

Wzzard™ Mesh Gen2 Starter Bundle

Condition Based Monitoring Kit

SETUP MANUAL



ADVANTECH

Advantech - Americas

707 Dayton Road
Ottawa, IL 61350 USA
Phone 1 (815) 433-5100
Fax (815) 433-5105

Advantech - European Headquarters

Westlink Commercial Park
Oranmore, Co. Galway, Ireland
Phone +353 91-792444
Fax +353 91-792445

www.advantech.com
support@advantech-bb.com

CONTENTS

CONDITION BASED MONITORING STARTER KIT4

WZZARD NETWORK SETUP4

DOWNLOADING CONDITION BASED MONITOR Node-RED™ FLOW TO GATEWAY5

POINT THE MQTT DATA TO THE INTERNAL MQTT BROKER12

WAKE UP WZZARD™ MESH EDGE NODE14

ATTACHING THE SENSORS ON THE INTELLIGENT EDGE NODES15

CONFIGURE THE NODE INPUTS TO THE CORRECT SCALING16

ACCESS Node-RED™ UI IN THE GATEWAY19

NETWORK HEALTH PAGE.....20

ACCESSING THE DASHBOARD21

SETTING UP AN E-MAIL ACCOUNT22

SETTING UP YOUR DROPBOX FOR LOGGING.....24

APPENDIX A. CARRIER TEXT MESSAGING URL ADDRESSES27

Node-RED™ SOFTWARE LICENSE29

TECHNICAL SUPPORT29

CONDITION BASED MONITORING STARTER KIT**Kit Model BB-WSK-CBM-2**

The Wzzard™ Mesh Condition Based Monitoring Application makes it simple to see the real time and historical vibration level and temperature of a pump, fan, motor or bearing. Data can be exported to Dropbox for further analysis. Email or text message alerts can be sent when user-configured high or low limits are exceeded in critical applications.

Installation costs are kept low using the Wzzard wireless sensing platform. The platform creates a self-forming, self-healing wireless mesh network that eliminates the need for wires and requires no special skills to install. Each Wzzard sensor node is powered by long life batteries.

Using Node-RED™, a simple, browser based application preinstalled on the gateway, you can monitor current draw from any web browser on your network.

The contents of the kit include:

Qty 1	BB-WSD2M3101P2K	Wzzard Mesh Industrial PWR MON - M12, 2S PWR OUT
Qty 1	BB-HS-104T2505402	Low-power Accelerometer, 250mV/g
Qty 1	BB-MH112-1A	Magnetic Mounting Plate
Qty 1	BB-WSDCBL-ACL-2	WSD Accelerometer Cable
Qty 1	SmartSwarm 342	Ethernet Gateway with Wzzard Mesh

WZZARD NETWORK SETUP

The Wzzard node and gateway in this kit are preconfigured. If this is the only Wzzard device in your vicinity, it will automatically join only this gateway. If other Wzzard gateways or nodes are nearby and unclaimed, you will need to claim the gateway and the node. See respective node and gateway manuals for instructions.

DOWNLOADING CONDITION BASED MONITOR NODE-RED™ FLOW TO GATEWAY

1. Follow the instructions in the Gateway's Quick Start Guide to claim your gateway.
2. Select **View Devices** from the dropdown menu on the WISE-PaaS WebAccess/DMP home screen.

The screenshot shows the 'WebAccess/DMP Dashboard' for user 'knelson@advantech-bb.com'. The 'Devices' menu is open, and 'View Devices' is highlighted with a red circle. Other options include 'Claim/Release Device'. The dashboard also displays a pie chart for device status (Online, Offline, Internal Error) and a list of devices with filters for 'Last 24 hours' and '5 per page'. The list shows 33 filtered devices out of a total of 36.

3. Select your device from the list of available devices.


The screenshot shows the 'View Devices' page. It includes a search bar with the value '433' and a 'Download Client' button. Below the search bar is a table of device information:

Device ID	Name	Type	Profile	Tenant	Online	Password	Custom 1	Custom 2
203-01-6500433	203-01-6500433	SmartSwarm342		BB-OTTAWA		*****		

Showing 1 to 1 of 1 entries (filtered from 36 total entries)

4. Select **Add/Upgrade Apps** tab.

WebAccess/DMP Manage Device
Log off | API | Help



Dashboard
Devices ▾
Users ▾
Tenants
Configuration Profiles
Password ▾
Contact

Dashboard > Devices > Manage Device

Device ID 203-01-6500433

Name

Status

Firmware Push

Device Type SmartSwarm342


MAC Address 00:0A:14:86:77:C6

Custom 1

Custom 2

Online 📶

Settings



Save
Cancel
History
Device Status
Add/Upgrade Apps
Geo Location
Wizzard Mesh

Manage Apps

Remove Selected

	Name	Tag	Type	Version	Help	Added
<input type="checkbox"/>	Components-342	Components-342	Component	1.4.2		05/09/2018 15:16:21
<input type="checkbox"/>	Wizzard Mesh	Wizzard Mesh	Application	1.0.8		05/09/2018 15:16:21

5. Check the box next to **CBM**. A list of components to be updated will appear.

WebAccess/DMP Select Applications Log off | API | Help
Hello, slarsen@advantech-bb.com

ADVANTECH
WISE-PaaS
IoT Edge Intelligence

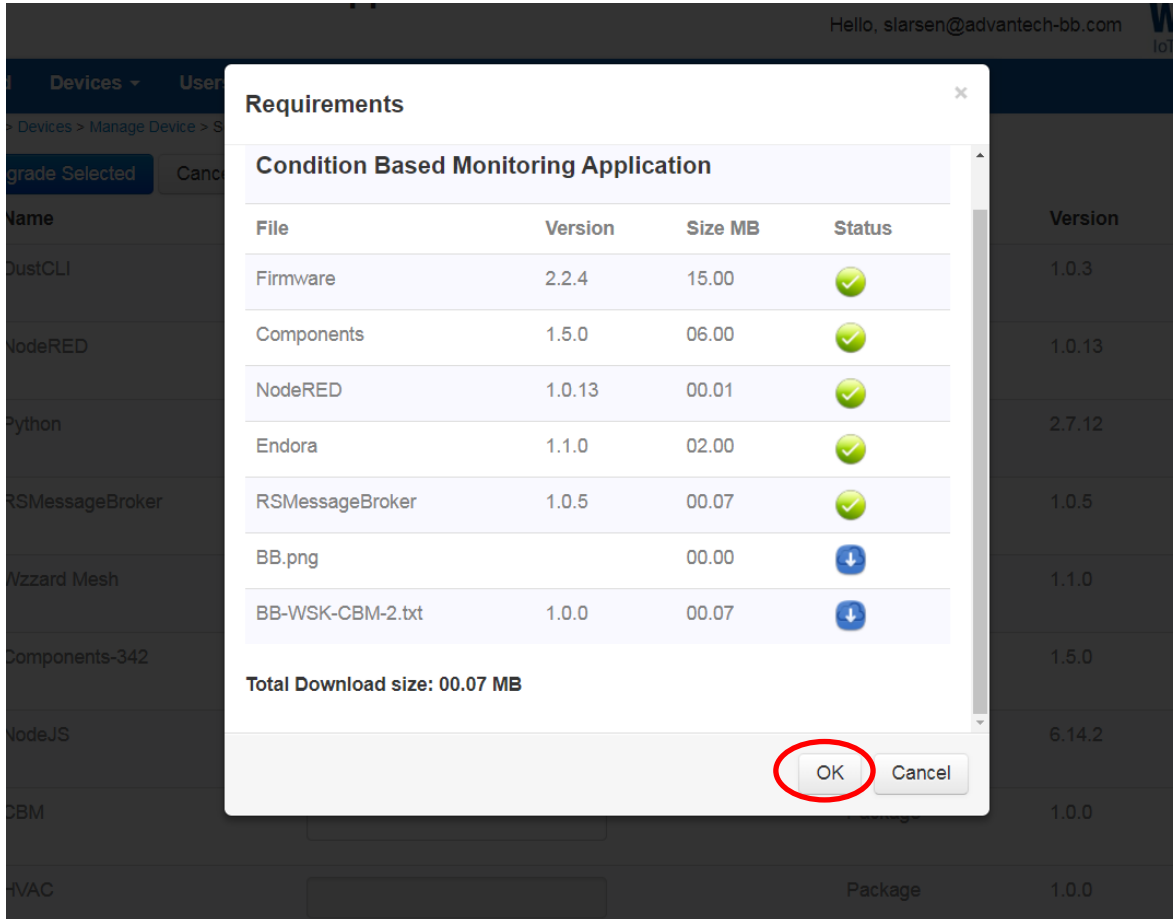
Dashboard Devices Users Tenants Configuration Profiles Password Contact Reports

Dashboard > Devices > Manage Device > Select Applications

Add/Upgrade Selected Cancel

	Name	Tag	Type	Version	
<input type="checkbox"/>	DustCLI	<input type="text"/>	Application	1.0.3	
<input type="checkbox"/>	NodeRED	<input type="text"/>	Application	1.0.13	
<input type="checkbox"/>	Python	<input type="text"/>	Application	2.7.12	
<input type="checkbox"/>	RSMessagesBroker	<input type="text"/>	Application	1.0.5	
<input type="checkbox"/>	Wzzard Mesh	<input type="text"/>	Application	1.1.0	
<input type="checkbox"/>	Components-342	<input type="text"/>	Component	1.5.0	
<input type="checkbox"/>	NodeJS	<input type="text"/>	Component	6.14.2	
<input checked="" type="checkbox"/>	CBM	<input type="text"/>	Package	1.0.0	i
<input type="checkbox"/>	HVAC	<input type="text"/>	Package	1.0.0	i
<input type="checkbox"/>	NRG	<input type="text"/>	Package	1.0.0	i

6. Click **OK** to accept the download.



7. Click **Add/Upgrade Selected** to start the download.

WebAccess/DMP Select Applications Log off | API | Help
 Hello, slarsen@advantech-bb.com **ADVANTECH WISE-PaaS**
 IoT Edge Intelligence

Dashboard Devices ▾ Users ▾ Tenants Configuration Profiles Password ▾ Contact Reports

Dashboard ▾ Devices ▾ Manage Device ▾ Select Applications

Add/Upgrade Selected Cancel

Name	Tag	Type	Version
<input type="checkbox"/> DustCLI	<input type="text"/>	Application	1.0.3
<input type="checkbox"/> NodeRED	<input type="text"/>	Application	1.0.13
<input type="checkbox"/> Python	<input type="text"/>	Application	2.7.12
<input type="checkbox"/> RSMMessageBroker	<input type="text"/>	Application	1.0.5
<input type="checkbox"/> Wzzard Mesh	<input type="text"/>	Application	1.1.0
<input type="checkbox"/> Components-342	<input type="text"/>	Component	1.5.0
<input type="checkbox"/> NodeJS	<input type="text"/>	Component	6.14.2
<input checked="" type="checkbox"/> CBM	<input type="text"/>	Package	1.0.0 i
<input type="checkbox"/> HVAC	<input type="text"/>	Package	1.0.0 i
<input type="checkbox"/> NRG	<input type="text"/>	Package	1.0.0 i

- The download could take several minutes. To monitor the progress, select **History** from the **Manage Device** screen.

Dashboard > Devices > Manage Device

Device ID: 203-01-6500433

Name:

Status:

Firmware:

Device Type: SG30000525-42

MAC Address: 00:0A:14:86:77:C6

Online:

Settings:

As each component is updated, it will be indicated with a check mark.

NOTE: If Node-RED™ nodes are current, they will show with an X.

History

Powered by

[Help](#) [Log off](#)

Hello, knelson@advantech-bb.com

Dashboard
Devices ▾
Users ▾
Technology Providers
Configuration Profiles
Password ▾
Contact

Dashboard > Devices > Manage Device > History

Device Name 203-01-6500433

Device ID 203-01-6500433

Registered On 29/03/2018 17:45:58

Last Check In 17/04/2018 21:03:18

Show entries

Command	Created by	Name	Queued	Completed	Success	Response
UploadConfig	203-01-6500433	2.2.0	17/04/2018 21:01:04	17/04/2018 21:01:04	✓	{ "config": "swm_firewa...
UploadConfig	203-01-6500433	2.2.0	17/04/2018 21:01:01	17/04/2018 21:01:01	✓	{ "config": "swm_firewa...
AddFlow	knelson@advantech-bb.com	CBM	17/04/2018 21:00:59	17/04/2018 21:01:17	✓	Success,["9b17f186.f...
GetFlow	knelson@advantech-bb.com	CBM	17/04/2018 21:00:59	17/04/2018 21:01:04	✓	
InstallNewApp	knelson@advantech-bb.com	CBM	17/04/2018 21:00:59	17/04/2018 21:00:59	✓	Completed
GetBinaryFile	knelson@advantech-bb.com		17/04/2018 21:00:59	17/04/2018 21:01:01	✓	
DownloadSettings	knelson@advantech-bb.com	swm_firewall	17/04/2018 21:00:59	17/04/2018 21:01:01	✓	
DownloadSettings	knelson@advantech-bb.com	swm_firewall	17/04/2018 21:00:59	17/04/2018 21:01:00	✓	
DownloadSettings	knelson@advantech-bb.com	Nodes	17/04/2018 21:00:19	17/04/2018 21:00:20	✓	
UploadConfig	203-01-6500433	2.2.0	17/04/2018 20:57:57	17/04/2018 20:57:57	✓	{ "config": "swm_firewa...

Showing 1 to 10 of 58 entries

Cancel

← Previous
1
2
3
4
5
Next →

NOTE: If, for some reason all or a portion of the installation fails, repeat the procedure to install the rest of the package.

POINT THE MQTT DATA TO THE INTERNAL MQTT BROKER

1. From the **Manage Device** screen, click the **Wzzard™ Mesh** application.

The screenshot shows the 'Manage Device' configuration page for a SMARTSWARM 300 Series device. The device ID is 203-01-6500433, and it is currently operational with firmware 2.2.0. The 'Manage Apps' section contains the following table:

Name	Tag	Type	Version	Help	Added
<input type="checkbox"/> NodeJS	NodeJS	Component	6.2.1		18/04/2018 14:51:22
<input checked="" type="checkbox"/> Wzzard Mesh	Wzzard Mesh	Application	1.0.6		29/03/2018 17:55:17
<input type="checkbox"/> NodeRED	NodeRED	Application	1.0.10		17/04/2018 20:57:46
<input type="checkbox"/> RSMMessageBroker	RSMMessageBroker	Application	1.0.4		17/04/2018 20:57:46
<input type="checkbox"/> Components-342	Components-342	Component	1.4.0		29/03/2018 17:55:17

2. Fill in the **Application Settings** screen as shown and click the **Apply Changes** button.

MQTT

Application Settings

Device ID: 203-01-6500433

Application Name: Wzzard Mesh

Version: 1.0.6

Tag:

* Required Field

MQTT

Host:	<input type="text" value="192.168.1.1"/>
Port:	<input type="text" value="1883"/>
Username:	<input type="text"/>
Password:	<input type="text"/>
Client ID:	<input type="text" value="122"/> *
Timeout (secs):	<input type="text" value="60"/>
Retry Interval (secs):	<input type="text" value="10"/>
Keep Alive (secs):	<input type="text" value="60"/>
Reliability:	<input checked="" type="checkbox"/>
Clean Session:	<input checked="" type="checkbox"/>
Enable TLS:	<input style="border: none; border-bottom: 1px solid gray; width: 100%;" type="text" value="No"/> ▼
Verify Server Cert:	<input type="checkbox"/>

WAKE UP WZZARD™ MESH EDGE NODE

1. Attach the antenna to the Wzzard™ antenna port on the gateway.
2. Attach the external antenna to the node
3. Press and hold the **Config/Status** button for 5 seconds until the Status LED starts blinking.
4. Check LED.
5. After you have awakened the node, the LED will begin to blink. This indicates that the node is attempting to establish a network connection. The LED will cease blinking when a connection is made or after 10 seconds. Press the **Config/Status** LED for approximately 1 second to view the LED status.

LED Indicator	Status
OFF (after button press)	Node is asleep or dead battery.
Slow Blink (1 per second)	Attempting to establish connection with Wzzard mesh network.
Solid ON	Node is connected to a gateway.
Fast Blink (10 per second)	Firmware update in progress.

Note: Refer to the Wzzard Mesh Industrial QuickStart Guide and Manual for further instructions on claiming the node and troubleshooting tips.

ATTACHING THE SENSORS ON THE INTELLIGENT EDGE NODES**1. Connect the Sensor to the Wzzard Mesh Node.**

- Connect the Male end of the supplied M12 cable to the M12 connector on the node.



- Connect the Female end of the supplied M12 cable to the temp/vibration sensor.

**2. Mount Your Sensors.**

The Condition Based Monitoring Kit comes with a magnetic mounting plate for quick mounting.



- Remove the supplied stud from the bottom of the sensor.
- Screw the magnetic mounting plate onto the vibration sensor.
- Select the flattest surface possible on the motor or bearing to be measured.
- Clean the surface where the sensor is to be mounted of any dust, grease and debris.
- Place the magnetic base on the surface to be measured.

CONFIGURE THE NODE INPUTS TO THE CORRECT SCALING

1. Click the **Wzzard Mesh** button on the WISE-PaaS/DMP Manage Device screen.

The screenshot displays the 'Manage Device' page in the WebAccess/DMP interface. The page includes a navigation menu with options like 'Dashboard', 'Devices', 'Users', 'Tenants', 'Configuration Profiles', 'Password', and 'Contact'. The main content area shows device details for a SmartSwarm 300 Series device, including fields for Device ID, Name, Status, Firmware, DeviceType, and MAC Address. There are also input fields for Custom 1 and Custom 2, and a 'Settings' dropdown menu. At the bottom of the page, a row of buttons includes 'Save', 'Cancel', 'History', 'Device Status', 'Add/Upgrade Apps', 'Geo Location', and 'Wzzard Mesh'. The 'Wzzard Mesh' button is highlighted with a red circle.

2. If the analog inputs on the node are not visible in the tree, click the arrow next to the node ID.
3. Select **ai2** from in the selection tree.
4. Change the Engineering Unit to “**g**”.
5. Change the Measured Value X0 to **1.14000** and the Engineering Unit Value Y0 to **0**
This sets 1.14V measured on the sensor to 0g acceleration.
6. Change the Measured Value X1 to **3.14000** and the Engineering Unit Value Y1 to **8.0000**.
This sets 3.14V measured on the sensor to 8g acceleration.
7. Click the link at the top of the screen to review and apply the changes.

Dashboard Devices Users Tenants Configuration Profiles Password Contact Reports

Dashboard > Devices > Manage Device > Wzzard Mesh

You have unsaved changes in this network. [Click here](#) to view these changes or [here](#) to discard them.

00170D00005912DD
 00170D0000310F00
 at: 2019-04-11 19:39:05Z
 ai1 3.610522 V
ai2 0 V
 ai3 365.54 Degrees F
 di1 True bool
 tempint 74.804 F
 vbatt 3.128 V

Sensor Configuration

Enabled ON
 Measurement Type Voltage
 Measurement Unit V

Data Enrichment

Name ai2
 Engineering Unit **g**

Measured Value (V/mA)	Engineering Unit Value
1.14	0
3.14	8

Clear Values

Graph showing a linear relationship between Measured Value (V/mA) and Engineering Unit Value.

8. Select **ai3** from in the selection tree.
9. Change the Engineering Unit to **“Degrees F”**.
10. Change the Measured Value X0 to **0** and the Engineering Unit Value Y0 to **365.54**
This sets 0V measured on the sensor to 365.54 Degrees Fahrenheit.
11. Change the Measured Value X1 to **2.03** and the Engineering Unit Value Y1 to **32**.
This sets another point, 2.03V measured on the sensor to 32 Degrees Fahrenheit.
12. Click the link at the top of the screen to review and apply the changes.

The screenshot shows the WZZARD™ configuration interface. At the top, there is a navigation bar with tabs: Dashboard, Devices, Users, Tenants, Configuration Profiles, Password, Contact, and Reports. Below the navigation bar, a breadcrumb trail reads: Dashboard > Devices > Manage Device > Wzzard Mesh. A notification banner at the top states: "You have unsaved changes in this network. [Click here](#) to view these changes or [here](#) to discard them." The main content area is divided into two sections: "Sensor Configuration" and "Data Enrichment".

Sensor Configuration:

- Enabled: ON
- Measurement Type: Voltage
- Measurement Unit: V

Data Enrichment:

- Name: ai3
- Engineering Unit: Degrees F

Below the "Data Enrichment" section, there are two columns of input fields for mapping measured values to engineering unit values:

Measured Value (V/mA)	Engineering Unit Value
0	365.54000
2.03000	32

A "Clear Values" button is located below the input fields. To the right of the input fields is a line graph showing the mapping of measured values to engineering unit values. The x-axis represents the Measured Value (V/mA) from 0 to 4, and the y-axis represents the Engineering Unit Value from 0 to 400. A blue line connects the point (0, 365.54) to the point (2.03, 32).

ACCESS Node-RED™ UI IN THE GATEWAY

1. Attach the Ethernet cable to the ETH0 port on the gateway and the other end to your PC. You will use an Ethernet connection to configure the gateway and to communicate with it.
2. Attach the supplied power supply and plug it in.
3. Open a browser on your computer and open the Node-RED configuration page. The default address is: **192.168.1.1:1880/ui**. (Chrome™ or Firefox™ recommended.)

Configuration

Wzzard™

Wzzard Node Info

Dust MAC Address: 00170D00005ACA75 The software will automatically use the Dust MAC Address of the device.

Serial No : 0228132304 Hardware Version : 4 Model Type : WSD2M3101P2K

Firmware : 1.5.1 Manufacture Date : 20190228

Select Cellular Carrier Info for Text and Email alerts

Select Carrier Select an Option ▾ Enable Text Alerts Enter Phone # (no dashes) Enable Email Alerts Enter an Email Address _____

Enable Alerts for Ambient Temp (Check = Enabled) Upper Alert _____ Lower Alert _____

Enable Alerts for Bearing Temp (Check = Enabled) Upper Alert _____ Lower Alert _____

Enable Alerts for Vibration Level (Check = Enabled) Upper Alert _____ Lower Alert _____

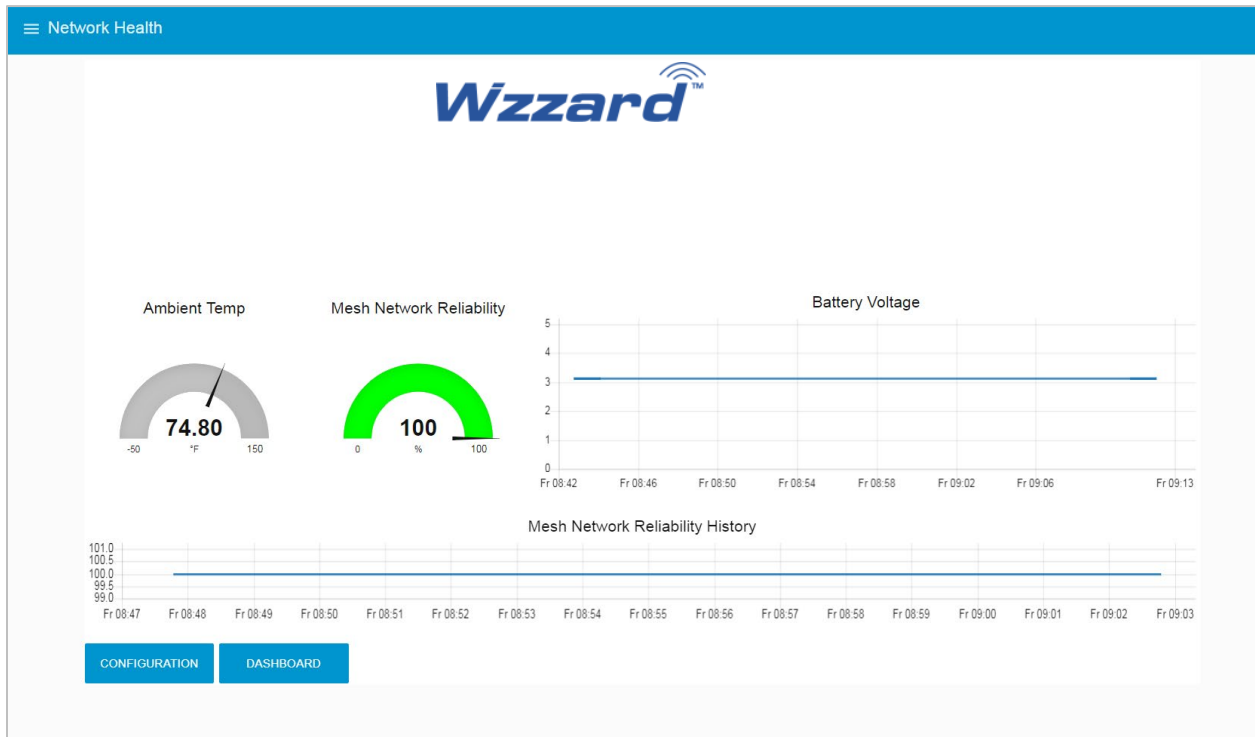
Enable Alerts for Bearing Temp Differential (Check = Enabled) Bearing Temp vs Ambient Temp Alert _____

NETWORK HEALTH **DASHBOARD**

4. The Wzzard node information values on this page will populate when the node joins the network.
5. You can set up a phone number to receive text messages; an e-mail address for receiving alerts on this page. For text messaging, you will need to select the cellular carrier of the receiving phone. If the carrier is not on the list, select custom, and add the URL of the carrier to the phone number (ie: 1-123-2345@txt.abcphone.com). See Appendix A for carrier text addresses. If your carrier is not listed, contact your carrier for the address of their SMS gateway.
6. You can also enable or disable alerts as well as set the trigger values on this page.

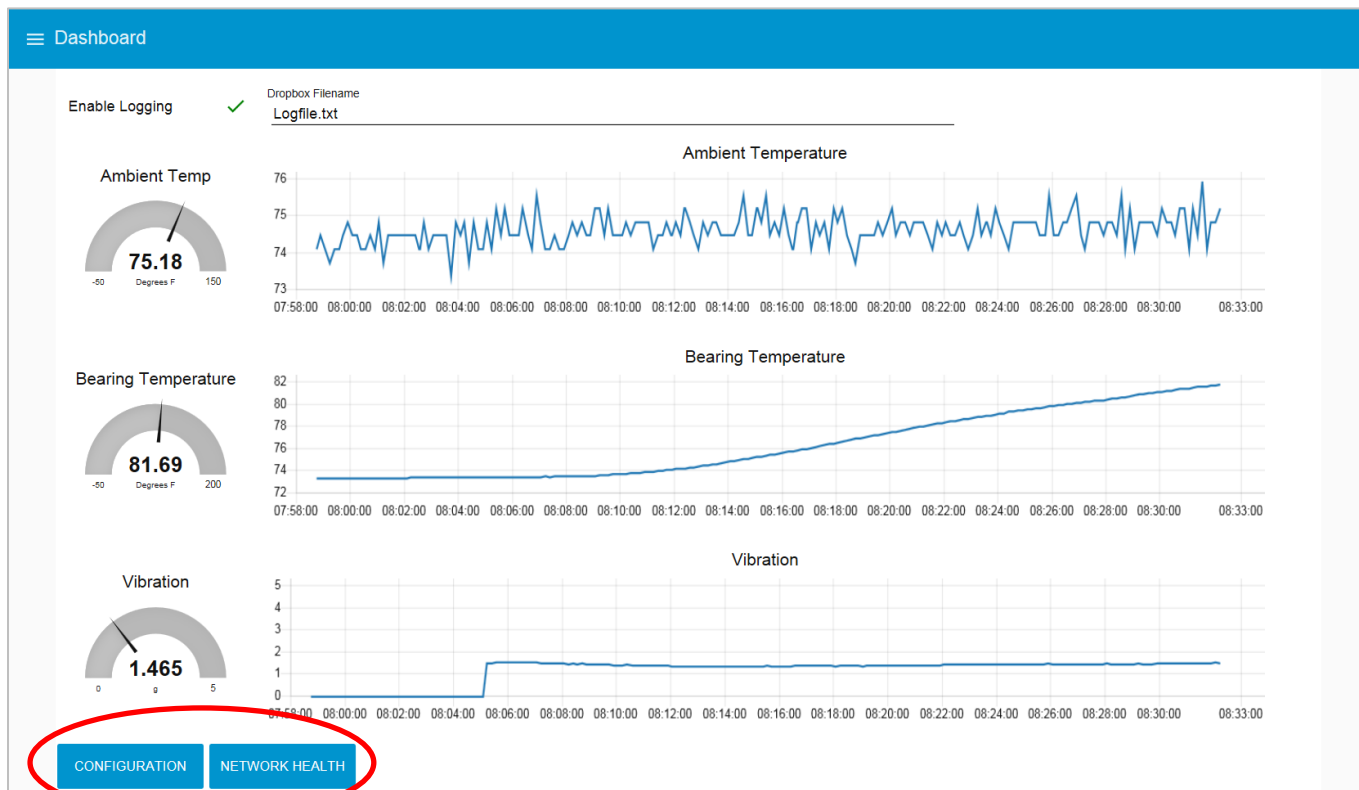
NETWORK HEALTH PAGE

1. Click the **Network Health** button on the lower left corner of the configuration page (see previous screen). The page below appears. This page shows the status of the network.



ACCESSING THE DASHBOARD

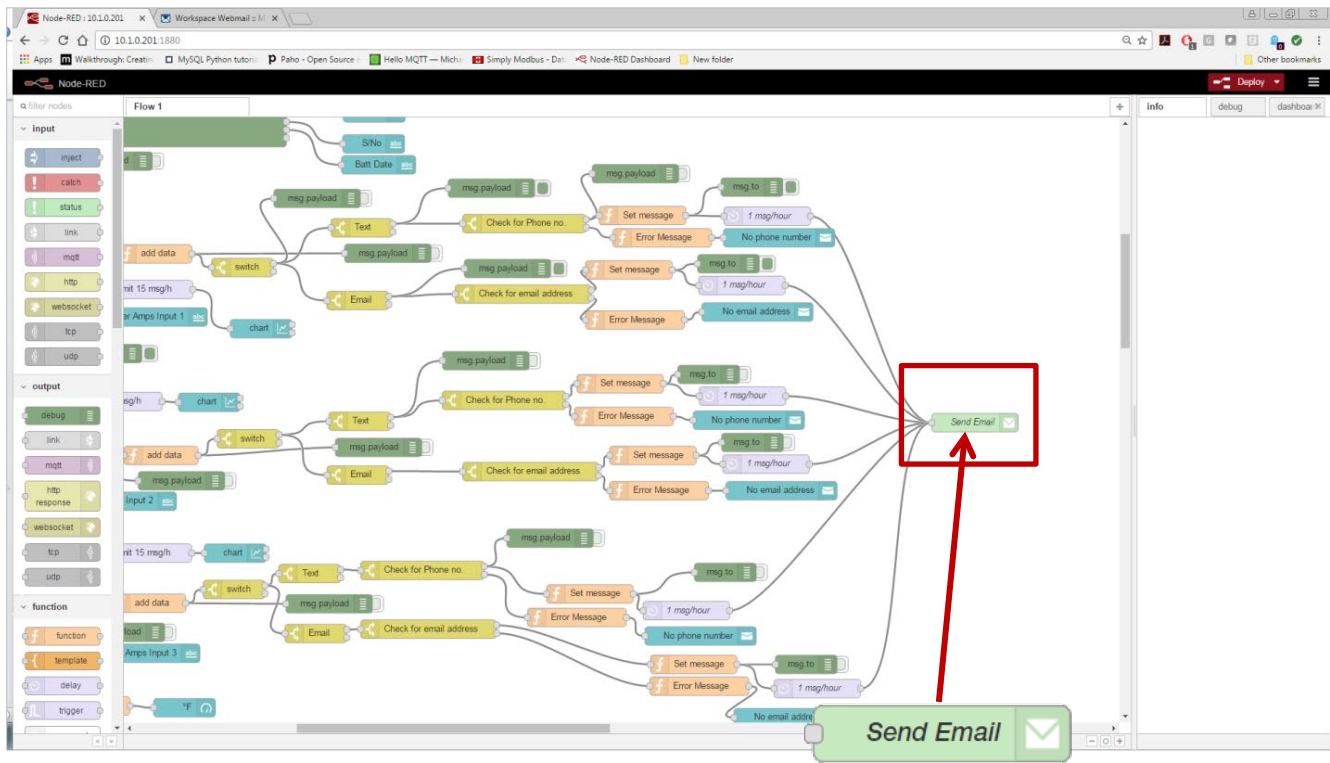
1. Open a browser on your computer and open the Node-RED™ configuration page. The default address is: **192.168.1.1:1880/ui**
2. Click on the **Dashboard** button on the lower left corner of the configuration page.
3. The dashboard should look like the screen below.



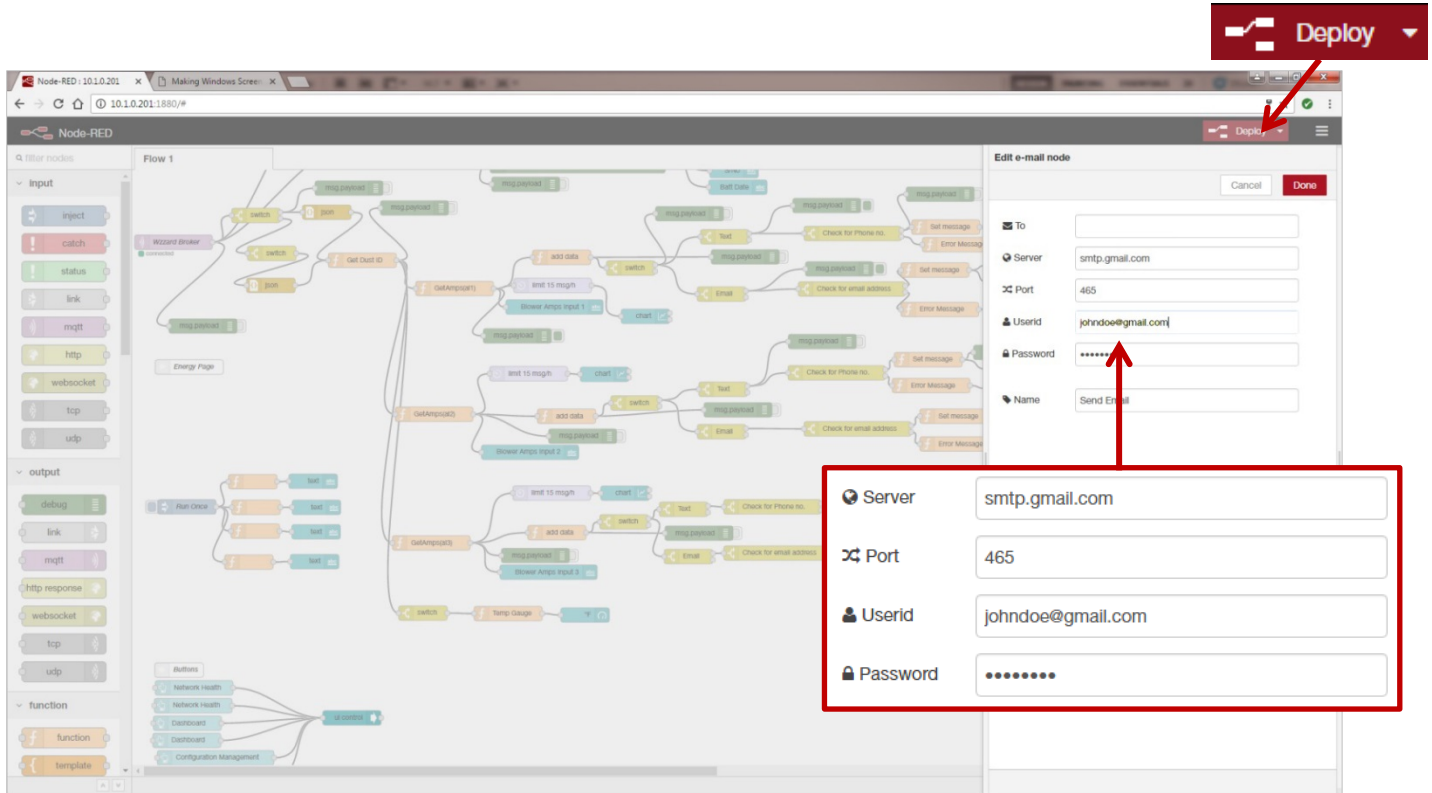
4. You can switch to the **Configuration** page or **Network Health** page by clicking on their respective buttons at the lower left.

SETTING UP AN E-MAIL ACCOUNT

1. From your browser, open the Node-RED™ flow at **192.168.1.1:1880**.
2. Enter your user name and password. Default is:
Username: **NodeRED**
Password: **Smart5warm** (set same as the SmartSwarm 342 password).

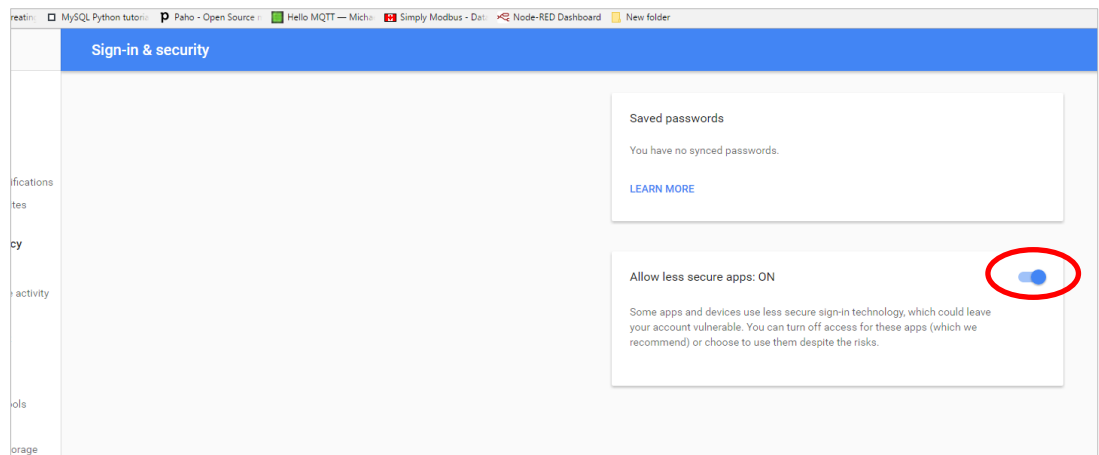


3. Find the **Send Email** node on the right; double-click on it.



3. Enter the **Server** address, **Port**, **UserID** and **Password** for your e-mail server in the appropriate boxes. (Leave the “To” field blank.)

NOTE: If you are using a G-Mail™ account, you will need to enable “Less Secure Apps” in the Google security settings. See below.



4. Click **Done**. Then click the **Deploy** button in the upper right corner of the page.

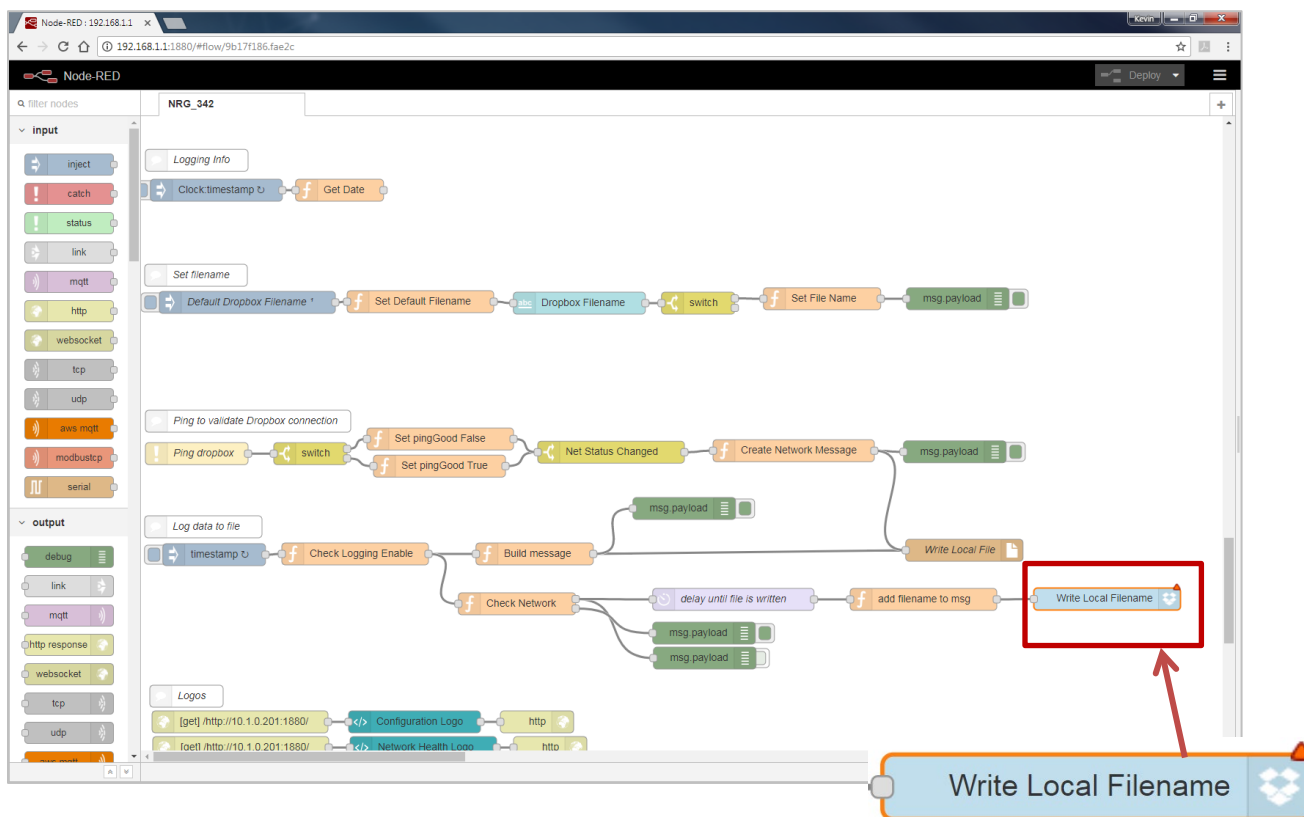
NOTE: Once you deploy the edited flow, you will have to re-enter any alert settings on the Configuration screen of the Dashboard.

SETTING UP YOUR DROPBOX FOR LOGGING

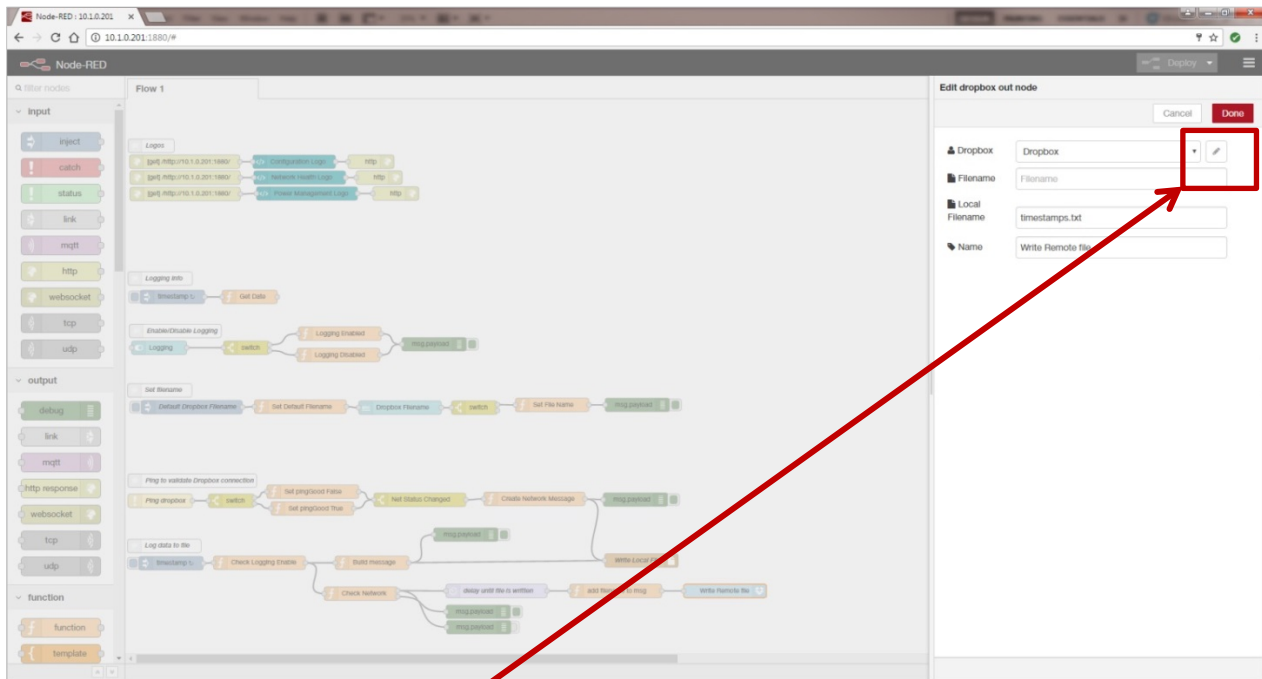
1. Log in to your Dropbox™ account or sign up for a new one.
2. Once signed up or logged in:
 - Go to <https://www.dropbox.com/developers>
 - Click **Create your app** box in the center of the screen.
 - Select **Dropbox API app**.
 - Choose an appropriate answer as to whether your node should be limited to its own folder or given full access. (TIP: This can be changed later, so choose **'Yes'** to restrict the application while testing might be a good idea.)
 - Choose an app name.
 - Click **'Create app'**.

The subsequent app page will contain the App key, App secret and a 'Generate' button to produce a suitable 'access token'. Save these strings so you can enter them into the application later.
3. From your browser, open the Node-RED™ flow at **192.168.1.1:1880**.

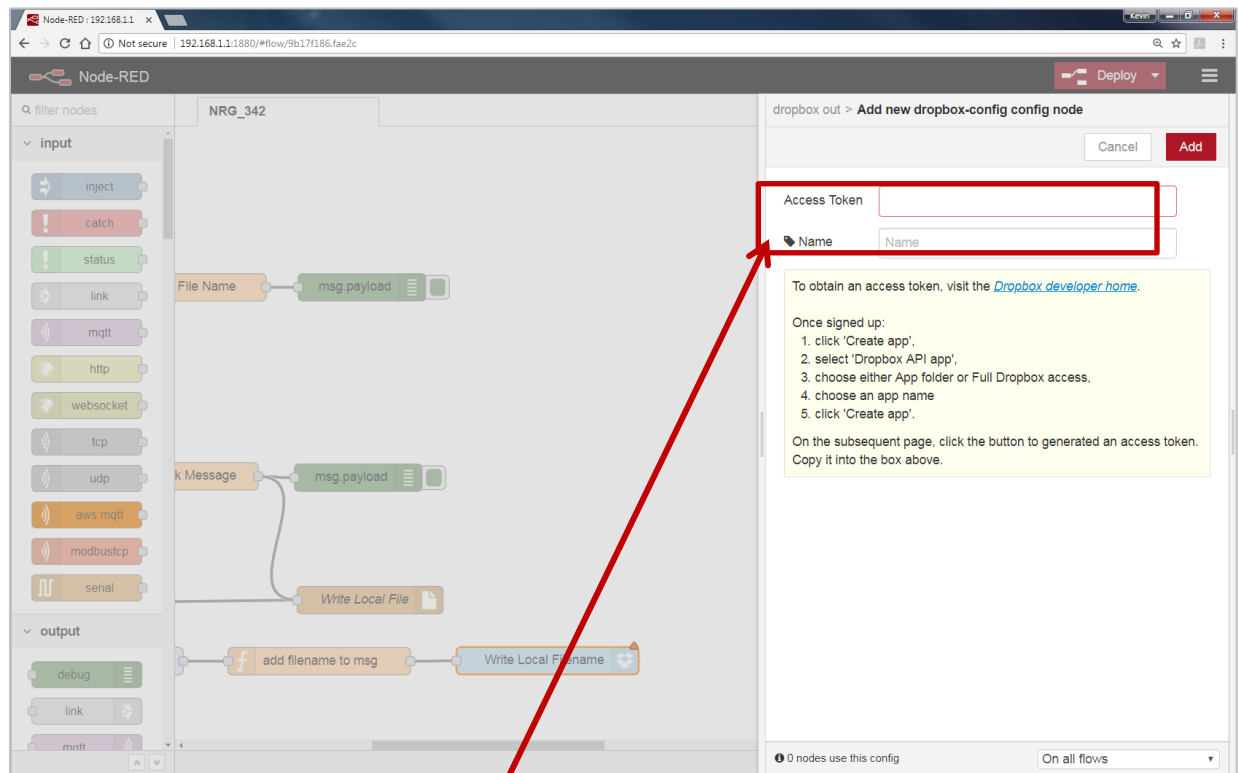
Note: Enter username **NodeRED**. Password is the same as Gateway password (**5mart5warm** default).



4. Double-click on the blue **Write Local Filename** node.



5. Then click on the **pencil icon** next to the Dropbox text window at upper right.



6. Fill in the App Key, App Secret, and **Access Token** that you got from Dropbox in their respective fields. (See yellow box for more information.)
7. Click **Done**, then **Done** again to close both windows.
8. Click the **Deploy** button in the upper right corner of the page.

NOTE: Once you deploy the edited flow, you will have to re-enter any alert settings on the Configuration screen of the Dashboard.

APPENDIX A. CARRIER TEXT MESSAGING URL ADDRESSES

U.S.A. Carriers	
Alltel	[10-digit phone number]@message.alltel.com Example: 1234567890@message.alltel.com
AT&T (formerly Cingular)	[10-digit phone number]@txt.att.net [10-digit phone number]@cingularme.com Example: 1234567890@txt.att.net
Boost Mobile	[10-digit phone number]@myboostmobile.com Example: 1234567890@myboostmobile.com
Nextel (now Sprint Nextel)	[10-digit telephone number]@messaging.nextel.com Example: 1234567890@messaging.nextel.com
Sprint PCS (now Sprint Nextel)	[10-digit phone number]@messaging.sprintpcs.com Example: 1234567890@messaging.sprintpcs.com
T-Mobile	[10-digit phone number]@tmomail.net Example: 1234567890@tmomail.net
US Cellular	[10-digit phone number]email.uscc.net (SMS) Example: 1234567890@email.uscc.net
Verizon	[10-digit phone number]@vtext.com Example: 1234567890@vtext.com
Virgin Mobile USA	[10-digit phone number]@vmobl.com Example: 1234567890@vmobl.com

International Carriers	Email to SMS Gateway
7-11 Speakout (USA GSM)	number@cingularme.com
Airtel (Karnataka, India)	number@airtelkk.com
Airtel Wireless (Montana, USA)	number@sms.airtelmontana.com
Alaska Communications Systems	number@msg.acsalaska.com
Aql	number@text.aql.com
AT&T Enterprise Paging	number@page.att.net
BigRedGiant Mobile Solutions	number@tachyonsms.co.uk
Bell Mobility & Solo Mobile (Canada)	number@txt.bell.ca
BPL Mobile (Mumbai, India)	number@bplmobile.com
Cellular One (Dobson)	number@mobile.celloneusa.com
Cingular (Postpaid)	number@cingularme.com
Centennial Wireless	number@cwemail.com
Cingular (GoPhone prepaid)	number@cingularme.com (SMS)
Claro (Brasil)	number@clarotorpedo.com.br
Claro (Nicaragua)	number@ideasclaro-ca.com
Comcel	number@comcel.com.co
Cricket	number@sms.mycricket.com (SMS)
CTI	number@sms.ctimovil.com.ar
Emtel (Mauritius)	number@emtelworld.net
Fido (Canada)	number@fido.ca
General Communications Inc.	number@msg.gci.net

Globalstar (satellite)	<i>number@msg.globalstarusa.com</i>
Helio	<i>number@messaging.sprintpcs.com</i>
Illinois Valley Cellular	<i>number@ivctext.com</i>
Iridium (satellite)	<i>number@msg.iridium.com</i>
Iusacell	<i>number@rek2.com.mx</i>
i wireless	<i>number.iws@iwspcs.net</i>
Koodo Mobile (Canada)	<i>number@msg.koodomobile.com</i>
LMT (Latvia)	<i>number@sms.lmt.lv</i>
Meteor (Ireland)	<i>number@sms.mymeteor.ie</i>
Mero Mobile (Nepal)	<i>977number@sms.spicenepal.com</i>
MetroPCS	<i>number@mymetropcs.com</i>
Movicom (Argentina)	<i>number@sms.movistar.net.ar</i>
Mobitel (Sri Lanka)	<i>number@sms.mobitel.lk</i>
Movistar (Colombia)	<i>number@movistar.com.co</i>
MTN (South Africa)	<i>number@sms.co.za</i>
MTS (Canada)	<i>number@text.mtsmobility.com</i>
Nextel (United States)	<i>number@messaging.nextel.com</i>
Nextel (Argentina)	<i>TwoWay.11number@nextel.net.ar</i>
Orange Polska (Poland)	<i>9digit@orange.pl</i>
Personal (Argentina)	<i>number@alertas.personal.com.ar</i>
Plus GSM (Poland)	<i>+48number@text.plusgsm.pl</i>
President's Choice (Canada)	<i>number@txt.bell.ca</i>
Qwest	<i>number@qwestmp.com</i>
Rogers (Canada)	<i>number@pcs.rogers.com</i>
SL Interactive (Australia)	<i>number@slinteractive.com.au</i>
Sasktel (Canada)	<i>number@sms.sasktel.com</i>
Setar Mobile email (Aruba)	<i>297+number@mas.aw</i>
Suncom	<i>number@tms.suncom.com</i>
T-Mobile (Austria)	<i>number@sms.t-mobile.at</i>
T-Mobile (UK)	<i>number@t-mobile.uk.net</i>
Telus Mobility (Canada)	<i>number@msg.telus.com</i>
Thumb Cellular	<i>number@sms.thumbcellular.com</i>
Tigo (Formerly Ola)	<i>number@sms.tigo.com.co</i>
Tracfone (prepaid)	<i>number@mmst5.tracfone.com</i>
Unicel	<i>number@utext.com</i>
Virgin Mobile (Canada)	<i>number@vmobile.ca</i>
Vodacom (South Africa)	<i>number@voda.co.za</i>
Vodafone (Italy)	<i>number@sms.vodafone.it</i>
YCC	<i>number@sms.ycc.ru</i>
MobiPCS (Hawaii only)	<i>number@mobipcs.net</i>

Node-RED™ SOFTWARE LICENSE

Copyright (2019) (Advantech)

Node-RED is licensed under the Apache License, Version 2.0 (the "License"),
You may not use the Node-RED software preinstalled in the SmartSwarm gateway except in compliance with the License. You may obtain a copy of the License at:

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.

See the License for the specific language governing permissions and limitations under the License.

TECHNICAL SUPPORT

USA/Canada: 1 (800) 346-3119 (Ottawa IL USA location)

Europe: +353 91 792444 (Ireland location)

Email: Advantech Technical Support

Website: www.advantech.com