



Carrier/Bryant – Master Driver

Overview

This driver enables control of all Carrier Infinity or Bryant Evolution devices connected to a OpenAPI account.

One master driver is needed per location (usually labeled 'My Home') in a Carrier/Bryant account. This will mean that only one instance of the master driver will be needed per project since both Control4 and Carrier/Bryant generally group entities by physical location. An exception to one master driver per project is if a customer has multiple homes/locations in their project.

Carrier and Bryant's hierarchy in the Infinity/Evolution system is Location → System → Zone. A system can have multiple zones; a location can have multiple systems; a customer *can* have multiple locations, but as noted above, this is generally rare.

In this driver, once a location is selected, the ability to add all zones (of all systems) of the location is available with all zones matching the name exactly as it appears in the Carrier Infinity or Bryant Evolution account.

Compatibility

Compatible Systems

- Carrier Infinity systems with web control (via Carrier SSO or Carrier Home mobile app)
- Bryant Evolution systems with web control (via Carrier SSO or Bryant Home mobile app)

Incompatible Systems

- Carrier Infinity systems with the System Access Module (SAM)
- Bryant Evolution systems with the System Access Module (SAM)

Installation

Configuration

To configure the system, follow the steps below. This will require the generated short URL to be followed to login to the Carrier account. Note that Bryant uses the Carrier SSO as well. Whether provided to customers not presently on site or clicked by dealers/installers, **the party logging in must be able to follow the URL provided within 5 minutes of it being generated in Composer Pro.**

Link OpenAPI Account

Install, commission and test all Infinity/Evolution wall units/zones.

Once all Carrier/Bryant products are installed, commissioned and tested, add one Master Driver to the project.

From the Properties tab, select the "(1) Connect to OpenAPI Cloud" and click "Set" to generate the URL. The "Authentication Link" property will appear on the Properties tab in the "OpenAPI Cloud" section below with a short URL to click.

To authenticate the Control4 against the Carrier/Bryant OpenAPI system either...

- Provide this URL to your customer and ask them to login to their Carrier/Bryant account on any of their devices (PREFERRED)
-- OR --
- Click the URL, which will open in your default web browser and login to the Carrier/Bryant account with credentials provided or being used for initial setup/installation

Once login is complete, the "Authentication URL" property will disappear and the following properties will appear and populate under "OpenAPI Cloud Settings" property section:

- Username
 - Email*
 - OpenAPI Authentication Status
 - State Polling Frequency
- *appears only if populated



The Username and Email (if present) properties will be populated with the username and email address of the Carrier/Bryant account that the driver is linked with. Please ensure this matches your the account that was used to login.

Additionally, a new section called "Location Selection" will now appear.

Select Carrier/Bryant Location

In the newly appearing "Location Selection" section, select the location, specified by the address set in the Carrier/Bryant account, from the drop down list.

Setup Carrier/Bryant Drivers in Control4

Once the "Location Selection" property is set you are able to add the individual thermostat drivers automatically by adding zones to the project with one, single "Driver Actions" selection.

First, add the Thermostat driver to the controller by selecting the Composer top menu "Driver->Add or Update Driver or Agent", then browse for and select the "carrier-bryant-thermostat.c4z" file from your file system.

Next, from the Properties tab, select the "(2) Add/Sync Zones" and click "Set" to begin the automated process of adding every zone for the selected location. This will query the OpenAPI for all available devices/zones at this location, and then automatically import drivers for each device into the Control4 system in the same room as the Carrier/Bryant Master Driver. This will take approximately 30 seconds for each device to be added and configured. While this is happening, please don't do anything else with Composer so that no mis-configuration happens. This process will also automatically rename each driver to the zone's name as it appears in the Carrier Infinity/Bryant Evolution system.

Once all drivers have been added, you are able to make the final configuration to move the drivers into other rooms as necessary and make the correct connections for each thermostat to their respective room Temperature and Temperature Control inputs.

Finally, Refresh Navigators for the added devices to appear on the user interfaces. Note: ***It may take up to one minute for the first change to take in each zone following initial install or controller reboot; this is a limitation in how the Carrier API interacts with the Control4 thermostat proxy.***

Driver Properties

DriverCentral Cloud Settings

Driver Version - [READ ONLY]

Shows the version of the driver running in the project.

Cloud Status - [READ ONLY]

Shows the license status of the driver.

Automatic Updates - [ON | OFF]

Set this to ON to allow the driver to automatically update when updates are available from DriverCentral.

Driver Settings

System Brand - [Carrier Infinity | Bryant Evolution | Ion | <none>]

Set this to the brand of the system. This is reserved for future use and currently has little impact other than renaming the master driver.

Debug Mode - [ON | OFF]

Set this to ON to print out logging to the Lua tab in Composer.

Driver Actions - [DROP-DOWN LIST]

List of actions for dealers/installers to perform to configure the driver.

Driver Status - [READ ONLY]

Provides a status of the driver and any current configuration actions. Any value other than 'Driver ready for use!' indicates any changes made on a navigator will not be sent to the thermostat due to configuration and setup changes being made and ensuring proper configuration.

OpenAPI Cloud Settings

Authentication Link - [CLICKABLE LINK]

Provides a temporary shortcode URL for the installer or customer to follow to authenticate this driver with their Carrier Infinity or Bryant Evolution account and allow access to their Carrier/Bryant devices. *WILL ONLY APPEAR WHEN TRIGGERED*

Username - [READ ONLY]

Shows the username for the Carrier/Bryant account linked to this driver. *WILL ONLY APPEAR ONCE AUTHENTICATED*

Email - [READ ONLY]

Shows the email address for the Carrier/Bryant account linked to this driver. *WILL ONLY APPEAR ONCE AUTHENTICATED AND IF POPULATED*

Carrier Authentication Status - [READ ONLY]

Provides driver's authentication status against the OpenAPI system. Shows the last time of authentication/check-in once driver is authenticated.

State Polling Frequency [15 | 30 | 60 | 90 | 120 seconds]

Set the interval the driver will poll the Carrier/Bryant OpenAPI for the state of all Infinity/Evolution devices. One call will get the status for all devices at a location.

Support

For support on this driver please contact DriverCentral support.

Troubleshooting

The most common issue with control and feedback of the thermostat is that the Carrier Infinity or Bryant Evolution account is not authenticating or authenticated properly. If all else fails, remove the master driver from the project and authenticate again; zones will need to be re-added if this is performed.

Credentials are not lost on reboot, OS update or migration to a new controller, as long as the project itself does not change. They are also not lost on the customer updating the password to their account. However, there are instances where the OpenAPI mechanism may become "stuck" and no longer re-authenticate every hour. This behavior is a rare limitation

If a customer adds a new Carrier Infinity/Bryant Evolution device or zone to their system, simply select the "(2) Add/Sync Zones" from "Driver Actions" drop down list and click "Set." Only the new zone will be added to the project. Any removed/orphaned zones will be suffixed with "***DELETE***" to denote deletion from Composer. Please ensure all programming is copied from these zones before removing.

Change Log

20241208

- Fixes zone identification matching bug preventing master driver to thermostat driver communication

20241004

- Updates to make OpenAPI authentication mechanism more robust
- Updates user info handling to align with OpenAPI changes
- Adds AUTH_STATUS_FAILED_STATE, AUTH_STATUS_VALID_STATE driver events

20240106

- Fixes issues with multiple locations (and drop-down list) in one account

20231101

- Fixes issues with adding replaced wall units of the same name
- Adds feature that marks orphaned wall units in composer with "***DELETE***"
- Starts YYYYMMDD format release train

760

- Fixes issue with commands not being sent from driver to OpenAPI due to JSON library not properly accounting for empty tables/lists

755

- Fixes issue where location address is split across multiple lines in Location drop down list due to entire address being in 'address1' field

750

- Fixes thermostat schedule/events race condition where events were being added before presets of events existed in proxy

745

- Improved messaging in 'Driver Status' window to guide dealers during initial setup
- Improved tracking of adding missing zones via 'Add/Sync Zones'
- Fix for zones not fully being acquired after a location was set in preparation to add/sync zones
- Carrier Ion compatibility

740

- Accounts for changes in OpenAPI architecture changing to pub/sub communication of wall units to OpenAPI cloud
- Faster initial feedback for manual changes made in navigators
- Fix for polling frequency change not consistently being set upon updating

730

- Bryant Evolution compatibility
- More robust system-zone relationship extraction from OpenAPI for initial setup
- Better infinite/permanent hold support
- Clearer documentation for initial setup

722

- Initial release