

InHand Networks InConnect Service

"One-stop" Convenient Networking Service

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> InHand Networks Global Leader in Industrial IoT www.inhandnetworks.com

Declaration

Thank you for choosing our product. Before using the product, read this manual carefully.

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Due to the continuous updating of products, information in this document cannot be completely consistent with actual products. The actual system functions shall prevail. InHand will update this document with the update of system functions. Please find the latest information in the official of InHand or the InConnect platform.

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Conventions

Symbol	Indication
>	Content in it indicates a button name. For example, the OK button.
""	Content in "" indicates a window name or menu name. For example, the pop-up window "New User".
>	A multi-level menu is separated by the double brackets ">>". For example, the multi-level menu File >> New >> Folder indicates the menu item [Folder] under the sub-menu [New], which is under the menu [File].
A Caution	It means reader be careful. Improper action may result in data loss or damage to device.
11 Note	Notes contain detailed descriptions and helpful suggestions.

Technical Support

support@inhandnetworks.com

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1. About InConnect

InHand Connect Service cloud platform (hereinafter referred to as InConnect) is a "one-stop" networking service provided for enterprise customers. It features user-friendly interface and simple operations. InConnect can be used together with InHand networking equipment highly recognized by global customers to help you quickly access global business outlets anytime anywhere, and achieve secure and stable interconnection of equipment and data exchange in different regions, promoting enterprise informatization construction and digital transformation.



2. Registration and Login

1. **Registration**

In a browser, enter <u>https://ics.inhandnetworks.com</u> to access the registration page of InConnect. The Google Chrome browser is recommended.

2. Login

After successful registration, enter the email account used for registration and password to log in to InConnect. After login, **change the password** and **bind a mobile phone number** on the **Settings** page. Next time you can use the bound mobile phone number for login.

InConnect Sites	Networks Users Administration	Download Client 🗘 🧿 🌔
		yandj@inhand.com yandj@inhand.com
ange password Binding		A. Personal Center
		Settings
Old Password :	Old Password	④ 中文/EN
New Password :	At least 6 passwords, case insensitive	G Logout
Repeat Password:		
nepeat Password:		
Save		

3. Connecting a Router to InConnect

After a router is added to InConnect, InConnect automatically delivers the running configuration to create a secure network connection. To connect a router to InConnect, perform the following steps:

- 1. On the Sites page of InConnect, add the router.
- 2. On the web page of the router, connect the router to InConnect.
- 3. Check the connection between the router and InConnect.

The details are described below.

3.1. Adding the Router to InConnect

Before connecting the router to InConnect on the web page of the router, you need to add information about this router again on the InConnect platform. Then, the router will automatically connect to InConnect. InConnect can implement remote management on online routers.

1. Choose Sites>Routers, and click Add.

InConnect	Sites Networks Map Users	Administration			Download Client	Q (2)
🔒 Sites	Home / Sites / Sites				Address: w	ww.hostvpn.cloud:8117
📺 Alerts 📰 Tasks	Routers/Gateways 0 End Devices	Create Router/Gate	eway	×		
Ø Firmware	All 0 • Online 0 • Offline	* Name :	Manag	-	+ Add	- C 🕸
🐻 Config	⑦ Name \$	s Name.		k lag	Monthly Data Usage	Action
		* Device Model :	IR901	\vee		
		* Serial Number:	Serial Number			
		Subnet:	10 · 16 · 32 · 0 / 24]		
	4	Network:	Default Network Mesh	×		•
			Cancel Con	firm		
						\odot
"						

2. In the **Create Router** dialog box, enter the customized name and serial number of the router, select the router model, and click **OK**.

InConnect	Sites Networks Map Users Administration	Download Client 🗘 🕐 悤
🚍 Sites	Home / Sites / Sites	Address: ap.ics.inhandiot.com:43693
Alerts	Routers/Gateways 0 End Devices 0 All 0 • Online 0	+ Add O (9)
🥩 Firmware	⑦ Name ♪ Name: Device_01 ● * Name: Device_01 ● * Device Model: IG902 ✓	Monthly Data Usage Action
	Serial Number: GT9022036001652 Subnet: 10 . 16 . 32 . 0 / 24	
	Network: Default Network Meth Cancel Confirm	,
		Ð

Caution

You can view the serial number on the router **nameplate** or on the **Web Management** page of the router. The selected router model must be correct; otherwise, connection to the router may fail.

3. If the router is displayed on the Routers tab page, the router is added.

🔉 InConnect	Sites Networks Map Users Administration	Download Client 🇘 🕐 혽
🚍 Sites	Home / Sites / Sites	Address: ap.ics.inhandiot.com:43693
Alerts	Routers/Gateways 1 End Devices 0	
Tasks Firmware	All 1 • Online 0 • Offline 1 % VPN State: All V Name V Please enter router name	+ Add 💭 🕸
Config	⑦ Name	a Usage Action
	4	< 1 > 20 / page ∨
		\bigcirc
~		

4. InConnect allocates a virtual IP address for the added router. After the InConnect client is installed and configured, you can use this virtual IP address to remotely access the router. For details about how to install the client, see <u>4. Using the Client</u>.

3.2. Connecting a Router to InConnect

After adding a router to InConnect, you need to connect the router to InConnect on the web page of the router. Before configuration, ensure that the router is already connected to the network. For details about how to connect devices to the network, see the appendix.

\land Caution

The configuration method varies with different product series. Ensure that you refer to the same series of products for configuration according to the equipment in your hand.

The interface varies with the firmware version of the router, and the actual interface should prevail.

3.2.1. IR300-Series Routers

- 1. After connecting a router to a PC, access 192.168.2.1 in the browser.
- 2. On the login page, enter the initial login information to go to the web page of the router. The default login account is **adm** and the password is **123456**.

A Caution

- 3. On the web page of the router, choose Services>Device Manager and complete the following settings:
 - 1. Set Service Type to InConnect Service.
 - 2. Set Server to ics.inhandnetworks.com.
 - 3. In the **Registered Account** text box, enter the email account that you use to register the InConnect account. If you do not have an InConnect account, click **Sign up/Sign in** to register an account, and specify **Registered Account** here.

System	Network	Services	Firewall	QoS Vour page	VPN	Tools	Application lease click here		
				Tour pass	word have se	Device Mana		to change:	
	nnel Account oload Interval Upload Interval epalive	InConnect ics.inhandi xxx@inhan 1 1 30	networks.com 🗸	Sig Hours Hours Seconds	n up/Sign in				

4. Click **Apply**. If the status displayed on the **Services>Device Manager** page is **Connected**, the router is connected to InConnect. If the status is **Registering**, please check whether the router has been added to the platform.

Services								
Services	Firewall	QoS	VPN	Tools	Application	Status		
				Your pass	sword have secu	rity risk, ple	ase click her	e to change!
					De	vice Manager	6	
Connected								
	Connected	Connected	Connected	Connected		De	Device Manager	Device Manager

3.2.2. IR600-Series Routers

- 1. After connecting a router to a PC, access **192.168.2.1** in the browser.
- 2. On the login page, enter the initial login information to go to the web page of the router. The default login account is **adm** and the password is **123456**.

A Caution

- 3. On the web page of the router, choose **Services**>**Device Manager** and complete the following settings:
 - 1. Set Service Type to InConnect Service.
 - 2. Set Server to ics.inhandnetworks.com.
 - 3. In the **Registered Account** text box, enter the email account that you use to register the InConnect account. If you do not have an InConnect account, click **Sign up/Sign in** to register an account, and specify **Registered Account** here.

System Network Services Firewall QoS VPN Tools Application Status Vour password have security risk, please click here to change! Device Manager nable Inconnect Service v ervice Type Inconnect Service v erver Ics inhandnetworks.com v ecure Channel Sign up/Sign up/Sign up/Sign up/Sign up/Sign in BS info Upload Interval Tools Inconnect Service Hours
Device Manager nable ervice Type inConnect Service v erver ics inhandnetworks.com v ecure Channel egistered Account prox@inhand.com cn Sign up/Sign in BS info Upload Interval 1 Hours
Device Manager Device Manager Device Manager Inconnect Service v ervice Type Inconnect Service v erver Ics inhandnetworks.com v ecure Channel egistered Account xxx@inhand.com cn Sign up/Sign in BS info Upload Interval 1 Hours
ervice Type InConnect Service erver ics inhandnetworks.com ecure Channel
Apply Cancel

4. Click **Apply**. If the status displayed on the **Services>Device Manager** page is **Connected**, the router is connected to InConnect. If the status is **Registering**, please check whether the router has been added to the platform.

							De	vice Manager	
						Your pass	sword have secu	irity risk, please c	ick here to change!
System	InHan Network	d Net	works Firewall	QoS	VPN	Tools	Application	Status	

3.2.3. IR900-Series Routers

- 1. Use a network cable to connect a PC to the LAN port of the router, and access **192.168.2.1** in the browser.
- 2. On the login page, enter the initial login information to go to the web page of the router. The default login account is **adm** and the password is **123456**.



- 3. On the web page of the router, choose **Administration**>**Device Manager** and complete the following settings:
 - 1. Select Device Manager Enable.
 - 2. Set Service Type to InConnect Service.
 - 3. Set Server Address to ics.inhandnetworks.com.
 - 4. In the **Registered Account** text box, enter the email account that you use to register the InConnect account. If you do not have an InConnect account, click **Sign up/Sign in** to register an account, and specify **Registered Account** here.

inhand		Administration >> Device Manager English 1 Status Device Manager Device Manager Legacy	¢
Administration	•	Your password has security risk, please click here to change! *	T.
Network	•		1
Services	•	Device Manager Enable	ſ
Link Backup	•	Service Type InConnect Service 🗸	
Routing	۲	Server Address ics.inhandnetworks.com •	
Firewall	•	Secure Channel	
VPN	,	Registered Account Lest@inhand.com.cn Sign up/Sign in	
APP	•	Site Name	
Industrial		Asset Number	
Tools		Show Advanced Options	
Wizards	•	Apply & Save Cancel	
Save Configuration			
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5. Click Apply & Save. If the status displayed on the Status tab page is Connected, the router is connected to InConnect. If the status is **Registering**, please check whether the router has been added to the platform.

	Status Device Manager	Device Manager Legacy
dministration	*	
etwork	> Device Manager	
ervices	Device Manager	
ink Backup	Device Manager	Connected
outing	Description	Connection Accepted
rewall	•	
N	•	
PP	•	
dustrial	•	
ols	•	
zards	•	

3.2.4. IG500-Series Routers

- 1. Use a network cable to connect a PC to the FE0/1 port of the router, and access **192.168.1.1** in the browser.
- 2. On the login page, enter the initial login information to go to the web page of the router. The default login account is **adm** and the password is **123456**.

A Caution

To ensure security, it is recommended that you change the default login password after the initial login, and

- 3. On the web page of the router, choose **System>InHand Cloud** and complete the following settings:
 - 1. On the InHand Connect Service tab page, set Server Address to ics.inhandnetworks.com and Registered Account to the email account that you use to register the InConnect account. If you do not have an InConnect account, click Sign up/Sign in to register an account, and specify Registered Account here.
 - 2. Click **Submit**. The router starts to setting up a connection with InConnect. After the connection is set up, the following message is displayed on the status bar: "Status: Connected; State Description: Connection Accepted". If the status is **Registering**, please check whether the router has been added to the platform.

inphand InGateway	② Overview A Network @ Edge Computing ③ System 昍 Advanced	adm 🌐
System Time	Overview / System / InHand Cloud	
Log	InHand Connect Service InHand Device Manager InHand iSCADA Cloud	
Configuration Management	Status: Connected State Description: Connection Accepted	
InHand Cloud		
Firmware Upgrade	Enable: Server Address: ics.inhandnetworks.com V Sign Up/Login	
Access Tools	* Register Account: xxx@inhand.com.cn	
User Management	Advanced Settings >	
Reboot	Submit Reset	
Network Tools		
3rd Party Notification		
	Copyright ©2001-2022 InHand Networks Co., Ltd. All rights reserved.	

3.2.5. IG900-Series Routers

- 1. Use a network cable to connect a PC to the GE0/2 port of the router, and access **192.168.2.1** in the browser.
- 2. On the login page, enter the initial login information to go to the web page of the router. The default login account is **adm** and the password is **123456**.

A Caution

- 3. On the web page of the router, choose **System>InHand Cloud** and complete the following settings:
 - 1. On the InHand Connect Service tab page, set Server Address to ics.inhandnetworks.com and Registered Account to the email account that you use to register the InConnect account. If you do not have an InConnect account, click Sign up/Sign in to register an account, and specify Registered Account here.
 - 2. Click **Submit**. The router starts to setting up a connection with InConnect. After the connection is set up, the following message is displayed on the status bar: "Status: Connected; State Description: Connection Accepted".

inhand InGateway	🙆 Overview	品 Network	Edge Computing	ᅇ System	品 Advanced
System Time	Overview / System / I	nHand Cloud			
Log	InHand Connect S	ervice InHand	I Device Manager		
Configuration Management	Status: Connector	ed : Connection Accepted			
InHand Cloud	Enable:				
Firmware Upgrade	Territoria de la compañía de la comp	er Address:	ics.inhandnetworks.com	Sign Up/Login	
Access Tools	* Regi	ster Account:	xxx@inhand.com.cn]	
User Management	Advanced Settin	- 10			
Reboot	Submit Re	eset			

3.2.6. VG710-Series Routers

- 1. After connecting a router to a PC, access 192.168.2.1 in the browser.
- 2. On the login page, enter the initial login information to go to the web page of the router. The default login account is **adm** and the password is **123456**.

A Caution

- 3. On the web page of the router, choose Administration>Device Manager and complete the following settings:
 - 1. Select Device Manager Enable.
 - 2. Set Service Type to InConnect Service.
 - 3. Set Server Address to ics.inhandnetworks.com.
 - 4. In the **Registered Account** text box, enter the email account that you use to register the InConnect account. If you do not have an InConnect account, click **Sign up/Sign in** to register an account, and specify **Registered Account** here.

	A	xdministration >> Device Manager	Username:	adm
inhand	ſ	Status Device Manager	MaLogout	
Administration	• [Your password has security risk, please click here to change! ×		
Network			Alarm	
Services	1	Device Manager Enable		
Link Backup	•	Service Type InConnect Service 🗸	Total Alarms: 0 Alarm Summary	
Routing	•	Server Address ics.inhandnetworks.com v	Alarm Summary	-
Firewall	•	Secure Channel	👋 3 s	~
VPN	•	Registered Account Lest@inhand.com.cn Sign up/Sign in	-11-	Stop
APP		Site Name		
Industrial		Asset Number		
Tools		Show Advanced Options 🛛		
Wizards	•	Apply & Save Cancel		
Save Configuration Copyright ©2001-202 InHand Networks Co., L All rights reserved.	22			

5. Click Apply & Save. If the status displayed on the Status tab page is Connected, the router is connected to InConnect. If the status is **Registering**, please check whether the router has been added to the platform.

inhand		Administration >> Devi	ce Manager		Username	
		Status Device Manager			Logout	
Administration	•		Your pass	sword has security risk, please click here to change! 💌		
Network	,	Device Manager			Alarm	E
Services	,				Total Alarms: 0	
ink Backup	•	Device Manager	Connected		Alarm Summary	
Routing	,	Description	Connection Accepted		,	
irewall	•			Manual Refresh V Refresh	‴≱ 3 s	
/PN	•			Reliest		Stop
APP	•					
ndustrial	•					
Tools	•					
Wizards	•					
Save Configurati	ion					
Copyright ©2001-; Hand Networks Co All rights reserve	o., Ltd.					

3.3. Check the connection between the router and InConnect

After the router is added to the platform and InConnect is configured on the router, check the online and VPN status of the router.

1. After the router connects to the platform successfully, the online status of the router is displayed in green.

⑦ Name	🗘 🛛 Serial Number	② Virtual IP	VPN State	Subnet	Network Tag	Monthly Data Usage			1	Action
Cevice_01	GT9022036001652	10.16.0.3	Logged in an hour ago	10.16.32.0/24	Mesh Default Network	240.13KB	Ţ	8	5	0

2. When the router's VPN is successfully established, its VPN status will be shown in green. If the connection between the device and the platform is online, but the VPN is offline, you can try to connect to the VPN again by manually triggering. Click "Send running Config" in the operation column of the "Routers/Gateways" page.

⑦ Name	Serial Number	② Virtual IP	VPN State	Subnet	Network Tag	Monthly Data Usage	Action
• Pevice_01	GT9022036001652	10.16.0.3	Logged in an hour ago	10.16.32.0/24	Mesh Default Network	240.13KB	

4. Using the Client

InConnect automatically creates a secure connection channel for the connected router. You can install and configure the client on a local PC or a mobile phone to access the secure connection channel. Then, you can use the virtual IP address to remotely access the router and its downstream devices, implementing remote access and control of onsite devices.

4.1. Installing and Using OpenVPN in Windows

1. Download the OpenVPN client to InConnect and install the client.

Sites	Home / Sites / Sites							PC	Mobile
Alerts	Routers/Gateways 1	End Devices 0						Windows 7	iPhone
Tasks Firmware	All 1 • Online 1	• Offline 0 YVPN State:	- All	Name v 1	Please enter router nam	he		Windows 8/8.1 Windows 10	Android
Config	⑦ Name	🗘 🛛 Serial Number	③ Virtual IP	VPN State	Subnet	Network Tag	Monthly Data Us	aye	Action
	• * Device_01	GT9022036001652	10.16.0.3	Logged in an hour ago	10.16.32.0/24	Mesh Default Network	240.13KB		
	4								÷.

2. In the Users list of InConnect, download the configuration file.

InConnect	Sites Networks	Map Users	Administration							Dow	nload Client	<u>م</u> و	୭ 🄇
ne / Users													
User List													
Name V Please	enter username	٩								0	+Add	[50 Expo	nt
Name	Email		Network Tag	③ Multiple	Virtual IP	Account Status	VPN State	Login Permission	Creation Time			4	Action
test1@inhand.co	om Admin test1@inh	and.com.cn	Default Network		10.16.0.2	valid	Logged out 16 hours ago	Allowed	18 hours ago	2	î ø	L. N	lore∨
												> 10 / pa	

3. Run the OpenVPN GUI as administrator. Right-click the icon in the lower-right corner, and choose **Import file** from the shortcut menu to import the configuration file to the OpenVPN client.

		Connect
		Disconnect
		Reconnect
		Show Status
		View Log
		Edit Config
		Clear Saved Passwords
	ſ	Import file
	_	Settings
		Exit
٩Ţ		

4. Click **Connect**. When the icon turns green, the current user is connected to the secure connection channel.

Connect	J
Disconnect	
Reconnect	
Show Status	
View Log	
Edit Config	
Clear Saved Pase	swords
Import file	
Settings	
Exit	

5. Test whether the virtual IP address of the router can be accessed.

• The IP address cannot be pinged if Windows Defender Firewall is enabled. It is recommended that you disable the firewall or enable ICMP first.

P Customize Settings	- 🗆 X
\leftarrow \rightarrow \checkmark \bigstar \blacksquare > Control Panel \Rightarrow System and Security \Rightarrow Windows Defender Fired	vall > Customize Settings v 👌 🔎 Search Control Panel
Customize settings for each type You can modify the firewall settings for eac	
Private network settings	in type of network that you use.
O Turn on Windows Defender Fi Block all incoming connect	irewall tions, including those in the list of allowed apps Defender Firewall blocks a new app
 Turn off Windows Defender Fill 	
	irewall tions, including those in the list of allowed apps Defender Firewall blocks a new ≱pp
Turn off Windows Defender Fi	irewall (not recommended)
	OK Cancel

Open Command Prompt of Windows, and ping the router's virtual IP address **10.16.0.3**. You can obtain the virtual IP address by dragging the scroll bar on the **Sites** page of InConnect.



• If the IP address can be pinged, the current user is connected to the remote router, as shown in the figure below.



4.2. Installing and Using OpenVPN in Android

1. Scan the QR code in InConnect to download the OpenVPN client of the Android edition.

Sites	Home / Sites / Sites							PC	Mobile	e
Alerts	Routers/Gateways 1	End Devices 0						Windows 7	iPhone	
Tasks									Andro	id
Firmware	All 1 • Online 1	Offline Ø VPN State:	All V	Name \vee	Please enter router nar	ne				_
Config	⑦ Name	Serial Number	Virtual IP	VPN State	Subnet	Network Tag	Monthly		ALL	uon
	• * Device_01	GT9022036001652	10.16.0.3	Logged in an hour ago	10.16.32.0/24	Mesh Default Network	241.61K	Scan and Download	=	0
	4									×

2. Install the client. The running page is as follows:

≡ Import Profile	
URL FI	LE
URL	
Please note that you can only import profi if it is supported by your VPN provider	le using URL
NEXT	

- 3. Download the OpenVPN configuration file from InConnect and send the file to your mobile phone.
- 4. Tap FILE, select a configuration file, choose IMPORT>ADD, and toggle on the OpenVPN profile.

≡ Import Profile			le
URL FILE	-	URL	FILE
URL https://		Please, select .ovpn profile Location: /storage/emulate	
Please note that you can only import profile using URL if it is supported by your VPN provider		← Back yandj@inhand.com.cn.o	vpn
NEXT			MPORT
← Imported Profile		➡ Profiles	โอ
Profile successfully imported		DISCONNECTED	
Profile Name ap.ics.inhandiot.com [yandj@inhand.com.cn]		OpenVPN Pro ap.ics.inhandii .com.cnl	nile ot.com (yandj@inhand 🖉
Connect after import			
			•
	\Rightarrow		Ð

5. After OpenVPN is connected, launch the ping tool of the mobile phone, enter the router's virtual IP address, and test whether the address can be pinged. If the address can be pinged, the current user is connected to the remote router.



5. Connecting the Router's Downstream Devices

You can add downstream devices of the router to InConnect so that you can remotely access and control these devices. After a downstream device is added, InConnect automatically delivers the running configuration to create a secure network connection.

InConnect supports two access modes: access through the virtual IP address and access through the real IP address. The details are described below.

5.1. Access Through the Virtual IP Address

InConnect automatically maps an added downstream device (such as the PLC) to a virtual IP address. This auto mapping mechanism can prevent access conflicts. When you are not demanding on management and usage of real IP addresses, it is recommended that you use this access mode because it is more convenient. Access through the virtual IP address is also the default access mode of InConnect.

Operation method 1:

1. On the Sites page, choose End Devices>Add.

InConnect	Sites Networks Map Users Administration	Download Client 🏛 🖉 🔞
Gites	Home / Sites / Sites	Address: ap.ics.inhandiot.com:43693
M Alerts	Router/Gsteways 1 End Devices 0 Add device X	
Firmware	Name V Search by name Name: Please entire Name	+Add 🛛 Import 🕞 Export 🔘
😴 Config	Name • (P: 1921682.1	Action
	* Site Tag: Please select site tag V	
	Cencel Subwrit	
		Θ
		9
«		

2. Enter the name and real IP address of the downstream device, and select the site of the device, that is, the device name added to the site.

Add device		>
* Name:	plc	۵
* IP:	192.168.2.215	0
* Site Tag:	Device_01	V
Virtual IP:	10 . 16 . 32 . 1	
		Cancel Submit

3. Click **Submit**, and check the result. InConnect automatically maps the downstream device to a virtual IP address. You can add a maximum of 254 downstream devices foreach router. As shown in the figure below, the real IP address of the downstream device on the Device01 site is 192.168.2.215, and the mapped virtual IP address is 10.16.32.1.

N InConnect	Sites Networks Map	Users Administration			Download Client 🋱 🕐 I
Sites	Home / Sites / Sites Addre				
Alerts	Routers/Gateways 1 End	Devices 1			
Tasks Firmware	Name V Search by nam	ie			+Add Margin Import
Config	Name	IP Address	Site Tag	Virtual IP	Action
	plc	192.168.2.215	Device_01	10.16.32.1	2 0
					1-1 of 1 items \leq 1 $>$ 20 / page \vee
«					

Operation method 2:

1. On the **Sites** page, click the router name of the target downstream device.

🚫 InConnect	Sites Networks Map Users Administration	Download Client 🗘 🥝 🧯
Sites	Home / Sites / Sites	Address: ap.ics.inhandiot.com:43
Alerts	Routers/Gateways 1 End Devices 0	
Tasks		
Firmware	All 1 • Online 1 • Offline 0 ¥VPN State: All V Name V Please enter rou	iter name + Add C 🕸
Gonfig Config	⑦ Name	Network Tag Monthly Data Usage Action
	★**Device_01 GT9022036001652 10.16.0.3 Logged in a few seconds ago 10.16.32.0/	/24 Mesh Default Network 243.25KB 🖵 🖻 🗂
	seconds ago	,
		$<$ 1 $>$ 20 / page \vee
«		

2. Go to the router management page.

🚫 InConnect	Sites Networks Map Users Administration		Download Client 🋱 🧑 🧾
Gites	← Device_01 Online		🖵 Web management 🤍 🖉 Edit
 ☆ Alerts ☆ Tasks ☆ Firmware ☆ Config 	Serial Number: G19022036001652 Online Time: an hour ago Virtual IP: 10.16.0.3 Basic Info Cellular Signal End Devices Config Detailed Information	Device Models: 16902 Network Tag: Default Network Creation Time: 2023-03-01 18:11:18	Firmware Version: 2.0.0./14249 1
	IP: 182.150.21.232 IMSI: IMEI: 863138041060579	Phone : Configure synchronization state : SYNC succeeded ICCID :	Address: 💩 Login Protocol: mqtt
	Flow Status		Total: 0.68 By Day V 2023-03
«	0.2		

3. Choose End Devices>Add, enter the related information, and click Submit.

N InConnect	Sites Networks Map Users	Administration			Download Client 🏚 💿 😣
🚇 Sites	← Device_01 Online				🖵 Web management 🤍 🖉 Edit
 Merts aks Firmware Config 	Serial Number : G19022036001552 Online Time: an hour ago Virtual IP : 10.16.03 Basic Info Cellular Signal End De Enable real IP access :	Add device Name: plc + (P: 192.168.2215 Virtual (P: 10 . 16	x 0 0 0 . 32 . 1	Firmware Version: 2.0.0.14, Subret: 10.16.32.0/24 Update Time: 2023-03-02.0	
	Name V Search by name	IP Address	Cancel Submit	+ c	reale 🗟 Import 🕞 Export
					e
«					

4. InConnect automatically maps the downstream device to a virtual IP address. Here, the allocated virtual IP address is 10.16.32.1.

🔉 InConnect	Sites Networks Map Users Admir	nistration		Download Client 🇘 🥝 📀
📄 Sites	← Device_01 Online			🖵 Web management 🤍 🖉 Edit
 m Alerts iasks if Firmware im Config 	Serial Number: GT9022036001652 Online Time: an hour ago Virtual IP: 1016.03 Basic Info Cellular Signal End Devices	Device Models: 16902 Network Tag: Default Netwo Creation Time: 2023-03-01 1 Config		Firmware Version: 2.0.0.14249 (L) Subnet: 10.16.32.0/24 Update Time: 2023-03-02.09.47:37
	Enable real IP access: Doubled Name V Search by name			+ Create 원 Import 등 Export
	Name	IP Address	Virtual IP	Action
	plc	192.168.2.215	10.16.32.1	2 0
				1-1 of 1 liems < 1 > 20 / page ∨
«				

5. After you install the client on the local PC, create and configure a connection. Then, ping the virtual IP address of the downstream device to check whether this device can be remotely accessed. If the virtual IP address can be pinged, the remote access is successful. Now you can use the virtual IP address to remotely access the router and its downstream devices such as PLCs and HMIs through the InConnect maintenance channel.

🚥 C:\Windows\system32\cmd.exe	3. 	\times
C:\Users\manji>ping 10.16.32.1		^
Pinging 10.16.32.1 with 32 bytes of data: Reply from 10.16.32.1: bytes=32 time=71ms TTL=63 Reply from 10.16.32.1: bytes=32 time=73ms TTL=63 Reply from 10.16.32.1: bytes=32 time=73ms TTL=63 Reply from 10.16.32.1: bytes=32 time=80ms TTL=63		
Ping statistics for 10.16.32.1: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = 71ms, Maximum = 80ms, Average = 74ms		

5.2. Access Through the Real IP Address

In addition to the virtual IP address, InConnect also allows you to access downstream devices such as PLCs using the real IP addresses. When you are very demanding on management and usage of real IP addresses, it is recommended that you use this access mode. If you use this access mode, pay attention to the IP conflict issue.

1. Choose **Sites**>**Routers**, and select the target device name to go to the device management page.

N InConnect	Sites Networks Map Users Administration		Download Client 🋕 🙆 🧔
🚐 Sites	← Device_01 Online		🖵 Web management 🛛 🖉 Edit
 iii Alerts iiii Tasks g Firmware iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	Serial Number: GT9022036001552 Online Time: an hour ago Virtual IP: 10.16.0.3 Basic Info Cellular Signal End Devices Config	Device Models: 16902 Network Tag: Default Network Creation Time: 2023-03-01 18:11:18	Firmware Version: 2:0.0:r14249 (L) Subnet: 10.16320/24 Update Time: 2023-03-02.0949-25
	Enable real IP access: Denabled		+ Create 🖹 Import 🗇 Export
	Name IP Addr	as Virtual IP	Action
"			

2. Select Enable real IP access, and configure the network segment of the target downstream device.

🔉 InConnect	Sites Networks Map Users Admini	stration			Download Client	¢ Ø 📀
🚐 Sites	← Device_01 Online			Q	Web management	··· 🖉 Edit
 ☆ Alerts ☆ Tasks ☆ Firmware ☆ Config 	Serial Number: GT9022036001652 Online Time: an hour ago Virtual IP: 1015.0.3 Basic Info Cellular Signal End Devices	Device Models: Network Tag: D Creation Time: 2 Config		Firmware Version:2.0.0.r14249 《 Subnet:10.16.32.0/24 Update Time:2023-03-02.09:49:3		
	If the real IP segment of this router is the same as the Enable real IP access: (made) 192.168.2.0	LAN subnet of other routers, you will no	t be able to access other routers through the LAI	after VPN connection is established.		
	Name V Search by name			+ Create	图 Import	Be Export
	Name	IP Address	Virtual IP	Action		
			No Data			9
~						

3. Add the downstream device that needs to be accessed through the real IP address.

C InConnect	Sites Networks Map Users	Administration		D	ownload Client 🏚 🕐 🌘	
🚐 Sites	← Device_01 Online			. w	eb management 🛛 🖉 Edit	:
 Alerts Tasks Firmware Config 	Serial Number: GT9022036001652 Online Time: an hour ago Virtual IP: 10.16.0.3	Add device Name: plc	×	Firmware Version: 2.0.0.r14249 1 Subnet: 10.16.32.0/24 Update Time: 2023-03-02 09:49:37		
	Basic Info Cellular Signal End D	Virtual IP: 10 . 16		connection is established.		
	Name V Search by name	IP Address	Virtual IP	+ Create	원 Import 등 Export	
ď						•

4. Test the network connection.

Access through the real IP address:

C:\Windows\system32\cmd.exe		×
C:\Users\manji>ping 192.168.2.215		^
Pinging 192.168.2.215 with 32 bytes of data: Reply from 192.168.2.215: bytes=32 time=72ms TTL=63 Reply from 192.168.2.215: bytes=32 time=72ms TTL=63 Reply from 192.168.2.215: bytes=32 time=73ms TTL=63 Reply from 192.168.2.215: bytes=32 time=76ms TTL=63		
Ping statistics for 192.168.2.215: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = 72ms, Maximum = 76ms, Average = 73ms		

In this access mode, the IP address used is decided by you on site, and duplicate IP addresses will result in access conflicts. To avoid this problem, you can use the "Networks" module of InConnect. For details about this module, see 6. Network Management.

5.3. Access Through the Virtual IP Address and Real IP Address Simultaneously

1. Choose **Sites**>**Routers**, and select the target device name to go to the device management page.

N InConnect	Sites Networks Map Users Administrat	lion	Download Client 🗘 🕐 📀
🔒 Sites	← Device_01 Online		🖵 Web management 🛛 … 🖉 Edit
Merts Tasks Firmware Config	Serial Number : G19022036001652 Online Time : an hour ago Virtual IP : 10.16.0.3 Basic Info Cellular Signal End Devices Enable real IP access: Disable	Device Models: 16902 Network Tag: Default Network Creation Time: 2023-03-01 18:11:18	Firmware Version: 2.0.0/14249 1
	Name V Search by name		+ Create 18 Import Export
	Name	IP Address Virtual IP	Action
"			

2. Select Enable real IP access, and configure the network segment of the target downstream device.

🔊 InConnect	Sites Networks Map Users Administration		Download Client 🗘 🕐	8
🚐 Sites	← Device_01 Online		🖵 Web management 🛛 …	🖉 Edit
▲ Alerts■ Tasks③ Firmware☑ Config	Serial Number: GT9022036001652 Online Time: an hour ago Virtual IP: 10.16.0.3 Basic Info Cellular Signal <u>End Devices</u> Confi	Device Models: 10902 Network Tag: Default Network Creation Time: 2023-03-01 18;11:18	Firmware Version: 20.0.114249 (L) Subnet: 10.15.32.0/24 Update Time: 2023-03-02.09-49-37	
	If the real IP segment of this router is the same as the LAN subne Enable real IP access: (nuble) [192.168.2.0	t of other routers, you will not be able to access other routers through the	LAN after VPN connection is established.	
	Name V Search by name		+ Create 🗟 Import 🕫 Exp	ort
	Name IP Add	Iress Virtual IP	Action	
		No Data		0
«				

3. Add the downstream device that needs to be accessed through the real IP address.

(N InConnect	Sites Networks Map Users A	dministration			Download Client 🗘	0 ଃ
Gites	← Device_01 Online				🖵 Web management	" 🖉 Edit
 ☆ Alerts ⇒ Tasks ⊘ Firmware ⇒ Config 	Serial Number: GT3022036001652 Coline Time : an hour ago Virtual IP: 1016.03 Basic Info Cellular Signal End Dev If the real IP segment of this router is the same Enable real IP access: Color	Add device Name: plc * (P): 192.168.2215 Vinual (P): 10 . 15		Firmware Version: 2.0.0:142 Subnet: 10.16.32.0/24 Update Time: 2023-03-02.01		
	Name V Search by name			-+ cr	reate 🗃 Import 🛛	5 Export
	Name	IP Address	Virtual IP	Action		
						Ø
«						

After the device is added, InConnect automatically allocates a virtual IP address for this device. You can use the entered real IP address and the virtual IP address allocated by the system to access the downstream device.

4. Test the network connection.

Access through the virtual IP address:



Access through the real IP address:



6. Network Management 6.1. Configuring a Mesh Network

Mesh networks are used to remotely maintain connections with devices, such as PLCs, HDMIs, and cameras.



All the newly-added routers are in **Default Network**, which is a mesh network. For all routers in a mesh network, real IP access can be enabled, after which IP conflicts will be detected. If duplicated IP addresses are found, a new mesh network must be created to configure the real IP address of the router. Alternatively, you can enable or disable real IP addresses to avoid the conflicts and implement access through real IP address on demand.

You can also use the "Networks" module to implement authority control of network access. The details are described below.

6.1.1. Adding a Mesh Network

1. Select Networks, and click + to add a network.

InConnect Sites Network	Users Administration	Download Client 🗘 🕐 🙆
	Name: Plesse enter Network Name iption: Plesse enter description for network. 0 / 256 k Type: Mesh Network Manne Graphic example O Members of this network can connect with each other.	Cancel Submit
	Copyright @ 2019 InHand Networks: A Global Leader in Industrial IoT. All Rights Reserved.	9

2. Enter the network name, select the network type **Mesh Network**, and click **Submit**.

	* Network Name:	network01	
-	Description:	Please enter description for network	h
			0 / 256
	* Network Type:	Mesh Network Mesh Graphic example Graphic example	Star Network Star Graphic example (Only nodes of this network can have access to the center.

3. Select the network members and sites, and click Submit.

S InConnect	Sites Networks	Users Administration			Download Client 🗘 🧿
ease select netv	vork members				
Select User					
Username v Pleas	se enter username				
Selected 1 Item					Clear
 Username 				Email	
test				test@163.com	
yandj@inhan	id.com.cn			yandj@inhand.com.cn	
					1-2 of 2 items $<$ 1 $>$ 20 / page \vee
Select Site					
Name v Plea:	se enter router name				
Selected 1 Item					Clear
Name			Serial Number		
Device01			RT6151944462424		

4. The Network Management page is displayed.

Nonnect Sites	Networks Users Admir	istration					Download (Client 🎗	0 🧕
Home / Networks									-
Networks Management								+	
Default Network Mesh	network01 Mesh Net	vork							
network01 Mesh	Creation Time: 2020-11- Description:	16 17:30:06	Update Ti	me: 2020-11-16 17:3	0:06				
	Sites Users							Add Me	embers
	Name v Please	enter router name							С
	Name	Signal	Serial Number	Subnet	⑦ Virtual IP	VPN State	Current Version	Action	
	Device01	all	RT6151944462424	10.16.32.0/24	10.16.0.3	Logged in a minute ago	2.3.0.r5355	Ð	
							1-1 of 1 items <	1 > 20 /	page 🗸
									6
		Copyright © 2019	InHand Networks. A Global	Leader in Industrial lo	T. All Rights Reserved.				

A Caution

- 1. A mesh network isolates network access, that is, only users and site devices in the same mesh network can communicate with each other. Users in a mesh network cannot access site devices of another mesh network, and site devices in this mesh network also cannot be accessed by users of another mesh network.
- 2. **Default Network** is a mesh network. All the newly-added router sites and users are in **Default Network**. Only users and route sites in **Default Network** support mutual access.

- 3. Configuration of multiple mesh networks can prevent conflicts of real IP addresses. When a user needs to use the real IP address to access multiple terminals with the same real IP address, use either of the following management methods:
 - 1) The user and all terminals are in the same mesh network. When necessary, the user enables the real IP address of a site on demand to avoid the IP conflict.
 - 2) Add the terminals with the same real IP address to different mesh networks. When necessary, add the user to the corresponding mesh network to obtain the access permission, which avoids the IP conflict.

6.1.2. Adding a Site or User to a Mesh Network

1. Select the target mesh network, and click **Add Members**.

🐼 InConnect Sites	Networks Users Admini	stration					Download	Client 🗘	0 🤇
Home / Networks								-	
Networks Management									+
Default Network Mesh	network01 Mesh Netw	ork							
network01 Mesh	Creation Time: 2020-11-1 Description:	6 17:30:06	Update Tir	me: 2020-11-16 17:30:	06				
	Sites Users							Add	Members
	Name v Please	enter router name							С
	Name	Signal	Serial Number	Subnet	⑦ Virtual IP	VPN State	Current Version	Action	
	Device01	oill	RT6151944462424	10.16.32.0/24	10.16.0.3	Logged in a minute ago	2.3.0.r5355	Đ	
							1-1 of 1 items <	(Add Members C rsion Action E	/ page \vee
									(
		Copyright © 2019	InHand Networks. A Global	eader in Industrial IoT.	All Rights Reserved.				

2. Select the user name and site name, and click **Submit**. If an IP conflict occurs between the real IP-enabled router and any other routers in the mesh network, this router cannot be added to the mesh network.

NS InConnect	Sites Networks	Users Administ	ration			Downlo	ad Client	φ.	୭ (8
Please select net	work members									
Select User										
Username v Plea	ise enter username									
Username				Email						
test				test@163.com						
						1-1 of 1 items	< 1 >	20 / pa	ige ∨	
Select Site										
Name v Plea	se enter router name									
Selected 1 Item								C	ear	
Name			Serial Number	r						
Device02			GL9021900434	4188						
						1-1 of 1 items	< 1 >	20 / p	age 🗸	6
							_			
							C	Cancel	Subm	nit

3. Check all sites in the mesh network, and select Sites.

									- 4	
Networks Management										
Default Network Mesh	netwo	rk01 Mesh Netv	vork							
network01 Mesh	and the second	Time: 2020-11-	16 17:30:06	Update Tir	me: 2020-11-16 17:30	06				
	Descript	ion:								
	Sites	Users							Add N	lembers
										i.
	Name	✓ Please	enter router name							C
		Name	Signal	Serial Number	Subnet	③ Virtual IP	VPN State	Current Version	Action	
		Device01	oill	RT6151944462424	10.16.32.0/24	10.16.0.3	Logged out in a few seconds	2.3.0.r5355	Đ	
		Device02	aill	GL9021900434188	10.16.33.0/24	10.16.0.4	Logged out in a few seconds	2.0.0.r13042	Đ	
								1-2 of 2 items <	1 > 20	/ page 🗸

4. Check all users the mesh network, and select Users.

Networks Management								
Default Network Mesh	network01 Mesh Network							
network01 Mesh	Creation Time: 2020-11-16 17:30 Description:	06	Update Time: 202	0-11-16 17:30:06				
	Sites Users						Add	Members
	Username V Please enter us	ername						С
	Username	Email	Virtual IP	Account Status	VPN State	Creation Time	Action	
	yandj@inhand.com.cn	yandj@inhand.com.cn		valid	Latest logged in 5 hours ago	3 days ago	Đ	
	-					1-1 of 1 item:	s < 1 > 20	/ page \vee
								0

A Caution

If an IP conflict occurs between the real IP-enabled router and any other routers in the mesh network, this router cannot be added to the mesh network.

Note: 192.168.2.0 already exists in the mesh network. If the IP address of the device to be added is also 192.168.2.0, an IP conflict occurs and therefore this device cannot be added to the mesh network.

6.1.3. Deleting a Mesh Network

1. Before deleting a mesh network, delete all users and sites in the mesh network. Removed sites will be added to the default mesh network. Choose **Sites**>**Removesite** on the **Networks** page.

ne / Networks										
Networks Management										<u> </u>
Default Network Mesh	netwo	rk01 Mesh Net	vork							
network01 Mesh	Creation Descript	Time: 2020-11-	16 17:30:06	Update Tir	me: 2020-11-16 17:30:	06				
	Sites	Users							Add Mer	mbers
	Name	✓ Please	enter router name							С
		Name	Signal	Serial Number	Subnet	⑦ Virtual IP	VPN State	Current Version	Remove site	
		Device01	.all	RT6151944462424	10.16.32.0/24	10.16.0.3	Logged out in a few seconds	2.3.0.r5355	Đ	
		Device02	-all	GL9021900434188	10.16.33.0/24	10.16.0.4	Logged out in a few seconds	2.0.0.r13042	F	
								1-2 of 2 items <	1 > 20 / p	oage 🗸

2. Choose Users>Remove user to delete all users of the mesh network.

💸 InConnect Sites	Networks Users Administration	Download Client 🗘 🕐 🌔
ome / Networks		
Networks Management		+
Default Network Mesh	network01 Mish Network	
network01 Mesh	Creation Time: 2020-11-16 17:30:06 Update Time: 2020-11-16 17:30:06 Description:	
	Sites Users	Add Members
	Username V Please enter username	С
	Username Email Virtual IP Account Status VPN State	Creation Time Remove user
	yandj@inhand.com.cn yandj@inhand.com.cn - valid Latest logge hours ago	d in 5 3 days ago
		1-1 of 1 items \langle 1 \rangle 20 / page \vee
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3. Select the target mesh network name, and click the **Delete** icon to delete the mesh network.

	•
te network01 Mish Network	
Creation Time: 2020-11-16 17:30:06 Update Time: 2020-11-16 17:30:06 Description:	
Sites Users	Add Members
Name V Please enter router name	с
Name Signal Serial Number Subnet 🛇 Virtual IP VPN State	Current Version Action
	(
	Description: Sites Users Name Please enter router name Name Signal Serial Number Subnet O Virtual IP VPN State

Caution

If an IP conflict occurs between the real IP-enabled router and any other routers in **Default Network**, this router cannot be removed from the existing mesh network.

Note: 192.168.2.0 already exists in **Default Network**. If the IP address of the router to be deleted is also 192.168.2.0, an IP conflict occurs and therefore this router cannot be removed from its existing mesh network.

6.2. Configuring a Star Network

The star network is used for telecommuting. It allows you to access servers in the company's intranet through the InConnect channel when you are at home or on a business trip.

The star network is only applicable to the telecommuting scenario. If you need to remotely access onsite devices such as PLCs, select **Mesh Network**.



6.2.1. Adding a Star Network

1. Select **Networks**, click +, enter the network name, select **Star Network**, enter the center IP address, and click **Submit**.

(Nonnect	Sites	Networks	Users Administration	Download Client 🏛 🎯 🍙
Home / Networks				
Network Crea	ate Network			×
		* Network Name	star network	
		Description	Please enter description for network	c
		* Network Type	0 / 256 Mesh Network Mess Graphic example Transformer Star Network Transformer Star Network Transformer Star Network Transformer Star Network Sta	Graphic example ⑦ center.
	ſ	* Select Cente	: Device01 V How to configure your central site WAN connection? ③	page 🗸
		Center IP Address	: 10520.0 / 24 🗸	
				Cancel Submit
				0
			Copyright © 2019 InHand Networks. A Global Leader in Industrial IoT. All Rights Reserved.	

2. Select the user name and site name, and click **Submit**.

InConnect Sites Networks U	ers Administration	Download Client 🗘 🥝 (
ease select network members		
Select User		
Username V Please enter username		
Selected 1 Item		Clear
Username	Email	
yandj@inhand.com.cn	yandj@inhand.com.cn	
		1-1 of 1 items \langle \langle 1 \rangle \langle 20 / page \vee
elect Site Star networks do not support adding routers	that are configured with real IP or connected with end devices.	
Name v Please enter router name		
Name	Serial Number	

3. Check the information about the newly created network.

InConnect	Sites Networks	Users	Administration				Down	load Client 🗘	n Ø 📀
Home / Networks									
Networks Managemen	t								+
Default Network Mesh	star	network	Star Network	7					
star network Star	12/1/24	ition Time: 2 cription:	020-11-17 09:33:33	Update T	Time: 2020-11-17 09:33:33				
	Cen	ter							С
	Nar	ne	Signal	Serial Number	Real IP	⑦ Virtual IP	VPN State	Current Versio	n
	Dev	ice01	anth	RT6151944462424	10.5.20.0/24	10.16.0.3	Logged out a few seconds ago	2.3.0.r5355	
	Nod	e						Add Men	nbers C
	U	ser Sites	Username \lor	Please enter username					
		Userna	ime Ema	il Virtual IP	Account Sta	itus VPN State	Creation Time	Action	
		yandj@	Pinhand.com.cn yand	dj@inhand.com.cn -	valid	Latest logged ir hours ago	1 20 4 days ago	Đ	
							1-1 of 1 items	< 1 > 2	10 / page \vee
									\odot
			Convright © 2	019 InHand Networks. A Global	Leader in Industrial IoT All	Rights Reserved			
			copyright @ c			angeres anner ander			

4. Use the WAN port of the router to access the network. Check the network information obtained through the WAN port.

inhand	北京明	央翰通网约	各技术股份	}有限公司	无线、安全	我们7 、可管理的种	り您提供 网络连接		
系统	网络	服务	防火墙	带宽管理	VPN 设置	工具	行业应用	状态	
				您的密码存在安	安全风险,请点	击此处修改	(!		
					网络连接				
WAN(STA)									
MAC Address		00:18:05	10:CE:BF						
Connection Ty	/pe	Dynamic	Address (DHCP)					
IP Address		10.5.20.1	81						
Netmask		255.255.	255.0						
Gateway		10.5.20.2	54						
DNS		219.141.	136.10,8.8.8.8						
MTU		1500							
Status		Connect	ed						
Connection tir	ne	0 day, 00	:00:42						
Remainding L	ease	0 day, 07	:59:26						
Renew Relea	ase								

5. Use the OpenVPN client to access the network segment of the WAN port of the router. Note: Ensure

that you enable the OpenVPN connection

匯 选择C:\WINDOWS\system32\cmd.exe	
C:\Users\dong>ping 10.5.20.254	
Pinging 10.5.20.254 with 32 bytes of data: Reply from 10.5.20.254: bytes=32 time=2ms TTL=64 Reply from 10.5.20.254: bytes=32 time=2ms TTL=64 Reply from 10.5.20.254: bytes=32 time=2ms TTL=64 Reply from 10.5.20.254: bytes=32 time=2ms TTL=64	
Ping statistics for 10.5.20.254: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = 2ms, Maximum = 2ms, Average = 2ms	

6.2.2. Adding a Site or User to a Star Network

1. Choose Networks>Add Members.

S InConnect S	ites Networks	Users	Administration				Down	nload Client 🇘	0 📀
Home / Networks									
Networks Management								+	8
Default Network Mesh	sta	r network	Star Network						
star network Star	10000	ation Time: 20 cription:	020-11-17 09:33:33	Update Ti	ime: 2020-11-17 09:33:33				
	Cen	ter							С
	Na	me	Signal	Serial Number	Real IP	⑦ Virtual IP	VPN State	Current Version	
	De	vice01	anti	RT6151944462424	10.5.20.0/24		Logged in a few seconds ago	2.3.0.r5355	
	Noc	ie						Add Members	C
	L	Jser Sites	Name v	Please enter router name					
		Name	Sig	nal Serial Number	⑦ Virtual IP	VPN State	Current Version	Action	
		Device	01 .01	RT6151944462424	4 10.16.0.3	Logged in a few secor ago	uds 2.3.0.r5355	Đ	
							1-1 of 1 items	s < 1 > 20/p	age 🗸
									\odot
			Copyright © 2	019 InHand Networks. A Global	Leader in Industrial IoT. Al	I Rights Reserved.			

2. Select the user name and site name, and click **Submit**.

C	S InConnect	Sites	Networks Use	ers	Administration			D	ownload Clien	ı Ç	1 0	8	
← 1	lease select netwo	ork memb	ers										
	Select User												
	Username v Please	enter usernam	e										
	Selected 1 Item										Clear		
	Username					Email							
	🔽 test					test@123.com							
								1-1 of 1 it	ems < 1	> 2	0 / page		
	Select Site Star network	rks do not suppo	rt adding routers t	that are	configured with real IP or connected with e	d devices.							
	Name v Please	enter router na	ime										
	Selected 1 item										Clear	-	
	Name				Serial Number								2
	Device02				GL90219004341	88							
										Cance	21	ubmit	

3. Check the information about the added network.

me / Networks							vnload Client 🇘 🧭	0 (
Networks Management							+	
Default Network Mesh	star network Star Network							
star network Star	Creation Time: 2020-11-17 10: Description:	56:31	Update Time: 2020	-11-17 10:56:31				
	Center							С
	Name	Signal Serial Numb	er Real IP	0	Virtual IP VPI	N State	Current Version	
	Device01	RT61519444	62424 10.5.20.0/	24 10.	.16.0.3 Log ago	gged out a few seconds	2.3.0.r5114	
	Node						Add Members	С
	User Sites Userna	me 🗸 Please enter usern	ame					
	Username	Email	Virtual IP	Account Status	VPN State	Creation Time	Action	
	test	test@123.com	10.16.0.2	valid	Never logged in	an hour ago	Đ	
	yandj@inhand.com.c	n yandj@inhand.com.cn	~	valid	Latest logged in an ho ago	ur 4 days ago	Ð	
						1-2 of 2 iter	ms < 1 > 20 / pag	ge 🗸

6.2.3. Deleting a Star Network

1. Select Networks, and click the target network name in the Network Management list.

terretwork fundigenent C Default Network fundigenent Sar network fundigenent Sa	Net Sites	tworks Users Administration					Dow	mload Client C	1 Ø (
Default Network star network	Home / Networks								
Greation Time: 2020-11-17 JoScil: Update Time: 2020-11-17 1056:1: Decorption: Creation Time: 2020-11-17 1056:1: Update Time: 2020-11-17 1056:1: Center Center C Name Signal Serial Number Real IP O' Virtual IP VPN State Current Version Device01 uill RT6151944462424 10.50.0/24 10.16.03 Logged out a few second 2.0.05114 Node Email Virtual IP Recount Status VPN State Creation Time: Center Username Email Virtual IP Account Status VPN State Creation Time: Center Username Email Virtual IP Account Status VPN State Creation Time: Center Username Email Virtual IP Account Status VPN State Creation Time: Center Username Username Username Username Username Center Center	Networks Management								+
Name Signal Serial Number Real IP © Virtual IP VPN State Current Version Device01 ++III RTG151944462424 10.5200/24 10.16.0.3 Logged out a few second ago 2.3.0.5114 Node		Creation Time: 2020-11-17 10:56: Description:	31	Update Time: 2020-11	-17 10:56:31				
Device01 viiil RT6151944462424 10.5.20.0/24 10.16.03 Logged out a few seconds ago 2.3.015114 Node		Center							C
Delice01 nill rk tot 5194446/424 10.5.200/24 10.1.6.03 agp 2.3.005114 Node Add Members C Username Please enter username Username Email Virtual IP Account Status VPN State Creation Time test test test@123.com 10.16.02 valid Never logged in an hour ago ID username yandj@inhand.com.cn - valid Latest logged in an hour ago ID		Name Sign	nal Serial Numbe	er Real IP	⑦ Virtua	I IP VPN	State	Current Version	
Username Disson enter username Username Email Virtual IP Account Status VPN State Creation Time Remove user test test@123.ccm 10.16.0.2 valid Never logged in an hour ago B yand@inhand.com.cn yand@inhand.com.cn - valid Latest logged in an hour 4 days ago B		Device01	RT615194446	2424 10.5.20.0/24	10.16.0.3			2.3.0.r5114	
Username Email Virtual IP Account Status VPN State Creation Time Remove user test test@linand.com.cn 10.16.0.2 valid Never logged in an hour ago B yandj@inhand.com.cn yandj@inhand.com.cn - valid Latest logged in an hour ago B		Node						Add Men	nbers C
Operating Email Virtual IP Account sature Creation in the test test@123.com 10.16.0.2 valid Never logged in an hour ago yand@inhand.com.cn yand@inhand.com.cn - valid Latest logged in an hour ago B		User Sites Username	e ∨ Please enter userna	me					
yandj@inhand.com.cn yandj@inhand.com.cn - valid Latest logged in an hour 4 days ago @		Username	Email	Virtual IP	Account Status	VPN State	Creation Time	Remove user	
yangjerinano.com.cn yangjerinano.com.cn - Valio ago 4 days ago o		test	test@123.com	10.16.0.2	valid	Never logged in	an hour ago	Ð	
1-2 of 2 items 20 / page >		yandj@inhand.com.cn	yandj@inhand.com.cn	10	valid		r 4 days ago	Đ	
							1-2 of 2 iten	ns < 1 > 2	20 / page 🗸

2. Select **Sites**, and click the **Remove site** icon.

Nonnect Sites	Networks Users Ad	ministration					Download Client	û 🧕
Home / Networks								
Networks Management								
Default Network Mesh	star network Star	Network						
star network Star	Creation Time: 2020- Description:	11-17 10:56:31	Update	Time: 2020-11-17 10:56:31				
	Center							С
	Name	Signal	Serial Number	Real IP	⑦ Virtual IP	VPN State	Current Version	
	Device01	outh	RT6151944462424	10.5.20.0/24	10.16.0.3	.ogged out a minute ago	2.3.0.r5114	
	Node						Add Me	mbers C
	User Sites	Name v Plea	se enter router name					
	Name	Signal	Serial Number	⑦ Virtual IP	VPN State	Current Version	Action	
	Device01	line	RT615194446242	4 10.16.0.3	Logged out a minute age	2.3.0.r5114	Remove site	
	Device02	ant	GL902190043418	8 10.16.0.4	Logged out a few second ago	s 2.0.0.r13042	Đ	
						1-2 of 2	items < 1 >	20 / page 🗸
				bal Leader in Industrial IoT. Al				

3. Select the target network name, and click the **Delete** icon to delete the star network.

Network Sites	works Users Administration				Do	wnload Client 🏛 😨 💿
Home / Networks						
Networks Management						+
Default Network Mesh Delete	star network Star Network					
star network Star	Creation Time: 2020-11-17 10:56	31 Update	Time: 2020-11-17 10:56:31			
	Description:					
	Center					С
		nal Serial Number	Real IP	⑦ Virtual IP	VPN State	Current Version
	Device01 III	RT6151944462424	10.5.20.0/24	10.16.0.3	Logged out 2 minutes ago	2.3.0.r5114
	Node					Add Members C
	User Sites Name	✓ Please enter router name				
	Name	Signal Serial Number	⑦ Virtual IP 4 10.16.0.3	VPN State	Current Version	Action
	Device01	KI615194446242	4 10.16.0.3	Logged out 2 minutes	ago 2.3.0.r5114	P
					1-1 of 1 ite	ms < 1 > 20 / page ∨
						(@
		pyright © 2019 InHand Networks. A Glo	bal Leader in Industrial IoT. Al	Rights Reserved.		

7. User Management

1. Adding a user

a. Click Users and then Add to create an account for another system user.

Sites Networks Ma	p Users	Administration							Download Client	۵	0	8
ase enter username Q									O +Add	₿₽E	xport	
Email		Network Tag	③ Multiple	Virtual IP	Account Status	VPN State	Login Permission	Creation Time			Actic	'n
l.com Admin test1@inhand.co	om.cn	Default Network		10.16.0.2	valid	Logged in 6 minutes ago	Allowed	18 hours ago	2 1 5	Ł	More	~
									< 1	10	/ nage \	
	ase enter username Q Email	ase enter username Q Email	ase enter username Q Email Network Tag	ase enter username Q. Email Network Tag O Multiple	ase enter username Q Email Network Tag © Multiple Ip	ase enter username Q Email Network Tag ⑦ Multiple Virtual Account IP Status	ase enter username Q. Email Network Tag O Multiple Virtual Account IP Status VPN State Logmo test 1@inband.com.co Default Network O 10.16.0.2 valid Logged in 6 minutes	ase enter username Q Email Network Tag ③ Multiple Virtual Account IP Status VPN State Login Permission Login 6 minutes Allowed	enter username Q Email Network Tag O Multiple Virtual Account IP Status VPN State Login Creation Time Logged in 6 minutes Allowed 18 bours and	exe enter username Q. C +Add Email Network Tag O Multiple Virtual Account IP Status VPN State Login Creation Time Creation Time 18 hours and 0 0 0 0	ase enter username Q. C +Add Ese Email Network Tag O Multiple Virtual Account JP Status VPN State Login Creation Lcom. Addres test1@inhand.com.cn Default Network 10.16.0.2 valid Logged in 6 minutes ago 2 0 0 2 1	ese enter username Q C +Add Export Email Network Tag O Multiple Virtual Account IP Status VPN State Login Creation Time Action Action test Biblioband.com.cn Default Network 10,160.2 valid Logged in 6 minutes Allowed 18 hours app O Ø J. More

b. Fill in the information of the added user.

reate User			×
* Name:	Name		
* Email :	Email		
Role :	Normal user(Non-admin)	\vee	
Network:	Default Network Mesh	\sim	
Login Permission :	Allowed Not Allowed		
Effective duration :	Permanent 🗸		
		_	ОК
Effective duration:	Permanent V	Cancel	

Caution

Login Permission: indicates whether to allow the user to log in to InConnect. After a user with **Login Permission** set to **Allowed** is added, InConnect will send an email containing the login information to the mailbox of the user. If you want to create an account that can only be used to access the network but cannot log in to InConnect, set **Login Permission** to **Not Allowed**.

- 2. Role description: InConnect supports two user roles that have different permissions on system functions.
 - Administrator: has the permission to view all the data and the network management permission.
 - Common user: only has the permission to perform basic operations on the devices in the specified type of network.
- 3. Multi-terminal description:

Jser List												
Name V Please en	ter username Q								0	+Add	ŀ	Export
Name	Email	Network Tag	③ Multiple	Virtual IP	Account Status	VPN State	Login Permission	Creation Time				Actio
test1@inhand.com.	_ Admin test1@inhand.com.cn	Default Network		10.16.0.2	valid	Logged in 8 minutes ago	Allowed	18 hours ago	0	0	8	L More

- If **Multiple** is enabled for a user, the user can access remote devices on multiple terminals in a secure manner.
- The virtual IP addresses of multiple terminals are different. Therefore, after **Multiple** is enabled, the **Virtual IP** column is no longer displayed on the web page.

8. Router/Gateway Management

8.1. Router Details

• Click **Sites**, and select a router name on the **Routers** page to check the router details.

Sites Networks Map	Users Administration					Down	oad Client 🏼 🏛	୭ 🄇
Home / Sites / Sites						Ad	ldress: ap.ics.inhandic	t.com:43
Routers/Gateways 1 Er	d Devices 1							
All 1 • Online 1	• Offline 0 % VPN State:	All V	Name V P	lease enter router nan	ne		- Add C	ø
⑦ Name	Serial Number		VPN State	Subnet	Network Tag	Monthly Data Usage	,	Action
• *Device_01	GT9022036001652	10.16.0.3	Logged in 10 minutes ago	10.16.32.0/24	Mesh Default Network	290.49KB	Q E s	0
4								÷
							< 1 > 20 / pa	ge 🗸
	Routers/Gateways 1 Er All 1 • Online 1 () Name • * Device_01	Routers/Gateways End Devices I All * Online * Offline * VVPN State: © Name ‡ Serial Number * * Device.01 G19022036001652	Routers/Gateways End Devices I All • Online • Online ¥ VPN State: All ✓ O Name • Serial Number © O Virtual IP • YDevice_01 GT9022036001652 10.16.0.3	Routers/Gateways End Devices I All • Online • Online • VPN State: All • Name P © Name • Serial Number • © Virtual IP VPN State VPN State VPN State • VDevice.01 GT9022036001652 10.16.0.3 Logged in 10 minutes ago	Routers/Gateways End Devices 1 All • Online • Offline • VVPN State: All • Name Please enter router name © Name • Serial Number • © Virtual IP VPN State Subnet • YDevice.01 G19022036001652 10.16.0.3 Logged in 10 minutes ago 10.16.32.0/24	Routers/Gateways End Devices I All • Offline • VPN State: All v Please enter router name O Name • Serial Number • O Virtual IP VPN State: subnet Network Tag • V Device_01 GT9022036001652 10.16.03 Logged in 10 minutes ago 10.16.32.0/24 Default Network	Routers/Gateways 1 End Devices 1 All 1 • Online 1 • Offline 0 ¥ VPN State: All V Name V Picese enter router name © Name • Serial Number ¢ © Virtual IP VPN State Subnet Network Tag Monthly Data Usage • * Offlice_01 GT9022036001652 10.16.0.3 Logged in 10 minutes ago 10.1632.0/24 Month Default Network 290.49K8	Routers/Gateways 1 End Devices 1 All 1 • Offline 0 ¥ VPN State: All 1 • Offline 0 ¥ VPN State: All 1 • Offline 0 ¥ VPN State: O Name ÷ Serial Number © Virtual IP VPN State: Subnet Network Tag Monthly Data Usage • ¥ Device_01 GT9022036001652 10.16.0.3 Logged in 10 minutes ago 10.16.32.0/24 Mem Default Network 290.4968 Image: Comparison of the second secon

• You can perform operations on online routers, such as remote web management, remote configuration, forced offline, and firmware upgrade.

N InConnect	Sites Networks Map Users Administration		Download Client 🏛 🖉 💿
🚐 Sites	← Device_01 Online		🖵 Web management 🛛 🗠 Edit
 iii Alerts iiii Tasks iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	Serial Number: G19022036001652 Online Time: an hour ago Virtual IP: 10.16.0.3 Basic Info Cellular Signal End Devices Config	Device Models: 16902 Network Tag: Default Network Creation Time: 2023-03-01 18:11:18	Firmware Version: 2.0.0.14249 (L) Subnet: 10.16.32.0/24 Update Time: 2023-03-02 10.02-44
	Detailed Information IP: 182.150.21.232 IMSI: IMEI: 863138041066579	Phone: Configure synchronization state : SYNC succeeded	Address: 🛎 Login Protocol: mqtt
	Flow Status		Total: 0.08 By Dey v 2023-03 🗈
«	0.2		

8.2. Remote Web Management

- You can access the router's web management page remotely through InConnect.
- Click to go to the router's web management page, and perform remote router management on this page.


8.3. Delivering the Connection Configuration

- After a router or a downstream device is added, InConnect automatically delivers the running configuration to create a secure network connection.
- When a router is online but VPN is in logout state, you can click the running configuration delivery button to set up the connection again.

N InConnect	Sites Networks Map	Users Administration					Downlo	oad Client 1) © (
Sites	Home / Sites / Sites						Ad	ldress: ap.ics.ini	handiot.com:4
Alerts	Routers/Gateways 1 Er	nd Devices 1							
Tasks	All 1 • Online 1	Offline Offline VPN State:	All V	Name V	Please enter router nam	e	+	Add	0 🕸
Config	⑦ Name	Serial Number	② Virtual IP	VPN State	Subnet	Network Tag	Monthly Data Usage		Action
	• * Device_01	GT9022036001652	10.16.0.3	Logged in 11 minutes ago	10.16.32.0/24	Mesh Default Network	290.73KB	Q E	s 0
									×

8.4. Remotely Updating the Router Configuration

You can use this function to update the configurations of routers connected to InConnect in batches.

- 1. Adding a configuration template
 - 1. Click **Config** and then +. Select a configuration file or enter the configuration content.

2. On the local management page of the router, you can download the original configuration file, modify the configuration file as needed, and then upload the file to InConnect to update the router configurations in batches.

C InConnect	Sites Networks Map Users A	dministration					Download Client 🇘 🤅	8
🚐 Sites	Home / Sites / Config							
Merts	Configuration List	_						
Tasks		Create Configuration Tem	plate		×			
G Firmware		* Template name :	template 01			/		
Config		- templete nume-	template_or			/		
	Template name	Device Models:	IG902	\sim		Status	Action	
		Import config file:	上 Select a file					
			running_config (4).cnf					
		* Configuration content:	! #system config language English hostname EdgeGateway ip domain-name edgegateway.com.cn	•				
		Description :		ĥ				0
«				Cancel	ок			

- 2. Select the routers to which you want to deliver the configurations. Then, the configurations are updated in batches.
 - 1. Online routers update their configurations as soon as they receive the configuration command.
 - 2. Offline routers will update their configurations after they are online again.

C InConnect	Sites Networks	Non House Administration				Download Client 🏛 🕐 悤
🚇 Sites	Home / Sites / Config	Select Routers			×	
<u>현</u> Alerts	Configuration List	Name \lor	Search R	leset		+
Tasks	Please enter template	Router/Gateway Name	Serial Number	Current Version	1	
Firmware	Please enter template	• Device_01	GT9022036001652	2.0.0.r14249		
Config 🛛	Template name	_				Action
	template_01				rice added	View details Batch config 📋
						< 1 > 10 / page >
		1 item selected Clear		< 1 > 10/1	age 🗸	
				Cancel	ок	
						\odot
«						
"						

3. On the configuration details page, you can view the update progress and status of all the routers to which this configuration is applied.

🔉 InConnect	Sites Networks Map User	s Administration			Downloa	ad Client 🎗 🛛 📀
Sites	← template_01					
Alerts						
Tasks	Model: IG902	Version desc	ription:			
Firmware	1					*
Config	#system config language English					
	hostname EdgeGateway					
	ip domain-name edgegateway.com.c clock timezone UTC-8	n				/
	service password-encryption !					
	#log config					•
						~
	1	0 Pending	1 Executing	0 Completed	0 Failed	
	Selected routers	renang	Executing	Completed	Palley	
	-					_
	Selected routers					Batch config
						C
	Router/Gateway Name	Serial Nu	mber	Current Version	Status	
	Device_01	GT902203	36001652	2.0.0.r14249	Executing	×
«						< 1 > 10 / page <

4. On the **Configuration List** page, you can view or delete a configuration or update configurations in batches.

Sites Home / Sites / Config Alerts Configuration List Tasks Firmware Config	me	Q. All Mode	els v			+
Tasks Firmware Config	me	Q All Mode	de se			+
Firmware Please enter template nan Config	me	Q All Mode				
Config	me	Q All Mode	ala a			
			ns ···			
Template name		Device Models	Creation Time	Description	Status A	action
template_01		IG902	2023-03-02 10:18:35		V	iew details Batch config 1

8.5. Remotely Upgrading the Router Firmware

You can use this function to upgrade the firmware for routers connected to InConnect in batches.

- 1. Adding the firmware
 - 1. Click **Firmware** and then +. Select the firmware you want to upgrade and click **OK**. The firmware is uploaded to InConnect.

(InConnect		nistration	Download Client 🗘 🕐 🛞
Sites Alerts	Home / Sites / Firmware Firmware List	Create Firmware X	
Tasks	Please enter firmware name	Create Firmware X	
Config	Firmware Name Devic	Select the firmware: J Select a file Ø 109-V2.0.0.14249.bin Program	Action
		Firmware Name: 159-V2.0.0.r14249.bin	
		Firmware Version: V2.0.0.r14249	
		Device Models: IG902	
		Timeout: O o 5 min 60 min	
		Version description:	
			Θ
		Cancel OK	
«			

- 2. In the router list, select routers, and click **OK** to upgrade the firmware of the selected routers.
 - 1. Online routers perform the upgrade task as soon as they receive the upgrade command.
 - 2. Offline routers will perform the upgrade task after they are online again.

N InConnect	Sites Networks	fan Henre Administration				Download Client 🏛 🖉 🔕
Gites	Home / Sites / Firmware	Select Routers			×	
📺 Alerts	Firmware List	Name \lor	Search Res	set		
Tasks Ø Firmware	Please enter firmware	Router/Gateway Name	Serial Number	Current Version	1	
Config		Device_01	GT9022036001652	2.0.0.r14249		
	Firmware Name	_				Action
	IG9-V2.0.0.r14249.bin				e added	View details Batch upgrade
						< 1 > 10/page >
					•	
		1 item selected Clear		< 1 > 10 / pag	e 🗸	
				Cancel	ок	
						\bigcirc

3. On the firmware details page, you can view the firmware upgrade progress and status of the related routers.

🞊 InConnect	Sites Networks Map User:	s Administration			Downloa	d Client 🏚 🞯 📀
🔒 Sites	← IG9-V2.0.0.r14249.bin					0
Alerts						/
Tasks	Model: IG902	Firmware	/ersion: V2.0.0.r14249	Version descript	tion:	
🦪 Firmware		0	1	0	0]
Sonfig Config	Selected routers	Pending	Executing	Completed	Failed	
	L. L.					1
	Selected routers					Batch upgrade
	Router/Gateway Name	Serial Nur	nber	Current Version	Status	
	Device_01	GT902203	6001652	2.0.0.r14249	Executing	×
						< 1 > 10/page <
						\odot
~						

4. On the **Firmware List** page, you can view or delete a firmware record or upgrade the firmware in batches.

me / Sites / Firmware Firmware List						
Firmware List						
						+
Please enter firmware name		Q All Mo	dels \vee			
Firmware Name	Device Models	Firmware Versio	n Creation Time	Description	Progress	Action
IG9-V2.0.0.r14249.bin	IG902	V2.0.0.r14249	2023-03-02 10:20:53			View details Batch upgrade
						< 1 > 10/page
	Firmware Name	Firmware Name Device Models	Firmware Name Device Models Firmware Versio	Firmware Name Device Models Firmware Version Creation Time	Firmware Name Device Models Firmware Version Creation Time Description	Firmware Name Device Models Firmware Version Creation Time Description Progress

8.6. Tasks

• On the **Tasks** page, you can view the tasks delivered by InConnect to routers, and redeliver or cancel these tasks.

N InConnect	Sites Networks Map	Users Administration						Download Client		0	8
🗎 Sites	Home / Sites / Tasks										
🖄 Alerts											
Tasks	All Executing 0 Pe	ending 0 Failed Comp	leted							C)
Firmware	All types 🗸 🗸	Please enter router name	۹								
🖏 Config	Router/Gateway Name	Туре	Status	Progress	Created By	Creation Time	Start Time	Update Time	Action	1	
	Device_01	Import Firmware Package	COMPLETED	0	System	2 minutes ago	2 minutes ago	a minute ago	С	\otimes	
	Device_01	run config apply	COMPLETED	•	System	4 minutes ago	4 minutes ago	4 minutes ago	С	\otimes	
	Device_01	Remote Web Management	COMPLETED	0	test1@inhand.com.cn	9 minutes ago	9 minutes ago	9 minutes ago	C	\odot	
	Device_01	run config apply	COMPLETED	•	test1@inhand.com.cn	20 minutes ago	20 minutes ago	20 minutes ago	С	\odot	
	Device_01	run config apply	COMPLETED	•	System	25 minutes ago	25 minutes ago	25 minutes ago	С	\odot	
	Device_01	run config apply	CANCELED	0	System	33 minutes ago	33 minutes ago	25 minutes ago	C	0	
	Device_01	run config apply	CANCELED	0	System	34 minutes ago	34 minutes ago	33 minutes ago	C	\odot	
	Device_01	run config apply	CANCELED	0	System	35 minutes ago	35 minutes ago	34 minutes ago	С	\otimes	0
	Device_01	run config apply	CANCELED	0	System	36 minutes ago	36 minutes ago	35 minutes ago	C	\otimes	
	Device_01	fetch running config	COMPLETED		System	16 hours ago	3 minutes ago	3 minutes ago	C	0	

9. Consumption

- On the **Consumption** page, you can view the traffic consumed by a router or user to create the secure connection.
- The total connection duration and total traffic are updated every hour, and the detailed usage of routers and users is updated every minute.

🔊 InConnect	Sites Networks Map Users Adminis	tration		Down	load Client	¢ Ø	8
() Consumption	Home / Administration / Consumption						
Billing	Total Connection of This Month	То	tal Data of This Month				
🔒 Audit log	Total Access Time : 19h 58min 19h 58min 47s			Total Data of This Month: 530.93 KB • Uplink traffic: 29444 K3 • Downstream traffic: 28649 K3			
		Detailed User Quantity (1) Duters/Gateways					
	Name	Serial Number 🗘 Used	Traffic	Usage Time			
	Device_01	GT9022036001652 199.7	1 KB	10h 16min 18s			
					< 1 >	10 / page	
// https://ics.inhandiot.com/admi	a						Θ

10. Billing

- The InConnect service is billed based on the traffic that is used to create the secure connections between all clients and users.
- On the Billing page, you can recharge the account for the networking services provided by InConnect. Before payment, you must agree with the Payment Terms.



Caution

To ensure normal service connection, InConnect provides a 10-GB traffic credit. If you do not recharge your account after the 10-GB traffic credit is used up, your InConnect service is suspended. After you recharge your account to the traffic credit, your service is restored immediately.

- After recharging, you can view your charges details on the **Charges** tab page or download the receipt to view your order details.
- InConnect updates your consumption logs periodically on the **Billing** page based on your usage.
- It sends a monthly bill through email on the first day of eachmonth, and the bill records your traffic consumption and billing information of the previous month.

(Nonnect	Sites Networks	Users	Administration				Do	ownload Client 🏛 🕜 🧕
() Consumption	Home / Administration	/ Settlement						
Billing	Pilling				Current Month's Bill	Account Balance	0	Currently Available Traffic ②
Audit log	Billing							12
E Company Info					¥0.09/18.43 MB	¥00.80		13.36 GB
	Payment	Charges	Consumption Details	Monthly Bill				
	Order Number		Order Account	Time		Amount	Pay	Handle
	ICS20191101005		sunzd@inhand.com.cn	2019-1	1-01 09:56:11	¥ 100	Alipay	Download
								< 1 > 10 / page

11. FAQs

• Q1: How many user accounts and routers can I add to one InConnect account?

A1: You can add a maximum of 4,000 user accounts and routers. A router can connect to a maximum of 254 downstream devices.

• Q2: How is the InConnect service billed?

A2: It is billed by the data traffic generated by the VPN channel communication between routers, end devices and users at a unit price of US\$ 2.5/GB.

• Q3: What is the minimum monthly traffic for a router if it does not generate any traffic data and the network is normal?

A3: About 30-40 MB.

• Q4: Where is the InConnect server deployed? Amazon in U.S. and Amazon in China?

A4: For users in China, the server is deployed in Amazon in China. For users outside China, the server is deployed in Amazon in U.S.

12. Appendix: Router Networking

Method 1: Access the network through dial-up or SIM card

The following takes IR915 as an example. For details about networking of other devices, see the hardware user manual or visit <u>https://www.inhandnetworks.com/.</u>

1. Insert the SIM card to the slot 1 and tighten the 4G LTE antenna to the ANT terminal.



A Caution

When inserting or removing the SIM card, you must disconnect the device from the power supply to avoid data loss or damage to the device.

- 2. Open the browser and log in to the device. (See Method 2: Ethernet).
- 3. Choose Network>>Cellular>>Enable. Wait until the network connection status is Connected and an IP address is allocated. Then, the network is connected through the SIM card. If a private network card is still used, fill in the dial-up parameter set.

	- M					Your passw	ord has security risk,	please click here to change
ork			-	_				
ces	•	Enable	_	2				
Backup	•			SIM1 SIM2				
ng		Profile			•			
all		Roaming						
		PIN Code						
		Network Type		Auto	•			
		Static IP						
trial		Connection Mode		Always Online	×			
	*	Redial Interval		10 s				
ds	•	ICMP Detection Ser	/er					
		ICMP Detection Inte	rval	30 s				
		ICMP Detection Tim	eout	5 s				
		ICMP Detection Ma	Retries	5				
		ICMP Detection Stri	ct (
		Show Advanced Op	tions					
		Profile						
		Index Network Type	APN	Access Numb	Auth Method	Username	Password	
		1 GSM	3gnet	*99***1#	Auto	gprs	*****	
		GSM 🔻			Auto 🔻			

Administration	+			Your password has security risk, please click here to change!
letwork	•			
ervices		Modem		
nk Backup	•	Active SIM	SIM 1	
outing		IMEI Code	0x8095B6FE	
rewall		IMSI Code	460031025281133	
N		ICCID Code	89861119040282613390	
		Signal Level	(16 asu -81 dBm)	
PP		Register Status	registered	
dustrial		Operator	China Telecom	
pols	•	Network Type	2G (CDMA)	
Vizards		LAC		
		Cell ID		
		Network		
		Status	Connected	
		IP Address	10.164.84.169	
		Netmask	255.255.255.255	
		Gateway	172.22.209.124	
		DNS	218.6.200.139 61.139.2.69	
		MTU	1500	
		Connection time	0 day, 00:01:51	
		Connect Disconnect		

4. When two SIM cards are inserted to the device, select **Dual SIM Enable**.

inhand	Network >> Cellular	English Φ1	Z Username: adm
Administration *		Your password has security risk, please click here to change! *	
Network *			Alarm
Services *	Enable		() () () () () () () () () ()
Link Backup *		SIM1 SIM2	Total Alarms: 0
Routing +	Profile	• dus • dus • dus	Alarm Summary
Firewall +	Roaming	* *	
VPN *	PIN Code Network Type	Auto *	3 s * Stop
APP +	Static IP		
Industrial +	Connection Mode	Advays Online •	
Tools *	Redial Interval	10 5	
Wizards *	ICMP Detection Server		
	ICMP Detection Interval	30 5	
	ICMP Detection Timeout	5 5	
	ICMP Detection Max Retries	5	
	ICMP Detection Strict	8	
	Show Advanced Options		
	Initial Commands		
	RSSI Poll Interval	120 s(0: disable)	
	Dial Timeout	120 5	
	MTU	1500	
	MRU	1500	
	Use default asyncmap		
Saxe.Configuration	Use Peer DNS	8	
	LCP Interval	55 s(0: disable)	
	LCP Max Retries	8	
	Infinitely Dial retry		
	Dual SIM Enable	8	
	Main SIM	SIM1 ·	
	Max Number of Dial	5	1
Copyright ©2001-2019	Min Connected Time	0 s(0; disable)	1
InHand Networks Co., Ltd. All rights reserved.	CSQ Threshold	0 0 (0: disable)	
All rights reserved.	CSQ Detect Interval	0 0 (0: disable)	1

Method 2: Ethernet

The following takes IR915 as an example. For details about networking of other devices, see the hardware user manual or visit <u>https://www.inhandnetworks.com/.</u>

Disable the "cellular interface" when accessing the network without the SIM card; otherwise repeated dial-up is performed, interfering the network connection.

Cellular		
ble		1
Apply & Save	Cancel	
	ble	ble

1. Connect the LAN (FE 1/1 or GE1/1) port to a PC and the WAN port to the Internet.



2. Set the IP addresses of the PC and router to be in the same network segment.

Method 1: Automatically get the IP address (recommended)

Method 2: Use a fixed IP address. Set the EF/GF ports of the PC and router to be in the same network segment. Set the initial IP address of the router to 192.168.2.1 and the subnet mask to 255.255.255.0. Select **Use the following IP address**. Enter an IP address ranging from 192.168.2.2 to 192.168.2.254, a subnet mask 255.255.255.0, and the default gateway 192.168.2.1, and then click **OK**.

capability. Otherwise, you nee he appropriate IP eettings.	d to ask your network administrator	for the appropriate IP settings.	eed to ask your network administrator
Obtain an IP address automat	ically	O Obtain an IP address autor	natically
Use the following IP address:		• • • • • • • • • • • • • • • • • • •	SS:
address:	· · · · ·	IP address:	192 . 168 . 2 . 10
ibnet mask:		S <u>u</u> bnet mask:	255.255.255.0
efault gateway:		Default gateway:	192.168.2.1
O <u>b</u> tain DNS server address au	Itomatically	Obtain DNS server address	automatically
Use the following DNS server	addresses:	• Use the following DNS serv	er addresses:
eferred DNS server:	· · · ·	Preferred DNS server:	8.8.8.8
ternate DNS server:	· · ·	Alternate DNS server:	
Validate settings upon exit	Advanced	Validate settings upon exit	Advanced

Automatically get the IP address

Use a fixed IP address

3. In the address bar of the browser, enter the default gateway address 192.168.2.1 to enter the gateway web login page.



4. Enter the username and password and then click Sign In.

http://192.1	68.2.1	
Your conne	ction to this site i	s not private
Username	adm	username : adm
Password		password : 123456

5. Choose Network>>New WAN. Configure an IP address for the WAN port to connect the router to Internet.

Wizards	New LAN	
	New WAN	
	New Cellular	
	New IPsec Tunnel	
	IPsec Expert Config	
	New L2TPv2 Tunnel	
Save Configuration	New Port Mapping	

6. We recommend that you select **Dynamic Address (DHCP)**. If you select **Static IP Address**, manually configure the network parameters and then save the configuration.

]
1
]

Dynamically allocate the IP address Configure parameters of the static IP address

7. Choose **Tools**>>**Ping**. In the **Host** field, enter a common Chinese website to test whether the router can connect to the Internet. If the following figure is displayed, the router can connect to the Internet.

		Tools >> Ping			English	中文 Username: adm
inhand		Ping				Logout
Administration	۲		Your passwor	d has security risk, please click here to change! *]
Network	•					Alarm
Services	٠					Aidini
Link Backup	•	Host	baidu.com	Ping		Total Alarms: 0
Routing		Ping Count	4			Alarm Summary
Firewall		Packet Size	32 Bytes			
VPN	•	Expert Options				∦≷ 3 s ▼
APP						Stop
Industrial		PINS baidu.com (220.1)	81.38.148): 32 data bytes			
Tools		40 bytes from 220.181	.38.148: seq=0 ttl=53 time=40 .38.148: seq=1 ttl=53 time=40			
Wizards		40 bytes from 220.181	.38.148: seq=2 ttl=53 time=39	.263 ms		
		40 bytes from 220.181	.38.148: seq=3 ttl=53 time=40	.912 ms		
		baidu.com ping st	atistics , 4 packets received, 0% pack			
			, 4 packets received, 0% pack x = 39.263/40.406/40.986 ms	et 1055		
Save Configura	tion					
		2			A	
Copyright ©2001- InHand Networks C	o., Ltd.					
All rights reserv	ed.					

Method 3: Wi-Fi

The following takes IR915 as an example. For details about networking of other devices, see the hardware user manual or visit <u>https://www.inhandnetworks.com/.</u>

Disable the "cellular interface" when accessing the network without the SIM card; otherwise repeated dial-up is performed, interfering the network connection.

Status	Cellular		
			_
Enable	3		
	Apply & Save	Cancel	

1. Use a network cable to connect the PC to the gateway LAN port, and connect the Wi-Fi antenna to the WLAN1/2 port.



- 2. Set the IP addresses of the PC and the router to be in the same network segment. (See <u>Method 2</u>: <u>Ethernet</u>).
- 3. Access the device web management page. (See <u>Method 2: Ethernet</u>).
- 4. Choose Network>>WLAN, select Client from Interface Type, enter the Wi-Fi parameters, and then click Apply & Save. Click the Status tab. The network connection status is Connected.

	Network >> Wi-Fi		
inhand	Status Wi-Fi IP Setup St	SID Scan	
iministration	•		Your password has security risk, please click here to change! *
etwork	•		
rvices	• Enable		
nk Backup	Station Role	Client 🔻	
outing	Default Route		
-	SSID	inhand1-5G	
ewall		Scan	
N	Auth Method	WPA2-PSK V	
P	Encrypt Mode	AES V	
dustrial	WPA/WPA2 PSK Key		
ols	+		
izards	Apply & Save Ca	ancel	
iŋhand	Network >> Wi-Fi		
		SSID Scan	Your password has security risk, please click here to change!
dministration	Status Wi-Fi IP Setup 1	SSID Scan	Your password has security risk, please click here to change!
dministration etwork	Status Wi-Fi IP Setup	SSID Scan	Your password has security risk, please click here to change!
dministration etwork ervices	Status Wi-Fi IP Setup	SSID Scan	Your password has security risk, please click here to change!
Iministration atwork rvices nk Backup	Status Wi-Fi IP Setup		Your password has security risk, please click here to change!
dministration etwork rvices nk Backup puting	Status Wi-Fi IP Setup Wi-Fi Status Station Role Status	Client	Your password has security risk, please click here to change!
dministration etwork ervices nk Backup puting rewall	Status Wi-Fi IP Setup 3 Wi-Fi Status Station Role Status SSID	Client	Your password has security risk, please click here to change!
dministration atwork rvices nk Backup puting rewall PN	Status Wi-Fi IP Setup 1 Wi-Fi Status Station Role Status SSID MAC Address Auth Method	Client Connected inhand1-5G	Your password has security risk, please click here to change!
ministration rtwork rvices ik Backup uting ewall N	Status Wi-Fi IP Setup Wi-Fi Status Station Role Status SSID MAC Address Auth Method Encrypt Mode	Client Connected inhand1-5G 04:7f:0e:01:98:37	Your password has security risk, please click here to change!
ministration rtwork rvices ik Backup uting ewall N	Status Wi-Fi IP Setup Wi-Fi Status Station Role Status SSID MAC Address Auth Method	Client Connected inhand1-5G 04:7f:0e:01:98:37 WPA2-PSK AES	Your password has security risk, please click here to change!
Iministration etwork rvices ak Backup uting ewall w N op adustrial	Status Wi-Fi (IP Setup) Wi-Fi Status Station Role Status SSID MAC Address Auth Method Encrypt Mode IP Address	Client Connected inhand1-5G 04:7f:0e:01:98:37 WPA2-PSK AES 192.168.200.78	Your password has security risk, please click here to change!
Iministration etwork rvices nk Backup puting rewall PN p dustrial rools	Status Wi-Fi (IP Sectup) Wi-Fi Status Station Role Status SSID MAC Address Auth Method Encrypt Mode IP Address Netmask	Client Connected inhand1-5G 04:7f:0e:01:98:37 WPA2-PSK AES 192.168.200.78 255.255.255.0	Your password has security risk, please click here to change!
dministration detwork ervices ink Backup outing irewall PN PP endustrial ools /izards	Status Wi-Fi IP Setup Wi-Fi Status Station Role Status SSID MAC Address Auth Method Encrypt Mode IP Address Netmask	Client Connected inhand1-5G 04:7f:0e:01:98:37 WPA2-PSK AES 192.168.200.78	Your password has security risk, please click here to change!

5. Choose **Wizards**>>**New WAN**, and configure the parameters as follows:

inhand	Wizards >> New WAN	
Administration	•	Your pass
Network		
Services	Interface dot11radio 1	
Link Backup	Type Dynamic Address (DI	HCP) V
Routing	NAT 🗹	
Firewall	Apply & Save Cancel	
VPN	Apply & Save Cancel	
APP	*	
Industrial	•	
Tools	*	
Wizards	•	

6. Choose Firewall >> Network Address Translation (NAT). If a connection named dot11radio 1 is displayed, Wi-Fi is connected.

ninistration	Network Address Translation(NAT) Rules					
work						
/ices 🕨						
Backup	Action	Source Network	Match Conditions	Translated Address	Description	
ting 🕨	SNAT	Inside	ACL:100	cellular 1		
vall 🕨	SNAT	Inside	ACL:179	dot11radio 1		
•	•			Add	Modify Delete	
•	•					
strial •	Inside Netwo	rk Interfaces	5			
ls 🔸		ID	Interface			
Vizards	1		gigabitethernet 0/1			
vizarus	2				•	
				Add[1/100]		
	Outside Network Interfaces					
	ID		Interface			
		1	de	ot11radio 1		
		2		cellular 1		
	3		gigabitethe	met 0/2		
				Add[2/100]		
	1					
	Apply & Save Cancel					
			or construction of the second s			