RICON Technology provides hardware (3G/4G routers) and software (M2M Management Platform) for telemetry applications across wireless cellular data networks.

Over the past few years, the cost of wireless cellular data network services has made data communication across wireless cellular networks affordable, opening up wireless telemetry to a much wider audience. M2M (Machine-to-Machine) applications across wireless cellular data networks are now viable options.

To enable multiple devices to connect to a cellular network, a gateway is required, which acts as a point of entry/exit to and from your remote sites and machines. RICON routers provide the platform when connecting to remote sites. RICON robust and secure cellular routers offer reliable and secure connectivity for any type of wireless telemetry project. An integrated GPRS/EDGE/3G/4G module provides connectivity to the cellular networks, a serial interface provides connectivity for legacy serial equipment such as PLCs, and RTUs, and a Ethernet interface allows access to any Ethernet enabled devices over the existing Ethernet network.

RICON wireless networking solution combines all the most advanced parameters and provides secure, reliable, flexible, and cost-effective networking solutions. RICON M2M Management Platform, working together with RICON routers as a part of the RICON solution, monitors connectivity on the wireless cellular network, informs about network availability, signal strengths, and also controlling devices remotely.

**HOW IT WORKS**

**RICON SOLUTION FOR WIRELESS TELEMETRY APPLICATIONS**

1. **hardware:**
   - RICON 3G/4G routers

2. **software:**
   - RICON M2M Remote Management Platform
RICON routers and management platform major features are specially designed to meet multiply requirements of the secure wireless telemetry projects:

- Dual SIM functionality enable seamlessly alternative between two networks when one of the network signal is poor or enable to switch upon desire to other network with flexible switching time.
- Dual GSM module enable persistent network connectivity with no break in time during the network switch.
- Guaranteed security and privacy in all the transactions: VPN support, GRE over IPsec, IPsec over PPTP/L2TP.
- Safety mechanism to avoid unintentional SIM cards manipulations.
- 4 x Ethernet 10/100M is available by default.
- NAT/PAT/Port forwarding dynamically and static options are available by default.
- Router supports DHCP Server, DHCP relay and other standard DHCP features by default.
- HTTPS/HTTP supports are available by default.
- Telnet and SSH accesses.
- SNMP agent.
- LTE/HSUPA/HSDPA/UMTS/EDGE/GPRS Quadband support.
- RMA process for faulty routers.
- Configured via GUI and remotely via M2M RICON Terminal Management Platform.
- Centralized control for firmware upgrade available as a section of the RICON M2M Management Platform.
- Centralized statistic collection to show router uptime, network attachment, signal strength and where possible latency and packet loss per device and per router group on RICON M2M Management Platform.
- Centralized control for the configuration management and group based configuration.
- For this specific project all the routers can be delivered with a project related pre-configuration.

RICON M2M Management Platform centralizes access to all remote nodes, giving the user ultimate management control over the hardware. RICON M2M Management Platform system provides full control over data transfer and network diagnostics of thousands of routers and mobile devices on the network. Remote accessibility to the RICON M2M Remote Management Platform from any location gives the user fingertip control over multiple routers and mobile devices on the network. Remote accessibility to the RICON M2M Remote Management Platform provides full control over data transfer and network diagnostics of thousands of routers and mobile devices on the network.

Some of the RICON M2M Management Platform features include:

- Touchless installation by remote configuration.
- Device grouping.
- Batch remote configuration.
- Scheduled remote configuration.
- Scheduled remote firmware upgrade/downgrade.
- Multiple simultaneous terminal configuration updates.
- Setting customized SLA warning thresholds.
- SLA based live alarms.
- Live connectivity information.
- Live reports.
- Terminals detailed data stream reports.
- Terminals alarms reports for trend analyses.
- More information.

RICON M2M Management Platform
Mobile Connect Technology

RICON Technology www.riconmobile.com

RICON M2M Terminal Management Platform

RICON M2M Terminal Management Platform

RICO
RICON®

MOBILE CONNECT TECHNOLOGY

cellular - VPN - 3G/4G routers

Specifications
- Dual module/WAN/Wi-Fi multiple network mode backup
- WAN port support PPPoE, static IP, DHCP client
- LCP/ICMP/flow/heartbeat check, ensure network usability
- SNMP network management, NTP support
- Local & remote firmware update
- Local & remote log check
- Supports DNS proxy and Dynamic DNS (DDNS)
- Supports timing operation

Dual module/WAN/Wi-Fi multiple network mode backup
WAN port support PPPoE, static IP, DHCP client.
LCP/ICMP/flow/heartbeat check, ensure network usability
SNMP network management, NTP support
Local & remote firmware update
Local & remote log check
Supports DNS proxy and Dynamic DNS (DDNS)
Supports timing operation

Wi-Fi Characteristics
- Standard: IEEE 802.11b/g/n
- WEP, WPA and WPA2 encryption
- WPS key
- AP, Client, station, bridge mode support

VPN
- IPSec
- PPTP/L2TP client
- GRE/IPP

Available Cellular Network
- LTE 800/900/1800/2100/2600MHz
- UMTS/HSPA+900/2100MHz
- GSM/GPRS 900/1800/1900MHz
- HSPA+/HSUPA/HSDPA/ WCDMA /UMTS
- 2100/1900/900/850/800MHz
- EDGE/GPRS/GSM 1900/1800/900/850MHz
- HSPA+/HSUPA/HSDPA/UMTS 2100/1900/850MHz
- EDGE/GPRS/GSM 1900/1800/900/850MHz
- CDMA 2000/EVDO Rev.A 800MHz
- CDMA 2000/EVDO Rev.A 800/1900MHz

LTE 800/900/1800/2100/2600MHz
UMTS/HSPA+900/2100MHz
GSM/GPRS 900/1800/1900MHz
HSPA+/HSUPA/HSDPA/ WCDMA /UMTS
2100/1900/900/850/800MHz
EDGE/GPRS/GSM 1900/1800/900/850MHz
HSPA+/HSUPA/HSDPA/UMTS 2100/1900/850MHz
EDGE/GPRS/GSM 1900/1800/900/850MHz
CDMA 2000/EVDO Rev.A 800MHz
CDMA 2000/EVDO Rev.A 800/1900MHz

Interfaces
- 4×10/100Mb LAN interface
- 1×10/100Mb WAN interface
- 1× RS-232 console port(RJ45)
- 2× SMA-K antenna interface
- 2× SMA-K antenna interface (Wi-Fi)
- 2× Standard SIM/R-UIM interface
- 1× Standard DC power interface

Routing Protocols
- Static route
- RIPv2/OSPF dynamic route

Firewall & Filtering
- IP packet/Domain/MAC filter
- NAT
- DMZ

Routing Protocols
Static route
RIPv2/OSPF dynamic route

Firewall & Filtering
IP packet/Domain/MAC filter
NAT
DMZ

Status LEDs
- System
- Power
- WLAN (Optional)
- WAN
- LAN (LAN1~LAN4)
- RF
- NET

Specifications
176mm x 105mm x 25mm
Weight: 510g
Temperature: -30~+70

Specifications
176mm x 105mm x 25mm
Weight: 510g
Temperature: -30~+70

Device Management
- Local or remote web browser (IE v8 or above)
- CLI/Telnet command
- M2M Remote Terminals Management Platform (optional)
- SSH config (optional)

Device Management
Local or remote web browser (IE v8 or above)
CLI/Telnet command
M2M Remote Terminals Management Platform (optional)
SSH config (optional)

RICON M2M Remote Terminals Management Platform
provides full control of multiply 3G routers for diagnostics and maintenance of all the mobile devices on the network.

Available Cellular Network
LTE 800/900/1800/2100/2600MHz
UMTS/HSPA+900/2100MHz
GSM/GPRS 900/1800/1900MHz
HSPA+/HSUPA/HSDPA/ WCDMA /UMTS
2100/1900/900/850/800MHz
EDGE/GPRS/GSM 1900/1800/900/850MHz
HSPA+/HSUPA/HSDPA/UMTS 2100/1900/850MHz
EDGE/GPRS/GSM 1900/1800/900/850MHz
CDMA 2000/EVDO Rev.A 800MHz
CDMA 2000/EVDO Rev.A 800/1900MHz

Specifications
176mm x 105mm x 25mm
Weight: 510g
Temperature: -30~+70

Specifications
176mm x 105mm x 25mm
Weight: 510g
Temperature: -30~+70

Device Management
Local or remote web browser (IE v8 or above)
CLI/Telnet command
M2M Remote Terminals Management Platform (optional)
SSH config (optional)

Device Management
Local or remote web browser (IE v8 or above)
CLI/Telnet command
M2M Remote Terminals Management Platform (optional)
SSH config (optional)

RICON M2M Remote Terminals Management Platform
provides full control of multiply 3G routers for diagnostics and maintenance of all the mobile devices on the network.

Available Cellular Network
LTE 800/900/1800/2100/2600MHz
UMTS/HSPA+900/2100MHz
GSM/GPRS 900/1800/1900MHz
HSPA+/HSUPA/HSDPA/ WCDMA /UMTS
2100/1900/900/850/800MHz
EDGE/GPRS/GSM 1900/1800/900/850MHz
HSPA+/HSUPA/HSDPA/UMTS 2100/1900/850MHz
EDGE/GPRS/GSM 1900/1800/900/850MHz
CDMA 2000/EVDO Rev.A 800MHz
CDMA 2000/EVDO Rev.A 800/1900MHz

Specifications
176mm x 105mm x 25mm
Weight: 510g
Temperature: -30~+70

Specifications
176mm x 105mm x 25mm
Weight: 510g
Temperature: -30~+70

Device Management
Local or remote web browser (IE v8 or above)
CLI/Telnet command
M2M Remote Terminals Management Platform (optional)
SSH config (optional)

Device Management
Local or remote web browser (IE v8 or above)
CLI/Telnet command
M2M Remote Terminals Management Platform (optional)
SSH config (optional)