

SCADA Solutions | Motorola ACE3600 RTU

The Motorola Solutions team has developed high-performance technologies for the real-time processing and complex control of industrial automation applications

The Operations-Critical SCADA Solution

Supervisory control and data acquisition (SCADA) systems are continuously relied on to support the most demanding industrial applications and keep your operations running efficiently. Keep your assets connected to enhance productivity and safety across your operations with the ACE3600 Remote Terminal Unit (RTU).

The ACE3600 aims to make automation and monitoring of your complex processes robust and cohesive by connecting across various communication media and data processing protocols. Enhanced security features also ensure your operations aren't compromised and productivity doesn't cease.

Modular design and abundant customization enables the ACE3600 to fit your specific SCADA needs. You can start small and grow, confident that the powerful processor can handle complex applications and keep your operations connected even as your needs or technologies evolve.

The ACE3600 is designed to handle large volumes of data for more complex process automation and monitoring. With robust security features, scalable capacity and a high-performance processor it can connect to, and manage, an impressive number of programmable logic controllers (PLCs), RTUs and other operational technologies while being remotely maintained through a single front end processor gateway.



HIGH-PERFORMANCE, REAL-TIME PROCESSING POWER

Whether caused by a storm, theft or just aging infrastructure, disruptions to performance and the inability to pinpoint abnormalities decreases your productivity and can put your personnel in harm's way. The ACE3600's processing power provides accurate data analysis and communication for the most critical, and demanding SCADA applications to ensure optimal operation.

A 32-bit processor, running at 200 MHz, delivers real-time processing with support for up to 110 I/O modules, while the substantial Flash and DRAM memory capacity provides plenty of storage for alarms, events, live data, historical reports and files. Both polling and event-based reporting are supported, peer-to-peer or RTU-to-host.

The ACE3600 can also be redundantly configured with a simple Ethernet interconnection. This ensures continuous operation if one CPU or power supply were to fail.



VERSATILE COMMUNICATIONS CAPABILITIES

You want every opportunity to save money and optimize performance. The ACE3600 RTU is designed to use a variety of digital and analog interfaces so you are never locked into proprietary solutions.

This flexible communications capability enables the ACE3600 to connect with several local devices, analyze the data and send that information to various other locations.

Data transmission and processing is supported simultaneously via multiple communication media and industry standard data protocols including MODBUS, IEC60870-5-101, M-OPC, DNP 3.

Motorola's own MDLC data processing protocol is specifically designed to enable more efficient data communication. Transmit data over your narrowband radio network or utilize a broadband network and realize significant data cost savings.

Furthermore, every RTU in your network can act as a communication node and/or a store and forward data repeater to extend radio frequency coverage and save you the much higher cost of a dedicated repeater.

ENHANCED SECURITY

Apply the same state-of-the-art security features that Motorola provides for military and critical enterprise networks to your SCADA systems.

The ACE3600 supports a full range of best-practice security options directly within the RTUs for a self-contained, autonomously secure system including:



Security Policy Enforcement

Define and install a single, coherent, system-wide set of security configurations in every RTU.

Built-In Firewall

Filter IP communications by port, direction, protocol and IP address.

Unused Port Deactivation

Disable communication for any unused ports, closing a point of access that could be exploited by attackers.

Role-Based Access Control

The system administrator defines job roles and assigns different permissions so that each user is authorized to access only the parts of the system required for their job.

Encryption

An algorithm makes data readable only by a device with a specific key to decrypt the message. Data stored within the ACE3600 is also encrypted using a 256-bit AES, meeting FIPS140-2 Level 1 requirements.

Access Control

User authentication tools, executed at the Remote Terminal Unit or at the system server, verify specific user access and determine if use is legitimate and allowed.

Application Control Software

Also known as "whitelisting," this software blocks unauthorized applications and code on PCs and RTUs. ACE3600 firmware protects user programs with this technique, and ACE3600 configuration management tools on PCs are protected with McAfee™ Solidifier

Time-Window Commands

When an application generates a command, it assigns a time window; after the time expires, system components will not execute the command. This can prevent replicating errors and commands of questionable origin from affecting the network.

Intrusion Detection System

While allowing legitimate traffic, the ACE3600 identifies unauthorized access activities like an attempt to alter an RTU program or drop unauthorized data packets. It blocks these activities, logs the events and sends a report to the system administrator.



Commercial

Water and Wastewater
Oil and Gas Companies
Electric and Power Utilities



Government

Mass Notification Systems
Safety and Security Monitoring
City Utilities | Water & Electric



Smart Cities

Flood Monitoring
Traffic Management
Environmental Monitoring

Utilize the ACE3600 to Expand and Grow Your Sensor Networks

The ACE3600 remote terminal unit (RTU) enables exceptional remote monitoring and control capabilities.



MOTOROLA SOLUTIONS

Motorola Solutions from MCA

MCA provides world-class IT solutions that enhance the quality, safety, and productivity of our customers' operations and lives across the United States. More than 65,000 customers trust MCA to provide wireless communication solutions for a safe, secure, and more efficient workplace.

As your trusted advisor, we reduce the time and effort needed to research, install, and maintain the right solutions to make your workplace better.

MCA offers a carefully researched portfolio of world class voice, data, and video products and solutions. With dozens of product lines and hundreds of solutions, our team of certified professionals throughout the U.S. deliver a full suite of reliable technologies with a service first approach. The MCA advantage is our extensive service portfolio to support the solution life-cycle from start to finish.

Why Partner with MCA?

- Over 30 Years Experience in Communications
- Quality Devices from Top Manufacturing Partners
- Rapid Deployment of Connectivity Solutions
- Fast, Secure, and Reliable Network Performance
- Vastly Improved Workplace Safety & Security



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CONTACT US TODAY TO DEPLOY THE ACE3600 WITHIN YOUR SCADA COMMUNICATIONS NETWORKS



www.callmc.com • 800-577-3678 • info@callmc.com

SCADA Solutions | Motorola MC-Edge

Motorola SCADA/IoT solutions have been implemented worldwide for over 45 years, and their product line is advancing into the future.

Your Gateway to Successful Mission-Critical IoT Deployments

Now, more than ever, systems operating in mission-critical environments require newer more robust levels of network connectivity and security. Whether it's a natural disaster or a man-made emergency, IoT devices are often on the first line of defense.

The MC-Edge is an intelligent gateway designed for IoT applications. MC-Edge's extensive security, ultra-reliable communication capabilities and reliability of transport across LMR, LTE, and analog radio modes make it easy for you to implement, support and grow your IoT systems to fully support all your mission-critical operations.

Built for versatility, MC-Edge can be used as an Aux I/O server at dispatch centers, enabling Motorola dispatch consoles to control physical access and other facility systems. MC-Edge has you covered today, and prepared for tomorrow.

MC-Edge works with the ThingPark application, that utilizes Activity's LoRaWAN Network, and is fully configurable and manageable from its' enterprise console — addressing your needs for the strictest requirements in security and operational continuity.



Ideal For Various Mission-Critical Applications



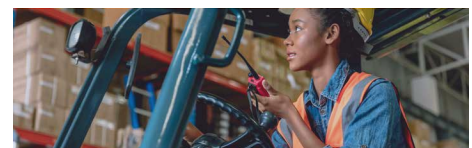
Commercial

Water and Wastewater
Oil and Gas Companies
Electric and Power Utilities



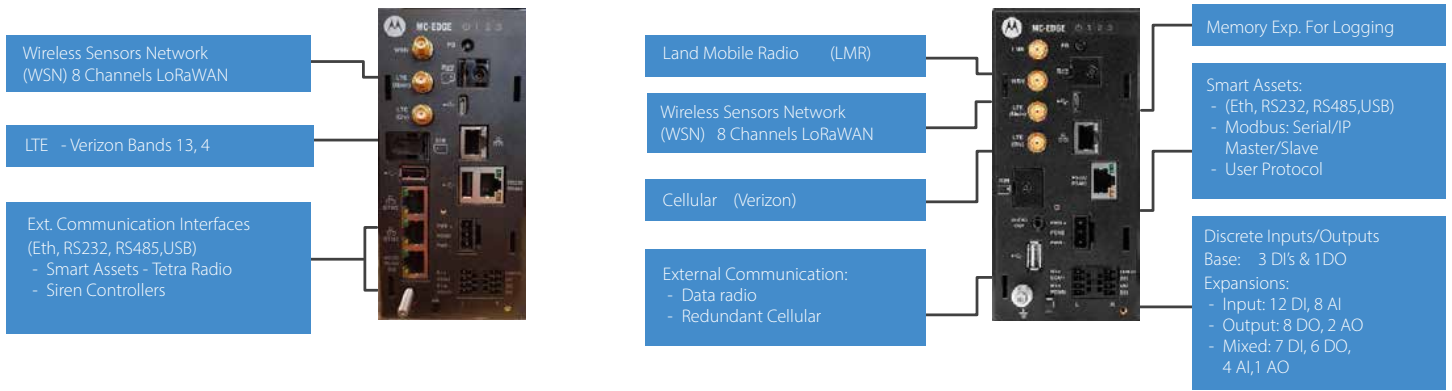
Government

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Utilize MC-Edge to Expand and Grow Your Sensor Networks

The MC-Edge gateway enables exceptional remote monitoring and control capabilities.



EXPAND REACH WITH WIRELESS BUILT-IN

Expand your operations that currently have no power or communication coverage with MC-Edge, wireless LoRaWAN gateways and servers. MC-Edge is used as a data aggregator with the capability to leverage existing LMR investments or multiple backhaul options for retrieval of LoRa data - and still provide one holistic easy to deploy low-power ecosystem.

ENSURE MISSION-CRITICAL SYSTEM SECURITY

MC-Edge will automatically look for malicious activity or violations of security policies and will only allow legitimate traffic to enter and block other activity. Unauthorized activity is logged and can be reported to a designated control center. AES 256 bit encryption protects sensitive data end-to-end, whether at rest or in transit.

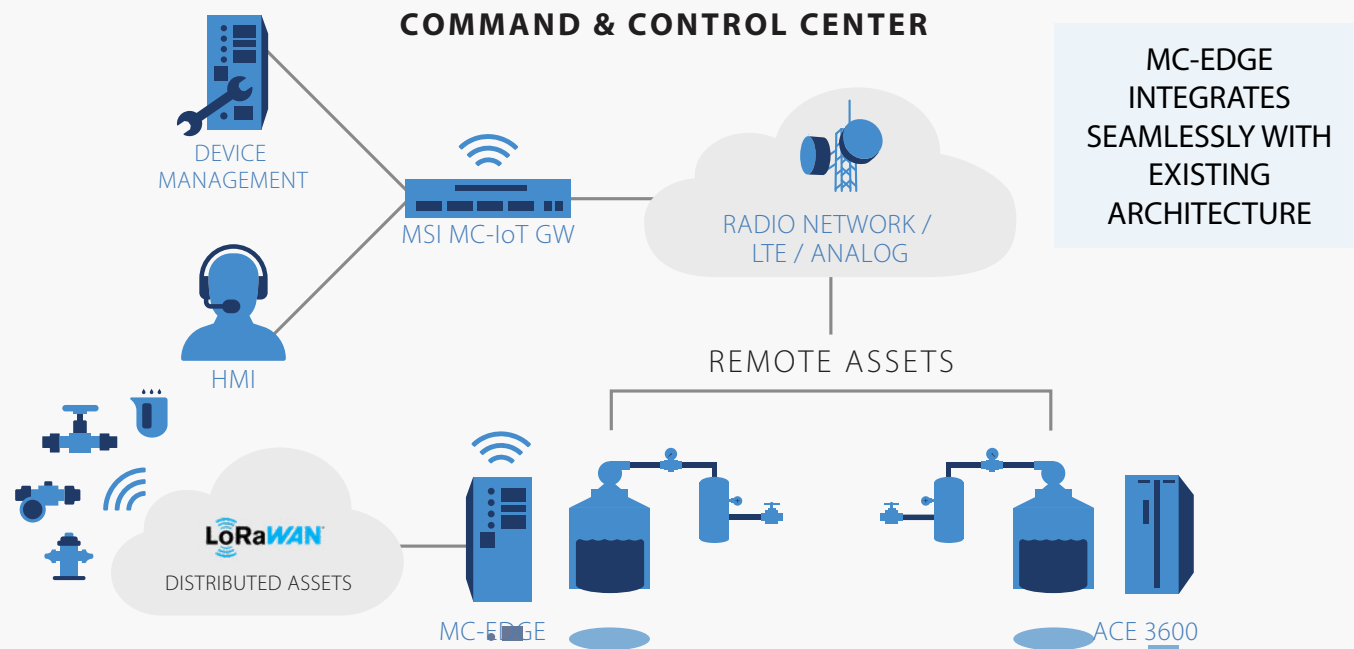
ENHANCE OPERATIONS WITH EDGE COMPUTING

With edge computing, activities such as decision-making, filtering, logging and analytics are handled on the edge, thus increasing your overall network capabilities, responsiveness and efficiency.

AGNOSTIC NETWORK CONNECTIVITY AND REDUNDANCY

MC-Edge utilizes MDLC communication protocol to link distant sites for easy scaling and alternative communication links in case of fallback — eliminating the need for costly custom programming or additional communications infrastructure.





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