

Integrate LoRaWAN Network Server

We support integrations for various LoRaWAN Network Server.

- [Overview](#)
 - [Receive data from a LoRaWAN network server](#)
- [Create a Platform Token](#)
 - [Access Tokens](#)
- [Integrate Chirpstack](#)
- [Integrate TTN V3](#)
 - [Add webhook](#)
- [Integrate Loriot](#)
- [Integrate Actility](#)
 - [Add the Lobar Platform as Application Server](#)
 - [Add a AS routing profile](#)
 - [Use the Routing Profile at the device](#)
- [Integrate Wanasy](#)

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:



Chirpstack Demo

Authorization Header

Bearer

eyJhbGciOiJIUzUxMiIsImtpZCI6IkdXRoVG9rZW5TZWNyZXQiLCJ0eXAiOiJKV
P6qkiHXuYjBXbVt7I3dI6IJORzD781qmtmVPp7oRe1QfVlh7hAHwdL1U3dMoC

Roles

network-server

Integrate Chirpstack

- Go to your **Application** in ChirpStack. (or create one) and go to **Integrations** and choose HTTP:// **ADD** .
 - Payload Marshaler: "JSON" and "Protocol Buffers" are supported
 - Header Name: "Authorization"
 - Header Value: the whole token From "Create a Platform Token" (see above) including the "Bearer" part
 - Endpoint URL: <https://platform.lobaro.com/api/chirpstack/event> for the Central Platform. <https://YOUR.ADDRESS.TLD/api/chirpstack/event> for your own (self) hosted Instance.

DEVICESMULTICAST GROUPSAPPLICATION CONFIGURATIONINTEGRATIONS

Update HTTP integration

Payload marshaler *

JSON

This defines how the payload will be encoded.

Headers

Header name

Authorization

Header value

Bearer eyJhbGciOiJIUzUxMiIsImtpZCI6IkdXRoVG9rZW5TZWNyZXQiLCJ0eXAiOiJKV

ADD HEADER

Endpoints

Endpoint URL(s) for events

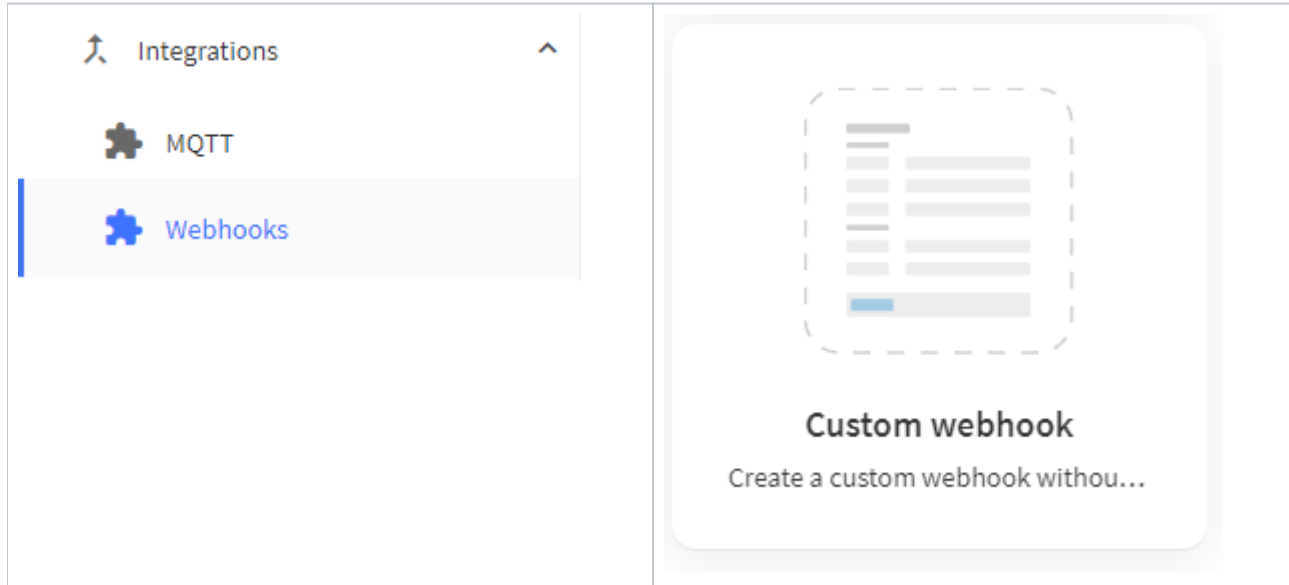
<https://platform.lobaro.com/api/chirpstack/event>

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.

- For older Chirpstack Versions (before 3) you have to set "Uplink data URL(s)" instead of "EndpointUrl(s) for events".
- You can insert the legacy and the new endpoint with the same result: (Same rules regarding private instances as before: <https://YOUR.ADDRESS.TLD/api/chirpstack/event> <https://YOUR.ADDRESS.TLD/api/chirpstack/uplink>)
 - EndpointUrl (for all Chirpstack versions): <https://platform.lobaro.com/api/chirpstack/event>
 - Legacy Uplink Url (only Chirpstack before version 3): <https://platform.lobaro.com/api/chirpstack/uplink>
 - For on-premise installations exchange <https://platform.lobaro.com> with your domain.
- Click "ADD INTEGRATION"
- Add the Devices Configured in Chirpstack to the same LobarO Platform Organisation as the Integration.
 - Configuration Hardware New Hardware
 - DevEUI/DeviceName from ChirpStack as Address. Name as you like. type According your Device, Org Same as the Integration(!)
- Under Devices you should now see if the Device receives data for your device from chirpstack. (First have a look in Chirpstack if Chirpstack is receiving data it can forward.)

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

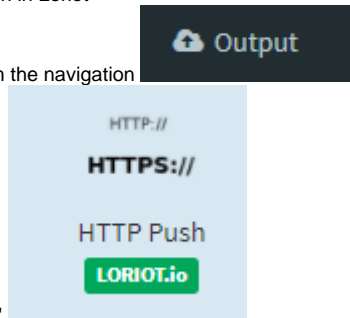
Integrate Loriot

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"

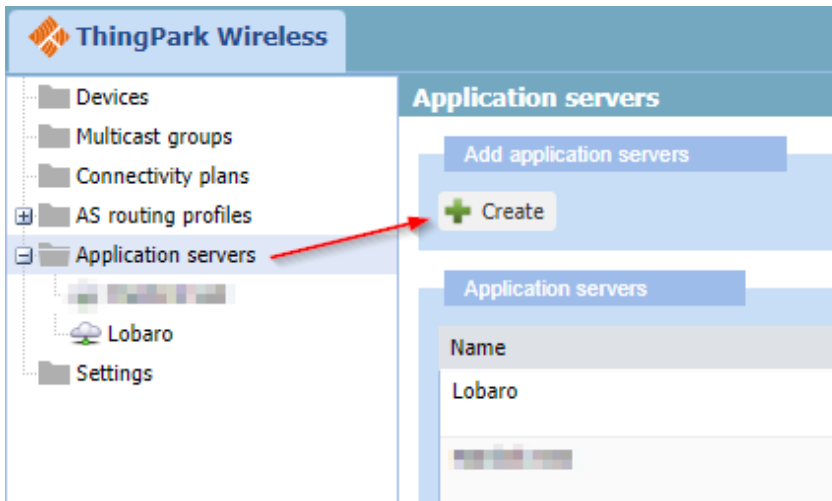
4. Enter the Target URL and Authorization header value

- 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).

[illegible]

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

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

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_

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

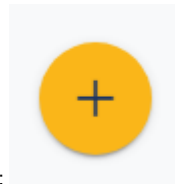
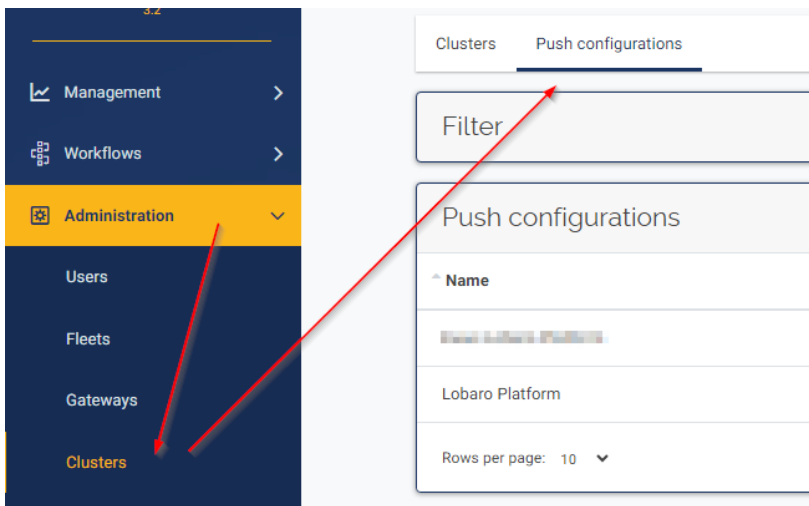
ThingPark X routing

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.