

## CREATION OF NODE-RED SERVICE

# REAL TIME WATER QUALITY MONITORING AND CONTROL SYSTEM

PNT2022TMID43926

## CREATION OF NODE -RED USING KUBERNET

The screenshot shows the IBM Cloud 'Resource list' page. The table lists resources with columns: Name, Group, Location, Product, Status, and Tags. The resource 'Node RED NMKDO 2022-10-20' is highlighted, showing it is a Cloud Application in the Global location, with a status of 'Active'.

| Name                      | Group   | Location | Product             | Status | Tags |
|---------------------------|---------|----------|---------------------|--------|------|
| Continuous Delivery       | Default | Dallas   | Continuous Delivery | Active | -    |
| Node RED NMKDO 2022-10-20 | Default | Global   | Cloud Application   | -      | -    |
| Node RED NMKDO 2022-10-20 | Default | Dallas   | Toolchain           | -      | -    |

The screenshot shows the 'Node RED NMKDO 2022-10-20' app details page. It includes sections for Details, Services, Deployment Automation, and Getting started quickly.

**Details**

- App URL: <http://169.51.204.237:32483>
- Source: <https://us-south.cloud.ibm.com/911019106005/NodeRED...>
- Resource group: Default
- Deployment target: Kube/Helm
- Created: 20/10/2022

**Services**

- Cloudant: [Open dashboard](#), [Documentation](#), [API reference](#), [Credentials](#)
- Buttons: [Connect existing services](#), [Create service](#)

**Deployment Automation**

- Name: NodeREDNMKDO2022-10-20
- Location: Dallas
- Tool integrations: [ci-pipeline](#) (Success), [pr-pipeline](#) (No stages detected)

**Getting started quickly**

**Configuring your app**

To connect services and DevOps toolchains to your app:

1. Use the **Services** card to connect a service to your app. Select an existing service instance, or create a new one. [Learn more](#)
2. If you want to view the code before your app is deployed, click **Download code** to obtain the .zip file.
3. Click **Deploy your app** in the **Deployment Automation** card to select the deployment target and configure the Continuous Delivery service. The deployment begins automatically.
4. After the deployment begins, you can view the status of the deployment, modify your app, view your repo, or view

IBM App Development x Node-RED on IBM Cloud x IBM Watson IoT Platform x

Not secure | 169.51.204.237

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## Node-RED on IBM Cloud

# 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 access to the wide range of services available on the platform.

More information about Node-RED, including documentation, can be found at [nodered.org](https://nodered.org).

[Go to your Node-RED flow editor](#)

[Learn how to customise Node-RED](#)

### Customising your instance of Node-RED

169.51.204.237

27°

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IBM App Development x Node-RED: 169.51.204.237 x IBM Watson IoT Platform x New Tab

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## Node-RED

Deploy

Flow 1 Flow 2

filter nodes

- button
- dropdown
- switch
- slider
- numeric
- text input
- date picker
- colour picker
- form
- text
- gauge
- chart
- audio out
- notification
- ui control
- template

msg payload

function

gauge

ui control

button

info

Search flows

- Flows
  - Flow 1
  - Flow 2
- Subflows
- Global Configuration Nodes

IBM IoT

Node "ea9c3bc3b4a45f51"

Type ibmiot in

show more

28°

ENG IN 18:38 11-11-2022

## USING NODE.JS TO CREATE LOCAL NODE-RED

Installing the node.js .exe

In CMD enter “npm install -g --unsafe-perm node-red”

Enter “node-red”

Enter “pip install ibmiotf”

```
node-red
(c) Microsoft Corporation. All rights reserved.

C:\Users\KANNAN>node-red
11 Nov 19:03:58 - [info]

Welcome to Node-RED
=====

11 Nov 19:03:58 - [info] Node-RED version: v3.0.2
11 Nov 19:03:58 - [info] Node.js version: v18.12.0
11 Nov 19:03:58 - [info] Windows_NT 10.0.22000 x64 LE
11 Nov 19:04:19 - [info] Loading palette nodes
11 Nov 19:04:54 - [info] Dashboard version 1.0.2 started at /ui
11 Nov 19:05:09 - [warn]
-----
11 Nov 19:05:09 - [warn] [node-red-node-rbe/rbe] 'rbe' already registered by module node-red
-----
11 Nov 19:05:09 - [warn]
11 Nov 19:05:09 - [info] Settings file : C:\Users\KANNAN\.node-red\settings.js
11 Nov 19:05:09 - [info] Context store : 'default' [module=memory]
11 Nov 19:05:09 - [info] User directory : \Users\KANNAN\.node-red
11 Nov 19:05:09 - [warn] Projects disabled : editorTheme.projects.enabled=false
11 Nov 19:05:09 - [info] Flows file : \Users\KANNAN\.node-red\flows.json
11 Nov 19:05:10 - [warn]

-----
Your flow credentials file is encrypted using a system-generated key.

If the system-generated key is lost for any reason, your credentials
file will not be recoverable, you will have to delete it and re-enter
your credentials.

You should set your own key using the 'credentialSecret' option in
your settings file. Node-RED will then re-encrypt your credentials
file using your chosen key the next time you deploy a change.
-----

11 Nov 19:05:10 - [info] Server now running at http://127.0.0.1:1880/
11 Nov 19:05:10 - [info] Starting flows
11 Nov 19:05:10 - [error] [ibmiot in:61fd23b3a04816a4] TypeError: Cannot read properties of undefined (reading 'user')
11 Nov 19:05:10 - [error] [ibmiot in:5949acc0ac2111b5] TypeError: Cannot read properties of undefined (reading 'user')
11 Nov 19:05:10 - [error] [cloudant out:48ae35bc95c9ff399] TypeError: Cannot read properties of null (reading 'match')
11 Nov 19:05:10 - [error] [cloudant in:cdee17b8859d51b9] TypeError: Cannot read properties of null (reading 'match')
11 Nov 19:05:10 - [info] Started flows
```