Spectre RT3G router and Wzzard Edge Node device

Use the Spectre router and Wzzard device(s) to connect to the IBM Internet of Things Cloud. Then you can visualise the data generated by any Wzzard connected sensors on the Quickstart page. This demo uses a thermocoil sensor attached to a Wzzard Edge Node to generate the temperature data to be sent to the cloud.

Ingredients
Hardware Requirements

- Spectre RT3G router – Part No. (RT3G-350)
- Wzzard Edge Node device with internal Thermocoil – Part No. (WSD1CTJ)

Prepare
Get your device ready
- Connect the Spectre router to the internet (can use ethernet connection or cellular network).
- Power up the Wzzard Edge Node device and attach the thermocoil to the I/O.

Connect (QuickStart)
Internet of Things Cloud QuickStart connection
- Download the demo module from GitHub:
    1. wget https://github.com/bb-elec/iot-SpectreWzzard/archive/master.zip
    2. unzip master.zip

- Add the module to the router through the web interface.
    1. Browse to 192.168.1.1 (the standard ip address of the router) and the web interface will load.
    2. On the side bar, under 'Customization', there will be a link to the 'User modules' settings page. Click this.
    3. On the page there will be an option to browse your file system for a user module. Find the user module you downloaded – iot-SpectreWzzard-master/IBM_Message_Router/IBM_Message_Router.tgz
    4. Click the 'Add or Update' button and wait for the confirmation screen to appear.
    5. The new user module should appear in the list as 'IBM Message Router'. Click this and you will be directed to the web interface for this module.

- Configure.
    1. Set the publish mode to Quickstart and leave the rest of the configuration blank.

- Check that the module is running.
    1. The module should start automatically but if the router fails to connect to the IBM site for any reason (Cellular network drop out) it will need restarting which can be done in the web interface for the module.
    2. The system log will also show whether the module stopped running with a message explaining why.

Visualise (QuickStart)
Real-time visualisation of device data.

- Find the MAC address of the Spectre router on the 'General' page of the router interface.

- Browse to http://quickstart.internetofthings.ibmcloud.com/ and enter the MAC address of the router into the text box to view the data.

Connect (Registered)
Install the module as in Connect (QuickStart) and navigate to the web interface for the module.

- Configure.
  1. Set the publish mode to Registered and supply the organisation ID, device type ID, and authentication token given to you by IBM when you registered the device.
  2. Apply the changes and the module should start sending messages to the IBM portal in registered mode.

- Check that the module is running.
  1. The module should start automatically but if the router fails to connect to the IBM site for any reason (Cellular network drop out) it will need restarting which can be done in the web interface for the module.
  2. The system log will also show whether the module stopped running with a message explaining why.