



amnimo C Series
Compact Router
Startup Guide

AC10



AC15



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Licenses and Trademarks

License

- This product uses software based on open source licenses such as GPL (GNU General Public License).

Details are described on our Web site.

https://amnimo.com/docs/compact_router/ja/IM_AMD06A01-12JA_amnimo_compact_router_OSS_license.pdf

- Scope of Warranty and Responsibility
No warranty is made regarding the operation of the open-source software itself in accordance with the terms of the GPL and other applicable laws.

Trademark

- Product names, company names, and other proper nouns used herein are trademarks or registered trademarks of the respective companies.

Introduction

Thank you very much for adopting our compact router amnimo C series ("Compact Router").

The Compact Router Startup Guide ("this document") explains how to set up this Compact Router. Please be sure to read it before using the Compact Router.

After completing the setup, keep this manual in a place where it can be found at all times.

Safety Precautions

Before using the Compact Router, please read the "Before Use" document included with the Compact Router to ensure safe and proper handling.

About Compact Routers

Note on Compact Routers

- Compact routers do not guarantee backward compatibility of product versions with respect to configuration data.
- Compact routers only support operation by amsh.

About This Guide

Notes on this document

- The contents of this document are subject to change without notice.
- Reproduction or reprinting of the contents of this document, in whole or in part, without permission is prohibited.
- While every effort has been made to ensure the accuracy of the information contained in this document, if you have any questions or find any errors, please contact our customer support.

Contact: amnimo Customer Support

E-mail: support@amnimo.com

URL: <https://support.amnimo.com/>






- Please note that revisions may not be made for specification changes, structural changes, or changes in parts used that are not considered to be particularly detrimental to functionality/performance.
- For convenience of explanation, the values of various setting items are shown in this manual as setting examples, but in reality, please enter the setting values according to the environment in which the equipment is used.

Manual List

- amnimo C series compact router user's manual (Japanese edition)
https://amnimo.com/manual/edge_gw/ja/compact_router_users_manual.pdf
- amnimo gateway series CLI User's Manual
https://amnimo.com/manual/edge_gw/cli/en/cli_users_manual.pdf
- Device Management System Manual
https://amnimo.com/manual/edge_gw/alpine/dms/en/index.htm
- amnimo C Series Compact Router Startup Guide (this manual)
https://amnimo.com/manual/edge_gw/sg/en/compact_router_sg.pdf

Icons and symbols used in this manual

Icons and symbols in this manual have the following meanings.

	Information of special note regarding functions and operation.
	Supplemental information regarding functions and operation is provided.
	This section contains reference information within this document and to other documents.
	Indicates that the command can be operated in general user mode.
	Indicates that the command can be operated in administrator mode.

設定モード

Indicates that the command can be operated in setting mode.

Confirmation of Packaged Goods

First, please make sure that all packing materials are present.

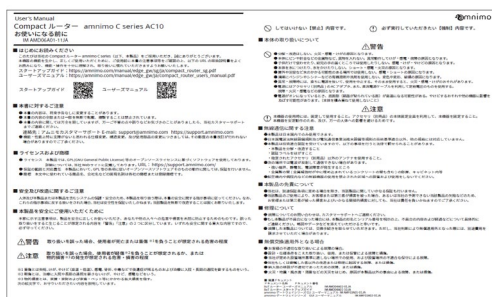
Compact Router Set

Indoor type compact router (AC10)

- Compact router x 1



- Before use x 1



Indoor type Compact router with wireless LAN (AC15)

- Compact router x 1



- Before use x 1



What you need to prepare

When configured as described in this manual, the following optional accessories must be provided.



Optional items are not included in the warranty coverage of the compact router.

Accessories we sell (sold separately)

- ➔ Please refer to the Compact Router User's Manual for specifications and standards.
- AC adapter (DC12V/1A)

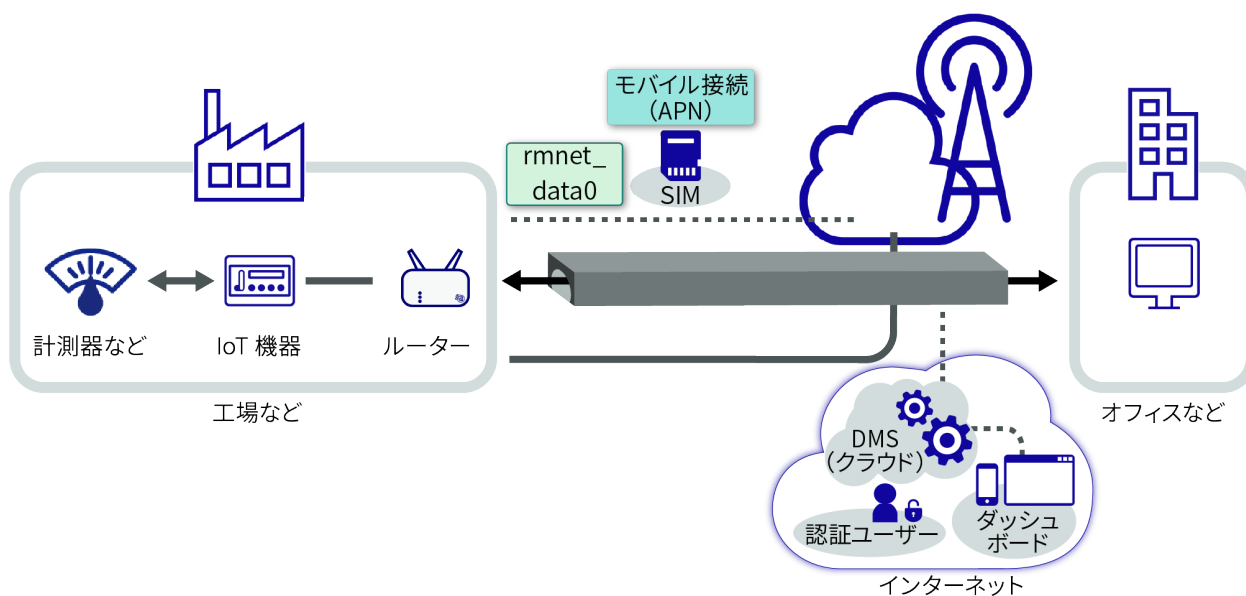
What you need to prepare

- SIM Card
 - Please prepare for mobile connection.
 - ➔ Please refer to the Compact Router User's Manual for specifications and standards.
- PC for configuration
 - This is required to configure various settings of the compact router.
 - This manual is written using Windows 10.
- LAN cable (recommended category: CAT5e or higher)
 - Required for connecting Edge Gateway to a PC.

Overall system diagram

This manual describes how to set up a network using the following configuration as an example.

- Mobile connection (rmnet_data0)
Connects to the Internet using a SIM.
- LAN connection (eth0/lan0/lan1)
LAN connection to a private network using the eth0/lan0/lan1 interface.



Step 1 Connect to and start

This step describes how to activate the compact router.

Connect and activate PC and compact router with LAN cable

Connect the PC to the compact router and start it up.

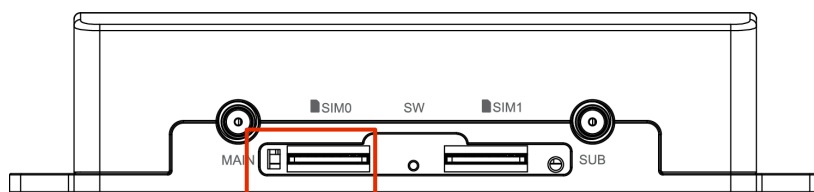
Indoor Compact Router

操作手順

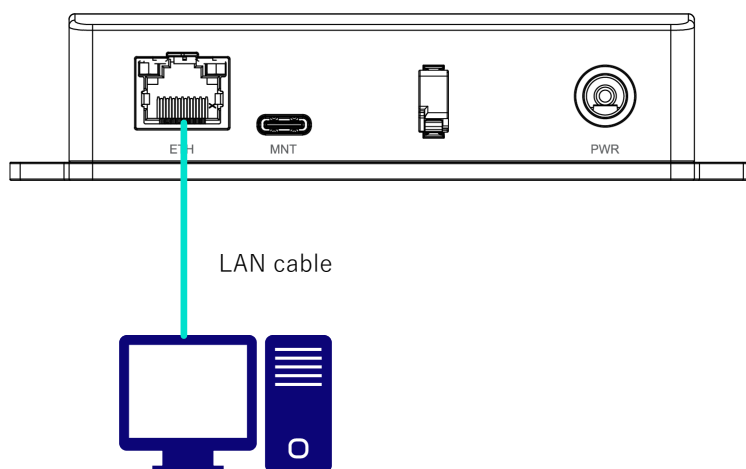
- 1 Remove the front cover of the compact router and insert the SIM card to be used in the slot. The slot will be used in preference to SIM0.



Insert the SIM card so that its contacts are on the upper side.



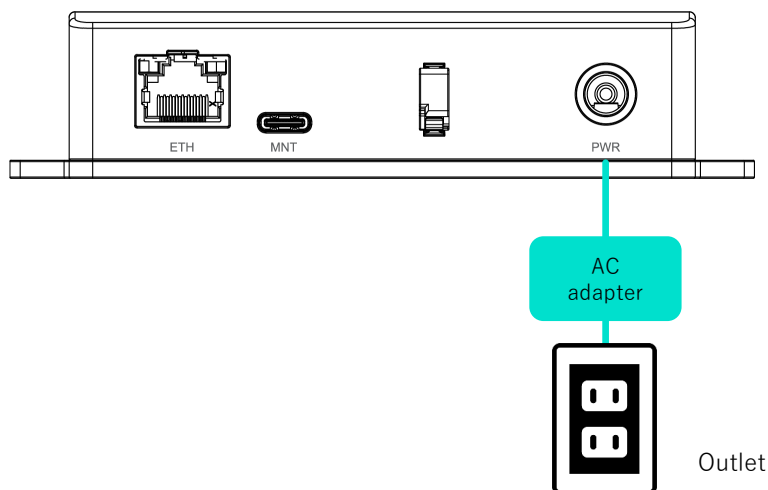
- 2 Using a LAN cable, connect the Ethernet port of the compact router to the PC.



- 3 Connect the AC adapter to the compact router. The power will automatically turn on and the compact router will start up.



- There is no problem connecting the power supply before connecting the PC to the Compact Router. However, a blank screen may appear when connecting with terminal emulator software. If this happens, press the Enter key once.
- It does not matter if the PC is turned on before connecting the AC adapter.



Notes on the automatic startup function

Compact routers are designed to operate 24 hours a day, so they have the ability to automatically recover from a shutdown in the event of a failure.

Therefore, if the compact router is shut down in the manner described in this section, but power is still supplied from the power connector, it will reboot.

If you want to put the compact router in a power-off state, shut it down and wait until the LED is in the power-off ready state (power LED lit red) before pulling the power plug.

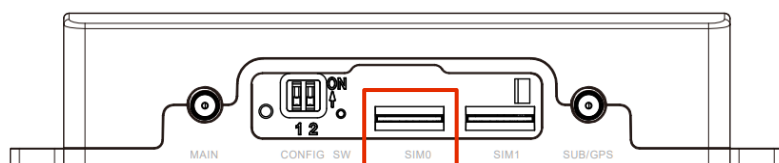
Indoor Compact router with wireless LAN

操作手順

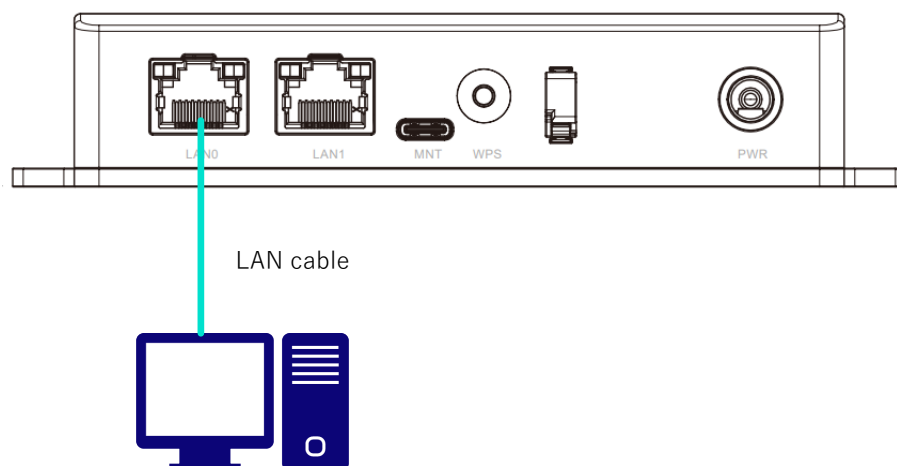
- 1 Remove the front cover of the compact router and insert the SIM card to be used in the slot. The slot will be used in preference to SIM0.



Insert the SIM card so that its contacts are on the bottom side.



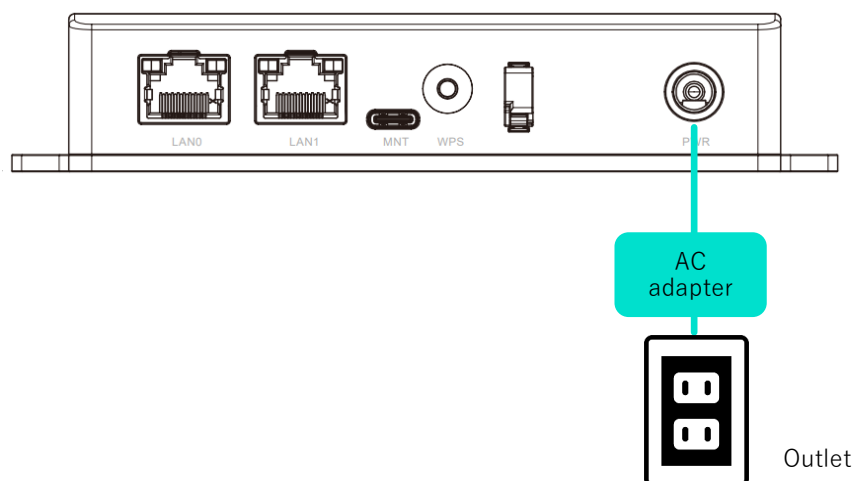
- 2 Using a LAN cable, connect the LAN0 or LAN1 port of the compact router to the PC.



- 3 Connect the AC adapter to the compact router. The power will automatically turn on and the compact router will start up.



- There is no problem connecting the power supply before connecting the PC to the Compact Router. However, a blank screen may appear when connecting with terminal emulator software. If this happens, press the Enter key once.
- It does not matter if the PC is turned on before connecting the AC adapter.



Notes on the automatic startup function

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If you want to put the compact router in a power-off state, shut it down and wait until the LED is in a power-off ready state (power LED lit red) before pulling the power plug.

Step 2 | Connect your PC and sign in

This step describes how to set up your PC for connection to the compact router.

Change the IP address of the PC

To sign in to the GUI configuration screen, the compact router and PC must belong to the same network. Change the IP address of your PC to match the Compact Router's IP address "192.168.0.254".



For instructions on how to change the IP address of a PC, see the FAQ below.

→ 'FAQ – Changing the IP address of the PC'

<https://support.amnimo.com/hc/en-us/articles/8360358918937>

First sign in

This section describes the sign-in procedure via the Graphic User Interface (GUI).



The GUI makes it easy to configure the compact router from a browser.

Sign in

If this is the first time signing in with the GUI, sign in after setting the password for the administrator account (admin).



The following environments have been tested for GUI functionality.

OS	Web browser	Verified Version
Windows 10 Pro2004 (64bit)	Google Chrome	92.0.4515.131 (64bit)
	Microsoft Edge	_*
	Firefox	_*
mac OS big Sur 11.2.3	Safari	14.0.3 (16610.4.3.1.7)
	Google Chrome	_*
	Firefox	_*

*To be supported in future releases.

操作手順

- 1 Start a browser and access the URL of the GUI configuration screen of this product.

<http://192.168.0.254>

The "Password Registration" screen appears.

- 2 Enter the password you wish to set for admin in the "Password" and "Password (Confirm)" fields and click "Register".



The password must be a string that meets the following conditions. The string can be "password" as defined in RFC1738.

- 8 characters or more
- Includes at least two types of uppercase and lowercase letters, numbers, and symbols



You may not set a password that meets any of the following conditions

- Words in the dictionary (e.g., test)
- Words with regularity, such as number or alphabet keyboard sequences (e.g., 1234, abcde, qwert)
- Combination of the above (e.g., test1234)



The screenshot shows the amnimo password registration screen. At the top is the amnimo logo. Below it is the title "パスワード登録" (Password Registration). The text reads: "パスワードが登録されていません。" (Password is not registered.) and "利用を開始する前に、パスワードを登録してください。パスワードはadminに対して設定されます。" (Before starting use, please register a password. The password is set for admin.) There are two input fields: "パスワード" (Password) and "パスワード (確認用)" (Password (Confirmation)), both containing masked characters. A blue "登録" (Register) button is at the bottom. The copyright notice "© 2021 amnimo, Inc." is at the bottom center.

The admin password will be set and the "Sign In" screen will appear.

- 3 Enter "admin" in "Username" and the password set in step 2 in "Password", and click "Sign In".



The screenshot shows the amnimo sign-in screen. At the top is the amnimo logo. Below it is the title "サインイン" (Sign In). The text reads: "パスワードが登録されました" (Password has been registered.) and "まだ初回サインインしていません。登録したパスワードでサインインしてください。" (You have not signed in for the first time yet. Please sign in with the registered password.) There are two input fields: "ユーザー名" (Username) containing "admin" and "パスワード" (Password) containing masked characters. A blue "サインイン" (Sign In) button is at the bottom. The copyright notice "© 2021 amnimo, Inc." is at the bottom center.

After signing in to the product, the "Device Information" screen will appear.

Step 3 Configure router settings

Compact router settings can be operated using the Graphical User Interface (GUI). This step describes a simple configuration using the GUI.

Configure simple settings

The following settings can be made on the "Simple Settings" screen.

- Mobile Communication Settings
- Interface Settings
- Enable/Disable DNS
- Filtering Settings
- Enable/Disable DMS (Device Management System)

Note that the DNS and filtering settings are automatically applied when the simple settings are made. The DNS and filtering settings that are automatically applied are as follows

For detailed settings, please refer to the following manuals.

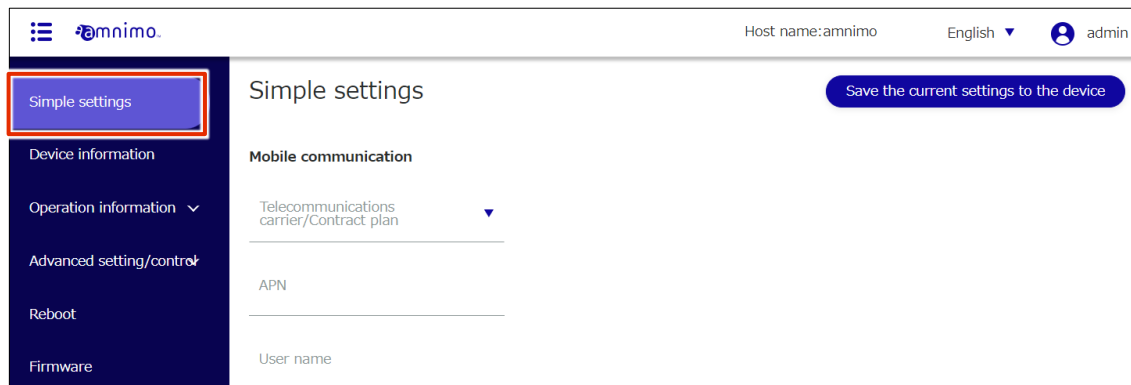
➔ "2.9 Configuring Filter Settings" and "2.11 Configuring DNS Settings" in the Edge Gateway Series GUI User's Manual (Japanese edition).

- DNS
 - Enable/Disable setting: Enabled
- filtering
 - Input Settings
 - Input default policy: Drop
 - RELATED: Allow
 - established: Allow
 - invalid: Drop
 - Input interface: Allow
 - Forwarding Settings
 - Forwarding default policy: Allow
 - Output Settings
 - Output default policy: Allow

操作手順

- 1 Sign in with the GUI and click on "Simple Settings" on the side menu.

The "Simple Settings" screen appears.

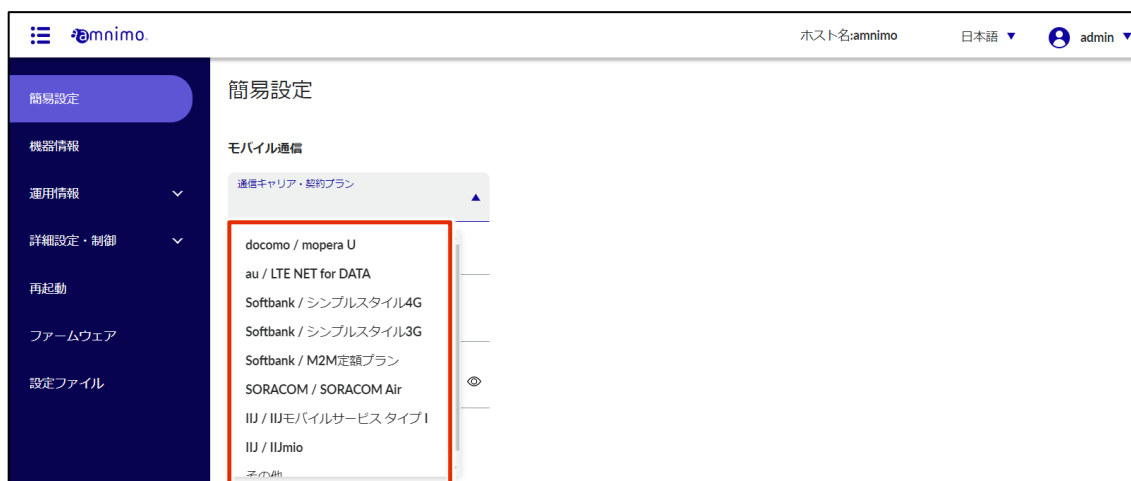


- 2 If you are using a mobile connection, select a registered carrier or subscription plan from "Telecommunications carrier / Contract Plan" in the Mobile Communications Settings.

The "APN Name", "User name", "Password", and "Authentication method" will be automatically set according to the selected carrier or subscription plan.



- If the carrier/contract plan to be used is not registered in "Telecommunications carrier / Contract Plan", select [Other].
- When using a SIM that does not require authentication, uncheck both "PAP" and "CHAP" in "Authentication method".



Incorrectly configured mobile settings may cause the compact router to reboot due to the failsafe feature.

- When setting up, be sure to set the correct username and password.
- If the compact router repeatedly reboots, see the following page.

→ [Frequently Asked Questions](#)



Mobile connection settings are also explained in a video on the following page.

→ [Connecting amnimo devices to the Internet.](#) (Japanese)

3 Configure the interface settings according to the environment.

- ① Set "rmnet_data0" required for mobile communication.
Click the toggle to enable or disable.
Also check "Dynamic SNAT" if necessary.
- ② Configure the required interface settings for LAN connection.
Click the toggle to enable or disable.
Select "DHCP Client" or "Fixed IP Address" as the method for assigning "IP Address". If you select "Fixed IP Address," you will need to enter the "IP Address" and "Prefix length".
Also, check "Dynamic SNAT" if necessary.

- Indoor compact router screen (interface "eth0")

- Indoor compact router with wireless LAN (interface "br0")

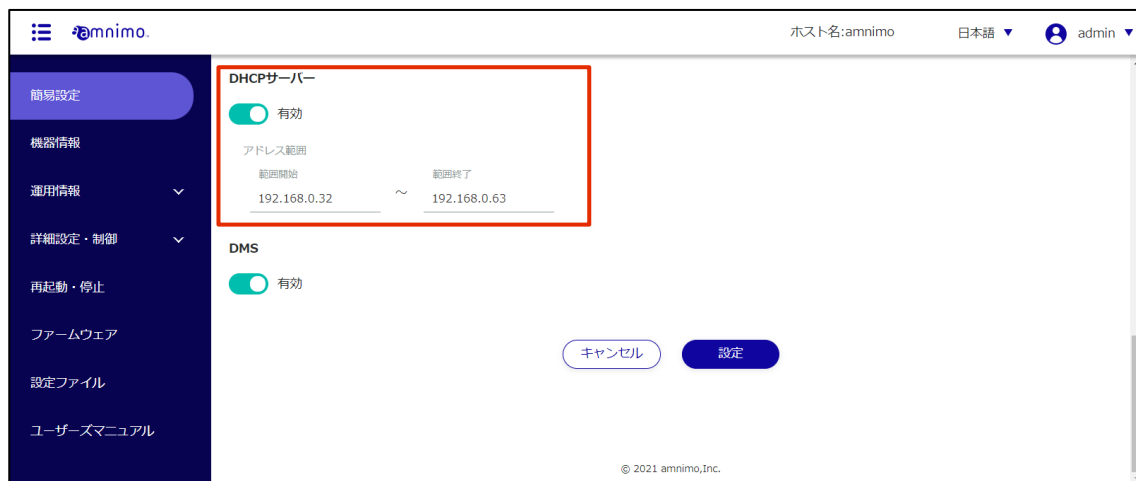
4 Configure DHCP server settings.



This function is available only on Indoor Compact Routers with wireless LAN.

Click the toggle to enable or disable.

Specify the range of IP addresses to lease.



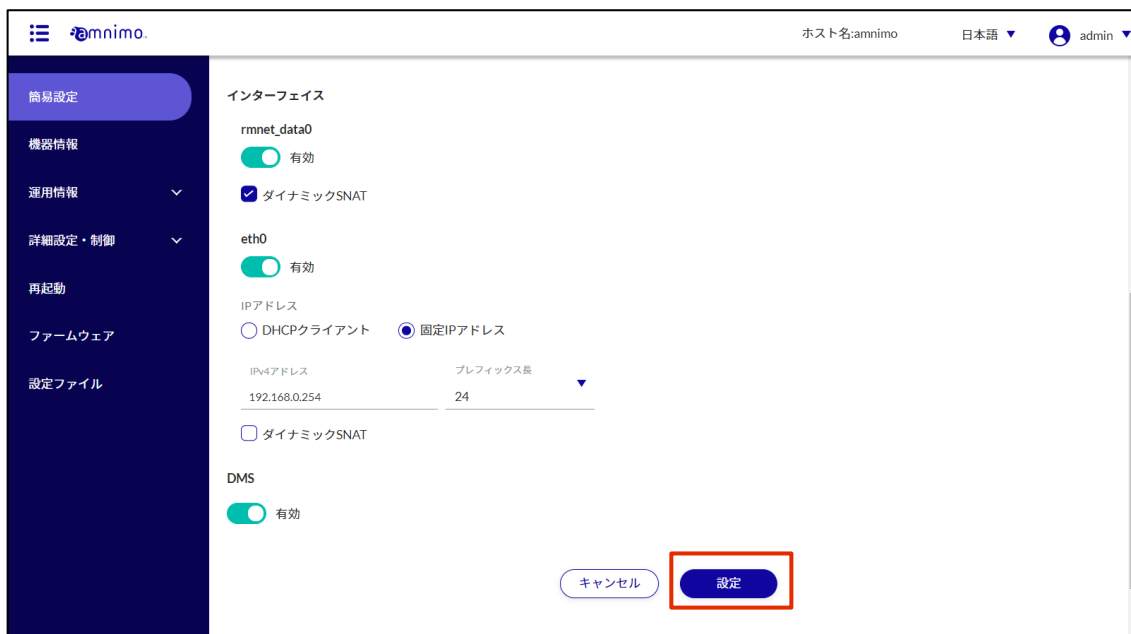
5 DMS Settings. Slide the toggle to enable or disable DMS.



A separate application is required to use the DMS (Device Management System).



- 6 Click [Set] at the bottom of the screen.



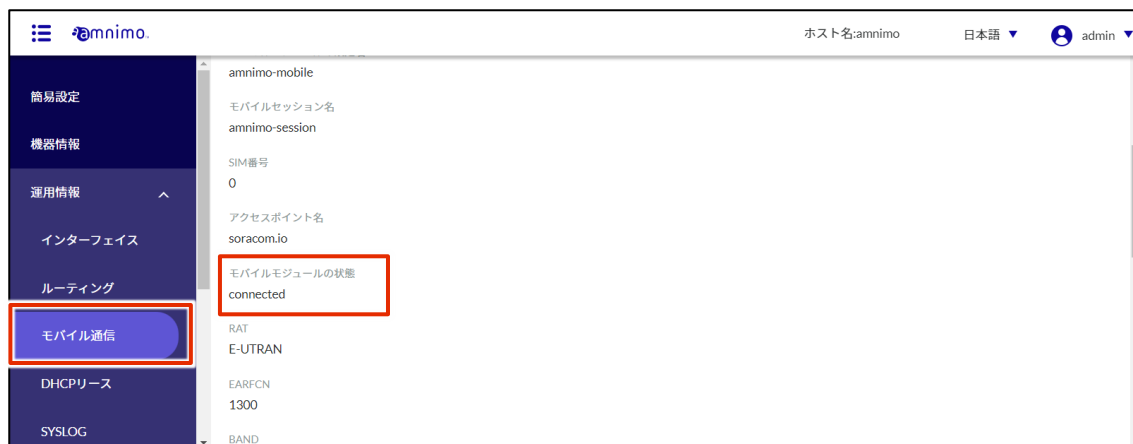
A confirmation screen for the settings will appear.

- 7 Click [Set] .



Settings are saved.

- 8 Click [Operational Information] - [Mobile Communications] on the side menu to check the status of mobile communications.



Mobile Module Status	meaning
dialing	during the connection process
connected	state of connectivity
disconnected	disconnected state



If the connection is not correct, such as if there is an error in the mobile settings, the device may automatically reboot due to the fail-safe feature. Please be aware of this.



To change the protocol and port number of the GUI

Select [Advanced setting/control] - [GUI settings] from the GUI side menu to change the protocol and port number used in the GUI settings.

➔ Refer to the Edge Gateway Series GUI User's Manual for details.

Set the time

Set the time zone and time of day for the compact router.



This document describes an example of synchronizing the time with a PC.

For time settings, we recommend using NTP settings to synchronize the time, but manual entry is also possible.

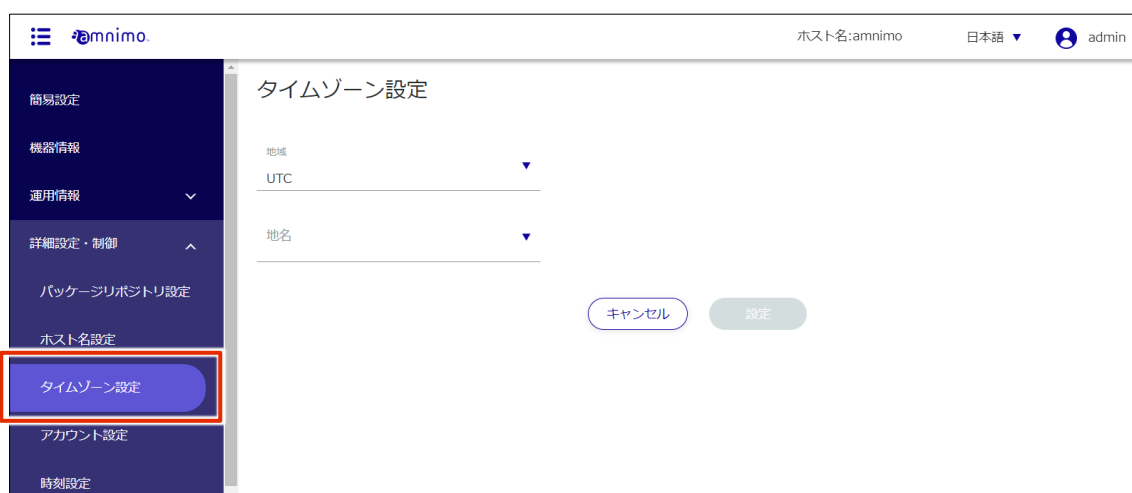
➔ For more information, see the Edge Gateway Series GUI User's Manual.

Set the time zone

操作手順

- 1 Click [Advanced Settings/Controls] - [Time Zone Settings] on the side menu.

The "Time Zone Settings" screen will appear.



- 2 Set the time zone.

- 1 Select "Region."
- 2 Select "Place Name."
- 3 Click [Set].



The time zone is set.

Set the time

操作手順

- 1 Click [Advanced Settings/Controls] - [Time Settings] on the side menu.

The "Time Setting" screen appears.



- 2 On the "Time Settings" screen, click "NTP Settings".



3 Slide the toggle to enable.



4 Change the settings.



Regarding NTP servers, amnimo recommends Google Public NTP (time.google.com) and NICT public NTP service (ntp.nict.jp).

Please see below for terms of use and precautions for each service.

- ➔ Google Public NTP: <https://developers.google.com/terms/>
- ➔ NICT Public NTP Service: <https://jyy.nict.go.jp/tsp/PubNtp/qa.html>

If this procedure is used, NTP time synchronization will be performed at the following intervals (these values can be changed from the CLI).

- Immediately after network connection starts: 64s interval
- After that, time synchronization is continuously performed with gradually increasing intervals
- Final, periodic synchronization interval: 1024s

- ① Select the interface where the Internet communication takes place to be used for NTP synchronization.
For mobile communication, select "rmnet_data0".
- ② URL of the server to be synchronized.
- ③ Specifies the port number. If there are no problems with the default value, there is no need to change it.

The screenshot shows the '時刻設定' (Time Setting) page in the amnimo router interface. The page is in Japanese and shows the 'NTP設定' (NTP Setting) tab selected. The '有効' (Enabled) toggle is turned on. The '同期' (Synchronize) dropdown is set to 'rmnet_data0'. The 'サーバー' (Server) field contains 'time.google.com'. The 'ポート番号' (Port Number) field contains '123'. The '設定' (Set) button is highlighted with a red box, and the 'キャンセル' (Cancel) button is also visible. The left sidebar shows various settings categories, and the top right shows the host name 'amnimo', language '日本語', and user 'admin'.

5 Click [Set].

This screenshot is identical to the previous one, but the '設定' (Set) button is now highlighted with a red box, indicating that the user should click it to save the settings. The '同期' (Synchronize) dropdown is now expanded, showing 'rmnet_data0' as the selected option. The '設定' (Set) button is the primary focus of this step.

The time setting is saved.

Configure SSH settings

Configure SSH to log in to the compact router using SSH.

操作手順

- 1 Click [Advanced Settings/Controls] - [SSH Settings] on the side menu.

The "SSH Settings" screen appears.



- 2 Slide the toggle to set SSH as enabled.



3 Configure the port settings.

1 Change the port number, if necessary.



- The port number can be set in the range of 1 to 65535.
- SSH uses port 22 as standard.
Note that if the port number is changed, the client must specify that port number to connect.

2 By checking the "Keepalive" checkbox, keepalive packets can be sent periodically to prevent SSH connections from timing out.

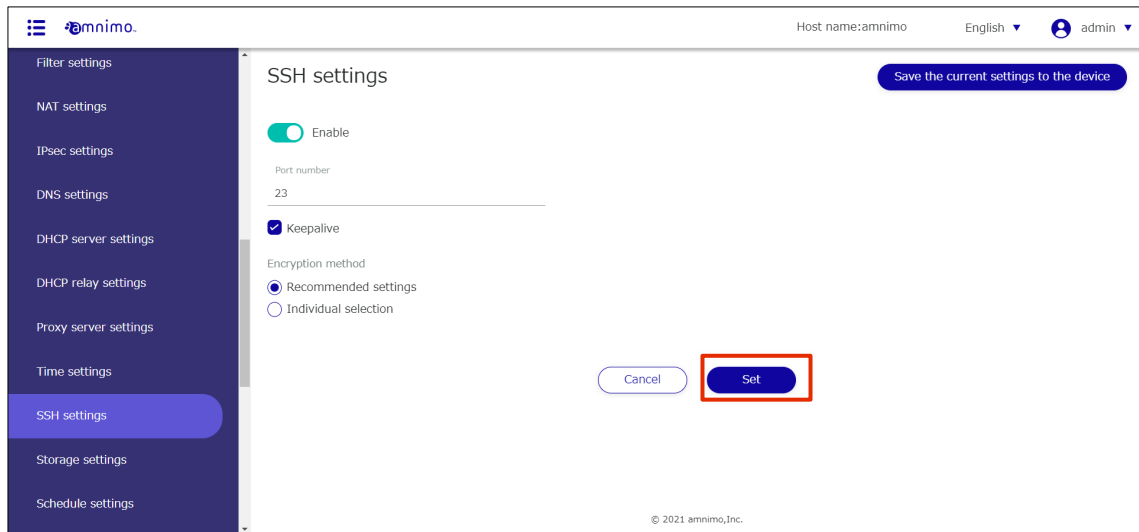
4 Set the encryption method.

1 Select "Recommended setting" or "Individual selection" as the encryption method to be used.

➔ If you selected "Recommended Settings," go to Step 5.

2 If "Individual Selection" is selected, check the checkbox for the encryption method to be used.

5 Click [Set] .



The screenshot displays the 'SSH settings' page in the amnimo web interface. The page title is 'SSH settings' and it includes a 'Save the current settings to the device' button in the top right corner. The settings are as follows:

- Enable:** A toggle switch is turned on.
- Port number:** The value is set to 23.
- Keepalive:** A checkbox is checked.
- Encryption method:** Two options are available: 'Recommended settings' (selected with a radio button) and 'Individual selection' (unselected).

At the bottom of the settings area, there are two buttons: 'Cancel' and 'Set'. The 'Set' button is highlighted with a red rectangular box, indicating it is the button to be clicked.

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SSH settings are saved.

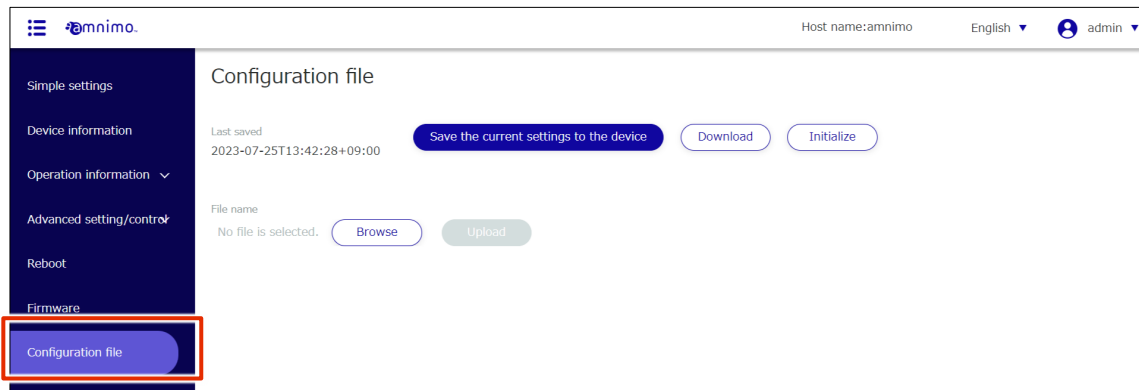
Save settings on compact router

To save the settings configured in the GUI, write the settings in the compact router's configuration file. When the compact router is rebooted, the configuration file is read and the settings are reflected.

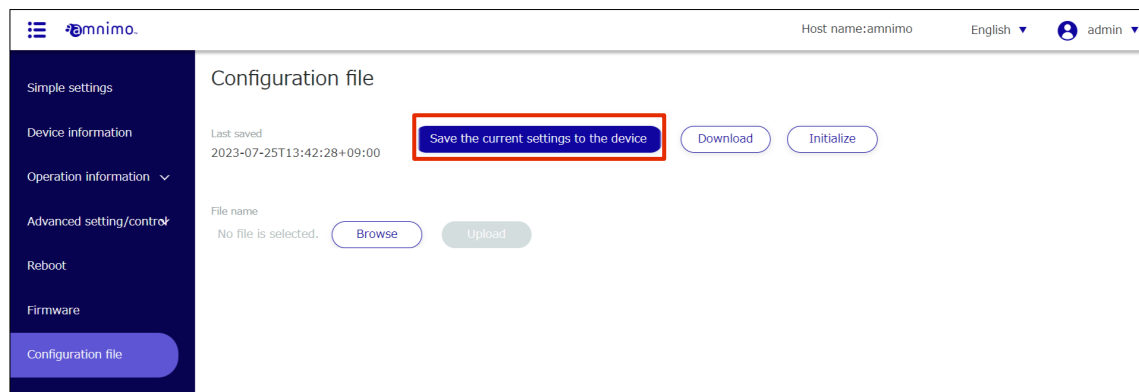
操作手順

- 1 Click on "Configuration File" on the side menu.

The "Configuration File" screen appears.

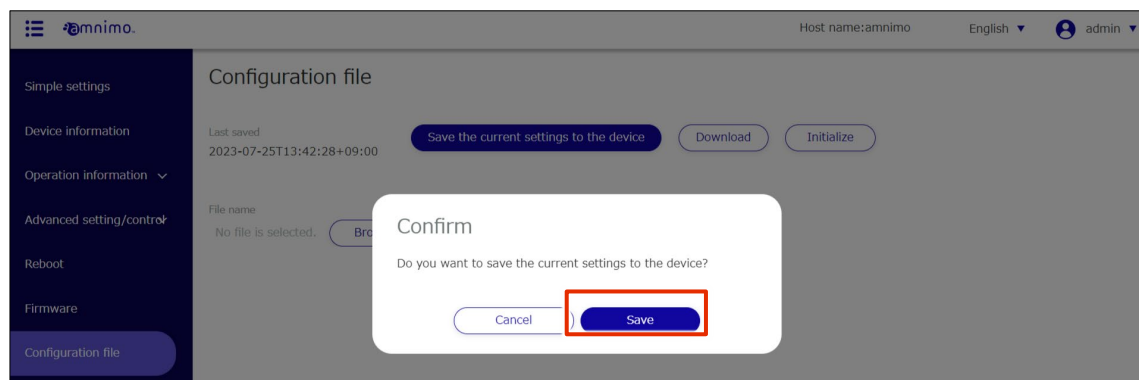


- 2 Click [Save the current settings to the device].



The "Confirmation" screen appears.

- 3 Click [Save].



The settings are saved in the gateway.

Step 4 Configure wireless LAN settings

This step describes the process of operating an indoor Compact router with wireless LAN in access point mode or station mode.



This configuration can only be performed on Indoor Compact Routers with wireless LAN.
Please note that this cannot be implemented with the indoor version of the compact router.

Use in access point mode

Indoor Compact Routers with wireless LAN can operate in two modes: access point mode and station mode. This section describes the connection procedure in access point mode.

Access point mode is a mode in which the compact router is used as the parent unit of the wireless LAN and other devices such as PCs and smartphones are connected as stations (child units).



Factory-installed Compact Routers with wireless LAN start operating as a wireless LAN access point as soon as they are turned on, but Internet communication must be established in order to use them.

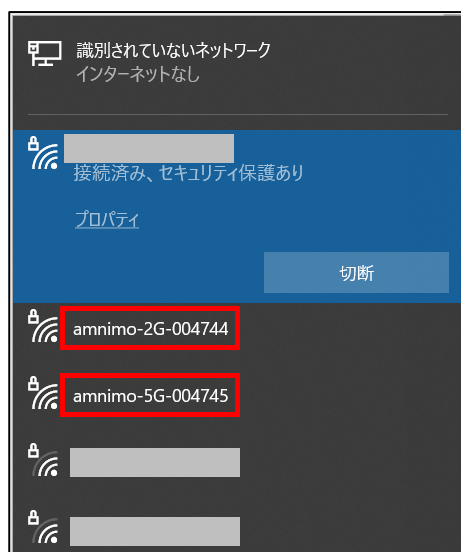
The two default values for SSID are as follows

- amnimo-2g-xxxxxxx
- amnimo-5g-xxxxxxx

To connect with a security key

操作手順

- 1 Station (child unit) searches for an access point.

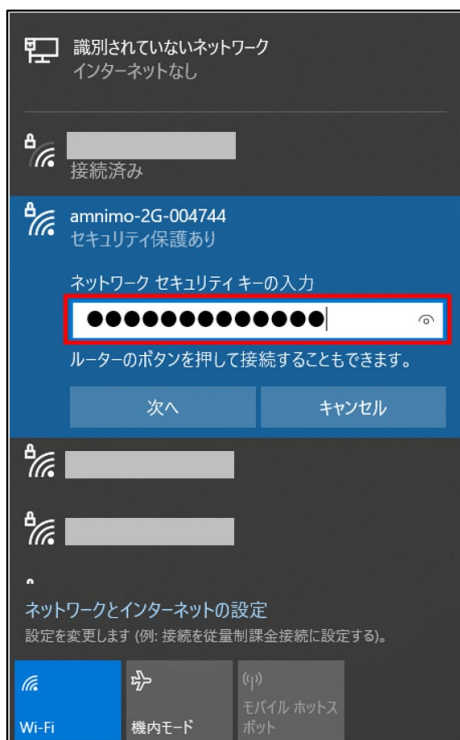


2 Enter the security key.

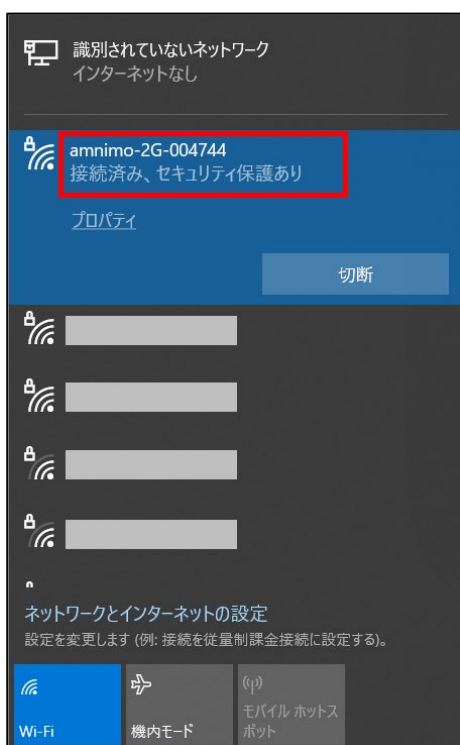


The security key can be found in the following two locations

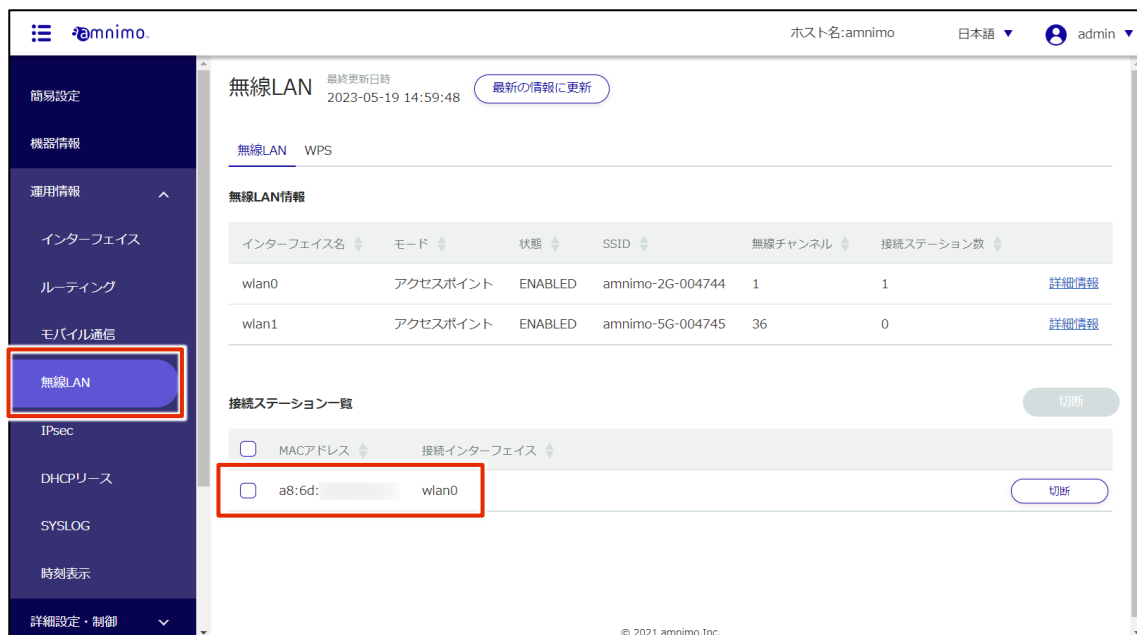
- Sticker on the back of the compact router as "encryption key".
- On the GUI screen, go to [Advanced Settings/Control] - [Wireless LAN Settings] and from the [Access Point] tab, enter the passphrase in the [Edit] screen for the SSID in question.



3 When the connection is confirmed, you are done.



- 4 Click [Operational Information] - [Wireless LAN] in the side menu.
In the "List of connected stations" section, you can check information on the stations connected to the Compact Router.



The screenshot displays the amnimo web interface for configuring wireless LAN settings. The left sidebar contains a menu with the following items: 簡易設定, 機器情報, 運用情報, インターフェイス, ルーティング, モバイル通信, **無線LAN** (highlighted with a red box), IPsec, DHCPリース, SYSLOG, 時刻表示, and 詳細設定・制御. The main content area is titled '無線LAN' and shows the '無線LAN情報' section. This section includes a table with the following data:

インターフェイス名	モード	状態	SSID	無線チャンネル	接続ステーション数	
wlan0	アクセスポイント	ENABLED	amnimo-2G-004744	1	1	詳細情報
wlan1	アクセスポイント	ENABLED	amnimo-5G-004745	36	0	詳細情報

Below the table is the '接続ステーション一覧' section, which contains a table of connected stations. The first entry is highlighted with a red box:

<input type="checkbox"/>	MACアドレス	接続インターフェイス	
<input type="checkbox"/>	a8:6d:	wlan0	切断

When connecting via WPS (using WPS button)

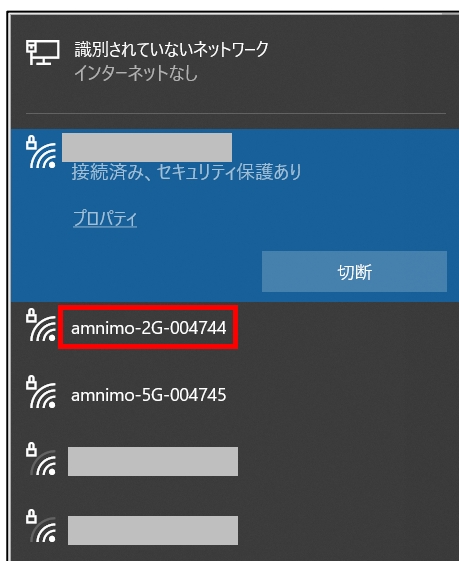
操作手順

- 1 Station (child unit) searches for an access point.



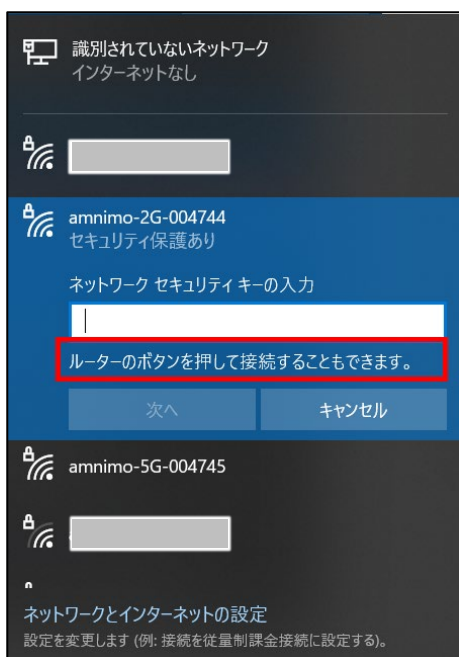
When shipped from the factory, WPS connection is only available for access points with SSID amnimo-2G-xxxxxxx.

If you want to connect to amnimo-5G-xxxxxxx via WPS, please disable the access point for amnimo-2G-xxxxxxx in [Advanced Settings/Control] - [Wireless LAN Settings].



- 2 Select the access point.

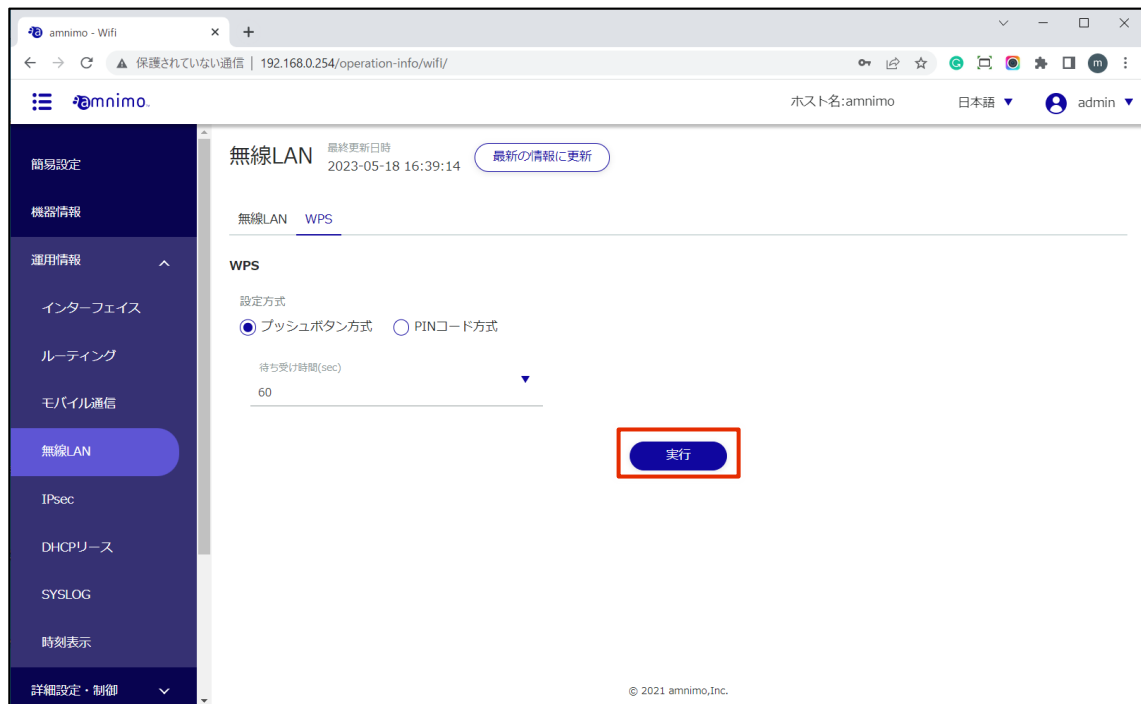
Depending on the device, a message may also appear indicating that the connection is possible via WPS, as shown in the figure.



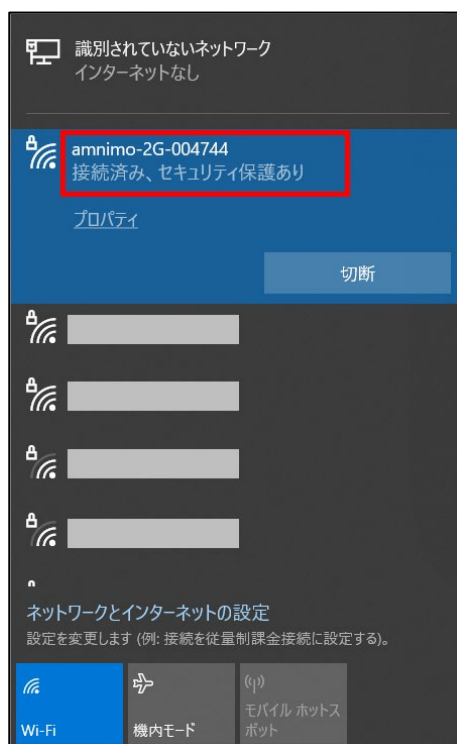
- 3 On the GUI screen, click "Operational Information" - "Wireless LAN" to display the "WPS" tab. Make sure "Push Button Method" is checked and click "Execute".



If the GUI screen is not used, the connection can be made by pressing and holding the "WPS" button on the compact router itself.



- 4 Once the connection is confirmed, you are done.



- 5 Click [Operational Information] - [Wireless LAN] in the side menu.
In the "List of connected stations" section, information on the stations connected to the Compact Router can be viewed.

The screenshot displays the amnimo web interface for configuring wireless LAN settings. The left sidebar contains a menu with '無線LAN' highlighted. The main content area shows the '無線LAN' settings page, including a table of wireless LAN information and a list of connected stations.

インターフェイス名	モード	状態	SSID	無線チャンネル	接続ステーション数	
wlan0	アクセスポイント	ENABLED	amnimo-2G-004744	1	1	詳細情報
wlan1	アクセスポイント	ENABLED	amnimo-5G-004745	36	0	詳細情報

接続ステーション一覧

<input type="checkbox"/>	MACアドレス	接続インターフェイス	
<input type="checkbox"/>	a8:6d:...	wlan0	切断

When connecting via WPS (using PIN code)

操作手順

- 1 Confirm the PIN code in advance.

Under [Advanced Settings/Control] - [Wireless LAN Settings], check the PIN code, check [Enter external PIN code], and click [Set].

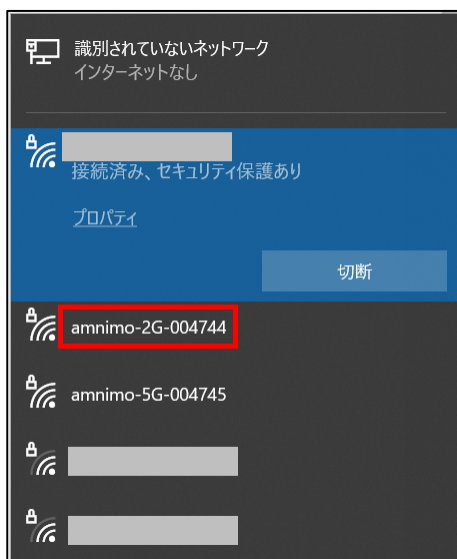


- 2 At the station (child unit), locate the access point.

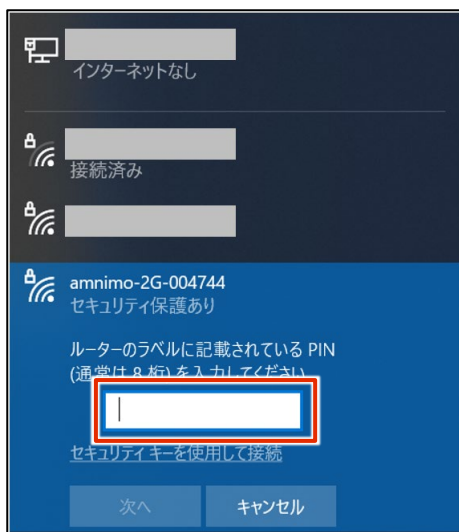


When shipped from the factory, WPS connection is only available for access points with SSID amnimo-2G-xxxxxxx.

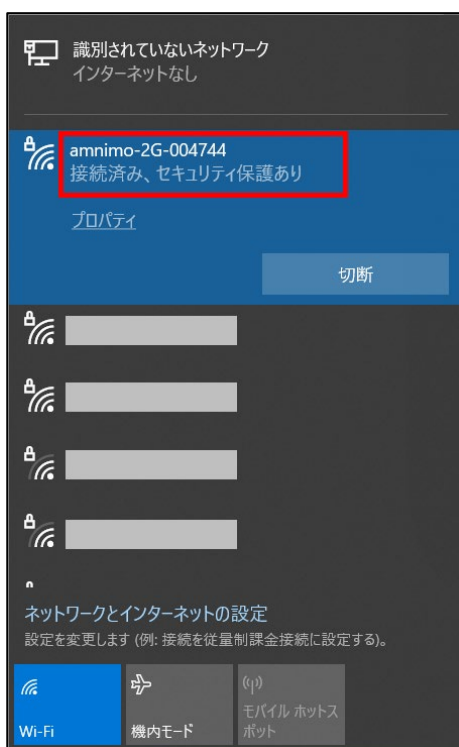
If you want to connect to amnimo-5G-xxxxxxx via WPS, please disable the access point for amnimo-2G-xxxxxxx in [Advanced Settings/Control] - [Wireless LAN Settings].



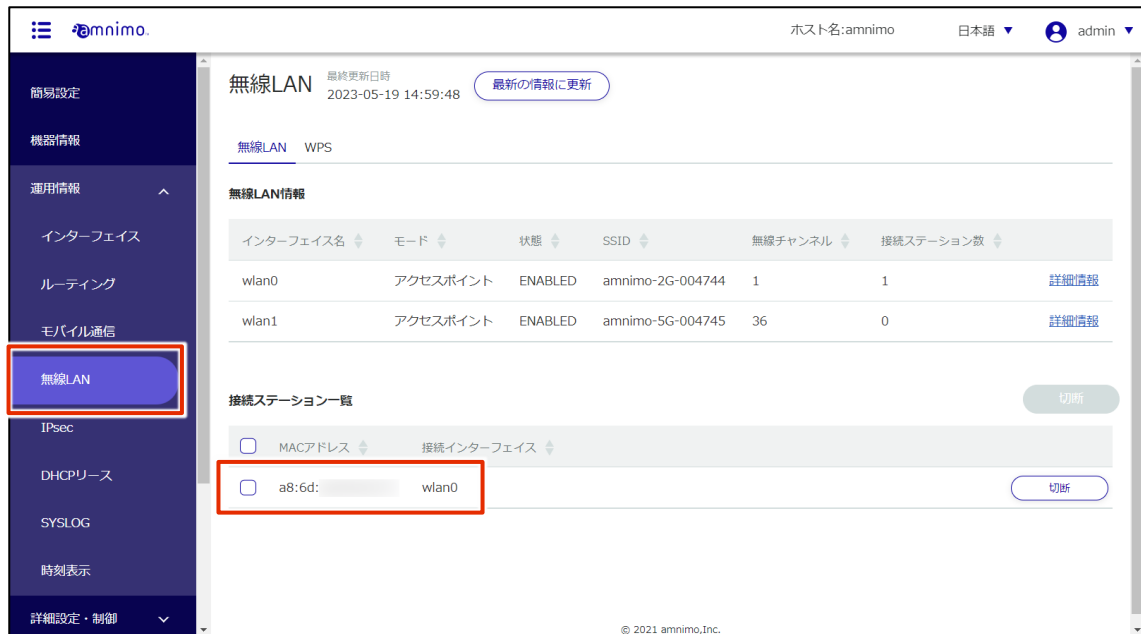
- 3 Select an access point; you will be prompted for a PIN, enter the PIN code you confirmed on the GUI screen.



- 4 Once the connection is confirmed, you are done.



- 5 Click [Operational Information] - [Wireless LAN] in the side menu.
In the "List of connected stations" section, information on the stations connected to the Compact Router can be viewed.



The screenshot displays the amnimo web interface for configuring wireless LAN settings. The side menu on the left has the '無線LAN' option highlighted with a red box. The main content area shows the '無線LAN' settings page, which includes a table of wireless LAN information and a section for connected stations.

無線LAN情報

インターフェイス名	モード	状態	SSID	無線チャンネル	接続ステーション数	
wlan0	アクセスポイント	ENABLED	amnimo-2G-004744	1	1	詳細情報
wlan1	アクセスポイント	ENABLED	amnimo-5G-004745	36	0	詳細情報

接続ステーション一覧

<input type="checkbox"/>	MACアドレス	接続インターフェイス	
<input type="checkbox"/>	a8:6d:	wlan0	切断

Use in station mode

Indoor Compact Routers with wireless LAN can operate in two modes: access point mode and station mode. This section describes the connection procedure in station mode.

Station mode is a mode in which a compact router is connected to a parent unit of a wireless LAN as a station (child unit).



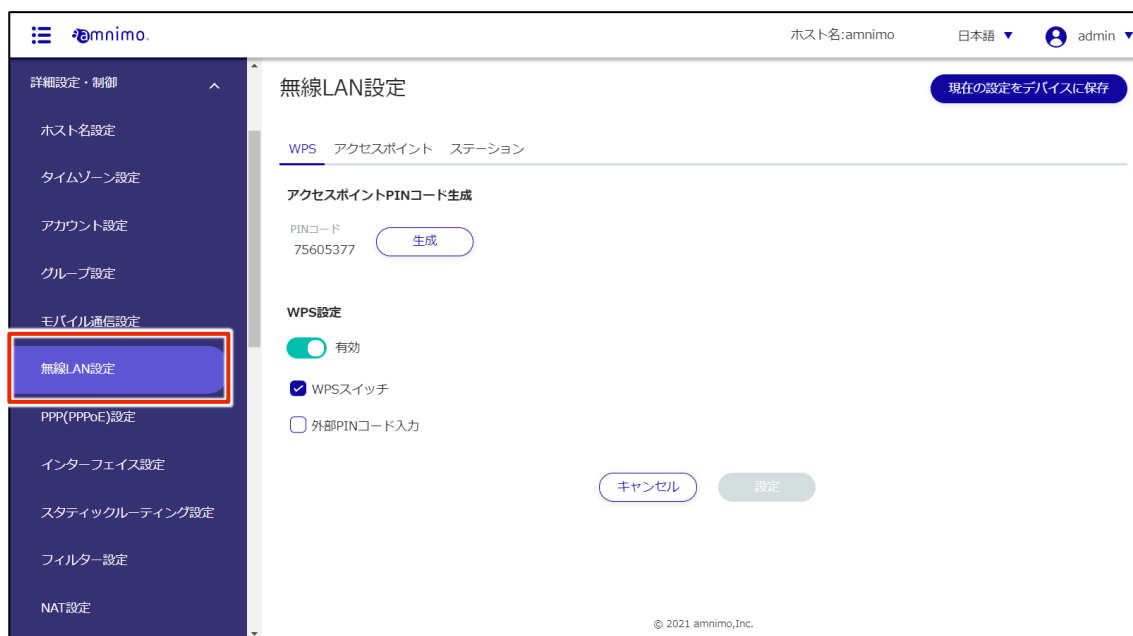
The factory-installed compact router with indoor type wireless LAN starts operating as a wireless LAN access point as soon as it is turned on.

Access point mode must be disabled because it is not possible to run access point mode and station mode at the same time.

操作手順

- 1 From the GUI screen side menu, click [Advanced Settings/Control] - [Wireless LAN Settings].

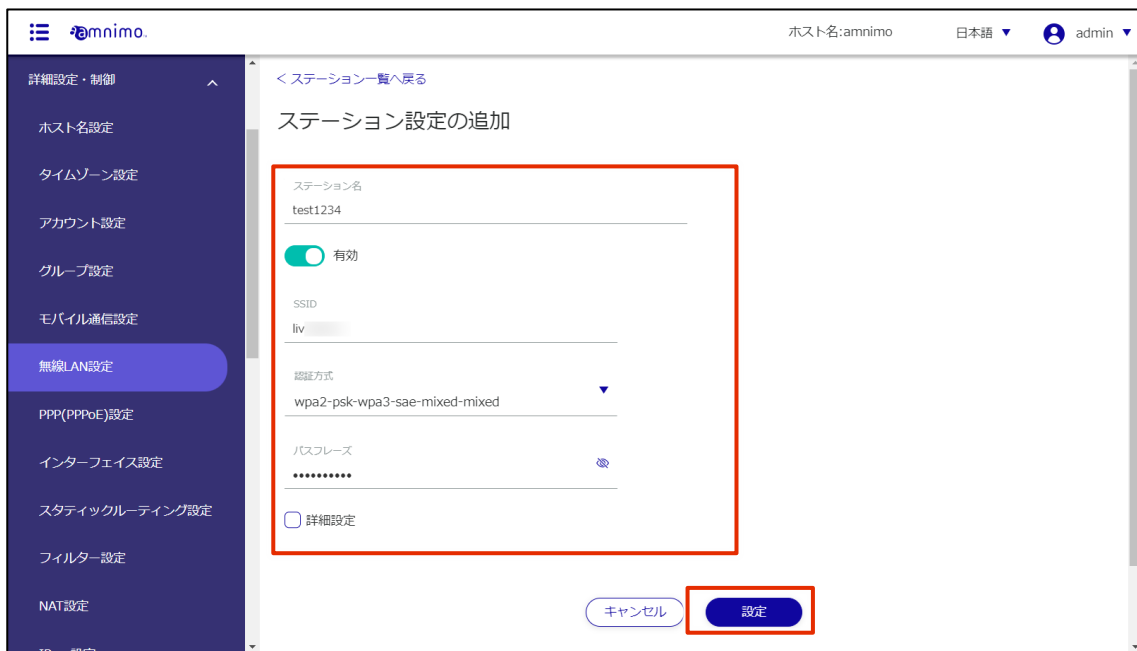
The "Wireless LAN Settings" screen appears.



2 From "Stations" tab, click "Add New".



3 Enable the toggle, enter the destination information, and click "Set".

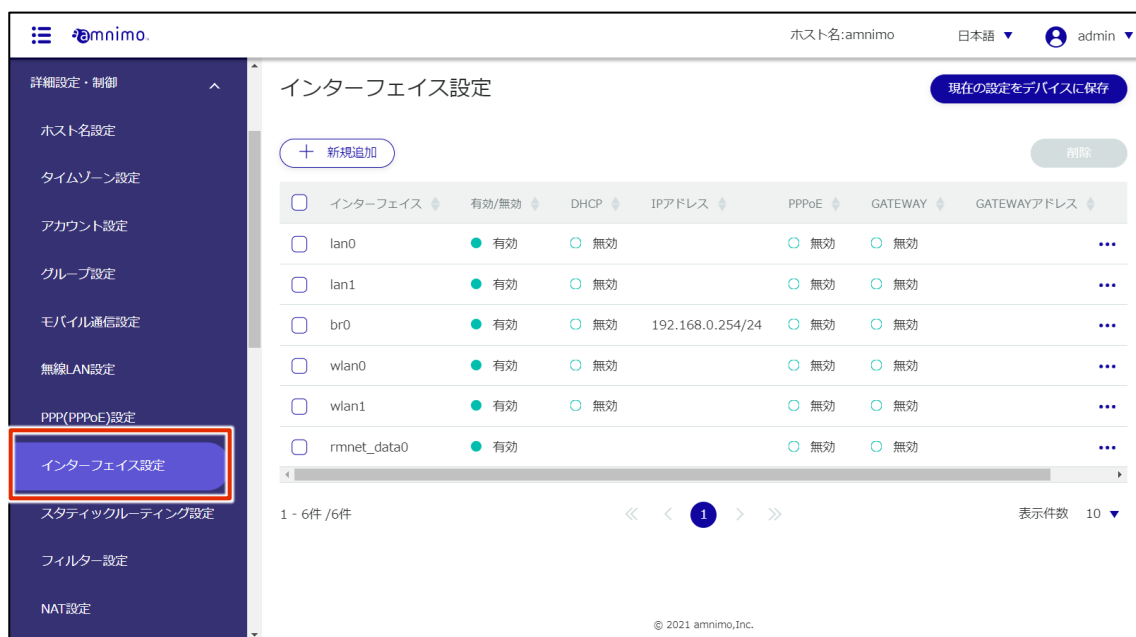


4 The Wireless LAN Settings screen appears. Confirm that the settings are reflected.



- 5 Click [Advanced Settings/Controls] - [Interface Settings] in the side menu.

The "Interface Settings" screen appears.

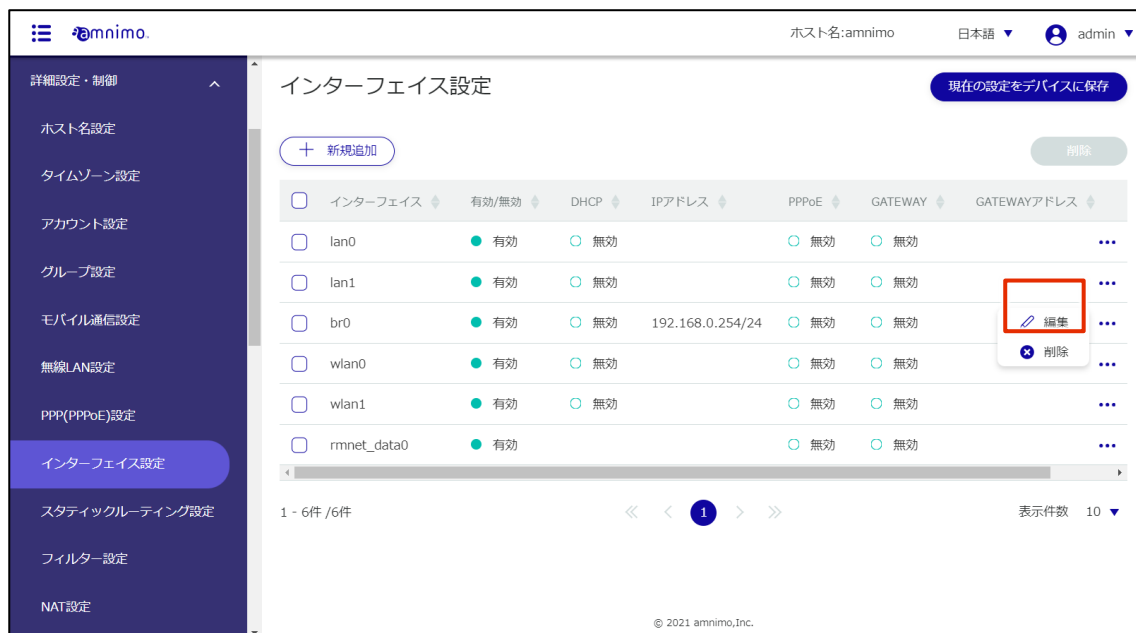


- 6 In interface "br0", click "Edit".

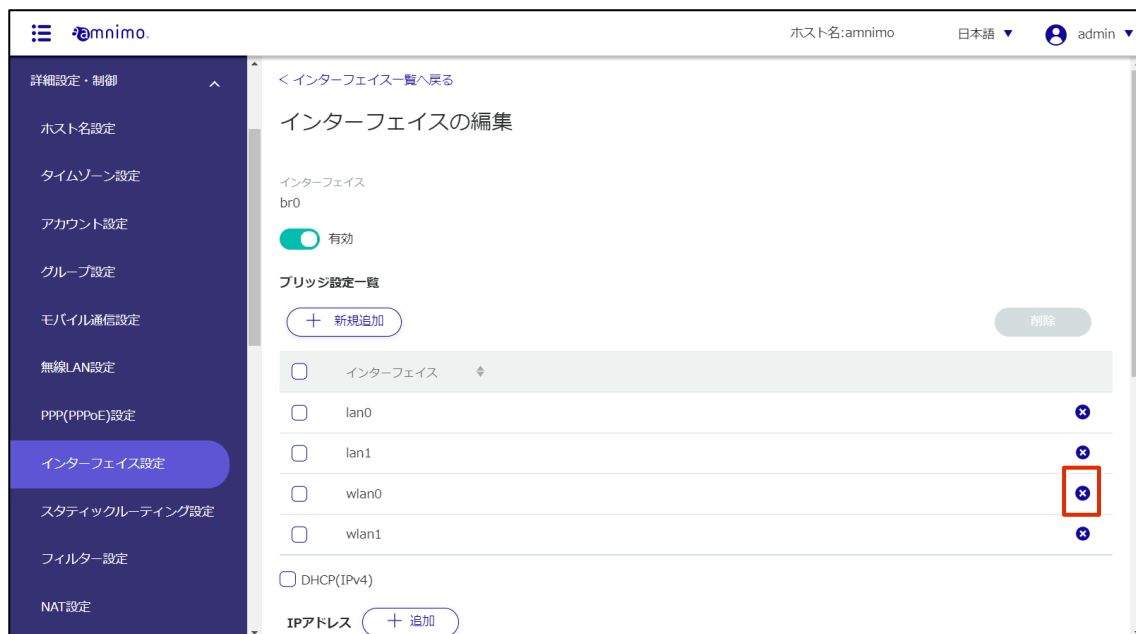


In station mode, interface "wlan0" is used.

The interfaces "wlan0" and "wlan1" are factory configured as "br0" as a bridge, but since the bridge interface cannot be used in station mode, "wlan0" will be deleted from the bridge.



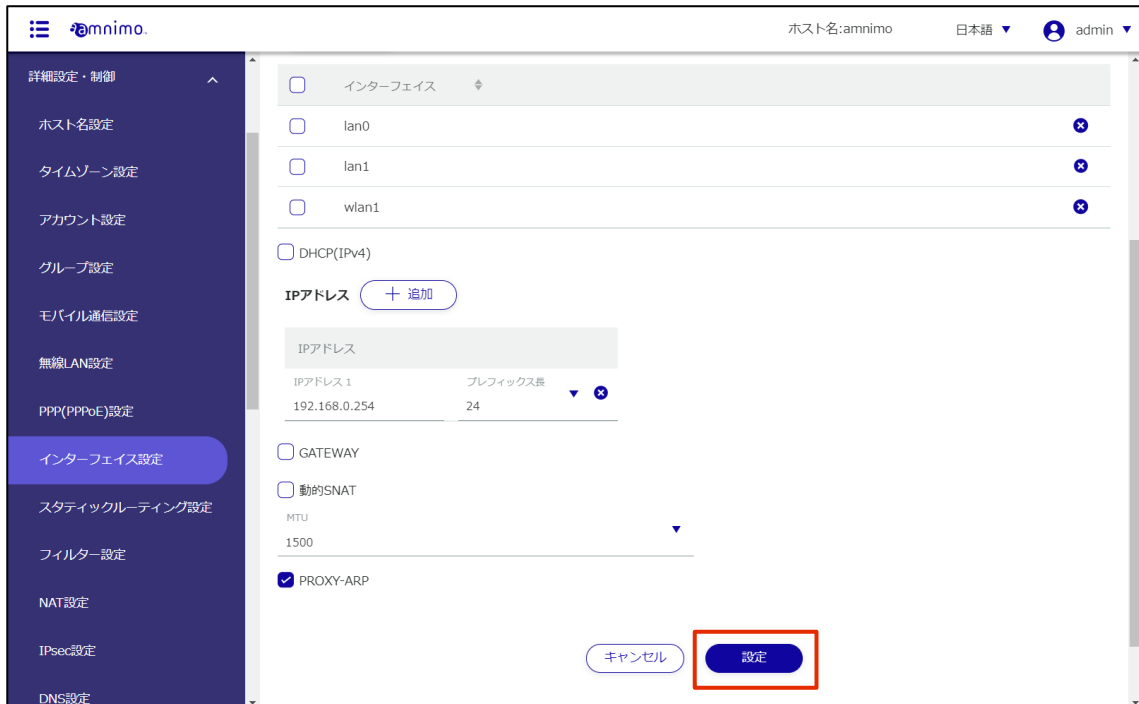
- 7 The "Edit Interface" screen will appear, click the "X" next to wlan0.



- 8 Click "Delete" when a confirmation dialog box appears.



- 9 Confirm that "wlan0" has been removed from the list of interfaces and click "Set".



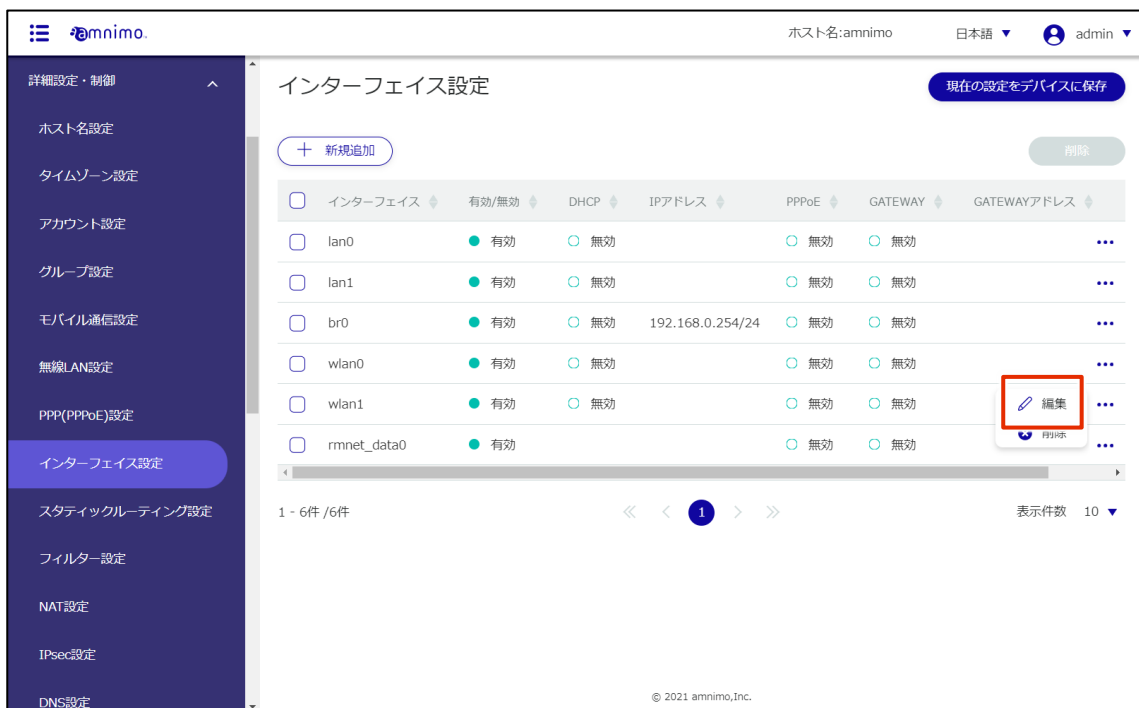
The screenshot shows the 'インターフェイス' (Interface) configuration page in the amnimo web interface. The left sidebar contains various settings categories, with 'インターフェイス設定' (Interface Settings) selected. The main content area shows a list of interfaces: lan0, lan1, and wlan1. Below the list, there are options for DHCP (IPv4), IP address configuration (with a '+ 追加' button), GATEWAY, 動的SNAT (Dynamic SNAT), MTU (set to 1500), and PROXY-ARP (checked). At the bottom right, the '設定' (Set) button is highlighted with a red box, and the 'キャンセル' (Cancel) button is also visible.

- 10 At the interface "wlan1", click "Edit".



In station mode, interface "wlan0" is used.

Disable interface "wlan1" as it is enabled as an access point.

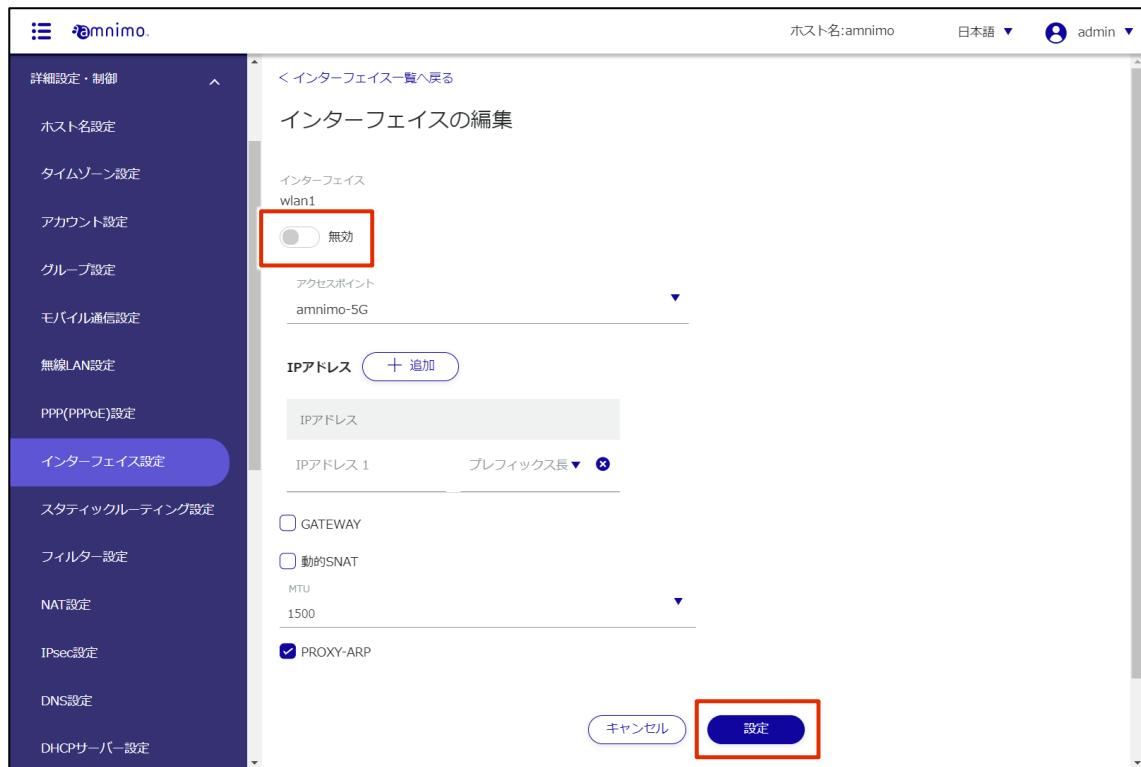


The screenshot shows the 'インターフェイス設定' (Interface Settings) page in the amnimo web interface. The left sidebar is the same as in the previous screenshot. The main content area displays a table of interfaces with their status and configuration details. The 'wlan1' interface is highlighted, and the '編集' (Edit) button next to it is highlighted with a red box. The table columns include: インターフェイス (Interface), 有効/無効 (Status), DHCP, IPアドレス (IP Address), PPPoE, GATEWAY, and GATEWAYアドレス (Gateway Address).

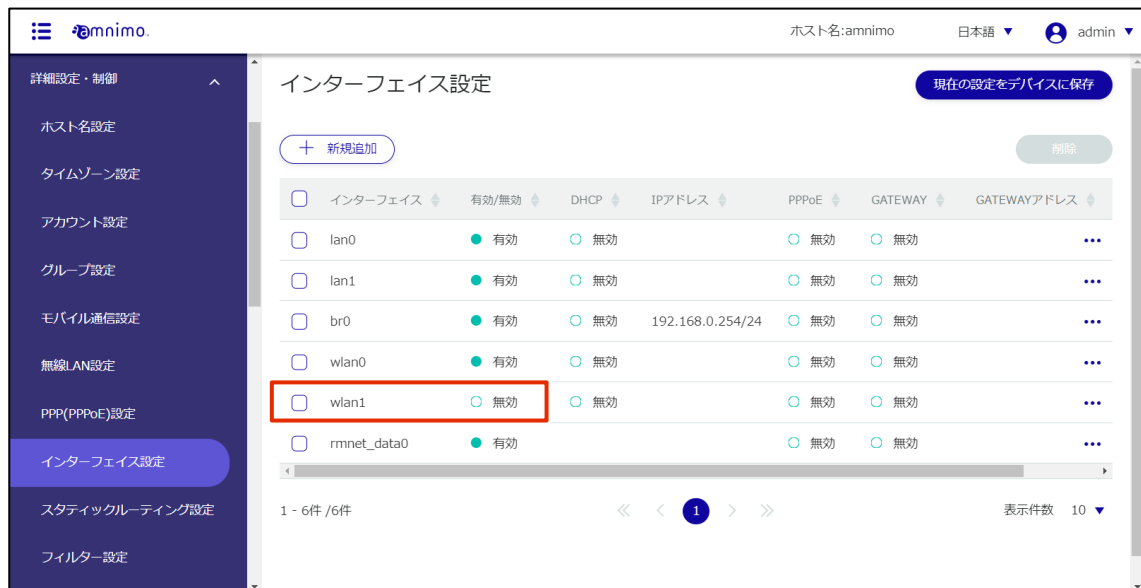
インターフェイス	有効/無効	DHCP	IPアドレス	PPPoE	GATEWAY	GATEWAYアドレス
lan0	有効	無効		無効	無効	...
lan1	有効	無効		無効	無効	...
br0	有効	無効	192.168.0.254/24	無効	無効	...
wlan0	有効	無効		無効	無効	...
wlan1	有効	無効		無効	無効	...
rmnet_data0	有効			無効	無効	...

At the bottom of the page, there is a pagination indicator '1 - 6件 / 6件' and a '表示件数 10' (Display 10 items) dropdown menu. The footer shows '© 2021 amnimo, Inc.'.

11 Click the toggle to disable, then click Set.



12 The Interface Settings screen appears. Make sure "wlan1" is disabled.



13 At interface "wlan0", click Edit.

The screenshot shows the 'インターフェイス設定' (Interface Settings) page. The table lists the following interfaces:

インターフェイス	有効/無効	DHCP	IPアドレス	PPPoE	GATEWAY	GATEWAYアドレス	操作
lan0	有効	無効		無効	無効		...
lan1	有効	無効		無効	無効		...
br0	有効	無効	192.168.0.254/24	無効	無効		...
wlan0	有効	無効		無効	無効		編集 (red box), ...
wlan1	無効	無効		無効	無効		...
rmnet_data0	有効			無効	無効		...

14 On the Edit Interface screen, switch the mode to "Station" and select the station you just added on the Wireless LAN Settings screen from the pull-down menu. Check the "DHCP" checkbox if you need an IP address assigned by the access point.

The screenshot shows the 'インターフェイスの編集' (Edit Interface) page for 'wlan0'. The 'モード' (Mode) is set to 'ステーション' (Station), which is circled in red. The 'DHCP(IPv4)' checkbox is checked, also circled in red. The 'ステーション' dropdown menu is open, showing 'test1234' selected, which is also circled in red.

- 15 Click "Set" the bottom of the screen.
The compact router will begin operating in station mode and connect to the configured access point.



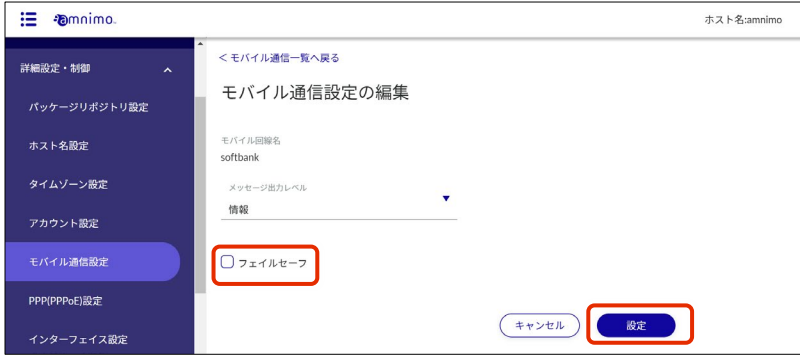

- 16 Click [Operational Information] - [Wireless LAN] in the side menu.
In the "Access Point List", you can check the SSID and the status of the connected SSID.



To check the IP address assigned to interface "wlan0",
Check the "Operational Information" - "Interface" screen.



Frequently Asked Questions

When is this the case?	Please check
<p>Compact router repeatedly reboots</p>	<p>If the mobile communication settings are not properly configured, the compact router may repeatedly reboot due to the failsafe function. Please check the following points.</p> <p>Disable fail-safe</p> <p>Please check the following ❶-❺ in this order</p> <ol style="list-style-type: none"> ❶ Click [Advanced Settings/Control] - [Mobile Communication Settings] on the side menu. ❷ Select the target mobile line name, and click [...]-[Edit]. ❸ Uncheck [Fail-safe] and click [Set].  <ol style="list-style-type: none"> ❹ Select the target session name in the session list on the same page and click [...]-[Edit]. ❺ Set the correct content and click [Set]. <p>Check the communication status</p> <p>Click on [Operational Information] - [Mobile Communications] in the side menu and check that the "Mobile Module Status" is "connected". Click on the "Mobile Module Status" button.</p>  <p>Once communication is confirmed, return the failsafe to active if necessary.</p>



This step completes the basic setup of the compact router.

- The following information continues in the Options Setup Guide on the next page. Please refer to it according to your usage situation before proceeding with the settings.
 - ➔ [Configure the device management system.](#)"
 - ➔ ['Setting up remote.it'](#)
-



amnimo C Series Compact Router Option Setting Guide

The screenshot displays the amnimo device management system interface. The top navigation bar includes the amnimo logo, the title "デバイス管理システム", a help icon, a language dropdown set to "日本語", and a user profile for "Technical Support Team ...".

The left sidebar contains the following menu items: デバイス (selected), ダッシュボード, デバイスリスト, アクション, ストレージエクスプローラー, 履歴, デバイスプロフィール, ファームウェア更新タスク, and アラート通知.

The main content area is titled "ダッシュボード" and "デバイス". It features three summary cards: "2 正常" (Normal), "0 準備中" (Preparing), and "0 エラー" (Error). Below these is a search bar and a table of devices.

<input type="checkbox"/>	デバイス名 ↑	テナント名	ハードウェア	デバイスタイプ	状態
<input type="checkbox"/>	Support_edgw	Technical Support ...	20210607	AG10	● 正?
<input type="checkbox"/>	test-AG10	Technical Support ...	test-hosono-AG10	AG10	● 正?

At the bottom of the table, it shows "1 - 2 件 / 2 件" and "表示件数 10 件".

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Configure device management system settings.

This step describes the initial setup for using the device management system.

The device management system of the amnimo IoT Cloud System makes it easy to monitor and maintain compact routers in remote locations.

The main functions of the device management system are as follows

- Remote monitoring of devices
- Remote distribution and retrieval of device configuration files
- Remote firmware updates
- Syslog file acquisition



- You must apply to use the device management system functions. Please contact your sales representative if you wish to use this service.
 - Please refer to the following manuals for detailed information on how to use and configure the device management system.
 - ➔ [Device Management System Manual.](#)
-

Enable Compact Router

Activate the compact router to use the device management system.



In order to proceed with the activation, the time setting must be completed on the compact router in advance.

→ [Set the Time"](#)



Please make sure that the device is connected to the Internet before performing this operation.

Activation usually takes about 10 minutes, but may take up to an hour.

If activation is not completed after several tens of minutes, it can be shortened by rebooting the equipment.

操作手順

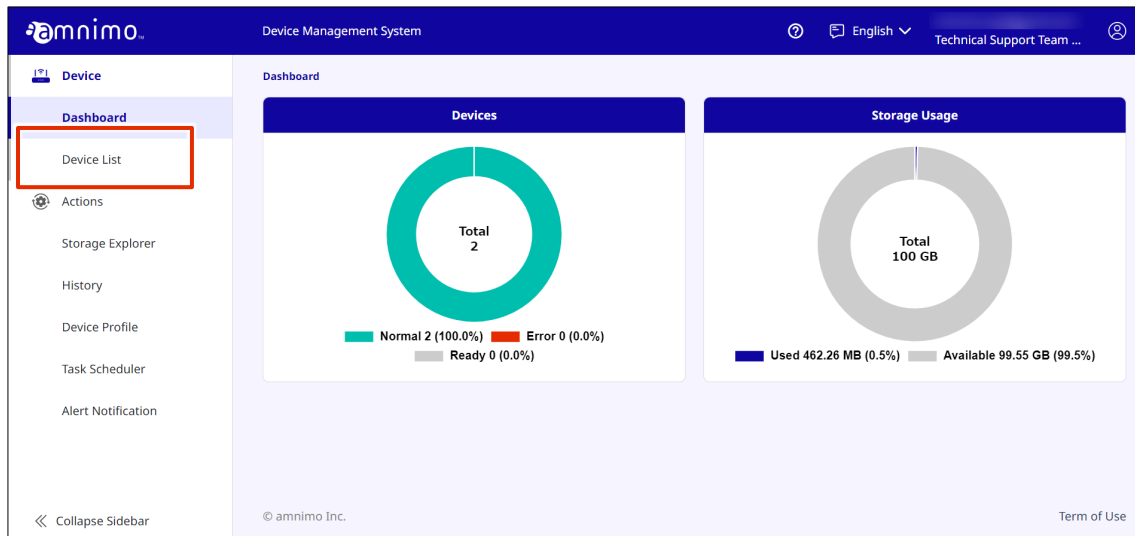
- 1 Log in to the [Service Management Portal](#) with a web browser.
- 2 On the Dashboard, click Device Management System.

The screenshot shows the Service Management Portal Dashboard. The 'Device Management System' application card is highlighted with a red box. The dashboard displays the following data:

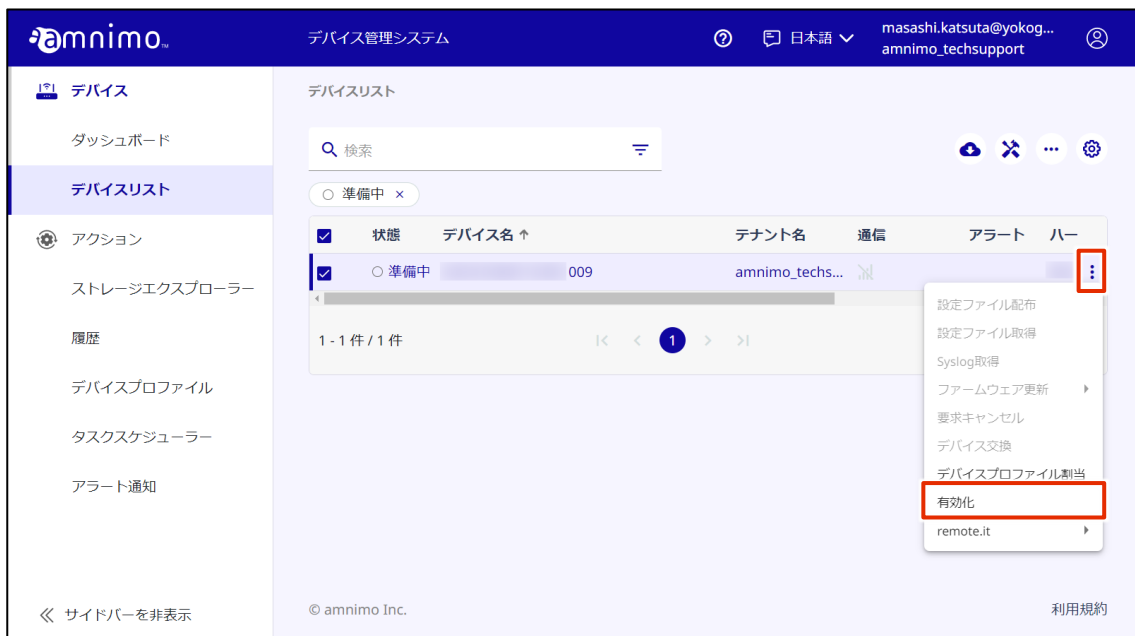
Devices				Camera		
2 Total	2 Normal	0 Ready	0 Error	3 Total	3 Online	0 Offline

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- 3 On the Dashboard screen, click "Device List" to go to the Device List screen.



- 4 Click the [:] button on the target device and select "Enable" from the menu that appears.



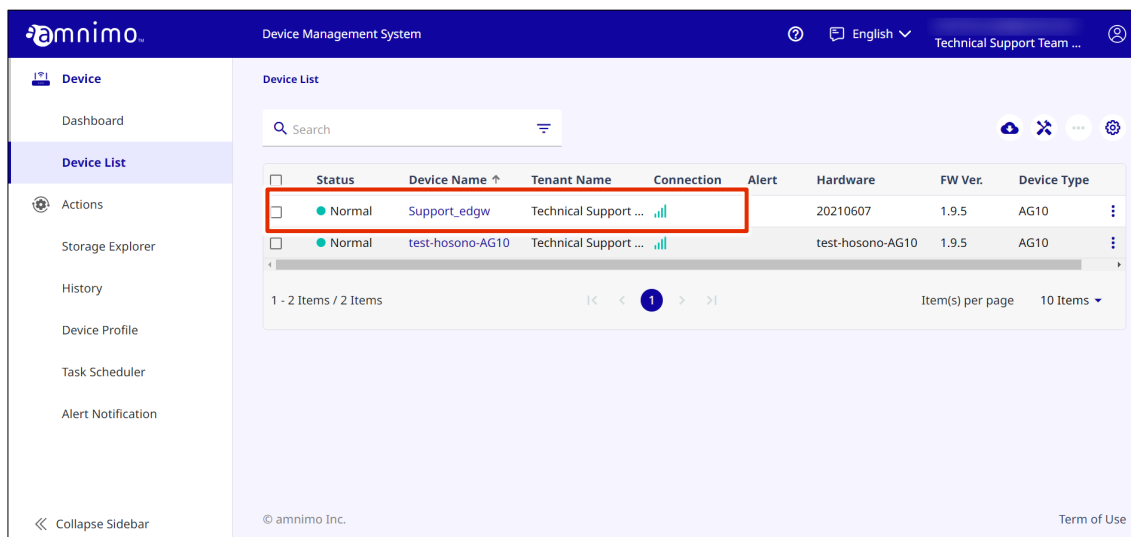
The "Confirmation" screen appears.

5 Click Confirm.



Once the Compact router is connected to the Internet, activation is complete.

6 In the "Device List" screen, if the device status is "normal" and the communication icon is green, the device is connected to the Internet and has a good signal.



When a configuration file is initialized from the CLI or GUI for a compact router already connected to the device management system, a communication error continues in the device management system even if Internet communication is restored after a reboot.

In this case, please "deactivate" the device in the device management system and then "activate" it again.

Configure remote.it settings

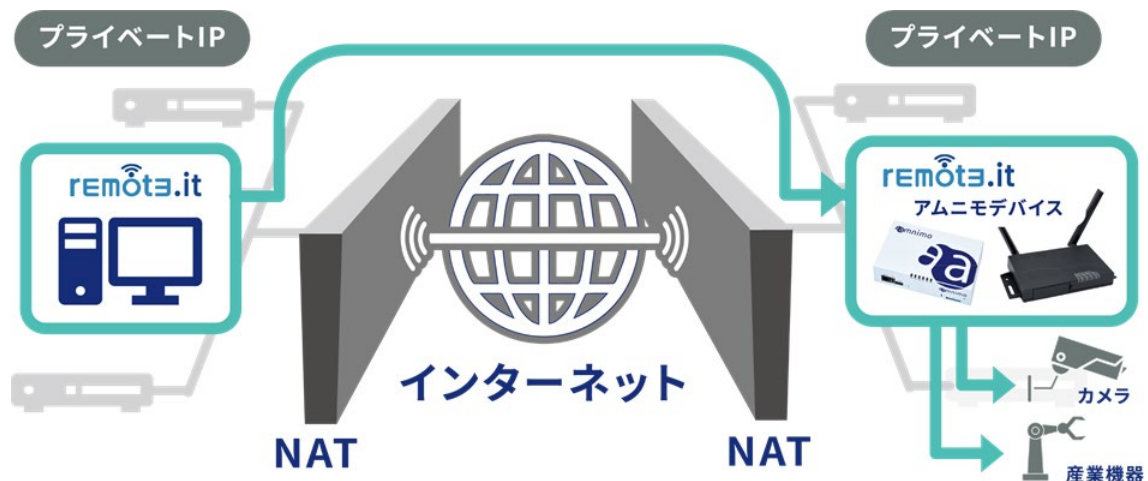
This step describes the initial setup for using remote.it.

remote.it is a P2P connection service that allows remote access to devices in a private IP network via the Internet.

remote.it allows you to securely access a compact router in a remote location from your PC or other device.



You must apply to use remote.it. Please contact your sales representative if you wish to use this service.



Create a remote.it account

To use remote.it, you need a remote.it account. If you wish to use remote.it, please contact an amnimo sales representative to sign up for remote.it.

We will send an invitation to create a remote.it account to those who have applied for the use of remote.it.

Please follow the instructions to create an account.



- **If you are applying for remote.it after applying for Device Management System**
Please contact amnimo customer support with your company name, customer name, email address used in your remote.it account, device name, and the completion date of your setup after completing the remote.it account creation.
→ <https://support.amnimo.com/hc/ja/requests/new>
- **If you are using amnimo's product as a sample**
You may use your existing remote.it account to test and evaluate amnimo products. If you wish to use our products as samples, please request this at the time of your sample request.

操作手順

- 1 Create a remote.it account.

When you receive an invitation from amnimo to create a remote.it account, follow the instructions in the invitation to create a remote.it account.

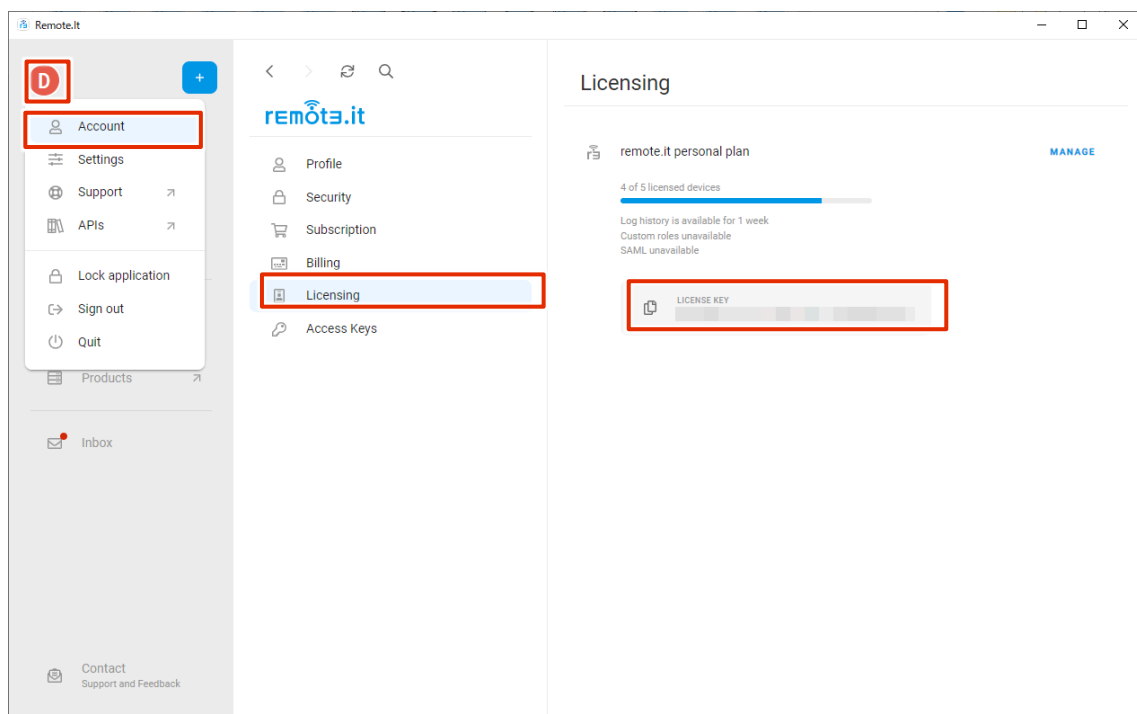
Confirmation of License Key

To use remote.it, you need to register your "License Key" to remote.it on your device in advance. This section describes how to check the License Key.

Check License Key

操作手順

- 1 Log in to "https://app.remote.it/#/" with the account you created.
- 2 Click on the user icon, go to Account, then Licensing, and confirm the License Key displayed in the LICENSE KEY section.



Configure remote.it settings

First, register the License Key to remote.it on the device using the Command Line Interface (hereafter, CLI).

Please refer to the following manuals for detailed information on how to use and configure the CLI.



→ CLI User's Manual

To register a License Key from the GUI, please refer to the following manual

→ GUI User's Manual - 2.26 Configuring remote.it"



About CLI Operation Modes

The dedicated CLI has three modes of operation: general user mode, administrator mode, and configuration mode. The operations that can be performed in each mode and the command line prompts are shown below.

ユーザーモード user mode

In general user mode, the user performs operations necessary for operational management.

```
amnimo$.
```

管理者モード administrator mode

In addition to operations in general user mode, administrator mode allows control over such things as rebooting the Edge Gateway.

```
amnimo#
```

設定モード configuration mode

In the setting mode, you can view and configure settings.

```
amnimo(cfg)#.
```

Log in to the compact router

Log in to the compact router via CLI.



Please enable SSH in the GUI beforehand.

→ For information on how to set up SSH, see "[Configuring SSH Settings](#)".

操作手順

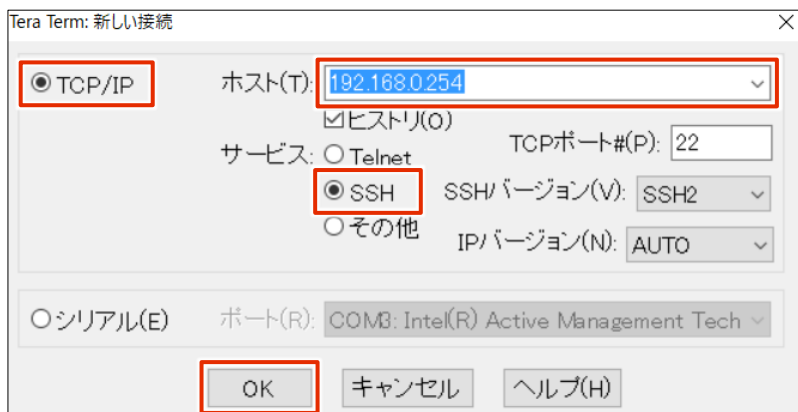
- 1 Install Windows terminal emulator software such as Tera Term or Putty on your PC.



This manual uses Tera Term to provide explanations.

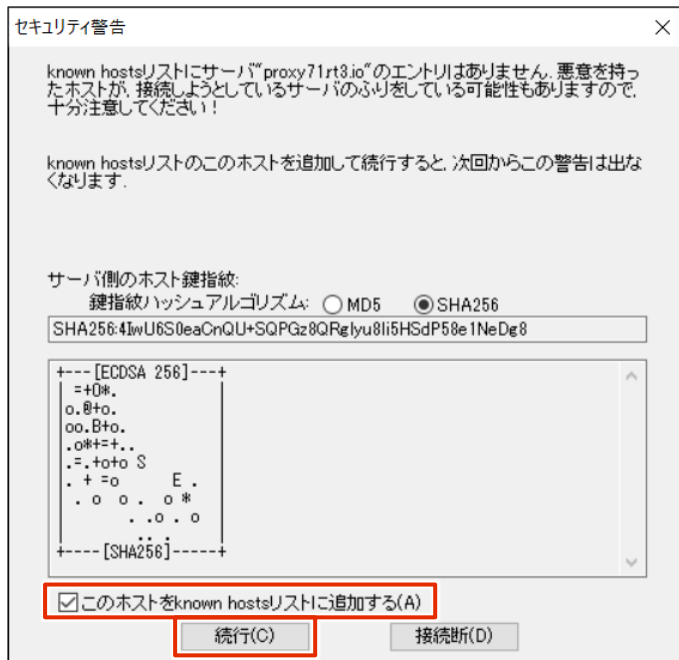
- 2 Start Tera Term, configure the following settings in the "Tera Term new connection" window, and click [OK].

- ① Select "TCP/IP".
- ② Enter the IP address "192.168.0.254" in "Host".
- ③ Select "SSH" under "Service".

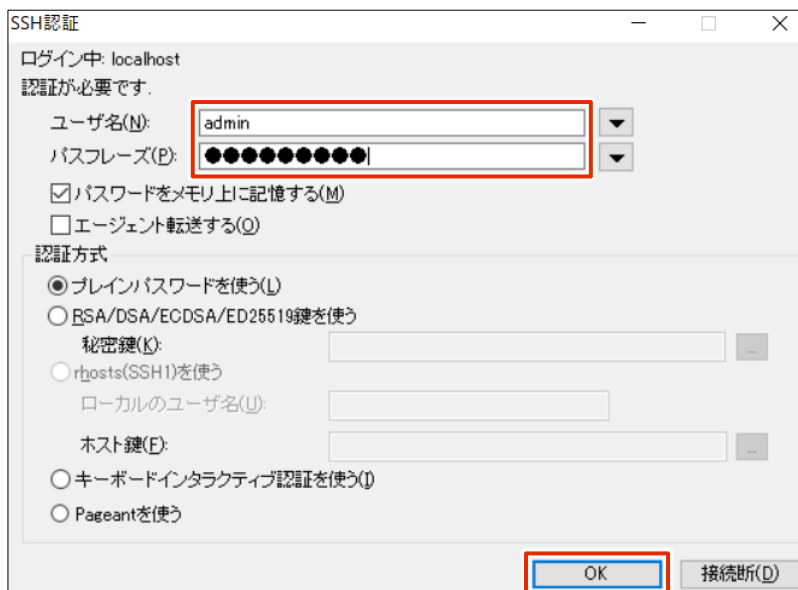


When connecting to a new host, a "Security Warning" screen will appear.

- 3 Check "Add this host to the known hosts list" and click "Continue".



- 4 Enter the login information you entered in Step 2, Initial Login, and click "OK".



Log in to the Edge Gateway via CLI.

Register License Key

設定モード

Register a License Key to use remote.it.



Before using remote.it, please make sure that the following settings have been made

- The edge gateway is connected to the Internet.
- The DNS settings for the Edge Gateway have been configured.
If simple configuration was done in Step 2, DNS settings are enabled.
- Time is set correctly.

操作手順

- 1 Register License Key to remote.it to activate remote.it.

```

amnimo$ enable          ← Switch to administrator mode
password:               ← Enter the password and press Enter
amnimo# configure      ← Go to configuration mode
amnimo(cfg)# remoteit
amnimo(cfg-remoteit)# registration 1234abcd-56ef-7890-1234-56789abcdeff ← Enter License Key
amnimo(cfg-remoteit)# enable      ← enable remote.it
amnimo(cfg-remoteit)# exit
amnimo(cfg)#.
amnimo(cfg)# config file save    ← Save the configuration file
amnimo(cfg)#.
  
```

Command Meaning

(computer) command	meaning	Setting Example
remoteit	Enter the remote.it configuration mode.	-
registration	Register License Key.	1234abcd-56ef-7890-1234-56789abcdeff
enable	Start the service.	-
exit	Exits the current mode.	-
config file save	Save the current configuration file to startup-config.	-

Register your service

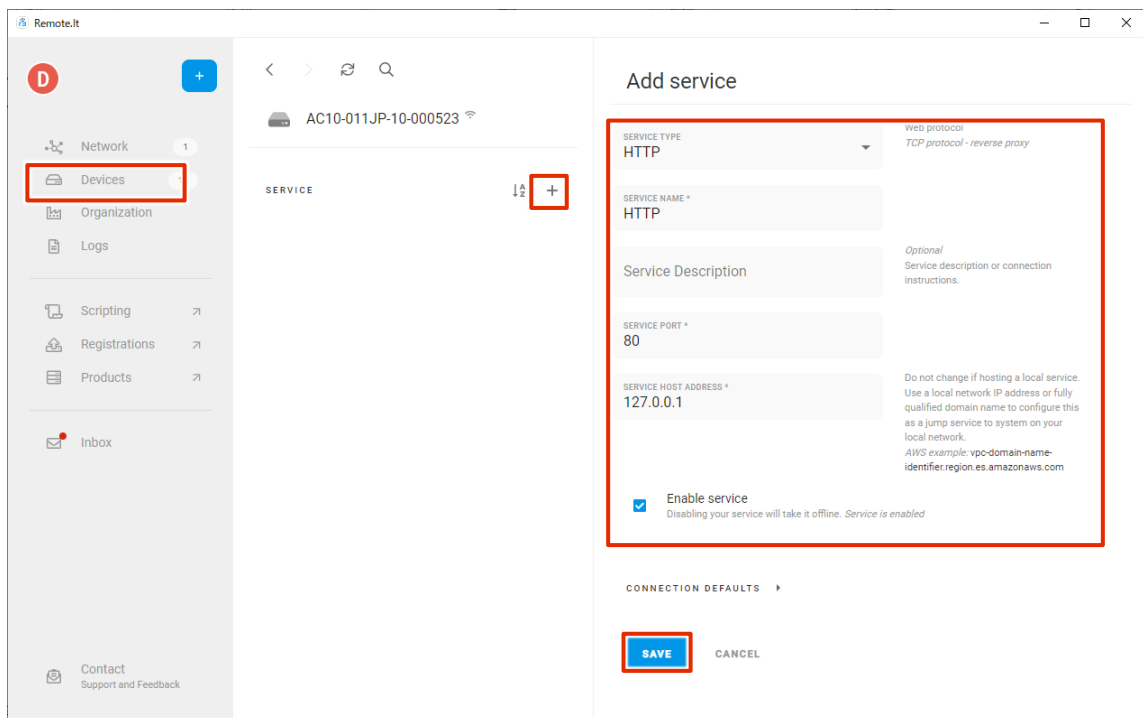


Register your service using the remote.it desktop app.

- The application can be downloaded from the following site
→ <https://ja.remote.it/download>
- For detailed installation instructions, please refer to the following page
→ <https://support.remote.it/hc/ja/articles/4420541365773>

操作手順

- 1 Launch the remote.it desktop app.
- 2 Click on the appropriate device from the sidebar under [Devices].
- 3 In the field marked SERVICE, click the [+] button, select the service you wish to add, enter the required information, including the service name and port number, and click [SAVE] to save.



Connecting to services using remote.it

This chapter describes the procedure for connecting to SSH services from the remote.it desktop application for Windows.

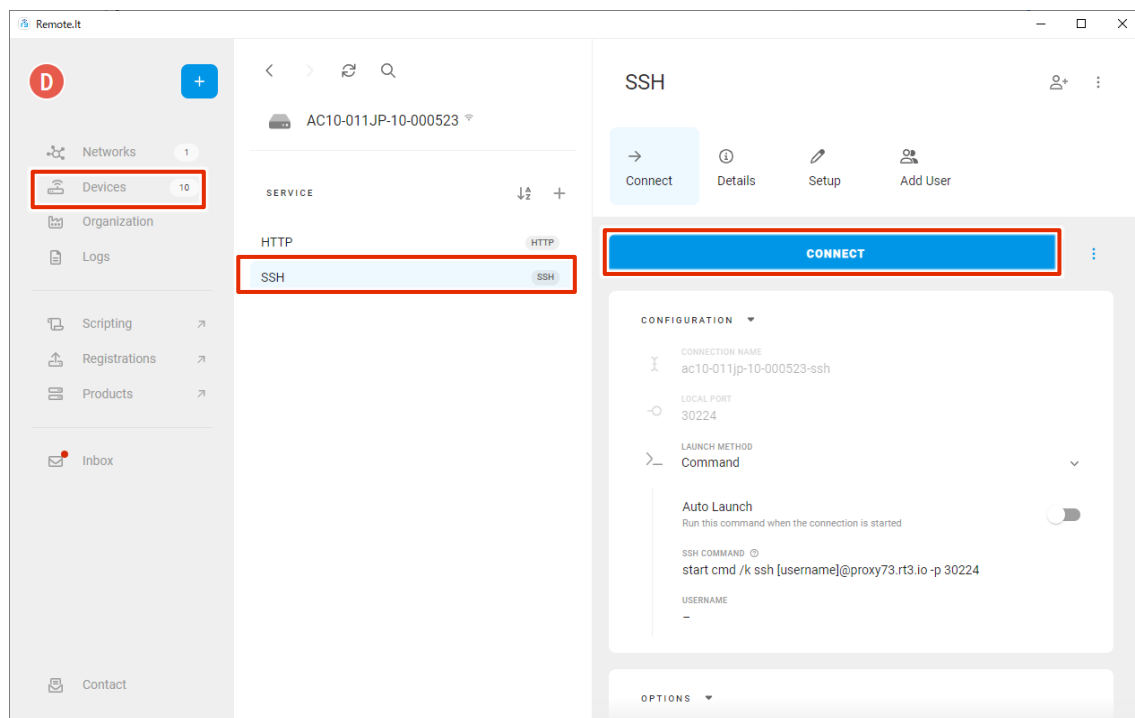


You can find more information on how to connect to a device from the remote.it desktop app on the following page.

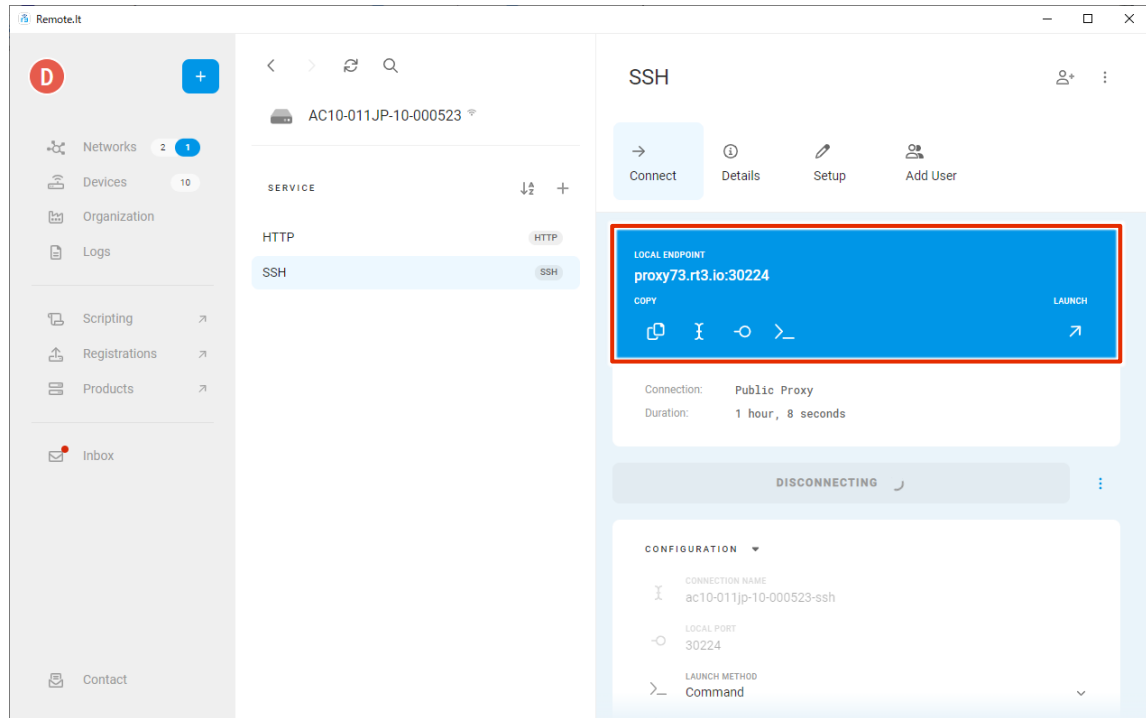
→ <https://support.remote.it/hc/ja/articles/4421390375565>

操作手順

- 1 Start the remote.it desktop application.
- 2 Click [Devices] from the sidebar to open the target device, select the service you wish to connect to (SSH in this procedure), and click [CONNECT]. (Depending on the version of the application, this may appear as [START].)



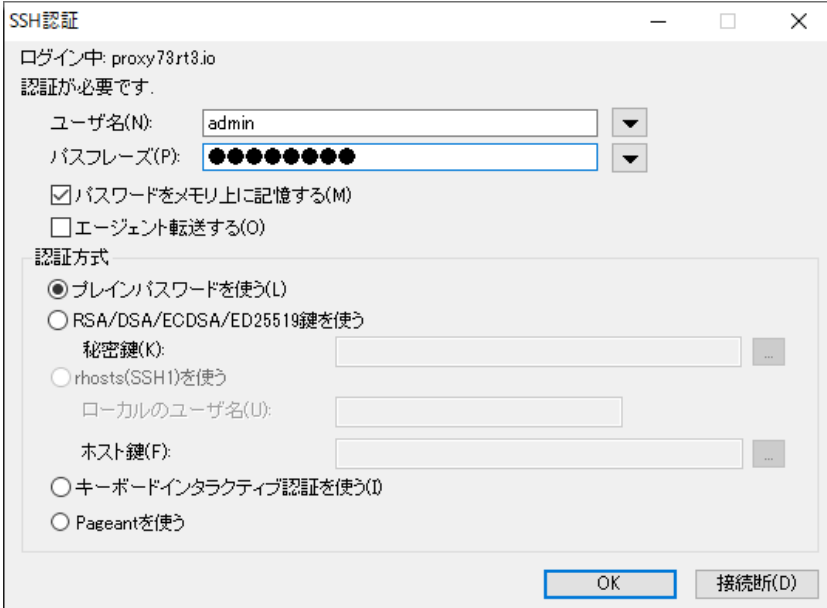
- 3 Once the connection is established, the connection information is displayed. Click the COPY button to copy the connection information.



- 4 Start Tera term, copy the information to the host and TCP port, and click [OK].



- 5 When the login screen appears, enter the Compact Router login credentials, and click [OK].



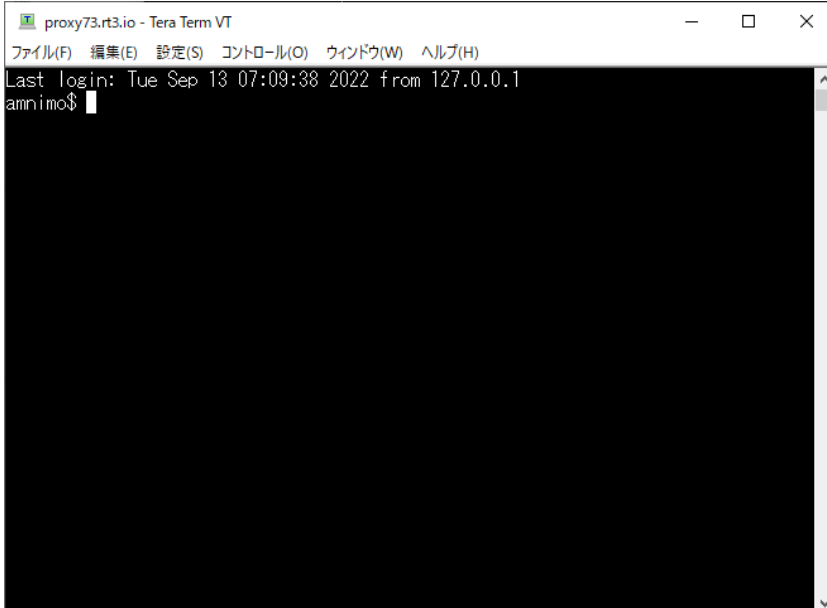
The image shows an SSH authentication dialog box titled "SSH認証" (SSH Authentication). The window title bar includes "proxy73.rt3.io". The text inside the dialog reads "ログイン中: proxy73.rt3.io" (Logging in: proxy73.rt3.io) and "認証が必要です。" (Authentication is required.).

Fields and options include:

- ユーザ名(N): (Username) Input field containing "admin".
- パスワード(P): (Password) Input field with masked characters (dots).
- パスワードをメモリ上に記憶する(M) (Remember password in memory)
- エージェント転送する(O) (Forward agent)
- 認証方式 (Authentication method) section with radio buttons:
 - プレインパスワードを使う(L) (Use plain password)
 - RSA/DSA/ECDSA/ED25519鍵を使う (Use RSA/DSA/ECDSA/ED25519 keys)
 - 秘密鍵(K): (Private key) Input field with a browse button (...).
 - rhosts(SSH1)を使う (Use rhosts(SSH1))
 - ローカルのユーザ名(U): (Local username) Input field.
 - ホスト鍵(F): (Host key) Input field with a browse button (...).
 - キーボードインタラクティブ認証を使う(I) (Use keyboard interactive authentication)
 - Pageantを使う (Use Pageant)

Buttons at the bottom: "OK" and "接続断(D)" (Disconnect).

- 6 Verify that an SSH connection can be made.



The image shows a terminal window titled "proxy73.rt3.io - Tera Term VT". The window title bar includes "proxy73.rt3.io". The terminal output shows:

```
ファイル(F) 編集(E) 設定(S) コントロール(O) ウィンドウ(W) ヘルプ(H)
Last login: Tue Sep 13 07:09:38 2022 from 127.0.0.1
amnimo$
```

The terminal is currently in a shell prompt, indicating a successful connection.

Revision History

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