

2022.3.14

## Quick Start Guide for Dragino Gateway devices

### Overview

This guide describes the installation and basic usage of remote.it for Dragino devices.

This guide is based on operations with the Dragino LG308 LoRa Gateway running on firmware lgw-5.4.164031589. If you are using a different firmware version or a different device, the actual contents and messages displayed may differ from those described in this guide.

### Helpful remote.it links

Once installation and registration are completed you may quickly expand to monitor an entire fleet of gateways and other remote.it enabled devices.

- Subscription options Subscriptions and Licensing.
- Share access and account responsibilities with other users Organizations.
- Configure notifications and review access logs <u>Logs and Notifications</u>
- Monitor and access devices from mobile devices <u>iOS and Android</u>
- Build remote.it connectivity into your own platform APIs

### **Dragino Requirements**

remote.it supports the following Dragino devices:

- Firmware version 5.4.1632916986 or higher
- Device model:
  - LG01N, OLG01N (Note: LG01-P, LG01-S does not support)
  - LG02, OLG02
  - LG308, DLOS8
  - o LSP8
  - LIG16
  - MS14 series (If installed with the same firmware.)

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### 1. Preparation

In order to install remote.it on a Dragino device and register it as a target device, you will need a remote.it account and a desktop application.

Please create an account and install the desktop application on your PC in advance.

#### 1.1. Create a remote.it account

1) Go to the Create Account page on the remote.it website and follow the instructions to create a remote.it account.

\*You will need an email address that you can receive email from, as you will need to click on a link in the verification email.

#### https://app.remote.it/auth/#/sign-up

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	remôta.it	
	Remote access made easy	< Sign Up
	remote it helps businesses manage devices and share access to their resources easily and securely, no matter where their users are. Sign up now and connect one or thousands of	Email Address *
	devices.	Enter a password
	Trusted by	Passwords must be 7-64 characters.
		Enter your password again
	BULLSEYE C. karit	Password Strength: Very Weak
		I agree to the remote.it Terms of Use, Privacy Policy and Fair Use Policy.
	SPAN ColourFi 🖗	CREATE ACCOUNT

## remotis.it

2) After creating your remote.it account, make sure you can sign in to the web portal.

#### https://app.remote.it

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rem	ðt∃.it		
Ren	note access made easy		
remote.i to their r users are	thelps businesses manage devices and share access esources easily and securely, no matter where their Sien up now and connect one or thousands of	G SIGN IN WITH GOOGLE	
devices.		Email *	
Trusted b		Password *	word?
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5		Don't have an account yet? Sign up for free!	
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	= Devices	O Q Search devices	0 <i>C</i>
ipjlzbof@sharklasers… ∨		· · · · · · · · · · · · · · · · · · ·	Show advanced columns
ಿದ್ದ Devices	🗌 Status Device Name 🗢	Owner Shared HWID	Interna
容 Contacts			
C. Scripting			
追 Registrations			
Products			
Logs			



#### 1.2. Installing the remote.it desktop application

The remote.it desktop application provides the functions to register a Dragino device with the remote.it installed as a target device to the remote.it account. It also provides the function to make secure P2P connections to target devices registered in the remote.it account.

1) Go to the download page on the remote it website and download the installer for your operating system (Windows / macOS).

#### https://remote.it/download/#desktop

← → C O A https://remote.it/download/#des	sktop						8 ☆	⊚ ≡
remôta.it	Solutions	Pricing	Download	Resources	Support	Sign In	Get Started	
	Desk	top App	lications					
Q Search	Create s	ecure remote	e connections th	rough Windows	RDP, Mac Screen S	Sharing, and more		
	without	open ports.						
Select your Platform								
Android	De	sktop for V	Vindows		Deskt	op for macOS (x8	6 64)	
AWS	(x8	36_64)			2.000			
ios	Pla	tform: Windov	vs		Platforr Target:	n: Mac		
	Tar	get: - e: 153.761063	мв		Size: 10 MD5: d	04.719644 MB 521aeff7d9030ef3a633c6	b351440cf	
Мас	MD	5: a3746f9ed8f	f56ef9ccebb707493	bcd8c	Date: 2	021-08-20		
Raspberry Pi					0	v3.1.5		
Windows	•	v3.1.5					_	

2) Run the downloaded installer and follow the instructions to install the remote.it desktop app on your PC.

\* For more information on how to install and operate the remote.it desktop application, please refer to the following guide as well.

https://support.remote.it/hc/en-us/articles/360048935231



### 2. Installing remote.it and device registration

First, install remote.it on your device and register the device to your remote.it account.

#### 2.1. Check your license key

1) Launch the remote it desktop application installed on your PC, sign in, and click the "Licensing" menu in the "More" menu at the left pane.

(a) remote.it			- 🗆 ×
e +	< > Q	Licensing	
+&* Network	Set up this device Add remote access to this Windows PC or any service on the network.	r remote.it personal plan	MANAGE
Announcements	i Settings : Logs	Log history is available for 1 week 1 of 0 user licenses used	
	△ Notifications ™ Organization	LICENSE KEY 38 3-b79 Be34	
	Licensing		
	Billing		
	L Scripting 기 쇼 Registrations 기		
	Products 7		
💬 Feedback			

2) Note down the "LICENSE KEY" value displayed in the right pane. You can also copy the license key to the clipboard by clicking on its box.

		- 🗆 X
	Licensing	
vice ss to this Windows PC or any work.	r remote.it personal plan	MANAGE
	Log history is available for 1 week 1 of 0 user licenses used Copy License Key	
	LICENSE KEY 38 -b79 e34	



\* The "LICENSE KEY" can also be found in the remote.it web portal.

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	≡ Account	
$\square \square \bigcirc$	Licensing	
🐥 What's New 🦻	remote.it personal plan	
Account	1 of 5 licensed devices	
Documentation 7	7 days of activity logs	
C→ Sign Out	License Key	
	<del>3879634</del>	
r∈mõt∃.it		

#### 2.2. Install and register a device

1) Access the web UI of a Dragino device using a web browser on the local network. (When required to login, login as root.)





2) Click on the "Remote.it" menu in the "Systems" tab.



3) When the "Remote.it" screen appears, click the "Install" button.

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$\leftarrow$ $\rightarrow$ C $\oplus$ 10.211.55.2/cgi-bin/	/system-remoteit.has					ర్≡	۹	
	aWAN ▼ MQTT ▼	TCP 👻 Cu	stom Network <del>-</del>	System -	LogRead <del>▼</del>	Home	Logout	
Remote.it								
1. Install Remote.it								
2. Register								
Bulk ID Code / Licence Key								
Save Register								
3. Remove								
Remove	change registration, plea	ase Remove and	then Install again.					
Status								
Remoteit is not installed								
Device is not registered								
Refresh								



4) The installation process starts. When the installation is complete, you can see the message "Installations complete" in Status.

ote.it	
	Please wait
renditate icence Key ter	
	To change registration, please Remove and then Install again.
Save Reg	ster
3. Remove	
Remove	To change registration, please Remove and then Install again.
Status	
Installing remote	eit (4.13.5) to root Configuring remoteit.
Installation com	plete
Device is not re	gistered
Refresh	

5) Paste your license key in the box under "2. Register" section and click the "Save" button.





6) If the license key is saved successfully, you can see that there are only two status messages, green and red. (The remaining "Installing remote it ...." message disappears.)

Status
Remoteit is installed
Device is not registered
Refresh

7) Then, click the "Register" button.

LoRa Gateway	× +								-		×
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	LoRaWAN 🗸	MQTT 🕶	TCP 🔻	Custom	Network -	System 🔻	LogRead <del>▼</del>	Home	Logou	ıt	
Remote.it	I										
1. Install Remote.it											
Install											
2. Register											
Bulk ID Code / Licence Key	f2	ie3-3	b								
Save											
3. Remove											
Remove	To change re	gistration, ple	ase Remov	e and then Ir	nstall again.						
Status											
Remoteit is installed											
Device is not registered											
Refresh											

8) If the device registration is successful, you can see that both status messages turn green.

Status	
Registration complete	
Device is registered	
Refresh	

9) Launch the remote it desktop application again, and confirm that the name of the registered device has been added to your device list.

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•	g <mark>+</mark>		V	≣≣ ces
• රි.	Network	Tragino-204eb0 <sup>∞</sup>		
	Devices 1			
$\bigtriangledown$	Announcements			
•••	More			
Û	Feedback			

\* Note that the hostname of the device is used by default as the device name to be registered for remote.it. You can see the hostname at the bottom of the device's Web UI.



Installation and device registration is now complete.

Next, register the service on the Dragino device to be connected using remote.it.



### 4. Service registration

Register the services you want to connect to using remote.it. remote.it registers the services to be connected in units of applications (ports).

In this procedure, we will add SSH and HTTP services on the Dragino device as an example.

1) Go to the device list in the remote it desktop app and click on the name of the device you registered.

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	¢ +	< > Q	∀ ≣
		NAME	SERVICES
		তি dragino-204eb0 হ	
۰·°۵	Network		
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7	Announcements		
•••	More		
ġ	Feedback		

2) Click the Add Service button (plus icon) in the middle pane.

🏝 remote.it					
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		💿 dragino-204eb0 🗟			
⊷&ູ Networ	k			(j) Details	۵ F
🔒 Devices	s 1	SERVICES	↓2 +	Dotano	_
Annour	ncements		Add Service		
··· More				Platform:	
				Connectivity:	
				Pormissions:	

3) The configuration screen for the service to be added will be displayed. Select "SSH" from the "SERVICE TYPE" pull-down menu, and click the "SAVE" button.

				- 🗆 ×
+	< > Q dragino-204eb0 😤		Add service	Secure shell terminal TCP protocol
1	SERVICES	↓ <sup>A</sup> +	SSH SERVICE NAME * SSH	
			SERVICE HOST ADDRESS * 127.0.0.1	Local network IP address or fully qualified domain name to host this service. Leave blank for this system to host. AWS example: vpc-domain-name-
			Enable service     Disabling your service will take it offline. Service is	identifier.region.es.amazonaws.com
			CONNECTION DEFAULTS >	

4) Confirm that the service you added appears in the service list in the center pane.

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		ම් dragino-204eb0 🗟		
•°¢°	Network			(i) Details
<u></u> ;;	Devices 1	SERVICES	↓å +	Dotano
$\Box$	Announcements	SSH	SSH	
***	More			Platform: Connectivity:

5) Follow the same procedure to add the HTTP service.

<u>\* For services that do not have a preset in the pull-down of "SERVICE TYPE", you can use the TCP type to edit the service name and port number.</u>

				- 🗆 X
+	< > Q <sup>®</sup> dragino-204eb0 <sup>©</sup>		Add service	Web protocol
	services SSH	↓ <b>2</b> +	HTTP *	
			SERVICE PORT * 80 SERVICE HOST ADDRESS * 127.0.0.1	Local network IP address or fully qualified domain name to host this service. Leave blank for this system to host. AWS example: vpc-domain-name-
			Enable service Disabling your service will take it offline. Service is	identifier.region.es.amazonaws.com enabled
			CONNECTION DEFAULTS >	

7) Confirm that the service name you just added is online (the service name is not strikethrough). <u>\* If the service does not come online after waiting a while, try clicking on the reload icon in the upper left corner.</u>

🐴 remote.it						
C +		+	< > Q	dragino-204		
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					Permissions:	(

This completes the registration for the service.



### 5. Connect to registered services using remote.it

This section explains how to use remote.it to connect to registered services.

\* Please also refer to the following guide on how to connect to registered services using remote.it. https://support.remote.it/hc/en-us/articles/4425640060173

1) Launch the remote.it desktop application, sign in, and click on the name of the device you registered.

🍓 remote	sit		– 🗆 ×
	R +	$\langle \rangle > Q$	7 ≣
		NAME	SERVICES
		⑦ dragino-204eb0 <sup>¬</sup>	HTTP SSH
*°°°°	Network		
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2) Click on the service you want to connect to. (Here SSH is selected as an example.)

a remote.it					- 🗆 🗙
J 2 +	< > Q		dragino-	22 OG+ ::	
	😨 dragino-204eb0 🗟				
+‰* Network ┌── Devices 1	SERVICES	↓ž +	(j) Details	<ul> <li>✔ 음악</li> <li>Edit</li> <li>Add User</li> <li>Logs</li> </ul>	
Announcements	НТТР	HTTP			
··· More	SSH	SSH	Platform: Connectivity:	<ul><li>Ø OpenWrt</li><li>Good</li></ul>	
				Availability: 100% Average time online per day. Instability: 0 Average number of disconnects per day.	
			Permissions:	Connect Script Manage	
			Owner:	Sonio net 110	
			Location:	Rohnert Park カリフォルニア州 アメリカ	
			City:	Rohnert Park	

#### 3) Click on the "ADD TO NETWORK" button

							– 🗆 X
+	< > Q ⓒ dragino-204eb0 <sup></sup> ?		SSH				C2 0+ :
1	SERVICES	↓ª +	→ Connect	ن Details	<i>P</i> Edit	음일 Add User	
	HTTP SSH	HTTP			ADD TO N	IETWORK	
			CONFIG I -0 >_	CONNECTION AMME dragino-204ebi Local PORT 33000 LAUNCH TYPE Command Auto Launch	0-ssh		

4) If the connection idle is successful, the address and port number to access from the application will be displayed. Then, click the "LAUNCH" icon.

\* If you have an application that you want to use to connect, specify the indicated address and port number as the connection destination.

							- 🗆 X
+	< > Q ତ dragino-204eb0 奈		SSH				C 2+ :
1	SERVICES	↓å +	→ Connect	) Details	<i>P</i> Edit	음일 Add User	
	HTTP	НТТР					
	SSH SSH		ADDRESS dragino-				
			сору	I ⊸ I	ତ		LAUNCH
			Connecti	on: Idle			
					REMOVE FR	OM NETWORK	



5) Enter a user name for the ssh connection and click the "SAVE" button.



6) The SSH client (standard command prompt on Windows) will launch. You can connect to the SSH console by checking RSA key fingerprint and entering your password as usual.



7) Following the same procedure, you can also connect to the HTTP service (the web UI of the Dragino device) with a browser.



### 5. Uninstallation

To uninstall remote.it, remove the program on the Dragino device and delete the registration information on the remote.it cloud.

#### 5.1. Uninstall remote.it

Remove the remote.it package installed on the Dragino device.

1) Access the web UI of a Dragino device, then click on the "Remote.it" menu in the "Systems" tab.



#### 2) Click the "Remove" button.

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← → C 🌐 10.211.55.2/cgi-bin/system-remoteit.has										
	LoRaWAN 🔻	MQTT 🔻	TCP 🔻	Custom	Network 🔻	System 🔻	LogRead <del>▼</del>	Home	Logout	
Remote.it	Îta.it									
1. Install Remote.it										
Install										
2. Register	tə.it									
Bulk ID Code / Licence Key	38	'96-'	34							
Save										
3 Remove										
S. Remove	To change re	gistration ple	ase Remov	e and then Ir	nstall again					
	5	5 /1			5					
Status										
Remoteit is installed										
Device is registered										
Refresh										



3) If the device registration is successful, you can see the message "Removal complete" in Status.

Save	
3. Remove	
Remove	To change registration, please Remove and then Install again.
Status	
Removing package remoteit from ro	ot
Removal complete	
Refresh	

4) Click on the "Refresh" button and the status message will change to the initial two red messages. The uninstallation is complete.

Save Register	
3. Remove	
Remove	To change registration, please Remove and then Install again.
Status	
Remoteit is not installed	
Device is not registered	
Refresh	



#### 5.2. Delete the remote.it device.

Next, delete the information of the target device registered in remote.it.

1) Launch the remote.it desktop app, sign in, and make sure the target device is "offline".

🐧 remote.	it					
C +		+	< > Q		dragino-204eb	
			ම් dragino-204eb0 🗟			
-Sr*	Network				i	0
~~~~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Davioas		▲ Device offline		Details	Edit
++	Devices					
2	Announcements		SERVICES	I A		
•••	More		SERVICES	÷Ζ	Platform:	8
			HTTP	HTTP	Connectivity:	•
			SSH	SSH		
					Permissions:	C

2) Click the dot icon in the upper right corner of the device detail view, and then click "Delete Device" in the menu.

						– 🗆 X	
< > Q		dragino-204eb0			S 2+		
▲ Device offline		① Details	<i>P</i> Edit	음일 Add User	E Logs	Transfer Device     Delete Device	
SERVICES	↓Â	Platform: Connectivity:					
HTTP SSH	HTTP	2		Availability: 100% Average time online per	r day.		
		Permissions:	Co	Instability: 0 Average number of disc	connects per day.		
		Owner: Last Reported: ISP <sup>.</sup>	1 m Son	inute, 59 second	s ago		



3) Click the "DELETE DEVICE" button on the confirmation screen.



Confirm that the device has disappeared from your device list. The uninstallation is now complete.