

DJI FlightHub Enterprise

User Guide v1.0

2019.03



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Profile

DJI FlightHub Enterprise is a comprehensive drone management platform that enables users to deploy and manage their commercial drone operations within their private organizational network. It provides users with the capability to oversee live operations, manage flight data, manage fleets and pilots, and effectively plan operations.

NOTE: Drones should be bound to FlightHub Enterprise using the DJI Pilot PE app. The maximum quantity is 10. Contact a DJI authorized dealer to add more drones.

Preparation

Configuration Requirements

Please follow the instructions below to configure your settings:

Private cloud server: Ubuntu Server 16.04 LTS operating system, administrator account and password, ROOT permission, and SSH service.

Software: FTP software such as FileZilla, remote server administration tool such as PuTTY.

Computer: Physical host or cloud host.

Recommended Browser: IE10 or above, Chrome 55 or above, Safari 10.0 or above, Firefox latest version.

Mobile device: 7.85 inch CrystalSky or any other Android devices (V5.0 or above).

Network connection: We recommended using a built-in 4G card or mobile data hotspot for network connection.

Supported aircraft: Matrice 200 Series V2, Matrice 200 Series, Matrice 600 Series, Inspire 2, Mavic Pro, Mavic 2 Enterprise, Mavic 2 Enterprise Dual, Phantom 4, Phantom 4 Advanced (excluding Phantom 4 Advanced+), and Phantom 4 Pro (excluding Phantom 4 Pro+).

Installing FlightHub Enterprise to the Server

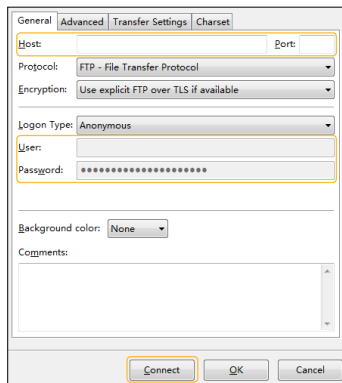
⚙️ FlightHub Enterprise uses the following ports on the server.

- FlightHub Enterprise webpage: 80 port (http) / 443 port (https)
- FlightHub Management Center: 19090 port
- Webpage live: 1935 port

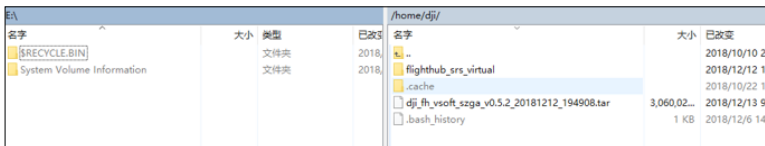
1. Download the installation package for FlightHub Enterprise at <https://www.dji.com/flighthub/info#downloads>.

2. Import the installation package to the server.

- a. Open FileZilla. Click File > Site Manager > New Site, then input the Host (the IP address of the server), User (the administrator account), and Password, and click Connect to log in.

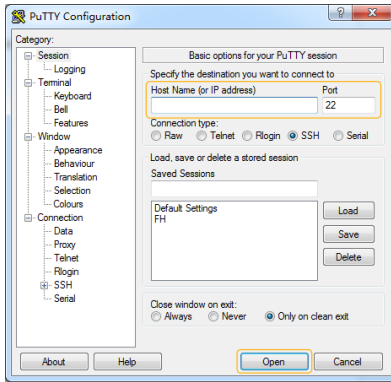


- b. Copy the installation package to a desired directory on the server (/home/dji used as an example in the following text).



3. Unzip the installation package.

- a. Open PuTTY, input the IP address and port (should be 22 port) of the server, and click Open.



- b. Input the account and password in the operation interface by following the onscreen instructions.
- c. Input **su root** and press Enter, and then input the ROOT password to get the ROOT permission.
- d. Input **cd ~/home/dji** and press Enter, and then input **ls** and press Enter to check if the installation package is imported. (Text after the symbol ~ is the directory the package stored.)
- e. Input **tar -xvf XXXX.tar** and press Enter to unzip the file (XXXX refers to the file name).
- f. Input **cd flighthub_srs_virtual** and press Enter to enter the folder the package stored.
- g. Input **./webinstal** and press Enter to execute the installation command. An IP address will be displayed.

```

root@ubuntu:~/home/dji# ls
dji_fh_vsoft_master_v1.0.0.4_20190225_213324.tar
root@ubuntu:~/home/dji# tar -xvf dji_fh_vsoft_master_v1.0.0.4_20190225_213324.tar
flighthub_srs_virtual/
flighthub_srs_virtual/flighthub.cfg
.....
flighthub_srs_virtual/src/advanced/conf/
flighthub_srs_virtual/src/advanced/conf/srs.conf
root@ubuntu:~/home/dji# ls
dji_fh_vsoft_master_v1.0.0.4_20190225_213324.tar flighthub_srs_virtual
root@ubuntu:~/home/dji# cd flighthub_srs_virtual/
root@ubuntu:~/home/dji/flighthub_srs_virtual# ./webinstall
Stop existed dashboard...
please open http://10.2...:19090/ in your browser and start installation
    
```

4. Open the browser and follow the instructions below to finish installation.
 - a. Input the IP address from the PuTTY interface to the address bar to enter the installation page.
 - b. Input the installation directory (default is /opt/flighthub which is used in the following text), and then click Installing.
 - c. Click Go to FlightHub Management Center to activate the product, check logs and license, and configure the settings.
5. An authorization code is required to enter the FlightHub Management Center. The default code is **074fd28e!**. It is recommended to refer to the section Using the FlightHub Management Center to change it as long as the installation is finished. In case a user forgets the code, it can be changed in PuTTY as follows:

- a. Log in the server, and input `cd /opt/flighthub` to enter the installation directory.
- b. Input **vi flighthub.cfg** to enter the vi editor.
- c. Press A key on the keyboard to enter editing mode, indicated by **—INSERT—** on the lower left corner.
Move the cursor to the position of "**export DASHBOARD_AUTH=**" using the arrow keys on the keyboard. Then change the text after the symbol = to a new authorization code.
Press Esc key to exit editing mode, press Shift and ; keys simultaneously, and then input **wq** and press Enter to save the changes and exit.

```
root@ubuntu:/home/dji# cd /opt/flighthub/
root@ubuntu:/opt/flighthub# vi flighthub.cfg _
.....
# srs video path
export FH_SRS_VIDEO_PATH=flstream

# dashboard_auth
export DASHBOARD_AUTH=674fd2be1

-- INSERT --
28,23 011
```

Getting the License

1. Go to the Home page of the FlightHub Management Center, click Download Activation Application File, and save the file.
2. Visit the convert website (<https://www.dji-flighthub.com/peconvert>) to convert a license using the activation application file and the convert code from the dealer. The license will be sent to the user's email address.
3. Activate the product in the FlightHub Management Center.

Using the FlightHub Management Center

Enter the FlightHub Management Center after installation. Users can also enter the center by clicking the menu on the upper right corner on the FlightHub Enterprise webpage after logging in.

Activation

In the Home page, click Upload Activation Licence for activation. The validity period and supported functions will be shown after successful activation.

Docker

In the Home page, make sure that the status of all the services in Docker section displays Running. Otherwise, click Re-activate and wait for it to be Running.

Log & License

View the logs and license records in the corresponding page.

Settings

Live Stream IP Address

Click Edit to set the address.

Setting Auth

Click Edit to change the authorization code of the FlightHub Management Center.

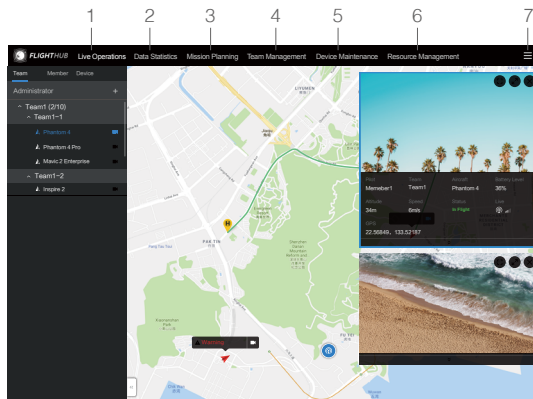
Logging in to FlightHub Enterprise

An administrator account should be created for first-time use. After this, users can enter the login page after inputting the server IP address.


1. Input the server IP address in the browser's address bar to enter the initial configuration page.
2. Input an account and password, and click OK to create the administrator account.
3. Enter the login page, input the administrator account, password, and verification code to log in.

Usage

Overview

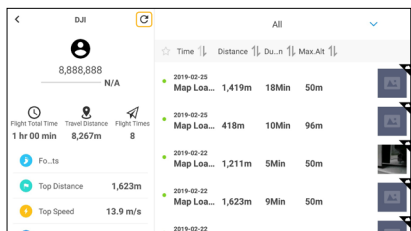
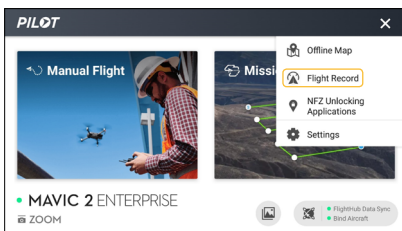


1. Live Operation

If live function is enabled in the DJI Pilot PE app, click  for the desired aircraft to see aircraft real-time location and live videos. Up to four aircraft location and video feeds are supported on each webpage at the same time.

2. Data Statistics

Flight Logs & Statistics: View team or member flight logs regarding flight time, positioning, and tracking. A search function is also supported. If FlightHub Enterprise is not launched when using the DJI Pilot PE app during flight, users can synchronize the data from the app to FlightHub Enterprise and view in this page.



Media: View live videos, photos and videos from the aircraft.

3. Mission Planning

Click to plan Waypoints or Mapping missions.

4. Team Management

Team creation, team leader assignment, and pilot invitations are available. Administrators can edit pilot information, change permissions, and delete pilots.

NOTE: One pilot can be added to only one team, but each team can have more than one team leader.

5. Device Maintenance

After the aircraft is connected to the DJI Pilot PE app, the app will synchronize the aircraft and battery status to FlightHub Enterprise, enabling users to view on this page. Users will receive a prompt on the FlightHub Enterprise interface if maintenance is required. Follow the Maintenance Manual to ensure smooth running of your devices and operations.

6. Resource Management

This is only available for administrators. First, visit FlightHub File Transfer Portal at <https://transfer.dji.com>, log in with a DJI account, and download the aircraft firmware. Then go to FlightHub Enterprise for resource management.

Firmware management: After getting the aircraft firmware, users can upload the firmware, select the members that each firmware is visible to. The selected members will be informed with the firmware update information to update the corresponding firmware.

7. Menu options

Account: View account information, change password, configure login UI display, and view operation records and legal terms.

FlightHub Management Center: Enter the center for related operations.

Language: Change the display language.

Log Out: Log out of the account in use.

Team Management

There are three levels of authority: Administrator, Captain, and Pilot.

Administrators are in charge of the FlightHub Enterprise account, and their authorization cannot be changed. They can invite new captains and pilots to join.

Captains have permission to access the FlightHub Enterprise platform and invite new pilots to join. Their authorization can be changed.

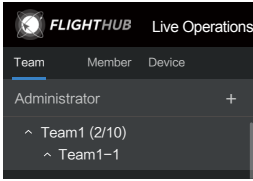
Pilots have no authorization to access the FlightHub Enterprise platform. Pilots can execute missions, enable live function, upload flight data, bind devices and view team information in the DJI Pilot PE app.

Creating Teams

Only administrators can create teams.

On the Team Management page, click "+" on the Team tab that is located toward the left of the screen, input team name, select parent team, and click Done.

The team is a first level team when its parent team is set to Not Selected. Secondary and tertiary teams can be created under a first level team.



Create Team

Team Name

Parent Team

Cancel Done

Creating Members

Only administrators can create members.

1. On the Team Management page, click the Member tab toward the left of the screen, and select the team where the member should be appointed to.
2. Click Create Member toward the right of the screen. To create members manually, input the account, name, and password. To import member information from an excel file, download the template, fill in, and import it.

Create Member

Create Manually [Import from Excel](#)

Account

Name

Password

Cancel Done

Create Member

[Create Manually](#) **[Import from Excel](#)**

Name the Excel file in the following format. [Download Template](#)

Cancel Import

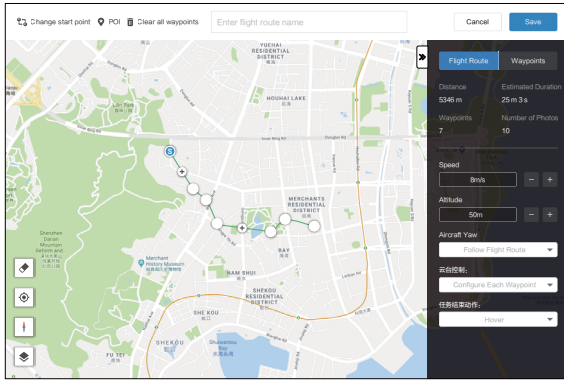
Management




On the Team tab, click ●●● toward the right of the screen to delete or edit the teams and members. It is also possible to add members and devices on this page.

Mission Planning

FlightHub Enterprise provides Waypoints and Mapping mission planning.

On the Mission Planning page, click the desired team toward the left of the screen, and select mission type to view the created missions. Click ●●● on the upper right corner of each mission to edit, copy or delete it. Click Create to enter planning procedure.




1. Click on the map to add a waypoint or boundary point of an area.
2. Edit point:
Click any point to select it, and it will change color from white to blue. Drag the point to change the area shape or flight path. Add a new point between points by clicking on the map. Other operations can also be performed via the buttons below:
 : Change start point — Click to swap the start and endpoints to reverse the flight path.
 : POI — This button will be displayed only in Waypoints mission. Click to enable the POI function and a POI will be displayed on the map. Drag to adjust its position. When the POI function is enabled, the aircraft yaw can be set to towards POI so that the aircraft nose points at the POI during the mission. Tap this icon again to disable the POI function.
 : Clear all waypoints — Tap to clear all the added points in this mission.
3. Set each item in the parameter setting list on the right screen. The settings vary according to different mission types.
Waypoints mission: Flight Route settings are applied to the entire route, including aircraft speed, altitude, yaw, gimbal control, and end task action. Waypoints settings are applied to the selected point, including aircraft height, yaw, gimbal tilt, aircraft rotation direction, and waypoint action. Click Tap “<” or “>” to switch to the previous or next waypoint. Click Delete Waypoint to delete the selected waypoint. Input value in the text boxes for longitude and latitude or click the arrow buttons on the right to adjust the waypoint position.
Mapping mission: Basic Settings include aircraft altitude, speed, and end task action. Advanced Settings include overlap ratio, course angle, margin, and relative altitude.
4. Input the mission name in the text box on top of the page and save it.

Using the DJI Pilot PE App to Bind Devices

Downloading and Installing DJI Pilot PE

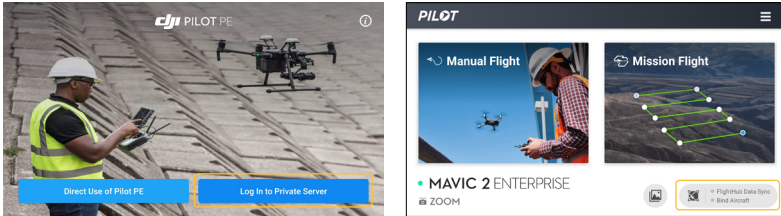
Scan the QR code to download and install the app to your mobile device.




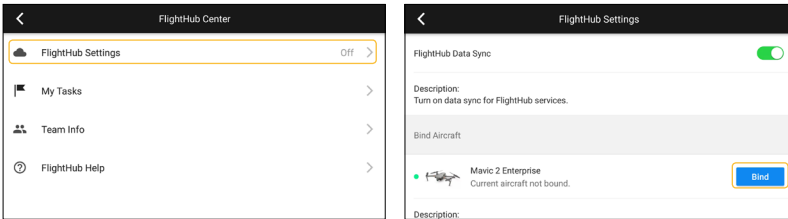
 The DJI Pilot PE app supports Android 5.0 or later.

Binding Your Device

1. Tap Log In to Private Server in the DJI Pilot PE app.
2. Input IP address of the configured FlightHub server, as well as the username and password of a captain or pilot to log in.



3. Tap  on the lower right corner and enter FlightHub Settings.
4. Enable FlightHub Data Sync, tap Bind and select a team.





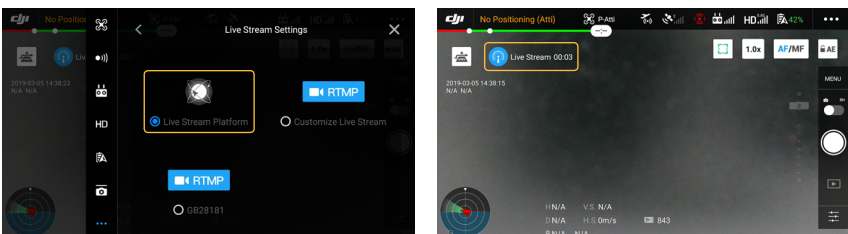
5. On the homepage, both status of the FlightHub Data Sync and Bind Aircraft are green, indicating that the FlightHub server connection and aircraft binding are in good condition, and users can check the online status of the aircraft on the FlightHub Enterprise webpage.

Operations Management

DJI Pilot PE App Operations

Enabling Live View

1. Go to Manual Flight on the app, tap  on the upper right corner >  > Live Stream, and select Live Stream Platform.



- The Live view icon will be displayed on the screen to show the current live status. Tap to view the detailed information, adjust bit rate, and end live view.



- Make sure that the uplink network speed is no less than 4 MB/s when live view is enabled.
- The blue live view icon is for smooth signal transmission and red is for poor signal quality.
- Users can set the lower live view bit rate to improve video fluency in case of poor signal quality.

Planning Missions

- Go to Mission Flight on the app. On the Library tab, tap Create Waypoints and select Waypoints to enter mission planning.
- Tap on the map to add waypoints, then configure route and waypoints settings. The procedures are similar to those on the FlightHub Enterprise webpage.

Executing Missions

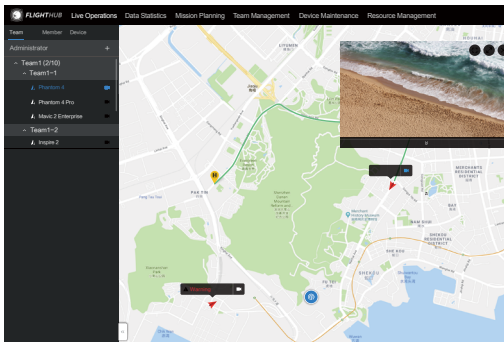
Go to Mission Flight on the app, and follow the instructions below.

- On the Library or FlightHub tab, tap the desired mission.
NOTE: Make sure that the app is connected to the FlightHub Enterprise server when using the missions on the FlightHub tab.
- Confirm mission information, and tap on the left.
- Check the settings and aircraft status on the Prepare to Fly list. Then tap Start to Fly.
- During the mission, tap the corresponding button on the left to end or pause the mission.

FlightHub Enterprise Webpage Management

Enabling Live View

- Go to the Live Operations page on the FlightHub Enterprise Webpage, select the team the aircraft belongs to, and click towards the right of the desired aircraft.



- Live view permission is required on the DJI Pilot PE app if live stream was disabled on the app previously. Then click again on the webpage.
- The aircraft camera view will be displayed on the webpage. Click under the image to view aircraft status such as pilot, team, altitude, speed, longitude, latitude, and battery level.

DJI Support

<http://www.dji.com/support>

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