

Create And Configure IBM Cloud Services

Create The IBM Watson IoT Platform And A Device

The screenshot shows the IBM Watson IoT Platform dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A search bar is present with the text 'Search by Device ID'. The main content area displays a table of devices. The first device, ID 1814, is highlighted. Below the table, a detailed view of the selected device is shown, including its identity, device information, recent events, state, and logs. The device information section shows: Device ID: 1814, Device Type: ESP32, Date Added: Nov 13, 2022 2:48 PM, Added By: yokeshjinendiran548@gmail.com, and Connection Status: Connected. A notification at the bottom indicates '1 Simulation running'.

Device ID	Status	Device Type	Class ID	Date Added
1814	Connected	ESP32	Device	Nov 13, 2022 2:48 PM

Device Information

- Device ID: 1814
- Device Type: ESP32
- Date Added: Nov 13, 2022 2:48 PM
- Added By: yokeshjinendiran548@gmail.com
- Connection Status: **Connected**
Connection Time: Nov 19, 2022 7:42 PM
Client Address: 42.111.148.36

1 Simulation running

The screenshot shows the IBM Watson IoT Platform dashboard, specifically the 'Recent Events' tab for device ID 1814. The table displays a live stream of data events. The events are listed with their event names, values, formats, and last received times. A notification at the bottom indicates '1 Simulation running'.

Event	Value	Format	Last Received
status	{"soil_moisture":61,"temperature":43,"humidity"...	json	a few seconds ago
status	{"soil_moisture":90,"temperature":70,"humidity"...	json	a few seconds ago
status	{"soil_moisture":22,"temperature":-20,"humidity"...	json	a few seconds ago
status	{"soil_moisture":99,"temperature":116,"hi		
status	{"soil_moisture":85,"temperature":120,"hi		

1 Simulation running

Create Node-RED Service

The screenshot displays the Node-RED web interface in a browser. The top bar shows the URL `169.51.203.65:30772/red/#flow/775a438e00663222` and a status message "Successfully deployed". The interface is divided into several sections:

- Left Panel:** Contains a "filter nodes" search bar and two categories of nodes: "common" (including inject, debug, complete, catch, status, link in, link call, link out, and comment) and "function" (including a generic function node).
- Canvas:** The central workspace where a flow titled "Smart Agriculture IoT Appli" is built. The flow starts with an "IBM IoT" node (labeled "connected") that branches into three function nodes: "Soil Moisture", "Humidity", and "Temperature". Each of these function nodes is connected to a corresponding "msg.payload" node. These three "msg.payload" nodes are then connected to a "switch" node. The "switch" node has two outputs: one leading to an "http request" node and another leading to a "[get] /data" node. The "http request" node is connected to a "data" function node, which is then connected to an "http" node. The "[get] /data" node is also connected to an "http" node. Below this, there are three nodes: "Motor On", "Motor Off", and "[get] /command". These are connected to an "IBM IoT" node (labeled "connected") and a "msg.payload" node. The "[get] /command" node is also connected to an "http" node.
- Right Panel:** A "debug" console showing a log of messages. The messages are JSON objects with a "command" field, alternating between "motoron" and "motoroff". The log includes timestamps and node IDs.

The bottom of the image shows a Windows taskbar with various application icons, a search bar, and system tray information including the date "18-11-2022" and time "17:04".