

# **Quick Start for SenseCAP Gateway & Sensors**

# This tutorial will guide you to use the SenseCAP M2 Multi-Platform

gateway connect to SenseCAP LoRaWAN® sensors.



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# **1.Gateway Network Configuration**

Connect the antenna and power adaptor to the gateway.

The power LED will show in red, and in about 15s indicator on the top will flash green, indicating that the gateway is booting.



There are two ways to connect to the Internet. Choose the one that works for you.

## **1.1 Connect to Ethernet Cable**

Connect the Ethernet cable to the device, and the indicator on the top will show solid green if the gateway is successfully connected to the internet.



## 1.2 Connect to WIFI

• Step 1: Turn on the device AP hotspot

Press the button for 5s until the blue indicator flashes slowly to enter the configuration mode.

• Step 2: Connect to the AP hotspot

AP hotspot name is SenseCAP\_XXXXXX (6-figure MAC address), default password is 12345678; connect your computer to this AP hotspot.





• **Step 3**: Get your device Username and Password

You can find the Username and Password on your device label.



• Step 4: Log in to the Local Console

Input the IP Address (192.168.168.1) in your browser to enter the Local Console. Then input your device username and password, and click the Login button.

192.168.168.1/cgi-bin/luci/		<del>от</del> 1
SenseCAP		
Authorization Re Please enter your username and Username Password	admin	
	Login Reset	



## • Step 5: Connect to a WIFI

#### Click on Network - Wireless

SenseCAP Status - Syste	em - Network - Logout	REFRESHING
Status System	Interfaces Wireless Diagnostics	
Hostname	SenseCAP	
Model	M2-EU868	
SN	100 000	
Build Version	r1-20220615	
OS Version	0.9.2-3	
Firmware Version	-	
Local Time	2021-08-31 23:11:21	
Uptime	0h 51m 27s	
Load Average	0.56, 0.59, 0.51	
Memory		
Total Available	63.61	MB / 120.53 MB (52%)
Used	45.39	MB / 120.53 MB (37%)
Buffered	5.48	MB / 120.53 MB (4%)
Cached	16.99	MB / 120.53 MB (14%)
Network		

## Click on the Scan button to scan the WIFI.

SenseCAP s	tatus 👻 System 👻 Netwo	rk <del>+</del> Logout		PAUSE
Wireless				
👳 radio0	MediaTek MT76x8 8 Channel: 11 (2.462 GHz)	802.11bgn   Bitrate: 115.6 Mbit/	s	Restart Scan
Associated Sta	tions			
Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
		3. Martin	Collecting data	
				Save & Apply - Save Reset
Powered by LuCI / Op	enWrt 21.02.0 r1-20220615 r1	6279-5cc0535800		

Select your WI-FI to join the network.

Signal	SSID	Channel	Mode	BSSID	Encryption	
🚽 -36 dBm	Sec. 2		1000	$1,2,\dots,2,2,2,2$	- 1.000 PACK 11.1	Join Network
🚄 -34 dBm	201		$\mathcal{L}(\mathcal{L})$	(1,1,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2	100 C 100 C 100	Join Network
🚄 -39 dBm	se4	6	Master	8	WPA2 PSK (CCMP)	Join Network
🚽 -38 dBm	122.00	10	$(2^{-1})_{i=1}^{n}$	(1,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2	internet and a second s	Join Network
🚄 -39 dBm	10.		${}^{-1}(\mathbb{R}^{n})$	1000	2. Select your wifi, then click 'Join Network	din Network
al -35 dBm	in the second		10.00	-	and a second	Join Network

The indicator on the top will show solid green if the gateway is successfully connected to the WIFI.

## **1.3 POE connection**

SenseCAP M2 supports PoE (Power on Ethernet) and is compatible with IEEE 802.3 af standard.

<u>∧</u> Note:

You will need to have an extra PoE switch that provides 40V-57V DC power as a PSE (Power Sourcing Equipment) if your modem/router does not support PoE.

SenseCAP M2 + PoE Router / Modem - <sup>CD</sup> WAN / LAN Power Ø PoE D, (40V-57V) ▥;;;--• ⊡ ٧, THE  $\Box$ . PoE Out ETH In Power In PoE Router / Modem SenseCAP M2 + PoE Switch + Router / Modem - CDT r-- 🗇 **D**-1 WAN / LAN Power ₽ PoE <u>a</u>, (40V-57V) 0 ETH Out ETH In • 🗅 m Router / Modem ٧, Œ ·--PoE Out ETH In Power In

PoE Switch

-

## 1.4 Checking the Gateway Connection Status

After powering on the gateway, you can check the gateway working status through the following methods:

## 1) LED Indicator

Mode		Description
0	Solid	Gateway is healthy and the internet is well connected.
Green	Slow blinking	Gateway is booting, please wait.
	Solid	The gateway is ready for internet connection. Further configuration is needed.
Blue	Slow blinking	Configuration mode, and will auto exit after 5 mins if no activity.
	Fast blinking	Press the button for 30s until the indicator show fast flash will trigger the factory reset.
Orange	Slow blinking	Firmware is updating, and please do not power off the gateway or disconnect the internet.
White	Solid	Gateway is only with a factory firmware, and will be updated to the latest firmware automatically when it is connected to the internet.
Ded	Solid	Hardware issue or internet connection failure.
Rea	Slow blinking	Gateway not connected to the LNS.

#### 2) SenseCAP Mate APP

In the SenseCAP Mate App, "Online status" indicates "Online" when the gateway is connected to the network and can receive and transfer sensor data.

Please refer to the next chapter 2 for obtaining the SenseCAP App.

# 2. Bind the gateway via SenseCAP Mate App

## 2.1 Download the SenseCAP Mate APP

- <u>SenseCAP Mate APP for iOS</u> on App Store
- <u>SenseCAP Mate APP for Android</u> on the Google Play Store
- You can also download App from App Center



Download SenseCAP Mate App

## 2.2 Log in to the APP

if it is your first time to use the SenseCAP platform, please register an account first.



## 2.3 Bind the gateway to the APP

Click the + in the upper right corner and select **Add device** Then scan the QR code on your gateway label.





Set up your device name and location.

<	add device	
Device G1 WorkSpa Defau	name	<image/> <section-header><section-header></section-header></section-header>
	1/2 Next	Image: Statistic stati

After successful binding, you will see your device in the **Device** directory.



# 3. Set up the SenseCAP Sensors via SenseCAP Mate APP

## 3.1 Power on the sensor

Power on the sensor and press the button to enter the configuration mode

## 3.2 Select your device type



## 3.3 Select the frequency plan

Click on "Settings", set the sensor frequency according to your gateway frequency. if your gateway is US915, please set your sensor to US915 frequency.

General	Settin	gs
Platform	Other Platform	~
Frequency Plan	US915	~
Sub-Band	Sub-Band2	~
Uplink Interval (mi	in) 6	0
EU868		
US915		
US915 AU915		
US915 AU915 AS923		
US915 AU915 AS923 IN865		
US915 AU915 AS923 IN865 KR920		

For more detailed about SenseCAP sensors, please refer to: <u>SenseCAP Sensors</u>

## 4. SenseCAP Portal and Mate APP

SenseCAP Mate APP and SenseCAP Portal can be used to check your device status and device management.

- <u>SenseCAP Mate APP for iOS</u> on App Store
- SenseCAP Mate APP for Android on the Google Play Store
- SenseCAP Portal

#### 4.1 Gateway status

Check the gateway info on the SenseCAP Portal and SenseCAP Mate APP

SENSECAP	<u>=</u> ;			<
<ul> <li>Dashboard</li> <li>Devices</li> </ul>	~	evices / Gateway /	Gateway Details – Displaying the	Device
Gateway	or	General Information	Settings	Netwo
Node Group Sensor Node	(i	) General Information		Sensor
DevelopKit	~	) Device Basic Propertie Device Name	Freque	
Table		Gateway EUI Network Standard	2CF	Produc
Graph	e ~	Online Status Frequency(MHz)⑦	Online EU863–870	Add Ti
Measurement		Production Time <sup>®</sup> Binding Time	2022–09–09 15:24:17 2022–09–26 11:20:13	
Security	~	Hardware Version	v1.1 0.9.2–3	
Access API ke	ys ~			

## SenseCAP Portal

De	evice Info
Device UEI	2CF7f
Network Standard	LoRaWAN
Sensor Type	LoraWAN Multi-Platform Gateway
Frequency	US902-928
Production Time	2022-09-14 16:22:02
Add Time	2022-09-29 09:28:08

#### SenseCAP Mate APP

## 4.2 Sensor data

Check the sensor data on the SenseCAP Portal and SenseCAP Mate APP

🕸 SENSECAP 😑							<	2103test	ŝ
O Dashboard	Devices / Sens	or Node / Table / Node [	Details - Displaying the de	tailed information of the devic	e, you can customize the device	name, view devica networking infor	Online		045 0
🖮 Devices 🗸 🗸	General Infor	mation Channel	Data	Sattings	Location Binding		Online Status Bi	attery De	vice EUI
Gateway	C Senter Most	rement Data							
Node Group	Contra model						Air Temperature	Air Lin	midity
Sensor Node		Channel Number 1(C02,	Temperature and Humidit	ty Se… 🗸			Air temperature	All Hu	innuity
<b>A</b> 1 10		A Day	A Week	A Month	Day, Week, Month ends a	at the time of the current time.	26.72 °C	65.54	% RH 💧
DevelopKit			Atr Transmission (1997)		0.000				
📙 Data 🛛 👋		~	_ Ar renpeative-war		-O- Ar Humon	y-4000			
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railine		25		60-	and and and	~~~~	1067 ppm	-	
Graph	Channel	20		40-			in the second se	co/-	
🚠 Custom Type 🗸	Measurement Data	15-		30-					
Management	Device Statue Date	5		20-				20	22-09-29 10:49:16
weasurement	Derive Glassa Data	0		õ			History		
🕏 Security 🛛 👋		12:00 18:00 09-28 09-28	00:00 09+29	06:00 10:09 12:0 09-29 09-29 09-	0 18:00 00 28 09+28 09	000 06:00 10:19 2-29 09-29 09-29			
Annass API keys		Time	Air Temperature-4097	Air Humidity-4098	CO2-4100	Total of 281data, up to 15 per	💧 💧 Air Temperat	ure	
Para and Part Hole		2022-09-29 10:45:00	26.72	65.54	1067				
🗟 Billing 🛛 🗸		2022-09-29 10:25:00	26.29	64.46	897		30	~~~~	
Account		2022-09-29 10:20:00	26.26	63.08	916		25-	~~~~	
Crodit History		2022-09-29 10:10:00	26.48	62.33	1014		15-		
Great History		2022-09-29 10:05:00	26.4	63.8	1085		10 -		
Consumption		2022-09-29 10:00:00	26.3	62.96	825		5 -		
💄 Sub Account 🗸		2022-09-29 09:00:00	20.10	62.37	833		09-22 10:57 09-24 10	0:05 09-26 09:13	09-28 08:21
Add Dub Assessment		2022-09-29 09:45:00	25.79	61.23	727				
ADD SOD ACCOUNT		2022-09-29 09:40:00	25.7	57.25	707		Day	Week	Month
Sub Account List		2022-09-29 09:35:00	25.71	57.91	685			_	
		2022-09-29 09:30:00	25.77	58.77	663		Records 3246		
		2022-09-29 09:25:00	25.86	59.58	647		1000103 3240		
		2022-09-29 09:20:00	25.85	60.35	608		met		
		2022-09-29 09:15:00	25.96	59.81	585		Time	Air	Temperature
			4 5 6 19	> Go to cace					
							2022-09-29 10	49:16	26.72 °C

## SenseCAP Portal

## SenseCAP Mate APP

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