

Bentley WiNET Gateway User Guide

FAS1506
DOC1038 Revision 0



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Revision History

Revision	Date	By	Description
0	01/25/11	MJB	Initial Release

Box Contents

- 1 WiNET Gateway (with Antenna)
- 1 Power Supply
- 4 Screws and Anchors
- 1 User's Guide

Overview

The FASxxxx WiNet Gateway, when used as a component of the WiNet wireless monitoring solution, receives radio transmissions from both the WiNet Hub and the WiNet Tag. The WiNet Gateway is can work with a router, providing access to a remote server. The Gateway then passes the data through the router to the remote server. (see Figure 1).

Figure 1. – WiNET Network Topology

Installing the Gateway

This procedure will require a small hammer, drill, drill bits, level and a screw driver.

Step 1 – Positioning the Chassis

Place the leveled Gateway on the mounting location to transfer the drill centers.

Step 2 – Drilling the Holes

Drill 4 holes with the proper bit. Use standard bits for dry wall and masonry bits for tile applications.

Step 3 – Placing the Anchors

Gently tap the anchors in place using a hammer.

Step 4 – Mount the Tag to the Wall

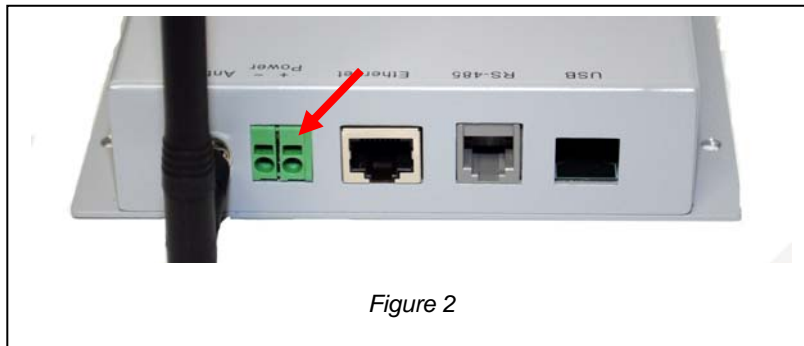
Screw the WiNet Hub tightly to the wall.

Connecting the Gateway to the Power Supply

This procedure will require a small flat-tip screwdriver.

Step 1 – Inserting the Screwdriver

Insert a small flat-tip screwdriver into the rectangular slot of the power connector marked + (positive) on the back of the hub (see Figure 2). With the tip of the small flat-tip screwdriver, depress the metal tab.



Step 2 – Inserting the Power Supply Wires

With the small flat-tip screwdriver in place, insert the wire with the white stripe on it from the power supply (positive wire) (see Figure 3) into the circular opening directly beneath the rectangular slot until it stops and pull out the small flat-tip screwdriver to lock the wire in place. Give the positive wire a slight tug to insure that it is locked into place. Repeat the process for the rectangular slot of the power connector marked - (negative) on the back of the hub with the remaining wire.

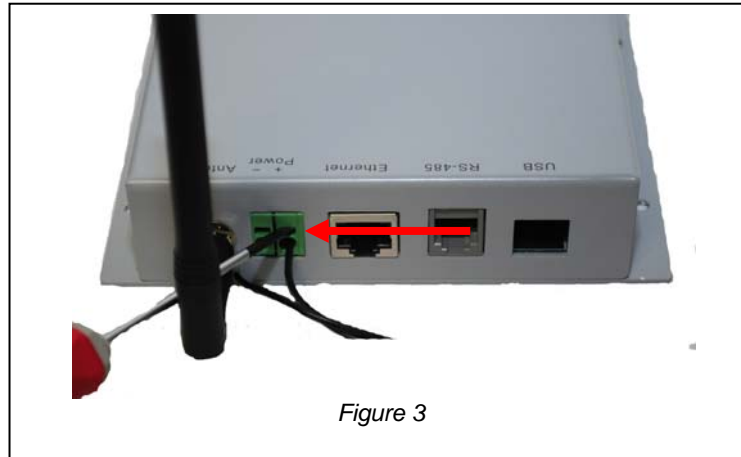


Figure 3

Note: Please ensure proper polarity before plugging the power supply into an electrical outlet.

Connecting the Gateway to a Router

The WiNet Gateway is designed to work with any router that will provide Internet access. For the purposes of this manual, we will use the Cradlepoint CBA250 Cellular Broadband Adapter. For instructions specific to your equipment, please consult the manufacturer’s users’ guide.

Step 1 – Connect Ethernet Cable to Gateway

Place the RJ-45 connector of one end of a category 5e Ethernet cable and insert it into the Ethernet port on the back of the gateway (see Figure 4).

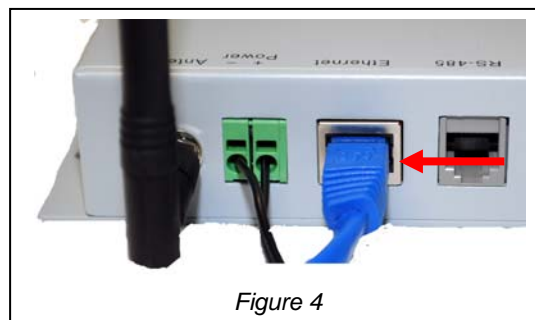


Figure 4

Step 2 – Connect Ethernet Cable to Router

Take the RJ-45 connector of the other end of a category 5e Ethernet cable and insert it into the Ethernet port on the router. (see Figure 5).

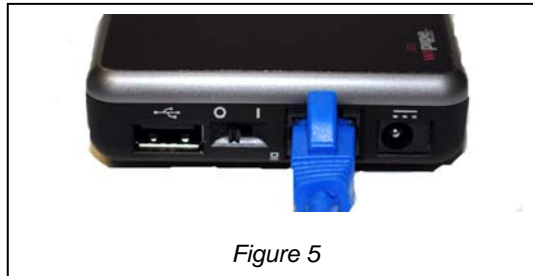


Figure 5

The finished assembly should resemble Figure 6.

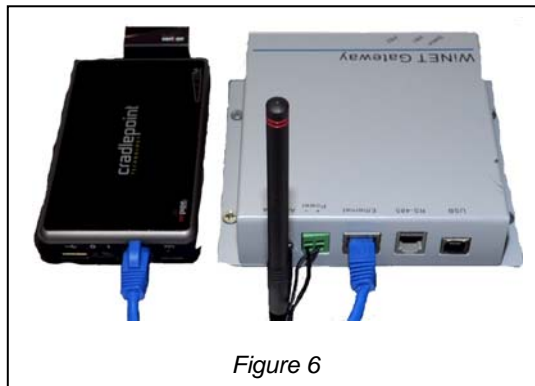


Figure 6

Configuring the Gateway

Configuring the Gateway requires a third party terminal emulation program. For the purposes of this manual, we will use HyperTerminal by Microsoft. To connect the Gateway to the PC you will need a USB to RS485 Network Interface Kit (KIT1101-00), available from UltraClenz. For instruction on how to install and configure the USB to RS485 Network Interface Kit, please refer to DOC1000r0.

Step 1 – Create a HyperTerminal connection for the Gateway

- a) Click on File > New Connection, type the name your connection, click on OK.
- b) In the Connect to dialogue box, select the appropriate COM port in the **Connect using** field, click on OK.
- c) Use the values in Figure 7. to configure the properties of the COM port in the following dialogue box and click OK.

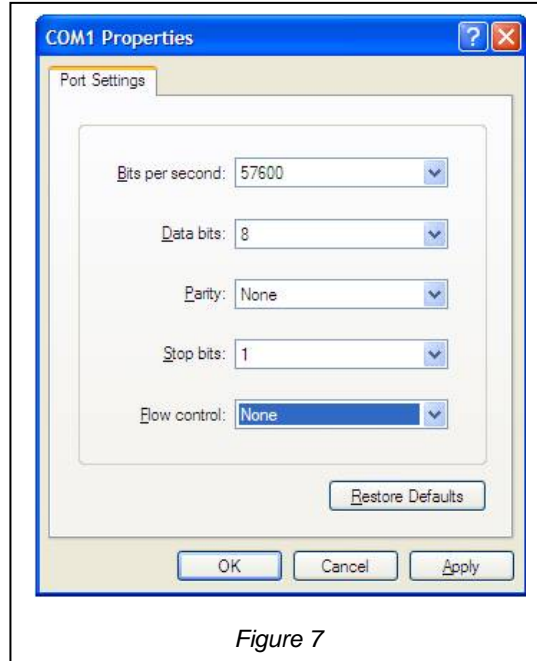


Figure 7

This brings up the HyperTerminal main screen shown at Figure 8.

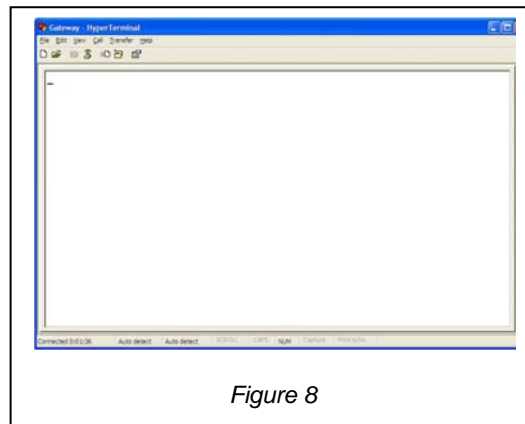


Figure 8

Step 2 – Configuring the Gateway through HyperTerminal.

- a) Set the time on the Gateway by typing ‘T’ followed by the date/time group using the following syntax; t yyyy-mm-dd hh:mm:ss [enter] (example: t 2011-01-18 20:32:40)
- b) With the Gateway connected to the Router (see Figures 5 and 6) type ‘C’ [enter] to show the Gateway’s current network configuration
- c) Type “CD 1” [enter] to enable Dynamic Host Configuration Protocol (DHCP). This protocol will have your Gateway receive all network IP addresses from the Router.
- d) Type ‘B’ [enter] to display the backend server configuration. To set the correct backend server IP address, type BS nnn [enter] where nnn is the IP address of the backend server. (example: BS 111.111.111.1)
- e) Type ‘G’ [enter] to toggle the gateway events monitoring to ON. This allows you to see events as they occur in real time on HyperTerminal.
- f) Type ‘M’ [enter] to toggle radio traffic monitoring to OFF. This will eliminate additional messages on the screen and make the event messages more understandable.

A summary of all common commands is shown in figure 9.

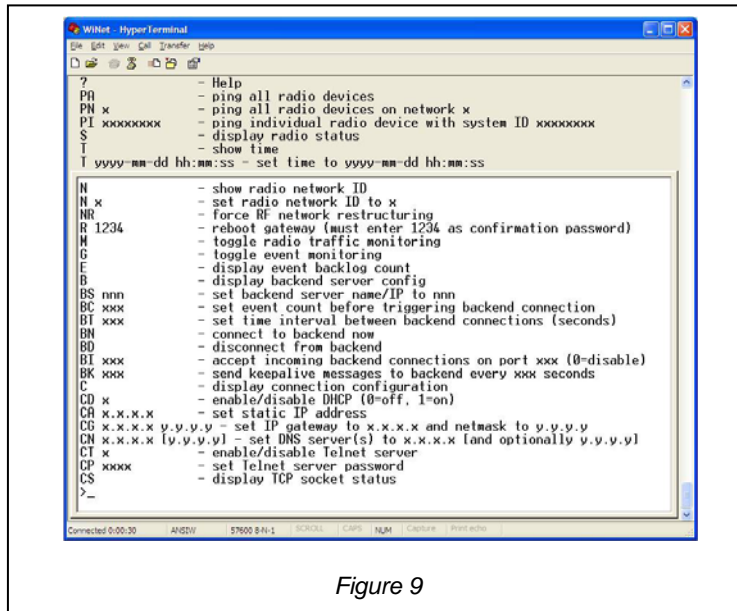


Figure 9

Gateway will receive both **Dispense Events** and **Heartbeat Events**. A Dispenser Event occurs whenever a radio-equipped dispenser on the Gateway’s network is activated. A Heartbeat Event occurs at regular intervals and serves as a message from a device on the network to the Gateway to announce that it is still operational. The events will be displayed in HyperTerminal as shown in Figure 10.

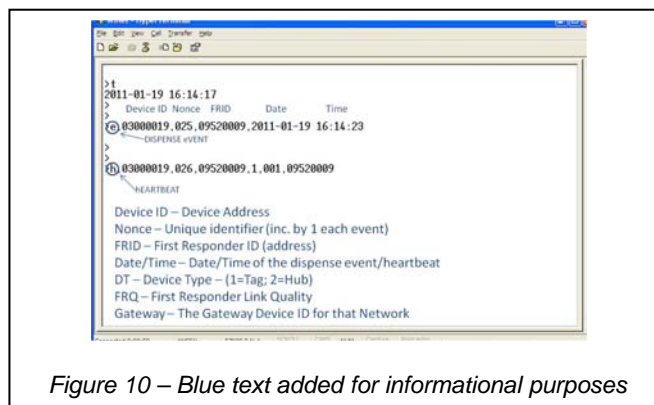


Figure 10 – Blue text added for informational purposes

Maintenance of the Gateway

Cleaning

The exterior can be cleaned with a NON abrasive detergent and a NON abrasive damp (not wet) sponge or cloth. The Hub is splash resistant but not water proof.

Certification and Safety Approvals

FCC

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING: Changes or modifications not expressly approved by UltraClenz, LLC could void the user's authority to operate the equipment.

Regulations

"Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication."

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

"This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device."

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Warranty

This device is warranted against defective materials and workmanship for one year from the date of delivery.

Equipment covered by this warranty will be repaired or replaced in the United States and Canada, WITHOUT CHARGE, except for shipping and handling, by our Factory Service Center.

When returning equipment for warranty service, you must first call your distributor's **Warranty Service Department** for your Return Merchandise Authorization Number (RMA), the RMA must be on your return label, also the shipping charges must be pre-paid and a copy of your receipt must be enclosed.

This warranty covers all defects incurred from normal use of the equipment and does not apply in the following cases:

- a. Loss or damage to the equipment due to abuse, mishandling, accident or failure to follow mounting instructions.
- b. If the equipment is defective as a result of leaking batteries.
- c. If the equipment has been serviced or modified by someone other than our authorized agents.

THE AFOREMENTIONED IS IN LIEU OF ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE. IN NO EVENT SHALL THE VENDOR BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT OR SPECIAL DAMAGES OR LIABILITY, TRANSPORTATION, INSTALLATION OR SUBSTITUTION COSTS, DELAYS, OR FOR ANY OTHER DAMAGES, COSTS, OR EXPENSES INCURRED, IRRESPECTIVE OF HOW THEY OCCUR. THIS WARRANTY SHALL NOT EXTEND TO ANY OTHER PERSON OTHER THAN THE ORIGINAL PURCHASER OF THIS EQUIPMENT OR THE PERSON FOR WHOM IT WAS PURCHASED AS A GIFT.

This warranty gives you specific legal rights, and you may also have other rights, which may vary from state to state. This warranty is given with respect to equipment purchased in the United States.

This warranty is for the touch-free soap dispenser only, and excludes any representation or warranty with regard to any soap, lotion, solution or other liquid used in the dispenser. Use of improperly formulated soaps, lotions, solutions or other liquids could result, amongst other things, in damage to the dispenser, and/or leakage, which in turn could create conditions leading to personal injury. In no event shall the vendor be liable for any damage or injury caused by any soaps, lotions, solutions or other liquids used in the dispenser.

Patent Pending