



UBIRCH

Use JWT for creating and managing things

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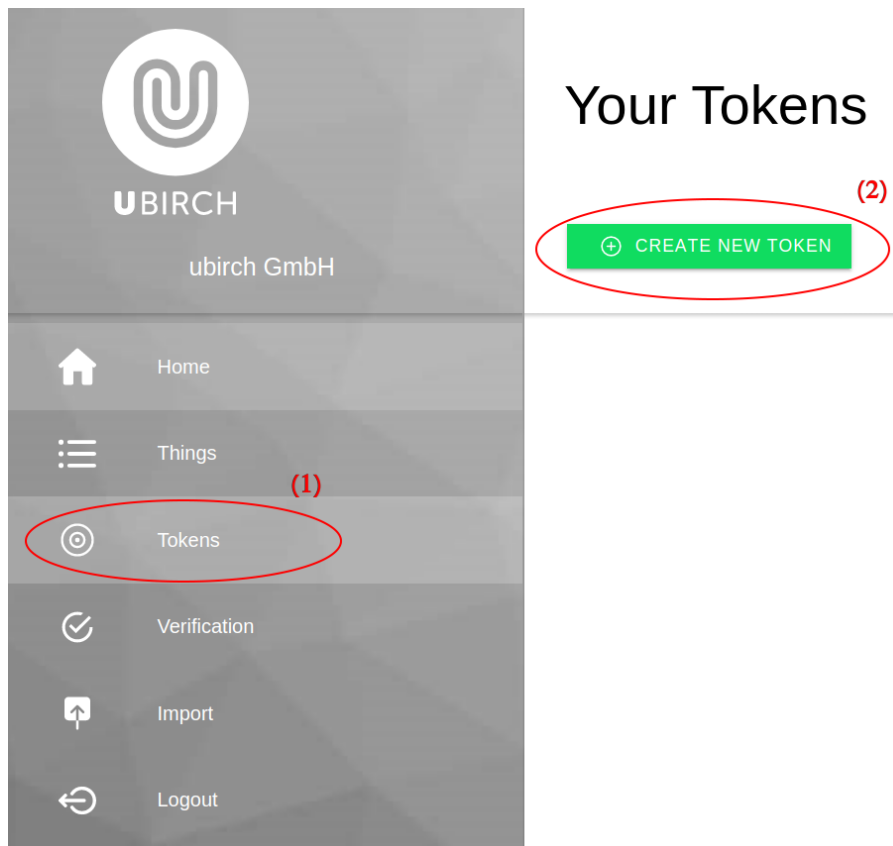


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1 Create JWT Token

To create new things with the ubirch API, a specific JWT Token is required. This Token can be generated in the ubirch console at console.prod.ubirch.com. Once logged in, in the left panel you find the field **Tokens** (see figure A). If you click it, there will be a new button called **CREATE NEW TOKEN**.



1 figure A : ubirch console Panel with highlighted Token buttons

Then a popup window appears, which needs to be filled according to the list and depicted in figure C:

- **Description:** choose any description you like
- **Valid from:** choose a date, you want to start working with the token, which can be today
- **Expiration:** choose a date, where the token will expire. *Note that the things you create with that token will still be valid and do not expire. Also you can always generate a new token, so it is recommended to use a plausible date, like 3 months or 1 year at most.*
- **Valid for all Things:** click the slider to activate it (if it appears blue, it is active)
- **Scopes:** the relevant scopes are **Create Things** and **Get Info of Things**, like shown in figure B

- **Target Groups:** enter valid group IDs in the form of a UUID (example from figure C is: `14813c38-e011-40cf-9296-d0e11a4bed4c`) and press the blue `+` Button to add it. Note that the groups are specific for each user and organization and will be provided separately.
- **Origin domains:** leave this empty

Now click `CREATE`

Scopes





<input type="checkbox"/>	Anchor UPPs
<input type="checkbox"/>	Verify UPPs
<input checked="" type="checkbox"/>	Create Things
<input checked="" type="checkbox"/>	Get Info of Things
<input type="checkbox"/>	thing:storedata
<input type="checkbox"/>	Bootstrap Things

CANCEL OK

2 figure B: Scopes of Token, with the active scopes Create Things and Get Info Things

✕

Create new Token

Description	Add Device Token
Valid from	29 Nov, 2021 
Expiration	29 Nov, 2022 
Valid for all Things	<input checked="" type="checkbox"/>
Scopes	Create Things ▾
Target Groups 	14813c38-e011-40cf-92'
<div style="border: 1px solid #ccc; border-radius: 10px; padding: 2px 10px; display: inline-block;">14813c38-e011-40cf-9296-d0e11a4bed4c ✕</div>	
Origin domains 	



CREATE


3 figure C: Popup window to create a new Token

After creating a new token, it will show up in the list of your tokens, like shown in figure D. You can now copy the token by simply pressing the green copy button on the lower left side, clicking the `Show Token >` button, or by showing it as a QR Code if you click the blue button on the right side.

Add Device Token

Things	Token valid for all Things
Token Type	Create Things
Token	Show Token >
Expires on	Mar 15, 2022 - 13:58 PM GMT+1
Valid after	Mar 15, 2022 - 13:58 PM GMT+1
Created on	Mar 15, 2022 - 13:58 PM GMT+1
Origin Domain	Show origin domains >
Target Group	Show target groups >





4 figure D: Token representation in your token list

2 Using Token with the ubirch API

Once you have a valid token, it can be used in the scopes you provided.

2.1 Create Things

If the scope `Create Things` was provided, the this token can be used to request a new thing at the backend:

```
curl --location --request POST 'https://api.console.prod.ubirch.com/ubirch-web-ui/api/v1/devices/create?with_api_info=true' \
--header 'Content-Type: application/json' \
--header 'Authorization: Bearer <TOKEN>' \
--data-raw '{"hwDeviceId":"<UUID>", "description":"ADD DESCRIPTION OF DEVICE HERE"}'
```

If the request was successful, the backend reply should look like this:

```
[{"fe5de766-4e13-466b-b757-12334598736a":{"state":"ok","apiConfig":{"password":"abcde f12-0011-4dce-9022-012345678901","keyService":"https://key.prod.ubirch.com/api/keyService/v1/pubkey/mpack","niomon":"https://niomon.prod.ubirch.com/","data":"https://data.prod.ubirch.com/v1/msgPack"}}}]
```

To get the password/authentication for the device, you will find it in the field `password`

If an error occurred during the request, the backend response looks like this:

```
Error completing request
```

For more information, check the [documentation](#)

2.2 Get Info for Things

If the scope `Get Info of Things` was provided, this token can also be used to get the credentials of the device from the backend:

```
curl --location --request POST 'https://api.console.prod.ubirch.com/ubirch-web-ui/api/v1/devices/api-config?device_id=<UUID>' \
--header 'Authorization: Bearer <TOKEN>'
```

A successful backend response looks like this:

```
[
  {
    "fe5de766-4e13-466b-b757-12334598736a":{
```

```
"password":"abcdef12-0011-4dce-9022-012345678901",  
"keyService":"https://key.prod.ubirch.com/api/keyService/v1/pubkey/mpack",  
"niomon":"https://niomon.prod.ubirch.com/",  
"data":"https://data.prod.ubirch.com/v1/msgPack"  
}  
}  
]
```