

# RTCU M2M Platform

## Advanced Telematics and Telemetry Platform

### For Professional M2M Applications

The **RTCU M2M Platform** embraces software and hardware building blocks carefully designed and manufactured for the most demanding M2M and Internet of Things applications.

All products rest on the **RTCU Architecture**, that brings all the necessary tools together to develop, implement and maintain today's sophisticated M2M/IoT applications.

The **development task** is supported by the powerful **RTCU M2M Studio** complimented by a large and comprehensive documentation and application example library.

The **RTCU Communication Hub** is the corner-stone of the **communication infrastructure** ensuring reliable two-way device communication in any network environment.

**Deploying and maintaining** new application and firmware versions for devices in the field are handled by the powerful **RTCU Deployment Server**.

*25+ years of experience in one platform!*

### Experience and Know-how

For twenty years Logic IO has been committed to offer the most sophisticated platform for advanced and highly demanding M2M / IoT applications.

The **RTCU M2M platform** is constantly evolving and is the result of many years of accumulated experience combined with valuable feedback from hundreds of professional and mission critical applications by major organizations around the world.

RTCU products are deployed **underground, stationary, on the road, at sea, on the rail and in the skies!** - In any imaginable application and environment.



### RTCU M2M Platform Building Blocks

- 12+ different hardware devices.
- Free development tool.
- On-line help and code wizard.
- Powerful edge intelligence.
- RTCU Instrumented Execution (IEX).
- Large and comprehensive SDK.
- Code samples to kick-start development.
- Comprehensive protocol support.
- RTCU Communication Hub back-end.
- RTCU Deployment Server.
- Fast and free email support.
- Backward and forward compatible.

*" We estimate that 80% of our job was already done, when we started our development and further on, the TCO turned out to be more than favorable. "*

Professional M2M developer.

# RTCUC M2M Platform Highlights

## Advanced Telematics and Telemetry Platform

The **RTCUC M2M Platform** is targeting a broad range of advanced telemetry / telematics applications with tools to support and assist in all stages of the M2M application life-cycle.

The **Design stage** is indirectly supported by a well defined platform and a proven development methodology. The solution designer can focus on identifying the application business logic and stay confident, that realization is possible within the projects budget and schedule.

The **Implementation stage** is directly supported by the powerful **RTCUC M2M Studio** Development Environment, that covers all aspects of implementation, rapid prototyping and test. The **RTCUC M2M Studio** integrates with the full featured **RTCUC IEX** (Instrumented Execution), allowing the application to be fully tested and debugged before being deployed.

The **Production stage** is in the realm of the **RTCUC Communication Hub** back-end server for a reliable, safe and economical two-way device communication.

In the **Maintenance stage** the **RTCUC Deployment Server** ensures, that devices are always upgrade with the correct application and firmware version. Remote upgrade occurs without impact on the end-users daily business.

Further the application maintenance is protected by the **RTCUC Compatibility Manifesto**, that guarantees the investment made in M2M application development is well protected over RTCUC device and software generations.



### The RTCUC Compatibility Manifesto

To ensure device and application longevity the following compatibility manifesto has been formulated more than a decade ago:

**"A given RTCUC generation must be binary compatible for a minimum one generation backwards. Additionally full source code compatibility for minimum two generations backwards must be ensured"**

After twenty years the fourth generation RTCUC Architecture was recently released effectively meaning, that source code written 15+ years ago can still execute unmodified and without further testing on the latest RTCUC devices!

## Find out more and start developing today!

The RTCUC platform includes more than 12 different RTCUC devices spanning a broad range of Telemetry and Telematic applications.

To learn more about the technical details and usage of the RTCUC devices, please refer to the data sheets and technical manuals of the respective products.

Also make sure to get the **FREE RTCUC M2M Studio** and **RTCUC IEX** development tools as well as the **RTCUC Communication Hub** and **RTCUC Deployment Server** to get a hands-on experience how rapid development/deployment of game changing M2M/IoT applications were meant to be. Please visit [www.logicio.com](http://www.logicio.com)

# The RTCU M2M Platform Development

## Advanced Telematics and Telemetry Platform

The **RTCU M2M Studio** is the primary tool for developing and maintaining today's professional M2M applications. Within the Studio all aspects of development are covered, such as source code editing, help, code generation, device debugging, device communication and pilot device deployment.

### Highlights:

- Powerful graphical environment running under standard Windows.
- Completely FREE.
- Programmable in VPL (IEC1131-3 based).
- Open and extendable with the **RTCU M2M Platform SDK**.
- Full floating-point support.
- Multithreading with thread synchronization support.
- Target optimized dual-core Virtual Machine architecture.
- Comprehensive API covering almost all aspects of M2M development.
- More than 1600 pages of on-line documentation.
- Large library of example programs to kick-start development.
- Device Edge Intelligence.
- **RTCU IEX** — Instrumented Execution with Virtualized hardware.
- Full remote access to devices over the **RTCU Communication Hub**.
- Comprehensive protocol support, including: TCP-UDP/IP, FTP, SMTP, RACP, MODBUS, FMS/J1939, Navigation and Messaging Platform / Garmin FMI..
- Full MQTT support.
- Intellisync Project Drive device synchronization.

### Intellisync Project Drive

The **Intellisync Project Drive** offered by the latest **RTCU NX32 Execution Architecture** is an intelligent device file-system, that utilizes state-of-the-art **Intellisync** compaction and differencing algorithms to reduce the communication overhead and bandwidth usage during device update synchronization.



### Device Edge Intelligence

**Device Edge Intelligence** is a key element in the **RTCU M2M platform**, that offers a high degree of autonomy and intelligence in the RTCU device in contrary to back-end server intelligence.

**Device Edge Intelligence** reduces the amount of data sent to the server, and ultimately pre-processed intelligent data are sent yielding lower communication cost, less server load and higher system scalability.

**Device Edge Intelligence** requires a powerful, open and fully programmable device platform, that can be adapted to the business logic intelligence. This is, where the RTCU M2M Platform truly excels.

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**Hardware and Software. Engineered to Work Together.**