



# How to Integrate Milesight Gateways and Devices into the Actility OCP Platform



| Version Change Log |               |                  |            |
|--------------------|---------------|------------------|------------|
| Version            | Revision Date | Revision Details | Revised By |
| V1.0               | 20250325      | Initial          | Lockon     |
|                    |               |                  |            |
|                    |               |                  |            |



# Preface

Actility's OCP (On-Premise Core Platform) is a localized deployment version of the ThingPark Enterprise (TPE) platform. It can be installed on local servers or virtual machines, as well as cloud platforms like AWS and Azure. TPE-OCP allows users to manage LoRaWAN networks, including device connections, gateway monitoring, and data routing. It supports high-availability cluster deployment and offers both online and offline installation modes to suit different IT environments.

This document provides a step-by-step guide on how to integrate the UG65 gateway with the Actility-OCP platform and add the UC300 device as an example.

## 1. Prerequisites

- **Gateway Model:** UG65 (Temporary Firmware v60.0.0.45-t4) or UG67
- **Sensor Model:** UC300
- **Frequency Band Used in this Demonstration:** EU868
- **Internet Access:** Required for the gateway

## 2. Obtain an OCP Platform Account

This demonstration utilizes Actility's public test environment: [Actility-OCP Sandbox](#)

- Username: zhangjb@milesight.com
- Password: (Not displayed)

## 3. Configure the Gateway

### 3.1. Obtain the Actility-OCP Platform IP Address

Use the built-in Windows ping tool to obtain the OCP platform's IP address.



```
命令提示符
Microsoft Windows [版本 10.0.22631.4169]
(c) Microsoft Corporation. 保留所有权利。

C:\Users\Lockon>ping tpe-kl-sandbox.thingpark.com

正在 Ping tpe-kl-sandbox.thingpark.com [37.59.142.145] 具有 32 字节的数据:
来自 37.59.142.145 的回复: 字节=32 时间=264ms TTL=45
来自 37.59.142.145 的回复: 字节=32 时间=263ms TTL=45
来自 37.59.142.145 的回复: 字节=32 时间=263ms TTL=45
来自 37.59.142.145 的回复: 字节=32 时间=263ms TTL=45

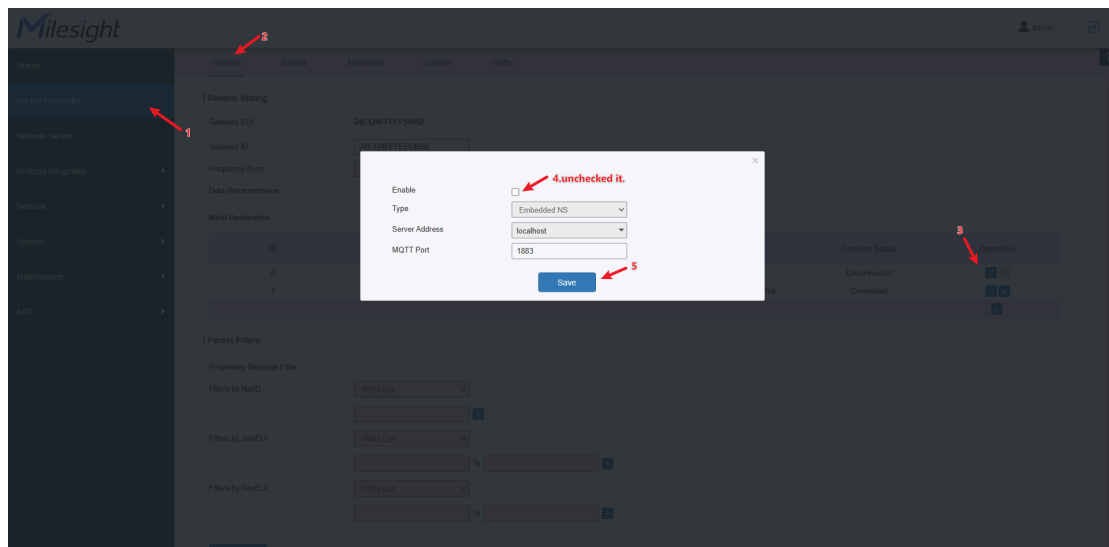
37.59.142.145 的 Ping 统计信息:
    数据包: 已发送 = 4, 已接收 = 4, 丢失 = 0 (0% 丢失),
    往返行程的估计时间(以毫秒为单位):
        最短 = 263ms, 最长 = 264ms, 平均 = 263ms

C:\Users\Lockon>
```

As shown in the example, the OCP platform IP is 37.59.142.145.

## 3.2. Configure Packet Forwarder Settings

Disable the built-in NS on the gateway.



Set the following parameters:

Milesight

admin

General Radios Advanced Custom Traffic

Packet Forwarder

General Setting

Gateway EUI: 24E124FFFEF54092

Gateway ID: 24E124FFFEF54092

Frequency-Sync: 1

Data Retransmission: ☐

Multi-Destination

| ID | Enable                              | Type        | Server Address | Connect Status | Operation  |
|----|-------------------------------------|-------------|----------------|----------------|--|
| 0  | Disabled                            | Embedded NS | localhost      | Disconnected   | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 1  | <input checked="" type="checkbox"/> |             |                |                | <input checked="" type="checkbox"/> <input type="checkbox"/> |

Packet Filters

Proprietary Message Filter: ☐

Filters by NetID: White List

Filters by JoinEUI: White List

Filters by DevEUI: White List

2

3

24E124FFFEF54092

Enable: ☒

Type: Activity(ThingPark LRR)

Platform Type: Semtech

Server Address: Basics Station

UUID: ChirpStack-Generic

ChirpStack-v4

Remote Embedded NS

Activity(ThingPark LRR)

The Things Industries

Everynet

Loriot

24E124FFFEF54092

Enable: ☒

Type: Activity(ThingPark LRR)

Platform Type: Self-hosted ThingPark Enterprise

Server Address: ThingPark Community

UUID: ThingPark Enterprise SaaS EU

ThingPark Enterprise SaaS AU

ThingPark Enterprise SaaS US

Self-hosted ThingPark Enterprise

24E124FFFFEF54092

Enable ☒

Type Activity(ThingPark LRR)

Platform Type Self-hosted ThingPark Enterprise

Server Address 37.59.142.145

UUID 24E124-24E124F54092

Save

- **Server Address:** Enter the OCP platform's IP address obtained earlier.
- **UUID:** Copy this value, as it will be required when adding the gateway to the OCP platform.

Milesight

Status Packet Forwarder Network Server Protocol Integration Network System Maintenance APP

General Radios Advanced Custom Traffic

General Setting

Gateway EUI 24E124FFFFEF54092

Gateway ID 24E124FFFFEF54092

Frequency-Sync 1

Data Retransmission ☐

Multi-Destination

| ID | Enable   | Type                    | Server Address                   | Connect Status | Operation  |
|----|----------|-------------------------|----------------------------------|----------------|--|
| 0  | Disabled | Embedded NS             | localhost                        | Disconnected   | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 1  | Enabled  | Activity(ThingPark LRR) | Self-hosted ThingPark Enterprise | Connected      | <input checked="" type="checkbox"/> <input type="checkbox"/> |

Packet Filters

Proprietary Message Filter ☐

Filters by NetID White List

Filters by JoinEUI White List

Filters by DevEUI White List

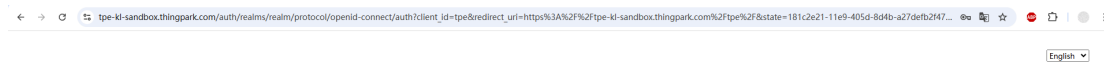
Save & Apply

This completes the gateway configuration.

## 4. Add the Gateway to the OCP Platform

Log in to the OCP platform using the test account.





Email

zhangjb@milesight.com

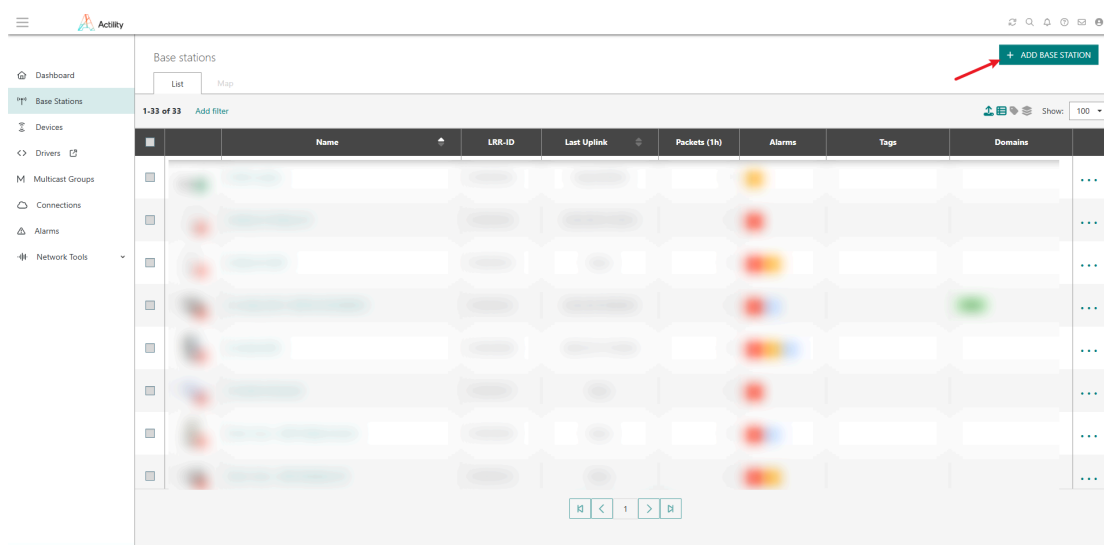
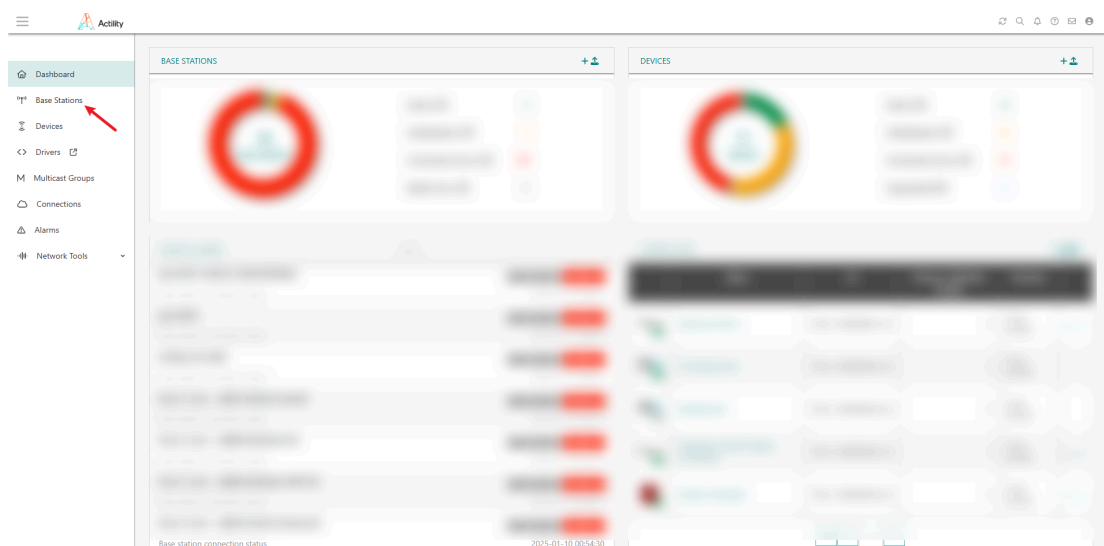
Password

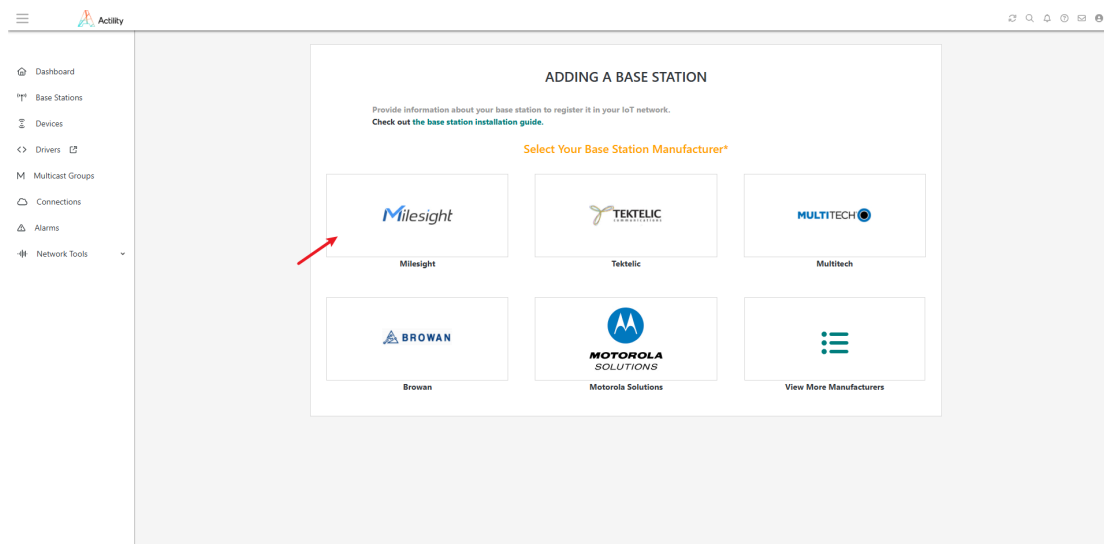
\*\*\*\*\*

[Forgot Password?](#)

LOG IN


Follow the setup steps as shown in the provided images.





### ADDING A BASE STATION

Base Station Manufacturer\*



**Milesight**  
IoT products/solutions provider.  
[Change manufacturer?](#)

Enter Your Base Station Information\*

Model\* ⓘ

| Select your model |                                |
|-------------------|--------------------------------|
| SG50              | as923,us915,au915,eu868        |
| UG56              | us915,au915,eu868,as923        |
| UG63              | as923,us915,au915,eu868        |
| <b>UG65</b>       | <b>us915,au915,eu868,as923</b> |
| UG67              | as923,us915,au915,eu868        |

Domains ⓘ

1 RR-1 III III\* ⓘ

Select **UG65** as the gateway model.





Model <sup>?</sup>

UG65 u915,a915,eu868,a923

Download the base station image

Name <sup>?</sup>

70.241-Lockton ✓

Domains <sup>?</sup>

LRR-UUID <sup>?</sup>

24E124-24E124F54092 ✓

RF Region <sup>?</sup>

EU 863-870MHz (8 channels) ✓

This 8-channels RF Region applies to any region where the use of the 863-870 MHz ISM radio spectrum is compliant with the ETSI EN300.220 standard.

Additional Information <sup>?</sup>

Write here...

Security

☒ Generate base station certificate <sup>?</sup>

Set Your Base Station Location

To display the base station on the map, enter the coordinates where it will be located.

- Enter the **LRR-UUID** obtained in step 3.2.
- Select the RF Region as **EU868**.
- Ensure **"Generate base station certificate"** remains checked (default setting).

Domains <sup>?</sup>

LRR-UUID <sup>?</sup>

24E124-24E124F54092 ✓

RF Region <sup>?</sup>

EU 863-870MHz (8 channels) ✓

This 8-channels RF Region applies to any region where the use of the 863-870 MHz ISM radio spectrum is compliant with the ETSI EN300.220 standard.

Additional Information <sup>?</sup>

Write here...

Security

☒ Generate base station certificate <sup>?</sup>

Set Your Base Station Location

To display the base station on the map, enter the coordinates where it will be located.

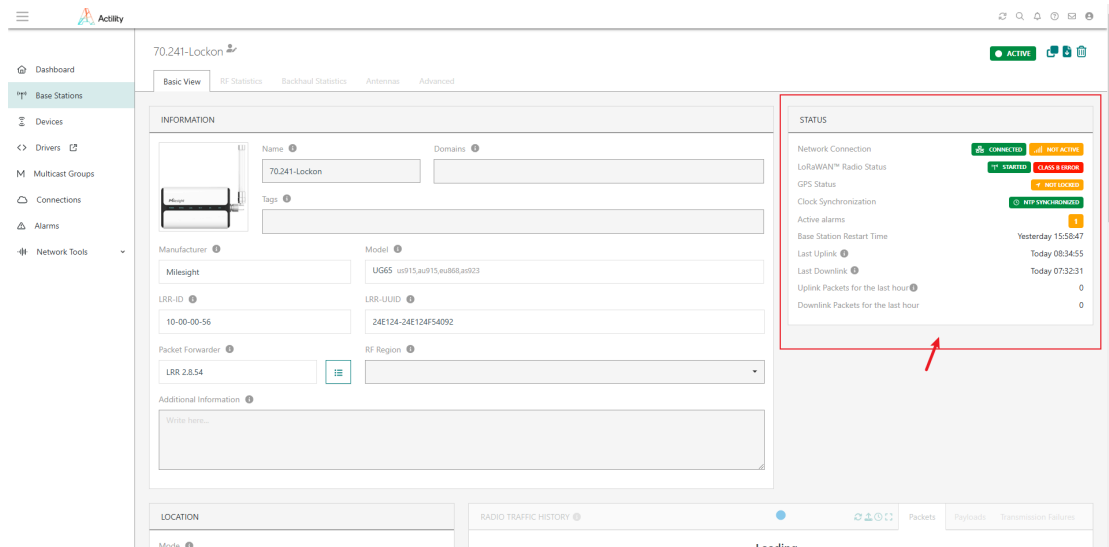
Mode <sup>?</sup>

Onboard GNSS position

CANCEL ADD

Click **"ADD"**, then wait 3-5 minutes.

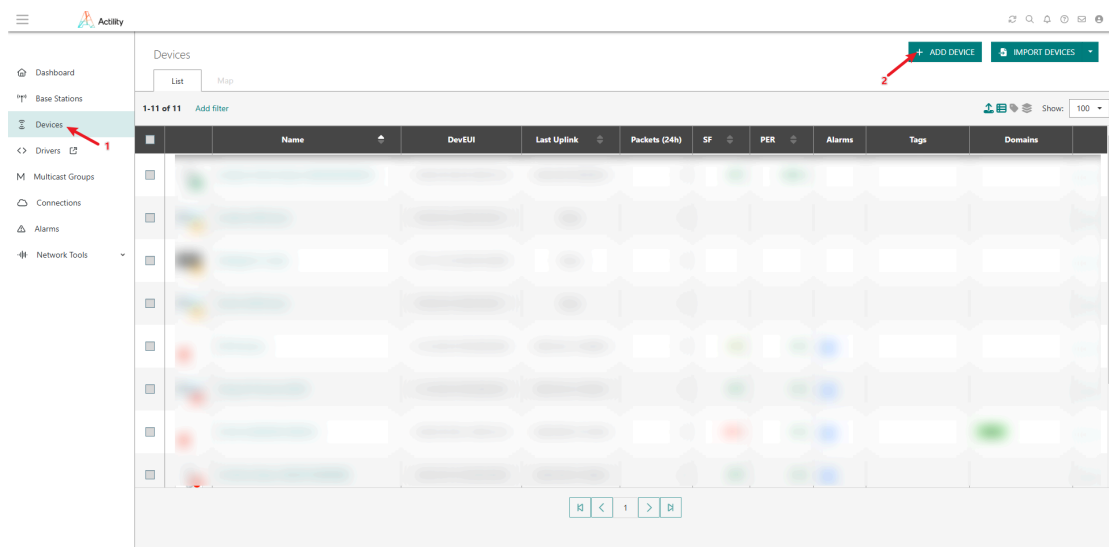


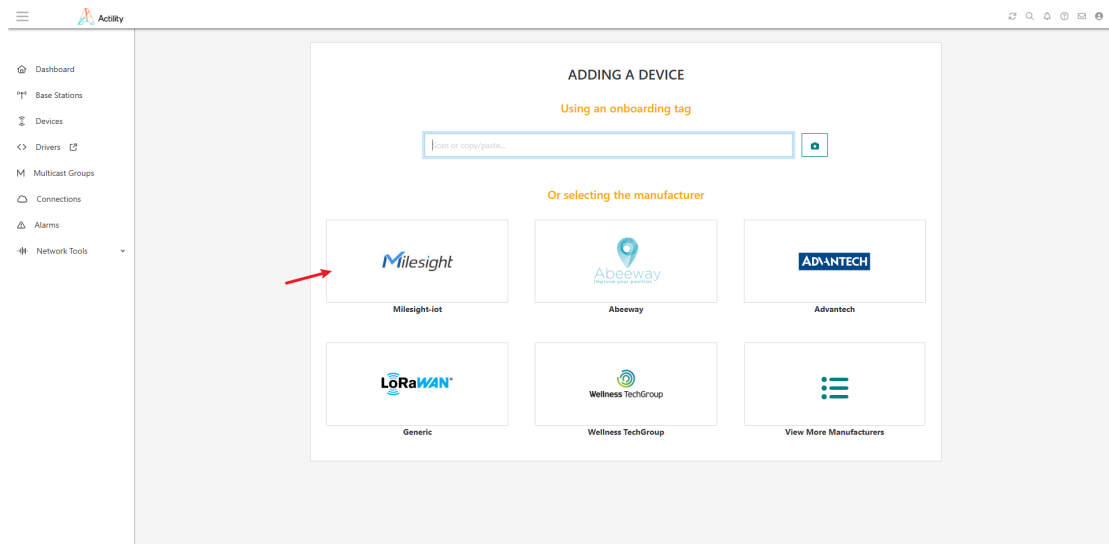


After successful addition, the gateway status will appear as **"ACTIVE"** in green, indicating a successful connection.


## 5. Add the Device to the OCP Platform

Follow the setup steps as shown in the images.






**Device Manufacturer\***



**Milesight-iot**  
IoT Solution provider  
[Change manufacturer?](#)

**Enter Your Device Information\***


Model\* 

uc300


**UC300 Series IoT Controller - class C**


LoRa band

EU863-870 (EU868)


Name\* 

uc300-lockon ✓


Domains 

DevEUI\* 

24-E1-24-44-5D-11-96-50 ✓

Activation mode\* 

Over-the-Air Activation (OTAA) with local Join Server

JoinEUI (AppEUI) 

- Enter the UC300 LoRa parameters as required.
- Wait 3-5 minutes, and the UC300 device should appear online.



Activity

uc300-lockon

Dashboard

Base Stations

Devices

Drivers

Multicast Groups

Connections

Alarms

Network Tools

INFORMATION

Name: uc300-lockon

Domains:

Tags:

Manufacturer: Milesight-iot

Model: UC300 Series IoT Controller - class C eu868

DevAddr: 02-08-E1-37

DevEUI: 24-E1-24-44-5D-11-96-50

Payload encryption: Radio encrypted

Activation mode: Over-the-Air Activation (OTAA) with local Join Server

Motion indicator: Random

Additional Information

SEND DOWNLINK

STATUS

LoRaWAN Class: CLASS C

Power Source: Error

Last Uplink: 2025-03-25 08:34:55

Last Downlink: 2025-03-25 07:32:31

Packets for the last 24 hours: 35

Average SNR: 8.5 dB

Average ESP: -92.39 dBm

Long-term PER: 97.47 %

Instant PER: 96.88 %

CONNECTIONS

TP: CS PostHere Test

ADD A CONNECTION

This completes the device integration process.

-END-

