identium®
Creating identities for all

USER MANUAL

ID-BGW-02

BLE Gateway: Ethernet, Wi-Fi or 4G, with PoE

Installation, network and server set-up, connection to the Identium RTLS platform, status lights and troubleshooting for the indoor and outdoor versions



THIS MANUAL COVERS	VERSION	PLATFORM
ID-BGW-02 gateway: -P, -PC (indoor), -M, -MC (outdoor)	–	Ethernet / PoE, Wi-Fi, 4G
Gateway settings page (built in)	–	Any browser; Chrome recommended
Identium RTLS platform: BLE 5.0 Indoor pages	4.19	Web browser

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Creating identities for all

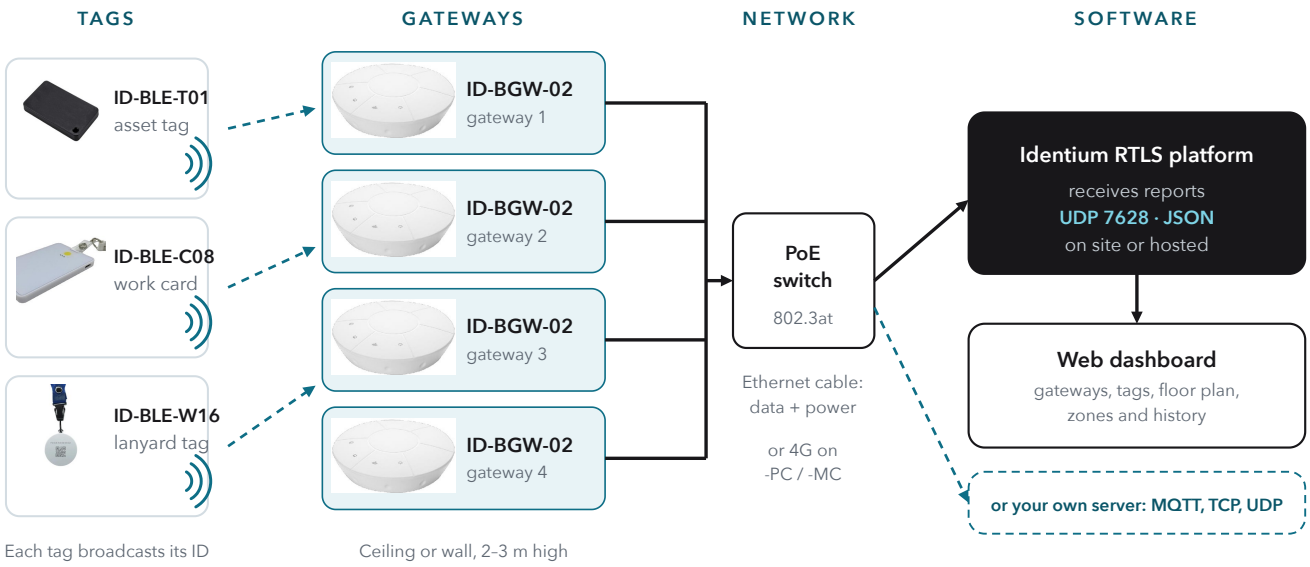
The ID-BGW-02 is a Bluetooth (BLE) gateway: it hears Identium BLE tags, work cards and wearables and forwards their IDs and signal strength to a server over Ethernet, Wi-Fi or 4G. This manual covers installing and powering the gateway, planning where to put it, connecting it to your network, sending its data to a server and to the Identium RTLS platform, and reading its status. Developers will find the data format in the separate Identium BLE Gateway Integration Guide.

CONTENTS

01/ How the System Works
02/ Packing List
03/ Equipment Diagram
04/ Status Lights and Reset
05/ Power
06/ Plan and Place the Gateways
07/ Mount the Gateway
08/ First Connection: Open the Settings Page
09/ Connect the Gateway to Your Network
10/ Send Data to a Server
11/ Scan Settings and Filters
12/ Connect to the Identium RTLS Platform
13/ Check the Gateway: Running Status
14/ Firmware Update
15/ Precautions
16/ Parameters
17/ Troubleshooting
18/ Support

01/ How the System Works

The ID-BGW-02 is the receiver in an Identium Bluetooth (BLE) tracking system. It listens for the broadcasts of Identium BLE tags, work cards and wearables around it and sends each tag's ID and signal strength (RSSI) to a server, about once a second.



A typical installation: ID-BGW-02 gateways on the ceiling hear Identium BLE tags and send their reports over one Ethernet cable (data and PoE power) to the Identium RTLS platform, which shows the tags on a floor plan. The same gateways can report to your own server instead.

- **One gateway** tells you which tags are in its range, for example in a store room or at a dock door.
- **Several gateways** let the Identium RTLS platform compare the signal strength of each tag at each gateway and show the zone or room the tag is in: zone-level location, around 10 m.
- For sub-metre positions, add **ID-AOA-GW25** AoA anchors and AoA-capable tags (ID-BLE-L01, B22, A07, A20, S25, C08 or X11). The AoA tags are heard by the ID-BGW-02 too.

Versions

Model	Housing	Connection to the server
ID-BGW-02-P	Indoor, white ABS + PC, Ø 124 × 40 mm	Ethernet (PoE) or Wi-Fi
ID-BGW-02-PC	Indoor, white ABS + PC, Ø 124 × 40 mm	Ethernet (PoE) or 4G mobile data
ID-BGW-02-M	Outdoor, metal, 153 × 137 × 97 mm	Ethernet (PoE) or Wi-Fi
ID-BGW-02-MC	Outdoor, metal, 153 × 137 × 97 mm	Ethernet (PoE) or 4G mobile data

Every version has one network port that also takes PoE power. The 4G versions work over Ethernet without a SIM.

02/ Packing List

Item	Indoor (-P, -PC)	Outdoor (-M, -MC)
ID-BGW-02 gateway	1	1 (antennas fitted)
Power adapter, 12 V DC	1 (12 V / 1 A)	1 (12 V / 2 A)
Mounting plate (ceiling or wall)	1	–
Screws with wall plugs	3	–
Pole brackets with U-clamps and screws	–	2 sets
Allen key	–	1
Quality certificate	1	1

You will also need: an Ethernet cable and a PoE switch or injector (or a power socket for the adapter), a laptop with Wi-Fi for the first set-up, and a data SIM card (Micro SIM) for the 4G versions.



Outdoor mounting kit: two pole brackets, U-clamps with nuts, screws and the Allen key.

03/ Equipment Diagram

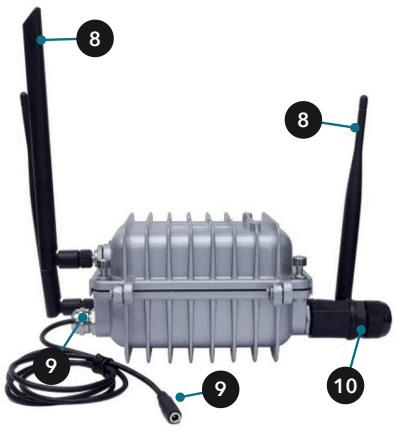
TOP: STATUS LIGHTS

SIDE: PORTS AND RESET



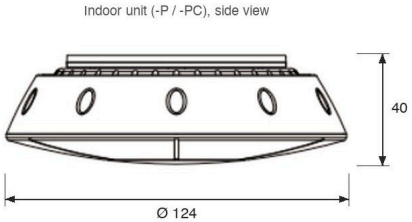
Indoor gateway (-P, -PC). Left: the four status lights on the top cover. Right: the port panel on the side of the base.

1. **Bluetooth light** : scanning and connection state
2. **Network light** : Ethernet cable and network address
3. **Wi-Fi light** : the gateway's Wi-Fi
4. **Power light** : on while the gateway has power
5. **Reset button** : hold for more than 5 s to restore the factory settings
6. **Network port** (RJ45, WAN / LAN): Ethernet and PoE power in
7. **Power port** : DC 12 V adapter (accepts 6–28 V DC)



Outdoor gateway (-M, -MC).

No.	Part	Use
8	Antennas	Bluetooth, Wi-Fi and, on the -MC, 4G. Keep them upright and fitted.
9	Power lead	DC socket for the 12 V / 2 A adapter, through a sealed gland.
10	Network port gland	Ethernet and PoE power in. Sealed with a black rubber plug from the factory; see "Outdoor gateway: fit the network cable".



Unit: mm

Indoor gateway, side view. Dimensions in mm.

04/ Status Lights and Reset

The indoor gateway has four lights on the top cover (parts 1–4). There is no power switch: the gateway starts as soon as it has power, from PoE or from the adapter.

Light	What you see	What it means
Power	On	The gateway has power.
Power	Off	No power: check the PoE switch port or the adapter.
Wi-Fi	On without flashing, just after power-up	Wi-Fi is starting.
Wi-Fi	Flashing	Wi-Fi is running normally.
Wi-Fi	Off	The gateway's own Wi-Fi has been switched off in its settings.
Network	Flashing slowly	A cable is connected and the gateway has a network address.
Network	Off	No network cable, or the cable or switch port is faulty.
Bluetooth	A short flash every 5 or 8 s	Bluetooth is scanning normally.
Bluetooth	Flashing every 1–2 s, or fast and even	The gateway is connecting to, or is connected to, a Bluetooth device on a command from the server.
Bluetooth	Off, or on without flashing	Bluetooth fault: restart the gateway (see Troubleshooting).
Wi-Fi and Network	Wi-Fi off or on without flashing, and the Network light dark although a cable is plugged in	Network fault: restart the gateway.

Reset button

Hold the reset button (part 5) for **more than 5 seconds** to restore the factory settings. This erases your network, server and scan settings and the passwords; the gateway then starts again with its own Wi-Fi network, ready for "First Connection". To restart the gateway without losing settings, use **Reboot** on its settings page or disconnect the power for 10 seconds.

05/ Power

PoE (one cable for data and power)

1. Connect the gateway's network port (part 6) to a port of an **IEEE 802.3at PoE switch** or PoE injector (48 V).
2. The Power light comes on and the Wi-Fi light starts to flash after a few seconds.

Adapter

If the network cable has no PoE, or you use Wi-Fi or 4G, plug the adapter supplied into the power port (part 7, or the power lead, part 9, on the outdoor gateway). Indoor: 12 V / 1 A. Outdoor: 12 V / 2 A. Any 6–28 V DC supply works.

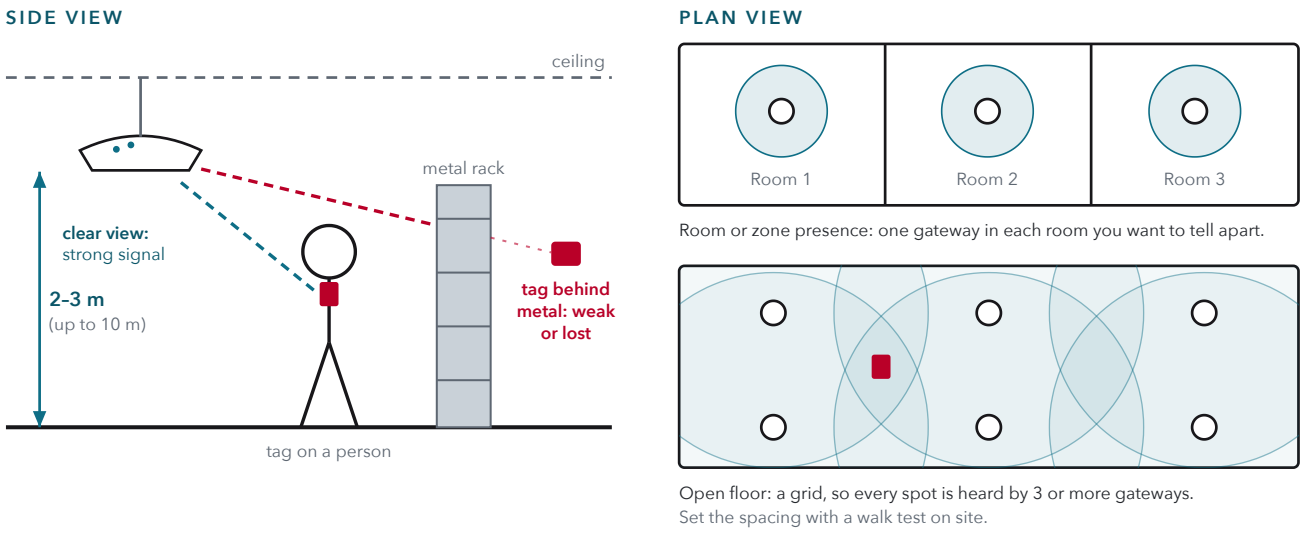
Current	180 mA at 12 V; 280 mA at 12 V on the 4G versions
PoE	48 V, IEEE 802.3at
DC input	6–28 V

CAUTION

Use a standards-based IEEE 802.3at PoE switch or injector. Do not power the gateway from the PoE OUT port of an ID-AOA-GW25 anchor: that port is for chaining anchors.

06/ Plan and Place the Gateways

Where you put the gateways decides what the system can tell you. Plan the layout on the floor plan first, then check it on site with a tag in your hand.



Left: mount the gateway high with a clear view of the area; metal between the gateway and a tag weakens or blocks the signal. Right: one gateway per room for presence, or a grid for zone positions on an open floor.

Rules for good coverage

- **Height**: 2–3 m above the floor, on the ceiling or high on a wall (the gateway can be mounted up to 10 m high). The Identium RTLS platform assumes about 2.2 m when it turns signal strength into distance on the floor.
- **Clear view**: mount the gateway in the open, in the middle of the area it covers. Walls, metal racking, machines, vehicles and people all weaken Bluetooth. Do not mount it inside a metal cabinet or behind a metal beam or duct.
- **Range**: the gateway's rated scanning distance is more than 100 m, but the real read distance is set by each tag (70 m or 100 m in open space for Identium tags) and is much shorter through walls and racking.
- **Room or zone presence**: put one gateway in each room or zone you want to tell apart.

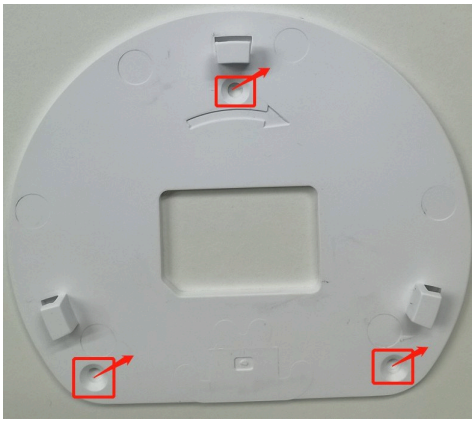
- **Positions on an open floor**: lay the gateways out in a grid so every spot you care about is heard by at least three gateways (two at the very least). The platform then shows the tag's zone, around 10 m.
- **One floor per gateway**: a gateway that hears tags on another floor through a stairwell or shaft can place them on the wrong floor. Mount it where it mainly hears its own floor.
- **Network**: use a business-grade switch or router. A small home router can drop gateways after a while.

Walk test

1. Install the gateways and connect them to the platform (section 12).
2. Carry a tag slowly through every area you need to cover, pausing for a few seconds at each spot.
3. At each spot, check which gateways hear the tag and at what signal strength. The platform uses readings of **–75 dBm or stronger**; each spot needs at least two gateways (three is better) at that level.
4. Where a spot is heard too weakly, move a gateway closer or add one, and repeat.

07/ Mount the Gateway

Indoor gateway (-P, -PC): ceiling or wall



Mounting plate: the three screw holes are marked in red.

1. Check that the ceiling or wall can hold at least **2 kg**.
2. Fix the mounting plate to a flat surface with the three screws and wall plugs supplied, through the holes marked in the photo.
3. Connect the network cable (and the adapter, if you use one) to the gateway.
4. Line up the network-port mark on the plate with the network-port mark on the back of the gateway, then push the gateway into the clips of the plate until it holds.

Outdoor gateway (-M, -MC): pole



Outdoor gateway on a pole: brackets on the gateway, U-clamps round the pole.

1. Fix the two L-shaped brackets to the holes on the back of the gateway with the screws supplied (use the Allen key).
2. Clamp the brackets to the pole with the U-clamps, with the antennas pointing up.
3. Connect the network cable through the waterproof gland (below), or connect the power lead to the adapter.
4. Check that the pole and the clamps hold at least **2 kg**.

Outdoor gateway: fit the network cable

From the factory, the network-port gland (part 10) is sealed with a black rubber plug. To use Ethernet or PoE:

1. Unscrew the cap of the gland and take out the black rubber plug. Keep it.
2. Take the cap apart, but leave the waterproof gasket in place.
3. Thread the network cable through the cap parts in the order they came off.
4. Fit the RJ45 plug to the cable, push it into the network port, and screw the part with the waterproof ring onto the adapter nut.
5. Put the rubber sealing ring back in its seat and tighten the cap.

> **TIP**
> Use a field-fit (self-clamping) RJ45 plug: the moulded plug of a ready-made patch cord can be too big for the gland. Tighten all three threaded parts of the gland, or it will not keep water out. If you stop using the cable, refit the black rubber plug.

08/ First Connection: Open the Settings Page

Every setting of the gateway is on a web page built into it. For the first set-up you reach that page over the gateway's own Wi-Fi network.



1. Power the gateway. The Wi-Fi light flashes.
2. On a laptop, join the Wi-Fi network GW_ followed by the gateway's MAC address. Password: 66668888
3. Open a browser at http://10.10.10.254
4. Log in with the password admin

1. Power the gateway. Wait until the Wi-Fi light flashes.
2. On a laptop, join the Wi-Fi network named **GW_** followed by the gateway's MAC address (12 characters). The password is `66668888`. The laptop gets an address `10.10.10.x`; this network has no internet, which is normal.
3. Open Google Chrome and go to `http://10.10.10.254`.
4. Type the password `admin` and click **Login**. The home page opens.

Home page button	What it is for
Web Administration	Change the password of the settings page.
Network Configurations	Network connection, the gateway's own Wi-Fi, time, and the server the gateway reports to.
BLE Configurations	Report type and interval, Bluetooth scanning, filters and the server heartbeat.
Running Status	Everything the gateway is doing now (read-only).
System Operations	Reload the factory settings.
Upgrade GW	Install a firmware file from Identium.

NOTE

Settings are saved in two steps. Click **Set** on the card you changed, then **Save ALL** at the bottom of the page, then **Reboot** (network settings) or **Activate** (server, report and Bluetooth settings). A change made with **Set** alone can be lost at the next restart.

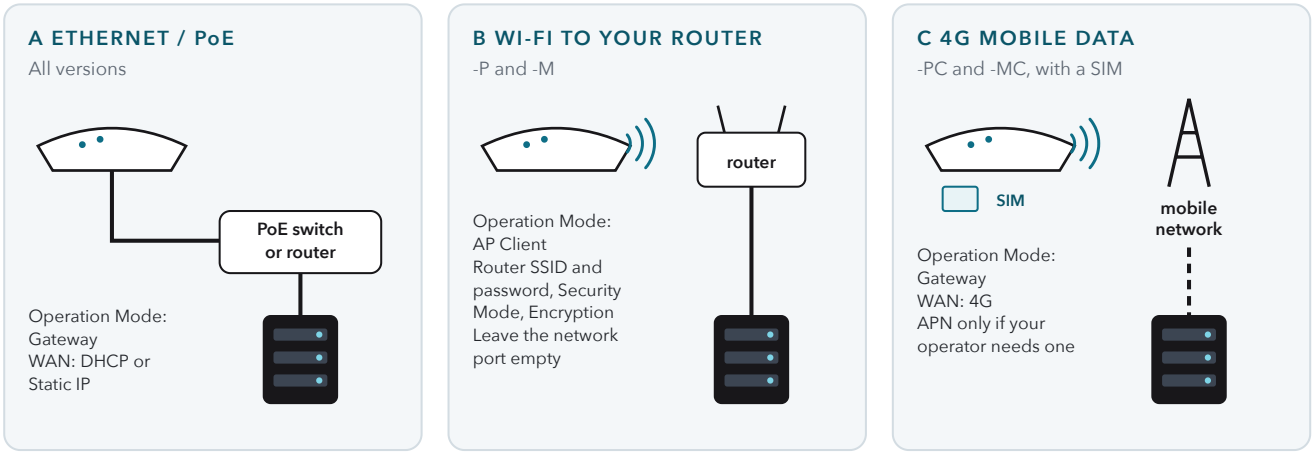
CAUTION

Change the settings-page password (**Web Administration**) and the gateway's Wi-Fi password (**Network Configurations › WLAN Settings › Password**) during set-up, and keep both with the site records.

TIP

Once the gateway has an address on your network, you can usually open the same page at that address from any computer on the network, for example `http://192.168.1.131`. The address is shown under **Running Status › WAN Access › IP Address** and in your router's list of devices.

09/ Connect the Gateway to Your Network



The three ways the gateway reaches your server. Set the method under Network Configurations, then click Save ALL and Reboot.

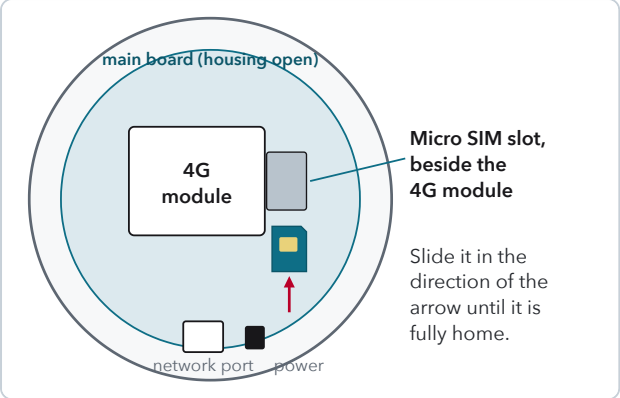
A Ethernet / PoE (all versions)

1. Connect the network port to your PoE switch or router.
2. Open **Network Configurations**. Under **Operation Mode** choose **Gateway** (the network port becomes the WAN port).
3. Under **WAN Settings** choose **DHCP** (the router gives the address) or **Static IP** (you type it).
4. Click **Set**, **Save ALL**, then **Reboot**. Wait about 40 seconds.
5. The Network light flashes slowly once the gateway has an address. Find it under **Running Status › WAN Access**.

B Wi-Fi to your router (-P, -M)

1. Open **Network Configurations**. Under **Operation Mode** choose **AP Client**.
2. Enter your router's **Host SSID** (network name) and **Password**, and choose its **Security Mode** (for example WPA2PSK) and **Encryption** (for example AES).
3. Under **WAN Settings** choose **DHCP** or **Static IP**.
4. Click **Set**, **Save ALL**, then **Reboot**. Leave the network port empty in this mode and power the gateway from the adapter.

C 4G mobile data (-PC, -MC)



Drawing of the 4G board, not to scale.

1. Disconnect the power. Open the gateway housing to reach the main board.
2. Slide a **Micro SIM** into the slot beside the 4G module, in the direction of the arrow, until it is fully home. Close the housing.
3. Power the gateway and open its settings page. Under **Operation Mode** choose **Gateway**; under **WAN Settings** choose **4G**.



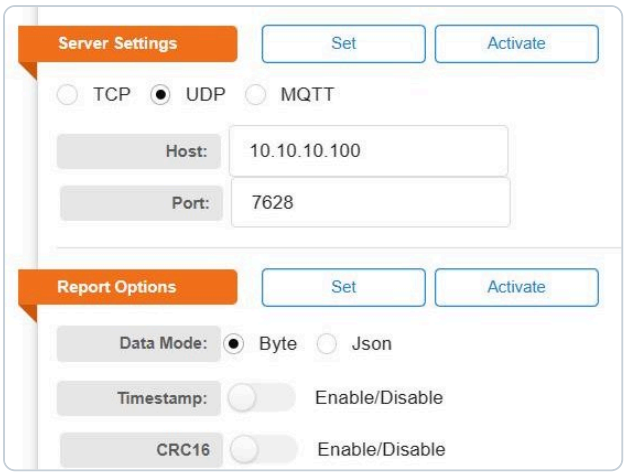
Network Configurations › WAN Settings with 4G selected.

4. Turn on **Parameters** only if your mobile operator needs an APN, and enter the **APN** (and **User**, **Password**, **Authentication** and **PIN Number** if the operator gives them).
5. **Ping Net** (optional) makes the gateway check its connection and restart the link if it is lost.
6. Click **Set**, **Save ALL**, then **Reboot**. Check **Running Status › 4G Module**: **SIM State** should read **Ready**.

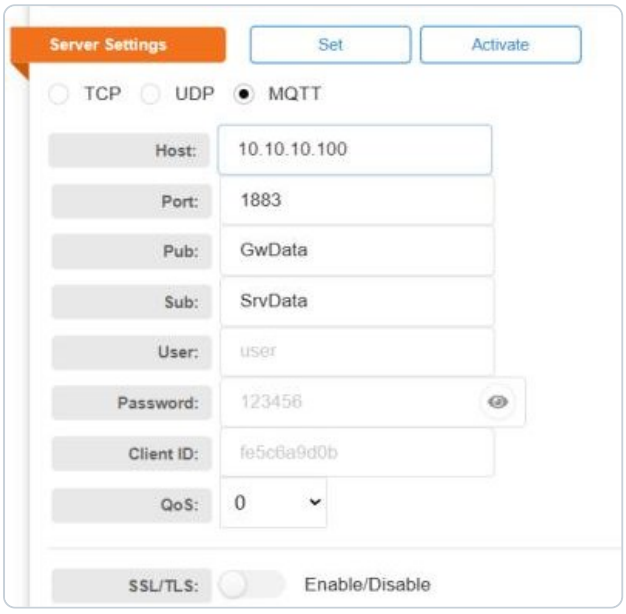
> **NOTE**
> Over 4G the gateway reaches your server through the internet, so give it a server address that can be reached from the internet: a cloud server, a hosted Identium RTLS platform, or your site's public address.

10/ Send Data to a Server

The gateway is the **client**: it connects out to your server and sends its reports there. Nothing on the site needs to connect in to the gateway. It sends by **UDP**, **TCP** or **MQTT** (with TLS if you need it), in **JSON** or in a compact byte format.



Server Settings and Report Options. The values shown are the factory defaults.



Server Settings with MQTT selected. Pub and Sub are the two topics.

1. Open **Network Configurations**. In **Server Settings** choose **TCP**, **UDP** or **MQTT**.
2. Enter the server's **Host** (IP address or name) and **Port**.
3. Click **Set**, then **Activate**.
4. In **Report Options** choose **Data Mode: Json** (recommended). **Timestamp** and **CRC16** apply only to the Byte format.
5. Click **Set**, then **Activate**, then **Save ALL**.

MQTT settings

Field	Enter
Host, Port	Your MQTT broker; usually port 1883, or 8883 with TLS.
Pub	The topic the gateway publishes its reports to, for example `GwData`.
Sub	The topic the gateway listens on for commands, for example `SrvData`.
User, Password	The broker login, if it needs one.
Client ID	A unique name for this gateway on the broker.
QoS	0, 1 or 2.
SSL/TLS	Turn on for an encrypted connection (MQTTS). Your broker certificate is loaded as a file; Identium supplies the certificate packing tool on request.

Keep the link alive

Open **BLE Configurations › Heartbeat Settings** and turn on **Server HB Activation**, then **Set**, **Save ALL** and **Activate**. The gateway then restarts its connection to the server by itself whenever it has received nothing from the server for 60 seconds, so a dropped link recovers without a visit.

> **NOTE**
> Developers: the report format, the commands the server can send back and example receivers in Python and Node.js are in the **Identium BLE Gateway Integration Guide** on the Resource Hub.

11/ Scan Settings and Filters

BLE Configurations sets what the gateway listens for and what it puts in each report. The factory settings suit the Identium RTLS platform; change them only for a reason. Finish with **Set**, **Save ALL** and **Activate**.

Scan & Report Settings

Setting	Factory value	What it does
Report type	Type 1	Type 1 sends each tag's broadcast. Type 2 adds the scan response (needed to see some device names). Type 3 sends only address and RSSI (smallest reports). Type 4 is the work-card format (button, motion, battery). Type 6 adds Bluetooth 5 packets.
Report Interval (ms)	1000	How often the gateway sends a report. A multiple of 100, at least 500. Keep 1000 for the Identium RTLS platform.
Report MAX Device Number	5000	The most devices in one reporting cycle.
Report Packet MTU	500	Devices per packet; bigger cycles are split into several packets.
Report the MAX RSSI	Off	On: report each device's strongest signal in the cycle, instead of the last one.
Report with Ranked RSSI	Off	On: list devices strongest first.
RF Scan Channel	37, 38, 39	The three Bluetooth advertising channels. Keep all three.
RF Scan Window / Interval (ms)	30 / 30	Equal values mean the gateway listens all the time.

Scan Filter Settings

Filters keep other Bluetooth devices (phones, watches, headsets) out of your reports and save network traffic.

Filter	Passes only
Filter by MIN RSSI	Devices heard at or above a signal strength, for example −90 dBm.
Filter by Device Name	Up to 8 names. `K*` passes every name that starts with K. Names often travel in the scan response, so use report Type 2 with this filter.
Filter by iBeacon Device	Devices that broadcast in iBeacon format.
Filter by iBeacon UUID	Up to 8 iBeacon UUIDs. If all your tags share one UUID, this passes only them.
Filter by Manufacturer Company IDs	Up to 8 Bluetooth company IDs.
Filter by Service Data UUIDs	Up to 8 service-data UUIDs.
Filter by Device Address	A range of MAC addresses, from a start address to an end address.

12/ Connect to the Identium RTLS Platform

The Identium RTLS platform receives gateway reports by **UDP on port 7628** in **JSON**. Ask Identium for the address of your hosted platform, or use the address of the server where the platform runs on your site.

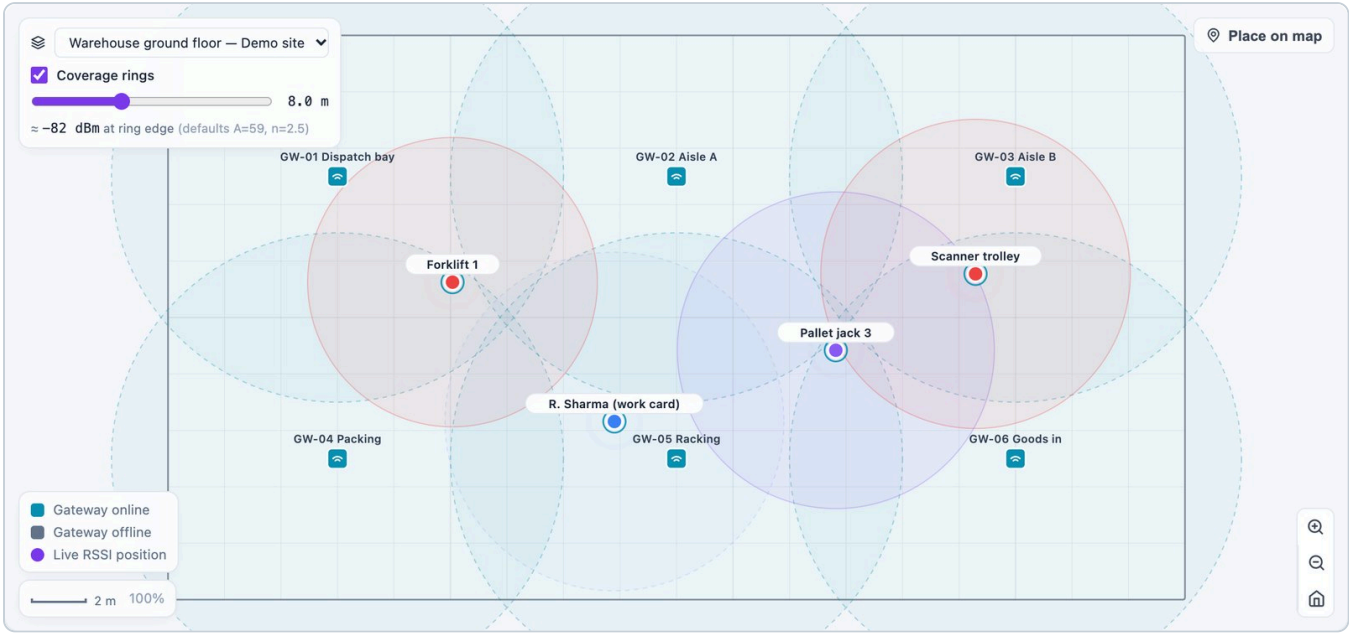
On the gateway

1. **Network Configurations › Server Settings**: choose **UDP**, enter the platform address as **Host** and `7628` as **Port** (or the port Identium gives you). Click **Set**, then **Activate**.
2. **Report Options**: choose **Json**. Click **Set**, then **Activate**.
3. **BLE Configurations**: keep report **Type 1** and **Report Interval** `1000`, and turn on **Server HB Activation**. Click **Set**, **Save ALL**, then **Activate**.
4. Note the gateway's Bluetooth address under **Running Status › Device Address › BLE**. The platform knows the gateway by this address, not by its Wi-Fi address.



Running Status › Device Address. The BLE address is the gateway's ID on the platform.

On the platform



BLE 5.0 Indoor › BLE Gateways: six ID-BGW-02 gateways placed on a floor plan, with their coverage rings and two tags. Demo site.

5. Sign in and open **BLE 5.0 Indoor › BLE Gateways**. Within a few seconds the gateway appears as **online**, under its Bluetooth address.
6. Edit it: give it a name, choose its **floor** and enter its **X** and **Y** position in metres on the floor plan. Save.
7. Open **BLE Beacons**, find your tags in the list of unregistered tags heard recently, and register each one with a name and asset type.

STATUS	GATEWAY	FLOOR	POSITION	IP : PORT	CALIB.	LAST SEEN
Online	GW-01 Dispatch bay D4:F9:8D:1A:2B:3C	Warehouse ground floor	(6.0, 5.0)	–	59 / 2.5	6s ago
Online	GW-02 Aisle A D4:F9:8D:1A:2B:3D	Warehouse ground floor	(18.0, 5.0)	–	59 / 2.5	6s ago
Online	GW-03 Aisle B D4:F9:8D:1A:2B:3E	Warehouse ground floor	(30.0, 5.0)	–	59 / 2.5	6s ago
Online	GW-04 Packing D4:F9:8D:1A:2B:3F	Warehouse ground floor	(6.0, 15.0)	–	59 / 2.5	6s ago
Online	GW-05 Racking D4:F9:8D:1A:2B:40	Warehouse ground floor	(18.0, 15.0)	–	59 / 2.5	6s ago
Online	GW-06 Goods in D4:F9:8D:1A:2B:41	Warehouse ground floor	(30.0, 15.0)	–	59 / 2.5	6s ago

BLE 5.0 Indoor › BLE Gateways: each gateway online under its Bluetooth address, with its floor, position and calibration (A / n). Demo site; names and addresses are examples.

CAUTION

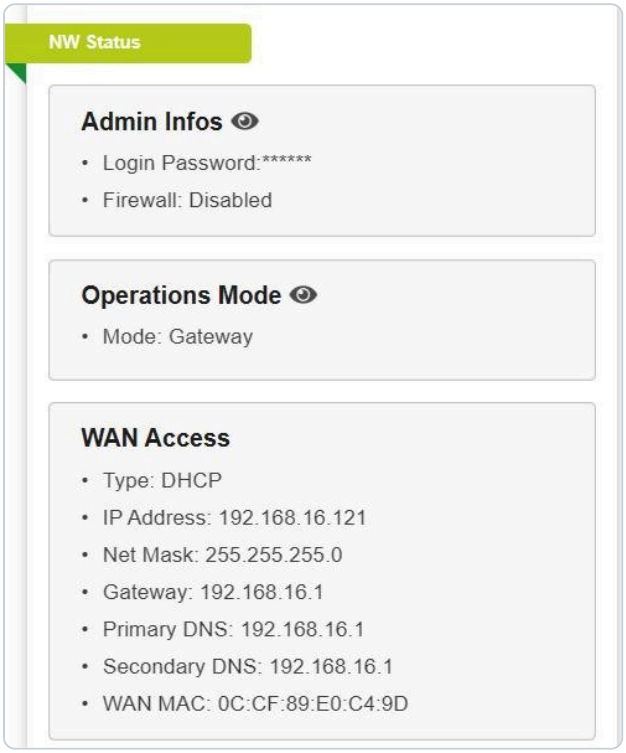
Place **every** gateway on its floor. A gateway left without a position counts as being at the corner (0, 0) of the plan and pulls tag positions towards it.

Calibrate a gateway (optional)

1. Hold a tag 1 m from the gateway for 10 seconds and note its RSSI, for example −59 dBm. Enter **59** as **RSSI @ 1 m (A)** for that gateway.
2. Move the tag to 6 m and adjust **Path-loss n** (the platform starts at 2.5) until the platform shows the tag about 6 m from the gateway.

The platform uses readings of −75 dBm or stronger, from the last 2 seconds, and positions a tag from the gateways that hear it. With one gateway a tag shows as "near this gateway"; with three or more around it, the platform shows its zone.

13/ Check the Gateway: Running Status



Running Status › NW Status. The addresses are examples.

Running Status shows what the gateway is doing now. Check it after every change.

Card	Check
NW Status	Operation mode and the network address (WAN Access).
4G Module	SIM State **Ready** and the signal (4G versions).
NTP	The gateway clock. Set your Time Zone under Network Configurations › NTP Settings.
Application Server	Protocol, host, port and connection state.
Device Address	Wi-Fi and Bluetooth (BLE) addresses.
Scan & Report, Scan Filters	The scan settings in use.
Heartbeats	Server HB Activation.

> **NOTE**
> By factory setting the gateway restarts itself every day at 00:00 (Network Configurations › NTP Settings › **Auto reboot at 00:00 every day**). Reports pause for under a minute while it restarts.

14/ Firmware Update

Update the firmware only with a file that Identium sends you. The gateway has two firmware parts, each with its own file: the network (Wi-Fi) part and the Bluetooth part.

1. Open **Upgrade GW**.

2. Under **NW Part Firmware**, choose the **Wi-Fi Image** file and click **upload**; or under **BLE Part Firmware**, choose the **Bluetooth Image** file and click **upload**.
3. Leave **Reload Default Configurations After Upgrading Completely** unticked to keep your settings.
4. Keep the power connected until the gateway has restarted, then check **Running Status › Firmware Version**.

> **NOTE**
> A server can also start a firmware update remotely, with the firmware command described in the Identium BLE Gateway Integration Guide.

15/ Precautions

- The indoor versions (-P, -PC) are for indoor use only: they are not waterproof or dustproof. Use the outdoor versions (-M, -MC, IP65 housing) outside.
- Operating temperature −20 °C to +70 °C; humidity 0–95 %.
- Power the gateway only from an IEEE 802.3at PoE switch or injector, the adapter supplied, or a 6–28 V DC supply.
- Mount it on a surface that holds at least 2 kg.
- Disconnect the power before you open the housing to fit a SIM.
- Keep it away from metal enclosures and large metal surfaces; they block Bluetooth.
- Change the default passwords during set-up.
- Install firmware only from Identium, and keep the power on during an update.
- Holding the reset button for more than 5 seconds erases all settings.
- Bluetooth and Wi-Fi work in the licence-exempt 2.4 GHz band (2400–2483.5 MHz).

16/ Parameters

Models	ID-BGW-02-P (indoor, Wi-Fi), ID-BGW-02-PC (indoor, 4G), ID-BGW-02-M (outdoor, Wi-Fi), ID-BGW-02-MC (outdoor, 4G)
Bluetooth	Bluetooth 4.2 / 5.0, built-in PA + LNA; 1 Mbps / 2 Mbps; AES hardware encryption
Frequency	Licence-exempt 2.4 GHz band (2400–2483.5 MHz), Bluetooth and Wi-Fi
Scanning distance	More than 100 m rated; the real distance is set by the tag's own range and the site
Connection distance	30–50 m
Capacity	Scans 300+ Bluetooth devices per second; up to 5000 devices per cycle; 20 simultaneous connections
Bluetooth transmit power / sensitivity	0 to +18 dBm / −104 dBm
Filters	RSSI, device name, iBeacon, iBeacon UUID, company ID, service-data UUID, MAC address range
Wi-Fi (-P, -M)	IEEE 802.11 b/g/n, up to 150 Mbps; WPA / WPA2, WEP, TKIP, AES; gateway or AP-client mode
4G (-PC, -MC)	LTE-TDD / LTE-FDD / TD-SCDMA / UMTS / EVDO / EDGE / GPRS / GSM / CDMA; Micro SIM
Network port	1 × RJ45 WAN / LAN adaptive, PoE input
Data	UDP, TCP, MQTT (TLS optional); JSON or byte format; report interval 1 s (0.5 s minimum)
Power	PoE 48 V (IEEE 802.3at) or DC 6–28 V; adapter 12 V / 1 A (indoor), 12 V / 2 A (outdoor)
Working current	180 mA at 12 V; 280 mA at 12 V with 4G
Processor and memory	580 MHz MIPS24KEc, 64 MB DDR2 DRAM, 16 MB flash
Dimensions	Indoor Ø 124 × 40 mm; outdoor 153 × 137 × 97 mm
Housing	Indoor ABS + PC, indoor use; outdoor metal, IP65
Operating temperature	−20 °C to +70 °C
Indicators	Indoor: power, network, Wi-Fi and Bluetooth lights
Mounting	Indoor: ceiling or wall plate; outdoor: pole brackets; up to 10 m high
Management	Built-in web settings page; remote firmware update and settings; daily auto-restart; reset button

Factory settings	Wi-Fi GW_ + MAC address, password 66668888; settings page http://10.10.10.254, password admin; reports by UDP to 10.10.10.100 port 7628, byte format

17/ Troubleshooting

Problem	What to check
No GW_ Wi-Fi network appears	Wait until the Wi-Fi light flashes and stand within a few metres. If the gateway's Wi-Fi was switched off or renamed, open the settings page at its network address, or hold reset for 5 s.
10.10.10.254 does not open	The laptop must be on the GW_ network with a 10.10.10.x address. Turn off VPN and mobile data on the laptop. Use Google Chrome.
Network light stays off	Check the cable and the switch port. In AP Client (Wi-Fi) mode the network port is not used.
No network address	Operation Mode must be Gateway (Ethernet or 4G) or AP Client (Wi-Fi); check DHCP on the router; click Save ALL, then Reboot.
4G does not connect	4G Module card: SIM State Ready, signal present. Check the data plan, the APN and the SIM PIN.
The server receives nothing	Check Server Settings (protocol, host, port) and click Activate. On the server, allow incoming traffic on that port (for the Identium RTLS platform: UDP 7628). Over 4G the host must be reachable from the internet. Check Running Status › Application Server.
A setting goes back after a restart	It was saved with Set only. Change it again, then click Set, Save ALL and Activate (or Reboot) and check Running Status.
The gateway is not in the platform list	Look for its Bluetooth address (Running Status › Device Address › BLE), not its Wi-Fi address. Check the data mode is Json and the protocol is UDP to port 7628.
The gateway goes offline after a while	Use a business-grade router; turn on Server HB Activation. A short gap at 00:00 is the daily restart.
A tag is not seen	Check the tag battery, the distance and any metal in between. Check the scan filters (MIN RSSI, names, UUIDs). Some tags broadcast only every few seconds.
A tag is seen but has no position	Register the tag in BLE Beacons. It needs two or more gateways at −75 dBm or stronger. Place every gateway on the floor plan.
A tag shows on the wrong floor	A gateway on another floor hears it more strongly. Move that gateway or its antenna view away from the stairwell or shaft.
Device names are missing	Choose report Type 2 to include scan responses.
Bluetooth light off or on without flashing	Restart the gateway (Reboot, or power off for 10 s). If it persists, contact Identium.

18/ Support

For help with installation, integration or a fault that the steps above do not clear, contact Identium. Please keep the product model, the software version shown in the app and a short description (or screenshot) of the problem ready.

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Email	info@identium.in
Software and documents	www.identiumone.com/resourcehub/
Buy hardware and tags	www.indiarfidstore.com

This product and its software are updated from time to time; screens and specifications may change without notice. Check the Resource Hub for the latest version of this manual.