



CLIMAVISION CLIMATE CONTROL SYSTEM

FACILITY IT WORKSHEET

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ClimaVision building controls are planned to be installed in your facility. It's a Climate Control System that controls building systems such as HVAC equipment. Facility managers log on to ClimaVision's Internet portal to access remote control and diagnostic data of these systems. Data from your building is pushed out to the Internet from the Central Control Unit (CCU) via Secure Socket Layer (SSL) connection using passive polling — the ClimaVision Web Service will never attempt to initiate a session.

The CCU is managed by an Android tablet. The tablet includes a Wi-Fi radio managed by standard Android OS capabilities. The tablet also has a USB port where a standard Ethernet connection can be made. Either of these can be used to establish an Internet connection with the ClimaVision Web Service in the Microsoft Azure cloud. No static IP address is needed. If you need a Whitelist, please request a copy from the Carrier Project Coordinator. If you need a MAC address, the Android OS network settings can be accessed to obtain its MAC address. One way to provide secure access is to set up a secure SSID for the ClimaVision CCU connection. For example, if you have already set up a secure SSID for guests to use, it could be a good option for the CCU.

The CCU is the data gateway and supervisor of a variety of terminal controllers such as thermostats. Communication with the terminal devices is accomplished via an FCC-approved 900 MHz mesh radio network. Each of the terminal devices has a 900 MHz transceiver radio to establish the mesh effect so that each one can assist others with passing sensor and supervisory data to/from the CCU. This network is automatically established and maintained by Carrier.

WIRELESS MESH NETWORK / WI-FI Q&A

ClimaVision controllers form and communicate with each other via a proprietary IEEE 802.15 wireless mesh network on the 900 MHz band. This is a low-power, wireless network standard that does not interfere with 802.11b/g/n (WiFi 2.4 and 5 GHz) networks.

Q: What is my responsibility?

A: Your responsibility is to provide a continuous Internet connection for the CCUs.

Q: Does ClimaVision broadcast radio channels within the 2.4 - 5 GHz bands?

A: No. ClimaVision operates on a lower 900 MHz frequency band set aside for building control systems.

Q: What is a wireless mesh network?

A: A wireless mesh network (WMN) is a communications network made up of radio nodes organized in a mesh topology. In a mesh topology, each node not only captures and disseminates its own data, but also serves as a router for other nodes (see Figure 1).

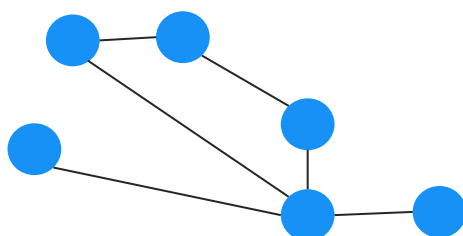


Figure 1: Example of a mesh topology

FACILITY IT WORKSHEET — SYSTEM DIAGRAM

WEB PORTAL



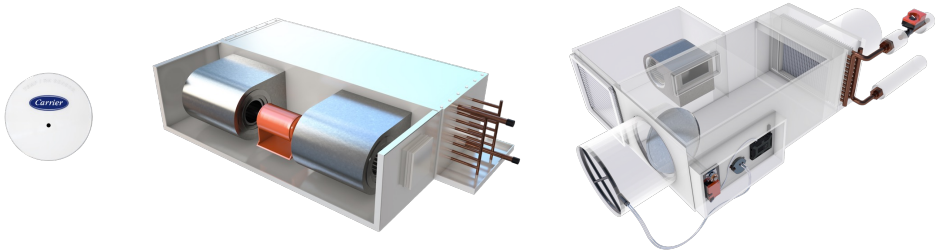
CENTRAL CONTROLLERS



TERMINAL CONTROLLERS



SENSORS & EQUIPS



FACILITY IT WORKSHEET — ONGOING ACCESS

The ClimaVision CCU will push a small amount of data to the cloud once per minute. The amount of data will change according to the quantity of terminal devices, but a rule of thumb is 10 Gb per month. In the event of a loss of the Internet connection, ClimaVision systems will continue to operate as normal. Up to 24 hours of data can be captured on the CCU and this data will automatically get pushed to the cloud once restored.

WEB PORTAL ACCESS

There are several user roles available to access the Web Portal. The Primary Facility Manager has rights to add and remove other users, but none of the other roles have this right.

Primary Facility Manager	Name:	Email:
Secondary Facility Manager (Optional)	Name:	Email:

