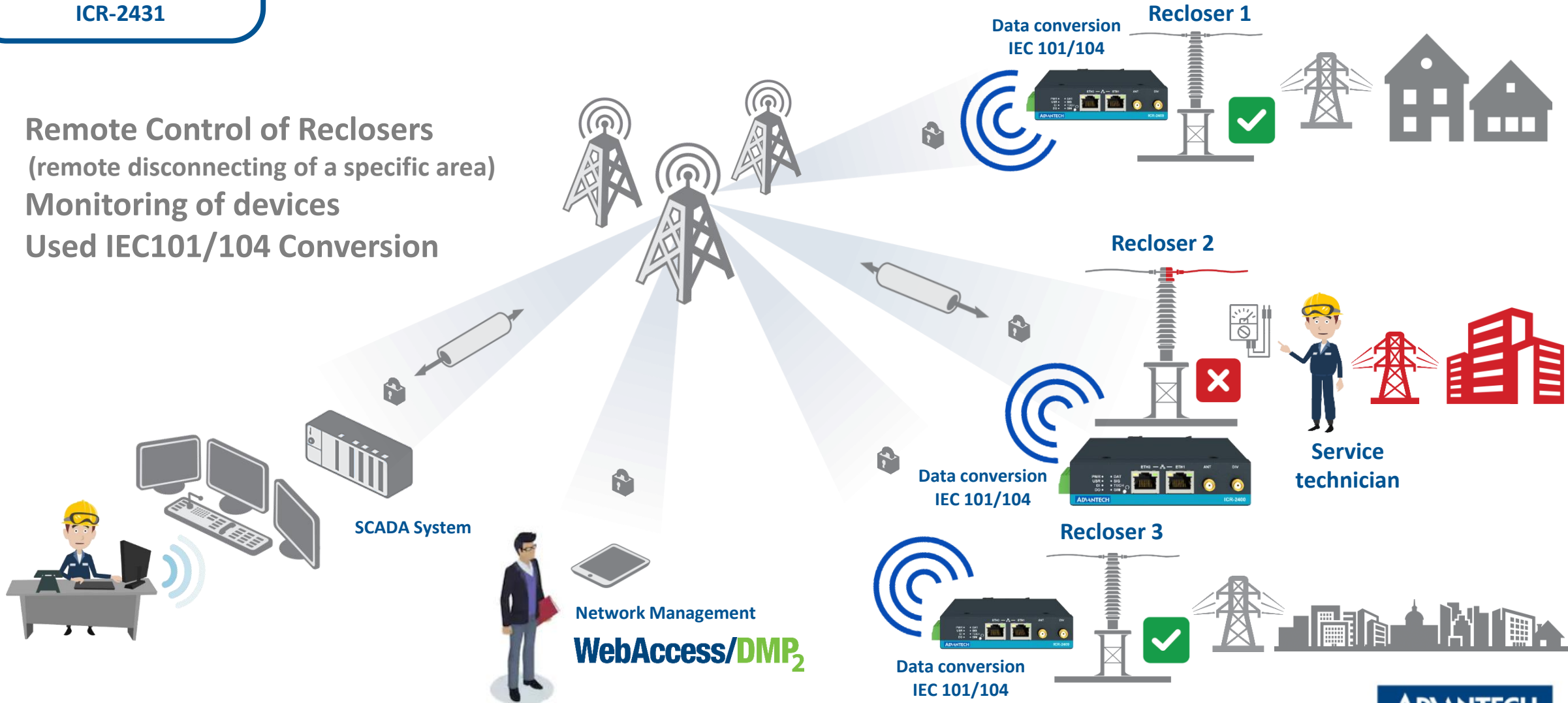
# CASE 2



ICR-2431

## ENERGY – Controlling of Reclosers – IEC101/104

- Remote Control of Reclosers (remote disconnecting of a specific area)
- Monitoring of devices
- Used IEC101/104 Conversion



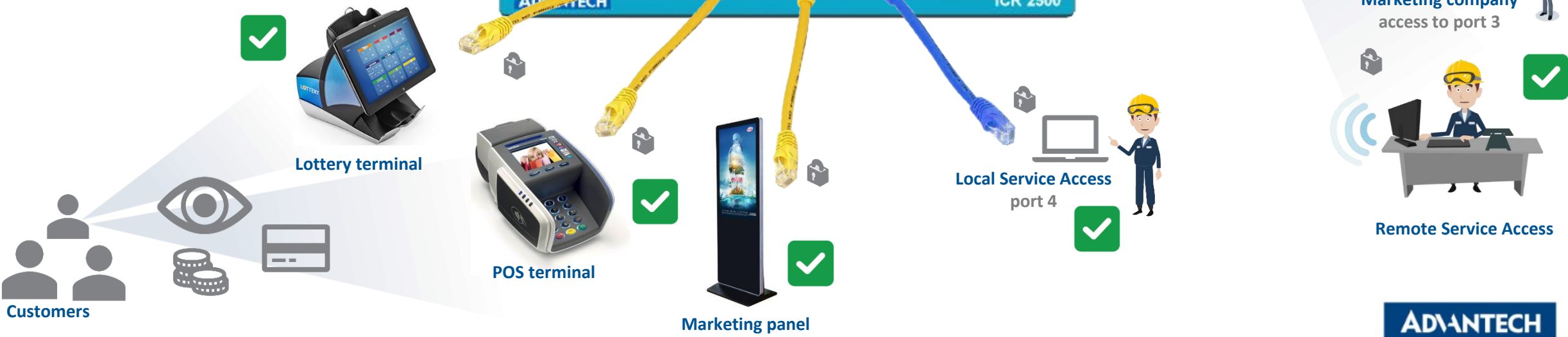
# CASE 3



ICR-2531

## Self Service Kiosks - Lottery terminals, POS Terminals, Marketing online panels

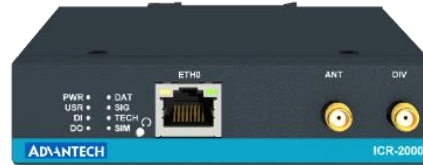
- Secure communication
- One Gateway for various end applications
- 2x SIM for mobile network failover



# Models Overview

## ICR-2031 EMEA region

- 1x SIM
- 1x Ethernet



## ICR-2431 EMEA region

## ICR-2432 LATAM region

- 2x SIM
- 2x Ethernet
- 1x RS232, 1x RS485



## ICR-2531 EMEA region

- 2x SIM
- 4x Ethernet





# ICR-2000 Family

- 1× SIM
  - 3FF Micro SIM with cover
- 1× Ethernet 10/100 Mbps
- 1× DI, 1× DO



# ICR-2400 Family

- 2× SIM for redundancy
  - 3FF Micro SIM with cover
- 2× Ethernet 10/100 Mbps
  - 1× ETH0 + 1× ETH1 Independent ports
- 1× RS232
- 1× RS485
- 1× DI, 1× DO

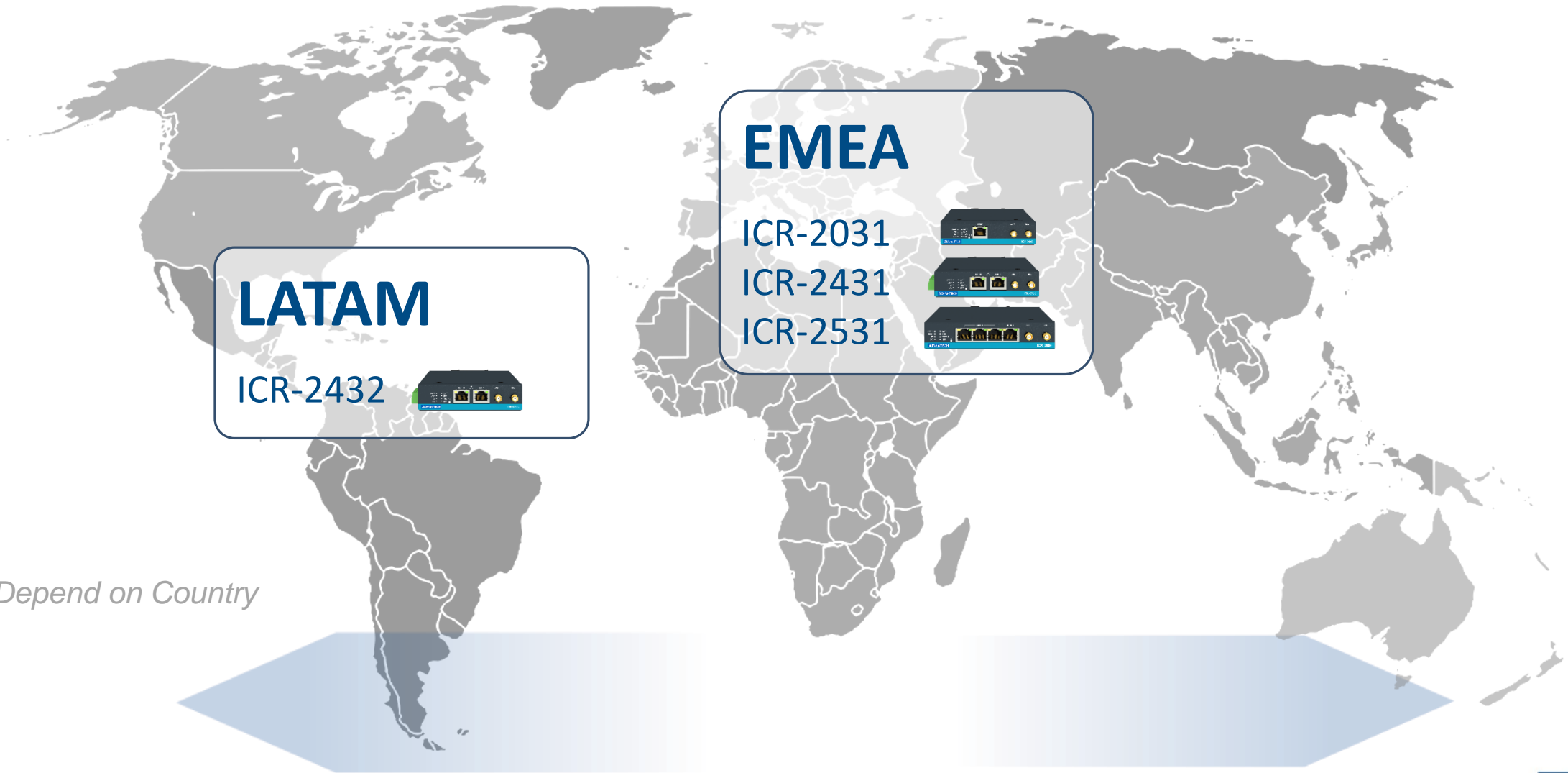


# ICR-2500 Family

- 2× SIM for redundancy
  - 3FF Micro SIM with cover
- 4× Ethernet 10/100 Mbps
  - 3× ETH0 – 3-port Switch
  - 1× ETH1 – Independent port
- 1× DI, 1× DO



# ICR-2000/2400/2500 Global Map



## LATAM

ICR-2432



## EMEA

ICR-2031



ICR-2431



ICR-2531



\* Depend on Country

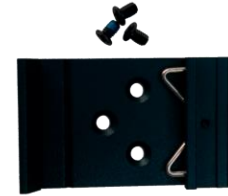
# ICR-2000/2400/2500 - What is in the package

- ICR-2xxx router
- 6-pin PWR / IO connector
- 7-pin RS232/RS485 connector (ICR-2400)
- Wall Mount Kit
- Quick Start Guide



# ICR-2000/2400/2500 - Optional accessories

- **BB-DIN-ICR32** – DIN Clip
- **RPS-ICR2-EU** - Power Supply, ICR2, 12V/1A, 6-pin, EU plug
- **ANT-LTE5G-025** - Antenna 5G/LTE, Terminal, SMA-M
- **BB-KD-ETH** – Ethernet cross cable, length 1.5m
- **ACC-KIT-ICR2-001** - ICR-2000 family accessory kit  
(2× Terminal Antenna, EU Power Supply, ETH cable)



# ICR-2000/2400/2500 Roadmap

- Available
- Developing
- Planning

\* *Ideation*

\*\* *Project Based*



**ICR-2031**

- LTE Cat.4
- 1x ETH, I/O
- 1x SIM
- EMEA



**ICR-2531**

- LTE Cat.4
- 4x ETH
- 2x SIM
- EMEA



**ICR-2431**

- LTE Cat.4
- 2x ETH, I/O, RS232, RS485
- 2x SIM
- EMEA



**ICR-2432**

- LTE Cat.4
- 2x ETH, I/O, RS232, RS485
- 2x SIM
- LATAM



**ICR-2412\*\***

- LTE Cat M1, NB-IoT
- 2x ETH, I/O, RS232, RS485
- 2x SIM
- EMEA **LTE450**



**ICR-2437\*\***

- LTE Cat.4
- 2x ETH, I/O, RS232, RS485
- 2x SIM
- EMEA **LTE450**



**ICR-2436\*\***

- LTE Cat.9/18
- 2x ETH, I/O, RS232, RS485
- 2x SIM
- **Private LTE**



**ICR-2431W\*/\*\***  
**ICR-2531W\*/\*\***

- WiFi versions



# SECURITY

## Keep your devices updated

### Connected via Cellular Routers website

- Software and firmware
- Documentation
- Security Advisories

[www.icr.advantech.cz](http://www.icr.advantech.cz)

The image shows two overlapping browser windows. The top window displays a blog post titled "Our Routers Are Not Affected by the AMNESIA:33 Vulnerabilities". The bottom window shows a product page for the "ICR-3200 NEW Intelligent 4G LTE Router & Gateway". The product page features a blue router device and lists specifications: "4G LTE Cat.4 Router", "Gateway Industrial IoT applications", "2x SIM with cover, Embedded SIM ready", and "2x Ethernet 10/100". Below the product image is a date "24.3.2020" and a message to partners regarding the COVID-19 pandemic. The right side of the bottom window shows a grid of other router models like ICR-4453, SL305, SL301, SL306, SR303, SR304, and SR305.



*Go Together,  
We Go Far and Grow Big*

