



Gateway-G2000

USER's MANUAL

Version 1.3

2018

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1 G2000 INTRODUCTION

G2000 communicates with ESLs through IEEE802.15.4 RF transceivers and interfaces with ESL server.

2 G2000 PRODUCT RELEASE & PREPARING TO INSTALL

2-1 G2000 PRODUCT RELEASE

- Package of the product.



- 4 Dipole antennas are coupled to the G2000 Reverse-SMA connectors.

(Caution : Antenna can be damaged if excessive force is applied. when the Reverse-SMA connector is coupled to the antenna if the antenna can cause damage , if left for a

long time at a low temperature after coupling takes damage to the antenna fixing portion.)



2-2 G2000 POWER SUPPLY & CHECK OPERATION

- Insert the RJ45 (PoE) Connector on the G2000 PoE Connector.



► Check the LED

● RED : DC 5V power is applied.

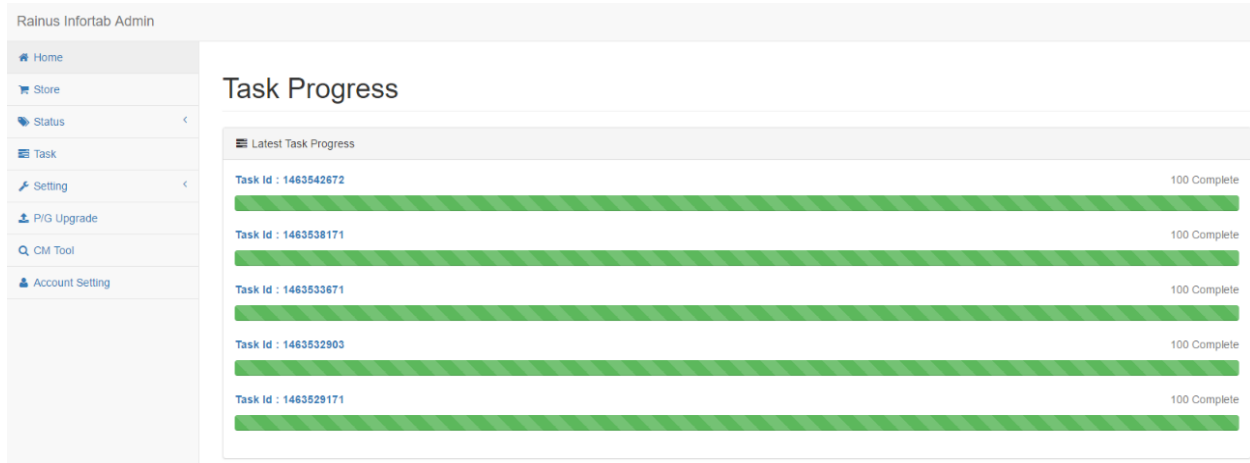
● GREEN : Operation MCU

● BLUE : Operation Ethernet



3 HOME

It shows the progress of recent work.



4 STORE

Displays a list of registered stores.

The output information is as follows.

- Store code
- Number of installed Gateways
- Number of installed Tags(InforTab)

Click the icon of Configure item to go to setting page.

Rainus Infortab Admin

Home Store Status Task Setting P/G Upgrade CM Tool Account Setting

Store

Store Code Store Code

Store Code	Registered GWs	Registered Tags	Updated	Config
store-1	1	1233	2016-05-18 12:37:52	

5 GATEWAY STATUS

Displays the status information of the Gateway.

The output information is as follows.

- Gateway MAC address
- Store code
- Number of registered Tags
- Operation mode
- IP address
- Version information
- Status information

Click the icon of Configure item to go to setting page.

Rainus Infortab Admin										
Home	Gateway Status									
Store										
Status										
Gateway										
Tag										
Task										
Setting										
P/G Upgrade										
CM Tool										
Account Setting										
						Store Code	ALL	Gateway MAC	Gateway MAC	Search
Gateway MAC	Store Code	Registered Tags	OP Mode	Note	IP	Version	Status	Updated	Config	
70.2C.1F.03.1A.21	store-1	1235	norm	Note something	localhost:8080	0.8.0	ok	2016-05-18 15:45:44	⚙	

6 TAG STATUS

Displays the status information of the Tags

The output information is as follows.

- Tags MAC address
- Store code
- Connected Gateway IP address
- The last work done
- Work result
- Battery
- Received signal strength
- Version information

RAINUS INFOTAB ADMIN

Home

Store

Status

Gateway

Tag

Task

Setting

PIG Upgrade

CM Tool

Account Setting

Tag Status

File Import

De-assign

	☐	Tag MAC *	Store Code	Gateway IP	Operation	Result	Battery	RSSI	Version	Updated
	☐	~ X	~ X	~ X	= [All] ▼ X	= [All] ▼ X	>= X	>= X	>= X	>= X
1	☐	702C1FFFE031B34	store-1	localhost:8080	UPDATE	ok	30	-77	26	2016-05-18 16:53:55
2	☐	702C1FFFE031B41	store-1	localhost:8080	UPDATE	ok	30	-72	26	2016-05-18 16:53:55
3	☐	702C1FFFE031B46	store-1	localhost:8080	UPDATE	ok	30	-67	26	2016-05-18 16:53:55
4	☐	702C1FFFE031B4C	store-1	localhost:8080	UPDATE	ok	30	-68	26	2016-05-18 16:53:55
5	☐	702C1FFFE031B52	store-1	localhost:8080	UPDATE	ok	30	-68	26	2016-05-18 16:59:54
6	☐	702C1FFFE031B54	store-1	localhost:8080	UPDATE	ok	30	-70	26	2016-05-18 16:51:55
7	☐	702C1FFFE031B55	store-1	localhost:8080	UPDATE	ok	30	-80	26	2016-05-18 16:53:55
8	☐	702C1FFFE031B57	store-1	localhost:8080	UPDATE	ok	30	-81	26	2016-05-18 16:59:54
9	☐	702C1FFFE031B58	store-1	localhost:8080	UPDATE	ok	30	-68	26	2016-05-18 16:51:55
10	☐	702C1FFFE031B5A	store-1	localhost:8080	UPDATE	ok	30	-74	26	2016-05-18 16:53:55

7 TASK

Show progress of work.

You can click the icon of the detail item to see the details of the operation.

Rainus Infortab Admin						
Home Store Status Task Setting P/G Upgrade CM Tool Account Setting						
Task						
2016-05-18 00:00 2016-05-18 23:59 Search						
Task Id	Store Code	Operation	Progress(%)	Start Time	End Time	Detail
1463557562	'store-1'	UPDATE	99%	2016-05-18 16:46:02	In progress	
1463542672	'store-1'	UPDATE	100%	2016-05-18 12:37:52	2016-05-18 13:19:54	
1463538171	'store-1'	UPDATE	100%	2016-05-18 11:22:52	2016-05-18 11:41:54	
1463533671	'store-1'	UPDATE	100%	2016-05-18 10:07:51	2016-05-18 10:29:54	
1463532903	'store-1'	UPDATE	100%	2016-05-18 09:55:03	2016-05-18 10:07:51	
1463529171	'store-1'	UPDATE	100%	2016-05-18 08:52:51	2016-05-18 09:51:54	

Here are the details of the work.

Task Detail

	Tag MAC	Layout	Pr Code	Pr Info	Result	Date ^
	~ x	~ x	~ x	~ x == [All] x >= x		
1	78E980FFFE002D33	2p13_offerta	213B_NEW	Test #1,9.99,180g./Lt 22,17,8057741681946,MANZI,Bio,10%,3,59,€,NOVI Riccio in Fibre Fonte di Proteine,www.biobottega.it,Sopri una gustosa ricetta,	ok	2016-05-18 16:51:55
2	78E980FFFE002FEC	2p13_offerta	213B_NEW	Test #1,9.99,180g./Lt 22,17,8057741681946,MANZI,Bio,10%,3,59,€,NOVI Riccio in Fibre Fonte di Proteine,www.biobottega.it,Sopri una gustosa ricetta,	ok	2016-05-18 16:51:55
3	78E980FFFE001EF6	1p54_offerta	154B_NEW	Test #1,9.99,180g./Lt 22,17,8057741681946,MANZI,Bio,10%,3,59,€,NOVI Riccio in Fibre Fonte di Proteine,www.biobottega.it,Sopri una gustosa ricetta,	ok	2016-05-18 16:51:55
4	78E980FFFE0021DA	2p13_offerta	213B_NEW	Test #1,9.99,180g./Lt 22,17,8057741681946,MANZI,Bio,10%,3,59,€,NOVI Riccio in Fibre Fonte di Proteine,www.biobottega.it,Sopri una gustosa ricetta,	ok	2016-05-18 16:51:55
5	78E980FFFE002784	2p13_offerta	213B_NEW	Test #1,9.99,180g./Lt 22,17,8057741681946,MANZI,Bio,10%,3,59,€,NOVI Riccio in Fibre Fonte di Proteine,www.biobottega.it,Sopri una gustosa ricetta,	ok	2016-05-18 16:51:55
6	78E980FFFE003001	2p13_offerta	213B_NEW	Test #1,9.99,180g./Lt 22,17,8057741681946,MANZI,Bio,10%,3,59,€,NOVI Riccio in Fibre Fonte di Proteine,www.biobottega.it,Sopri una gustosa ricetta,	ok	2016-05-18 16:51:55

8 SERVER CONFIG

Modify server configuration information.

The input information is as follows.

- Server network information
- Retail Server IP address and Port
- NMS Server IP address and Port
- Data retention period
- Tag refresh cycle
- NTP server synchronization cycle
- Gateway status reporting cycle

Rainus Infortab Admin

Home

Store

Status

Task

Setting

Server Config

Store Config

Gateway Config

P/G Upgrade

CM Tool

Account Setting

Server Config

Server Config

ESL Server IP: 192.168.220.223

ESL Server Port: 80

Default Gateway IP: 192.168.220.1

Netmask: 255.255.255.0

DNS IP: 203.248.252.2

Retail Server IP: 127.0.0.1

Retail Server Port: 10009

NMS Server IP: 192.168.220.27

NMS Server Port: 5000

History Retention (days): 7 DB retention period in days

Tag Display Refresh (days): 7 Tag display auto-refresh interval in days

Time Server Poll Interval (seconds): 30 Time server polling interval in seconds

G/W Status Check Interval (seconds): 600 Gateway Status checking interval in seconds

Submit Reset

9 STORE CONFIG

Displays a list of registered store settings information.

Click the icon of the config item to go to the settings page.

Rainus Infortab Admin

[Home](#)
[Store](#)
[Status](#)
[Task](#)
[Setting](#)
 [Server Config](#)
 [Store Config](#)
 [Gateway Config](#)
[P/G Upgrade](#)
[CM Tool](#)
[Account Setting](#)

Store Config

Store Code [Search](#)

Store Code	Store Name	Total Duration	Event Duration	CP Duration	Time Server IP	Time Server Port	Pan Id	Updated	
store-1	강남점	120000	2000	25000	192.168.220.240	123	257	2016-05-09 17:22:32	⚙

The following is the screen to modify store information.

- Store name
- NTP server information

Rainus Infortab Admin

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[P/G Upgrade](#)
[CM Tool](#)
[Account Setting](#)

Store Config

Store Config Update

Store Code

store-1

Store Name

강남점

Total Duration (milliseconds)

120000

Tag wake-up interval in ms

Event Duration (milliseconds)

2000

Event frame TX duration in ms

CP Duration (milliseconds)

25000

Tag Contention Period in ms

Time Server IP

192.168.220.240

Time Server Port

123

Pan Id

257

Pan ID(0~65534), should use one value for all gateways in a store

[Update](#)

[Reset](#)

10GATEWAY CONFIG

Show list of registered store information.

Click the icon of the config item to go to the settings page.

Rainus Infortab Admin Administrator

Home Store Status Task Setting Gateway Config P/G Upgrade CM Tool Account Setting

Gateway Config

Gateway MAC	Store Code	GW Index	Gateway IP	Netmask	Default GW	DNS IP	ESL Server IP	ESL Server Port	Data Channel	Event Channel	Radio Power	Op Mode	Note	Channel Mask	Radio Baud	GMP Version	GRM Version	Updated	
70:2C:1F:03:1A:21	store-1	1	localhost:8080	255.255.255.0	192.168.220.1	203.248.252.2	localhost	80	15	12	100	norm	Note something	18	250	0.8.0	2	2016-05-09 19:31:11	0

The following is the gateway configuration information modification screen.

Rainus Infortab Admin

Gateway Config

Gateway Config Update

Gateway MAC	70:2C:1F:03:1A:21
Store Code	store-1
GW Index	1 must be a unique value in a store
IP Address	localhost:8080 Gateway IPv4 address
Netmask	255.255.255.0
Default GW	192.168.220.1 Default GW IPv4 address
DNS IP	203.248.252.2
ESL Server IP	localhost ESL Server IPv4 address
ESL Server Port	80
Data Channel	15 IEEE 802.15.4 channel(11~26)
Event Channel	12 channel(11~26), should use one value for all gateways in a store
Radio Power	100 Radio power in percentage(1~100)
OP Mode	norm Use "Normal Operation"
Channel Mask	18 Calculated by system on data channel change
Radio Baud	250 Gateway Ethernet MAC
GMP Version	0.8.0 Gateway Main Processor Version
GRM Version	2 Gateway Radio Module F/W Version
Note	Note something

11P/G UPGRADE

If the version of the server and the gateway program are changed, the upgrade can be performed by uploading the corresponding file.

Here is the program upgrade screen on the server.

Rainus Infortab Admin

Home

Store

Status

Task

Setting

P/G Upgrade

CM Tool

Account Setting

Program Upgrade

Infortab Server

Gateway Main Processor

Gateway Radio Modlue

Infortab Server Version : 1.1.3

Log Download

Drag & drop files here ...

Upgrade file

Browse ...

The following is the gateway main processor program upgrade screen.

Rainus Infortab Admin

- Home
- Store
- Status
- Task
- Setting
- P/G Upgrade**
- CM Tool
- Account Setting

Program Upgrade

Infotab Server Gateway Main Processor Gateway Radio Modlue

GMP Version : None

Uploaded date : 2016-05-18 17:12:14

Drag & drop files here ...

Upgrade file Browse ...

The following is the program upgrade screen of the gateway wireless module.

Rainus Infortab Admin

- Home
- Store
- Status
- Task
- Setting
- P/G Upgrade**
- CM Tool
- Account Setting

Program Upgrade

Infotab Server Gateway Main Processor Gateway Radio Modlue

GRM Version : None

Uploaded date : 2016-05-18 17:12:14

Drag & drop files here ...

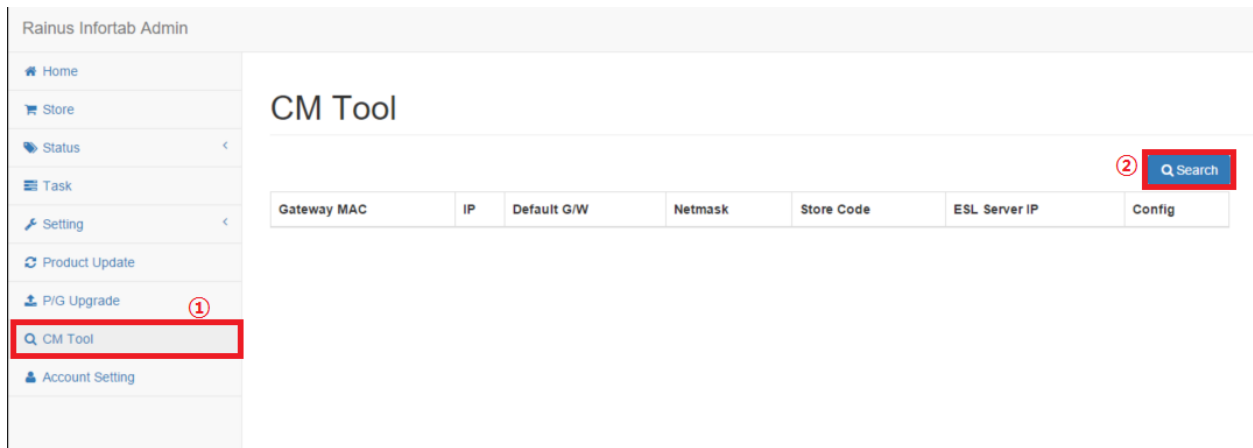
Upgrade file Browse ...

12 CONFIGURATION TOOL

Search the gateway installed in the store and change the network-related configuration information.

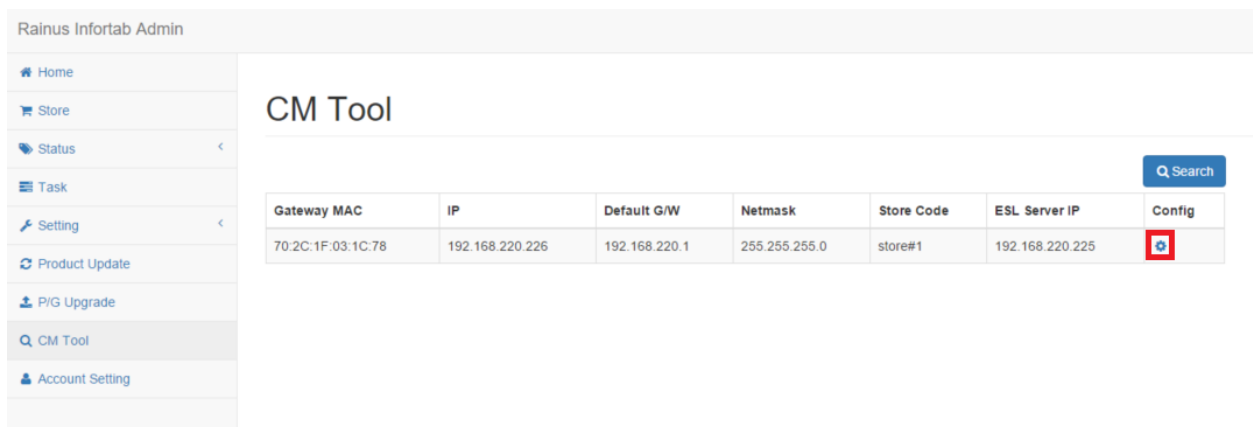
Place the gateway on the same network as the server.

Select the CM Tool menu on the left side and click the Search button on the right side.

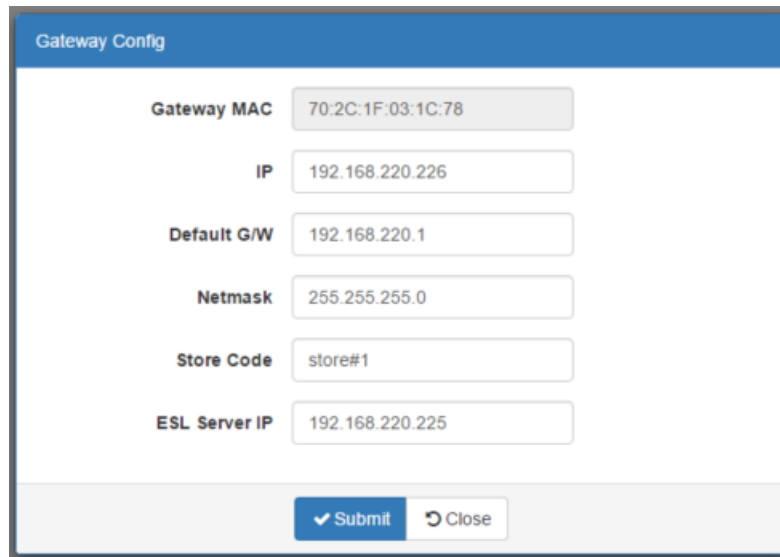


When the screen for the gateway is complete, the results are output as a list.

Click the settings icon on the right.

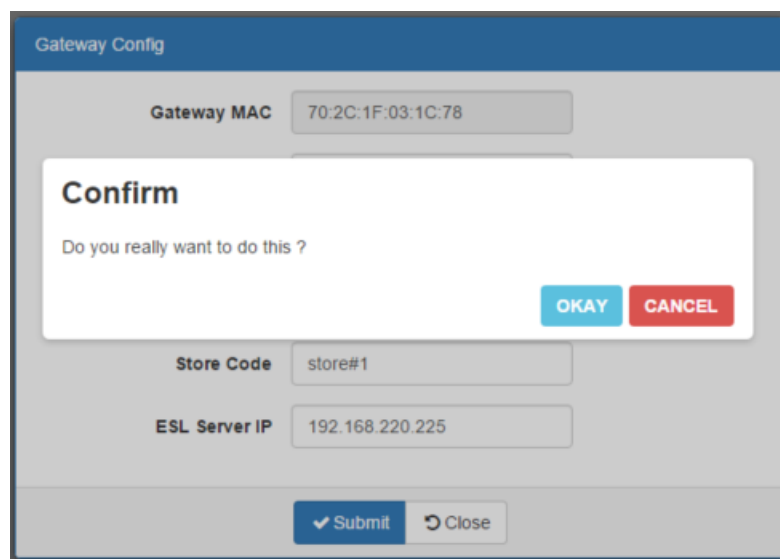


Enter the setup information and click the Submit button.



The image shows a 'Gateway Config' form with a blue header. It contains several input fields with the following values: Gateway MAC (70:2C:1F:03:1C:78), IP (192.168.220.226), Default G/W (192.168.220.1), Netmask (255.255.255.0), Store Code (store#1), and ESL Server IP (192.168.220.225). At the bottom, there are two buttons: 'Submit' (with a checkmark icon) and 'Close' (with a circular arrow icon).

Click the Okay button.



The image shows the same 'Gateway Config' form, but with a 'Confirm' dialog box overlaid in the center. The dialog box has a white background and a blue header with the title 'Confirm'. It contains the text 'Do you really want to do this ?' and two buttons: 'OKAY' (blue) and 'CANCEL' (red). The form fields and buttons are visible behind the dialog box.

13 ACCOUNT SETTING

Change account information.

1. Enter the previous password.
2. Enter a new password.
3. Re-enter the new password.
4. Click the Submit button.

The screenshot shows the 'Rainus Infortab Admin' interface. On the left is a sidebar menu with the following items: Home, Store, Status, Task, Setting, P/G Upgrade, CM Tool, and Account Setting (which is highlighted). The main content area is titled 'Account Setting'. Below this title is a 'Server Config' section containing three password input fields: 'Old password', 'New password', and 'Confirm new Password'. At the bottom of this section are two buttons: 'Submit' and 'Reset'.

Server Config	
Old password	
New password	
Confirm new Password	
Submit Reset	

WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and**
- (2) This device must accept any interference received, including interference that may cause undesired operation.**

CAUTION

Any changes or modifications to the equipment not expressly approved by the party responsible for compliance could void user's authority to operate the equipment.

This appliance and its antenna must not be co-located or operation in conjunction with any other antenna or transmitter.

A minimum separation distance of 20cm must be maintained between the antenna and the person for this appliance to satisfy the RF exposure requirements.