



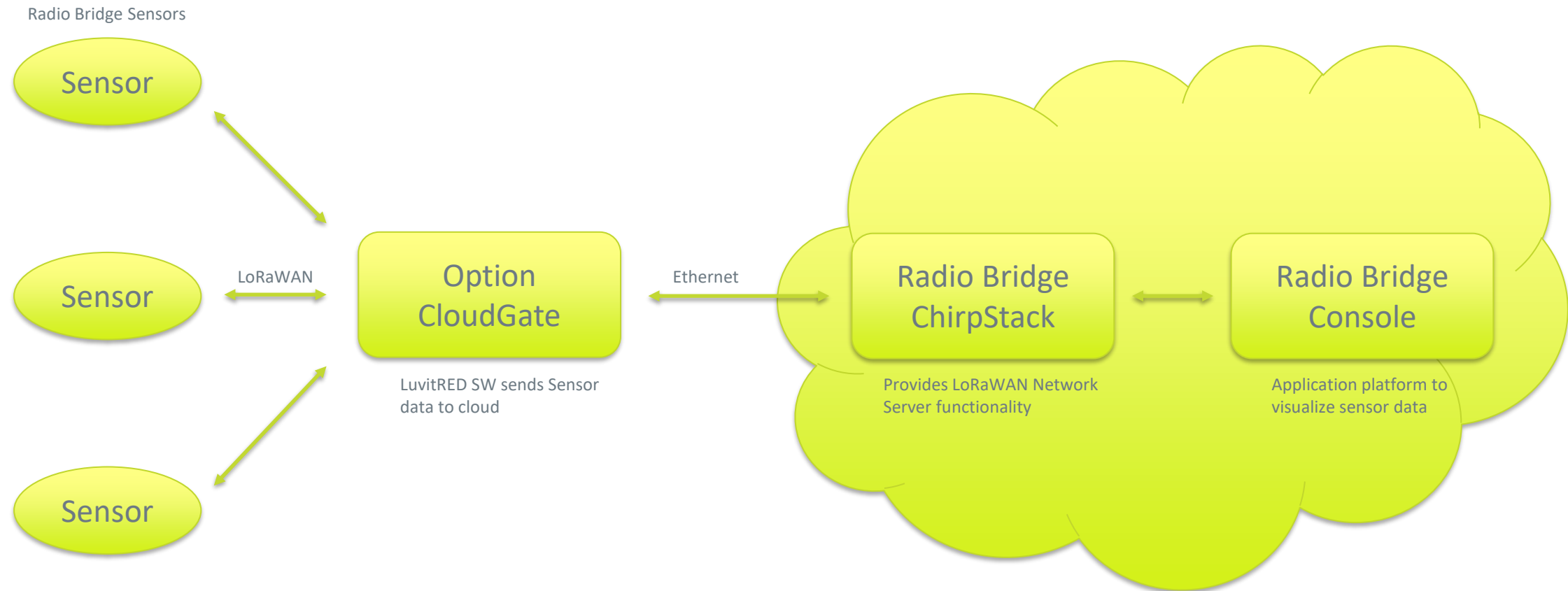
GetWireless

LoRa Demo Kit

• User Instructions •

Basic LoRaWAN Architecture

- An example using Radio Bridge's existing cloud infrastructure:



Note: Several LoRaWAN sensor manufacturers will also provide their own cloud software

Quickstart User Configuration Steps

- Open the Demo Kit and verify the contents
- 3 steps:
 1. CloudGate Setup:
 - Connect the LoRa antenna to the gateway
 - Connect the supplied Ethernet cable to an Internet connected router
 - Connect the power supply to the gateway
 - Plug the power supply into the wall
 2. Platform Setup
 - Open a browser to console.radiobridge.com
 - Register for a free account
 - Add your gateway device to the account
 - Add the three sensors to your account
 3. Enable sensors
 - Pull the battery tabs out of the sensors
 - Verify sensor data appears on the Radio Bridge Console

Detailed User Configuration Steps

- Open the Demo Kit and verify the contents
- 3 steps:
 1. CloudGate Setup
 2. Platform Setup
 3. Enable sensors

1. Gateway Setup

CloudGate Setup:

- Connect the LoRa antenna to the gateway
 - Match the color coded antenna and SMA connectors
- Connect the supplied Ethernet cable to an Internet connected router
- Connect the power supply to the gateway
 - Please refer to the drawing for correct orientation
- Plug the power supply into the wall

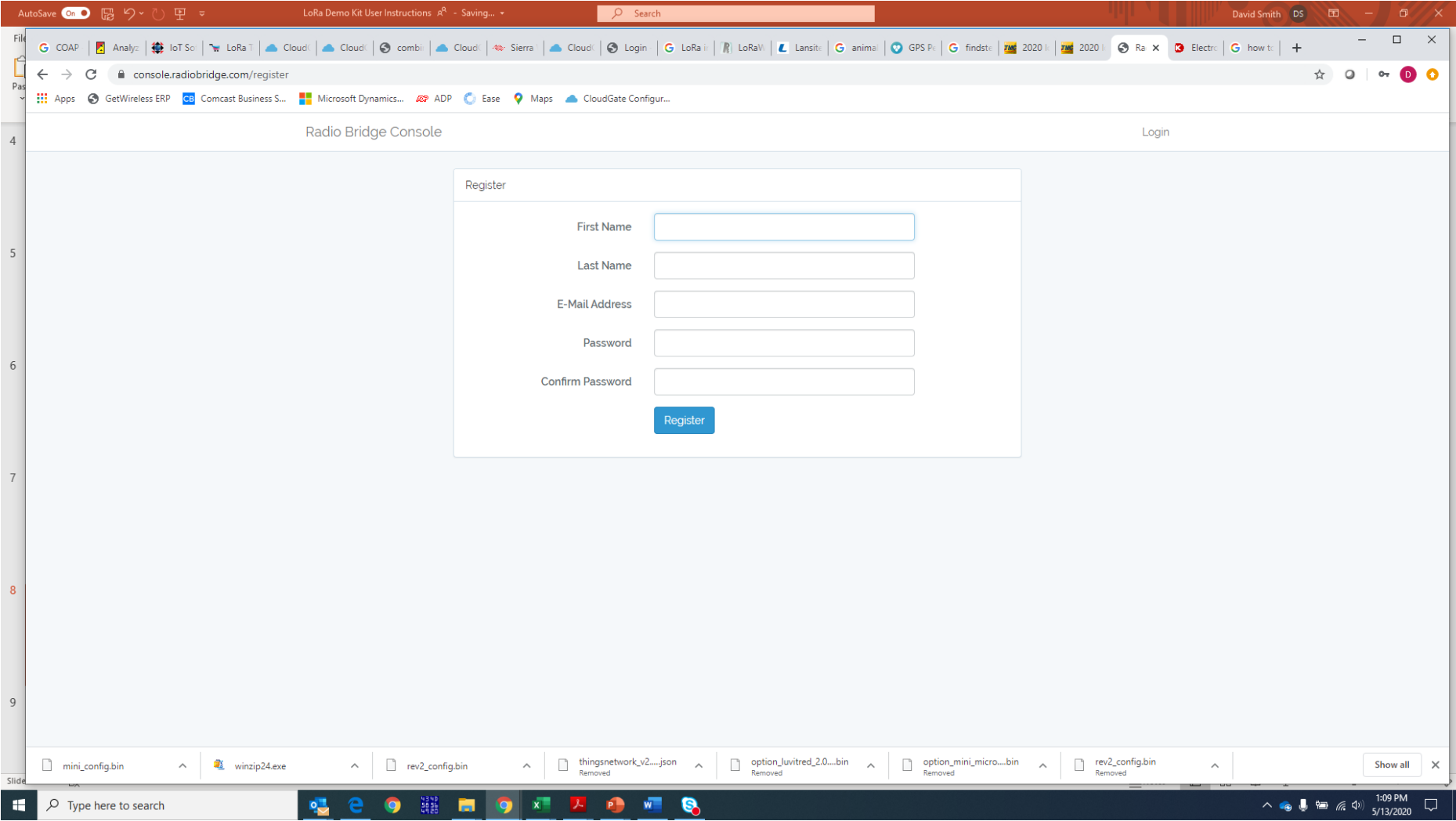
2. Platform Setup - Account

- Connect to Radio Bridge Console:
 - Point web browser to **console.radiobridge.com**
 - Click on Create Account
 - Enter First Name, Last Name, Email Address
 - Enter in a Password and Confirm Password
 - Agree to the User Agreement
 - Activate your new account by clicking on link in confirmation email
 - This will have you end up at the Devices page of the Radio Bridge Console

Radio Bridge Login Page

The screenshot shows a web browser window displaying the login page for the Radio Bridge console. The browser's address bar shows the URL `console.radiobridge.com`. The page content includes the Radio Bridge logo, a brief description of the Sensor Vision Console, and a login section titled "ACCOUNT LOGIN". The login form contains two input fields: "Email" (with the placeholder text "you@email.com" and a tooltip "Email address that you used to register") and "Password" (with the placeholder text "Password"). Below the fields is a blue "Log in" button. To the left of the "Log in" button is a link for "Forgot password?". To the right is a link for "Create Account*", which is circled in red. In the bottom right corner, there is a "Live Chat!" widget with the text "How may I help you today?". The Windows taskbar at the bottom shows several open applications, including "mini_config.bin", "winzip24.exe", "rev2_config.bin", "thingsnetwork_v2...json", "option_luvitred_2.0...bin", "option_mini_micro...bin", and "rev2_config.bin". The system tray shows the time as 1:05 PM on 5/13/2020.

Radio Bridge Registration Page



2. Platform Setup - Gateway

- Click on **Gateways** in left navigation menu
 - Click on **Add New Gateway**
 - Click on **Add Gateway** under ChirpStack
 - Fill in a gateway name of your choice
 - Fill in a gateway description
 - Enter the ID of the gateway provided in the Kit
 - Click **Register gateway**

Radio Bridge Devices Page

The screenshot shows the Radio Bridge console interface. The left sidebar contains a navigation menu with the following items: Devices, Gateways (circled in red), Groups, Notifications, Message Log, API, Integrations, Billing, and Help. The main content area is titled 'Devices' and includes a search bar labeled 'Search by Device ID'. Below the search bar is a table with the following columns: Device ID, Device Name, Device Type, Status, and Action. The table is currently empty, displaying the message 'No data available in table' and 'Showing 0 to 0 of 0 entries'. At the bottom right of the page, there is a chat bubble that says 'We're offline Leave a message'.

Device ID	Device Name	Device Type	Status	Action
No data available in table				

Showing 0 to 0 of 0 entries

First Previous Next Last

We're offline
Leave a message

Radio Bridge Gateways Page

The screenshot shows a web browser window displaying the 'Gateways' page in the Radio Bridge console. The browser's address bar shows the URL 'console.radiobridge.com/gateways'. The page features a sidebar with navigation options: Devices, Gateways (highlighted), Groups, Notifications, Message Log, API, Integrations, Billing, and Help. The main content area is titled 'Gateways' and includes a '+ Add New Gateway' button circled in red. Below the button is a table with columns for Gateway Name, Bridge, Status, and Action. The table is currently empty, displaying the message 'No data available in table' and 'Showing 0 to 0 of 0 entries'. At the bottom right, there is an offline notification: 'We're offline Leave a message'.

Radio Bridge

Hi David

+ Add New Gateway

Gateway Name	Bridge	Status	Action
No data available in table			

Showing 0 to 0 of 0 entries

First Previous Next Last

We're offline
Leave a message


Radio Bridge Add a New Gateway Page

The screenshot displays the 'Add New Gateway' page in the Radio Bridge console. The page features a sidebar with navigation options: Devices, Gateways (selected), Groups, Notifications, Message Log, API, Integrations, Billing, and Help. The main content area is titled 'Add New Gateway' and contains five gateway options, each with a logo and an 'Add Gateway' button:


- LORIO T: Add Gateway
- MULTITECH: Add Gateway
- THE THINGS NETWORK: TTN Gateway
- Other Gateway: Other Gateway
- ChirpStack: Add Gateway (circled in red)

The browser address bar shows the URL `console.radiobridge.com/gateways/add`. The user is logged in as David Smith. A 'Go Back' link is visible in the top right corner. A 'We're offline' notification is present in the bottom right corner.

Radio Bridge Add New Gateway Information Page

RADIO BRIDGE Hi David  [Go Back](#)

Add Chirpstack Gateway



Chirpstack By RadioBridge

You can register your Gateway with Radio Bridge Chirpstack network. If you are using your Chirpstack network then please manage gateways using your Chirpstack console.

To connect with the Radio Bridge Chirpstack network, please configure your Gateway to use the Semtech forwarder and point it to chirpstack.radiobridge.com port 1700

Gateway Name


The name may only contain words, numbers and dashes.

Gateway Description

Gateway EUI

Gateway EUI is often the MAC address with 0xFFFF as the middle two bytes. For example, if your MAC address is 0x010203040506, then the Gateway EUI may be 0x010203FFFF040506

[Register Gateway](#)

We're offline
Leave a message 

2. Platform Setup - Sensors

- Click on **Devices** in left navigation menu
 - Click on **Add New Device** (repeat for each sensor)
 - Click on the **ChirpStack** square
 - » Click **Register through Radio Bridge**
 - » Click **Next**
 - Fill in a device name of your choice
 - Enter the 16 hex digit Device ID from the sticker on the sensor
 - Enter the 32 hex digit Device Key from the sticker on the sensor
 - Select the correct device type from the pull-down menu
 - » Click **Next**
 - Confirm the data entered is correct for your sensor
 - » Click **Confirm**

Radio Bridge Devices Page

The screenshot shows a web browser window displaying the Radio Bridge console. The browser's address bar shows the URL `console.radiobridge.com/gateways`. The page header includes the Radio Bridge logo and the user's name, "Hi David".

The left sidebar contains a navigation menu with the following items: Demo Account, Devices (circled in red), Gateways, Groups, Notifications, Message Log, API, Integrations, Billing, and Help.

The main content area is titled "Gateways" and features a "+ Add New Gateway" button. Below this is a table with the following columns: Gateway Name, Bridge, Status, and Action.

Gateway Name	Bridge	Status	Action
CGMini	Chirpstack	Active Gateway Setup	

Below the table, it says "Showing 1 to 1 of 1 entries" and includes pagination controls: First, Previous, 1, Next, Last.

In the bottom right corner, there is a "We're offline" notification with a "Leave a message" button.

Radio Bridge Devices Page

The screenshot shows the Radio Bridge console interface. The browser address bar displays `console.radiobridge.com/devices`. The page header includes the Radio Bridge logo and the user name "Hi David". A red circle highlights the "+ Add New Device" button in the top right corner. The main content area features a search bar labeled "Search by Device ID" and a table with the following columns: Device ID, Device Name, Device Type, Status, and Action. The table is currently empty, displaying "No data available in table" and "Showing 0 to 0 of 0 entries". Navigation buttons for "First", "Previous", "Next", and "Last" are visible at the bottom of the table. A "We're offline" notification is present in the bottom right corner.

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Slide

Radio Bridge Add New Device Page

The screenshot displays the Radio Bridge console interface. A modal window titled "Add New Device" is open, showing a "Select Network" screen. The modal contains a grid of network logos: sigfox, machineQ, senet, THE THINGS NETWORK, LORIO T, MULTITECH, and ChirpStack. The ChirpStack logo is circled in red. A "Next" button is located at the bottom right of the modal. The background shows the "Devices" page with a search bar and a table with columns for "Device ID" and "Device". The Windows taskbar at the bottom shows the date and time as 1:19 PM on 5/13/2020.

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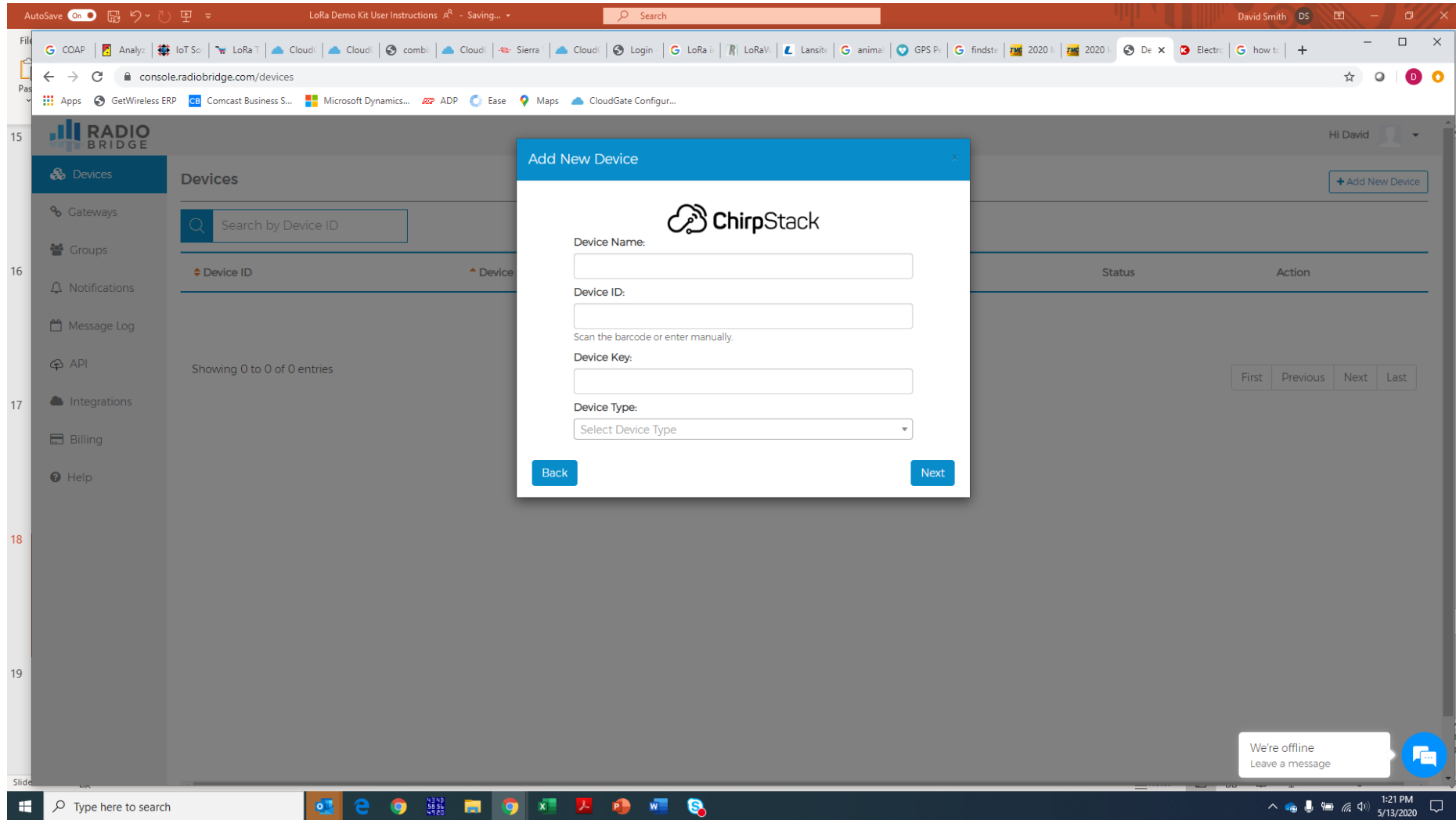
Radio Bridge Add New Device Page

The screenshot displays the Radio Bridge console interface. The main page is titled "Devices" and includes a search bar for "Search by Device ID" and a table with columns for "Device ID" and "Device". The table is currently empty, showing "Showing 0 to 0 of 0 entries".

An "Add New Device" modal window is open, titled "Add New Device". It features a "Select Network" section with six network logos: sigfox, machineQ, senet, THE THINGS NETWORK, LORIO T, and MULTITECH. The ChirpStack logo is highlighted with a blue border. Below the network selection, there is a "Please select a Register Method" section with two radio buttons: "Register Through Radio Bridge (recommended)" (which is circled in red) and "Use Your Own Account". A "Next" button is located at the bottom right of the modal.

The background interface includes a sidebar with navigation options: Devices, Gateways, Groups, Notifications, Message Log, API, Integrations, Billing, and Help. The top right corner shows the user's name "Hi David" and a "+ Add New Device" button. The bottom of the screen shows the Windows taskbar with the time "1:20 PM 5/13/2020" and a "We're offline Leave a message" chat bubble.

Radio Bridge Add New Device Info Page



Radio Bridge Devices Page

The screenshot shows a web browser window displaying the Radio Bridge console. The browser's address bar shows the URL `console.radiobridge.com/devices`. The page header includes the Radio Bridge logo and a user profile for "Hi David". A left-hand navigation menu contains options such as "Demo Account", "Devices", "Gateways", "Groups", "Notifications", "Message Log", "API", "Integrations", "Billing", and "Help". The main content area is titled "Devices" and features a search bar labeled "Search by Device ID". Below the search bar is a table with the following columns: "Device ID", "Device Name", "Device Type", "Status", and "Action". The table lists three devices:

Device ID	Device Name	Device Type	Status	Action
CCC0790000EE5159	enviro	RBS305-ATH LoRa Air Temperature and Humidity Sensor	Active	
CCC0790000EE5187	Pushbutton	RBS304-2 LoRa Wireless Dual Push Button	Active	
4491600000F7C30C	tilt	RBS301-TILT LoRa Tilt Sensor	Active	

Below the table, it says "Showing 1 to 3 of 3 entries". At the bottom right of the table area, there are pagination controls: "First", "Previous", "1" (selected), "Next", and "Last". A "We're offline" notification bubble is visible in the bottom right corner of the page. The Windows taskbar at the bottom shows the time as 1:54 PM on 5/13/2020.

3. Enable Sensors

3. Enable the sensors

- Pull the battery tabs out of the sensors
- Verify sensor data appears on the Radio Bridge Console
 - Click on any sensor (Pushbutton used by example)
 - Verify data has been received

Radio Bridge Devices Page

The screenshot shows a web browser window displaying the Radio Bridge console. The page title is "Radio Bridge" and the user is logged in as "Hi David". The main content area is titled "Devices" and contains a search bar labeled "Search by Device ID". Below the search bar is a table with the following columns: Device ID, Device Name, Device Type, Status, and Action. The table lists three devices:

Device ID	Device Name	Device Type	Status	Action
CCC0790000EE5159	enviro	RBS305-ATH LoRa Air Temperature and Humidity Sensor	Active	
CCC0790000EE5187	Pushbutton	RBS304-2 LoRa Wireless Dual Push Button	Active	
4491600000F7C30C	tilt	RBS301-TILT LoRa Tilt Sensor	Active	

Below the table, it says "Showing 1 to 3 of 3 entries". At the bottom right of the table area, there are navigation buttons: "First", "Previous", "1", "Next", and "Last". The "1" button is highlighted. In the bottom right corner of the console, there is a chat bubble that says "We're offline Leave a message".

Radio Bridge Devices Page

The screenshot displays the Radio Bridge console interface. The browser address bar shows the URL `console.radiobridge.com/devices/CCC0790000EE5187`. The page title is "Devices >> View Device - CCC0790000EE5187".

Device Info

Device	Pushbutton
ID	CCC0790000EE5187
Device Type	RBS304-2 LoRa Wireless Dual Push Button
Hardware Ver.	2.0
Firmware Ver.	2.0.1
Network	Chirpstack - Radio Bridge account
Groups	
Notifications	

Device Status

Last Status Received	May 13 10:50 (UTC)
Battery Voltage	3.0V
Low Battery	No
Current Tamper State	No
Tamper Detected Since Reset	No
Configuration Error	--
Rate Limit Exceeded	No
Sensor State	Button 1 Pressed

Message Log

Time	Location	Link Quality	SNR	RSSI	API
May 13 10:50 (UTC)	--		12.8	-69	--
Data: 1f01010030010100000000		Supervisory Message Accumulation Count: 0 Sensor State: Button 1 Released Button 2 Released Battery: 3.0V			
May 13 09:41 (UTC)	--		12.5	-71	--

Configure Sensor

Sensor Config | General | Advanced

Enable button pressed event for Button 1 Yes No

Enable button released event for Button 1 Yes No

Enable button hold event for Button 1 Yes No

Hold delay for Button 1 only

We're offline
Leave a message

4. Notes

1. Radio Bridge Console is free up to 100 devices or 10,000 messages per month.



Questions/Discussion