ADVANTECH

SMART CELLULAR ROUTERS & GATEWAYS

DESIGNED FOR INDUSTRIAL IoT APPLICATIONS

smart-CON
be connected

LTE/HSPA+/UMTS/CDMA/EDGE/GPRS Smart Cellular Routers
... functions, features, networking, diagnostics ...

Functions & Software Features

Advantech routers enhanced functionality incorporates self-diagnostics and a HW watchdog to ensure secure and consistent operation and ultra-reliable wireless connections.

With multi SIM card holders and automatic failover, these routers provide wireless redundancy for critical applications, along with SMS and email messaging and control capability for remote alerts and resets. They support the most commonly used LAN/WAN network protocols and Advantech custom software allows for easy, flexible and effective networking and management.

Remote Router Supervision & Mass Network Management

- HTTP/HTTPS, Telnet/SSH for local and remote configuration and firmware updates
- Schedule automatic configuration and firmware updates from your FTP/HTTP servers
- Up to 4 independent configuration profiles can be stored and remotely switched using scripts, SMS messages, I/O, etc.
- Additional software for easy networking and monitoring, like WebAccess/DMP, Smart-CLUSTER and R-SeeNet

Diagnostics

- Detailed logs of operational information, including signal status and data traffic
- Signal level data, cell identifiers and data traffic are saved in router's memory for up to 2 months
- SNMP: router diagnostics, communication with I/O and MBUS
- LED indication: signal strength, connection status, ports, customer's application LED

Networking

- DHCP: automatic IP addressing in LAN network
- NAP/PAT: IP address and port translation
- Firewall: filtering of addresses, ports, protocols
- VRRP: virtual backup router function
- DynDNS client: access to the dynamic IP address
- VLAN 802.1Q: virtual LAN
- QoS: quality of service
- PPPoE Bridge: PPP over Ethernet Bridge mode
- NTP client, NTP server: time synchronization
- Dynamic routing protocols: BGP, OSPF, RIP, IS-IS
- MODBUS RTU/TCP gateway and mapping: convert data from RTU to TCP/IP format
- Captive Portal

SMS & E-mail Info

- Information about status, connection or disconnection and many other parameters
- SMS control: on/off connection, switching SIM, router profile, I/O
- SMS communication: AT commands (RS232 and TCP/IP), I/O or HTTP

Modular LINUX Software Environment

Open LINUX based system allows use of common LINUX commands, scripts and other features. With open Linux platform and wide posibilities of programming customer SW applications in Python, C/C++ or browser-based flow editor Node-RED the routers offer a real open development platform for Industrial IoT applications. The Advantech existing app library (User modules) with apps already developed to enhance specific router functionality including industrial protocol conversions and support of IoT platforms such as MS Azure, Cumulocity, ThingWorx and others are supported on the router.

Multiple SIM for carrier fail-over

- Back-up by switching between up to 4 independent mobile carriers
- Switch when data limit is exceeded, when roaming is detected or by any other programmable option

VPN Tunneling & Security

- IPSec, OpenVPN, PPTP, L2TP, EasyVPN, GRE
- Authentication by certificates, shared keys, name/password, RADIUS
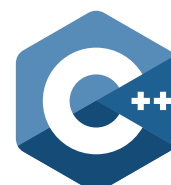
GLOBAL ADVANTECH Smart Cellular Routers & Gateways

NAM region

SmartFlex SR305

LTE router
Max download / Max upload
100 / 50 Mbit/s

SmartStart SL302

Intelligent LTE router cat.1
Max download / Max upload
10 / 5 Mbit/s

ICR-3241
ICR-3241W

Industrial & IoT LTE router cat.4
Max download / Max upload
150 / 50 Mbit/s

Spectre RT

LAN router

EMEA, LATAM, APAC

LR77v2

SmartFlex SR303, SR304, SR307, SR308

LTE routers
Max download / Max upload
100 / 50 Mbit/s

LR77 v2 Libratum

Balanced LTE router
Max download / Max upload
100 / 50 Mbit/s

SmartStart SL304, SL306

Intelligent LTE router cat.4
Max download / Max upload
150 / 50 Mbit/s

UR5i v2

UMTS/HSPA+ router
Max download / Max upload
14.4 / 5.76 Mbit/s

UR5i v2 Libratum

Balanced UMTS/HSPA+ router
Max download / Max upload
14.4 / 5.76 Mbit/s

ICR-3231
ICR-3231W

ICR-3232
ICR-3232W

Industrial & IoT LTE routers cat.4
Max download / Max upload
150 / 50 Mbit/s

SmartMotion ST352, ST355

Twin Module Design
Max download / Max upload
by the modules / by the modules

XR5i v2

SmartFlex SR300

LAN routers

1 - 2

Smart Cellular Routers

SmartStart
Intelligent 4G LTE Router & Gateway

Product Features:

- For Industrial IoT and consumer focused high speed data applications
- Ethernet, serial RS-232 and I/O for connecting a wide array of field assets with DIN rail or wall mounting
- Low power consumption for solar and battery power applications
- Exceptionally resilient wireless and wired connection
- Enhanced memory to host custom software applications and a wide variety of protocols
- Easy deployment, mass maintenance and troubleshooting with our SmartWorx remote management and monitoring tools
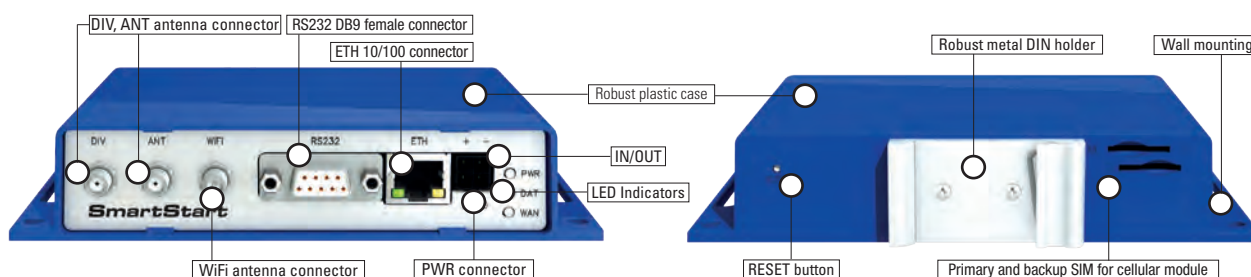- Loaded with advanced features to secure your data

The **SmartStart** LTE Cat.4 family of cellular routers and gateways are the perfect way to connect RS-232 and Ethernet devices to a cellular network. Industrial M2M and IoT applications include Ethernet lottery machines, ATM stations, kiosk locations, gaming terminals along with RS-232 traffic controllers, meters, UPS systems, PLCs and much more.

The processor is powerful enough to handle the full range of LTE communications capabilities, including video streams. The internal memory provides ample storage for custom scripts, software applications and a wide variety of protocols.

In addition to its Ethernet and RS-232 ports, **SmartStart** has built-in digital I/O connectivity. Competing routers in the same price range generally provide only Ethernet or RS-232. StartSmart™ provides all three.

SmartStart provides best-in-class power consumption combined with LTE performance, and is optimized for solar and battery powered applications. Low Power Mode extends battery life by dropping power consumption to 40 mW, and can be triggered by timers, low voltage detection or I/O.

SmartStart is the industry's only cellular gateway with power consumption equivalent to 2G devices. It is DIN rail and panel mountable.

Diagram labels: DIV, ANT antenna connector | RS232 DB9 female connector | ETH 10/100 connector | Robust plastic case | Robust metal DIN holder | Wall mounting | IN/OUT | LED Indicators | WiFi antenna connector | PWR connector | RESET button | Primary and backup SIM for cellular module

SmartStart is an excellent fit for applications that are migrating to LTE technology. **SmartStart** provides fallback to 3G/2G technologies to ensure that connectivity is reliable in areas where LTE is still under development. This future proofs your existing installations and protects your investment. You can upgrade your systems according to your own schedule, as **SmartStart** will continue to connect your legacy devices, even after the cellular providers sunset their 2G and 3G cellular networks.

SmartStart is easy to install using **WebAccess/DMP**, a full featured configuration and monitoring tool. Our VPN server SmartCluster makes it easy to build private network.

SmartStart router is compatible with:

WebAccess/DMP
R-SEENET™
SMARTCLUSTER™

ISO9001 | RoHS

ICR-3200

Industrial IoT 4G LTE Router & Gateway

Product Features:

- 4G LTE Cat.4 VPN Gateway for Industrial IoT applications
- Powerful CPU with 1GB storage to host customer SW applications
- 2× SIM with cover, eSIM ready
- 2× Ethernet 10/100, 1x RS232, 1x RS485 and I/O
- Optional Wi-Fi 802.11ac using MO-MIMO technology
- Optional GNSS receiver
- Robust metal cover with DIN and Wall mount options
- Operational temperature range from -40 °C to +75 °C
- Backup real time clock
- Sleep mode & Power ignition

ICR-3200 router is compatible with technologies:

WebAccess/DMP
R-SEENET™
SMART CLUSTER ™

The **ICR-3200** LTE gateway is the perfect way to connect IP or serial devices to a cellular network. Industrial M2M and IoT applications include kiosks, industrial PCs, HMIs, traffic controllers, meters, UPS systems, and much more. With LTE Cat.4 upload speeds of up to 50 Mbps and download speeds of up to 150 Mbps, the router provides ample bandwidth for high data demand applications such as CCTV or public Wi-Fi hotspots.
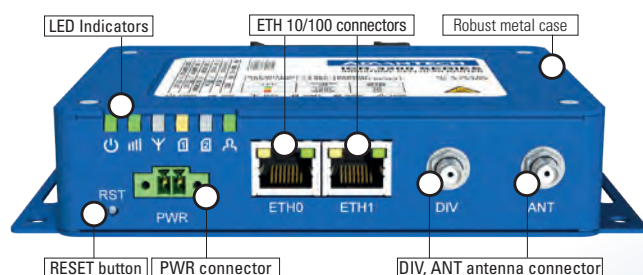
In addition to its two independent or switched Ethernet ports, serial ports RS232 and RS485, ICR-3200 has built-in digital I/O connectivity, backup real-time clock and sleep mode support. The device has two SIM readers protected by metallic cover for carrier failover redundancy. As an addition the router is ready to use internal eSIM. Optional built-in GNSS chipset provides information about the accurate position of the router. An optional built-in Wi-Fi module is also available, with 802.11a,b,g,n,ac modes and MO-MIMO support is appropriate for on-board Wi-Fi transport applications.

The router supports VPN tunnel creation using various protocols to ensure safe communications. The router provides diagnostic functions which include automatic monitoring of the wireless and wired connections, automatic restart in case of connection losses, and a hardware watchdog that monitors the router status.
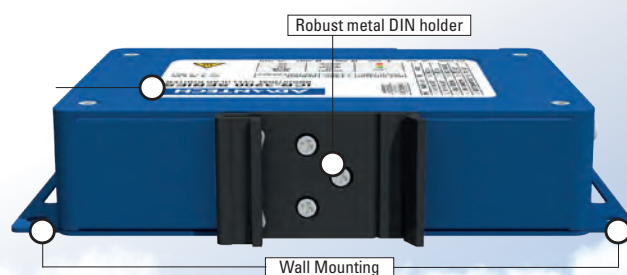The ICR-3200 places intelligence at the network edge with an extremely powerful Cortex A8 CPU at 1GHz, 512 MB RAM and 4 GB EMMC FLASH memory in pSLC mode for a long-lifetime and critical industrial applications. 1 GB of memory space is allocated for customer SW applications and data.

ICR-3200 is easy to install using **WebAccess/DMP**, a full featured configuration and monitoring tool.
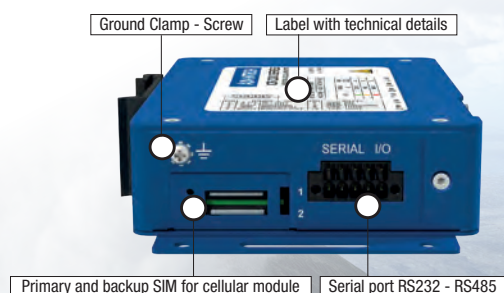
FRONT VIEW

LED Indicators
ETH 10/100 connectors
Robust metal case
RST
RESET button
PWR connector
ETH0
ETH1
DIV
ANT
DIV, ANT antenna connector

REAR VIEW

Robust metal DIN holder
Wall Mounting

LEFT SIDE VIEW

Ground Clamp - Screw
Label with technical details
SERIAL I/O
Primary and backup SIM for cellular module
Serial port RS232 - RS485

RIGHT SIDE VIEW

WiFi2
GNSS
WiFi1
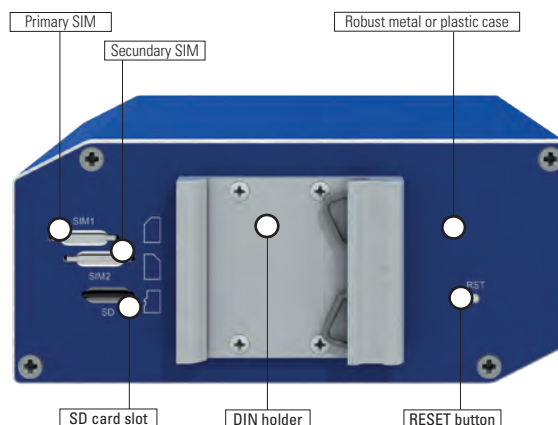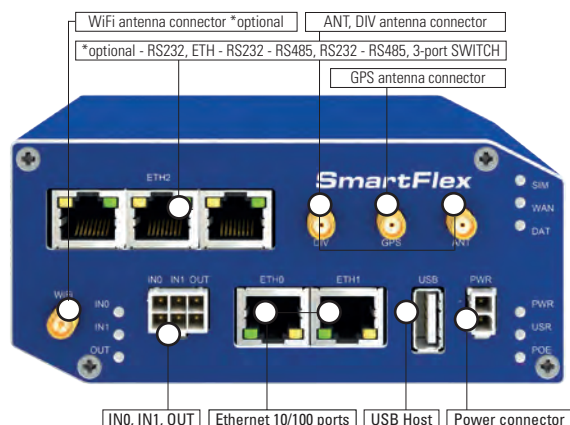GPS, WiFi antennas

ISO 9001

RoHS

SmartFlex

... more power, more features, more ideas

The **SmartFlex** cellular router provides secure Internet connectivity for devices and LANs via the cellular networks. It can be used to provide automatic wireless failover for wired networks, wireless connectivity for devices in remote locations where cable connections are impractical, and wireless connectivity for mobile assets. With upload speeds of up to 50 Mbit/s and download speeds of up to 100 Mbit/s, the **SmartFlex** provides ample bandwidth, even for applications that require video.

The **SmartFlex** is designed and manufactured for use in tough environmental conditions. Specifications include wide operating temperature ranges from -40 to +75 °C. It accepts input voltage ranges from 10 V DC to 60 V DC and is equipped with sleep mode for reducing electrical consumption

The **SmartFlex** places intelligence out at the network edge with an extremely powerful Cortex A8 CPU at 1GHz, 256 MB flash memory, 512 MB RAM and 128kB M-RAM, providing full support for LTE (long Term Evolution) speeds and applications. A secure Web interface allows users to configure and manage the **SmartFlex** from remote locations. The router can also upgrade its configuration and firmware from the operator's central server, allowing for simultaneous mass reconfiguration of every router on the network. Users may insert Linux scripts and they can create multiple configurations for the same router. Users may switch from one configuration to another at any time.

WiFi antenna connector *optional | ANT, DIV antenna connector
*optional - RS232, ETH - RS232 - RS485, RS232 - RS485, 3-port SWITCH
GPS antenna connector
IN0, IN1, OUT | Ethernet 10/100 ports | USB Host | Power connector

Primary SIM | Robust metal or plastic case
Secundary SIM
SD card slot | DIN holder | RESET button

The flexible **SmartFlex** can be configured to suit any application. The standard configuration includes 2 Ethernet ports with 2 independent LANs/IP addresses. The standard configuration also includes 1 USB host port, 1 microSD card holder, 2 SIM card holders for automatic failover to an alternate service provider, 2 binary inputs(I/O) , 1 binary output (I/O) and onboard GPS. An optional built-in Wi-Fi module is also available, with industrial grade operating temperature ranges from -40 to +75 °C. Further optional boards available: 3x ETH (the router can be configured with up to 5 total Ethernet ports and 3 independent LANs/IP addresses) or ETH - RS232 - RS485 (isolation strenght up to 2.5kV) or RS232 - RS485 or RS232.

The **SmartFlex** supports real time data encryption and the creation of VPN tunnels using IPsec, OpenVPN and L2TP. It supports DHCP, NAT, NAT-T, DynDNS, NTP, VRRP, control by SMS, and numerous other functions, as well as additional software like WebAccess/DMP, SmartCluster VPN Server and R-SeeNet.

Product Features:

- Powerful CPU and enhanced memory to support high demand customer applications
- Extended operational temperature range from -40 °C to +75 °C
- 10-60 VDC operated with transient and reverse polarity voltage protection
- Flexible Port options, such as 3-port Switch, Ethernet and RS232/422/485 serial ports with isolation
- GPS and GLONASS support
- MicroSD card holder
- Low power consumption mode for solar and battery power applications
- Optional industrial grade WiFi
- PoE PD, PoE PSE, In/Out, USB Host
- Advanced security features

SmartFlex is compatible with:

WebAccess/DMP
R-*SEE*NET™
SMART*CLUSTER* ™

SmartMotion
TWIN Cellular Module Router

Product Features:

- Two Independent cellular modules for advanced fail over feature
- Powerful CPU and enhanced memory to support high demand customer applications
- Load Balancing
- Extended operational temperature range from -40 °C to +75 °C
- 10-60 VDC operated with transient and reverse polarity voltage protection
- GPS and GLONASS support
- MicroSD card holder
- Low power consumption mode for solar and battery power applications
- Optional industrial grade WiFi
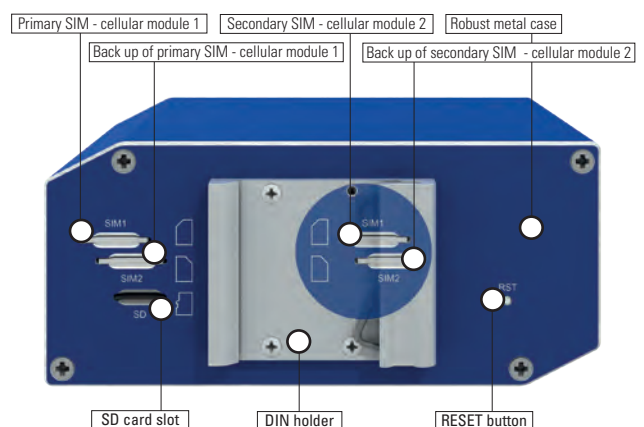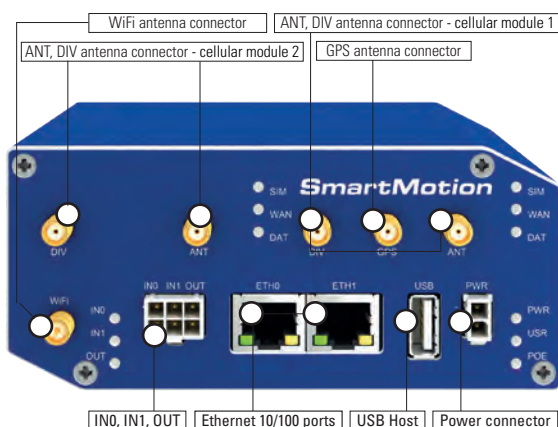- PoE PD, PoE PSE, In/Out, USB Host
- Advanced security features

The **SmartMotion** cellular router provides a reliable, secure network, with failover protection for devices and LANs.

Two interdependent cellular modules with 2 SIMs slots each to support multiple cellular carriers. Business continuity is never a problem with this advanced fail over architecture and Load Balancing feature which simultaneously receives Cellular, Wi-Fi and Ethernet data.

SmartMotion automatic wireless failover protects against loss of communications in wired or wireless networks by using dual LTE/4G cellular module technology that accommodates multiple cellular carriers. Smartmotion provides transfer speeds up to 50 Mbit/s and download speeds of up to 100 Mbit/s meeting the high demand required for video transfer.

The **SmartMotion** is designed and tested to meet the requirements of industrial, mobile, security and other harsh environment application where standard commercial designs fail. Specifications include wide operating temperature ranges from -40 to +75 °C, input voltage range 10 V DC to 60 V DC, and advanced sleep mode feature to allow low power consumption for solar and battery power applications.

WiFi antenna connector | ANT, DIV antenna connector - cellular module 1
ANT, DIV antenna connector - cellular module 2 | GPS antenna connector
IN0, IN1, OUT | Ethernet 10/100 ports | USB Host | Power connector

Primary SIM - cellular module 1 | Secondary SIM - cellular module 2 | Robust metal case
Back up of primary SIM - cellular module 1 | Back up of secondary SIM - cellular module 2
SD card slot | DIN holder | RESET button

The **SmartMotion** places intelligence out at the network edge with an extremely powerful CPU and enhanced embedded memory capacity providing full support for LTE/4G (long Term Evolution) speeds and applications. A secure Web interface allows users to configure and manage the **SmartMotion** from remote locations. The router can also upgrade its configuration and firmware from the operator's central server, allowing for simultaneous mass reconfiguration of every router on the network. Users may insert Linux scripts and they can create multiple configurations for the same router. Users may switch from one configuration to another at any time.

The flexible **SmartMotion** concept includes 2 Ethernet ports with 2 independent LANs/IP addresses. The standard configuration also includes 1 USB host port, 1 microSD card holder, 4 SIM card holders for automatic failover to an alternate service provider, 2 binary inputs(I/O) , 1 binary output (I/O) and onboard GPS. An optional built-in Wi-Fi module is also available, with industrial grade operating temperature ranges from -40 to +75 °C.

The **SmartMotion** supports real time data encryption and the creation of VPN tunnels using IPsec, OpenVPN and L2TP. It supports DHCP, NAT, NAT-T, DynDNS, NTP, VRRP, control by SMS, and numerous other functions, as well as additional software like WebAccess/DMP, SmartCluster VPN Server and R-SeeNet.

UR5i v2, LR77 v2
MODULAR DESIGN of v2 ROUTERS

Basic and full versions are available, with different combinations of optional ports and SIM card holders.

Fixed communication interfaces:
- Ethernet 10/100
- USB Host
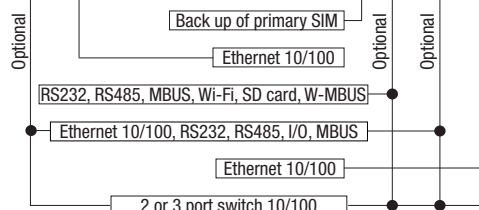- I/O port with 1× input and 1× output

Optional interfaces to optimize according to your application, with the ability to add additional interfaces in the future:

- 1-2× Ethernet 10/100 with available modes:
    - 2-port Ethernet switch
    - 3-port Ethernet switch
    - 2× independent LAN
- Wi-Fi: AP or client mode
- RS232 serial port
- RS485 galvanic separation available
- RS422 galvanic separation available
- MBUS master for up to 30 slave meters
- SD card holder
- Wireless MBUS
- I/O CNT interface including 4× binary inputs (2 inputs may be configured as counter) 2× analogue inputs and 1× binary output

For all routers, you can choose either a metal or plastic casing.

Basic version
1× SIM card holder
1× optional port

Full version
2× SIM card holder
2× optional port

Optional
Back up of primary SIM
Ethernet 10/100
RS232, RS485, MBUS, Wi-Fi, SD card, W-MBUS
Ethernet 10/100, RS232, RS485, I/O, MBUS
Ethernet 10/100
2 or 3 port switch 10/100

LIBRATUM v2
## BALANCED DESIGN, GREAT VALUE, BALANCED PRICE

All the best from "Modular design" - Balanced routers UR5iv2 Libratum and LR77v2 Libratum HSPA+ and LTE wireless routers featuring high speed data rates (14.4 Mbit/s / 100 Mbit/s).

- 2× Ethernet 10/100 with possible modes:
    - 2-port Ethernet switch
    - 2× independent LAN
- Optional Wi-Fi: AP or client mode
- Dual-SIM fail over
- Antenna Rx Diversity
- Temperature up to +75 °C
- You can choose either a metal or plastic casing

LR77v2 Libratum, UR5iv2 Libratum
2× SIM card holder
2× LAN port, Wi-Fi optional

Wi-Fi
Back up of primary SIM
Ethernet 10/100
2 port switch

All v2 routers are compatible with:

R-SEENET
SMARTCLUSTER
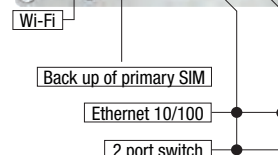
Smart Cellular Routers

GLOBAL ROUTERS

	LR77 v2 Libratum	UR5i v2 Libratum	LR77 v2	UR5i v2	XR5i v2E	XR5i v2F
REGION						
EMEA	✔	✔	✔	✔	✔	✔
NAM						ERT31x
ASIA & LATAM		✔		✔	✔	✔
AUS & NZ		✔				
MOBILE WIRELESS NETWORK TECHNOLOGY						
GPRS/EDGE	✔	✔	✔	✔		
UMTS/HSPA+	✔	✔	✔	✔		
LTE	Cat.3		Cat.3			
LTE 450						
WAN ETHERNET	✔	✔	optional	optional	✔	✔
Two VF modules						
COMMUNICATION INTERFACES AND EXPANSIONS						
Ethernet 10/100	2x	2x	1x - 3x	1x - 3x	2x	1x - 3x
PoE PSE / PoE PD						
SD Card Holder			optional	optional		optional
Wi-Fi (IEEE 802.11 b, g, n)	optional	optional	optional	optional	optional	optional
USB Host			✔	✔		✔
RS232/RS422/RS485			optional	optional		optional
MBUS, Wireless MBUS			optional	optional		optional
I/O CNT (4x bin. IN, 2x analog IN, 1x output)			optional	optional		optional
I/O (1xIN/1xOUT)			✔	✔		✔
GPS Receiver			optional	optional		
CPU, RAM, CONSUPTION, SIM, DESIGN, ENVIRONMENTAL, DIMENSIONS						
CPU Power (MHz)	333	333	333	333	333	333
Flash RAM / RAM / M-RAM (MB / MB / kB)	16 / 64 / 128	16 / 64 / 128	16 / 64 / 128	16 / 64 / 128	16 / 64 / 128	16 / 64 / 128
Consumption - Idle / Average / Peak / Sleep Mode	2,3 / 3,5 / 5,5W / -	2,3 / 3,5 / 5,5W / -	2,3 / 4 / 6W / -	2,3 / 4 / 6W / -	2,3 / 4 / 6W / -	2 / 2,5 / 3W / -
2xSIM Card	✔	✔	optional	optional		
Power Supply (V DC)	9 - 36	9 - 36	9 - 36	9 - 36	9 - 36	9 - 36
Op. Temperature (°C)	-40 to +75	-40 to +75	-40 to +75	-40 to +75	-40 to +75	-40 to +75
Plastic Casing (mm)	51x87x116	51x87x116	51x87x116	51x87x116	51x87x116	51x87x116
Metal Casing (mm)	42x87x113	42x87x113	42x87x113	42x87x113	42x87x113	42x87x113
DIN holder TS35/TS32	✔	✔	✔	✔	✔	✔
FUNCTIONS						
Linux	✔	✔	✔	✔	✔	✔
IPSec, OpenVPN, PPTP, L2TP, GRE, Easy VPN	✔	✔	✔	✔	✔	✔
Authentication (X.509 certificate, Pre-shared key, PW)	✔	✔	✔	✔	✔	✔
Firewall, NAT/PAT	✔	✔	✔	✔	✔	✔
DHCP Server, Client, Relay	✔	✔	✔	✔	✔	✔
HTTP/HTTPS Server, Telnet/SSH, NTP Server, NTP Client	✔	✔	✔	✔	✔	✔
DynDNS	✔	✔	✔	✔	✔	✔
FTP Server	✔	✔	✔	✔	✔	✔
SNMP, VRRP, PPPoE Bridge	✔	✔	✔	✔	✔	✔
SMTP, E-mail, SMS Functions	✔	✔	✔	✔	✔	✔
VLAN 802.1Q	✔	✔	✔	✔	✔	✔
QoS, IGMP, BGP, OSPF, RIP	optional	optional	optional	optional	optional	optional
IPv6 Dual Stack	✔	✔	✔	✔	✔	✔
COM Port TCP/UDP server/client			✔	✔		✔
MODBUS RTU/TCP Gateway			optional	optional		optional
4 Configuration Profiles	✔	✔	✔	✔	✔	✔
Automatic Configuration and FW Update	✔	✔	✔	✔	✔	✔
ADDITIONAL SOFTWARE SUPPORT						
Support of Software User Modules (free space for UM)	2 MB	2 MB	2 MB	2 MB	2 MB	2 MB
WebAccess/DMP	✔	✔	✔	✔	✔	✔
R-SeeNet	✔	✔	✔	✔	✔	✔
Smart Cluster	✔	✔	✔	✔	✔	✔
Python, Node-RED						

| SmartFlex LAN	SmartFlex	SmartMotion	SmartStart	ICR-3200
SR300	SR303, SR304, SR307	ST352, ST355	SL304	ICR-3231
SR300	SR305		SL302	ICR-3241
SR300	SR304		SL306, SL304	
SR300	SR308			ICR-3232
	✔	✔	✔	✔
	✔	✔	✔	✔
	Cat.3/Cat.4	Cat.3	Cat.1/Cat.4	Cat.4
	SR307	ST355		
✔	✔	✔		✔
		✔		
5x	2x - 5x	2x	1x	2x
optional	optional	optional		
✔	✔	✔		
optional	optional	optional	optional	optional
✔	✔	✔		
	optional		RS232	RS232/RS485
2xIN / 1xOUT	2xIN / 1xOUT	2xIN / 1xOUT	✔	✔
	by module	✔		optional
1000	1000	1000	1000	1000
256 / 512 / 128	256 / 512 / 128	256 / 512 / 128	256 / 512 / 128	2 000 / 512 / 128
2,5 / 4 / 11 W / 10mW	2,5 / 4 / 11 W / 10mW	2,5 / 4 / 11 W / 10mW	2,7 / 5.5 / 11 W / 40mW	2.5 / 4 W / 11 W / 10 mW
	✔	4x	✔	✔ / eSIM
10 - 60	10 - 60	10 - 60	9 - 36	9 - 36
-40 to +75	-40 to +75 (-20 to +60 LTE450)	-40 to +75 (-20 to +60 LTE450)	-40 to +75	-40 to +75
55x97x125	55x97x125		30x87x127	
55x97x125	55x97x125	55x97x125		55 x 97 x 125
✔	✔	✔	Wall / DIN	Wall / DIN
✔	✔	✔	✔	✔
✔	✔	✔	✔	✔
✔	✔	✔	✔	✔
✔	✔	✔	✔	✔
✔	✔	✔	✔	✔
✔	✔	✔	✔	✔
✔	✔	✔	✔	✔
✔	✔	✔	✔	✔
	✔	✔	✔	✔
✔	✔	✔	✔	✔
✔	✔	✔	✔	✔
optional	optional	optional	optional	optional
✔	✔	✔	✔	✔
	✔	✔	✔	✔
	optional	optional	optional	optional
✔	✔	✔	✔	✔
✔	✔	✔	✔	✔
128 MB	128 MB	128 MB	128 MB	1 GB
✔	✔	✔	✔	✔
✔	✔	✔	✔	✔
✔	✔	✔	✔	✔
✔	✔	✔	✔	✔

WebAccess/DMP

Management and Provisioning platform

Product Features:

- Cross-browser, cross-platform based on HTML5
- Google Maps and GPS location integration
- Emu-Edition for on-premises installations
- Flexible delivery options
- Remote device configuration
- Remote device status monitoring
- "No-Touch" provisioning for mass deployments
- RESTful APIs
- Remote application management and delivery
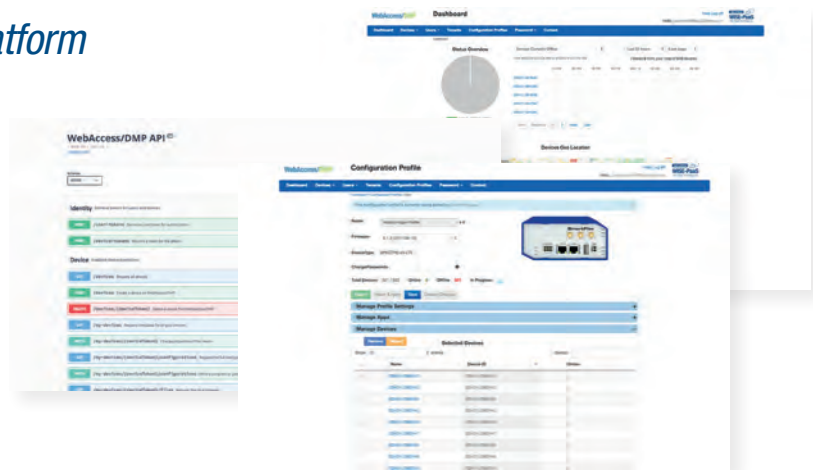
WebAccess/DMP is a software package that provides remote device management and provisioning for Advantech WAN/WWAN Routers, IoT Gateways and Wzzard wireless sensor nodes (WSNs). The Graphical User Inteface (GUI) is provided via a HTML5 front-end, which means that it is entirely browser based: all major browsers are supported. There is also a fully functional device-management API which enablesdiscovery of, configuration of, and status from, the remote devices. The Emu-Edition enables a fully on-premises deployment: this edition enables multi-tenancy for device provisioning. The Configuration Profiles feature enables no-touch configuration and mass deployment of field devices.

Feature Details

Cross-browser, cross-platform based on HTML5

WebAccess/DMP is a web based HTML5 Device Management and Provisioning platform. Based on HTML5, users can use different web browsers such as: chrome, Internet Explorer, Firefox, Safari etc to access WebAccess/DMP without installing any other packages. Users can easily and conveniently access WebAccess/DMP from any device such as a PC or mobile device.

Google Maps and GPS location tracking integration

Users can define the longitude and latitude of each device. If the device is GPS-enabled, it will automatically report it's own longitude and latitude to WebAccess/DMP. WebAccess/ DMP can then locate the position on the Google map. The location and connectivity are clearly presented on the map in the dashboard.

Emu Edition: On-Premises

WebAccess/DMP Can be installed on-premises on end-user server equipment, or hosted on an end-user's IaaS platform. This enables (a) fully secured on-premises installations for critical projects; and (b) the option to provide Device Management and Provisioning "as a service" to third party end users of the Devices.

Flexible delivery options

There are 4 off-the-shelf delivery options, to suit project needs and capital budgets. There is a growth-migration plan that enables projects to "start small" with low cost, and to grow over time.

Multi-Tenancy options

The Emu Edition enables multi-tenancy. This means, a single installation of the software enables multiple Tenants to have their own isolated environments for them to provision and manage their remote devices. Each Tenant may have as many Tenant-Admin and Tenant-User accounts as they need.

Remote device configuration

WebAccess/DMP supports many of Advantech's WAN/WWAN Routers (e.g. SmartStart, SmartFlex, SmartMotion, ICR-3, LR77, and others), IoT Gateways (SmartSwarm), and Wzzard wireless sensor nodes. For each of the supported device types, it is possible to configure every configuration endpoint on that device. There are many thousands of possible configuration endpoints.

Remote device status monitoring

WebAccess/DMP enables individual device status monitoring. There are simple device statistics monitored by default (e.g. online/offline status). For each device, it is possible to get a full set of live status metrics on request, in real-time.

Remote application management and delivery

The WAN/WWAN routers allow capability-extensions, called "user modules". The IoT Gateways allow capability-extensions, called "apps". Both user-modules and apps are supported on WebAccess/DMP: These applications may be deployed and configured, to one or many remote devices.

No-touch provisioning

The Configuration Profiles Feature enables "no touch" provisioning of large quantities of remote devices. This feature enables live, in-field, mass-deployments, where the deployed remote devices will receive "push configuration" (provisioning) from the WebAccess/DMP software.

RESTful APIs

There is a feature-rich REST API that enables scriptable interaction with the remote devices. This enables device-provisioning, and/or location and status monitoring, of the remote assets, to be fully scripted and automated. The API also enables integration with 3rd partysoftware and services, or batch delivery of specific configuration items.

SMART DECISIONS BEGIN
with Intelligent Management Software

R-*SEE*NET™

Monitoring & Management Software

R-SeeNet is the software system used for monitoring Advantech B+B Smart-Worx routers. It continuously collects information from individual routers in the network and records the data into a SQL database.
Then it creates visual forms and reports for the network administrator.

R-SeeNet consists of two parts:

- **R-SeeNet Server**
  A server application that can be programmed to automatically send SNMP queries (Simple Network Management Protocol) to each router defined in the network. The application retrieves status information from the routers and records it in the SQL database.

- **R-SeeNet PHP**
  A web-based application that accesses to the SQL database and provides the user or network administrator with information about the status of individual routers as well as the status of the entire network.

Available Data

Everything you need to know about your network's current status as well as a historical view of the information transferred today, yesterday, this week, this month and last month.

- Signal strength
- Data traffic
- Response time
- Router availability
- Number of PPP connections
- Number of channels connected
- Visual reports, tables and graphs
- Up to 2 months of past data for each router
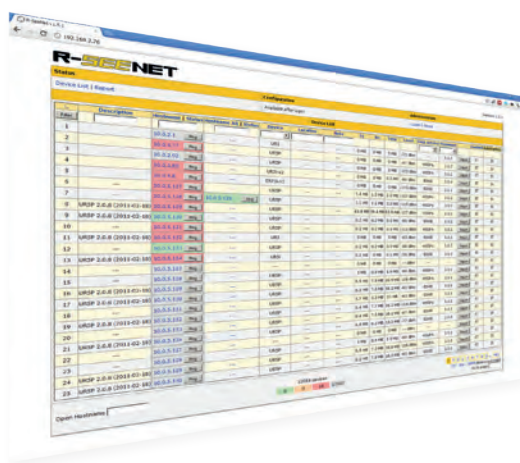

SMART*CLUSTER*™

SmartCLUSTER – Internet VPN Portal

SmartCLUSTER is software designed to create safe communications systems while using a public network - the Internet. SmartCLUSTER is an OpenVPN server that offers three functions for the creation of safe private networks in a public environment.

1. As an OpenVPN server it connects clients (Advantech B+B smartWorx routers and end-user computers) via an OpenVPN tunnel. It creates communication links between individual tunnels and thereby enables individual devices to communicate with each other.

2. Based on the user-defined network configuration and connection parameters of VPN tunnels, SmartCLUSTER creates a configuration file for Advantech B+B SmartWorx routers and also creates secure certificates for both sides of the secured OpenVPN tunnel. This makes it easy for users to add individual Advantech B+B SmartWorx routers to a virtual private network, and be confident that the system will be secure against attacks or unauthorized access.

3. SmartCluster informs the user about the connection status of individual routers and can be used as an instrument for basic network management.

The SmartCLUSTER solution

- SmartCLUSTER makes it easy to connect to devices on local area networks that are behind a router when the router does not have a public IP address.
- SmartCLUSTER solves network security problems and provides secure connections for individual LANs.
- SmartCLUSTER makes it easy to use SIM cards from multiple GSM/UMTS operators.
- SmartCLUSTER also makes it easy to provide inexpensive connectivity for devices that are located in countries with roaming tariffs.
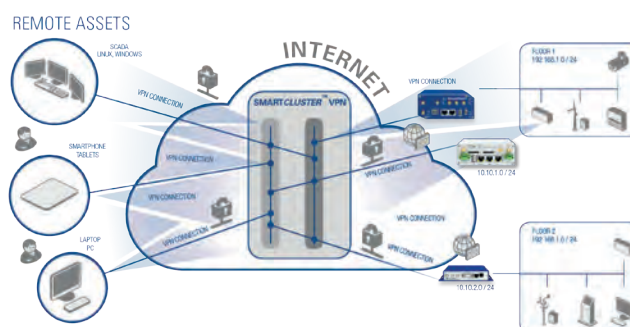
REMOTE EQUIPMENT MONITORING WITH 4G LTE
Reliable Industrial Networking in Harsh Environments

Most airline passengers have experienced a delay while their plane waits to be deiced on the runway. Most drivers in the northern hemisphere have been delayed by snowplows on the road. But once travelers get to their car in the parking lot, they expect the path to be clear.

Trecan Combustion, based in Nova Scotia Canada, builds and maintains the industrial snowmelters that keep airports, parking lots, and commercial roadways free from snow. They are the world's largest manufacturer of snowmelters, with over 800 units in operation across North America, Europe, and Asia.

The process of melting snow may seem fairly simple, but maintaining a fleet of industrial snowmelters operating in a busy airport or commercial environment can quickly become a complicated task. Concerns about reliability and thermal efficiency are paramount. In addition, many urban municipalities have enacted regulations that govern the ability to dump snow in local bodies of water due to environmental concerns.

In order to keep snowmelters operating in harsh conditions, Trecan uses a 4G LTE connection from B+B SmartWorx. Each snowmelter has Programmable Logic Controller (PLC) and Human Machine Interface (HMI) devices to give local operators information about the equipment. Each of these computers is also connected to a SmartFlex LTE router. This remote connection allows Trecan and its customer to monitor engine run time, fuel level, GPS coordinates and other SCADA information to predict maintenance issues. For example, imagine being able to combine the weather forecast with the GPS coordinates and fuel level of snowmelters to send customers a message telling them to fuel up because a snow storm is coming!

SmartFlex

Carrier-agile LTE
Dedicated Software Dev Tools
Extended Operating Temp
Rugged Wi-Fi
Class I Div 2 and ATEX rated
Onboard GPS included
Industrial operating temperature
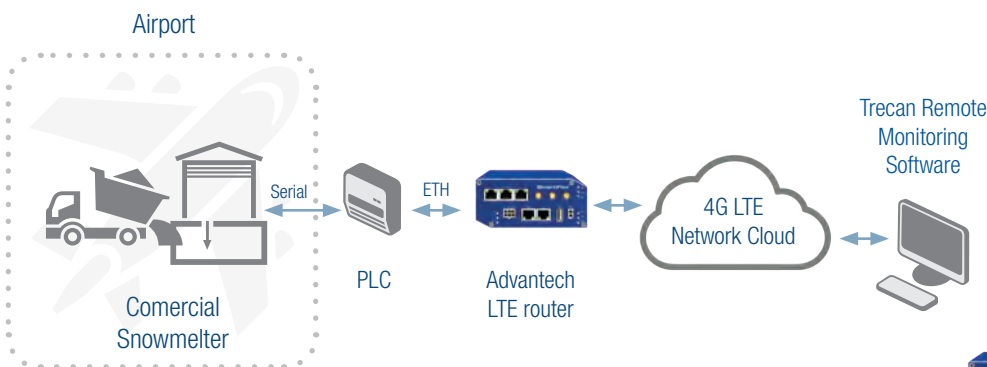
IRRIGATION AND AUTOMATION
Powering the future of agriculture?

Hermisan designs, manufactures and manages highly advanced agricultural systems such as irrigation trains, which allow a perfect distribution of irrigation and fertigation in the production of plants. All of these systems are managed through optimized software in a powerful PLC.

VITRIKO, as a provider of telecommunications solutions worked with the Hermisan technology department in order to provide a secure communication system based on a VPN platform utilizing the very latest in industrial LTE-4G routers from Advantech B+B SmartWorx. This system provides a comprehensive and dependable remote management suite with a host of valuable features, including:

- System alerts: providing warnings of power loss and temperature thresholds
- Remote display of installation
- Monitoring: allows for the remote monitoring of machine irrigation, pumping stations and other vital system hardware
- Activation and desactivation machines through digital inputs / outputs
- Data collection: connecting the user with voltage, temperature and other crucial information
- Secure system access to data through a reliable VPN platform
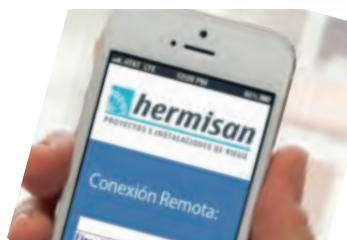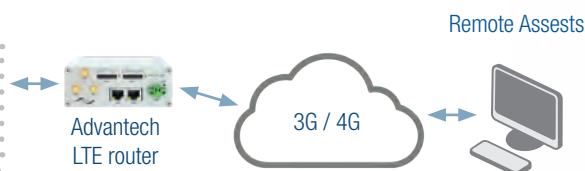
LR77 v2 Libratum

LTE Router
2× Ethernet 10/100
WiFi
2× SIM card

Green house with monitored processes. Monitoring of:

- irrigation, pumping station
- temperature, humidity & etc.

Advantech LTE router

3G / 4G

Remote Assests

ESTÁ REGANDO LA FINCA

HERMISANconnect

Conexión Remota:

hermisan
PROYECTOS E INSTALACIONES DE RIEGO

ANOTHER REASON OUR ROUTERS & GATEWAYS ARE REALLY GREAT.

Routers transform to gateways as they host application specific software and protocol solutions. Putting ever-increasing levels of intelligence at the Networks Edge demands increased processor and memory capabilities.

Smart Cellular Routers were designed to meet demands as a platform for advanced routers and IoT gateway solutions. Routers support applications from a wide array of Industrial Internet of Things PaaS clients like: