InRouter 7x1GS55 Series User's Manual

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InRouter 700 Series User's Manual

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Release Notes

2011. 3. 24th: Add description for functions:

- 1. WOL (Wakeup Over LAN) at "Networks"→"LAN";
- 2. SMS control (reboot/show status) at "Service"→"SMS";
- 3. "User+X.509" mode for OpenVPN client;

Add Notice:

1. WAN/LAN settings: don't set the WAN/LAN IP as 192.168.3.1 (the default IP of DMZ port);

2011.8.21st: Add description for functions:

- 1. "Double Dialup", set backup parameters for PPP dialup at "Networks"→"Dialup";
- 2. "Double IPSec", set backup IPSec tunnel at "VPN" → "IPSec Tunnels";
- 3. "DHCP Relay" at "Service" → "DHCP Relay";
- 4. "DNS Relay" at "Service" → "DNS Relay"
- 5. Enable "SSH configuration";
- 6. Disable "Multi Manager" function at "System" → "Admin Access";
- 7. "Loopback" at "Networks" → "Loopback";
- 8. "Port Mirror" at "Networks" → "Port Mirror";

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Introduction to InRouter 700 Series

- Overview
- Product Models
- Product Features & Specifications
- Package Checklist

1.1 Overview



InRouter 700 series industrial grade routers provide users with stable and high speed connection between remote devices and customer's center via 2.5G/3G networks. They allow wide voltage power supply (9-48V DC), large range operating temperature from -25°C to 55°C (- $10 \sim 131$ °F)/ humidity: 95% RH, and fully satisfy various EMC verifications, which ensure stability and reliability under harsh industrial conditions. The InRouter 700 can be placed on a desktop or DIN-mounted.

InRouter 700 series products support VPN (IPSec/PPTP/ L2TP/GRE/SSL VPN), which create high-security links between remote equipment and customer's center.

In Addition, InRouter 700 series products support the Device Manager remote device manage platform, which realizes remote operation including remote control, remote monitor, parameters configure, firmware upgrade, log/alarm management, information statistics/display, batch configuration/update and etc.

Important Safety Information

This product is not intended for use in the following circumstances

- Area(s) where radio transmission equipment (such as cell phone) are not permitted.
- Hospitals, health care facilities and area(s) where cell phones are restricted by law.
- Gas stations, fuel storage and places where chemical are stored.
- Chemical plants or places with potential explosion hazard.
- Any metal surface that may weaken the radio signal level.

RF safety distance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- --Reorient or relocate the receiving antenna.
- -- Increase the separation between the equipment and receiver.
- -- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- -- Consult the dealer or an experienced radio/TV technician for help.
- (c) The provisions of paragraphs (a) and (b) do not apply to digital devices exempted from the technical standards under the provisions of Section 15.103.
- (d) For systems incorporating several digital devices, the statement shown in paragraph (a) or (b) needs to be contained only in the instruction manual for the main control unit.
- (e) In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form. RF exposure warning This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance

Warning

This is a class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

WEEE Notice

The Directive on Waste Electrical and Electronic Equipment (WEEE), which entered into force as European law on 13th February 2003, resulted in a major change in the treatment of electrical equipment at end-of-life.

The purpose of this Directive is, as a first priority, the prevention of WEEE, and in addition, to promote the reuse, recycling and other forms of recovery of such wastes so as to reduce disposal.

The WEEE logo (shown at the left) on the product or on its box indicates that this product must not be disposed of or dumped with your other household waste. You are liable to dispose of all your electronic or electrical waste equipment by relocating over to the specified collection point for recycling of such hazardous waste. Isolated collection and proper recovery of your electronic and electrical waste equipment at the time of disposal will allow us to help conserving natural resources. Moreover, proper recycling of the electronic and electrical waste equipment will ensure safety of human health and environment.



For more information about electronic and electrical waste equipment disposal, recovery, and collection points, please contact your local city centre, household waste disposal service, shop from where you purchased the equipment, or manufacturer of the equipment.

1.2Package Checklist

We put each InRouter 700 cellular router in a box with standard accessories. Additionally, there're optional accessories can be ordered. When you receive our package, please check carefully, and if there're items missing or appearing to be damaged, please contact with your InHand Networks sales representative.

Items in package include:

Standard Accessories:

Accessories	Description
InRouter 700 Serials Wireless Router	1
Cable	1 Cross line,CAT-5,1.5M
Document and Software CD	1
Antenna	5m Cellular Antenna
Power Supply	
	Power Adapter, 100-265V AC in, 12V DC out (included in IR7xx)



Power plug, American Standard (included in IR7xx)

Optional Antennas:

Picture	Туре	Description
		HSUPA /HSDPA/WCDMA:
Κ.		850/900/1800/1900/2100 MHz
0.0		GSM/GPRS/EDGE:
	GSM/GPRS Cellular Antennas	850/900/1800/1900MHz
A		HSUPA /HSDPA/WCDMA:
Υ.		850/900/1800/1900/2100 MHz
De	UMTS/HSDPA/WCDMA Cellular	GSM/GPRS/EDGE:
	Antennas	850/900/1800/1900MHz
		HSUPA /HSDPA/WCDMA:
		850/900/1800/1900/2100 MHz
-6		GSM/GPRS/EDGE:
	Anti-thief antenna	850/900/1800/1900MHz
,		HSUPA /HSDPA/WCDMA:
		850/900/1800/1900/2100 MHz
•		GSM/GPRS/EDGE:
	Stick antenna	850/900/1800/1900MHz

1.3Product Features

1.3.1 Interfaces

WAN

Cellular WAN:

Band Options:

HSUPA /HSDPA/WCDMA 850/900/1900/2100MHz GSM/GPRS/EDGE 850/900/1800/1900MHz

Ethernet WAN:

Ethernet: 10/100 Mbps, RJ45 connector, Auto MDI/MDIX

Magnetic Isolation Protection: 1.5 KV built-in

LAN

IR701/711/791:

Number of Ports: 1

Ethernet: 10/100 Mbps, RJ45 connector, Auto MDI/MDIX

Magnetic Isolation Protection: 1.5 KV built-in

IR704/714/794: Number of Ports: 4

Ethernet: 10/100 Mbps, RJ45 connector, auto MDI/MDIX

Magnetic Isolation Protection: 1.5 KV built-in

Serial

A. Serial Type: RS232/485

B. Data bit: 5/6/7/8C. Stop bit: 1/2D. Check bit: N/O/D

E. Baud rate: 1,200bit/s~115,200bit/s

SIM Interface

SIM Control: 3 V

1.3.2 Functions

PPP

Supported VPDN/APN, fast access to virtual private dial-up network (VPDN) provided by mobile operator, ensure high-security data transmission.

Support PPPoE (Point to Point Protocol over Ethernet) Protocol.

Support CHAP/PAP/MS-CHAP/MS-CHAP V2 authorization

Support Connection Detection, auto-recovery, auto-link, ensure reliable communication.

Support On-demand connection, SMS Activity

Dynamic IP

Support DHCP, applied as Server/Client

Dynamic DNS

Support Dynamic DNS-IP Binding

Flux Management

Support rate limiting,

Firewall Function

Package filtering

Port Mapping

Virtual Address Mapping

DMZ zone

MAC addresses binding.

Route function

Support Static Routing Table

VPN (not available for IR701/704)

IPSec VPN

L2TP VPN

PPTP VPN

GRE

SSL VPN (for IR791/794 only)

Link Backup

VRRP

Support VRRP protocols, realizing immediate link backup

Hot Link Backup (for IR704/714/794 only)

Support Wireless Hot Link Backup for cable link via only one device

DNS Forwarding

Support DNS Forwarding, support DNS record

Network tools

Support Ping, Trace Route and Telnet

Wakeup Over LAN (WOL)

Support Wakeup over LAN, to wakeup industrial PC over Eth. after receives SMS.

RSSI + Cell ID Display

1.3.3 Environmental Limits

Operating Temperature: -25 to 55°C (-10 to 158°F)

Operating Humidity: 5 to 95% RH

Storage Temperature: -40 to 85°C (-40 to 167°F)

1.3.4 Power Requirements

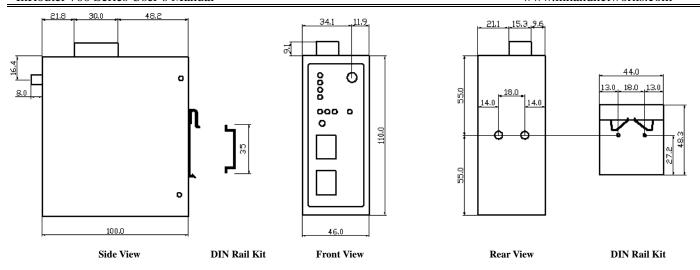
Power Inputs: 1 terminal block, including power jack and serial.

Input Voltage: 9 -48 VDC

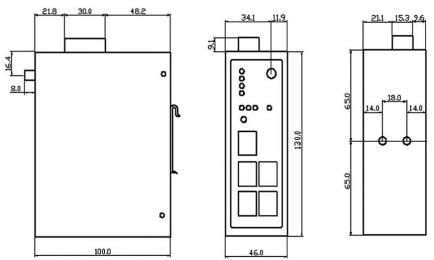
1.3.5 Physical Characteristics

Housing: Steel, providing IP30 protection

Weight: 490g Dimensions (mm) IR701/711/791:



IR704/714/794:



RF Electromagnetic Field Immunity: EN61000-4-3, Level 3
Side View Front View Back View
RF conducted interference: EN61000-4-6, Level 3

Damped oscillation Immunity: EN61000-4-12, Level 3

Power-frequency electromagnetic fields Immunity: EN61000-4-8, Level 5

Anti-shock: IEC60068-2-27

Drop: IEC60068-2-32 **Vibration**: IEC60068-2-6

1.3.7 Device Management Software

Device Manager:

Centralized management solution for InHand Networks Devices

1.3.8 Warranty

Warranty Period: 3 year (Optional service for 5 years)

1.4Product Models

The current models of InRouter 700 Series include: InRouter 701/711/791GS55, InRouter 701/711/791WH01, InRouter 704/714/794WH01.

The models are classified according to main difference including cellular network, VPN support and interface for device.

Model	Serial	LAN	Cellular WAN	Ethernet WAN	VPN	CA X.509 base64
GPRS Models						
IR701GS55		1 RJ45		N/A	N/A	N/A
IR711GS55	RS232/485 Optional	1 RJ45	GSM/GPRS 850/ 900/1800/1900 MHz	N/A	IPSec/PPTP/L2TP/GRE	N/A
IR791GS55		1 RJ45		N/A	IPSec/PPTP/L2TP/GRE/SSL	Support
IR704GS55		1 RJ45		ADSL/DHCP/ PPPoE/Static IP	N/A	N/A

InRouter 700 Series User's Manual

www.inhandnetworks.com

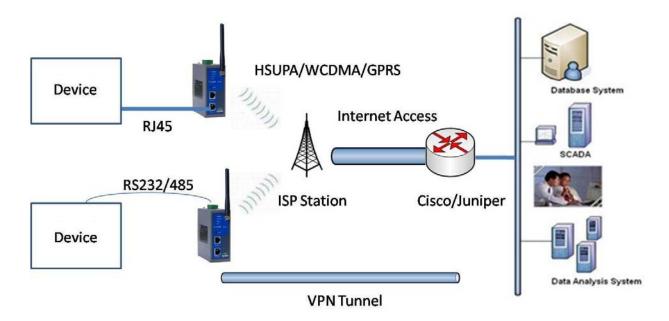
					I	
IR714GS55		1 RJ45		ADSL/DHCP/ PPPoE/Static IP	IPSec/PPTP/L2TP/GRE	N/A
IR794GS55		1 RJ45		ADSL/DHCP/ PPPoE/Static IP	IPSec/PPTP/L2TP/GRE/SSL	Support
UMTS Models						
IR701WH01		1 RJ45		N/A	N/A	N/A
IR711WH01	RS232/485	1 RJ45	HSUPA /HSDPA/WCDMA: 850/900/1800/1900/2100 MHz	N/A	IPSec/PPTP/L2TP/GRE	N/A
IR791WH01	Optional	1 RJ45	GSM/GPRS/EDGE: ,	N/A	IPSec/PPTP/L2TP/GRE/SSL	Support
IR704WH01		4 RJ45	850/900/1800/1900MHz	ADSL/DHCP/ PPPoE/Static IP	N/A	N/A
IR714WH01		4 RJ45		ADSL/DHCP/ PPPoE/Static IP	IPSec/PPTP/L2TP/GRE	N/A
IR794WH01		4 RJ45		ADSL/DHCP/ PPPoE/Static IP	IPSec/PPTP/L2TP/GRE/SSL	Support
EVDO 450MHz						
Models						
IR701VC80		1 RJ45		N/A	N/A	N/A
IR711VC80		1 RJ45		N/A	IPSec/PPTP/L2TP/GRE	N/A
IR791VC80	RS232/485	1 RJ45	EVDO 450MHz Rev.A	N/A	IPSec/PPTP/L2TP/GRE/SSL	Support
IR704VC80	Optional	4 RJ45	CDMA 450MHz	ADSL/DHCP/ PPPoE/Static IP	N/A	N/A
IR714VC80		4 RJ45		ADSL/DHCP/ PPPoE/Static IP	IPSec/PPTP/L2TP/GRE	N/A
IR794VC80		4 RJ45		ADSL/DHCP/ PPPoE/Static IP	IPSec/PPTP/L2TP/GRE/SSL	Support
USB Models						
IR701UE		1 RJ45		N/A	N/A	N/A
IR711UE	1	1 RJ45		N/A	IPSec/PPTP/L2TP/GRE	N/A
IR791UE	RS232/485	1 RJ45		N/A	IPSec/PPTP/L2TP/GRE/SSL	Support
IR704UE	Optional	4 RJ45	USB Modem	ADSL/DHCP/ PPPoE/Static IP	N/A	N/A
IR714UE		4 RJ45		ADSL/DHCP/ PPPoE/Static IP	IPSec/PPTP/L2TP/GRE	N/A
IR794UE		4 RJ45		ADSL/DHCP/ PPPoE/Static IP	IPSec/PPTP/L2TP/GRE/SSL	Support

II

Quick Installation Guide

- ◆ Typical Application
- Panel Layout
- Quick Connect to Internet
- Quick IPSec VPN Configuration
- Reset to Factory Defaults

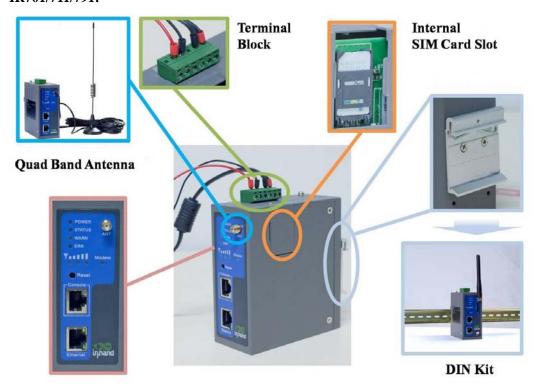
2.1 Typical Application



InRouter 700 series can be used to connect your device (with RS232/485/Ethernet Interface) to internet via GPRS/HSUPA cellular. Meanwhile, to ensure the security and access, InRouter 700 series support VPN, enabling remote access and secure data transmission through internet.

2.2Panel Layout

IR701/711/791:



IR704/714/794:



Interface	Description
Power Interface	Access 9-48 V DC Power Supply
Serial	Access to the serial line, realizing
Edward Bart	One 10/100Base-TX RJ45 Port (IR701/711/791GS55, IR701/711/791WH01, IR701/711/791UE)
Ethernet Ports	Four 10/100Base-TX RJ45 Ports, (IR704/714/794UE, IR704/714/794WH01)
ANTENNA	2.5G/3G antenna
SIM Card Connector	Put SIM card

Description of LED









Power on



Start to run firmware

Power
Status
Warn
Error

Begin dial to Internet

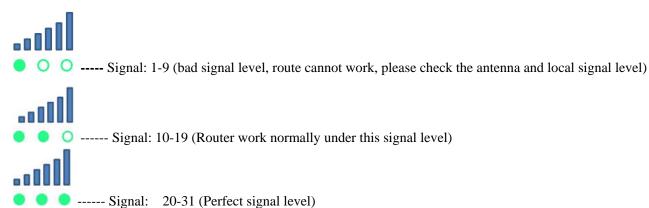


Connect to internet

Upgrading firmware

Restore factory default

Signal Status LED Description



2.3 Quick Connection to Internet

2.3.1 Insert SIM Card



Open InRouter SIM/UIM card case at the button, insert the SIM card and close the case.



For the external USB modem type, insert the USB card into the USB port.

2.3.2 Antenna Installation

After install the IR7X1GS55, connect the interface of enhanced antenna and the interface of skin antenna and screw closely. Put the amplifier of enhanced antenna to where there receives good signal. Max allowed antenna gain is 0.5dBi.

Attention: The position and angle may influence the quality of signal.

2.3.3 Power Supply

Link the power supply in the product package with InRouter, watch where the InRouter Power LED on the panel is light up. If not, please connect with InHand for technical supports.

You can configure IR7X1GS55 after the Power LED lights up.

2.3.4 Connect

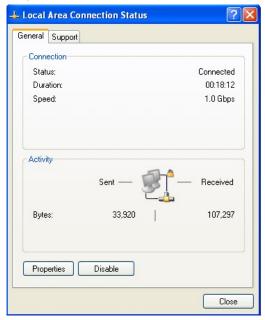
Link the IR7X1GS55 with PC:

- (1) Using the cable to link IR7X1GS55 with PC;
- (2) After the connection, you can see one LED of RJ45 Interface turns green and the other flashes.

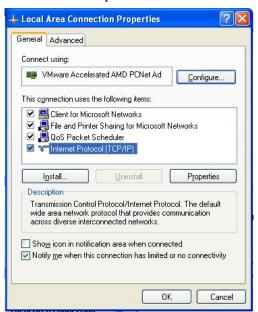
2.3.5 First Connect InRouter with Your PC

IR7X1GS55 Router can auto-distribute IP address for PC. Please set the PC to automatically obtain IP address via DHCP. (Based on the Windows operation system):

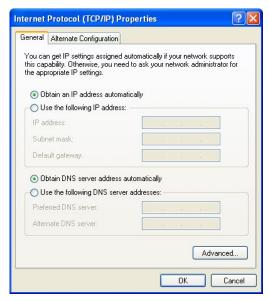
- 1) Open "Control Panel", double click "Network Connections" icon, and enter "Network Connections" Screen.
- 2) Double click "Local Area Connection", enter "Local Area Connection Status" screen:



3) Click "Properties", enter "Local Area Connection Properties" screen



Choose "Internet Protocol (TCP/IP)", click "properties" button, ensure your PC can obtain IP and DNS address automatically. (Or you can set your PC in the subnet: 192.168.2.0/24, for example, set IP: 192.168.2.10, Net Mask: 255.255.255.0, Default Gateway: 192.168.2.1)



Click "OK", InRouter will allocate an IP address: 192.168.2.X, and a gateway: 192.168.2.1(the default address of IR7X1GS55).

After configure TCP/IP protocols, you can use ping command to check whether the link between PC and Router is built correctly. There is an example to execute Ping command under Windows XP as below:

Ping 192.168.2.1

If the screen shows:

```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\inhand\ping 192.168.2.1

Pinging 192.168.2.1 with 32 bytes of data:

Reply from 192.168.2.1: bytes=32 time=1ms TTL=128

Reply from 192.168.2.1: bytes=32 time=1ms TTL=128

Reply from 192.168.2.1: bytes=32 time=1ms TTL=128

Reply from 192.168.2.1: bytes=32 time<1ms TTL=128

Reply from 192.168.2.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.2.1:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Documents and Settings\inhand\ping 192.168.2.1
```

Then the link between the PC and Router is correct connected. Else if it shows:

```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\inhand>ping 192.168.2.1

Pinging 192.168.2.1 with 32 bytes of data:

Request timed out.

Request timed out.

Request timed out.

Request timed out.

Ping statistics for 192.168.2.1:

Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Documents and Settings\inhand>
```

Then the connection seems not build, and you need to check thoroughly following the former instructions.

2.3.6 Start to configure your InRouter 700(Optional)

After you have finished the former steps, you can configure the Router:

1) Open IE browser, input the default IP address of the Router: http://192.168.2.1, you can see the login web below:



Input "username" (default: adm) and the "password" (default: 123456), and then click "login" to enter the operation screen.

2) Change the IP configuration:

Attention: After configuration, please click "apply" to activate your configuration.

If you want to set your own IP of InRouter 700, please follow the instructions below:



Click "Network"=>"LAN", change the IP address to 192.168.1.254:



3) Click "Apply", then you will see:



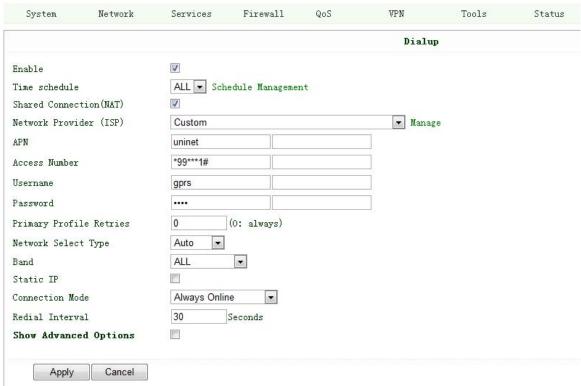
Now the IP address of IR7X1GS55 has been reset, and in order to enter the configuration web, you need set your PC in the same subnet, for example: 192.168.1.10/24 then input the changed IP address (192.168.1.254) in your IE Browser.

2.3.7 Connect InRouter with Internet

Following the configuration steps below to enable IR7X1GS55 to connect with the internet.

Click "Network"=>"Dialup", enter dialup configuration web:





Please check the APN, Dialup Number, Username and Password:

Dialup Number, Username and Password are provided by local mobile operator. You can contact them for more details. The following example shows parameters provided by China Mobile, Vodafone and Cingular. Please contact with local operator for details.

1: China Mobile

APN: CMNET

Phone Number: *99# User Name: web

Password: web

2: Vodafone

APN: internet

Phone Number: *99#

User Name: web

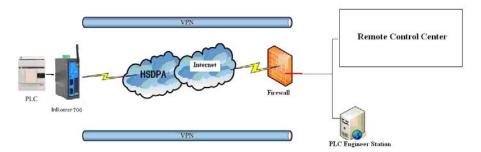
Password: web

After correct configuration, InRouter 700 can now connect with Internet. Open IE Browser, input www.google.com, you can see the Google web as below:

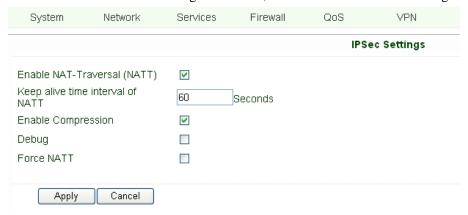


2.4 Quick IPSec VPN Configuration

If you need to build a VPN tunnel to realize access to your PLC far away through internet or you need ensure the security by using VPN. Here's a quick configuration guide of IPSec for InRouter 700 Series.



Connect PC with Router to enter router configuration web, select "VPN" => "IPSec setting":



Enable NAT-Traversal (NATT): select enable.

Keep alive time interval of NATT: set the "Keep alive time interval of NATT", default is 60 seconds.

Enable Compression: select enable.

Please change the parameters according to concrete situation.

Click "Apply" to finish configuration.

1) Select "VPN"=> "IPSec Tunnels" to check or modify parameters of IPSec Tunnels.



Click "Add" to add a new IPSec Tunnel:



System	Network	Services	Firewall	QoS	VPN	Tools	Status
					IPSec Tur	mels	
Edit IPSec t	unnel						
Show Advanc	ed Options	V					
Basic Param	eters						
Tunnel Name		IPSec_tunne	el_1				
Destination	Address	23.34.45.56					
Startup Mod	es	Auto Activate	ed 🔻				
Restart WAN	when failed						
Negotiation	Mode	Main Mode	•				
IPSec Proto	col	ESP ▼					
IPSec Mode		Tunnel Mode	•				
Tunnel Type		Subnet - Sub	bnet 🔻				
Local Subne	t	192.168.2.1					
Local Netma	sk	255.255.255.	.0				
Remote Subn	et	0.0.0.0					
Remote Netm	ask	255.255.255	.0				

Basic Parameters: set basic parameters of IPSec tunnel.

Tunnel Name: name IPSec tunnel, the default is IPSec tunnel 1.

Destination Address: set to VPN server IP/domain, e.g.: the domain provided by GJJ is gjj-ovdp.3322.org.

Startup Modes: select Auto Activated.

Negotiation Mode: optional between Main Mode and Aggressive Mode. Generally, select Main Mode.

IPSec Protocols: optional among ESP, AH. Generally, select ESP.

IPSec Mode: optional between Tunnel Mode and Transport Mode. Generally, select Tunnel Mode.

Tunnel Type: optional among Host-Host, Host-Subnet, Subnet-Host and Subnet-Subnet.

Local Subnet: IPSec local subnet protected. E.g.: 172.16.16.0.

Local Net Mask: IPSec local Net Mask protected. E.g.: 255.255.255.252.

Remote Subnet: IPSec remote subnet protected. E.g.: 172.16.0.0.

Remote Net Mask: IPSec remote Net Mask protected. E.g.: 255.240.0.0.

Phase 1 Parameters: configure parameters during the Phase 1 of IPSec negotiation.

IKE Policy: optional between 3DES-MD5-96 and AES-MD5-96, suggest selecting 3DES-MD5-96.

IKE Lifetime: the default is 86400 seconds.

Local ID Type: optional among FQDN, USERFQDN, IP address, suggest selecting IP address.

Remote ID Type: optional among FQDN, USERFQDN, IP address, suggest selecting IP address.

Authentication Type: optional between Shared Key and Certificate, generally choose Shared Key.

Key: set IPSec VPN negotiating key.

Phase 2 Parameters: configure parameters during the Phase 2 of IPSec negotiation.

IPSec Policy: optional between 3DES-MD5-96 and AES-MD5-96, suggest selecting 3DES-MD5-96.

IPSec Lifetime: the default is 3600 seconds.

Perfect Forward Encryption: Optional among None, GROUP1, GROUP2 and GROUP5. This parameter should match with the server, generally, select "None".

Click "Save" to finish adding IPSec Tunnel:



You can click "Show Detail Status" to observe the specific connection details, or click "Add" to add a new tunnel. Now you succeed to build a high-security IPSec tunnel, here's an example:

We set an IPSec Tunnel from subnet: 192.168.220.0/24 to subnet: 192.168.123.0/24, when it succeeds, the web will show:



And the PC in IPSec client subnet can get access to the server's subnet.

Open command in your PC, then ping a PC in the server's subnet:

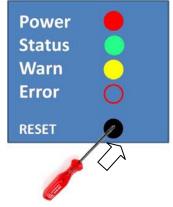


2.5 Reset to Factory Defaults

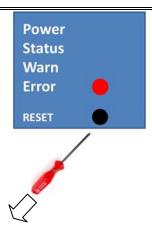
2.5.1 Hardware Method



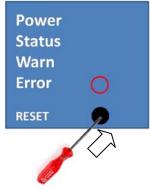
1) Push RESET button while powering on IR7X1GS55:



2) When you see ERROR LED turns on (about 10 seconds after powering on), stop push RESET button:



3) After a few seconds, the ERROR LED then turns off, now push RESET button again:



4) Then you will see ERROR and STATUS blinking, which means reset to factory defaults successfully!



Factory default settings:

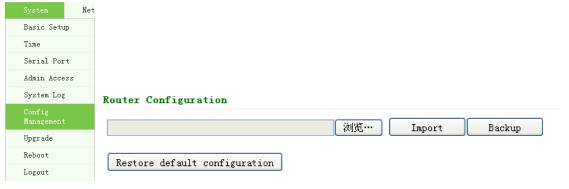
IP: 192.168.2.1

Net Mask: 255.255.255.0

Serial parameter: 19200-8-N-1

2.5.2 Web Method

1) Login the web interface of IR7X1GS55, select "System"→"Config Management":



2) Click "Restore default configuration" to Reset IR7X1GS55.

III

Advanced Configuration

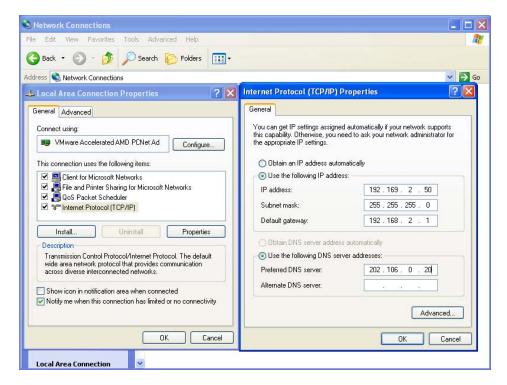
◆ Configuration on Web

3.1 Configuration on Web

InRouter must be correctly configured before use. This Chapter will show you how to configure via Web.

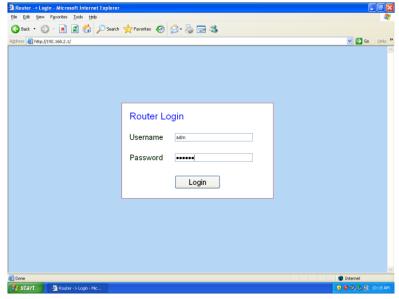
3.1.1 Preparation

Firstly, connect your devices with IR7X1GS55 by cable or HUB (switch), then set the IP of PC and IR7X1GS55 in the same subnet, for example: Set PC IP to 192.168.2.50, net mask: 255.255.255.0, gateway (default IP of IR7X1GS55: 192.168.2.1):



Open IE browser, input the IP address of IR7X1GS55: http://192.168.2.1 (default IP of IR7X1GS55).

Then you'll see the Login Web below, you need to login as Administrator. Input the username and password (default: adm/123456).



Click "Login" to enter configure web:



3.1.2 System

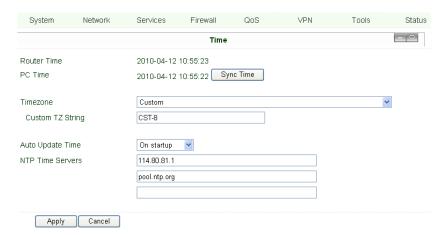
System settings include the 9 settings: Basic Setup, Time, Serial Port, Admin Access, System Log, Config Management, Update, Reboot and Logout.

(1) Basic Setup



Parameters Name	Description	Default	Example
Language	Choose language of configuration web	Chinese	English
Router Name	Set name of InRouter	Router	My InRouter
Host Name	Name the device/PC linked with IR7X1GS55	Router	My InRouter

(2) Time



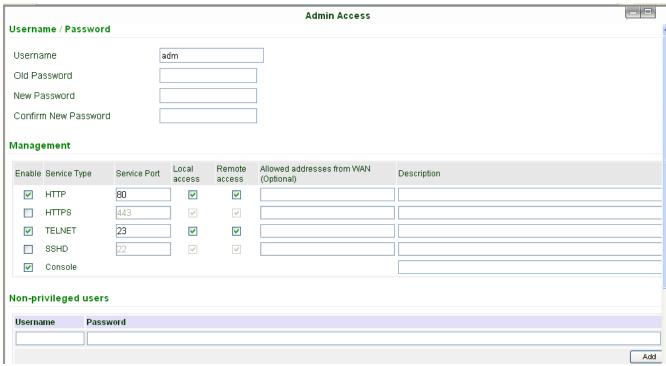
Name	Description	Default
Router Time	Display router time	1970-1-1 8:00:00
PC Time	Display PC time (or the time of device linked with router)	
Time Zone	Set time zone	Custom
Custom TZ string	Set the string of time zone of Router	CST-8
Auto Update Time	Time Update Interval	Disabled
NTP Time Servers (after enable the Auto Update Time)	Setting for NTP Time server. (Three at the most)	pool.ntp.org

(3) Serial Port



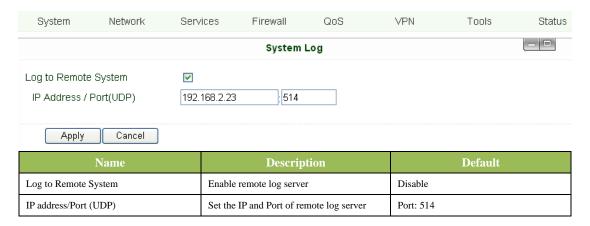
Name	Description	Default
Baud Rate	Serial baud rate	19200
Data Bit	Serial data bits	8
Parity	Set parity bit of serial data.	None
Stop Bit	Set stop bit of serial data.	1
Hardware Flow Control	Enable Hardware Flow Control	Disable
Software Flow Control	Enable Software Flow Control	Disable

(4) Admin Access

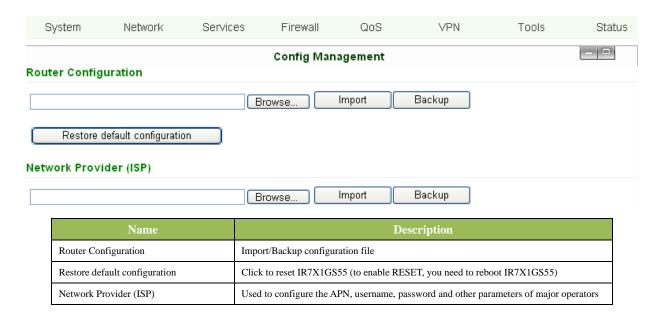


Name		Description		Default
Username	Username for	configuration web login		adm
Old Password	To change the	e password, you need to input the old one		123456
New Password	Input new pas	ssword		
Confirm New Password	Input the new	password again		
		Management		
		HTTP/HTTPS/TELNET/SSHD/Consol	e	
Enable	Select to enal	ole		Enable
Service Type	HTTP/HTTP	S/TELNET/SSHD/Console		80/443/23/22/Blank
Local Access	Enable—allo	w manage Router by LAN(e.g.: HTTP)		Enable
	Disable—for	bid manage Router by LAN.		
Remote Access	Enable—allow	to manage IR7X1GS55 by WAN. (e.g.: HTTP)		Enable
	Disable—for	bid to manage IR7X1GS55 by WAN. (e.g.: HTTP)		
Allowed Access from WAN	Set the range	of allowed IP address for WAN		Control services server can be set at
(Optional)	(HTTP/HTTF	PS/TELNET/SSHD)		this time, for example 192.168.2.1/30
				or 192.168.2.1-192.168.2.10
Description	Describe the	parameters of management (non-influence to IR7X1GS5	5)	
		Other Parameters		
Log Timeout	Set the Log T	imeout, configuration web will be disconnected after time	eout	500 seconds

(5) System Log



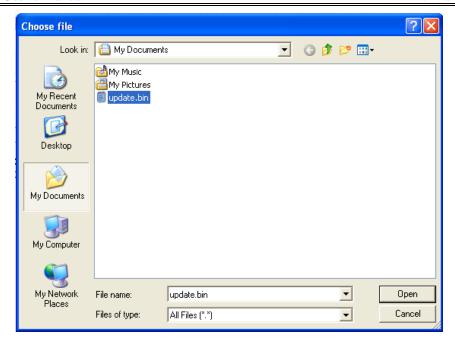
(6) Config Management



(7) System Upgrade



If need to upgrade system, click "System"=>"System upgrade" to enter update page, then follow the steps below: Click "Browse", choose the upgrade file;



Click "update", and then click "sure" to begin update as it shows below.

0:01

Upgrading system... It will take about 1-5 minutes depending on network. Please wait and don't interrupt!

Upgrade firmware succeed, and click "reboot" to restart IR7X1GS55.

(8) Reboot

If you need to reboot system, please click "System"=>"Reboot", Then click "OK" to restart system.



(9) Logout

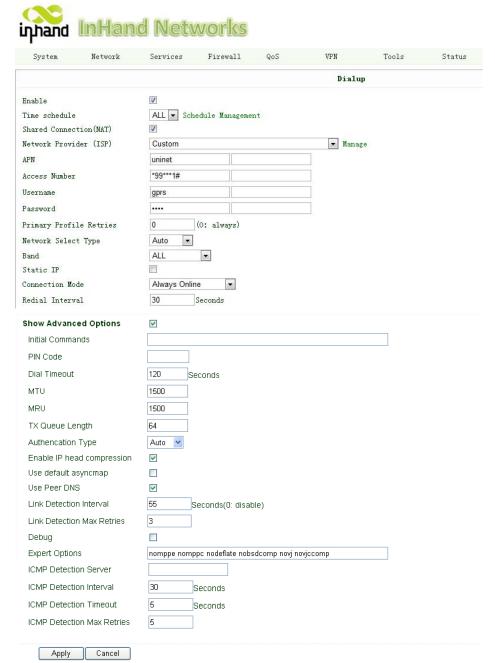
If you need to logout system, click "System"=>"Logout", and then click "OK".



3.1.3 Network

Network settings include configurations of Dialup, LAN, DNS, DDNS, Static Route, and etc.

(1) Dialup



Name	Description	Default
Enable	Enable PPP dialup	Enable
Time Schedule	Set time for online and offline	ALL
SHARED	Enabled—device linked with Router Can access to internet.	Enable
	Disable—device Can NOT access to internet via Router.	
ISP	Select local ISP, if not listed here, please select "Customer"	Customer
Network Select Type	Choose mobile network type	HSDPA (or GPRS)
APN	APN parameters provided by Local ISP, you can set TWO different group of	cmnet/uninet
	dialup parameters (APN/Username/Password) and set one as backup	

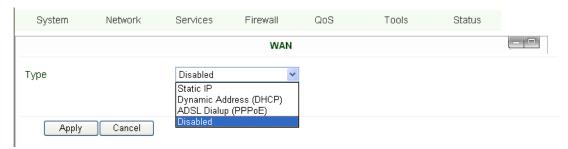
intouch 700 Belies Oser 5 Mandai				
Access Number	Dialup parameters provided by Local ISP	"*99#""*99***1#" or #777		
Username	Dialup parameters provided by Local ISP	"gprs" or "CDMA"		
Password	Dialup parameters provided by Local ISP	"gprs" or "CDMA"		
Primary Profile Retries	After retries and dialup still failed, router will try backup dialup parameters (if you	0 (always use main		
	have set two IPSec tunnels and one as backup, router will also stop the main one and	parameters and never use		
	try another, more details please see at "VPN" \rightarrow "IPSec")	backup)		
Static IP	Enable Static IP if your SIM card can get static IP address	Disable		
Connection Mode	Optional Always Online,	Always Online		
Redial Interval	When Dial fails, InRouter will redial after the interval	30 seconds		
Show Advanced Options	Enable configure advanced options	Disabled		
Initial Commands	Used for advanced parameters	Blank		
Dial Timeout	Set dial timeout (IR7X1GS55 will reboot after timeout)	120 seconds		
MTU	Set max transmit unit	1500		
MRU	Set max receive unit	1500		
TX Queue Length	Set length of transmit queue	3		
Enable IP header compression	Enable IP header compression	Disabled		
Use default asyncmap	Enable default asyncmap, PPP advanced option	Disabled		
Using Peer DNS	Click Enable to accept the peer DNS	Enabled		
Link Detection Interval	Set Link Detection Interval, you need to disable	30 seconds		
Link Detection Max Retries	Set the max retries if link detection failed	3		
Debug	Enable debug mode	Enable		
Expert Option	Provide extra PPP parameters, normally user needn't set this.	Blank		
ICMP Detection Server	Set ICMP Detection Server, blank represents none	Blank		
ICMP Detection Interval	Set ICMP Detection Interval	30 seconds		
ICMP Detection Timeout	Set ICMP Detection Timeout (IR7X1GS55 will reboot if ICMP time out)	5 seconds		
ICMP Detection Max Retries	Set the max number of retries if ICMP failed	5		

Dialup----Time Schedule Management:



Name	Description	Default
Name	Name the schedule	schedule 1
Sunday		Blank
Monday		Enable
Tuesday		Enable
Wednesday		Enable
Thursday		Enable
Friday		Enable
Saturday		Blank
Time Range 1	Set Time Range 1	9:00-12:00
Time Range 2	Set Time Range 2	14:00-18:00
Time Range 3	Set Time Range 3	0:00-0:00
Description	Describe configuration	Blank

(2) WAN (for InRouter704/714/794 only)

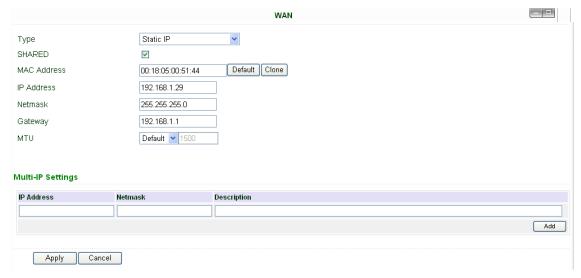


This page is to set the type of WAN port:

Name	Description	Default
Туре	Static IP;	Disabled
	Dynamic Address(DHCP);	
	ADSL Dialup(PPPoE);	
	Disabled	

Attention: There can only be one WAN type at one time, enabling one type WAN will disabled another.

WAN—Static IP



Notice: please **DO NOT** set WAN address as: 192.168.3.x (an IP for DMZ port).

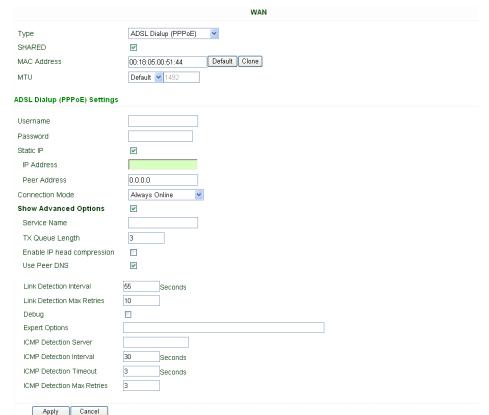
Name	Description	Default		
Туре	Static IP			
SHARED	Enabled—the local device linked with Router can get access to	Enable		
	internet.			
	Disable—the local device can't get access to internet via Router.			
MAC Address	Set MAC Address			
IP Address	Set WAN port IP	192.168.1.29		
Net Mask	Set WAN port Net Mask	255.255.255.0		
Gateway	Set WAN Gateway	192.168.1.1		
MTU	Set Max Transmission Unit, optional between default and manual	1500		
Multi-IP Settings(can set 8 additional IP address at the most)				
IP address	Set the additional IP address of LAN	Blank		
Net Mask	Set Net Mask	Blank		
Description	Describe the settings	Blank		

WAN—Dynamic Address (DHCP)



Name	Description	Default
Туре	Dynamic Address (DHCP)	
SHARED	Enabled—the local device linked with Router can get access to internet. Disable—the local device can't get access to internet via Router.	Enable
MAC Address	Set MAC Address	
MTU	Set Max transmission unit, optional between default and manual	1500

WAN --ADSL



Apply Californ		
Name	Description	Default
Туре	ADSL Dialup (PPPoE)	
SHARED	Enabled—the local device linked with Router can get access to internet.	Enable
	Disable—the local device can't get access to internet via Router.	
MAC Address	Set MAC Address	
MTU	Set Max Transmission Unit, optional between default and manual	1500
ADSL Dialup (PPPoE) Settings		

Username	Set username for dialing up	Blank
Password	Set password for dialing up	Blank
Static IP	Enable Static IP	Disabled
IP address	Static IP Address	Blank
Peer IP	Set Peer IP	Blank
Connection Mode	Set connection mode (Connect on Demand/Always Online/ Manual)	Always Online
	Advanced Options	
Show advanced options	Enable advanced configuration	Disabled
Service Name	Name the service	Blank
TX Queue Length	Set TX Queue Length	3
Enable IP head compression	Click to enable IP head compression	Disabled
User Peer DNS	Enable User Peer DNS	Disabled
Link Detection Interval	Set link detection interval	55 seconds
Link Detection Max Retries	Set link detection max retries	10 (times)
Debug	Select to enable debug-mode	Disabled
Expert Options	Set expert parameters	Blank
ICMP Detection Server	Set ICMP Detection Server	Blank
ICMP Detection Time	Set ICMP Detection Time	30
ICMP Detection Timeout	Set ICMP Detection Timeout	3
ICMP Detection Max Reties	Set ICMP Detection Max Reties	3

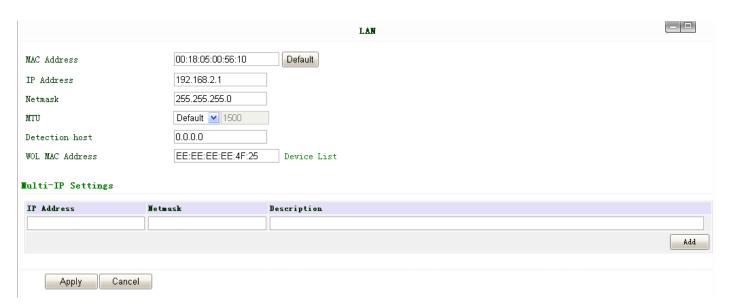
(3) Link Backup (for IR704/714/794 only)



Link Backup, to realize link backup between Cellular WAN and Ethernet WAN, when one fails, IR7X1GS55 will try the other

Name	Description	Default
Enable	Enable Link Backup service	Disabled
Main Link	InRouter will choose this for normal WAN connection	WAN (Ethernet WAN)
ICMP Detection Server	ICMP can ensure a link to certain destination	
ICMP Detection Interval	Time interval between ICMP packages	10
ICMP Detection Timeout	Timeout for each ICMP package	3 (seconds)
ICMP Detection Max Retries	After the retries if no ICMP succeed, dialup will try the backup link	3
Backup Link	Select the backup link	WAN

(4) LAN



Notice: please **DO NOT** set LAN address as: 192.168.3.x (an IP for DMZ port).

Name	Description	Default
MAC Address	The MAC address in LAN	00:10:A1:86:95:02 (Provided by InHand) , for manufactures
IP Address	Set IP Address in LAN	192.168.2.1 (If Changed, you need to input the new address for
		entering the configuration web)
Net Mask	Set Net Mask of LAN	255.255.255.0
MTU	Set MTU length, optional between Default and Manual	1500
Detection Host	Set Detection Host Address	0.0.0.0
WOL MAC Address	Set the MAC of PC in the LAN of router, for Wakeup	Blank
	Over LAN (WOL) function, you should also set	
	"Networks"→ "Dialup" and change dialup mode into	
	"Trigger by SMS".	
Multi-IP Settings (Support additional 8 I		P addresses at the most)
IP Address	Set additional IP Address of LAN	Blank
Description	Description about this IP address	Blank

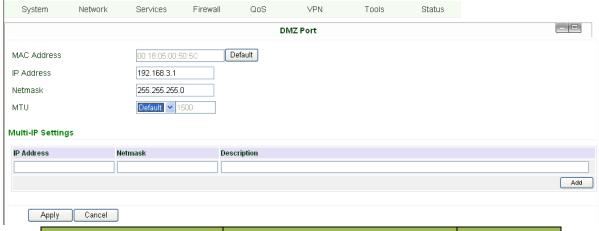
(5) Loopback



Name	Description	Default	
IP Address	The IP Address for loopback	127.0.0.1	
Net Mask	Set Net Mask of loopback host	255.0.0.0	
	Multi-IP Settings (Support additional 8 IP addresses at the most)		
IP Address/Net mask	Set additional IP/Net mask of loopback host	Blank	
Description	Description about this IP address	Blank	

(6) DMZ Port (for InRouter704/714/794 only)

Configure this page after select WAN-DMZ-LAN mode in Port Mode page.



Name	Description	Default
MAC Address	Set MAC address of DMZ port	(Provided by
		Manufacture:
		InHand)
IP Address	Set IP Address of DMZ port	192.168.3.1
Net Mask	Set Net Mask of DMZ port	255.255.255.0
MTU	Optional between Default & Manual	Default (1500)
Multi-I	P Settings (8 additional IP address at the most)	
IP Address	Set additional IP address for DMZ port	Blank
Net Mask	Set Net Mask	Blank
Description	Description of additional IP address	Blank

(7) Port Mode (for InRouter704/714/794 only)



Notice: please **DO NOT** set WAN IP/LAN IP/DMZ IP the same; it will disable your link to internet!

Name	Descriptions	Default
Port Mode	LAN (four LAN ports)	WAN-DMZ-LAN
	WAN-LAN (3 LAN ports and 1 WAN port)	

WAN-DMZ-LAN (1 WAN port, 1 DMZ port and 2 LAN ports)

(8) Port Mirror (for InRouter704/714/794 only)



This function is used for Engineer capture packages of different ports of IR7X1GS55.

Destination Port: the port to which you wand to send the copied packages.

Here we set Port 3 as example, after you set Port 1 as destination port, and Port 3"Both", you can link your PC to Port 1 and get the packages sent and received by Port 3.

(9) **DNS**

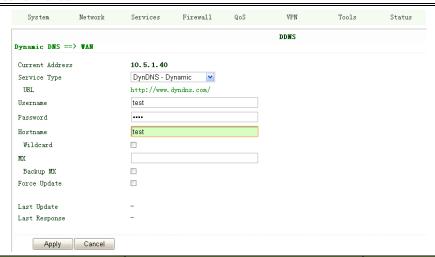


Name	Description	Default
Primary DNS	Set Primary DNS	Blank
Secondary DNS	Set Secondary DNS	Blank

(10) DDNS (Dynamic DNS)



Name	Description	Default
Current Address	Show the current IP address	Blank
Service Type	Select DDNS Provider	Disabled



Name	Description	Default
Service Type	DynDNS - Dynamic	
URL	http://www.dyndns.com/	
Username	Registered username for DDNS	
Password	Registered password for DDNS	
Hostname	Registered hostname for DDNS	

(11) Static Route

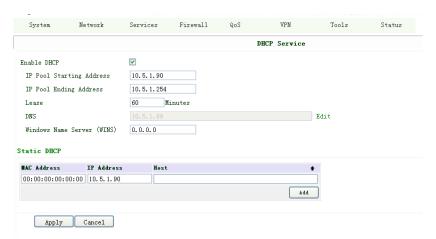


Name	Description	Default
Destination	Set IP address of destination	Blank
Net Mask	Set subnet Mask of destination	255.255.255.0
Gateway	Set the gateway of destination	Blank
Interface	Optional LAN/WAN port access to destination	Blank
Description	Describe static route	Blank

3.1.4 Service

 $Service\ settings\ include\ DHCP\ Service,\ DNS\ Forwarding,\ VRRP\ and\ other\ related\ parameters.$

(1) DHCP Service



Name	Description	Default
Enable DHCP	Click to enable DHCP	Enable
IP Pool Starting Address	Set the starting IP address of DHCP pool	192.168.2.2
IP Pool Ending Address	Set the ending IP address of DHCP pool	192.168.2.100
Lease	Set the valid time lease of IP address	60 minutes
	obtained by DHCP	
DNS	Set DNS Server	192.168.2.1
Windows Name Server	Set WINS	Blank
(WINS)		
Static DHCP (can set 20 designated IP address at the most)		ost)
MAC Address	Set the MAC address of a designated IP	Blank
	address	
IP address	Set the static IP address	192.168.2.2
Host	Set the hostname	Blank

(2) DNS Relay



Name	Description	Default
Enable DNS Relay	Click to enable DNS Relay	Disabled
Designate IP address<=>DNS couples (20 at the most)		
IP Address	Set IP address <=> DNS couples	Blank
Host	Set the name of IP address <=> DNS couples	Blank
Description	Describe IP address <=> DNS couples	Blank

(3) DHCP Relay



This function can realize DHCP relay and send relay packages to LAN interface of router.

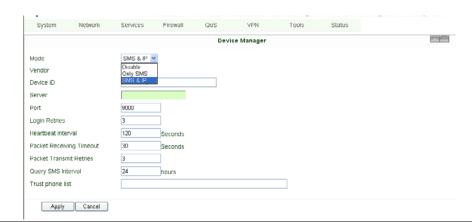
Name	Description	Default
Enable DHCP Relay	Click to enable DHCP Relay	Enable (after enable DHCP)
DHCP Server	Set the DHCP Server's address, always you need ensure DHCP server is in the same LAN or VPN subnet as IR7X1GS55's LAN	Blank
Source IP	The interface IR7X1GS55 will forward the DHCP acknowledge packages (always set the LAN IP of IR7X1GS55)	Blank

(4) VRRP



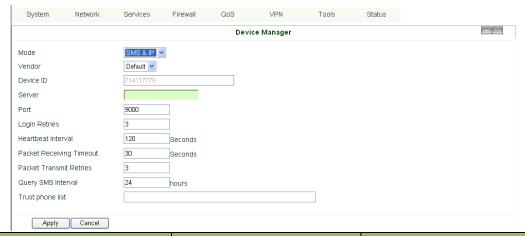
Name	Description	Default
Enable	Select to enable VRRP	Disable
Group ID	Select group id of routers (range 1-255)	1
Priority	Select priority for router (range 1—254)	10 (bigger number stands for higher priority)
Advertisement Interval	Set ad interval	60 sec
Virtual IP	Set Virtual IP	Blank
Authentication Type	Optional: None/Password type	None

(5) Device Manager





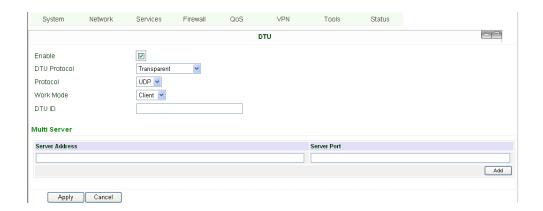
Name	Description	Default
Mode	Only SMS	
Query SMS Interval	Set how long to check SMS	24 hours
Trust Phone List	Add trust Cell Phone List	



Name	Description	Default
Mode	SMS+IP Mode	
Vendor	Set Vendor Name	Default
Device ID	Set Device ID	
Server	Set Device Manager Server IP	
Port	Set Port For DM	9000
Login Retries	Set login retries	3
Heartbeat Interval	Set interval of heartbeat	120
Packet Receiving Timeout	Set packet receiving timeout	30

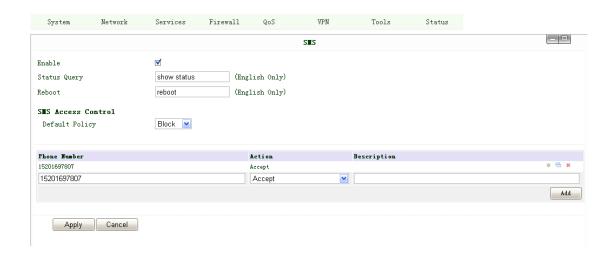
Packet Transmit Retries	Set packet transmit reties	3
Query SMS Interval	Set how long to check SMS	24
Trust phone list	Set trust cell phone list	

(6) **DTU**



Name	Description	Default
Enable	Click to enable DTU	Disable
DTU Protocol	Set DTU protocol, Please see more in related Quick Guide	Transparent
Protocol	Optional between TCP/UDP	UDP
Work Mode	Set DTU as client or server	Client
DTU ID	Set ID of DTU	Blank
Multi Server	Set the IP address and Port of server to receive data.	Blank

(7) SMS



Name	Description	Default
Enable	Click to enable SMS control	Disable
Status Query	Set Status Query SMS, and you can see status of router	
	by send SMS (e.g.: show status).	
Reboot	Let the router reboot	
SMS Access Control		
Default Policy	Block or Accept control SMS from certain Phone	Block

Phone List	Include phone numbers accepted or blocked to send	
	SMS to router	

Notice: before using this function, please notice you have a SIM card with SMS function in the router, else, please contact local mobile operator.

SMS you will get in your mobile phone:

Host: (SN);

Uptime: (the uptime of router for this time of reboot);

State: (Online/Offline) (Cellular WAN IP)

LAN: (Up) (LAN IP)

(8) LLDP (Link Layer Discovery Protocol)

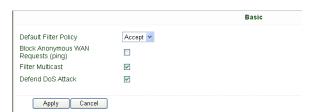


Name	Description	Default
Enable	Click to enable LLDP	Disable
Tx Interval	Set DTU protocol	Transparent

3.1.5 Firewall

This page is to set parameters concerned with firewall.

(1) Basic Configuration



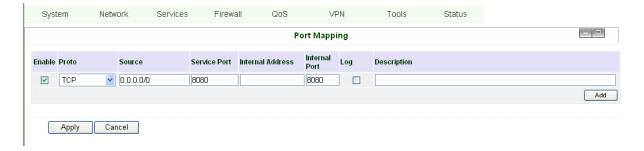
Name	Description	Default
Default Filter Policy	Optional between Accept /Refused	Accept
Block Anonymous WAN Request (ping)	Click to enable filer ping request	Disable
Filter Multicast	Click to enable filter multicast	Enable
Defend DoS Attack	Click to enable Defend DoS Attack	Enable

(2) Filtering



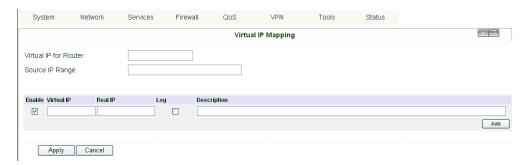
Enable	Click to enable filtering	Blank
Protocol	Optional among TCP/UDP/ICMP	All
Source IP address	Set Source IP address	Blank
Source Port	Set Source Port	Blank
Destination IP	Set destination IP	Blank
Destination Port	Set destination port	Blank
Action	Accept/Deny	Accept
Log	Click to enable login	Disable
Description	Describe your configuration	Blank

(3) Port Mapping



Name	Description	Default
Enable	Click Enable Port Mapping	Disable
Source	To fill with source IP	0.0.0.0/0
Service Port	Fill the port of service	8080
Internal Address	Set the internal IP for mapping	Blank
Internal Port	Set the Port mapping to internal	8080
Log	Click to enable log about port mapping.	Disable
Description	Describe meanings of each mapping	Blank

(4) Virtual IP Mapping



An internal PC's IP can match to a virtual IP, and external network can access to internal PC via this virtual IP address.

Name	Description	Default
Virtual IP for Router	Set Virtual IP for Router	Blank
Source IP Range	Set range of source IP address	Blank
Virtual IP	Set virtual IP	Blank
Real IP	Set real IP	Blank

Log	Enable logging concerned with virtual IP	Disable
Description	Describe this configuration	Blank

(5) DMZ (All Port Mapping)



Mapping all the ports and then external PC can get access to all the ports of internal device behind IR7X1GS55. Attention: this function cannot help to map the admin port of IR7X1GS55 (e.g.: 80 TCP) to the device's port.

Name	Description	Default
Enable DMZ	Click to Enable DMZ	Disable
DMZ Host	Set host IP of DMZ	Blank
Source Address Range	Set IP address with restrict IP access	Blank

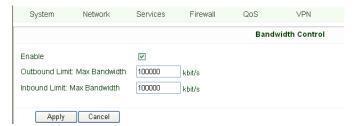
(6) MAC-IP Bundling



When firewall denies all access to the external network, only PC with MAC-IP Bundling can access to external network

Name	Description	Default
MAC Address	Set Bundling Mac address	Blank
IP Address	Set Bundling IP address	192.168.2.2
Description	Describe this configuration	Blank

3.1.6 QoS



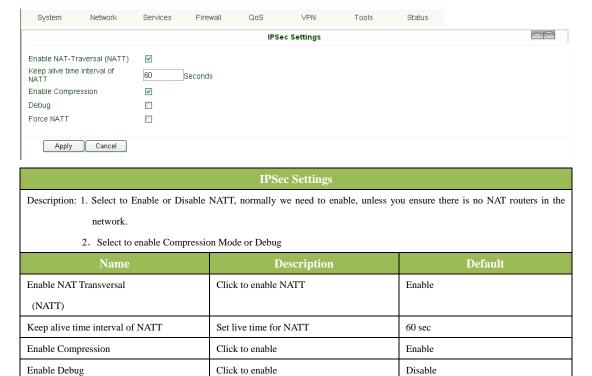
Name	Description	Default
Enable	Click to enable	Disable
Outbound Limit Max	Set the limit speed of out-bound	100000kbit/s
Bandwidth	bandwidth	
Inbound Limit Max	Set the limit speed of inbound bandwidth	100000kbit/s
Bandwidth		

3.1.7 VPN

This page introduces the parameters set in InRouter 700's Web.

(1) IPSec Settings (For IR711/791/714/794 only)

To build an IPSec VPN Tunnel, you need first set IPSec properties in this page, then turn to IPSec Tunnels to add your VPN:



(2) IPSec Tunnels (For IR711/791/714/794 only)

Force NATT



Disable

Click to enable

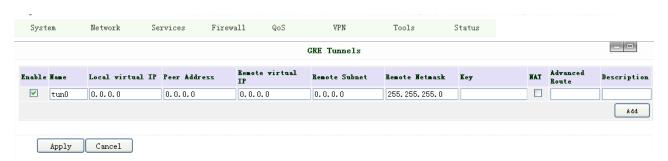
Click "Add" and enter the configuration web:

Edit IDO a tummal	IPSec Tunnels	
Edit IPSec tunnel		
Show Advanced Options		
Basic Parameters		
Tunnel Name	IPSec_tunnel_1	
Destination Address	0.0.0.0	
Startup Modes	Auto Activated	
Restart WAN when failed		
Negotiation Mode	Main Mode	
IPSec Protocol	ESP V	
IPSec Mode	Tunnel Mode	
Tunnel Type	Subnet - Subnet 💌	
Local Subnet	192.168.2.1	
Local Netmask	255.255.255.0	
Remote Subnet	0.0.0.0	
Remote Netmask	255.255.255.0	
Phase 1 Parameters		
IKE Policy	3DES-MD5-DH2 V	
IKE Lifetime	86400 Seconds	
Local ID Type	IP Address 🔻	
Remote ID Type	IP Address 🔻	
Authentication Type	Shared Key V	
Key		
Phase 2 Parameters		
IPSec Policy	3DES-MD5-96 V	
IPSec Lifetime	3600 Seconds	
Perfect Forward Serecy(PFS)	None v	
Link Detection Parameters		
DPD Time Interval	60 Seconds(0: disable)	
DPD Timeout	180 Seconds	
ICMP Detection Server		
ICMP Detection Local IP		
ICMP Detection Interval	60 Seconds	
ICMP Detection Timeout	5 Seconds	
ICMP Detection Max Retries	10	
Save Cancel		

Name	Description	Default
Show Advanced Options	Click to enable advanced options	Disable
	Basic Parameters	
Tunnel Name	To name the tunnel	IPSec_tunnel_1
Destination Address	Set the destination address of IPSec VPN Server	Blank
Startup Mode	Auto Activate/Trigged by Data/Passive/Manually Activated	Enable
Negotiation Mode	Optional: Main Mode or	Main Mode
	Aggressive Mode	
IPSec Mode	Optional: ESP or AH	ESP
(Enable Advanced options)		
IPSec Mode	Optional: Tunnel Mode or Transport Mode	Tunnel Mode

atel 700 Belles esel s manaul		www.mmananetworks.com
(Enable Advanced options)		
Tunnel Type	Optional:	Subnet——Subnet Mode
	Host—Host, Host—Subnet, Subnet—Host,	
	Subnet——Subnet	
Local Subnet	Set IPSec Local Protected Subnet	192.168.2.1
Local Subnet Net Mask	Set IPSec Local Protected Subnet Net Mask	255.255.255.0
Remote Subnet Address	Set IPSec Remote Protected Subnet	Blank
Remote Subnet Net Mask	Set IPSec Remote Protected Subnet Net Mask	255.255.255.0
	Phase 1 Parameters	
IKE Policy	Optional: 3DES-MD5-96 or AES-MD5-96	3DES-MD5-96
IKE Lifetime	Set IKE 的 Lifetime	86400 sec
Local ID Type	Optional: FQDN, USERFQDN, or IP Address	IP Address
Local ID (Only for FQDN 和 USERFQDN)	Set the ID according to ID type	Blank
Remote ID Type	Optional: FQDN,	IP Address
	USERFQDN, or IP Address	
Remote ID (Only for FQDN and USERFQDN)	Set the ID according to ID type	Blank
Authentication Type	Optional: Shared Key or Certificate	Shared Key
Key (While choosing Shared Key Authentication	Set IPSec VPN Negotiation Key	Blank
Type)		
	Phase 2 Parameters	
IPSec Policy	Optional: 3DES-MD5-96 or AES-MD5-96	3DES-MD5-96
IPSec Lifetime	Set IPSec Lifetime	3600sec
Perfect Forward Secrecy (PFS)	Optional: Disable, GROUP1, GROUP2, GROUP5	Disable ((Enable Advanced options)
	Link Detection Parameters (Enable Advanced options)	
DPD Time Interval	Set DPD Time Interval	60sec
DPD Timeout	Set DPD Timeout	180sec
ICMP Detection Server	Set ICMP Detection Server	Blank
ICMP Detection Local IP	Set ICMP Detection Local IP	
ICMP Detection Interval	Set ICMP Detection Interval	30sec
ICMP Detection Timeout	Set ICMP Detection Interval	5sec

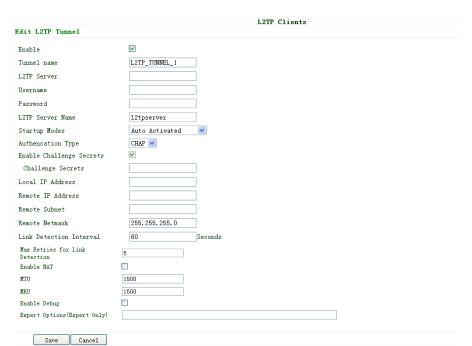
(3) GRE Tunnels (For IR711/791/714/794 only)



GRE Tunnels		
Name	Description	Default

Enable	Click Enable	Enable
Tunnel Name	Set GRE Tunnel Name	tun0
Local Virtual IP	Set Local Virtual IP	0.0.0.0
Remote Address	Set Remote Address	0.0.0.0
Remote Virtual IP	Set Remote Virtual IP	0.0.0.0
Remote Subnet Address	Set Remote Subnet Address	0.0.0.0
Remote Subnet Net Mask	Set Remote Subnet Net Mask	255.255.255.0
Key	Set Tunnel Key	Blank
NAT	Click Enable NAT Function	Disable
Description	Add Description	Blank

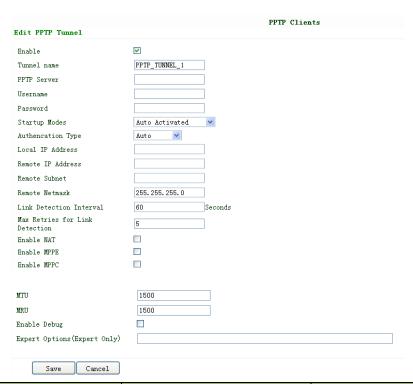
(4) L2TP Clients (For IR711/791/714/794 only)



Name	Description	Default
Enable	Click Enable	Enable
Tunnel Name	Set Tunnel Name	L2TP_TUNNEL_1
L2TP Server	SetL2TP Server Address	Blank
Username	Set Server Username	Blank
Password	Set Server Password	Blank
Server Name	Set Server Name	12tpserver
Startup Modes	Set Startup Modes: Auto Activated,	Auto Activated
	Trigged by Data, Manually Activated	
Authencation Type	Set Authencation Type: CHAP, PAP	СНАР
Enable Challenge secrets	Set to enable Challenge secrets	Disable
Local IP Address	Set Local IP Address	Blank
Remote IP Address	Set Remote IP Address	Blank
Remote Subnet	Set Remote Subnet	Blank
Remote Subnet Net Mask	Set Remote Subnet Net Mask	255.255.255.0
Link Detection Interval	Set Link Detection Interval	60
Max Retries for Link Detection	Set Max Retries for Link Detection	5

Enable NAT	Click Enable NAT	Disable
MTU	Set MTU parameters	1500
MRU	Set MRU parameters	1500
Enable Debug Mode	Click Enable Debug Mode	Disable
Expert Options	Set Expert Options	Blank

(5) PPTP Clients (For IR711/791/714/794 only)

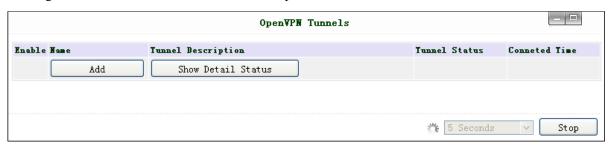


Name	Description	Default
Enable	Click Enable	Enable
Tunnel Name	Set Tunnel Name	PPTP_TUNNEL_1
PPTP Server	Set PPTP Server Address	Blank
Username	Set Server Username	Blank
Password	Set Server's Password	Blank
Startup Mode:	Set Startup Modes: Auto Activated,	Auto Activated
	Trigged by Data, Manually Activated	
Authencation Type	Set Authencation Type: CHAP, PAP,	Auto
	MS-CHAPv1, MS-CHAPv2	
Local IP Address	Set Local IP Address	Blank
Remote IP Address	Set Remote IP Address	Blank
Remote Subnet	Set Remote Subnet	Blank
Remote Subnet Net Mask	Set Remote Subnet Net Mask	255.255.255.0
Link Detection Interval	Set Link Detection Interval	60
Max Retries for Link Detection	Set Max Retries for Link Detection	5
Enable NAT	Click Enable NAT	Blank
Enable MPPE	Click Enable MPPE	Blank
Enable MPPC	Click Enable MPPC	Blank
MTU	Set MTU parameters	1500

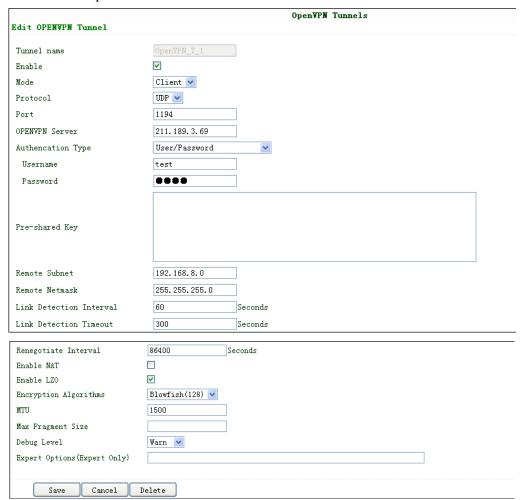
MRU	Set MRU parameters	1500
Enable Debug Mode	Click Enable Debug Mode	Blank
Expert Options	For InHand R&D only	Blank

(6) Open VPN Tunnels (for IR791/794 only)

In the configuration WEB of 700, select "VPN"=> "Open VPN Tunnels" as below:



Click "Add" to add a new Open VPN tunnel:



Name	Description	
Tunnel name	Can't be set	
Enable	Enable this configuration	
Mode	Client or Server	
Protocol	UDP or TCP	

Port	Import or Export Certificate (CRL)	
OPEN VPN Server	OPEN VPN Server's IP or DNS	
Authencation Type	(1) None for host to host connection (not available when 700 as server)	
	(2) Pre-shared Key for host to host connection (not available when 700 as server)	
	(3) User/Password For multi users to access	
	CA needed: Client: root CA (ca.crt)	
	Server: root CA (ca.crt), public key (pub.crt), private key (pri.key)	
	(4) X.509 Cert (multi-client) CA mode for multi users to access	
	CA needed: Client: root CA (ca.crt), public key (pub.crt), private key (pri.key)	
	Server: root CA (ca.crt), public key (pub.crt), private key (pri.key)	
	(5) X.509 CertCA mode for host to host tunnel	
	CA needed: Client: root CA (ca.crt), public key (pub.crt), private key (pri.key)	
	Server: root CA (ca.crt), public key (pub.crt), private key (pri.key)	
	(6) User+X.509 modeusername + password + CA certificate	
	CA needed: Client: root CA (ca.crt), public key (pub.crt), private key (pri.key)	
	Server: root CA (ca.crt), public key (pub.crt), private key (pri.key)	
Pre-shared Key	Set shared key or TLS-AUTH static password	
Remote Subnet, Remote Net mask	Set the static route of the router, always towards the subnet of its peer	
Link Detection Interval, Link Detection Timeout	Always use default	
Renegotiate Interval	Always use default	
Enable NAT	Set NAT mode, meanwhile it will disable route mode	
Enable MPPE	Enable MPPE, always set in server	
Enable LZO	Enable LZO compression	
Encryption Algorithms	Set encryption algorithms, must match with the server	
MTU, Max Fragment Size	Always use default	

(7) Open VPN Advanced (for IR791/794 only)

This configuration page is only used for the Open VPN Server.

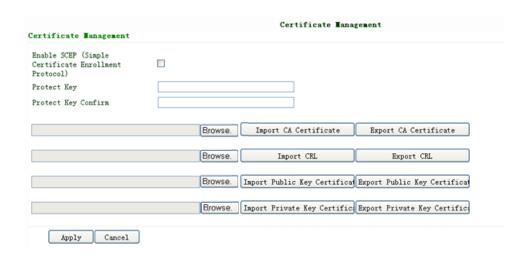


Name	Description	
Enable Client-to-Client Enable client access to other clients		
Client Management		
Tunnel Name	Tunnel Name of the Client	
Username/Common Name	Username (using Username/password mode) or Common Name in CA (CA mode)	

Local Static Route	The client subnet
Remote Static Route	The server subnet

Attention: CA can only be produced by customer's PC; InRouter 700 cannot produce CA.

(8) Certificate Management (for IR791/794 only)



Name	Description	Default
Enable SCEP	Click Enable	
(Simple Certificate Enrollment Protocol)		
Certificate Protected Key	Set Certificate Protected Key	Blank
Certificate Protected Key Confirm	Confirm Certificate Protected Key	Blank
Import/Export CA Certificate	Import or Export (CA) Certificate	Blank
Import/Export Certificate (CRL)	Import or Export Certificate (CRL)	Blank
Import/Export Public Key Certificate	Import or Export Public Key Certificate	Blank
Import/Export Private Key Certificate	Import or Export Private Certificate	Blank

3.1.8 Tools

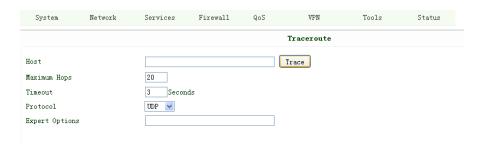
Tools contain PING Detection, Route Trace, Link Speed Test and etc.

(1) PING



Name	Description	Default
Host	Destination for PING	Blank
Ping Count	Set PING Counts	4 times
Packet Size	Set PING Packet Size	32 Bytes
Expert Options	Advanced parameters	Blank

(2) Trace Route



Name	Description	Default
Host	Destination for Trace Route	Blank
Max Hops	Set Max Hops	20
Time Out	Set Time Out	3 sec
Protocol	Optional: ICMP/UDP	UDP
Expert Options	Advanced parameters	Blank

(3) Link Speed Test



Test link speed via unload or download

3.1.9 Status

Status contains System, Modem, Network Connections, Route Table, Device List and Log.

(1) System Status



This page shows the status of system, including Name, Model Type, Current Version and etc.

(2) Modem Status



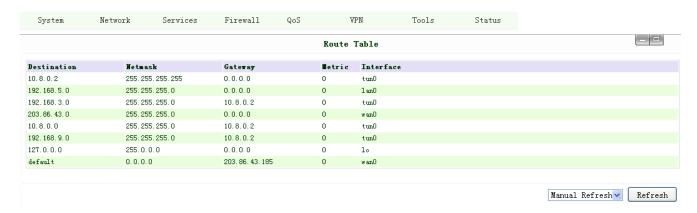
This page shows the status of Modem, including the signal level.

(3) Network Connections



This page shows the network connections via WAN or LAN

(4) Route Table



This page shows the route table of IR7X1GS55.

(5) Device List



This page shows the devices linked with IR7X1GS55.

(6) Log



This page shows the log of system, including download log file.

For some situation when there're some problems that can't be diagnosed at the moment, you'll be asked to provide the diagnose log to InHand engineers, you can click "Download System Diagnosing Data" then send the diagnose log to us.

3.2 Support

In case you have problems with the installation and use, please address them to us by e-mail: support@inhandnetworks.com.



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