



Proof Of Technology

IBM Watson Internet of Things

IBM IoT Platform

Initialization for IBM Cloud free account

Corinne Bacle / Gwenaëlle Jegu
IBM Technical Sales and Solution
corinne.bacle@fr.ibm.com

Architecture de l'environnement du workshop en binômes



IBM Cloud user 1

Continuous
Delivery

Git

IoT phone
application

Cloudant

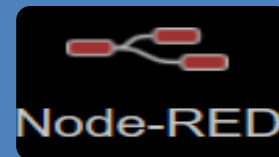
Your device ID: TestPhone		
Connected		
Published Messages: 278		
Movement		
Alpha	Beta	Gamma
0	0	0
Acceleration		
X	Y	Z
0	0	0
Location		
Latitude	Longitude	
0	0	

IoT
Platform

IBM Cloud user 2

Step 2 & 3 bis

Node-RED
Starter



Cloudant

Watson
services



IBM Cloud account access

Create an IBM Cloud account: <https://cloud.ibm.com/>

(or use your existing one or company account)

This is free: for an unlimited period but for limited number of services

IBM Cloud account configuration

Check your account: create space and resource group if necessary

The screenshot displays the IBM Cloud dashboard. The top navigation bar includes 'IBM Cloud', 'Catalog', 'Docs', 'Support', and 'Manage'. The 'Manage' menu is open, showing options like 'Account', 'Billing and usage', and 'Security'. The 'Account' option is highlighted. Below the navigation bar, the 'Dashboard' section shows 'RESOURCE GROUP' (All Resources), 'CLOUD FOUNDRY ORG' (All Organizations), and 'CLOUD FOUNDRY SPACE' (All Spaces). A sidebar on the left lists 'Profile', 'Platform Notifications', 'Usage Dashboard', 'Billing', 'Cloud Foundry Orgs' (highlighted), and 'Resource Groups'. The main content area shows 'Cloud Foundry Organizations' for the user 'corinne.bacle@fr.ibm.com'. It includes tabs for 'Spaces', 'Users', 'Domains', and 'Quotas'. A table lists the organizations:

Name	Region	Manager
Base	Germany	✓
Dev	Germany	✓



IBM Cloud account configuration

Go to Cloud Foundry Orgs

Click on your name/email

Check if you have a Space in UK/Germany

Click on « Add a Space », Select a “region” : UK/Germany, add a “Name” : PoT-IoT-Date for example, then “save”

Create a new space

Region

United Kingdom

Name

PoT-IoT-Sep-2020

Cancel

Save

IBM Cloud account configuration

Go to Resource Groups

Check if you have one

If not, create one



IBM Cloud

Account

Account resources

Best practices

Resource groups

Cloud Foundry orgs

Licenses and entitlements

Tags

Dashboards

Account settings

Search resources and offerings...

Catalog Docs Support Manage Corinne Baile's Account

Resource groups

Group resources to organize and assign access to the group. Available for all resources managed by IBM Cloud Identity and Access Management. [Learn more about resource groups.](#)

Create

Name	ID	Date Created	Actions
Default	ec25877185ee4fc3822fadb491867f0a	05/12/2019 à 12:03:16	:

IoTPhone Application User 1

IBM Cloud user 1

Continuous
Delivery

Git

IoT phone
application

Cloudant



IoT
Platform

Go to github

<https://github.com/CorinneBacle/html5-phone>

Download this documentation :

“Init binomes PoT IBM Watson IoT CPT IBM Cloud
Free 2020H2.pdf”

in directory Documentation



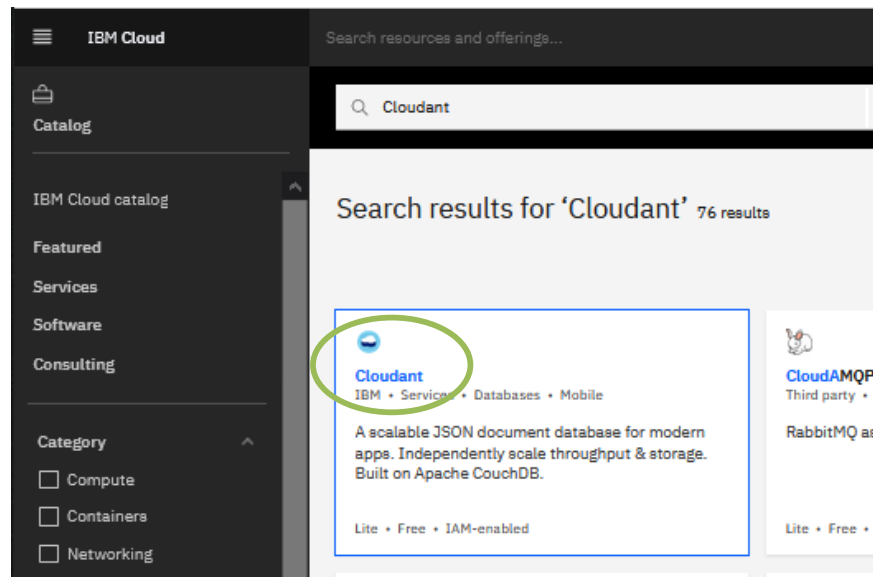
Cloudbant service creation



Click on IBM Cloud Catalog



Search and select “Cloudbant”




Cloudant service creation



Select your region

Catalog / Services /

 **Cloudant**
Author: IBM

Create About

Select an offering

Cloudant

IBM Cloudant is a fully managed JSON document database that offers independent serverless scaling of throughput capacity and storage.

Lite plan available

Select an environment

Multitenant Dedicated

Your instance will be running securely on environments with shared resources.

Available regions

London

Configure Cloudant instance

Instance name Required

iot-phone-cloudant-cloudantNoSQLDB

Tags

Examples: env:dev, version-1

Authentication method ⓘ

IAM

Plan

Lite

Full functionality for development and evaluation with a set capacity. Only one Lite plan instance per account.

Free - Only in multi-tenant

Standard

Granular control over provisioned throughput capacity allocated. Billing prorated per account.

Starting at \$75.00/month

Enter the instance name :
iot-phone-cloudant-cloudantNoSQLDB

Then click "Create"

Total monthly cost* **Free**
estimated

Create

Add to instance

Cloudant service configuration



Resource list /
iot-phone-cloudant-cloudantNoSQLDB Active [Add tags](#)

Details [Actions...](#)

[Manage](#) [Overview](#) [Dashboard](#) [Capacity](#) [Docs](#)

[Service credentials](#)

[Launch Dashboard](#)

Click on the iot-phone-cloudant-cloudantNoSQLDB service then Click on Launch Dashboard

Then Create Database

[←](#) **Databases**

Database name [Create Database](#)

Database name : device_credentials

Select: "Non-partitioned"

Create Database

Database name

device_credentials

Partitioning

☐ Partitioned ☒ Non-partitioned

[What is a Partitioned Database?](#)

Then "Create"

Cancel

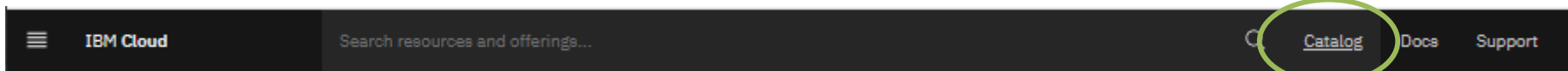
Create

IBM Internet of Things

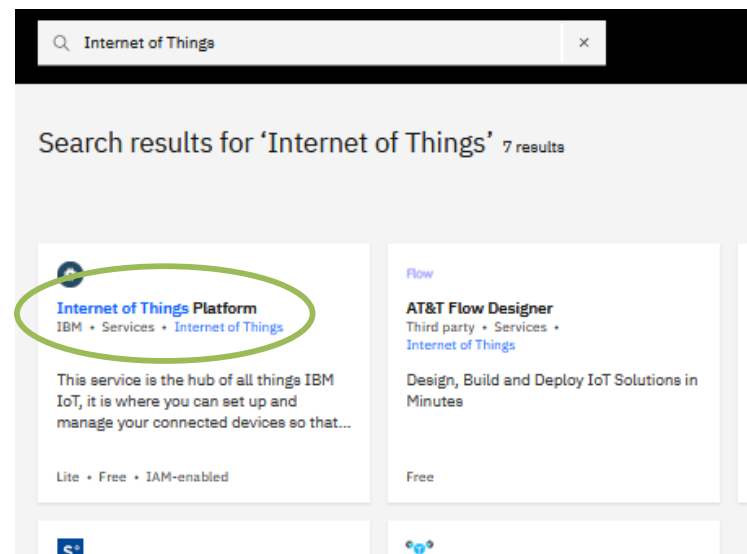
IoT service creation



Click on IBM Cloud Catalog



Search and select "Internet of Things"



IoT service creation



Select your region

Catalog / Services /

Internet of Things Platform

Author: IBM • Date of last update: 09/03/2019 • Docs

Create About

Select a region

Select a region

London

Configure your resource

Service name

iot-phone-iotf-service

Tags ⓘ

Enter the Service name :
iot-phone-iotf-service

Then click “Create”

Total monthly cost* Free estimated

Create

Add to estimate

IoT service configuration



In the new window, click “Launch”

A screenshot of the IBM Cloud console showing the configuration page for the 'iot-phone-iotf-service'. The page has a dark header with the IBM Cloud logo, a search bar, and navigation links for Catalog, Docs, Support, Manage, and a user profile. Below the header, the service name 'iot-phone-iotf-service' is displayed with a green 'Active' status and an 'Add tags' link. A left sidebar contains a 'Manage' section with links for 'Plan' and 'Connections'. The main content area features a large blue icon of a central square with a circle inside, connected to various lines and shapes. To the right of the icon, the text 'Let's get started with IBM Watson IoT Platform' is followed by a description: 'Securely connect, control, and manage devices. Quickly build IoT applications that analyze data from the physical world.' Below this text, there is a blue 'Launch' button, which is circled in green, and a grey 'Docs' button.

IoT service configuration



Select menu “Security” then “Connection Security” then “TLS Optional” then Save

The screenshot shows the IBM Watson IoT Platform interface. On the left is a dark navigation sidebar with the title 'IBM Watson IoT Platform'. It contains several menu items: 'Boards', 'Devices', 'Members', 'Apps', 'Access Management', 'Usage', 'Security', and 'Settings'. The 'Security' item is highlighted with a green oval. The main content area is titled 'Policies' and includes a sub-section 'Connection Security' with a description and a green edit icon (a square with a pencil) circled in green. Below this is the 'Default Rule' section, which has a 'Scope' dropdown set to 'Default' and a 'Security Level' dropdown set to 'TLS Optional', both circled in green. At the bottom of the configuration area are 'Cancel' and 'Save' buttons, with the 'Save' button circled in green. The overall layout is clean with a white background and blue accents.

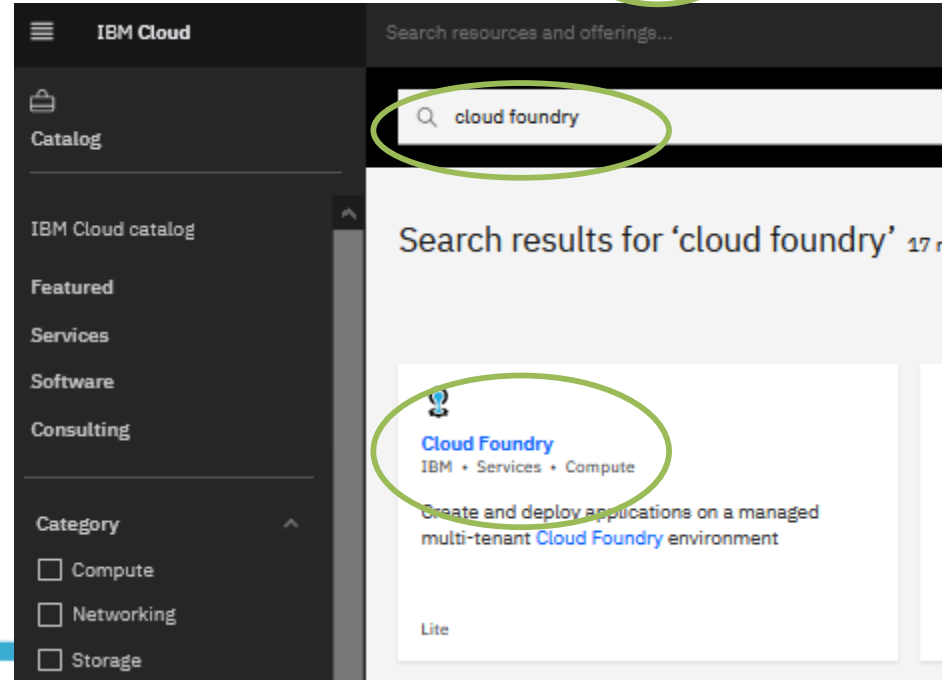
Sample application creation



Click on IBM Cloud Catalog



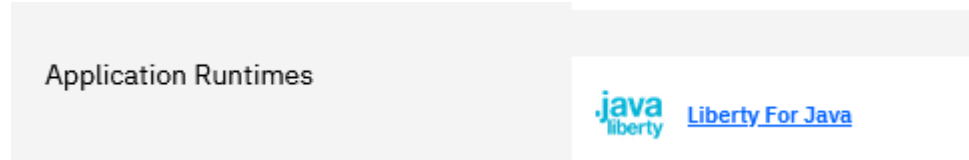
Search and select “cloud foundry”



Sample application connection creation









Click “Liberty For Java”



Select the region
Enter a unique name

Configure your resource

Select a runtime

 Liberty for Java™ <input checked="" type="checkbox"/>	 SDK for Node.js™	 ASP.NET Core
 Python Community	 Ruby Community	 Runtime for Swift

App name

CorinneBacleEssai

Host name

Then “Create”



Sample application connection creation

Go to “Connections”



IBM Cloud Search resources and offerings... Catalog Docs Support Manage Corinne Bacle's Account

Resource list / CorinneBacleEssai Starting Visit App URL Add tags

Getting started Overview Runtime **Connections** Logs API Management

Create connection +

Select “Create connexion”
Select the IoT service
Select “Next”
Select “Writer” if requested
Then “Connect”
Then “Restage”

Create connection


Search resources...

	Name
<input checked="" type="radio"/>	iot-phone-cloudant-cloudantNoSQLDB
<input type="radio"/>	iot-phone-iotf-service

Do the same for the Cloudant service.

Result



 **IBM Cloud**

Rechercher des ressources et des offres...












Tableau de bord ▾

Récapitulatif des ressources

Tout afficher

5

Resources

Cloud Foundry apps

Cloud Foundry services

Services

✓ 1

2

✓ 2

IoTPhone Application User 1

IBM Cloud user 1

Continuous
Delivery

Git

IoT phone
application

Cloudant



IoT
Platform

Create your own IoT Html 5 Phone application as user 1



See next slides to create your own application

A screenshot of a web application interface with a dark theme. At the top, it says "Your device ID:" followed by a "Disconnected" status with a red X icon. Below this is a "Published Messages:" section. A modal dialog is open in the center, titled "Enter a unique ID of at least 8 characters containing only letters and numbers:". The dialog has a text input field and "OK" and "Cancel" buttons. In the background, there is a table with columns for "Movement", "Alpha", "Gamma", "X", "Z", "Latitude", and "Longitude". The "Alpha" and "Gamma" columns have values "0". The "X" and "Z" columns have values "0". The "Latitude" and "Longitude" columns have values "0".

Log in <https://cloud.ibm.com> as **USER 1**

Go to github

<https://github.com/CorinneBacle/html5-phone>



A screenshot of the GitHub repository page for 'CorinneBacle/html5-phone'. The page shows the repository name, a 'forked from ibm-watson-iot/html5-phone' note, and statistics for Watch (0), Star (0), and Fork (54). Below this are tabs for Code, Pull requests, Projects, Wiki, Security, Insights, and Settings. The 'Code' tab is selected, showing the 'html5-phone / README.md' file. The file's commit history shows 'CorinneBacle Update README.md' with 5 contributors. The file content shows the title 'iot-html5-phone' and a description: 'This application allows you to use your mobile phone as a test device with IBM Watson IoT Platform. Click the following button to deploy the application to your IBM Cloud environment and provision the appropriate services.' At the bottom of the content area is a dark blue button with a hexagonal icon and the text 'Create toolchain', which is circled in green.

Go to the bottom and click Create toolchain

Select Region **Frankfurt** or **London** depending on where you have created your space in the previous steps

Change the application name with a shorter one



IBM Cloud Search resources and offerings... Catalog Docs Support Manage CORINNE BACLE's Account

Toolchains / Create a toolchain /

Déployer vers IBM Cloud : application iot-html5-phone

Une fois que vous avez cliqué sur **Déployer**, votre application est déployée dans IBM Cloud.

Le code de votre application est automatiquement chargé dans un référentiel Git. Chaque fois que vous validez des modifications dans le référentiel, elles sont automatiquement déployées à l'aide d'une chaîne d'outils qui est associée à votre application. Vous pouvez ajouter davantage d'outils à la chaîne d'outils et la partager avec votre équipe. [En savoir plus.](#)

La chaîne d'outils utilise des outils qui font partie du service Continuous Delivery. Si aucune instance de ce service n'existe dans l'organisation sélectionnée, elle est automatiquement ajoutée

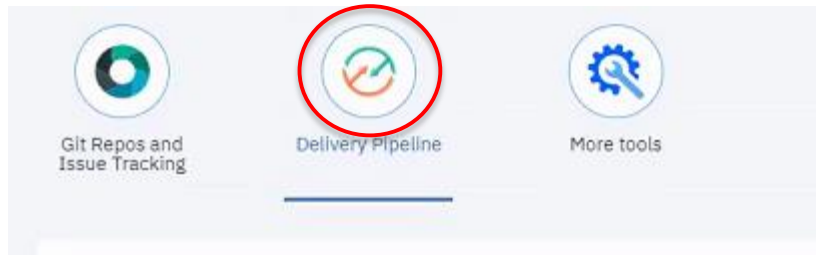
Toolchain Name:
POT-Mai-2019-iot-html5-phone

Select Region:
Frankfurt

Select a resource group:
Globale

Toolchain - CE Configuration (deprecated)

Select Region:
London





Clé d'API IBM Cloud: ⓘ

Clé d'API IBM Cloud

New +

Create the API Key

The value is required.

Create a new API key with full access

Warning: This will create a new API key that allows anyone who has it the ability to do anything you could do. You can improve your security posture by using the [IAM UI to create a service ID API key](#) that limits access to only what your pipeline requires, and then pasting that into the template UI instead. For more information on API keys and access see the [IAM documentation](#).

Name	Description
API Key for html5-phone-20200911P-TECH	

☐ Save this key in a secrets store for reuse

Cancel

OK

Wait a little to automatically get “Region” filled
Then Select your space
Then Deploy

IBM Cloud API key:

.....



Create +

Region

Organization

Space

Frankfurt

pierre_milcent@fr.ibm.

demoIOT

Toolchains / Create a toolchain /

Déploier vers IBM Cloud : application html5-phone

Create

About

Toolchain Name:

html5-phone-20200911P-TECH

Select Region:

London

Select a resource group:

Default

[Select a CF Organization \(deprecated\)](#)

Tool Integrations



Outils Git Repos and
Issue Tracking



Delivery Pipeline



More tools

Delivery Pipeline automatise le déploiement continu.

Nom de l'application: ⓘ

html5-phone-20200911P-TECH

Clé d'API IBM Cloud: ⓘ

.....



New +



Région

London

Organisation

cocobaacle@yahoo...

Espace

dev

Cancel

Create

Then click “create”



iot-html5-phone-CorinneBacleGermany



Your app is being created! Quick start: To watch the pipeline deploy your app, click **Delivery Pipeline**. After the app is de

THINK



Issues

iot-html5-phone-Cori...

✓ Configured

CODE



Git

iot-html5-phone-Cori...

✓ Configured

DELIVER



Delivery Pipeline

iot-html5-phone-Cori...



Eclipse Orion Web IDE

✓ Configured

Open Link in New TabOpen Link in New WindowOpen Link in New Private Window

Go to Repository / Files, It's your own code, you can modify it



IBM Cloud

Projects ▾ Groups ▾ Activity Milestones Snippets

html5-phone-2019H2POTIoT

Project

Repository

Files

Commits

Branches

Tags

Contributors

Graph

Compare

Charts

Issues 0

Merge Requests 0

Wiki

Snippets

Settings

CORINNE BACLE > html5-phone-2019H2POTIoT > Repository

masterhtml5-phone-2019H2POTIoT / public / js / device.js

Update device.js with warning message on device id

CORINNE BACLE authored 2 days ago

Unverifiedef7e9c2c

device.js 5.78 KB

EditReplaceDelete

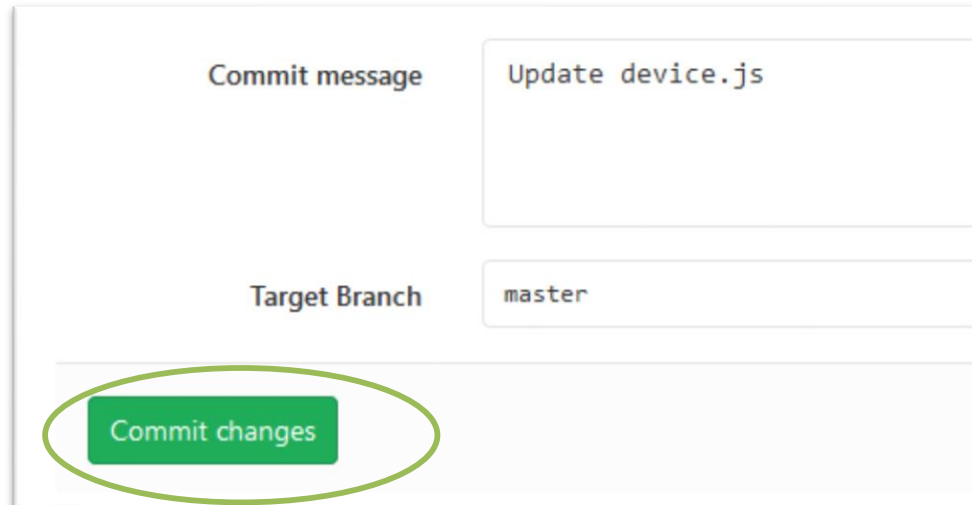
```
1  /*****
2  * Copyright (c) 2015 IBM Corp.
3  *
4  * All rights reserved. This program and the accompanying materials
5  * are made available under the terms of the Eclipse Public License v1.0
6  * and Eclipse Distribution License v1.0 which accompany this distribution.
7  *
8  * The Eclipse Public License is available at
9  * http://www.eclipse.org/legal/epl-v10.html
10 * and the Eclipse Distribution License is available at
11 * http://www.eclipse.org/org/documents/edl-v10.php.
12 *
13 * Contributors:
14 *   Bryan Boyd - Initial implementation
15 *   Alan Blyth - Modified to favour SSL over port 8883
16 *****/
17 (function(window){
18     var ax = 0, ay = 0, az = 0, oa = 0, ob = 0, og = 0;
19
20     var client;
21     var orgId;
22     var clientId;
23     var password;
24     var useSSL = true;
25     var mqttPort = 1883;
26     var mqttPortSecure = 8883;
27     var deviceIdRegEx = /^[a-zA-Z0-9]{8}$/;
```

For example change the prompt message:



```
Write Preview changes
Y master public/js/device.js
57 document.getElementById("gamma").innerHTML = og.toFixed(2);
58 }
59
60 window.msgCount = 0;
61
62 var updatePersonalAllocation = function(position) {
63     window.lat = position.coords.latitude;
64     window.lng = position.coords.longitude;
65     $("#lat").html(window.lat.toFixed(6));
66     $("#lng").html(window.lng.toFixed(6));
67 }
68
69 if (navigator.geolocation) {
70     navigator.geolocation.watchPosition(updatePersonalAllocation);
71 }
72
73 function getId() {
74     window.deviceId = prompt("Enter a unique ID for CBA appli | If at least 8 characters containing only letters and numbers (Warning : it will be
75     if (deviceIdRegex.test(window.deviceId) === true) {
76         console.log("Connecting with device id: " + window.deviceId);
77         $("#deviceId").html(window.deviceId);
78         getDeviceCredentials();
79     }
80 }
```

then in the bottom :



Commit message Update device.js

Target Branch master

Commit changes

Option : changer l'image de fond



Modifier le fichier public/stylesheets/device.css partie body puis background-image

Voir une explication ici:

<http://css.mammothland.net/image-de-fond-background-css.php>

Remplacer

```
body {  
background-image: linear-gradient(to bottom right, #2d3f4a, #1d3649);  
margin: 0;  
padding: 0;  
}
```

Par

```
body {  
color:black; background-color:white;  
background-image:url(images/image_de_fond.png);  
}
```


Et ajouter votre image dans un repertoire images à la racine avec le bon nom.

Toolchains / [iot-html5-phone-CorinneBacleGermany](#)

iot-html5-phone-CorinneBacleGermany

✓ Your app is being created! **Quick start:** To watch the pipeline deploy your app, click **Delivery Pipeline**. After the app is de


THINK



Issues
iot-html5-phone-Cori...

✓ Configured


CODE



Git
iot-html5-phone-Cori...


✓ Configured

DELIVER



Delivery Pipeline
iot-html5-phone-Cori...

✓ Configured



Eclipse Orion Web IDE

✓ Configured



Lost ?


See next slide

See next slide if you have
close the toolchain tab





How to find the toolchain if you have closed the tab:





 IBM Cloud


×


 Cloud Foundry


 Containers


 Infrastructure


 VMware


 Dashboard


 APIs


 Apple Development New


 Blockchain


 DevOps


 Finance


 Functions

 Integrate

 Mobile

 Security

 Watson

 Web Apps

Toolchains

Resource Group

Cloud Foundry Org

Location

Default

—


London

Q Filter table...

Name

↑ Tool Integrations


html5-phone-20200911P-TECH



Items per page: 10

1-1 of 1 items

Check deployment status :

 IBM Cloud

Catalog

Docs

Support

Manage

Toolchains / [iot-html5-phone-Cori...](#) / [iot-html5-phone-CorinneBacleGermany](#)

iot-html5-phone-CorinneBacleGermany | Delivery Pipeline

Build Stage

▶ ⚙

STAGE PASSED

LAST INPUT [Git URL](#)

 Last commit by CORINNE BA... 2d ago
[Update @cloudant/cloudant app.js](#)

JOB [View logs and history](#)

 Build Passed 2d ago

LAST EXECUTION RESULT

 Build 3 

>

Deploy Stage

▶ ⚙

STAGE PASSED

LAST INPUT Stage: Build Stage / Job: ...

 Build 3 

JOB [View logs and history](#)

 Deploy Passed 2d ago

LAST EXECUTION RESULT

 [iot-html5-phone-CorinneBacl...](#)
[View console](#)

 Build 3 

Add Stage +

Find the application:

<https://cloud.ibm.com/resources>



Dashboard

Récapitulatif des ressources

Cloud Foundry Apps

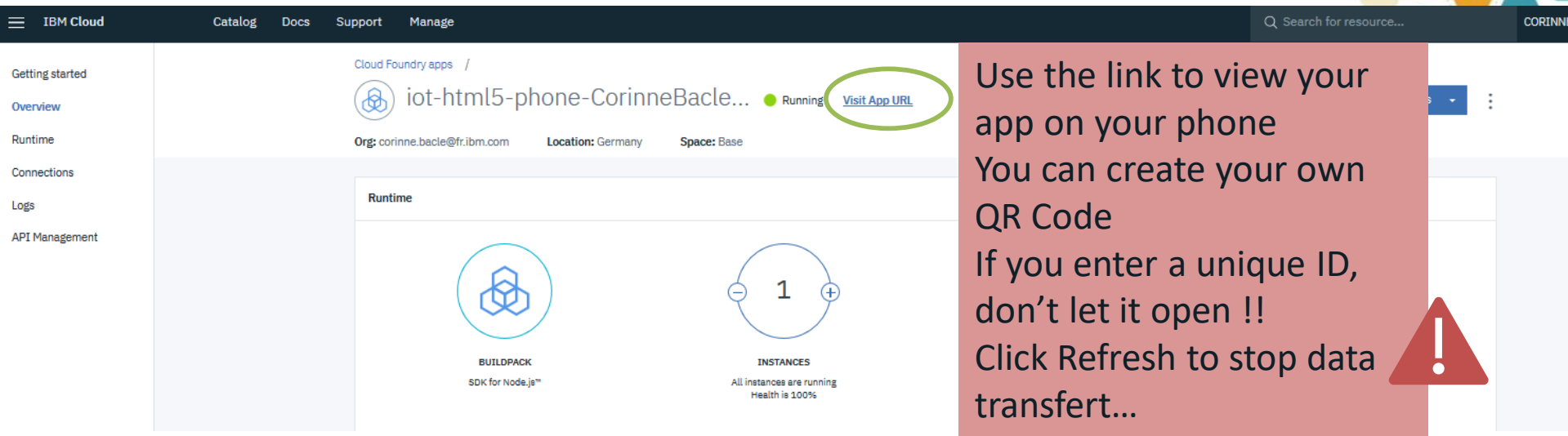
Cloud Foundry Services

Services

Cloud Foundry apps (2)

 CorinneBacleEssai	cocobacle@yahoo.fr / dev	London	Liberty for Java™	Started
 html5-phone-2020091112438895	cocobacle@yahoo.fr / dev	London	Cloud Foundry applications	Started

Cloud Foundry services (2)



IBM Cloud

Catalog Docs Support Manage

Search for resource...


CORINNE

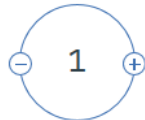
Cloud Foundry apps /

iot-html5-phone-CorinneBacle... ● Running [Visit App URL](#)

Org: corinne.bacle@fr.ibm.com Location: Germany Space: Base

Runtime

 BUILDPACK
SDK for Node.js™

 INSTANCES
All instances are running
Health is 100%

Use the link to view your app on your phone
You can create your own QR Code
If you enter a unique ID, don't let it open !!
Click Refresh to stop data transfert...



Si vous avez un iPhone : La version IOS ne permet pas d'accéder à l'accéléromètre et au gyroscope depuis Safari de façon simple.

Open the appli on your phone/tablet



Your device ID:

⊗ Disconnected

Published Messages:

Movement	
Alpha	Beta
Enter a unique ID for CBA appli of at least 8 characters containing only letters and numbers (Warning : it will be displayed on the dashboard!):	
<input type="text"/>	
<input type="button" value="OK"/> <input type="button" value="Annuler"/>	

Location	
Latitude	Longitude
48.784955	2.309515

You can create your own QR Code
Using a free QR Code generator
If you enter a unique ID, don't let
it open !!
Click Refresh to stop data
transfert...



IBM Cloud

Search resources and offerings...

Catalog Docs Support Manage ▾ Corinne Bacle's Account

Resource list /

html5-phone-20200911124338895 Running [Visit App URL](#) [Add tags](#)

Details [Actions...](#)

Getting started

Overview

Runtime

Connections

Logs

API Management

Autoscaling

Availability Monitoring

Instances [Edit](#)

Health

100%

1/1 instance(s) are running

MB memory per instance

0 192 128

Runtime

SDK for Node.js™

128
Total MB allocation

64 MB still available

Used Free

Runtime cost

Current and estimated cost excludes connected services.

0,00 \$US 0.00

0,00 \$US 0,00

Estimated total for billing period

Connections (2)

- iot-phone-cloudant-cloudantNoSQLDB
- iot-phone-iotf-service

To access your IoTPlatform
Click on the connection
Then See next slide

Connections

Resource list /

iot-phone-iotf-service Alias of [Internet of Things Platform-no](#)

Location: Frankfurt Org: corinne.bacle@fr.ibm.com Space: POTIoTH22019



Click on the Alias to access the ressource in the ressource group

Manage

Plan

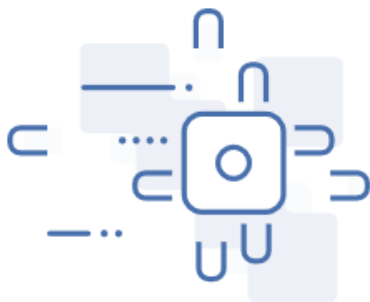
Connections

Resource list /

Internet of Things Platform-no

Resource group: Globale Location: Frankfurt [Add Tags](#)

Click on Manage
then on Launch



Let's get started with IBM Watson IoT Platform

Securely connect, control, and manage devices. Quickly build IoT applications that analyze data from the physical world.

Launch

Docs



Browse Action Device Types

Browse Devices

Type the Device I

👁 All Devices Diagnose

This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.

<input type="checkbox"/>	Device ID ↕	Device Type ↕	Class ID ↕	Date Added
5 results				
// <input type="checkbox"/>	CorinneBacle123	iotphone	Device	Oct 9, 2018 6:03 PM
// <input type="checkbox"/>	Telephone1	iotphone	Device	Oct 9, 2018 6:30 PM



Configure last event cache feature in the IoT Platform (for all)



PLATFORM

About

Identity

Experimental Features

Last Event Cache

DATA AND DEVICES

Custom Device

Management Packages

Device Simulator

SECURITY

Connection Security

CA Certificates

Last Event Cache

The last event cache (LEC) stores information about the last event a connection sends to the platform. For more information, see the last event cache [documentation](#)

Activate Last Event Cache



Events stored in cache

1 day

7 days

Custom Device Management Packages

Custom device management packages can be uploaded to add new device management packages. Custom device management packages must consist of valid JSON in order to be added. For more details see the custom device management package [documentation](#)

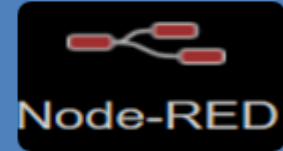
Node-RED

User 2

IBM Cloud user 2

Step 2 & 3 bis

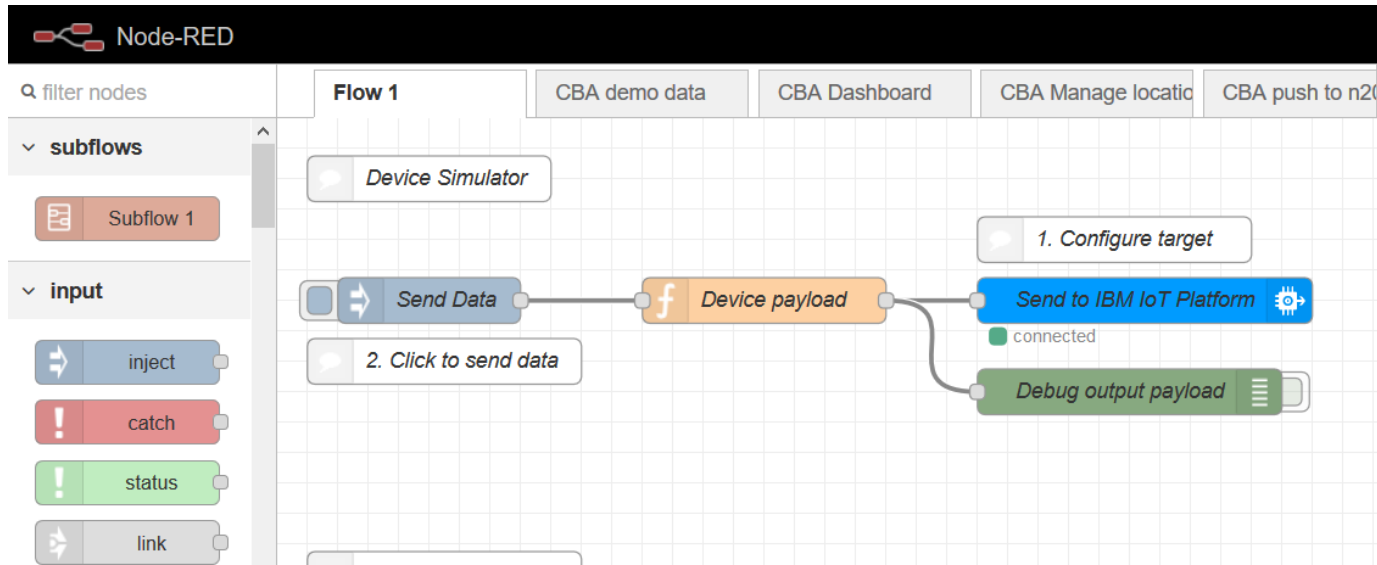
Node-RED
Starter



Cloudfant

Watson
services

Create a NodeRed and link it to your application as user 2



Log in <https://cloud.ibm.com> as **USER 2**

IBM Cloud

Catalog

IBM Cloud catalog

Featured

Services

Software

Consulting

Category

Analytics

Developer Tools

Product

Search resources and offerings...

node-red

Search results for 'node-red' 3 results

Node-RED App

IBM • Software • Developer Tools

Start building your next Node-RED app on IBM Cloud.

Starter kits • IBM Kubernetes Service • Red Hat OpenShift

node-exporter

Third party • Software • Analytics

Prometheus exporter for hardware and OS metrics exposed by UNIX kernels, with pluggable metric collectors.

Helm charts • IBM Kubernetes Service • Free

Catalogue / Créer une application /

Node-RED

A proposCréer

Détails

Auteur IBM

Mis à jour 2/10/2020

Type Kit de démarrage

Code source

GitHub

Liens utiles

Dispositions

Tutorial

Présentation

This starter kit provides a pre-configured Node-RED to store the application flow configuration. Add se use the IBM Cloud Developer Tools CLI to run an Foundry or a DevOps Pipeline.

Ce kit de démarrage va vous aider

Generate an application with Node-RED

Generate an application with files for deploying to

Connect to provisioned services

Qu'est-ce que le kit inclut ?

Cloudant

Gratuit pour commencer

Afficher la tarification

Commencer



Node-RED

A propos

Créer

Détails de l'application

Nom de l'application

Node RED MDDJR 2020-09-11



Choose a unique name

Acceptez le nom par défaut ou entrez une valeur pouvant comporter jusqu'à 128 caractères.

Groupe de ressources

Default

Tags ⓘ

Exemples: env:dev, version-1

Plateforme

☒ Node.js

Détails du service

Cloudant★



Create

Node RED MDDJR 2020-09-11 [Ajouter des balises](#)

Détails

UTL de l'application

Vous devez d'abord déployer votre application

Source

Télécharger le code



Groupe de ressources

Default

Cible de déploiement

Vous devez d'abord déployer votre application

Créé

9/11/2020

Services

Automatisation du déploiement



Configuration de la distribution continue

La distribution continue n'est pas activée pour cette application. Activez la distribution continue afin d'automatiser les générations, les tests et les déploiements via Delivery Pipeline, GitLab, etc.

Déploiement de votre application



Node RED MDDJR 2020-09-11

☒ Sélectionner la cible de déploiement... ☐ Configurer la chaîne d'outils DevO...

Automatisation du déploiement

Sélectionnez votre cible de déploiement et configurez votre chaîne d'outils DevOps. Cliquez sur Créer pour créer la chaîne d'outils et démarrer automatiquement le processus de déploiement.

Cible de déploiement



Cloud Foundry

IBM

Déployez et exécutez vos applications sans gérer les serveurs ou les clusters. Un plan Lite est disponible pour un déploiement rapide et facile.

Clé d'API IBM Cloud

Clé d'API IBM Cloud

La valeur est obligatoire.



New



Région

London

Organisation

cocobacle@yahoo.fr

Hôte

node-red-mddjr-2020-09-11

Domaine

eu-gb.mybluemix.r

Annuler

Suivant

○ Sélectionner la cible de déploiement... ● Configurer la chaîne d'outils DevOps

Configurer la chaîne d'outils DevOps

Attribuez un nom à votre chaîne d'outils et sélectionnez la région dans laquelle créer votre chaîne d'outils.

Nom de chaîne d'outils DevOps

NodeREDCBA2020-09-11

Acceptez le nom par défaut ou entrez une valeur pouvant comporter jusqu'à 100 caractères.

Région

Londres

Précédent

Créer

Wait a little
Refresh if necessary

Liste des ressources / Détails de l'application /

Node RED CBA 2020-09-11

Ajouter des balises

Détails

URL de l'application

<https://node-red-cba-2020-09-11.eu-gb.mybluemix.net>

Source

<https://eu-gb.gitcloud.ibm.com/cescaba/NodeREDCBA2020-09-11>

Groupe de ressources

Default

Cible de déploiement

Node RED CBA 2020-09-11

Créé

9/11/2020

Services



Cloudant

[Ouvrir le tableau de bord](#)

[Documentation](#)

Données d'identification

Automatisation du déploiement

Nom

NodeREDCBA2020-09-11

Emplacement

Londres

Intégrations d'outils



Pipelines de distribution

Nom

NodeREDCBA2020-09-11

Statut



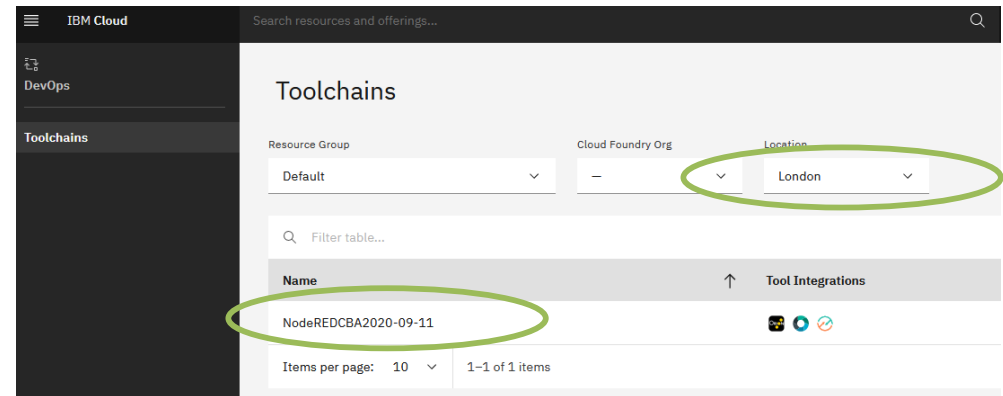
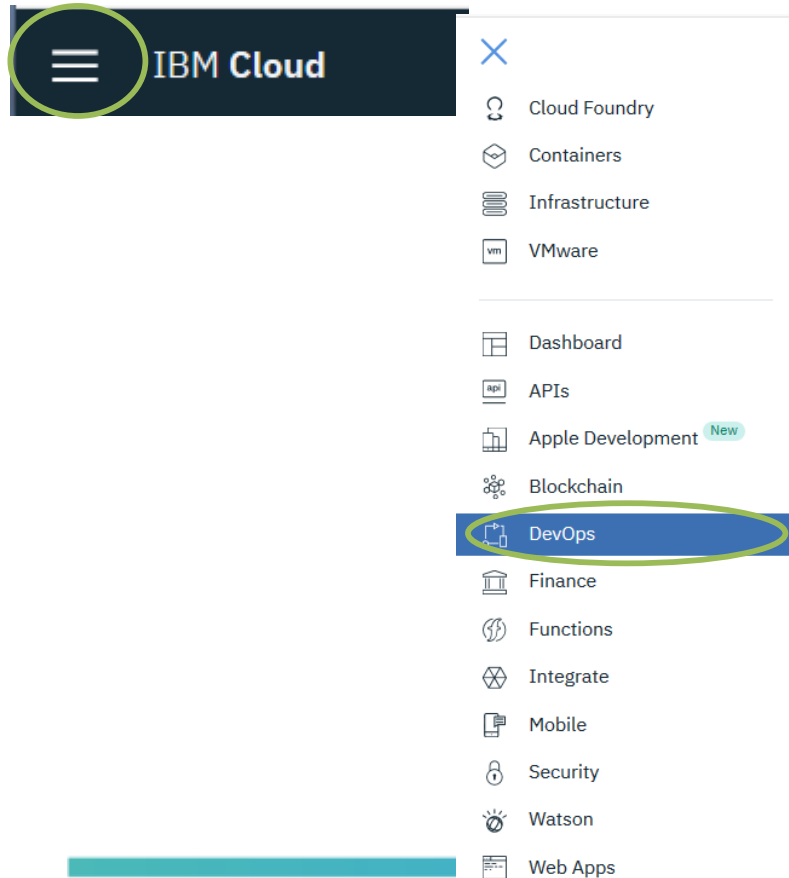
Réussite

Dernière entrée

Dernière validation par IBM Cloud (5 minutes ago)

[Cloner à partir d'un zip](#)

How to find the toolchain if you have closed the tab or if the status is « failed »:



Re deploy if the status is FAILED

Think

Code

Deliver

Issues
NodeREDCBA2020-...

Git
NodeREDCBA2020-...

Delivery Pipeline
NodeREDCBA2020-...

Toolchains / NodeREDCBA2020-09-11 / NodeREDCBA2020-09-11 /

NodeREDCBA2020-09-11 | Delivery Pipeline

Build Stage

STAGE PASSED

LAST INPUT

Git URL

Last commit by Corinne Bacle 3m ago
Update device.js

JOB

Build

Passed now

LAST EXECUTION RESULT

Build 2

Deploy Stage

STAGE FAILED

LAST INPUT

Stage: Build Stage / Job: B...

Build 2

JOB


Deploy

Failed now

LAST EXECUTION RESULT


No results

Open the Node-RED application

 IBM Cloud

Search resources and offerings...

Resource list /

Node RED CBA 2020-09-11 Running [Visit App URL](#) Add tags 

Getting started

Overview

Runtime

Connections

Logs

Instances

Health

100%

1/1 instance(s) are running

Welcome to your new Node-RED instance on IBM Cloud

We know you're eager to start wiring up your flows, but first there are a couple of tasks you should do:

- Secure your Node-RED editor
- Learn how to install additional nodes

Secure your Node-RED editor

☐ Secure your editor so only authorised users can access it

☒ *Not recommended:* Allow anyone to access the editor and make changes

Your editor will not be secured. Anyone with the URL will be able to access your flows, data and bound services.

☒ Tick this box to confirm you want your editor to be insecure



Previous

Next

Node-RED

Flow-based programming for the Internet of Things

Node-RED is a programming tool for wiring together hardware devices, APIs and online services in new and interesting ways.

This instance is running as an IBM Cloud application, giving it

Go to your Node-RED flow editor

Store the link !!

Install IoT nodes

The screenshot shows the Node-RED web interface. On the left, a dark sidebar menu is open, with the 'Manage palette' option highlighted. The main workspace has the 'Nodes' tab selected, and a search for 'wiot' has been performed. The search results list four IoT-related nodes, each with an 'install' button circled in green.

Nodes Search Results:

Node Name	Description	Version	Age	Action
node-red-contrib-ibm-wiotp-device-ops	A collection of Node-RED nodes that can perform a wide range of device and gateway operations on the Watson IoT platform	0.1.3	2 years ago	install
node-red-contrib-ibm-watson-iot	Connect to IBM Watson Internet of Things Platform as a Device or Gateway	0.2.8	2 years, 9 months ago	install
node-red-dashboard	A set of dashboard nodes for Node-RED	2.17.1	1 week ago	install
node-red-contrib-scx-ibmiotapp	IoT Application Node-RED node for the Registered and Quickstart flows in IBM Watson IoT Platform	0.0.49	1 year, 9 months ago	install

Result

▼ input

 Watson IoT

 ibmiot in


▼ output


OpenWhisk 

Watson IoT 


ibmiot out 


▼ Watson IoT


 device manager


 device type manager


▼ dashboard


 button


 dropdown


 slider


 text input


 numeric


 colour picker


 switch


 date picker


 form


 notification


 gauge

 chart

 text

 audio out

 template

 ui control



Create a first flow then deploy



Node-RED

filter nodes

common

inject

debug

complete

Flow 1

timestamp

msg.payload

Deploy

info

Information

Flow	"400886c4.9ae3f"
Name	Flow 1
Status	Enabled

Description

The image shows the Node-RED web interface. On the left, a palette of nodes is visible under the 'common' tab, including 'inject', 'debug', and 'complete'. The main workspace, titled 'Flow 1', contains a flow with three nodes: 'inject', 'timestamp', and 'msg.payload'. The 'inject' node is connected to the 'timestamp' node, which is then connected to the 'msg.payload' node. A blue line also connects the 'complete' node to the 'msg.payload' node. On the right, a sidebar shows the 'info' tab with a table of flow information. The 'Deploy' button in the top right corner is highlighted with a green circle.

Connect the Node-RED to the IoT platform service of the user 1 html 5 application



IBM Cloud user 1

Continuous
Delivery

Git

IoT phone
application

Cloudant

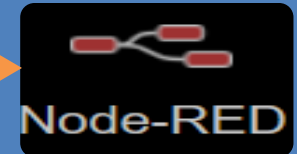
Your device ID: TestPhone		
Connected		
Published Messages: 278		
Movement		
Alpha	Beta	Gamma
0	0	0
Acceleration		
X	Y	Z
0	0	0
Location		
Latitude	Longitude	
0	0	

IoT
Platform

IBM Cloud user 2

Step 2 & 3 bis

Node-RED
Starter



Cloudant

Watson
services



As a User 1 : create API key

Go to the IoT platform service




IBM Cloud Catalog Docs Support Manage

CORINNE BACLE's Acc...

Getting started Overview Runtime



Cloud Foundry apps /

 IoTStarterIoTPhone Running [Visit App URL](#)

Org: corinne.bacle@fr.ibm.com Location: Germany Space: Base

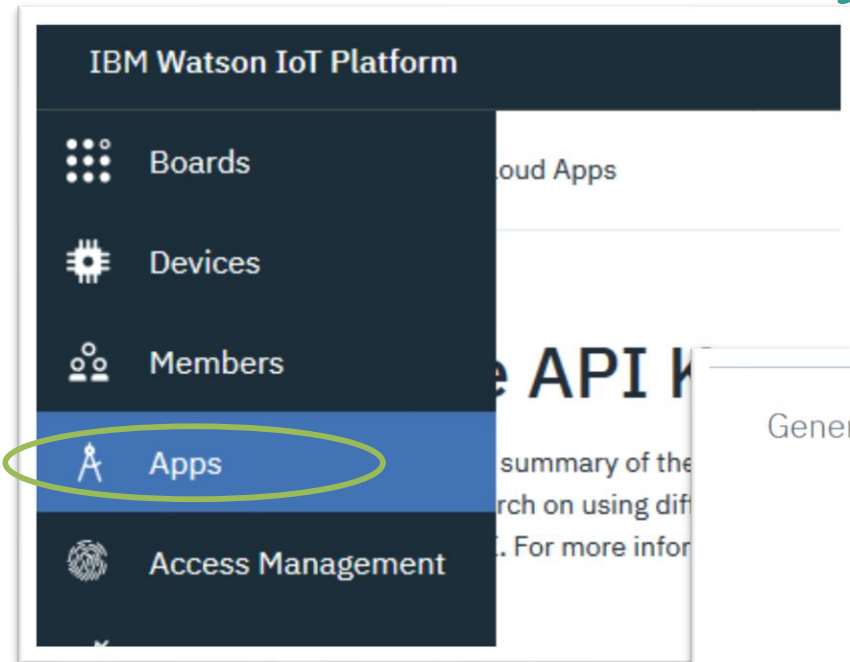
Routes

10 Items per page | 1-2 of 2 items

CONNECTION NAME	TYPE
 IoTStarterIoTPhone-cloudantNoSQLDB Cloudant NoSQL DB	
 IoTStarterIoTPhone-iotf-service Internet of Things Platform	

Go to your IoT Platform service

Create an API Key



Generate API Key

Information ☒ Permissions ☐

The application will have access for the following role:

Role

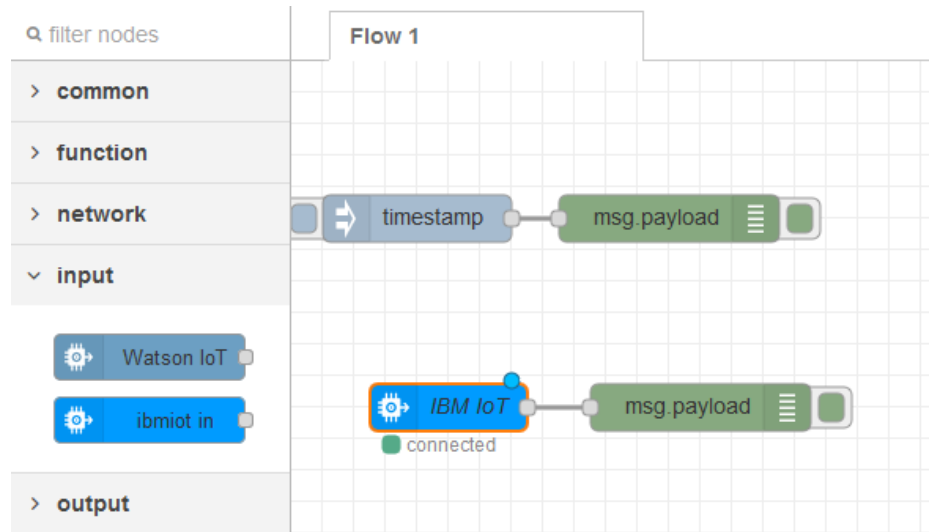
For more information about roles, see [User, application, and gateway roles](#).

[Back](#) [Generate Key](#)



Save the API Key, Authentication Token in a file

As a User 2: connect Node-RED



Create an IBM IoT node linked to a debug node

Open the IBM IoT node

Create the API key (pencil on the right of the API Key attribute) to define the configuration:

Edit ibmiot in node > Add new ibmiot config node

Cancel Add

Properties

Name User1IoTPhone

API Key a-eqbwt6-ysbfjqdgt

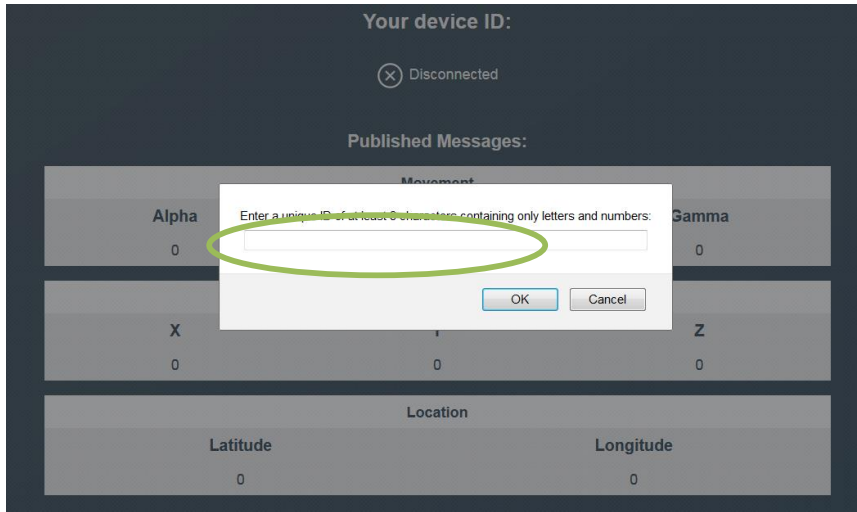
API Token

Server-Name eqbwt6.messaging.internetofthings.ibmcloud.com

Scalable ☐ Application ID

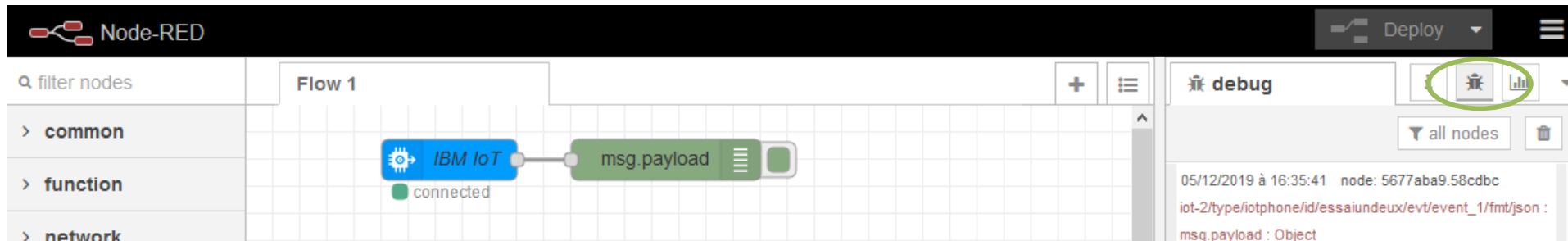
Keep Alive 60 Seconds ☒ Use Clean Session

Check the configuration with the IoT Phone app:



<= Open the phone app
Enter a unique ID

Check the debug tab of the Node-RED to see messages:



POT IBM Watson IoT Platform lab



- I. Prerequisites
- II. Explore data coming from the IoTPhone application
- III. Use data coming from your IoT SmartPhone
- IV. Use your NodeRed application to create and generate an alert
- V. Directly in IoT Platform : Create an alert when your smartphone falls down
- VI. Store your data in a Cloudant NoSQL DB (TBU)
- VII. Create a dashboard application in Node-RED
- VIII. Annex 1 : Secure your Node-RED workspace
- IX. Annex 2 : Defining a simulated device using Node-RED and Watson IoT Platform
- X. Annex 3: sample API usage : device management automation using Node-RED
- XI. Annex 4 : RLAC usage (Ressource-Level Access Control)



Ressources

Découvrez comment Watson IoT peut vous aider à exploiter le potentiel de vos objets connectés.

ibm.com/iot

Tester

https://ibm.biz/try_iot

DeveloperWorks

<https://www.ibm.com/developerworks/learn/iot/>

<https://developer.ibm.com/recipes/>

<https://developer.ibm.com/iotfoundation/>

Watson IoT Academy

<https://www.iot-academy.info/>

