



Arctic family of wireless communication
products
Secure wireless connectivity

Bringing your remote assets within reach

The Arctic family offers secure and cost-effective wireless connectivity for all industrial and utility applications, ranging from enabling the industrial Internet of Things to remote real-time grid automation. As the backbone for communication, the Arctic family utilizes wireless cellular networks, making it possible to combine the products into secure and cost-effective wireless communication systems with global coverage. The Arctic products allow accessing and managing any remote asset from a central location. The result is a smarter distribution network and a more interconnected world.

Product family highlights

- Enables industrial Internet of Things (IoT)
- Allows wireless connection to any remote asset within any application
- Utilizes secure and cost-effective wireless cellular networks with global coverage
- Involves no network investment or maintenance costs other than for data transfer
- Allows wireless access to geographically remote areas inaccessible before
- Ensures optimal cyber security throughout the entire wireless communication system



Products for the U.S., Canada, and Mexico

Wireless Gateway ARG600

Wireless Gateway ARG600 provides wireless monitoring and control of field devices via cellular network from a central site or a control center. The devices offer industrial quality connectivity for the TCP/IP based protocols.

Wireless Gateway ARG600 exhibits integrated communication capability and seamless integration to the SCADA systems.

Wireless Gateway ARG600 can be used in feeder automation and substation applications to automate distribution networks in cooperation with other ABB grid automation equipment. Further, the devices can be used in secondary substations for various monitoring and control applications.

ARG600 provides a fast, reliable and secure wireless link between Ethernet devices, such as a Distribution Automation Controller COM600F and 615 series protection relays.

Features

- ARG600 wireless gateways are industrial-grade wireless routers
- Ideal for connecting TCP/IP based traffic between remote sites and a central control room
- Also supports serial over TCP/IP traffic
- DNP3 serial devices can be connected to a DNP3 TCP/IP SCADA system
- Application independent - any type of remote application can be connected to any type of central application
- Easy configuration via web user interface
- Available in single SIM variants



M2M Gateway ARM600

M2M Gateway ARM600 is a communication server, VPN concentrator and firewall. M2M Gateway manages all connections to remote Arctic gateways and controllers. M2M Gateway is the interface between the central monitoring and control system and remote Arctic Gateways and controllers.

ARM600 includes a device management application, called Arctic Patrol, which features advanced condition monitoring and allows remote management of Arctic gateways and controllers.

ARM600 provides static IP addressing for the central control and monitoring system. This means that the Arctic 600 series wireless in remote locations can utilize normal SIM cards with dynamic IP addresses from any operator.

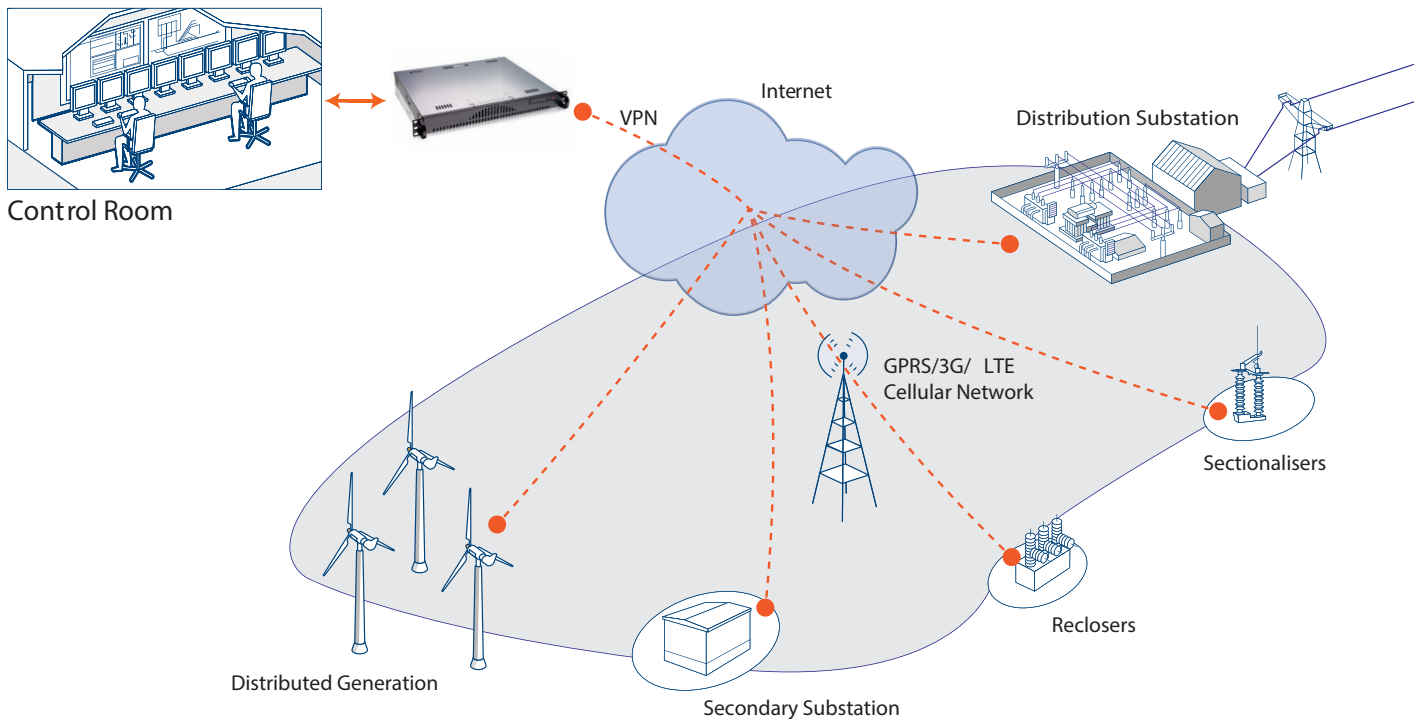
Features

- VPN concentrator manages VPN tunnels to Arctic 600 series wireless gateways
- Supports Open VPN, L2TP and SSH
- OpenVPN routing and bridging modes
- Connection to ARM600 with a PC from any location via VPN
- Firewall to restrict unauthorized access
- Provides static IP addressing of Arctic 600 series wireless gateways for SCADA
- Full routing capability allows integrating remote LAN into a central LAN
- Configuration via Web UI and console (SSH and serial) access
- Arctic Patrol offers condition monitoring and centralized device management application that supervises the cellular connections to the connected Arctic 600 series wireless gateways and enables advanced remote management of all connected Arctic gateways
- 19" rack mountable design



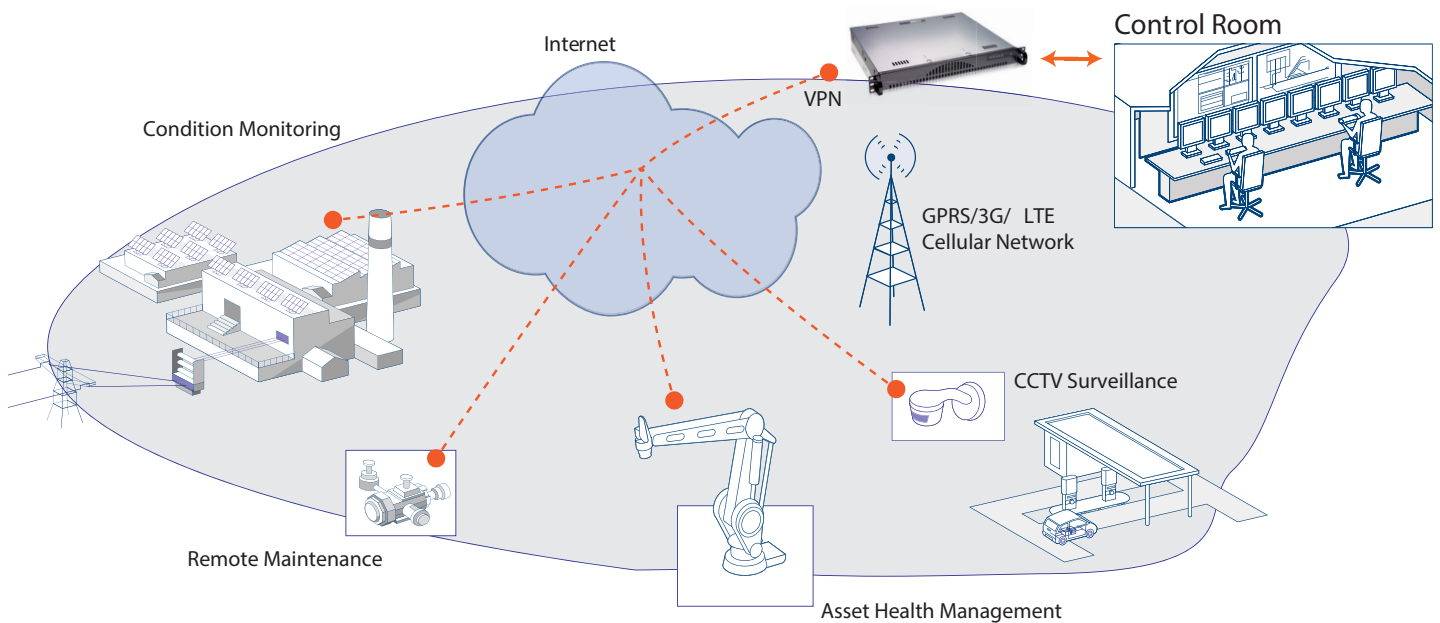
Utility applications

Wireless communication products that utilize public cellular networks offer a secure and cost-effective platform for substation automation. The Arctic family allows easy access to remote assets as well as remote maintenance and condition monitoring. Any remote asset, such as an outdoor breaker or a ring main unit (RMU), can be connected to any central monitoring and control application, such as SCADA. The Arctic products support a variety of standard communication protocols for effortless integration with SCADA. The Arctic products can also be used as wireless backup for any primary communication link.



Industrial applications

The Arctic wireless communication products allow industries to remotely manage their assets. Remote access to field devices and valuable information such as condition monitoring data significantly facilitates preventive maintenance. Asset health information can be gathered from the devices in the field for convenient, centralized asset health management. Other applications include weather monitoring stations, live video streaming, CCTV surveillance (Closed Circuit Television), building automation and smart traffic management systems, to mention a few.



Product selection table

Arctic family selection table for US, Canada, and Mexico

| ARG600 US, MX, & CA operator variant | Cellular operator | FCC ID and IC Codes |
|--------------------------------------|-------------------------------|---------------------------------------|
| ARG600A1270NA | AT&T | FCC ID: N7NMC7355 IC: 2417C-MC7355 |
| ARG600A1280NA | Verizon Wireless | FCC ID: N7NMC7355 IC: 2417C-MC7355 |
| ARG600A1290NA | Rogers, TELUS, Telcell & AT&T | FCC ID: N7NMC7355 IC: 2417C-MC7355 |

LTE frequency band support

| Band * | Frequencies* | ARG600 variant code |
|--------------|--|---------------------------------|
| Band 2 | Tx: 1850–1910 MHz Rx: 1930–1990 MHz | ARG600A1270NA, ARG600A1280NA |
| Band 4 (AWS) | Tx: 1710–1755 MHz Rx: 2110–2155 MHz | ARG600A1270NA, ARG600A1280NA |
| Band 5 | Tx: 824–849 MHz Rx: 869–894 MHz | ARG600A1270NA |
| Band 13 | Tx: 777–787 MHz Rx: 746–756 MHz | ARG600A1280NA |
| Band 17 | Tx: 704–716 MHz Rx: 734–746 MHz | ARG600A1270NA |
| Band 25 | Tx: 1850–1915 MHz Rx: 1930–1995 MHz | Other |

*All listed bands and frequencies supported in the integrated radio module. Note! See cellular operator compatibility and LTE frequency bands used by operators, column 3 – ARG600 variant codes

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1VAC383163-DB Rev A January 2017

