

# Integrate LoRaWAN Network Server

We support integrations for various LoRaWAN Network Server.

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## Overview

### Receive data from a LoRaWAN network server

1. Create a Bearer Token or BasicAuth credentials in the Lobar Platform with the role `network-server` to allow write access for device data.
2. Configure your network server to send data to the corresponding endpoint (see list below) using the token (e.g. `Bearer eyJhbGciOiJ...`) or BasicAuth credentials in the `Authorization` header field.  
Please consult the documentation of your network server for further instructions.

Platform REST Endpoints for network server integrations:

- Chirpstack:
  - <https://platform.lobaro.com/api/chirpstack/event>
  - Old Chirpstack Versions only: <https://platform.lobaro.com/api/chirpstack/uplink> (deprecated: `/api/loraserver/uplink`)
- Element-IoT: <https://platform.lobaro.com/api/element-iot/data>
- Actility: <https://platform.lobaro.com/api/actility/data>
- Everynet: <https://platform.lobaro.com/api/everynet/data>
- TTN: <https://platform.lobaro.com/api/ttn/data> (Platform Version > 1.0.6)
- Wanasy:
  - <https://platform.lobaro.com/api/dataUp>
  - <https://platform.lobaro.com/api/dataDownEvent>
  - <https://platform.lobaro.com/api/wanasy> (**deprecated**: Platform Version <= 1.7.0)
  - Authenticate using Basic Auth, since Header length is limited to 255 characters in Wanasy!
- Loriot: <https://platform.lobaro.com/api/loriot/data> (Platform Version > 1.8.7)

We also support other network servers

on request, e.g. Firefly, ... Just ask!

## Create a Platform Token

Most integrations require a Bearer Token to authenticate requests between the LNS and the Lobar Platform.

Tokens can be generated on "Lobar Platform Integrations REST" and need the role "network-server"


### Access Tokens

All API calls must be authenticated with an access token. Access tokens can be managed on the REST Integration page.

Each token has a list of roles assigned to it.

**Token roles:**


- **network-server**: Allows to write device data. Required for LoRaWAN Network Server Integrations.


 **Neue Zugangsdaten**

**Name**

**Typ**


**Rollen**  



 network-server

Add the Token into the HTTP request Header:



- Field: Authorization
- Value: Bearer eyJhbGciOiJIU...

 **Create New Credentials**

**Name**

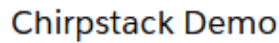
**Type**

**Roles**  

[Create New Credentials](#)

Copy the whole generated token:



## Bearer

## Roles

## Integrate Chirpstack

- DEVICES

MULTICAST GROUPS

APPLICATION CONFIGURATION

INTEGRATIONS

## Update HTTP integration

Payload marshaler \*

JSON

This defines how the payload will be encoded.

Headers

Header name	Header value
Authorization	Bearer eyJhbGciOiJIUzUxMiIsImtpZCI6ImlzbnVpdCJ9

ADD HEADER

Endpoints

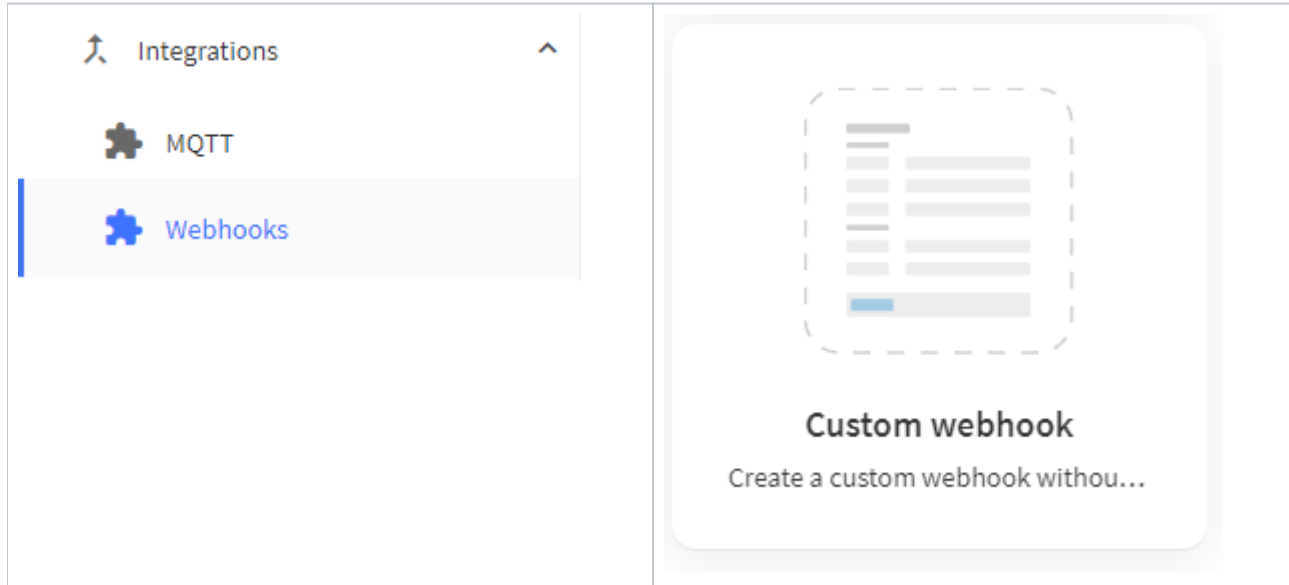
Endpoint URL(s) for events

<https://platform.lobaro.com/api/chirpstack/event>

ChirpStack will make a POST request to this URL(s) with 'event' as query parameter. Multiple URLs can be defined as a comma separated list

- ## Integrate TTN V3

Create or open your application and add a custom Webhook integration:



Configure the Webhook:

- Webhook ID: custom string to identify the Webhook
- Webhook format: JSON
- Base URL: <https://platform.lobaro.com/api/ttn/data>
- Additional headers:
  - Authorization
  - Bearer eyJhbG... (from Lobar Platform Integrations REST) with role "network-server" (see above)
- Enabled messages: Enable all types, no custom paths are needed.

## Add webhook

## General settings

Webhook ID \*

my-lobaro-webhook

Webhook format \*

JSON

Base URL \*

https://platform.lobaro.com/api/ttn/data

Downlink API key

The API key will be provided to the endpoint using the "X-Downlink-Apikey" header

Request authentication ②

☐ Use basic access authentication (basic auth)

Additional headers

Authorization

Bearer eyJhbGciOiJIUzUxMiIsImtxxxxxxx



Authorization

Bearer my-auth-token



+ Add header entry

There must be no empty header entry. Please remove such entries before submitting.

## Enabled event types

For each enabled event type an optional path can be defined which will be appended to the base URL

☒ Uplink message /path/to/webhook

An uplink message is received by the application

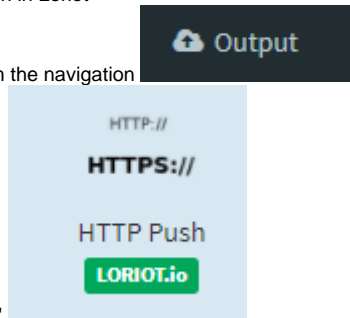
## Integrate Loriot

Since Platform Version >1.8.7

Get a Token with

1. Go to you application in Lorient

2. Select "Output" from the navigation



3. Select "HTTP Push"

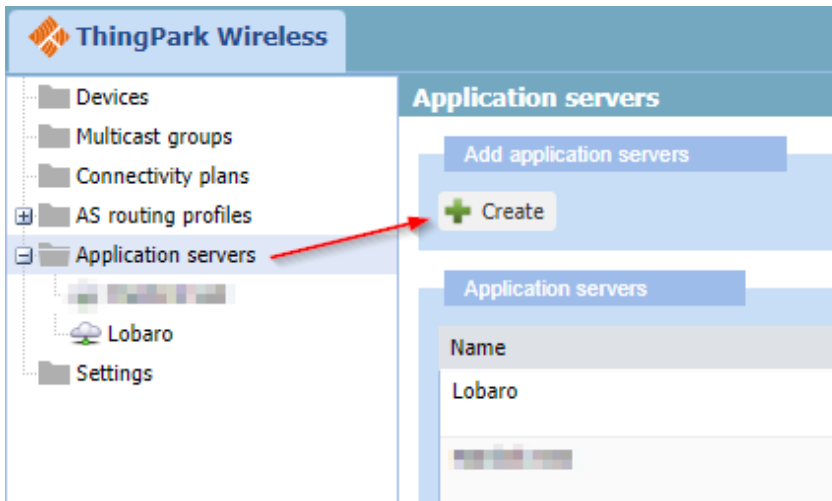
4. Enter the Target URL and Authorization header value

- Target URL <https://platform.lobaro.com/api/chirpstack/data> (change the domain if you have a dedicated instance)
- Get the custom "Authorization" header value from the Lobaro Platform "Integrations REST" Bearer Token with role "network-server"

## Integrate Actility

### Add the Lobaro Platform as Application Server

Go to "Application servers" and create a new entry



Give a name and set the "Content Type" to JSON

### Application server

Name: *	Lobaro
ID:	TWA_100052459.64942.AS
Content Type: *	JSON
Type:	HTTP Application Server (LoRaWAN)
Status: *	Active

Add a HTTP custom header "Authorization" with a platform token (see above).

### HTTP custom headers

Name	Value
Authorization	Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJ1b29052459.64942.AS

+ Add ✕ Delete

Add a route with "Routing strategy" Sequential and destination (see above, e.g. <https://platform.lobaro.com/api/activity/data>)

### Route

Source ports: *	*
Routing strategy: *	Sequential

#### Destinations

Destination
<a href="https://platform.lobaro.com/api/activity/data">https://platform.lobaro.com/api/activity/data</a>

Edit + Add ✕ Delete ↑ Up ↓ Down

### Add a route

Add an additional route to this application server.

+ Add

Press "Save"

✕ Delete 🏠 Save ↶ Cancel ➕ Close

**Add a AS routing profile**

ThingPark Wireless

AS routing profile

AS routing profile

Name: \* Default

ID: TWA\_1

Type: LoRaWAN

Is default: ☒ (This application routing profile will be used by default)

Destinations

Type	Destination	Status
Local application server	Lobaro	Active

Edit Add Delete

## Use the Routing Profile at the device

ThingPark Wireless

Network

Network routing

Associated AS routing profile: Default

Change Remove View

ThingPark X routing

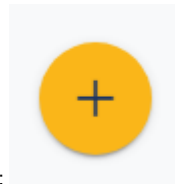
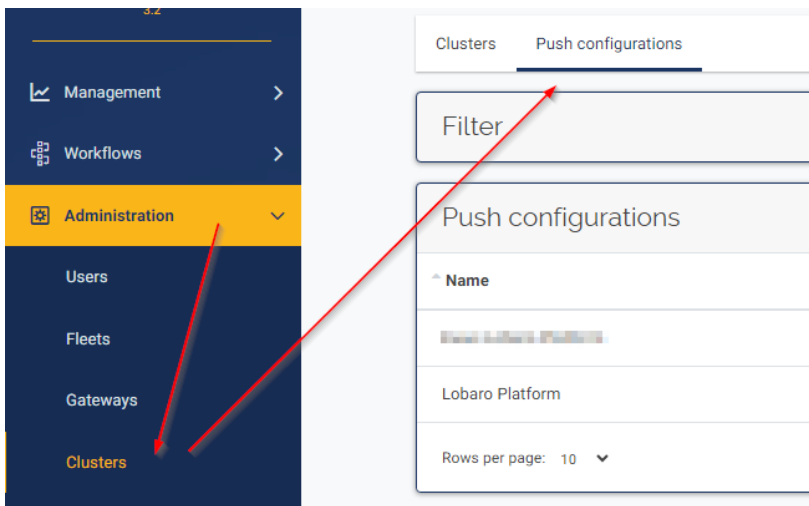
ThingPark X configuration: Not configured.

Details

## Integrate Wanesy

Go to Administration Clusters Push configurations





To Add an Push Configuration press the Plus Button:

Update push configuration \* required

Identity Connection SSL Custom headers

Name \*

Lobaro Platform

Type \*

☒ HTTP ☐ Websocket ☐ MQTT

Message detail level \*

☐ Payload ☐ Radio ☒ Network


CANCEL NEXT

#### Identity:

- Name: e.g. "Lobaro Platform"
- Type: HTTP
- Message Detail level: Network

#### Connection:

- URL: <https://platform.lobaro.com/api/wanasy>
- User: <as generated by the platform basic auth credentials> e.g. token-58
- Password: <as generated by the platform basic auth credentials>
- Data Up router: /dataUp
- Data Down event route: /dataDownEvent

 API Credentials

BasicAuth

Username

token-

Password

53uB

BasicAuth Header

Basic

Roles

network-server

## SSL

- Leave empty

## Custom headers

- Leave empty

Press "Validate" should result in a green success message.

Update push configuration \* required

Identity

Connection

SSL

Custom headers

Custom headers

key

value

+

×

PREVIOUS

CANCEL

VALIDATE

Assign the Push Configuration to a Cluster on the Clusters Tab.