IoT Gateway for Organic Response Connected Solutions

Power over Ethernet (PoE) Compatible

EL-ACC-1135-000	GATEWAY ORT IOT (CASCADE)

1. IoT Gateways are used to complete the Digital ceiling, that is the RF Mesh Network of Sensor Nodes.

Gateway/s are at the heart of Connectivity to the Organic Response Cloud Portal over the Internet.
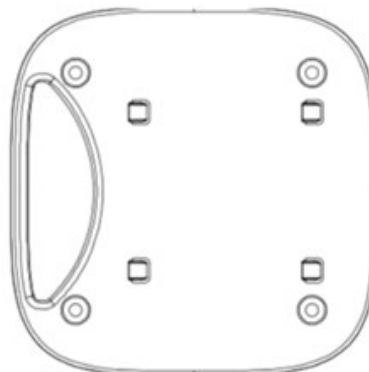
Used for Connected Solutions such as Heat Maps for occupancy Data, Maintenance, BMS Interface or High Level Integration via API
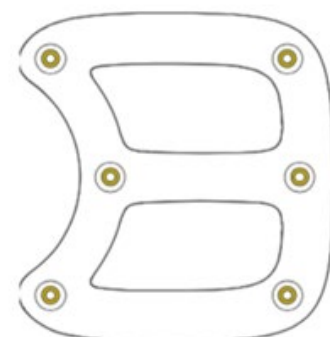
2. Electrical Contractor Installation :

IoT Gateways need to be Installed as Centrally as practically possible to the mass of Sensor nodes and Lights. (On or above the ceiling)
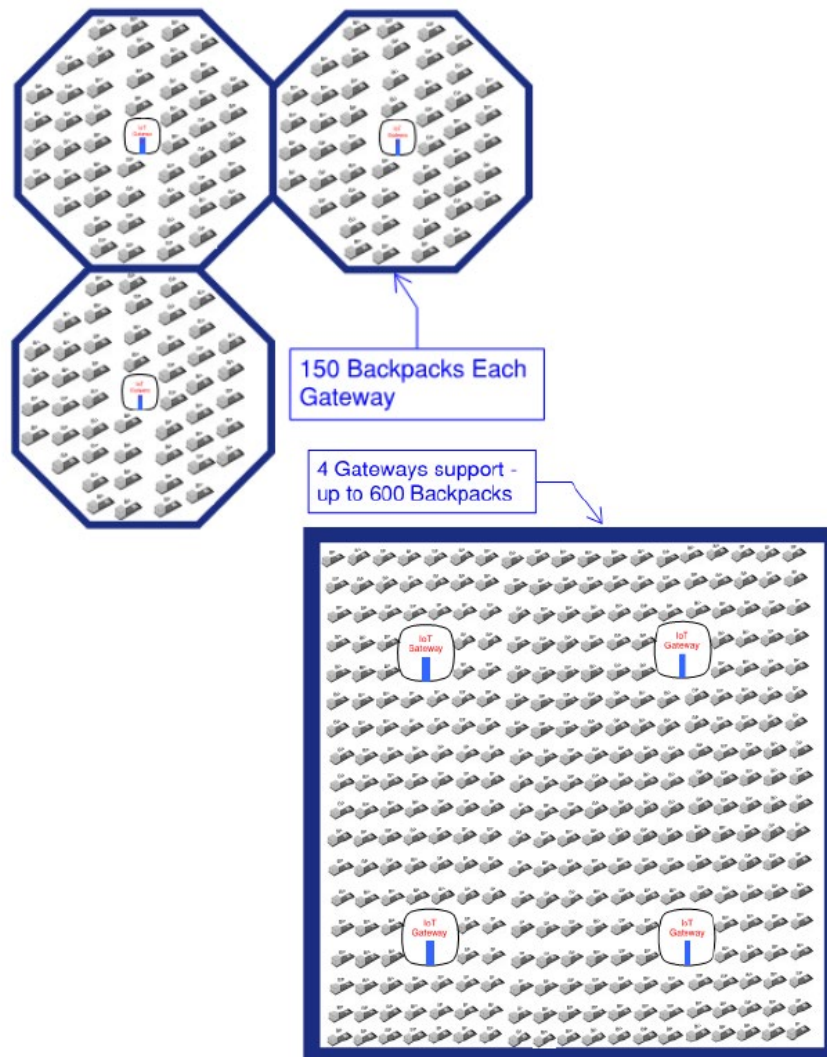

Cascade Gateway

Mounting Bracket

Ceiling Backer Plate

An example of ideal location can be visualized as below;

150 Backpacks Each Gateway

4 Gateways support - up to 600 Backpacks

- Gateways need to be provisioned with a local 230v GPO/Socket if POE is unknown or unavailable.

- An Ethernet cable from each gateway to a Riser/Comms Room where an Ethernet Port will provide access to the Internet via a DCHP or other IT approved means.

- The provision of hardware or any cabling, Internet and other IT requirement's including but not limited to Security <u>do not</u> form part of Eagles Scope of Works or Supply.
    - It is incumbent on the Electrical Contractor to liaise with the Builder, Facility Manager and or End client where the provision of Internet will be obtained.

- **You must coordinate with the Builder and Client where the Provision of Internet will come from**. Client IT Network or from the Building's ICN as part of the other Base build services ?
    - This process should begin early. This document should be circulated with key IT Stakeholders in achieving Internet Connectivity.
    - Your Ethernet cabling from the Gateways out in the field <u>must go to the right</u> <u>ports/switches (Building ICN or Client tenant Side.</u>

- Please Ensure you Mark Up on the Plans where Gateways are Installed, and it is <u>important to note the gateway IDs & serial numbers which are displayed on the box as well as at the back of all gateways.</u>

3. IT Building ICN or Client-Side Network Administrators Stakeholders:

Network Administrators to set up the appropriate access permissions

Ports - IN CASCADE SERIES:

Refer to the below ports (inbound and outbound) with services accessing those ports;

Remote Host	Protocol	Port
ntp.ubuntu.com	UDP	123
geoip.ubuntu.com	TCP/HTTPS	443
login.ubuntu.com	TCP/HTTPS	443
api.snapcraft.io	TCP/HTTPS	443
dashboard.snapcraft.io	TCP/HTTPS	443
fastly.cdn.snapcraft.io	TCP/HTTPS	443
provision.rigado.com	TCP/HTTPS	443
api.rigado.com	TCP/HTTPS	443
diagnostics.rigado.com	TCP/HTTPS	443
a2fyo1pewinh1f.iot.us-west-2.amazonaws.com	TCP/MQTT	8883
https://portal.organicresponse.com	TCP/HTTPS TCP/MQTT UDP	443 8883 123
http://a2bghq9neujukx.iot.ap-northeast-1.amazonaws.com/	TCP/HTTPS TCP/MQTT UDP	443 8883 123

IP Configurations:

The IoT gateways out of the box come as a DHCP device i.e. it can take any available IP address from the pool if available and installed correctly. If the network restricts DHCP connections, please contact ORT in assisting you to set static IP addresses for your site.

CASCADE SERIES: would require internet access for initial setup in their DHCP settings. Consider setting up a VPN or a 4G router to segregate network for gateways such that the gateways would have internet access to enable initial set up remotely without the requirement of any TeamViewer access. Contact ORT and/or network admin for a site to discuss in detail beforehand.

Please note the custom configuration can be implemented by ORT prior to dispatch of gateways. Contact ORT with details of any such custom changes prior to delivery commitments.

- In order to implement static IP address, you should contact the network administrators to provide you;
- An IP address or list of IP addresses
- Default Gateway address (this is the address for IP network gateway)
- Subnet Mask
- DNS (Specify one even if it is default)

It is also important to note gateway IDs & serial numbers which are displayed on the box as well as at the back of all gateways to associate the IP addresses to correct gateways.