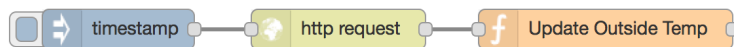


# Insights for Weather in Node-RED

## Hands-On Lab



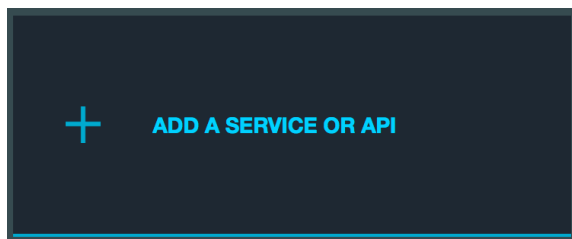
Add a web endpoint to convert text to audio  
(see *Add Weather in Node-RED*)



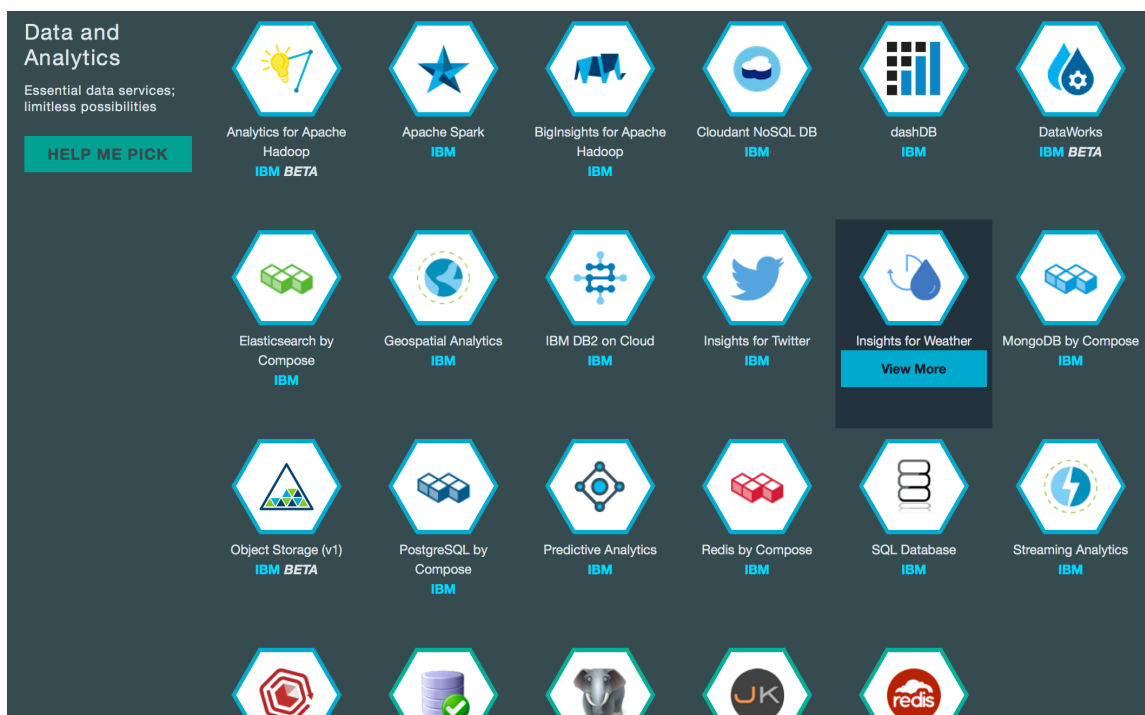
# Add Weather in Node-RED

In this lab, we'll extend the temperature sensor LCD to include the outside temperature. The outside temperature will be retrieved via the Insights for Weather Bluemix service.

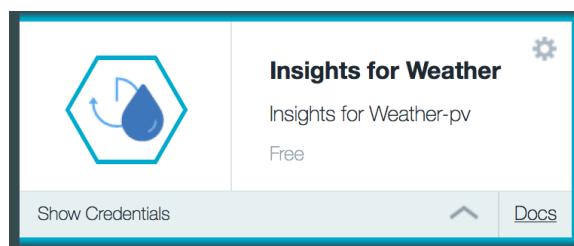
1. In the application overview for your Node-RED application, click on **Add a Service or API**.



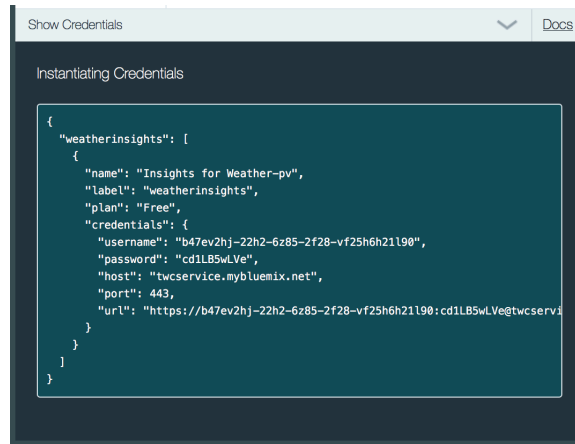
2. Select the **Insights for Weather**.

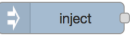


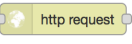
3. Click **Create** to add the service to your application.
4. Click **Restage** to restart the application and update the environment with the credentials to the Weather service.
5. When the application has restarted, return to the application overview, and click on **Show Credentials** in the Insights for Weather tile.



6. Copy the value for URL and save it for Step #8.



7. Add a  node with the following settings. This will trigger the flow once at startup, and then every 30 minutes.

8. Add a  node with the following settings. Use the Weather API URL from the Credentials Step #6, appended with:

`/api/weather/v2/observations/current?units=m&geocode=37.5546765,-122.2836446&language=en-US`

The complete URL should look like this:

`https://b47ev2hj-22h2-6z85-2f28-vf25h6h21l90:cd1LB5wLve@twcservice.mybluemix.net/api/weather/v2/observations/current?units=m&geocode=37.5546765,-122.2836446&language=en-US`

9. Add a function node with the following:

**Edit function node**

Name: Update Outside Temp

Function:

```
1 context.global.outsideTemp =
2 msg.payload.observation.sky_cover+' '+
3 (msg.payload.observation.metric.temp*9/5 + 32)+
4 '*F';
```

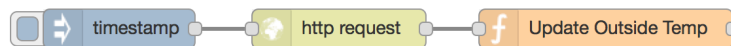
Outputs: 1

See the Info tab for help writing functions.

Ok Cancel

This will concatenate the sky cover and temperature, and store it in a global variable, for use in the next step.

10. Connect the nodes together as follows:



11. Update the Display Temperature function node. Add the line2 property of the message.

**Edit function node**

Name: Display Temperature


Function:

```
1 return {
2   line1: 'Temp: '+msg.fahrenheit+'*F',
3   line2: context.global.outsideTemp ? 'Out: '+context.global.outsideTemp : ''
4 }
```

Outputs: 1

See the Info tab for help writing functions.

Ok Cancel

12. Click on  **Deploy** to save and deploy your changes.

The LCD should display the outside temperature and will update the temperature for the Weather service every 30 minutes.

**Extra!** You can change the location of where the outside temperature comes from. In Step #8, change the geocode value to one of your favorite place.

`/api/weather/v2/observations/current?units=m&geocode=37.5546765,-122.2836446&language=en-US`

The White House:	38.8976805,-77.0387185
IBM Headquarters:	41.1329058,-73.7492039
California State Capitol:	38.5765724,-121.4955135