



RED

TECHNOLOGIES

WAVE DB

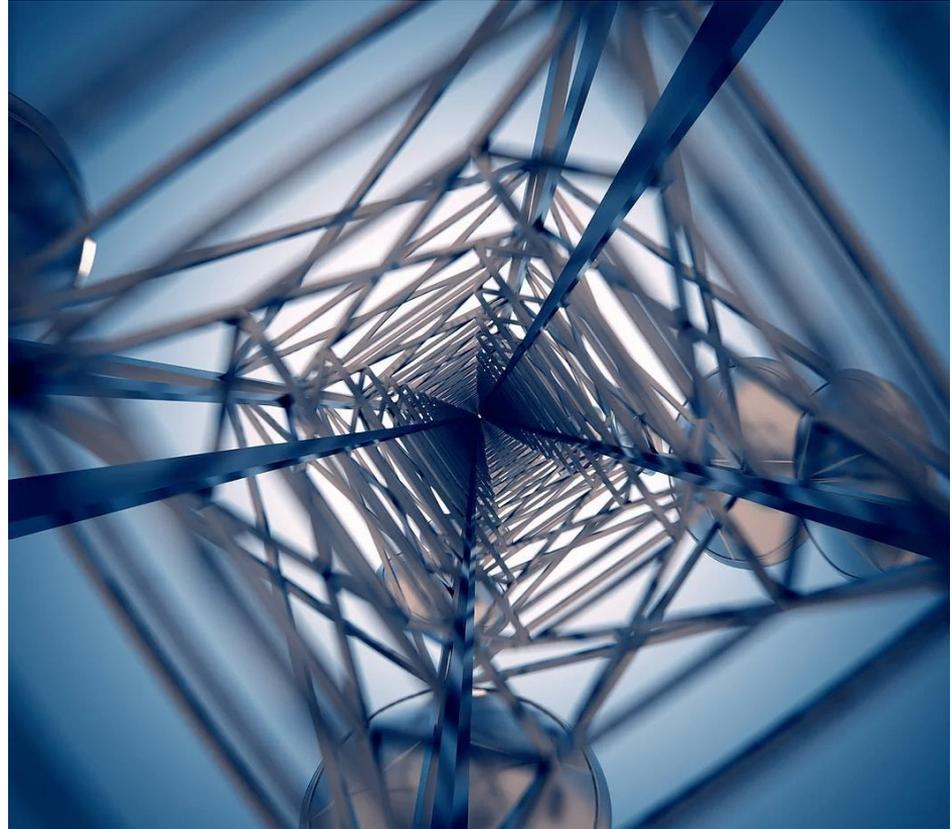
User guide – WaveDB CONNECT

14/06/2021

Index

- i. Important URLs
- ii. Register as a New User
- iii. Log In as an Existing User
- iv. Forgot password
- v. Account overview
- vi. Create a child user
- vii. Purchase licences
- viii. Invoices

- ix. Device search
- x. Register Device
- xi. Delete a device
- xii. Attach devices to a licence
- xiii. Device access tokens



i. Important URLs(1/1)

-USA

Device management portal - <https://welcome.wavedb.com/login>

Self-Registration of incumbents - <https://usa.wavedb.com/>

PAWS URL - <https://paws-usa.wavedb.com/>

-Canada

Device management portal -
<https://canada-welcome.wavedb.com/>

Self-Registration of incumbents -
<https://canada-incumbents.wavedb.com/>

PAWS URL - <https://paws-canada.wavedb.com/>

-UK

Device management portal - <https://welcome.wavedb.com/login>

PAWS URL - <https://paws-uk.wavedb.com/>

(or)

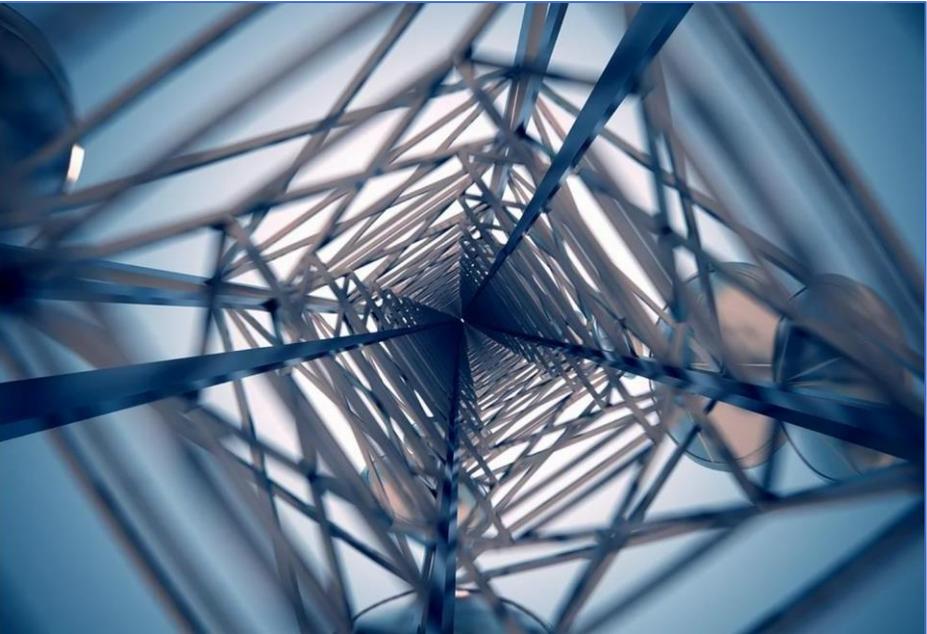
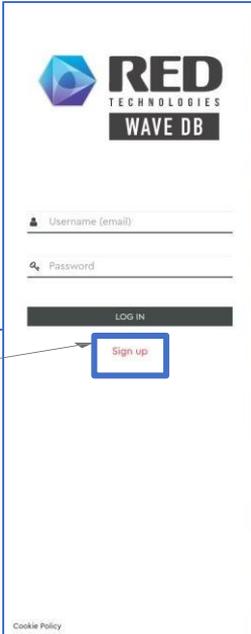
<https://paws.wsdب.uk>

PAWS URL provided by OFCOM -
<https://twws-databases.ofcom.org.uk/weblisb.json>

ii. Register as a New User(1/5)

Go to <https://welcome.wavedb.com/login>
(USA, UK)

<https://canada-welcome.wavedb.com/>
(Canada)



If you are a new user, Click on **SIGN UP** and follow the steps.

NOTE: The parent user must sign up first (who is responsible for the billing), he/she can add other users as child users using that account.

ii. Register as a New User(2/5)

Use your email address as username

Enter a password (and confirm it)

Click **SIGN UP** and follow the steps

RED TECHNOLOGIES
WAVE DB

Sign up for an account

Username (email)

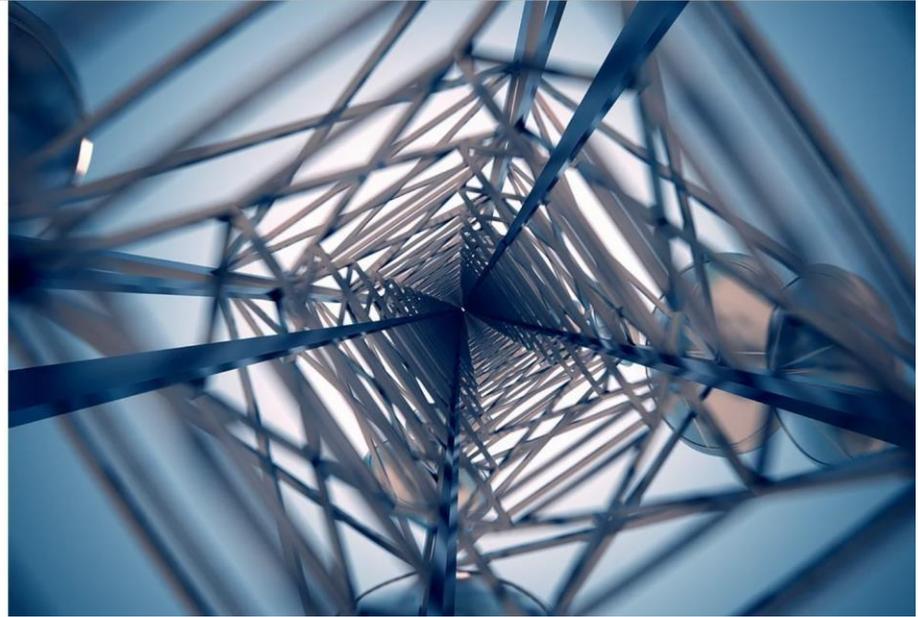
Create password (min 8 characters)

Confirm password

SIGN UP

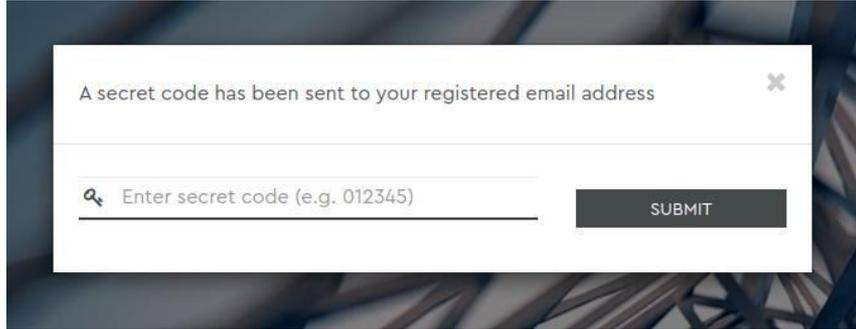
Log in

Cookie Policy



NOTE: If you have already signed up as a user. You will receive a temporary One Time Password (OTP) which you have to use while logging in.

ii. Register as a New User(3/5)



A secret code has been sent to your registered email address ✕

- A secret code will be sent to your email address that you mentioned. Fill it in the above-mentioned field and click on **SUBMIT**.

ii. Register as a New User(4/5)

Operator Dashboard

Update user: redcustomer

First Name * red

Last Name * customer

Username *

Email *

Change Password Enter new password (at least 8 characters)

Company name * xxxx

Company registration number 0123456789

Postal address * 103 Street City Country

Telephone Number 000000000

Billing Details

First Name * Red

Last Name * Customer

Email * redcustomer@email.com

Company name * xxxx

Company registration number 0123456789

Postal Address Details * 103 Street City Country

Telephone Number * 000000000

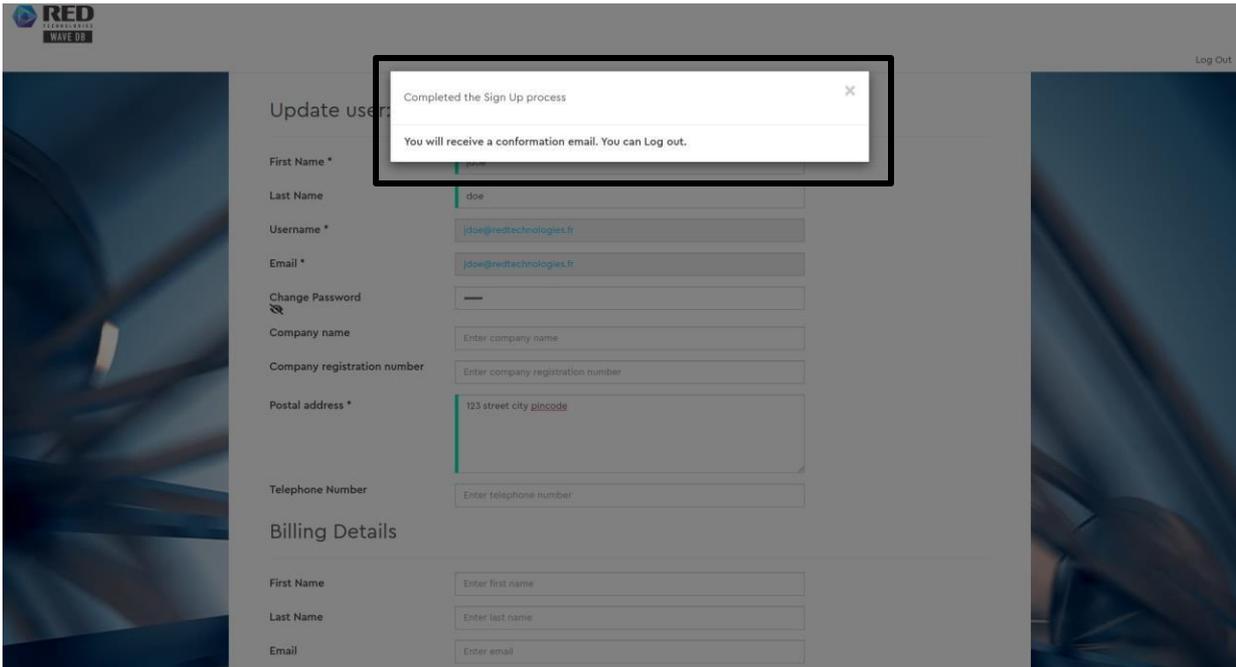
Communication preferences I'd like to receive helpful marketing communication from Red technologies

Terms and Conditions I agree to WaveDB Connect Terms of Use and have read and acknowledge our Privacy Statement.

Update User

- Fill all the mandatory information and click on **Update User**.
- These details will be cross checked by our tech team, once validated you will be granted access to the portal.

ii. Register as a New User(5/5)



The screenshot shows the 'Update user' form in the RED Technologies system. A white pop-up message box is overlaid on the form, indicating a successful sign-up. The message reads: 'Completed the Sign Up process' followed by 'You will receive a conformation email. You can Log out.' The form fields include First Name, Last Name, Username, Email, Change Password, Company name, Company registration number, Postal address, Telephone Number, and Billing Details (First Name, Last Name, Email).

RED TECHNOLOGIES
WAVE 08

Log Out

Update user

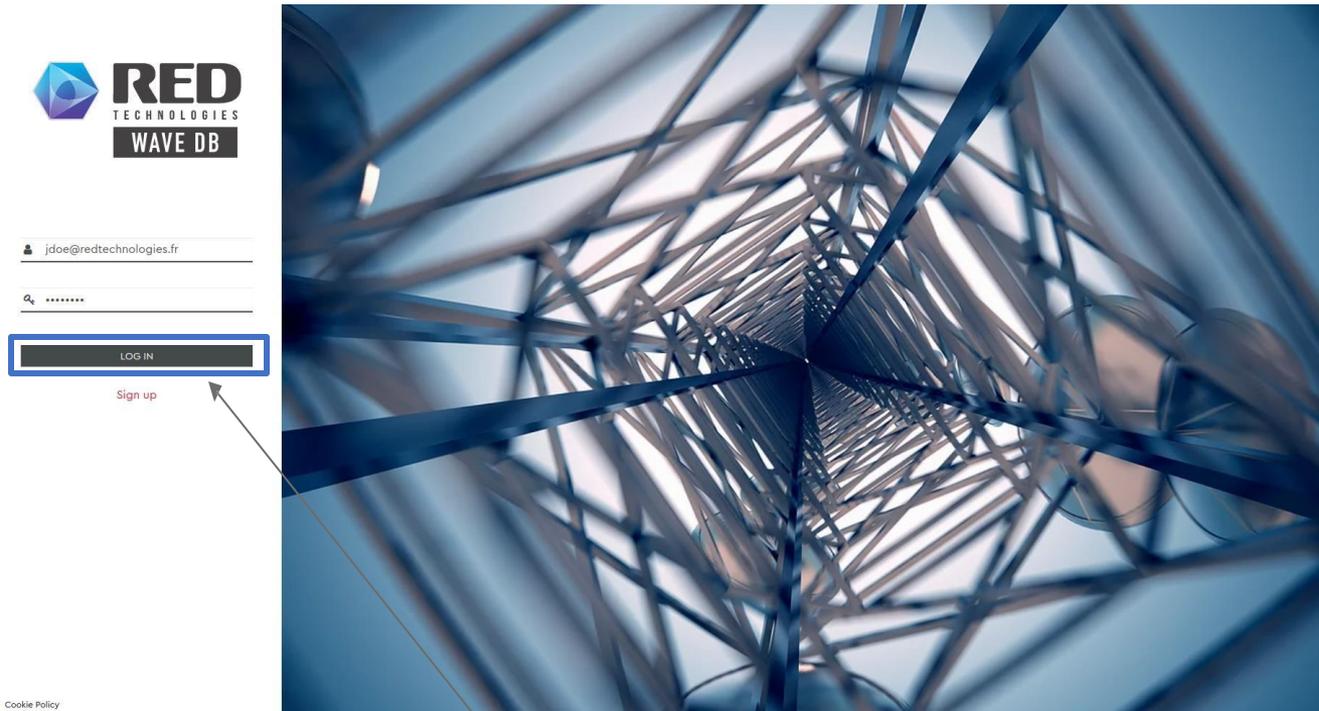
Completed the Sign Up process
You will receive a conformation email. You can Log out.

First Name *
Last Name
Username *
Email *
Change Password
Company name
Company registration number
Postal address *
Telephone Number
Billing Details
First Name
Last Name
Email

- You will receive a pop-up message as follows once the sign up is successful.

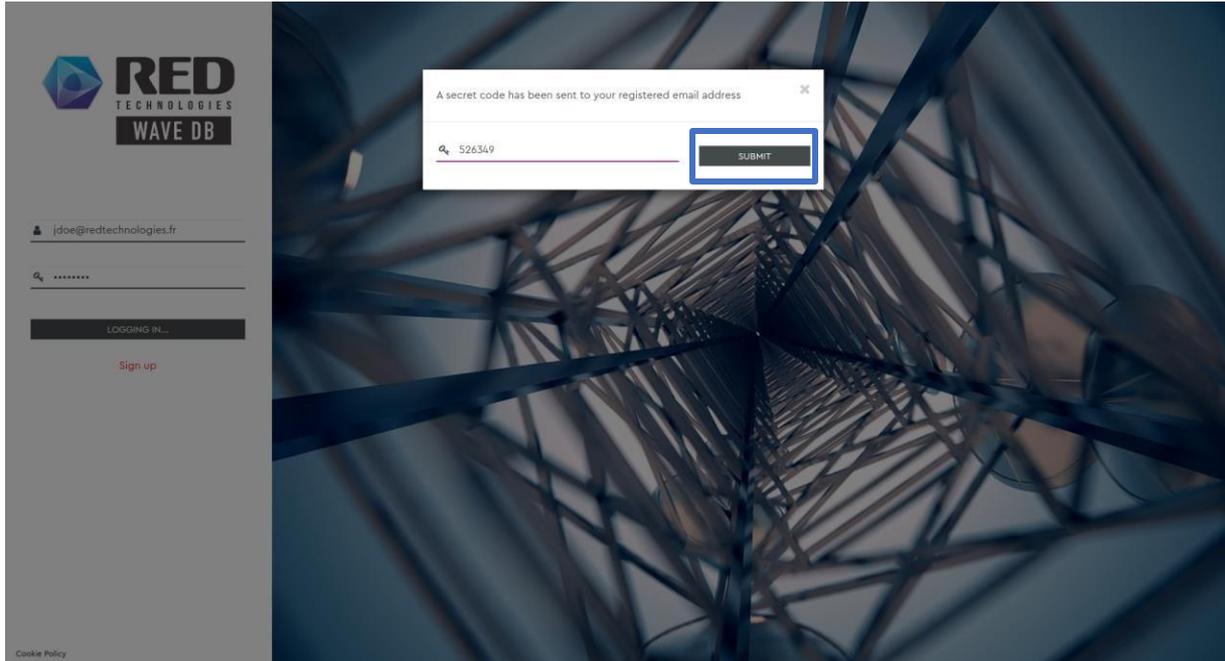
NOTE: You will receive a confirmation email. You should login again as a registered user to view the operator dashboard.

iii. Log In as an Existing User(1/2)



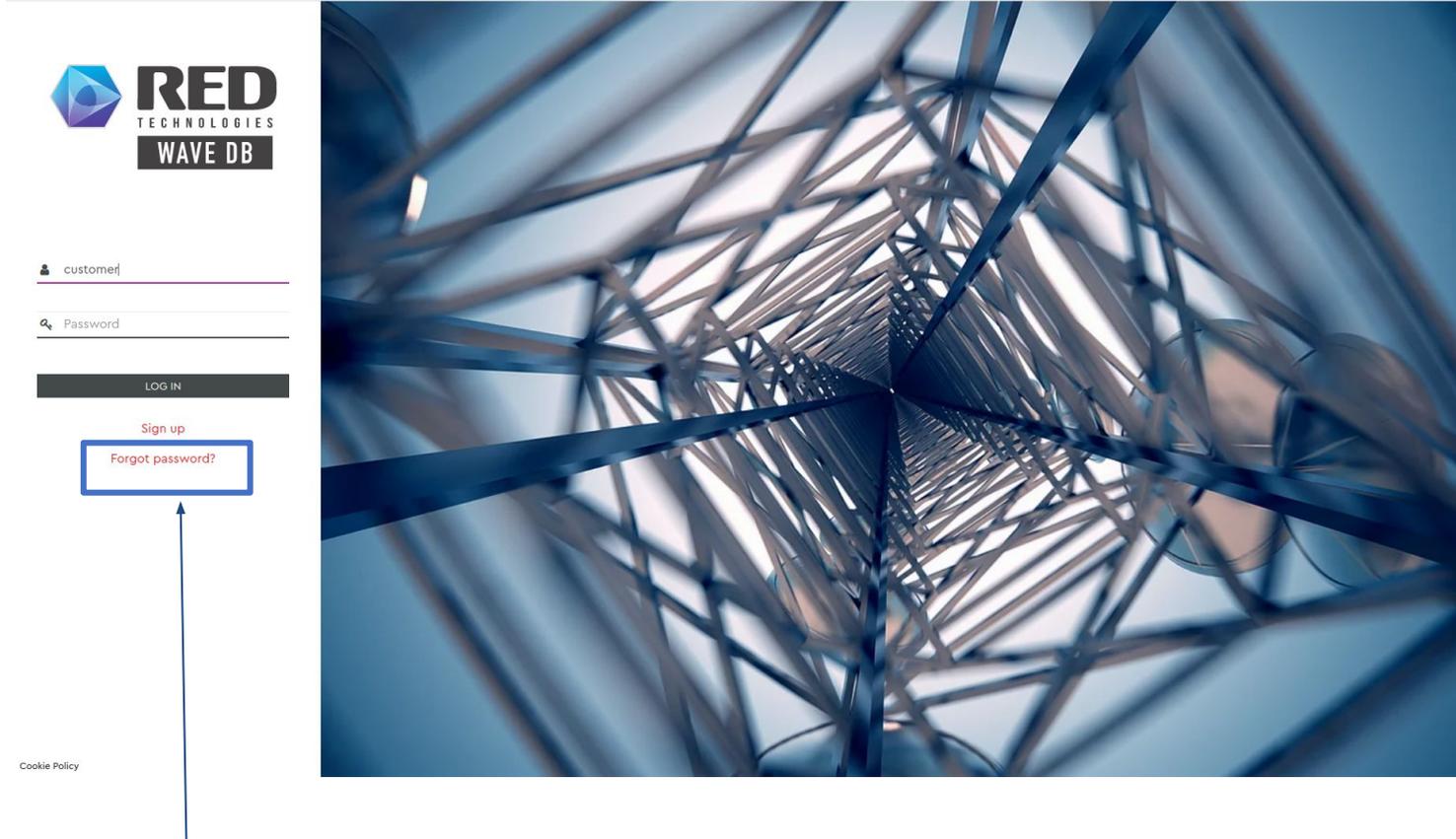
- Go to <https://welcome.wavedb.com/login> (USA, UK), <https://canada-welcome.wavedb.com/login> (Canada)
- Enter your username and password and click **LOG IN**.

iii. Log In as an Existing User(2/2)



- A one-time secret code has been sent to your registered email address.
- Enter the secret code and click on **SUBMIT**.

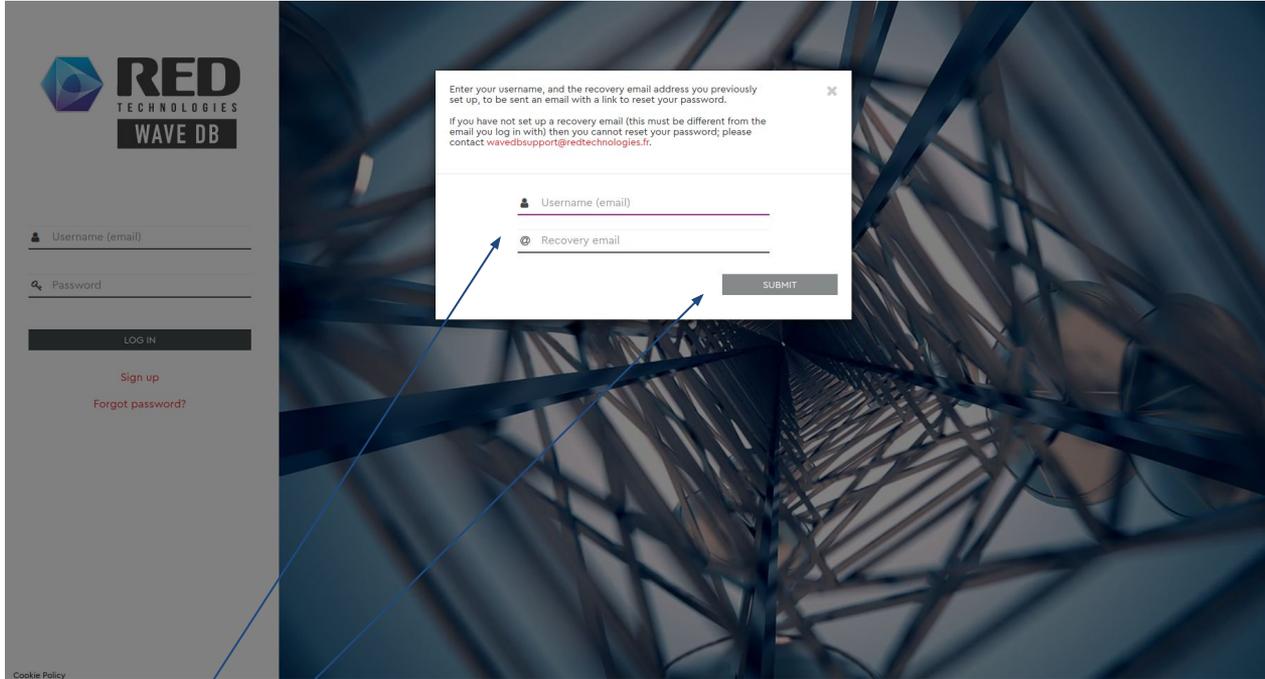
iv. Forgot password(1/5)



The image shows a login page for RED Technologies Wave DB. The page features the company logo in the top left, followed by a username field containing 'customer', a password field, and a 'LOG IN' button. Below the login fields, there are links for 'Sign up' and 'Forgot password?'. The 'Forgot password?' link is highlighted with a blue rectangular box, and a blue arrow points from the bottom of this box towards the text. At the bottom left of the page, there is a 'Cookie Policy' link. The right side of the image is a large, abstract background image of a blue and white geometric structure, possibly a tower or a complex framework.

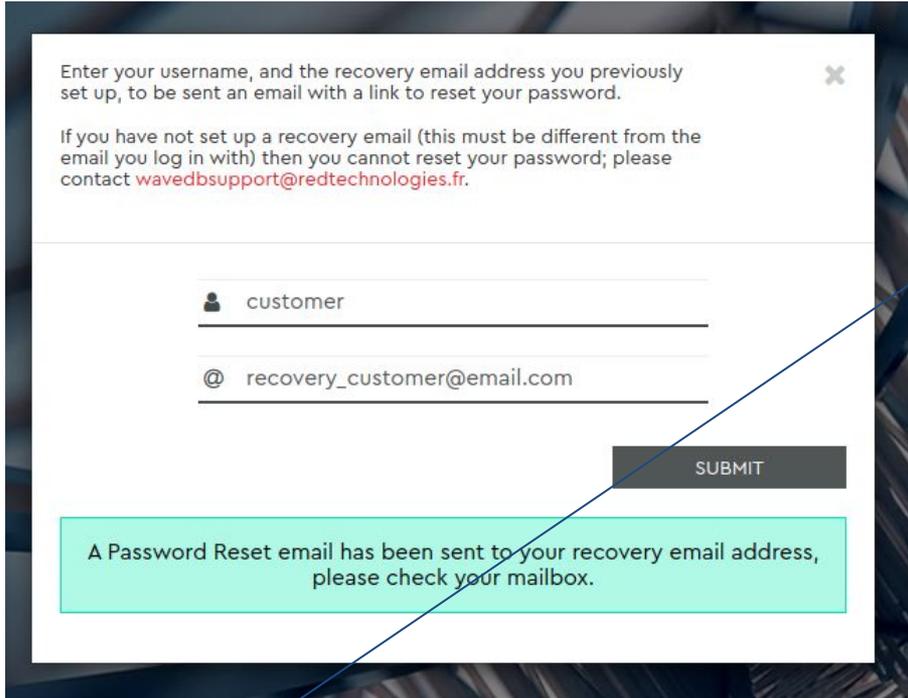
- Click on **Forgot password**.

iv. Forgot password(2/5)



- Enter your username, recovery Email address that you provided while registering your account in the popup.
- Click on **SUBMIT** after providing the details.

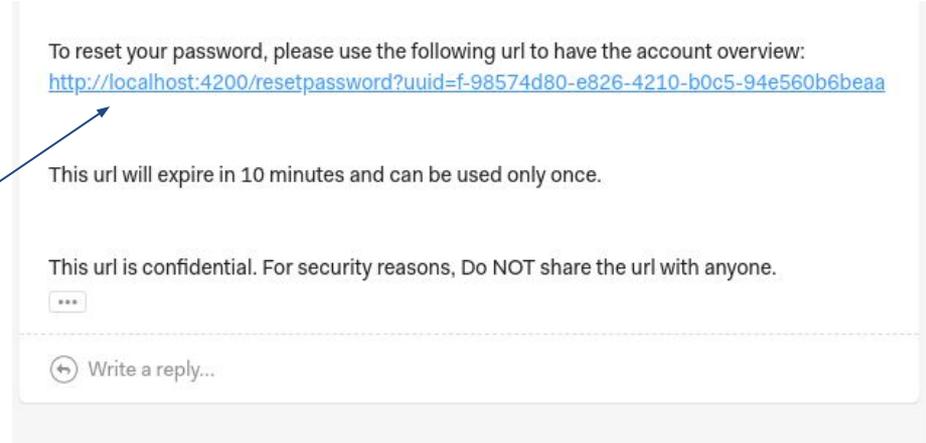
iv. Forgot password(3/5)



Enter your username, and the recovery email address you previously set up, to be sent an email with a link to reset your password.

If you have not set up a recovery email (this must be different from the email you log in with) then you cannot reset your password; please contact wavedbsupport@redtechnologies.fr.

A Password Reset email has been sent to your recovery email address, please check your mailbox.



To reset your password, please use the following url to have the account overview:
<http://localhost:4200/resetpassword?uuid=f-98574d80-e826-4210-b0c5-94e560b6beaa>

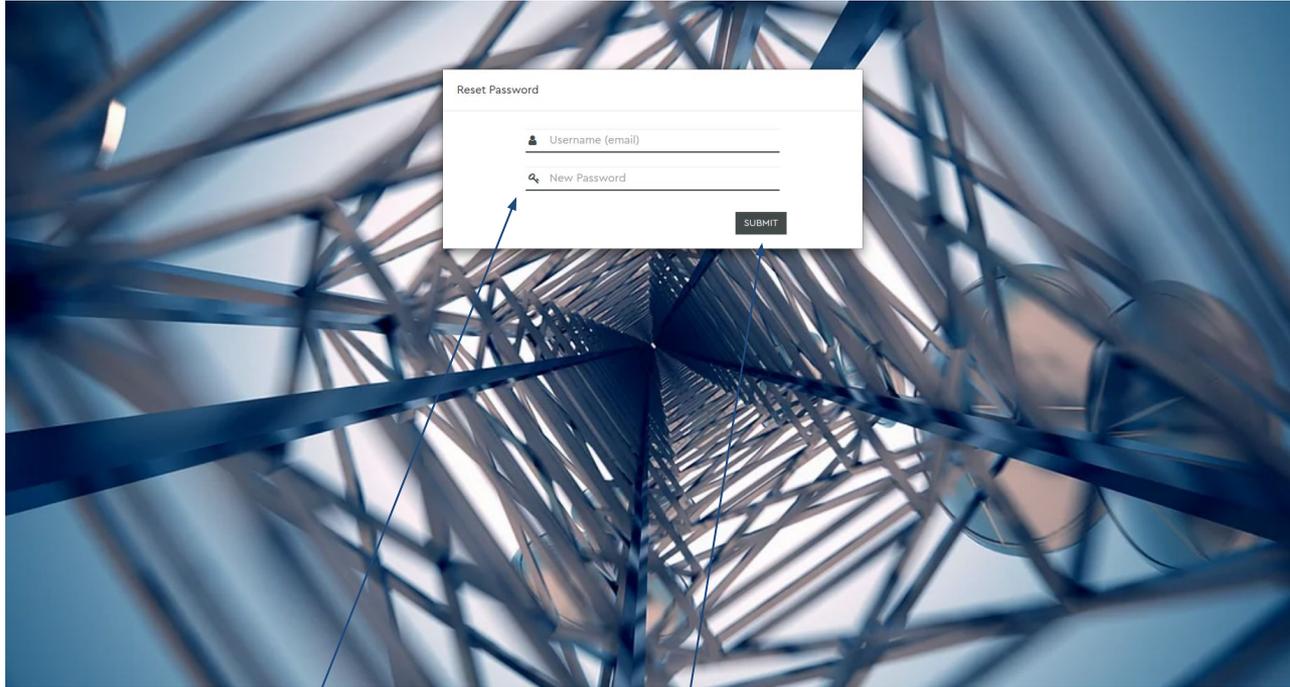
This url will expire in 10 minutes and can be used only once.

This url is confidential. For security reasons, Do NOT share the url with anyone.

...

- A **link** will be sent to the recovery email address as shown above.

iv. Forgot password(4/5)



Reset Password

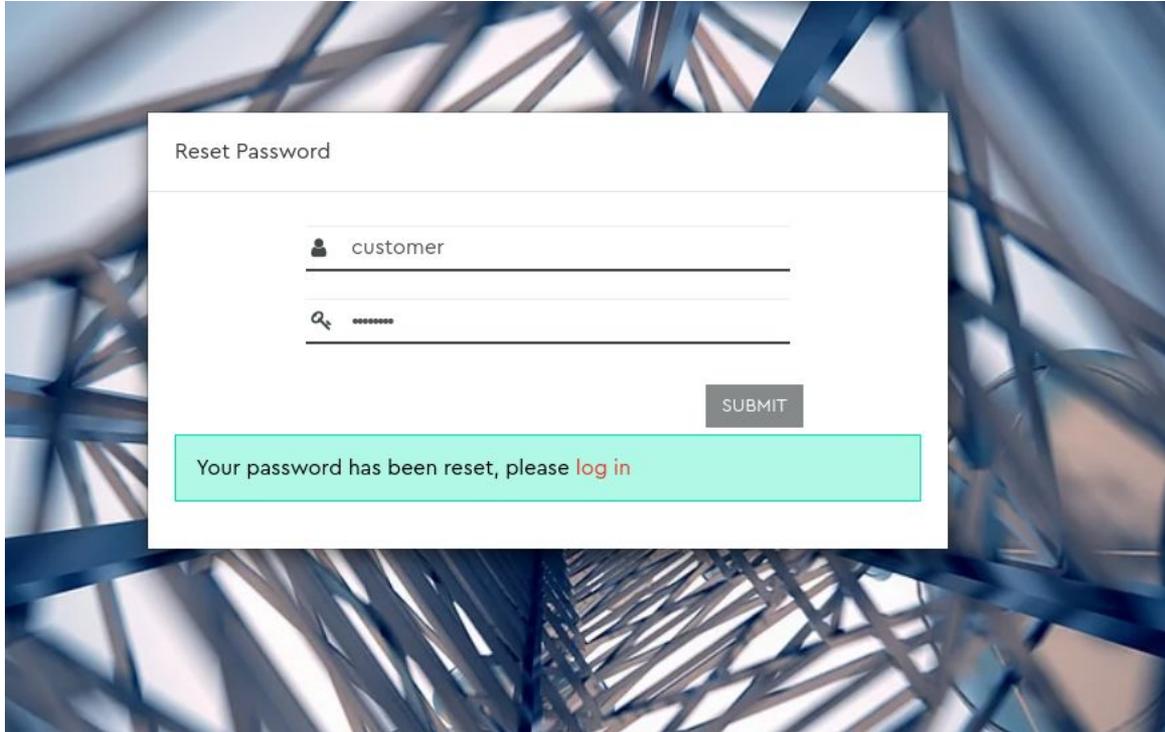
Username (email)

New Password

SUBMIT

- By clicking on the link provided in email, you will be redirected to a page where you can enter your existing username/email and your **new password**.
- After giving the current username, new password click on **SUBMIT**.

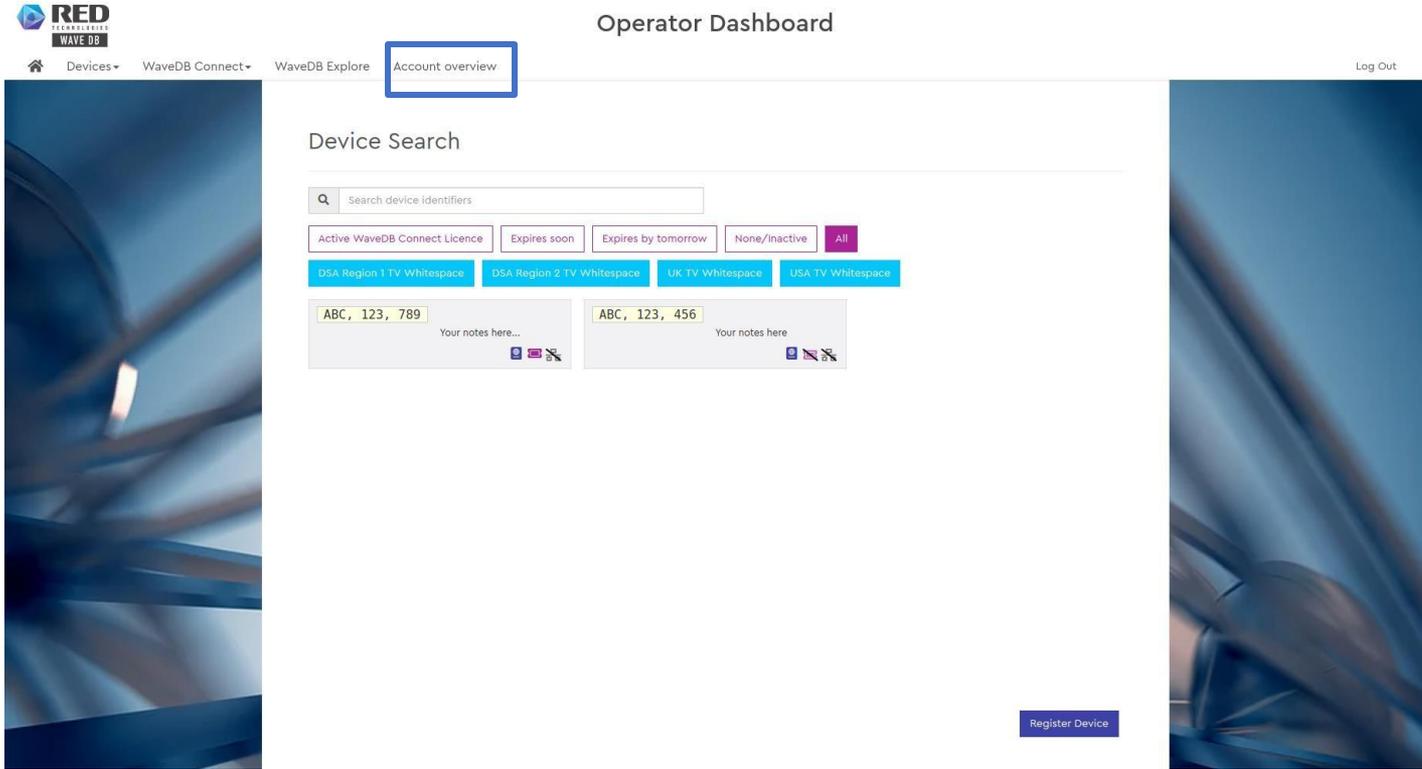
iv. Forgot password(5/5)



The image shows a 'Reset Password' form with two input fields. The first field contains the text 'customer' and is preceded by a user icon. The second field contains a series of dots and is preceded by a magnifying glass icon. A 'SUBMIT' button is located to the right of the second field. Below the form, a light green message box contains the text: 'Your password has been reset, please [log in](#)'.

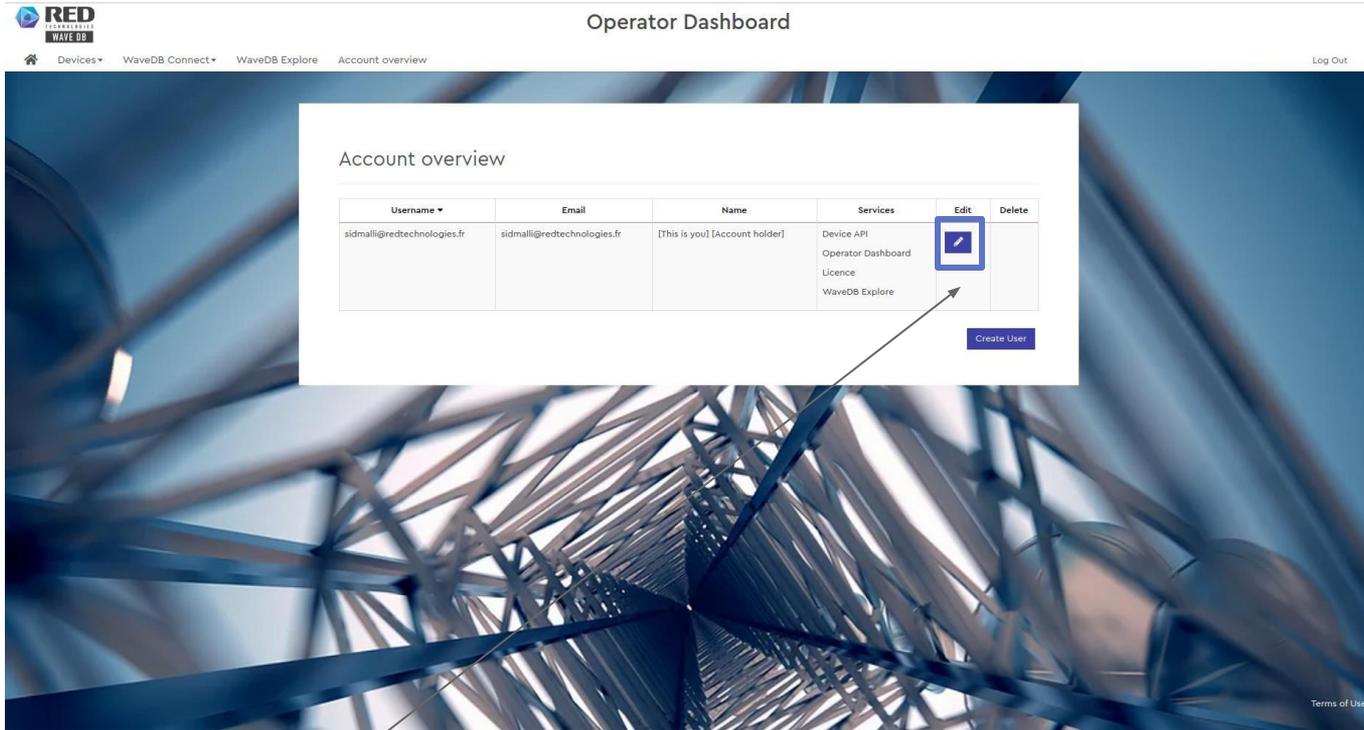
- Once you see that change of password is successful, you can login with your new password.

v. Account overview(1/3)



- You are on home page of WaveDB click on Account overview.

v. Account overview(2/3)



Operator Dashboard

Devices* WaveDB Connect* WaveDB Explore Account overview Log Out

Account overview

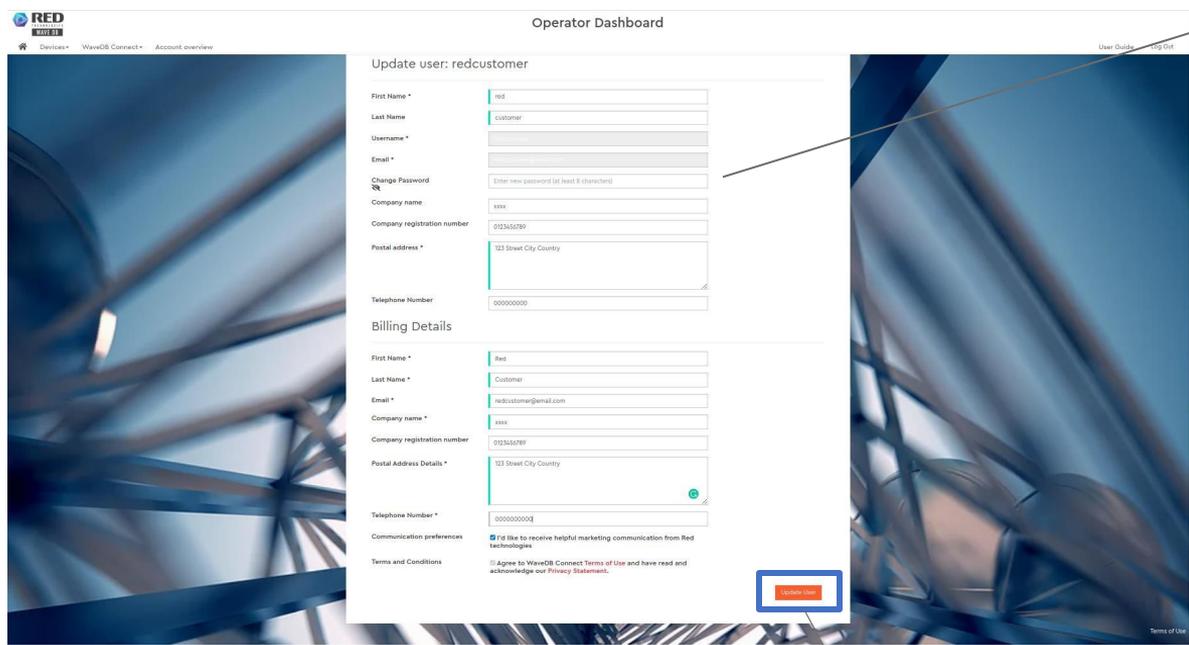
Username ▼	Email	Name	Services	Edit	Delete
sidmall@redtechnologies.fr	sidmall@redtechnologies.fr	[This is you] [Account holder]	Device API Operator Dashboard Licence WaveDB Explore		

Create User

Terms of Use

- You will find your account information here and you can also edit details by clicking on **Edit** button next.

v. Account overview(3/3)



- If you wish to change your password, enter your new password in the **Change Password** field and proceed to click on **Update User** button.

vi. Create a child user(1/2)

The screenshot shows the 'Operator Dashboard' interface. At the top left is the RED Technologies logo with 'WAVE DB' below it. The navigation menu includes 'Devices', 'WaveDB Connect', 'WaveDB Explore', and 'Account overview'. A 'Log Out' link is in the top right. The main content area is titled 'Account overview' and contains a table with user information. A 'Create User' button is highlighted with a blue box in the bottom right corner of the table area.

Username ▾	Email	Name	Services	Edit	Delete
sidmall@redtechnologies.fr	sidmall@redtechnologies.fr	[This is you] [Account holder]	Device API Operator Dashboard Licence WaveDB Explore		

Create User

- Click on **Create User**.

vi. Create a child user(2/2)

Operator Dashboard

RED
WAVE DB

Devices ▾ WaveDB Connect ▾ Subscriptions Account overview User Guide Log Out

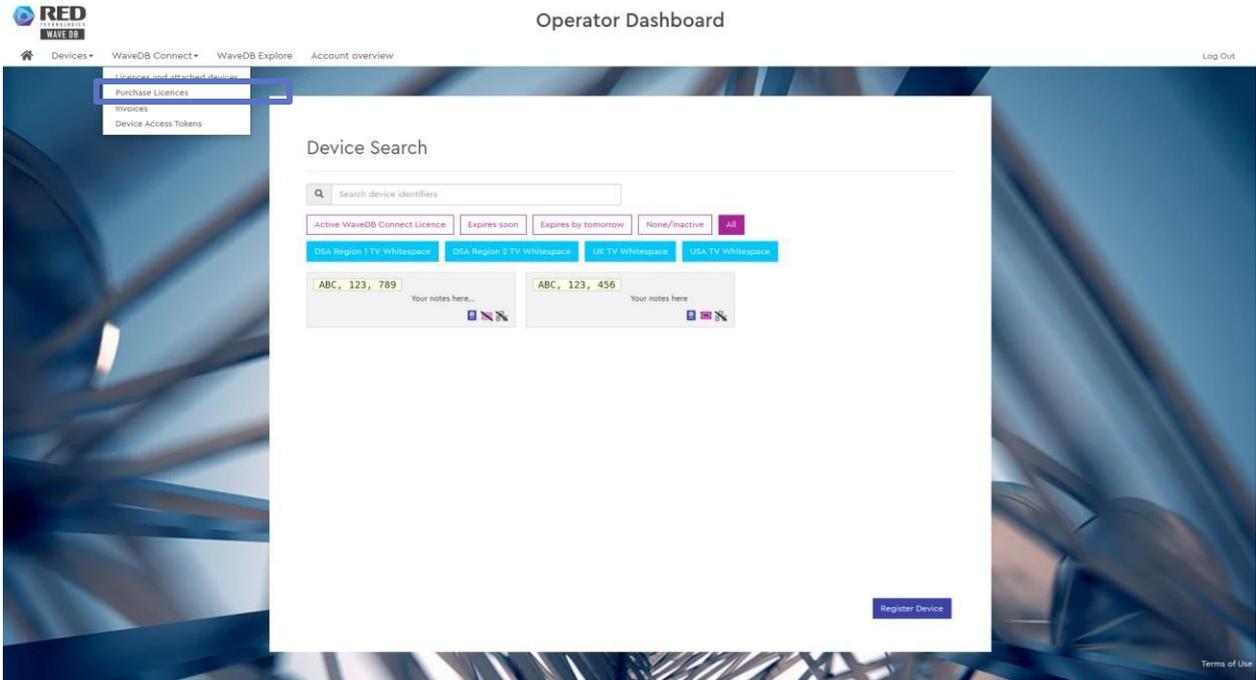
Add New Child User

First Name *	<input type="text" value="test"/>
Last Name	<input type="text" value="child"/>
Username *	<input type="text" value="testchild@email.com"/>
Email *	<input type="text" value="testchild@email.com"/>
Create Password *	<input type="password" value=""/>
Company name	<input type="text" value="company"/>
Company registration number	<input type="text" value="1234567890"/>
Postal address *	<input type="text" value="123 street city country"/>
Telephone Number	<input type="text" value="0987654321"/>

Terms of Use

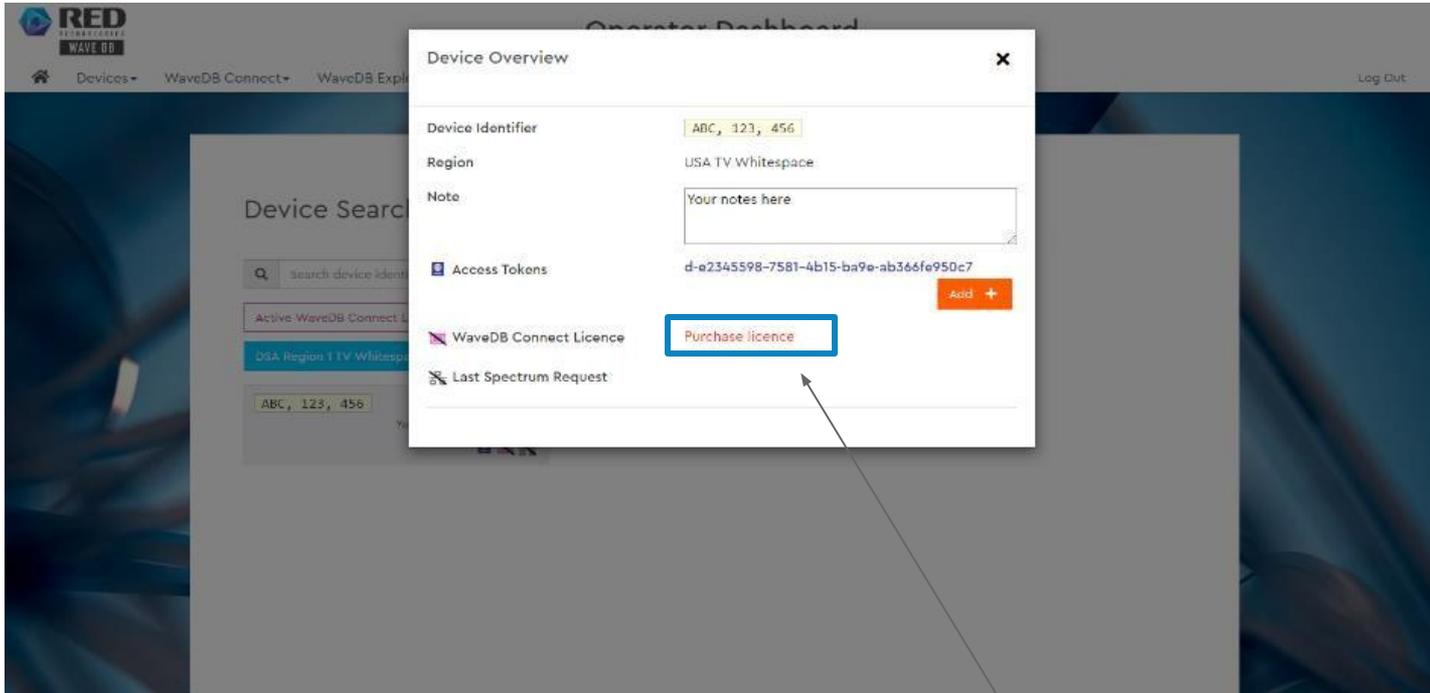
- Fill in the mandatory details and click on **Create User**.

vii. Purchase licence(1/4)



- You can find purchase licence in **WaveDB Connect** drop down, click on **Purchase licences**.

vii. Purchase licence (while registering device)(2/4)



- You can also purchase a licence while registering a device by clicking on **Purchase licence**.

vii. Purchase licence(3/4)

Operator Dashboard

Purchase WaveDB Connect Licences

Pricing Plan	Max Devices	Duration	Region	Price per Licence
RED USA monthly plan	1 = BASE ∞ = CLIENT	1 calendar month	USA TV Whitespace	\$20.00
RED UK monthly plan	1 = BASE ∞ = CLIENT	1 calendar month	UK TV Whitespace	£20.00

Operator Dashboard

Purchase Licence on UK Partner 6m Plan

Order summary

Product	Licence on UK Partner 6m Plan
Number of Licences	1
Duration	6 MONTHS
Price	£8.00
Total amount	£8.00

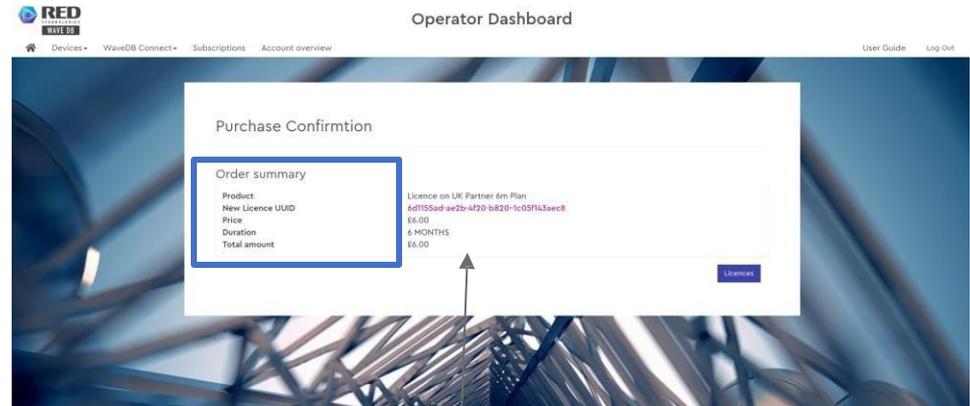
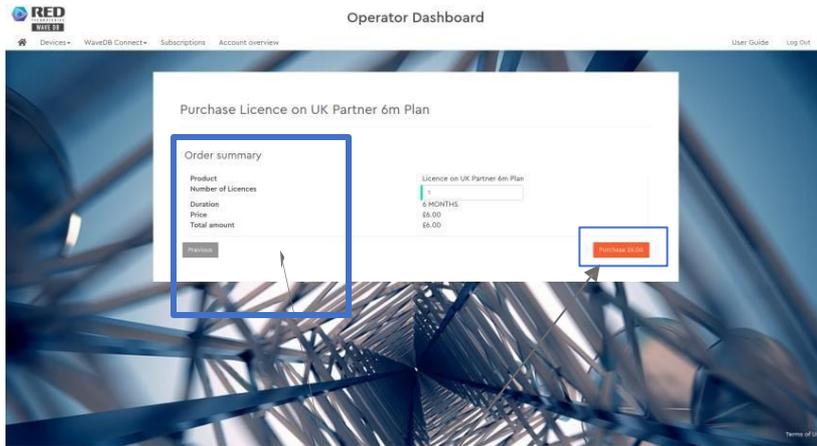
Previous Purchase £8.00

>> You must purchase a licence for each base station.

>> More than one Client device can be attached to a licence.

- Click **Purchase** to purchase the licence you want; the **Payment** procedure will move forward.

vii. Purchase licence(4/4)



- Verify the **Order summary**.
- Click on **Pay \$** amount (where the amount is what you pay), the **Purchase Confirmation** window will open.

NOTE: Users will be invoiced for every licence that is purchased whether it is attached to a device or not.

viii. Invoices(1/1)

The screenshot displays the 'Operator Dashboard' for RED Technologies. The navigation bar includes 'Devices', 'WaveDB Connect', 'WaveDB Explore', and 'Account overview'. The main content area is titled 'Invoices' and is divided into two sections: 'Future Invoice' and 'Past Invoices'. The 'Future Invoice' section shows two entries, each with a total amount of £20.00, representing licenses from the RED UK and RED USA monthly plans. The 'Past Invoices' section indicates that no invoices have yet been raised. A 'Terms of Use' link is visible in the bottom right corner of the dashboard area.

Operator Dashboard

RED TECHNOLOGIES

Devices WaveDB Connect WaveDB Explore Account overview Log Out

Invoices

Future Invoice

Total amount: £20.00

- 1 × licence from RED UK monthly plan @ £20.00

Total amount: £20.00

- 1 × licence from RED USA monthly plan @ £20.00

Past Invoices

No invoices have yet been raised.

Terms of Use

- This page has all the invoices information.

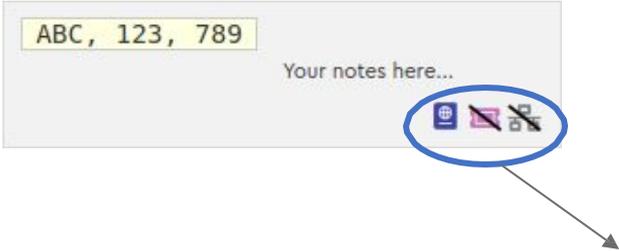
ix. Device search(1/2)

- You are on your Operator Dashboard "Device Search" window.
- If you have not yet registered any device, a message to that effect will appear.
- If you have registered devices, they will appear here.

The screenshot displays the 'Operator Dashboard' for RED Technologies. The navigation bar includes 'Devices', 'WaveDB Connect', 'WaveDB Explore', and 'Account overview'. The 'Device Search' window is open, featuring a search input field labeled 'Search device identifiers'. Below the search field are filter buttons for 'Active WaveDB Connect Licence', 'Expires soon', 'Expires by tomorrow', 'None/inactive', and 'All'. Further down, there are buttons for 'DSA Region 1 TV Whitespace', 'DSA Region 2 TV Whitespace', 'UK TV Whitespace', and 'USA TV Whitespace'. Two search results are visible, each with a device identifier (e.g., 'ABC, 123, 789') and a 'Your notes here...' field with a text input and a 'Save' icon.

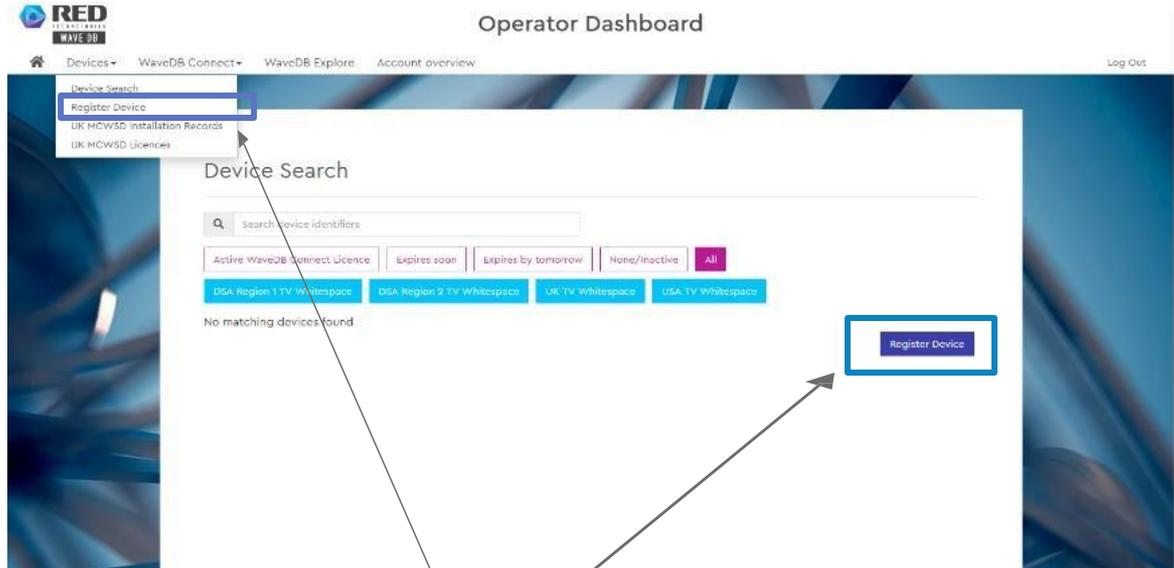
>> You can also filter the devices based on regions(UK/USA/Canada only if you have devices registered across these locations mentioned), licence status(Active/inactive/expires soon/expires by tomorrow).

ix. Device search(2/2)



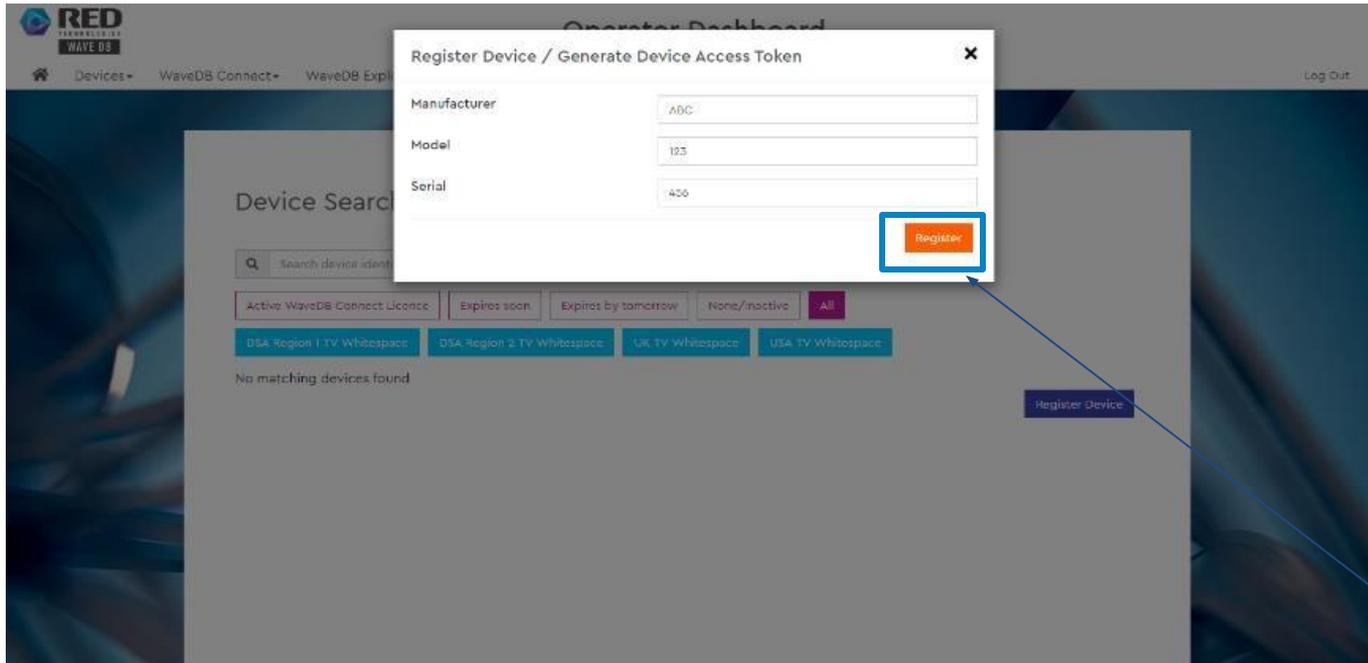
Exists	Condition	Doesn't exist
	Token associated	
	Licence associated	
	Contact with database (PAWS request)	

x. Register Device and Generate Token(1/3)



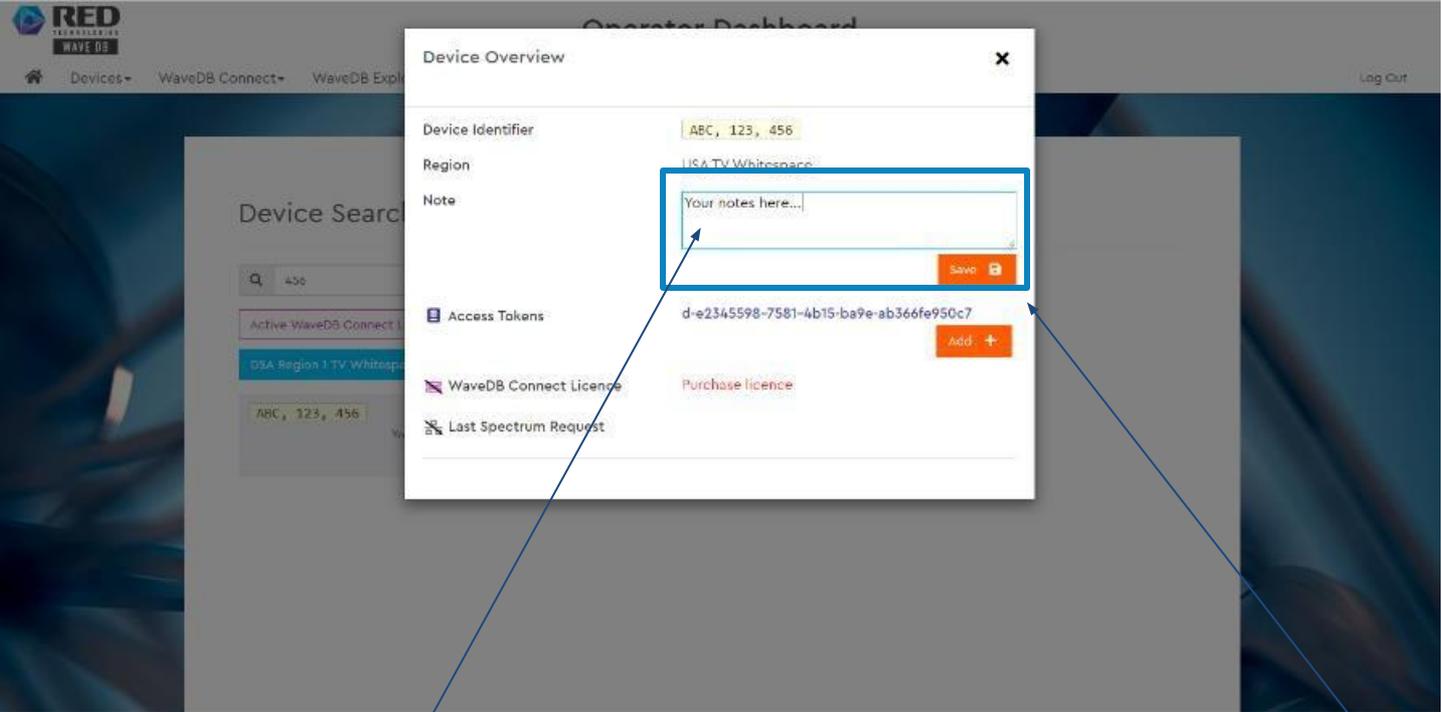
- To register a new device, click on **Register Device**.
- >> *The register Device window will open.*
- >> *You must register all devices – base stations and client devices.*
- >> *You purchase a licence for a base station and can attach unlimited client devices.*

x. Register Device and Generate Token(2/3)



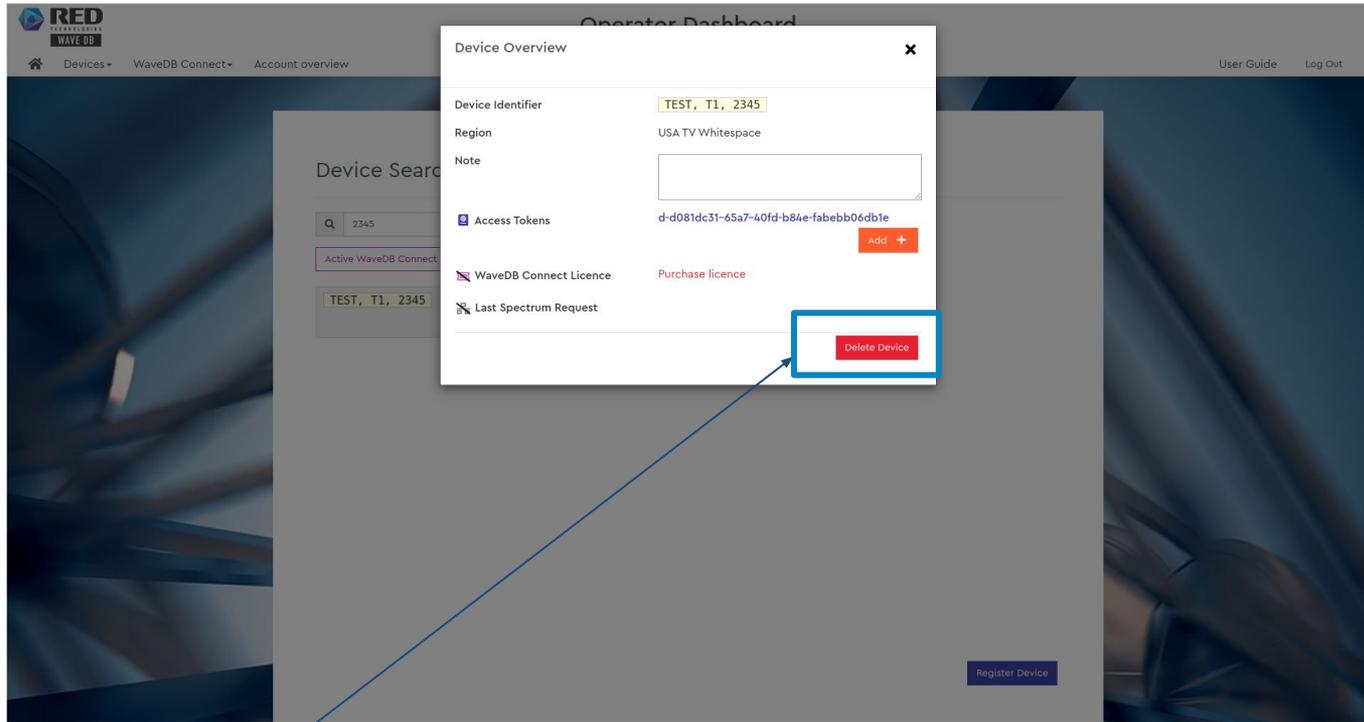
- Enter the name of the manufacturer of the device, its model and its serial, Click on **Register**.
>> *The token associated to the device is generated and displayed.*

x. Register Device and Generate Token(3/3)



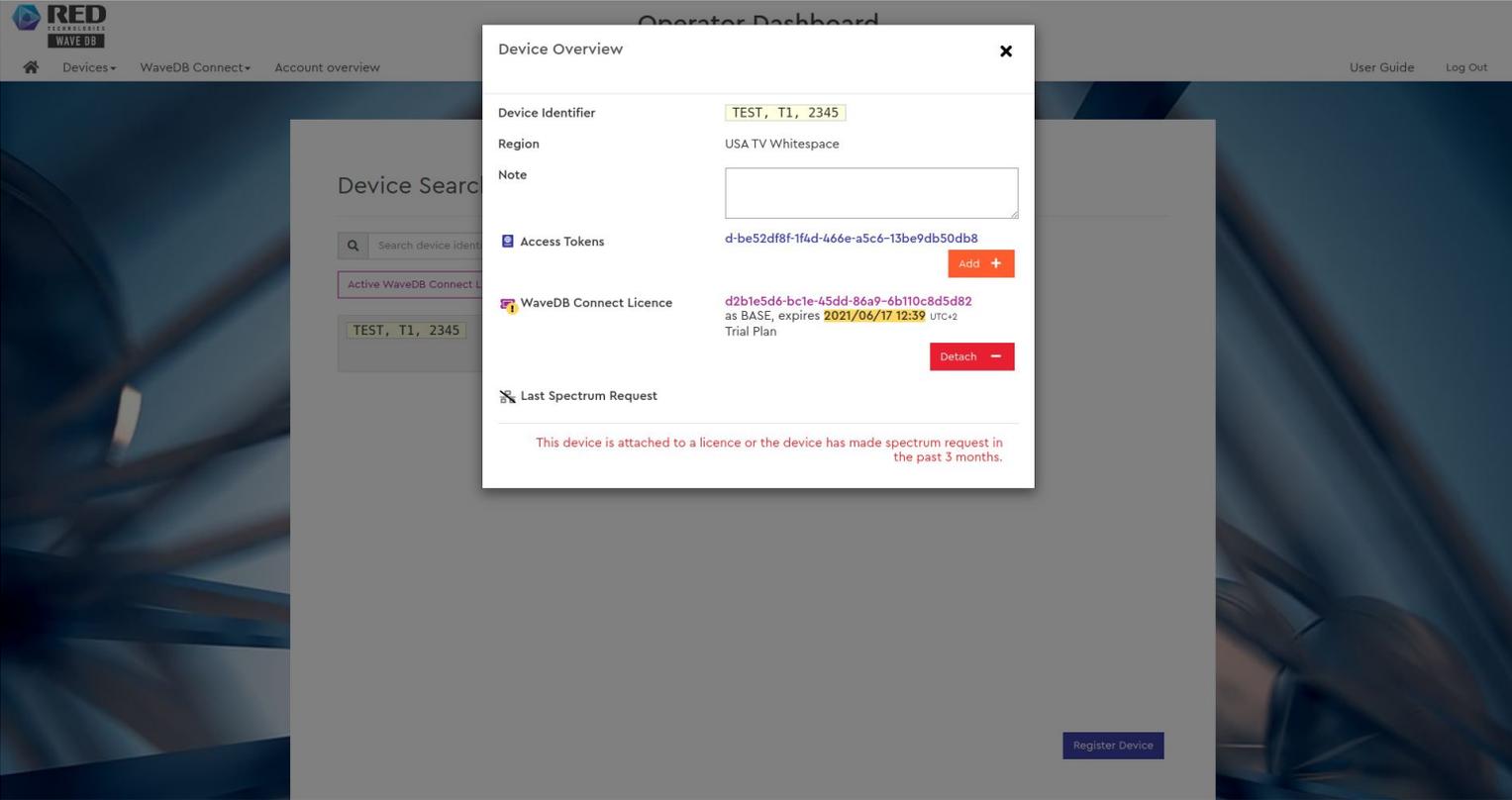
- Add an optional **Note** (e.g. Operator name, address or location) and click on **save**.

xi. Delete Device(1/2)



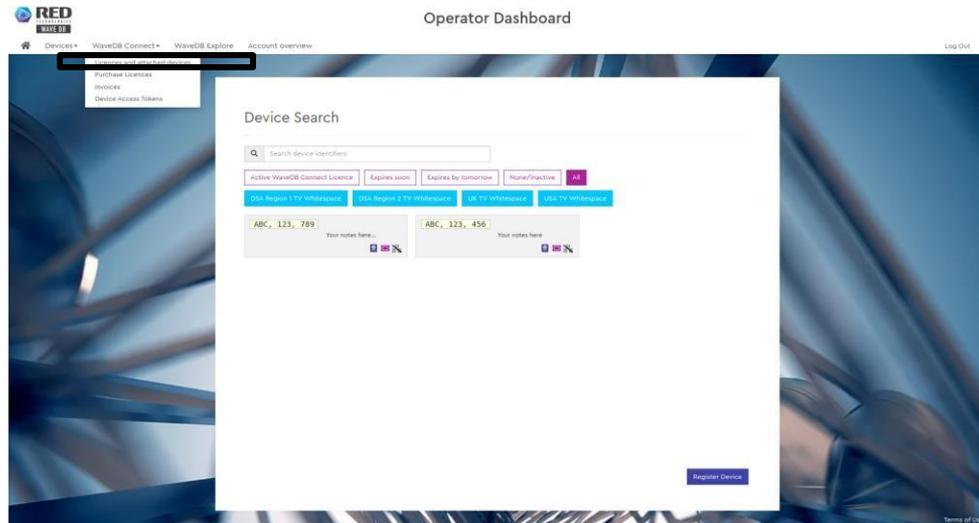
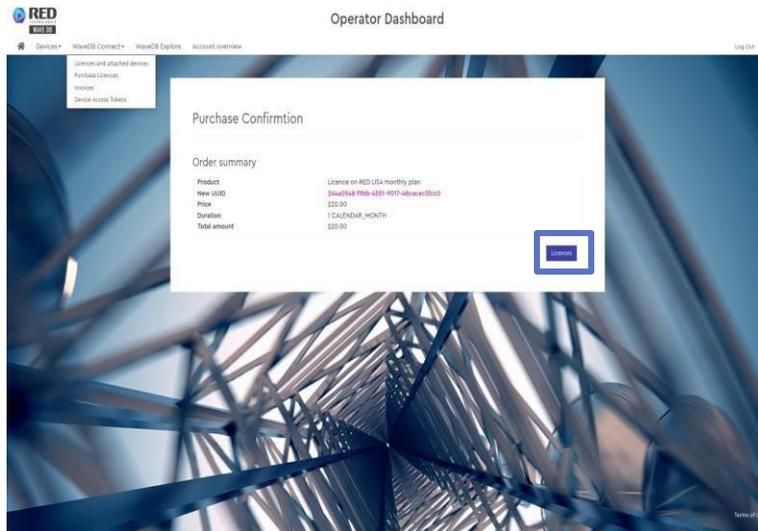
- Click on the **Delete Device** button to delete the device.

xi. Delete Device(2/2)



- **NOTE:** If the device made any spectrum request in past 3 months or If it is attached to a licence, the device cannot be deleted.

xii. Attach devices to licences(1/6)



- From the Operator Dashboard, select **Licences and attached devices** from the pull-down menu, or
- From the **Purchase confirmation** window, click on **Licences**.

xii. Attach devices to licences(2/6)

Operator Dashboard

WaveDB Connect Licences

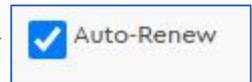
Search Licence Id

Active Expires soon Expires by tomorrow Inactive All

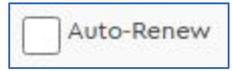
Licence ID Short Full	Pricing plan	Attached Devices	Start UTC+2	End UTC+2	Toggle Auto-Renewal
9d2f34d	RED Customer 1m Plan	0 of 1 BASEs 0 of 100 CLIENTs	2020/09/17 15:57	2020/10/17 15:57	<input checked="" type="checkbox"/> Auto-Renew
beb8a500	RED Customer 1m Plan	0 of 1 BASEs 0 of 100 CLIENTs	2020/09/17 15:59	2020/10/17 15:59	<input checked="" type="checkbox"/> Auto-Renew
7cb13ea7	UK Partner 6m Plan	0 of 1 DEVICES	2020/09/24 17:45	2021/03/24 16:45	<input checked="" type="checkbox"/> Auto-Renew
530af21d	UK Partner 6m Plan	0 of 1 DEVICES	2020/09/25 11:27	2021/03/25 10:27	<input checked="" type="checkbox"/> Auto-Renew
f7b9b0c4	UK Partner 6m Plan	0 of 1 DEVICES	2020/09/25 11:39	2021/03/25 10:39	<input checked="" type="checkbox"/> Auto-Renew
74a9e69c	UK Partner 6m Plan	0 of 1 DEVICES	2020/09/25 11:51	2021/03/25 10:51	<input checked="" type="checkbox"/> Auto-Renew
6d1155ad	UK Partner 6m Plan	0 of 1 DEVICES	2020/09/25 17:15	2021/03/25 16:15	<input type="checkbox"/> Auto-Renew
7d9a727d	UK test	0 of 5 BASEs 0 of 100 CLIENTs	2020/09/25 11:55	2021/09/25 11:55	<input type="checkbox"/> Auto-Renew

i To use the WaveDB Connect White Space Database (WSDB), you must purchase licences. For your White Space Devices (WSDs) to contact the WSDB using the PAWS protocol, you must attach each device to one of your licences. You will be invoiced quarterly for any licences you purchase.

Attach Device to Licence Purchase Licences



- These licences will be auto-renewed every month.



- These licences will not be renewed for the coming month.

- The **WaveDB Connect Licences** window will open.
- >> *The licences you have purchased will appear here.*

xii. Attach devices to licences(3/6)



WaveDB Connect Licences

Search Licence id

Active Expires soon Expires by tomorrow Inactive All

Licence ID <small>Short Full</small>	Pricing plan	Attached Devices	Start UTC+2	End UTC+2	Toggle Auto-Renew
9d2f34f	RED Customer 1m Plan	0 of 1 BASEs 0 of ∞ CLIENTs	2020/09/17 15:57	2020/10/17 15:57	<input checked="" type="checkbox"/> Auto-Renew
beb8a520	RED Customer 1m Plan	0 of 1 BASEs 0 of ∞ CLIENTs	2020/09/17 15:59	2020/10/17 15:59	<input checked="" type="checkbox"/> Auto-Renew
7cb13ea7	UK Partner 6m Plan	0 of 1 DEVICEs	2020/09/24 17:45	2021/03/24 16:45	<input checked="" type="checkbox"/> Auto-Renew
530af21d	UK Partner 6m Plan	0 of 1 DEVICEs	2020/09/25 11:27	2021/03/25 10:27	<input checked="" type="checkbox"/> Auto-Renew
7fb9b0c4	UK Partner 6m Plan	0 of 1 DEVICEs	2020/09/25 11:39	2021/03/25 10:39	<input checked="" type="checkbox"/> Auto-Renew
74a9e69c	UK Partner 6m Plan	0 of 1 DEVICEs	2020/09/25 11:51	2021/03/25 10:51	<input checked="" type="checkbox"/> Auto-Renew
6d1155ad	UK Partner 6m Plan	0 of 1 DEVICEs	2020/09/25 17:15	2021/03/25 16:15	<input type="checkbox"/> Auto-Renew
7d9a727d	UK test	0 of 5 BASEs 0 of 100 CLIENTs	2020/09/25 11:55	2021/09/25 11:55	<input type="checkbox"/> Auto-Renew

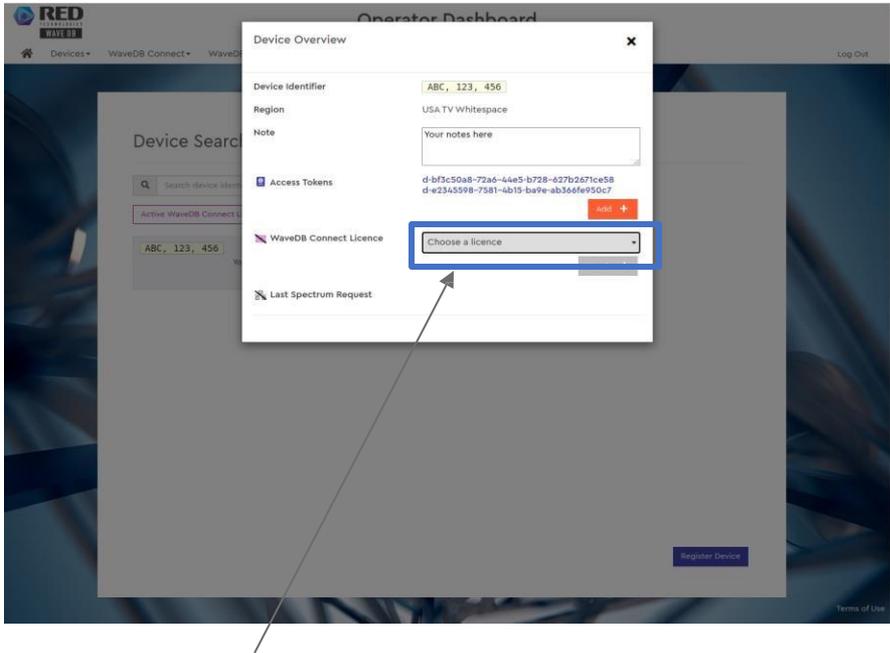
i To use the WaveDB Connect White Space Database (WSDB), you must purchase licences. For your White Space Devices (WSDs) to contact the WSDB using the PAWS protocol, you must attach each device to one of your licences. You will be invoiced quarterly for any licences you purchase.

Attach Device to Licence Purchase Licences

User can either choose to **auto-renew** or **stop renewal** of a licence by clicking on this checkbox

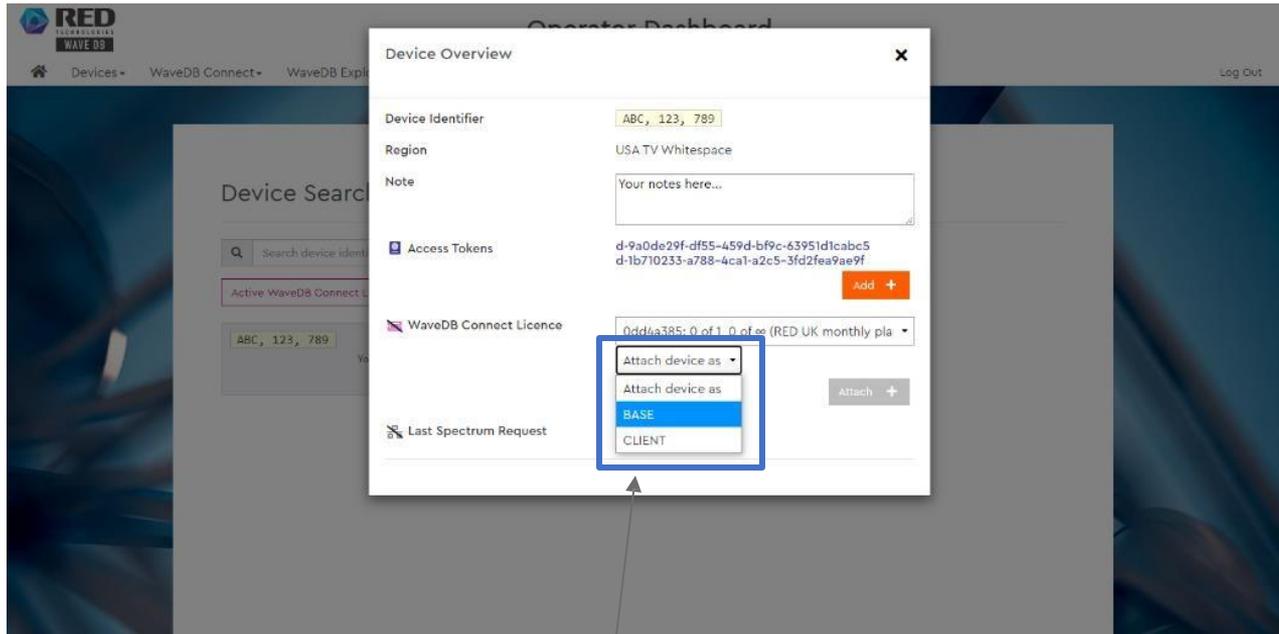
- To purchase more licences, click **Purchase Licences**.
- To attach devices to a licence, click on **Attach Device to Licence**, the **Device Overview** window will appear.

xii. Attach devices to licences(4/6)



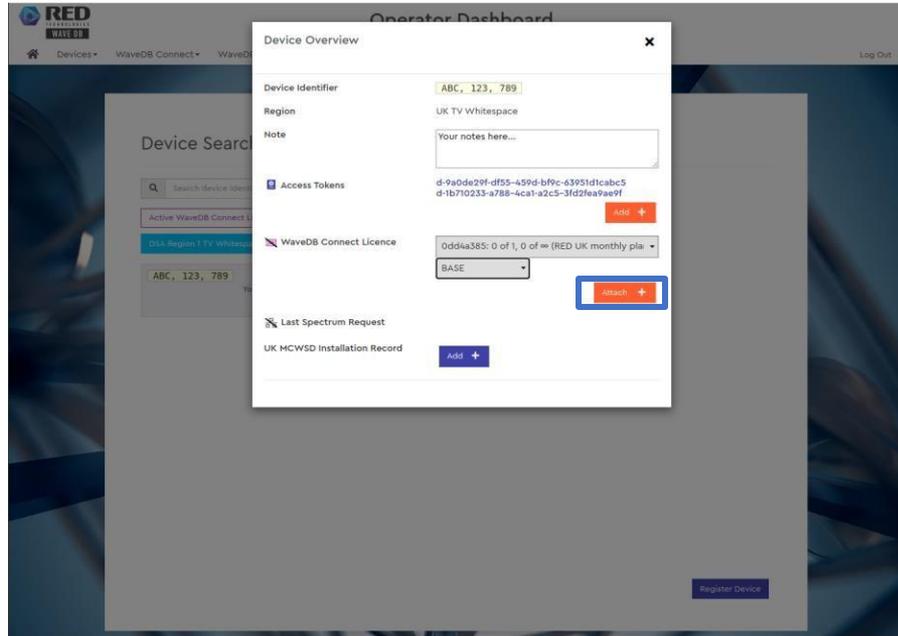
- Choose from the **"Choose a licence"** drop down a licence that you must attach to the device.

xii. Attach devices to licences(5/6)



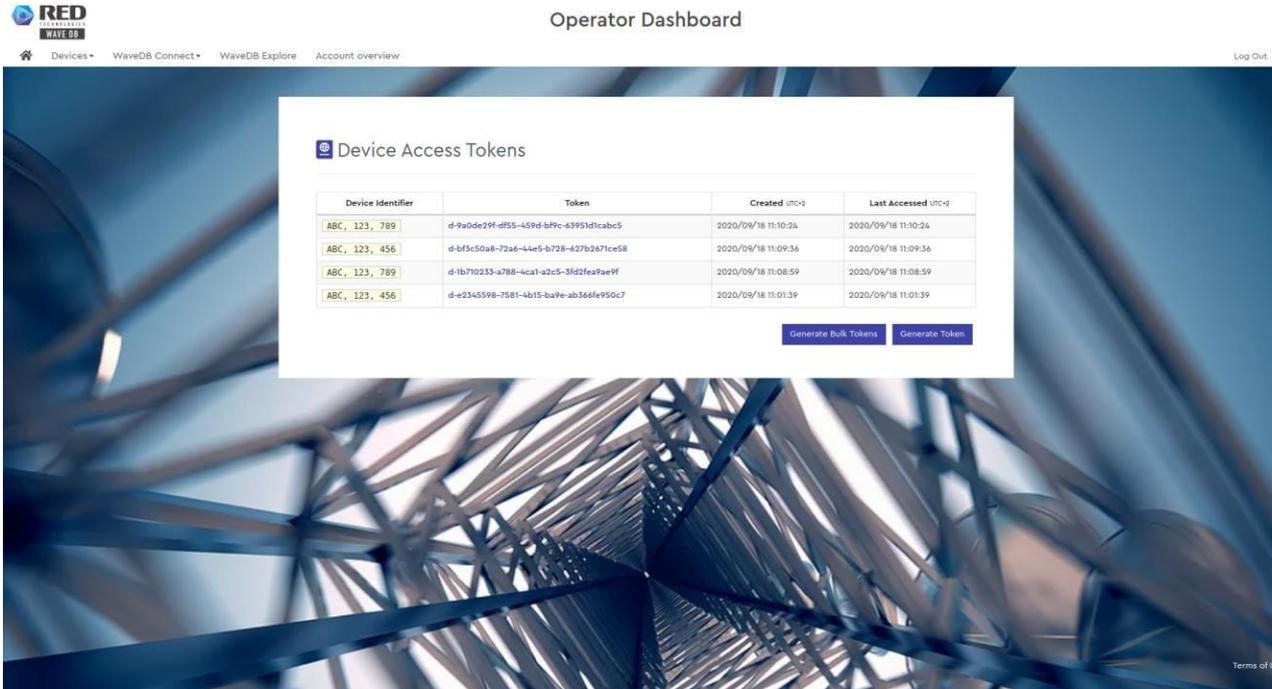
- Choose device type from "**Attach device as**" drop down.
>> Choose **BASE** for a base station.
>> Choose **CLIENT** for a client device(e.g. CPE).

xii. Attach devices to licences(6/6)



- Click **Attach+**
 - >> The licence will be attached to the indicated device, the **Device Overview** window will be updated.
 - >> You must attach a licence to each device, including client devices.
 - >> You will need to configure your base station (and possibly client devices with the associated **Tokens**).

xiii. Device access tokens(1/2)



Operator Dashboard

RED WAVE DB

Devices • WaveDB Connect • WaveDB Explore Account overview Log Out

Device Access Tokens

Device Identifier	Token	Created UTC-1	Last Accessed UTC-1
ABC, 123, 789	d-9a0de29f-df55-459d-bf9c-63951d1cabc5	2020/09/18 11:10:24	2020/09/18 11:10:24
ABC, 123, 456	d-bf3c50a8-72a6-44e5-b728-627b2671ce58	2020/09/18 11:09:36	2020/09/18 11:09:36
ABC, 123, 789	d-1b710233-a788-4ca1-a2c5-3fd2fe9ae9f	2020/09/18 11:08:59	2020/09/18 11:08:59
ABC, 123, 456	d-e2345598-7581-4b15-ba9e-ab366fa950c7	2020/09/18 11:01:39	2020/09/18 11:01:39

Generate Bulk Tokens Generate Token

Terms of Use

- You will find this page in **WaveDB Connect** drop down under the option **Device Access Tokens**.
- This page has information of all the tokens and devices attached to those tokens.
- Generate a new token on clicking "**Generate Token**" button. (this will lead you to device registration page).

xiii. Device access tokens(2/2)

The screenshot displays the RED WAVE DB interface. A pop-up dialog titled "Generate Bulk Access Tokens" is centered on the screen. The dialog contains the following text: "Please ensure that the file is in csv format with the following headers: manufacturer, model, serial." Below this text is a section labeled "Upload .csv file" with a "Choose File" button and the text "No file chosen".

Below the pop-up, a table titled "Device Access Tokens" is visible. The table has the following columns: "Device Identifier", "Token", "Created (UTC)", and "Last Accessed (UTC-2)".

Device Identifier	Token	Created (UTC)	Last Accessed (UTC-2)
ABC, 123, 789	d-9a0de29f-df55-439d-bf9c-6395d1cabcb5	2020/09/18 11:10:24	2020/09/18 11:10:24
ABC, 123, 456	d-bf3c50a8-72a6-44e5-b728-627b267fce58	2020/09/18 11:09:36	2020/09/18 11:09:36
ABC, 123, 789	d-1b710233-a788-4ca1-a2c5-3fd2fe9ae9f	2020/09/18 11:08:59	2020/09/18 11:08:59
ABC, 123, 456	d-e2345598-7581-4b15-ba9e-ab364fe950c7	2020/09/18 11:01:39	2020/09/18 11:01:39

At the bottom of the table, there are two buttons: "Generate Bulk Tokens" and "Generate Token".

- To generate bulk tokens upload a file by following the instruction mentioned in the pop-up.

WaveDB Support

For support inquiries, please mail to wavedbsupport@redtechnologies.fr



RED

T E C H N O L O G I E S

WAVE DB

Thank you