Billion Industrial Grade M2M Solutions

Driving the Future of Mission-Critical and
In-Vehicle Broadband Communications

Billion M2M series will prompt exceptional communication efficiency to protect the business asset and service consistency

The traditional networking CPEs no longer provide the functionality capability to embrace the shift to the fast-moving industrial needs. Therefore, Billion has invested years of R&D resources in developing a series of advanced M2M 4G/LTE routers, designed with critical communication features that emphasize on the superior high-performance, service reliability, and secure connectivity.

Tailored to a broad range of vertical applications, ranging from fleet management, smart bus, public safety, oil & gas industry to PoS, Kiosks, and ATM, Billion M2M series will prompt exceptional communication efficiency to protect the business asset and service consistency.

M2M/IoT Solutions

▶ Smart Bus

▶ Public Safety

▶ Fleet Management

▶ Retail/Chain Store

▶ Finance Kiosk/ATM

▶ Energy: Oil/Gas

Product

Billion M600-PT
4G/LTE Industrial/In-Vehicle Multi-Carrier Router

Key Features

- Offers 4G/LTE broadband connectivity (3G Fallback is optional)
- Multi-WAN interfaces: Single LTE Radio/ Dual SIM, Gigabit Ethernet WAN and Wi-Fi WAN for network resilience and reliable connectivity
- M12 X-coded connectors for Gigabit Ethernet ports
- Carrier Grade dual-band Wi-Fi, and Hotspot with Captive Portal Functionality
- GPS option for real-time asset tracking and location data-based applications
- Secured VPNs (IPSec, GRE, LT2P, PPTP, OpenVPN)
- Dynamic Routing Protocols (BGP, OSPF)
- QoS (Quality of Service) with traffic prioritization based-on IP, protocol, port number, and IP address
- Local and Remote Management via Web GUI, SNMP or TR-069.
- Support Ignition power control option when mounted within vehicles
- Hardened enclosure with Industrial-graded components
- Designed to withstand heat, humidity and protect from shock, vibration, etc.
- Wide range of operating voltage and temperature (DC 10V ~ 56V, -40°C to 60°C)

Billion M500
4G/LTE Industrial/In-Vehicle Multi-Carrier Router

MIL-STD 810G

E1 10R

E24 118RII

Key Features

- Offers 4G/LTE broadband connectivity (3G Fallback is optional)
- Multi-WAN interfaces: Dual LTE, Gigabit Ethernet WAN and Wi-Fi WAN for network resilience and reliable connectivity
- Wi-Fi 802.11n, and Hotspot with Captive Portal Functionality
- GPS option for real-time asset tracking and location data-based applications
- Secured VPNs (IPSec, GRE, LT2P, PPTP, OpenVPN)
- Dynamic Routing Protocols (BGP, OSPF)
- QoS (Quality of Service) with traffic prioritization based-on IP, protocol, port number, and IP address
- Local and Remote Management via Web GUI, SNMP or TR-069.
- Support Ignition power control option when mounted within vehicles
- Hardened enclosure with Industrial-graded components
- Designed to withstand heat, humidity and protect from shock, vibration, etc.
- Wide range of operating voltage and temperature (DC 10V ~ 56V, -40°C to 60°C)
- US Military Standard MIL-STD-810G Compliant

Billion M120N
4G/LTE Industrial/In-Vehicle Multi-Carrier Router

Key Features

- Offers 4G/LTE broadband connectivity (3G Fallback is optional)
- Multi-WAN interfaces: Single LTE Radio/ Dual SIM and Gigabit Ethernet WAN for network resilience and reliable connectivity
- Wi-Fi 802.11n, and Hotspot with Captive Portal Functionality
- RS-232 Serial data connectivity
- GPS option for real-time asset tracking and location data-based applications
- Secured VPNs (IPSec, GRE, LT2P, PPTP, OpenVPN)
- Dynamic Routing Protocols (BGP, OSPF)
- QoS (Quality of Service) with traffic prioritization based-on IP, port number and protocol.
- Local and Remote Management via Web GUI, SNMP or TR-069.
- Support Ignition power control option when mounted within vehicles
- Hardened enclosure with Industrial-graded components
- Designed to withstand heat, humidity and protect from shock, vibration, etc.
- Wide range of operating voltage and temperature (DC 10V ~ 56V, -40°C to 60°C)

Billion M100 / M150
Advanced Industrial 4G/LTE Router

Key Features

- Offers 4G/LTE broadband connectivity (3G Fallback is optional)
- Multi-WAN interfaces: LTE and Gigabit Ethernet WAN for network resilience and reliable connectivity
- RS-232/RS-485 Serial data connectivity (M100: RS-232, M150: RS-232/RS-485)
  GPS option for real-time asset tracking and location data-based applications
- Secured VPNs (IPSec, GRE, LT2P, PPTP, OpenVPN)
- Dynamic Routing Protocols (BGP, OSPF)
- Small form factor, fits in the palm on your hand
- Simplified deployments, quickly mounted discretely anywhere
- Wide range of operating voltage and temperature
  (DC 9V ~ 56V, -20°C to 60°C)

c UL us LISTED

Billion M50U
4G/ LTE USB Dongle

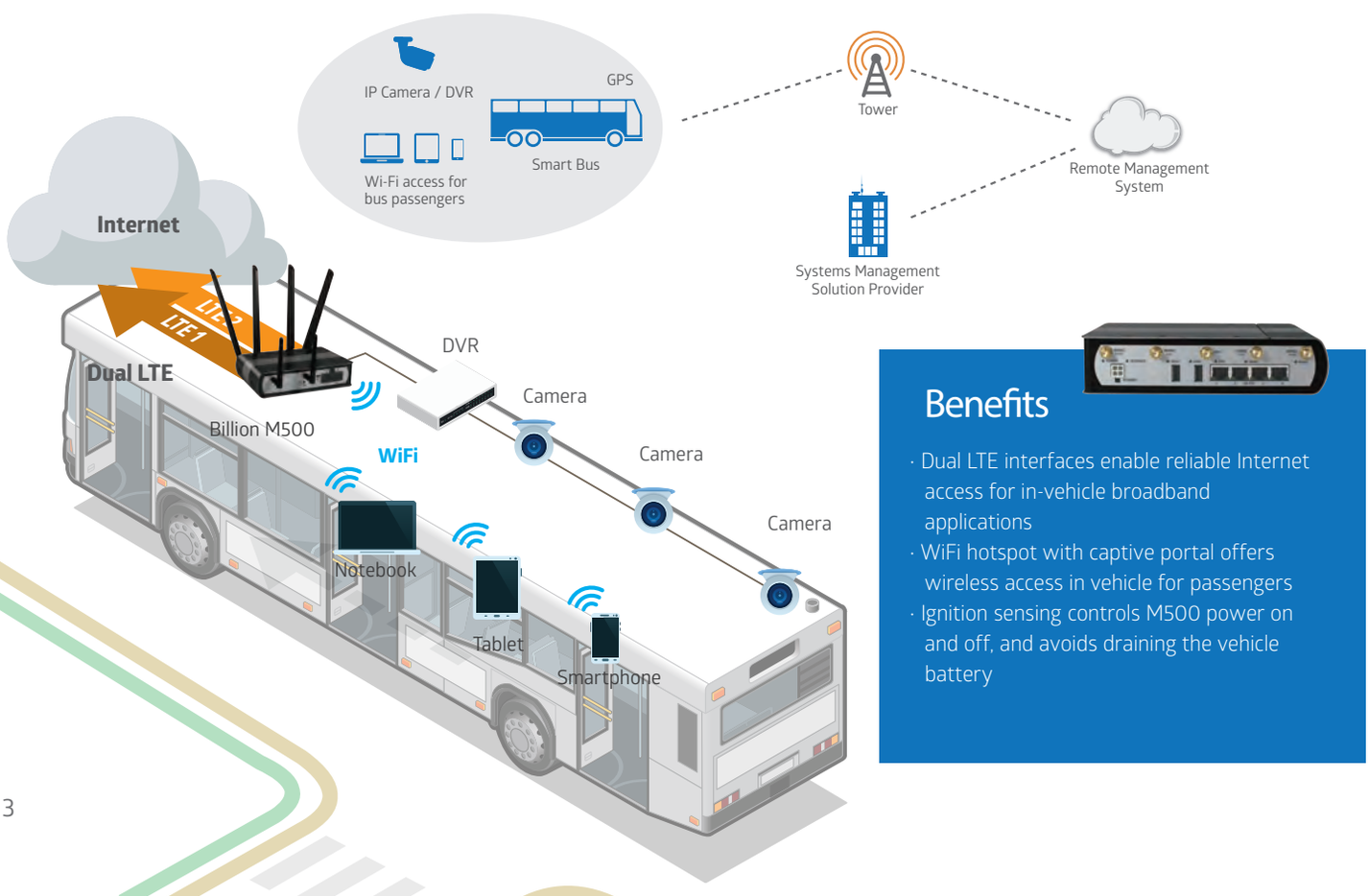
Key Features

- 4G/LTE Cellular Connectivity with Single LTE Radio/ Dual SIM
- IP50 Hardened enclosure with Industrial-grade components
- USB 3.0 connection for data and power

Billion Intelligent In-Vehicle WiFi Hotspot Solution for Smart Bus System

Bus companies look for reliable Smart Bus solutions that can provide free or pay-for-use WiFi Hotspot service in the moving vehicles and the delivery of driver and vehicle status back to the centralized dispatch center for real-time management. Billion M500 provides an excellent Smart City and Smart Transportation 4G/LTE router with dual radio and SIM, assisting system integrators in designing an always-on wireless architecture with the advancement of onboard mobile service and HotSpot captive portal. Supporting 10-56V DC power input designed for handling transient voltage and GPS/GLONASS for location tracking, Billion M500 is an industrial-grade, in-vehicle computing router that as passed the European E-Mark (E1) certification with authentication login to enable a Smart Bus experience.

Billion M500 provides ultra down-link and up-link rate that serve as 4G/LTE Wi-Fi Hotspot for passengers to surf the Internet and enjoy instant video streaming on all personal electronic devices. Supporting 4G/LTE real-time streaming for video communications, surveillance, and monitoring, Billion M500 broadens wireless coverage to rough terrains and rural areas and persists unsurpassed connectivity without interruptions. M500 also supports GPS tracking system indicating the geographic locations of scattered vehicles.



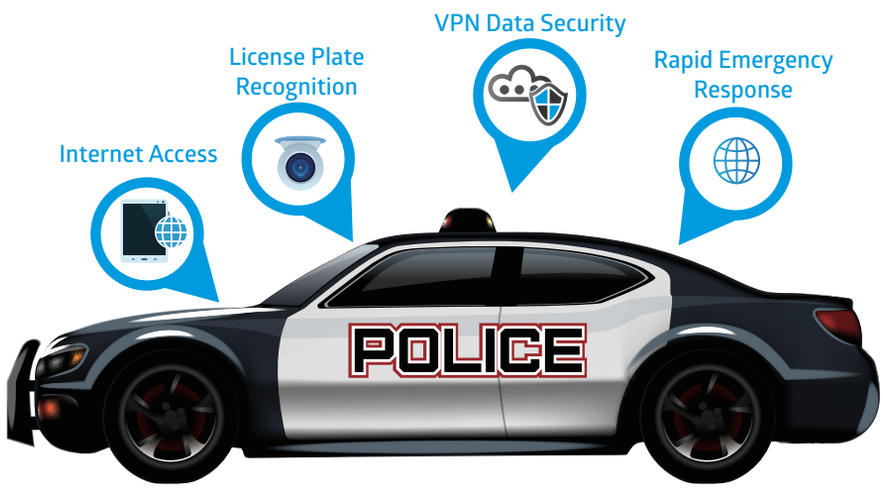
Benefits

- Dual LTE interfaces enable reliable Internet access for in-vehicle broadband applications
- WiFi hotspot with captive portal offers wireless access in vehicle for passengers
- Ignition sensing controls M500 power on and off, and avoids draining the vehicle battery

In-Vehicle Emergency Response Management Solution for Ambulance and Public Safety Applications

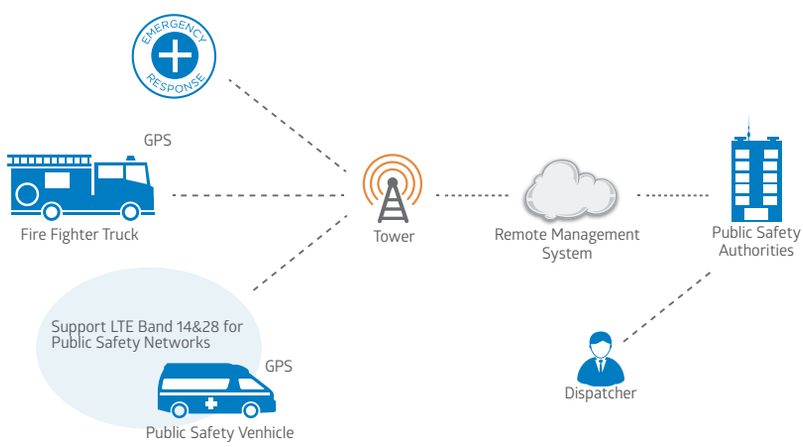
✓ Support LTE Band 14 & 28 for Public Safety Networks

LTE technology is being adopted as the foundation of public safety networks mainly due to its national interoperability and support of a wide variety of broadband applications. For example ambulances and public safety vehicles are arranged for delivering patients with emergency-related illness to hospitals, the capability to provide available medical treatment on the transportation to hospitals is crucial. M500 serves an excellent in-vehicle router collecting and analyzing patients' inquiry conditions, as well as providing substantial bandwidth to support instant images and video processing.



Benefits

- Support digital imaging, video streaming, voice, and large data download.
- Enhance emergency responders operations by delivering high-data-rate services to full coverage areas.
- Allow mission-critical information to be exchanged in real-time, anytime, anywhere.
- Achieve database lookups, dispatch messaging, mug shots, video/surveillance feeds, and broadcasting within seconds
- Support rapid boot up and wake-on-call functions.
- Reduce delays and enhance driving safety through the integration of tire pressure monitoring system and forwarded collision warning.

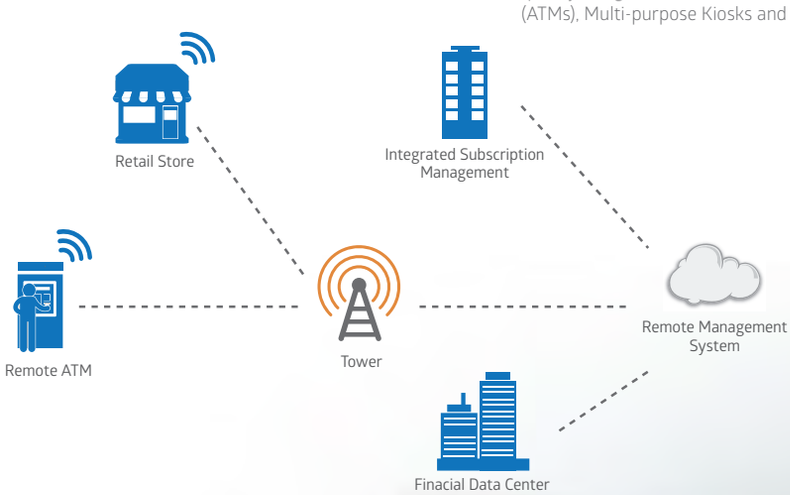


Billion Finance and Retail PoS, ATM, Kiosks Solutions with Enhanced Data Security

It's no secret that wireless technologies continue to revolutionize many industries and vertical market segments. The Financial services sector is shifting to a great part due to the benefits of the latest generation of mobile wireless technologies, 4G LTE. The most significant benefits of 4G LTE are higher bandwidth, lower latency, and improved spectrum efficiency. These advantages not only allow for fast electronic transactions, they enable new business models such as targeted marketing, location-based offers, interactive services and an overall improved customer experience.

Billion M100/M150 provides a higher bandwidth, lower latency, and improved spectrum efficiency. These advantages not only allow for fast electronic transactions, but they also enable new business models such as targeted marketing,

location-based offers, interactive services and an overall improved customer experience. Billion M100/M150 is helping retailers meet consumer expectations and become more competitive by providing wireless technology solutions that quickly integrate with Point-of-Sale (PoS) Systems, Automated Teller Machines (ATMs), Multi-purpose Kiosks and Vending Machines.



Benefits

- Either primary connection or backup connection when wired connections are unavailable or non-existent.
- Fixed wireless communications platform enabling real-time 4G Cellular data connectivity for existing serial devices & Ethernet network.
- Reliable and cost-effective alternative solution for business continuity.
- Always-online 4G/LTE Bridge / IP-Pass through Mode

Billion Provides Reliable Energy: Oil and Gas Networking Solutions Using SCADA & 4G/LTE

Vertical markets can significantly benefit from the extensive coverage and high-speed advantages of 3G/4G LTE technology. Owning a private or dedicated broadband network is now possible with 3G/4G LTE for many oil & gas companies. Next-generation communication systems enabled by LTE technology can support new business models that yield high efficiency, lower cost, and increased revenue. These benefits are particularly enjoyed by the energy industry where its operations extend large remote areas in difficult terrains, typically lacking suitable means of connectivity.

Benefits

- Real-time monitoring and control of remote sites
- Remote workforce video, data & voice connectivity
- Video surveillance and security system for remote sites
- Real-time data collection from remote oil wells/rigs
- Rugged design withstands the most extreme environments

Billion M100/M150 is dedicated to providing the broadband networks ensuring access to high-speed data anytime and anywhere. Installed next to pipeline SCADA equipment which can monitor and collect the critical information such as pressure, flow, and potential leaks of each pipeline, M100 serves as a communication backbone between field and central console by directly supporting SCADA via its RS-232 serial port and serial communication with Modbus, a master-slave protocol. By receiving the certification of UL Class I Division 2, M100 is ignition & explosion proof that can operate in hazardous environments where fire or explosive hazards may exist due to flammable gasses and vapors.

Applications

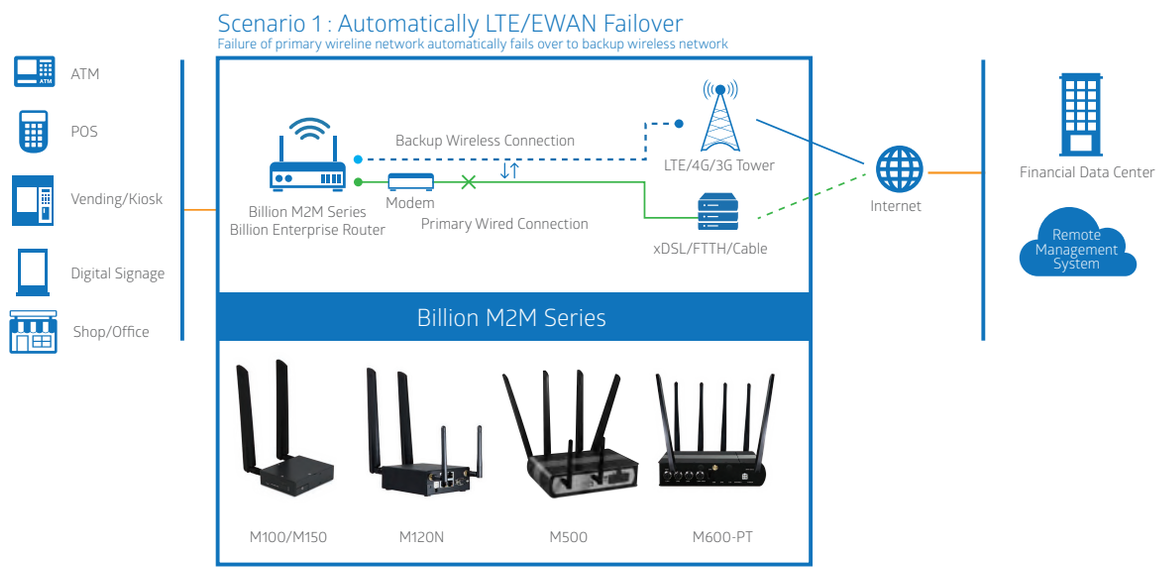
Developing Seamless Business Continuity and Operation with Auto Failover/ Failback

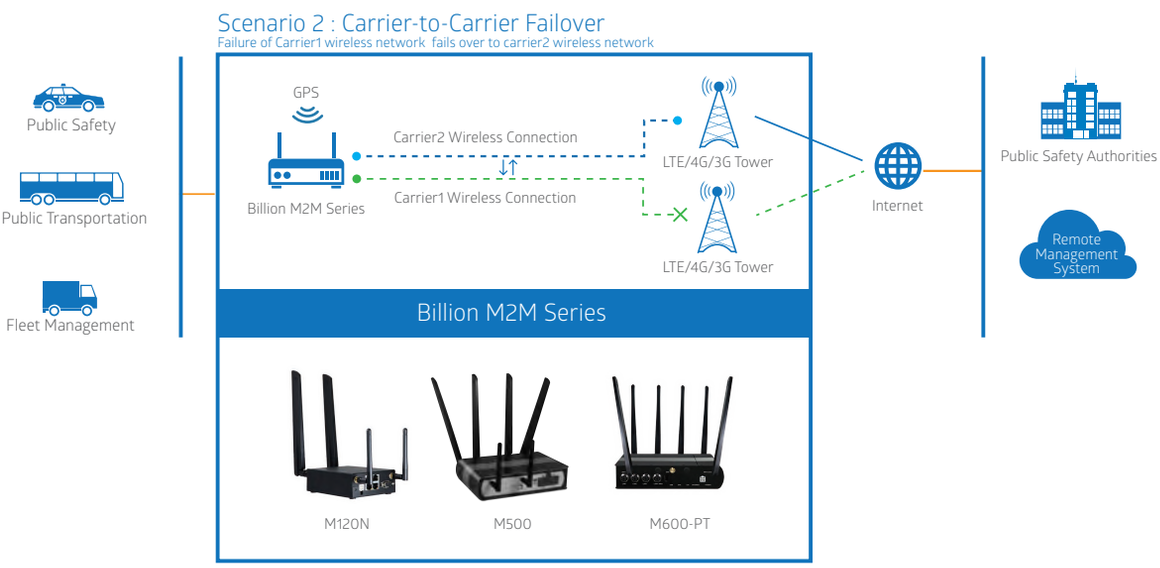
A reliable Internet connection is essential for a business to run smoothly that a temporary disconnection can quickly lead to loss of productivity, revenue, and even damage the business reputation.

Compatible with all kinds of xDSL and Fiber modems, Billion M2M Series enables business to upgrade current network without changing the system architecture. Integrating with 3G/4G wireless and EWAN interfaces, Billion M2M Series ensures a seamless Internet connectivity via superior failover/failback functionality.

As the wired connection fails, the wireless interface will instantly back up the connection to continue to operate in case any system failure.

Critical Communication and Enterprise Failover Manager



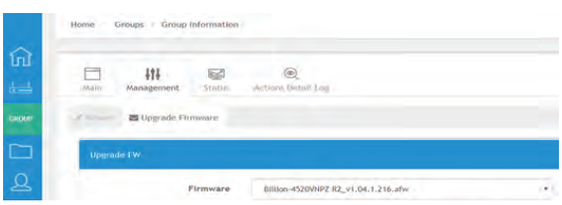


Billion CMS
Central Management System

Billion CMS, a central management platform, is designed for service provider and system integrator to remotely control and manage Billion 4G LTE routers, M2M routers and VDSL/ADSL business routers, enabling users to minimize deployment, lower supporting service expenses and maximize operational efficiency.

Key Features

- Dashboard for online & offline devices status
- 3G/4G Signal & Bandwidth Usage Monitoring
- Diagnostic Troubleshooting
- Upgrade firmware to device
- Group and Schedule Management
- Auto Provision Management
- Email Alerting
- Warning Messages on Critical Events
- Generate Report
- Factory reset and Reboot device
- Detailed Historical Device log and task log
- LAN setting to device

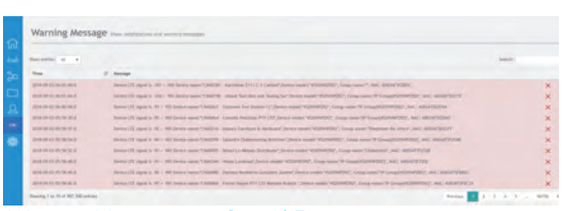


Remote Upgrade, Reboot, and Configuration

Billion CMS is able to perform remote firmware upgrade, device reboot, load default setting and CPE configuration backup and restore. It can remotely configure the LAN setting including IP address. DHCP address and DNS, helping the technical support staff quickly determine LAN side issue reported by users.

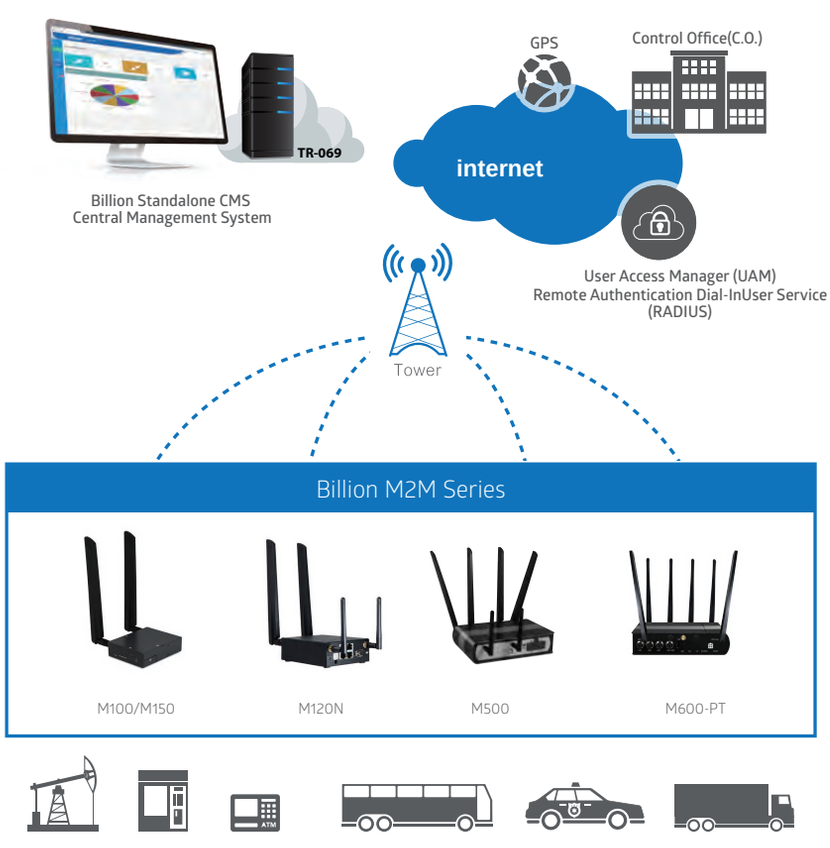
Monitor Internet Signal and Bandwidth Usage

CMS can track internet quality via RSSI, RSRP, RSRQ and SINR. CMS can also monitor 3G/4G/LTE bandwidth usage by time.



Warning Messages on Critical Events

Users can receive warning messages on critical events, such as low 3G/4G signal or device offline. Users can set up different alerting notifications by themselves.



BILLION®

M50U

4G/ LTE USB Dongle

M100

c UL us LISTED

Advanced Industrial 4G/LTE Router

M120N

Advanced Industrial 4G/LTE Router

MIL-STD 810G

E1 10R

E24 118RII

4G/LTE Industrial In-Vechicle Multi-Carrier Router

M500

M600-PT

Industrial Grade M2M

Driving the future of
Mission-Critical and In-Vehicle Communications

- GPS — Real-Time Location Tracking
- IP Camera
- Hotspot — Wi-Fi Hotspot
- Wide Temperature
- Rugged Design
- VPN Security — IPSec/GRE L2TP/PPTP

Specification

Product	M600-PT	M500	M120N	M100	M150	M50U
WAN Interface						
3G/4G LTE	●	● (x2)	●	●	●	●
Hardware Interface						
SIM slot	2	2	2	1	1	2
Gigabit Ethernet	4*M12	4*RJ45	4*RJ45	2*RJ45	2*RJ45	-
USB Host	1 (USB 2.0)	2 (USB 2.0)	-	-	-	-
802.11n (2.4 GHz)	600Mbps	300Mbps	300Mbps	-	-	-
802.11ac (5 GHz)	1.7Gbps	-	-	-	-	-
GPS	● *1	● *1	● *1	● *1	● *1	● *1
mini USB	-	● (x2)	-	-	-	-
Serial port (RS-232/RS-485)	-	-	RS-232(x1)	RS-232(x1)	RS-232 or RS-485(x1)	-
Features						
VPN	●	●	●	●	●	-
IPv4 / IPv6	●	●	●	●	●	●
Failover / Fallback	●	●	●	●	●	-
Load balance	●	●	●	●	●	-
Dual APNs	● *2	● *2	● *2	● *2	● *2	● *2
Dual firmware images	●	●	-	●	●	-
Metal casing	●	●	●	●	●	●
Operating temperature	-40°C ~ 60 °C	-40°C ~ 60 °C	-40°C ~ 60 °C	-20°C ~ 60 °C	-20°C ~ 60 °C	-40°C ~ 60 °C

*1: Optional.
*2: Dual APN is not supported on some specific SKU.

Specification Billion M600-PT

Availability and Resilience
- Multi-WAN Interfaces
- Auto failover and failback
- Load Balancing

Supported Frequency Bands [*1]
- Global LTE Bands FDD, TDD & 3G/2G Fallback options (Bands depend on module configuration)

Network Protocols and Features
- IPv4, IPv6, IPv4/IPv6 dual stack[*2]
- Dual APN[*3]
- Keep Alive
- IP Pass-Through
- NAT, Virtual Server and DMZ
- Static Routing, Dynamic Routing (RIP v1/v2, OSPF, BGP)
- SNTP, DNS relay and DDNS
- Universal Plug and Play (UPnP) compliant
- Supports DHCP server/client/relay

Firewall
- Built-in NAT Firewall
- Stateful Packet Inspection (SPI)
- Prevents DoS attacks including Land Attack, Ping of Death, etc.
- Access Control
- IP Filtering, MAC Filtering, URL Filtering
- VPN Passthrough

VPN
- IPSec VPN Tunneling
- PPTP VPN Tunneling (dial-in/dial-out tunnels)
- L2TP over IPSec VPN Tunneling (dial-in/dial-out tunnel)
- OpenVPN VPN Tunneling
- GRE

Quality of Service Control
- Traffic prioritization based-on IP protocol, port number and IP address

Carrier-Grade Wireless LAN
- Compliant with IEEE 802.11 a/b/g/n/ac standards
- 2.4GHz & 5GHz frequency range
- Up to 600Mbps (2.4GHz) & 1.7Gbps (5GHz) wireless operation rate
- 64/128 bits WEP supported for encryption
- Wireless security with WPA-PSK, WPA2-PSK, Mixed WPA/WAP2-PSK
- Multiple SSID (4 SSIDs), BSSID
- Wireless MAC filtering
- Wireless Client Isolation
- Wi-Fi Hotspot with captive portal
- RADIUS or integrated account database

Global Navigation Satellite System(GNSS) [*4]
- GNSS engine for GPS or GLONASS system

USB Application Server
- Storage: FTP server and Samba server

Management
- Password protection for system management
- Web-based GUI for remote and local management
- Firmware upgrade and configuration data upload and download via web-based GUI
- CWMP(TR-069)[*2] , SNMP
- 3G/ 4G LTE Usage Allowance
- Remote System Log monitoring
- Scheduling Auto-Reboot
- Physical layer/protocol diagnostic test tool

Intelligent Ignition Sensing
- For In-vehicle connectivity installations

Hardware Specifications

Physical Interface
- 3G/4G LTE: two (2) SMA Female Connectors
- Wireless: four (4) RP-SMA Female Connectors
- (Optional) GPS: one (1) SMA Female Connector[*4]
- WAN: 3G/4G LTE and/or Ethernet WAN
- USB 2.0 Host: one (1) port
- Ethernet LAN: 4-port 10/100/1000Mbps auto-crossover (MDI/ MDI-X) switch with four M12 X-coded connectors
- SIM Card: two (2) slots
- Reset Button
- Wireless On/Off and WPS Push Button
- Power Connector: 4-pin connector with ignition sensing
- LED Indicators
- Antenna:
  - 4G/LTE: four (2) (or two (4)) detachable antennas[*5]
  - GPS: one (1) detachable active antenna (option)
  - Wireless: four (4) detachable dual-band antennas

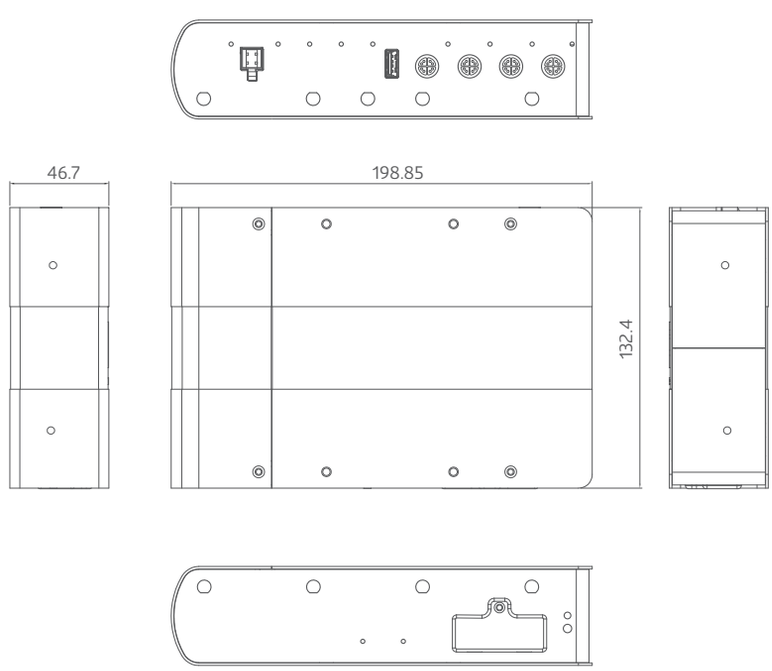
Power Specifications
- Input: DC 10V ~ 56V with ignition sensing

Physical Requirements
- Dimensions: 7.82"(W) x 1.83"(H) x 5.21"(D) (198.85 mm x 46.7 mm x 132.4 mm)

Operating Environment
- Operating: -40°C to 60°C (-40°F to 140°F)
- Humidity: 20 ~ 95% non-condensing

*** Notes:**
1. The 4G LTE is dependent on your local service provider.
2. Only upon request for Telco/ ISP tender projects.
3. Dual APN is not supported on some specific SKU, please confirm it with our sales.
4. The support for GPS and/or GLONASS functions depends on the equipped module's capabilities.
5. The support antenna numbers depends on the equipped module's capabilities.
6. Specifications in this datasheet are subject to change without prior notice.

Dimensions



Unit:mm

Availability and Resilience
- Dual LTE Modules
- Auto fail-over and failback
- Load Balancing

Supported Frequency Bands *1
- Primary WAN LTE: Global LTE Bands FDD. TDD & 3G/2G Fallback options (Bands depend on module configuration)
- Secondary WAN LTE: Optional (Bands depend on module configuration)

Network Protocols and Features
- IPv4, IPv6, IPv4/IPv6 dual stack*2
- Dual APN*3
- Keep Alive
- IP Pass-Through
- NAT, Virtual Server and DMZ
- Static Routing, Dynamic Routing (RIP v1/v2, OSPF, BGP)
- SNTP, DNS relay and DDNS
- Universal Plug and Play (UPnP) compliant
- Supports DHCP server/client/relay

Firewall
- Built-in NAT Firewall
- Stateful Packet Inspection (SPI)
- Prevents DoS attacks including Land Attack, Ping of Death, etc.
- Access Control
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VPN
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- GRE

Quality of Service Control
- Traffic prioritization based-on IP protocol, port number and IP address

Wireless LAN
- Compliant with IEEE 802.11b/g/n standards
- Up to 300Mbps wireless operation rate
- WPS (Wi-Fi Protected Setup) for easy setup
- 64/128 bits WEP supported for encryption
- Wireless security with WPA-PSK, WPA2-PSK, Mixed WPA/WAP2-PSK
- Multiple SSID (4 SSIDs), BSSID
- Wireless MAC Filtering
- Wireless Client Isolation
- Wi-Fi Hotspot with captive portal
- RADIUS or integrated account database.

Global Navigation Satellite System(GNSS) *4
- GNSS engine for GPS or GLONASS system

USB Application Server
- Storage: FTP server and Samba server

Management
- Password protection for system management
- Web-based GUI for remote and local management
- Firmware upgrade and configuration data upload and download via web-based GUI
- CWMP(TR-069)*2, SNMP
- 3G/4G LTE Usage Allowance
- Remote System Log monitoring
- Scheduling Auto-Reboot
- Physical layer/protocol diagnostic test tool

Intelligent Ignition Sensing
- For In-vehicle connectivity installations

Hardware Specifications

Physical Interface
- Antenna:
  - Wireless: two(2) detachable antennas
  - 3G/4G LTE: four(4) detachable antennas
  - GPS: one (1) detachable antenna
- WAN: 3G/4G LTE and/or Ethernet WAN
- USB 2.0 : two (2) ports
- Mini USB Console: two (2) ports
- Ethernet LAN: 4-port 10/100/1000Mbps auto-crossover (MDI/ MDI-X) switch
- SIM Card: two (2) slots
- Reset Button
- Wireless On/Off and WPS Push Button
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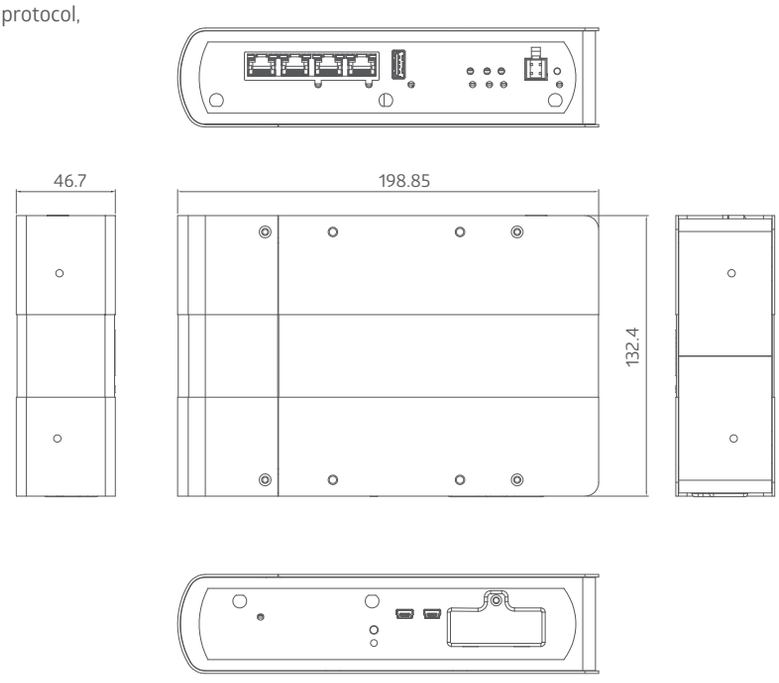

Unit:mm

Specification Billion M120N

Availability and Resilience
- Dual-WAN Interface
- Auto fail-over and failback
- Load Balancing

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- 64/128 bits WEP supported for encryption
- Wireless security with WPA-PSK, WPA2-PSK, Mixed WPA/WAP2-PSK
- Multiple SSID (4 SSIDs), BSSID
- Wireless MAC Filtering
- Wireless Client Isolation
- Wi-Fi Hotspot with captive portal
- RADIUS or integrated account database.

Serial RS-232
- DEC, DB-9
- Modbus/TCP, Telent Server, SSH Server, UDP Server/ Client, TCP Server/ Client

Global Navigation Satellite System(GNSS) *4
- GNSS engine for GPS or GLONASS system

Management
- Password protection for system management
- Web-based GUI for remote and local management
- Firmware upgrade and configuration data upload and download via web-based GUI
- CWMP(TR-069)*2, SNMP
- 3G/4G LTE Usage Allowance
- Remote System Log monitoring
- Scheduling Auto-Reboot
- Physical layer/protocol diagnostic test tool

Intelligent Ignition Sensing
- For In-vehicle connectivity installations

Hardware Specifications

Physical Interface
- 3G/4G LTE: two(2) SMA Female Connectors
- Wireless: two(2) RP-SMA Female Connectors
- (Optional)GPS: one (1) SMA Female Connectors*4
- WAN: 3G/4G LTE and/or Ethernet WAN
- RS-232 (DCE, DB-9):one(1)port
- Ethernet LAN: 4-port 10/100/1000Mbps auto-crossover (MDI/ MDI-X) switch
- SIM Card: two (2) slots
- Reset Button
- Power Connector:4-Pin connector with ignition sensing
- LED Indicators

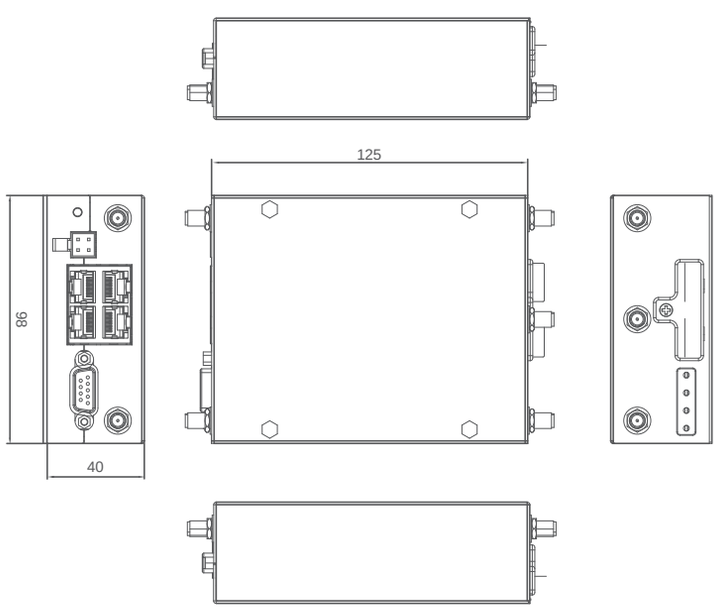
Power Specifications
- Input: DC 10V ~ 56V with ignition sensing

Physical Specifications
- Dimensions: 4.92"(W) x 1.57"(H) x 3.85"(D) (125 mm x 40 mm x 98 mm)

Operating Requirements
- Operating: -40°C to 60°C (-40°F to 140°F)
- Humidity: 20 ~ 95% non-condensing

*** Notes:**
1. The 4G LTE is dependent on your local service provider.
2. Only upon request for Telco/ISP tender projects.
3. Dual APN is not supported on some specific SKU, please confirm with our sales.
4. The support for GPS and/or GLONASS functions depends on the equipped module's capabilities.
5. Specifications in this datasheet are subject to change without prior notice.

Dimensions



Availability and Resilience
- Dual-WAN Interfaces
- Auto fail-over and failback

Supported Frequency Bands *1
- Global LTE Bands FDD, TDD& 3G/2G Fallback options (Bands depend on module configuration)

Network Protocols and Features
- IPv4, IPv6, IPv4/IPv6 dual stack*2
- Dual APN*3
- Keep Alive
- IP Pass-Through
- NAT, Virtual Server and DMZ
- Static Routing, Dynamic Routing (RIP v1/v2, OSPF, BGP)
- SNTP, DNS relay and DDNS
- Universal Plug and Play(UPnP) compliant
- Supports DHCP server/client/relay

Firewall
- Built-in NAT Firewall
- Stateful Packet Inspection (SPI)
- Prevents DoS attacks including Land Attack, Ping of Death, etc.
- Access Control
- IP Filtering, MAC Filtering, URL Filtering
- VPN Passthrough

VPN
- IPSec VPN Tunneling
- PPTP VPN Tunneling (dial-in/dial-out tunnels)
- L2TP over IPSec VPN Tunneling (dial-in/dial-out tunnel)
- OpenVPN VPN Tunneling
- GRE

Quality of Service Control
- Traffic prioritization based-on IP protocol, port number and IP address

Serial RS-232/ RS-485*4
- DEC, DB-9
- Modbus/TCP, Telent Server, SSH Server, UDP Server/ Client, TCP Server/ Client

Global Navigation Satellite System(GNSS)*5
- GNSS engine for GPS or GLONASS system

Management
- Password protection for system management
- Web-based GUI for remote and local management
- Firmware upgrade and configuration data upload and download via web-based GUI
- CWMP(TR-069), SNMP
- 3G/4G LTE Usage Allowance
- Remote System Log monitoring
- Scheduling Auto-Reboot
- Physical layer/protocol diagnostic test tool

Hardware Specifications

Physical Interface
- 3G/4G LTE: two (2) detachable antennas
- (Optional)GPS: one (1) detachable antenna*5
- WAN: 3G/4G LTE and/or Ethernet WAN
- RS-232/RS-485 (DCE, DB-9): one (1) port*4
- Ethernet LAN: 2-port 10/100/1000Mbps auto-crossover (MDI/ MDI-X) switch
- SIM Card: one (1) slots
- Reset Button
- Power Connector: 2-pin connectors
- LED Indicators

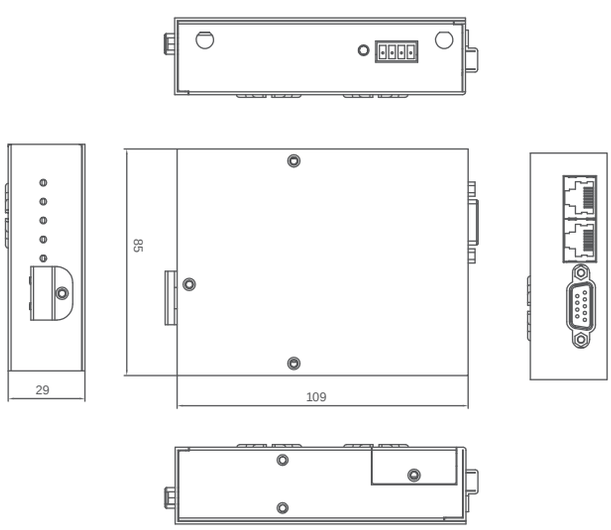
Power Specifications
- Input: DC 9V ~ 56V

Physical Specifications
- Dimensions: 4.29"(W) x 1.14"(H) x 3.34"(D) (109mm x 29 mm x 85 mm)

Operating Requirements
- Operating: -20°C to 60°C (-4°F to 140°F)
- Humidity: 20 ~ 95% non-condensing

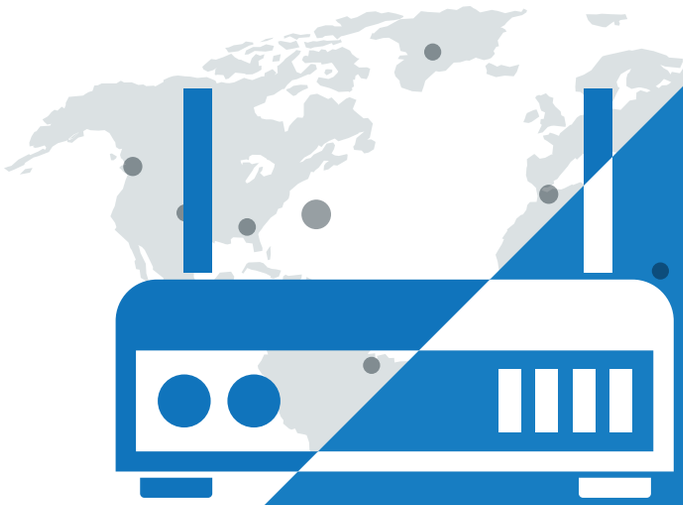
*** Notes:**
1. The 4G LTE is dependent on your local service provider.
2. Only upon request for Telco/ISP tender projects.
3. Dual APN is not supported on some specific SKU, please confirm with our sales.
4. The support for GPS and/or GLONASS functions depends on the equipped module's capabilities.
5. M150:RS-232/RS-485, M100:RS-232
6. Specifications in this datasheet are subject to change without prior notice.

Dimensions



Unit:mm

The rigorous rise of M2M (Machine to Machine) has marked a new page in history for the telecommunication industry.



- Real-Time Location Tracking
- Wide Temperature
- IP Camera
- Rugged Design
- Wi-Fi Hotspot
- IPSec/GRE L2TP/PPTP

The expansion of Internet-connected devices is enormous, and global cellular M2M connections might reach close to one billion by 2020. The massive amount of data being generated every second by millions of people and machines has become a precious index for international telecom operators, carriers, enterprises, consumer driven business to design their service and products gearing towards the interest of their customers.

Leveraging the enriching pool of Big Data and efficient connectivity, M2M is aimed to help business in boosting machine productivity, driving sales and building new revenue generating models.

About BILLION

Billion Electric Co., Ltd. (www.billion.com, Taiex: 3027, trading as Billion) is a leading global information and communication technology (ICT) solutions provider. We enhance life and communication efficiency through a better-connected world, acting as a responsible corporate citizen, an innovative enabler for the information society, and a collaborative contributor to the industry. Billion is dedicated to creating optimal value for telecom operators and determined to pursue the position of industry vanguard by providing our current and future customers the highest quality of technology outputs.

www.billion.com

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Billion M2M Solution Guide

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