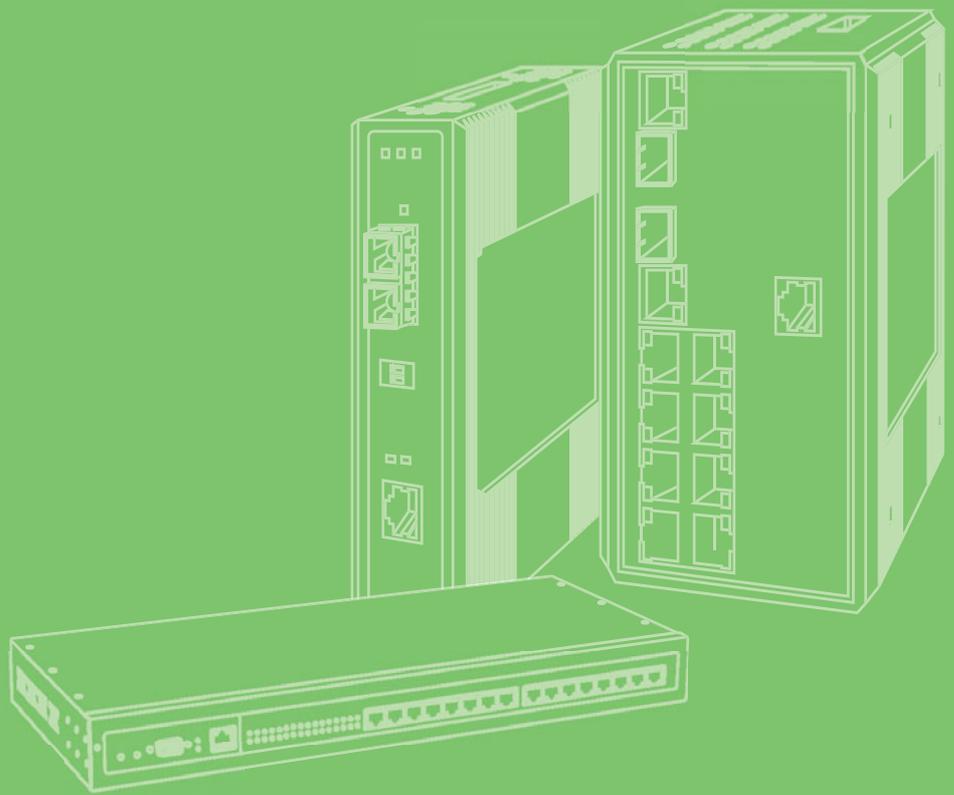


User Manual



EKI-1334

ADVANTECH

Enabling an Intelligent Planet

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Product Warranty (5 years)

Advantech warrants to you, the original purchaser, that each of its products will be free from defects in materials and workmanship for five years from the date of purchase.

This warranty does not apply to any products which have been repaired or altered by persons other than repair personnel authorized by Advantech, or which have been subject to misuse, abuse, accident or improper installation. Advantech assumes no liability under the terms of this warranty as a consequence of such events.

Because of Advantech's high quality-control standards and rigorous testing, most of our customers never need to use our repair service. If an Advantech product is defective, it will be repaired or replaced at no charge during the warranty period. For out-of-warranty repairs, you will be billed according to the cost of replacement materials, service time and freight. Please consult your dealer for more details.

If you think you have a defective product, follow these steps:

1. Collect all the information about the problem encountered. (For example, CPU speed, Advantech products used, other hardware and software used, etc.) Note anything abnormal and list any onscreen messages you get when the problem occurs.
2. Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.
3. If your product is diagnosed as defective, obtain an RMA (return merchandise authorization) number from your dealer. This allows us to process your return more quickly.
4. Carefully pack the defective product, a fully-completed Repair and Replacement Order Card and a photocopy proof of purchase date (such as your sales receipt) in a shippable container. A product returned without proof of the purchase date is not eligible for warranty service.
5. Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

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Declaration of Conformity

CE

This product has passed the CE test for environmental specifications. Test conditions for passing included the equipment being operated within an industrial enclosure. In order to protect the product from being damaged by ESD (Electrostatic Discharge) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

Technical Support and Assistance

1. Visit the Advantech web site at <http://support.advantech.com.cn> where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
 - Product name and serial number
 - Description of your peripheral attachments
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages

Document Feedback

To assist us in making improvements to this manual, we would welcome comments and constructive criticism. Please send all such - in writing to: support@advantech.com.

Safety Instructions

1. Read these safety instructions carefully.
2. Keep this User Manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
12. Never pour any liquid into an opening. This may cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
14. If one of the following situations arises, get the equipment checked by service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated into the equipment.
 - The equipment has been exposed to moisture.
 - The equipment does not work well, or you cannot get it to work according to the user's manual.
 - The equipment has been dropped and damaged.
 - The equipment has obvious signs of breakage.
15. **DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -40° C (-40° F) OR ABOVE 80° C (140° F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.**
16. **CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.**
17. The sound pressure level at the operator's position according to IEC 704-1:1982 is no more than 70 dB (A).

DISCLAIMER: This set of instructions is given according to IEC 704-1. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

Safety Precaution - Static Electricity

Follow these simple precautions to protect yourself from harm and the products from damage.

- To avoid electrical shock, always disconnect the power from your PC chassis before you work on it. Don't touch any components on the CPU card or other cards while the PC is on.
- Disconnect power before making any configuration changes. The sudden rush of power as you connect a jumper or install a card may damage sensitive electronic components.

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Chapter 1

Overview

Sections include:

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

1.1 Introduction

EKI-1334 are M2M wireless routers that integrate 3G network and virtual private network (VPN) technologies. The products meet fundamental needs of field communication in industry, support international commercial UMTS (HSPA+) and GPRS network.

The design of the EKI-1334 fully incorporated the requirements of industrial users, adopted multi-level software detection mechanism. Multiple VPN protocol ensures security in data transmission, preventing malicious access and tampering of data. The humanized WEB configuration interface is easy for customer to use. It also supports connection to multiple network devices, enabling multi service processing.

The EKI-1334 are the ideal choice for industrial usage, having low power consumption, wide working temperature range from -20°C to 70°C , small size and light weight that is easy for application in harsh, narrow industrial environment.

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

- For GPRS router, the compliance boundary distance is $r=0.26\text{ m}$ for GSM 900 MHz and $r=0.13\text{ m}$ for DCS 1800 MHz.
- For HSUPA router, the compliance boundary distance is $r=0.26\text{ m}$ for GSM 900 MHz and $r=0.13\text{ m}$ for DCS 1800 MHz, $r=.0.094$ for WCDMA 900 MHz, $r=0.063$ for WCDMA 2100 MHz.

Warning

This is a class A 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.

1.2 Package Checklist

We put each EKI-1334 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 Advantech sales representative.

Items in package include:

Standard Accessories:

Accessories	Description
EKI-1334 Cellular Router	1
Cable	1 Cross line, CAT-5,1.5M
Antenna	3 m Cellular Antenna

1.3 Product Features

1.3.1 Interfaces

WAN

- **Cellular WAN:**
 - Band Options: GSM/GPRS/EDGE: 850/900/1800/1900 MHz
 - UMTS /HSPA/HSPA+: 850/900/1900/2100 MHz
- **Ethernet WAN:**
 - Ethernet: 10/100 Mbps, RJ45 connector, Auto MDI/MDIX
 - Magnetic Isolation Protection: 1.5 KV built-in

LAN

- **Number of Ports:** 3
- **Ethernet:** 10/100 Mbps, RJ45 connector, Auto MDI/MDIX
- **Magnetic Isolation Protection:** 1.5 KV built-in

DMZ

- **Number of Ports:** 1
- **Ethernet:** 10/100 Mbps, RJ45 connector, Auto MDI/MDIX
- **Magnetic Isolation Protection:** 1.5 KV built-in

Serial

- **Serial Type:** RS232
- **Data bit:** 5/6/7/8
- **Stop bit:** 1/2
- **Check bit:** N/O/D
- **Baud rate:** 3,200 bit/s ~ 115, 200 bit/s

SIM Interface

- **SIM Control:** 3 V

1.3.2 Functions

- **PPP:**
 - Support VPDN/APN, fast access to virtual private dial-up network (VPDN) provided by mobile operator, ensure high-security data transmission.
 - 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
 - Provide DDNS analyze to help access dynamic data center
- **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:** IPSec/SSL VPN, L2TP/PPTP VPN, GRE
- **Link Backup:**
 - VRRP: Support VRRP protocols, realizing immediate link backup
- **DNS Forwarding:** Support DNS Forwarding, support DNS record
- **Network tools:** Support Ping, Trace Route and Telnet

1.3.3 Environmental Limits

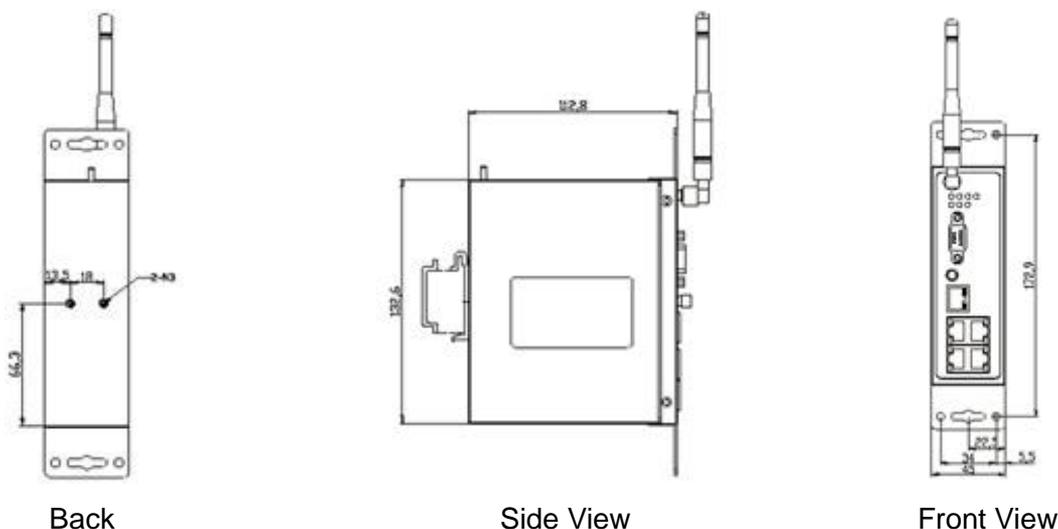
- **Operating Temperature:** -20 to 70° C (-4 to 158° F)
- **Operating Humidity:** 5 to 95% RH
- **Storage Temperature:** -40 to 85° C (-40 to 167° F)

1.3.4 Power Requirements

- **Power Inputs:** 1 terminal block, including power jack and serial
- **Input Voltage:** 9 ~ 26 V_{DC}

1.3.5 Physical Characteristics

- **Housing:** Steel, providing IP30 protection
- **Dimensions (mm):**



1.3.6 Advanced Industrial Characteristics

- **Physical Characteristics:** Shell: Metal, IP30

1.3.7 Warranty

- **Warranty Period:** 5 year

II

Chapter 2

Hardware Installation

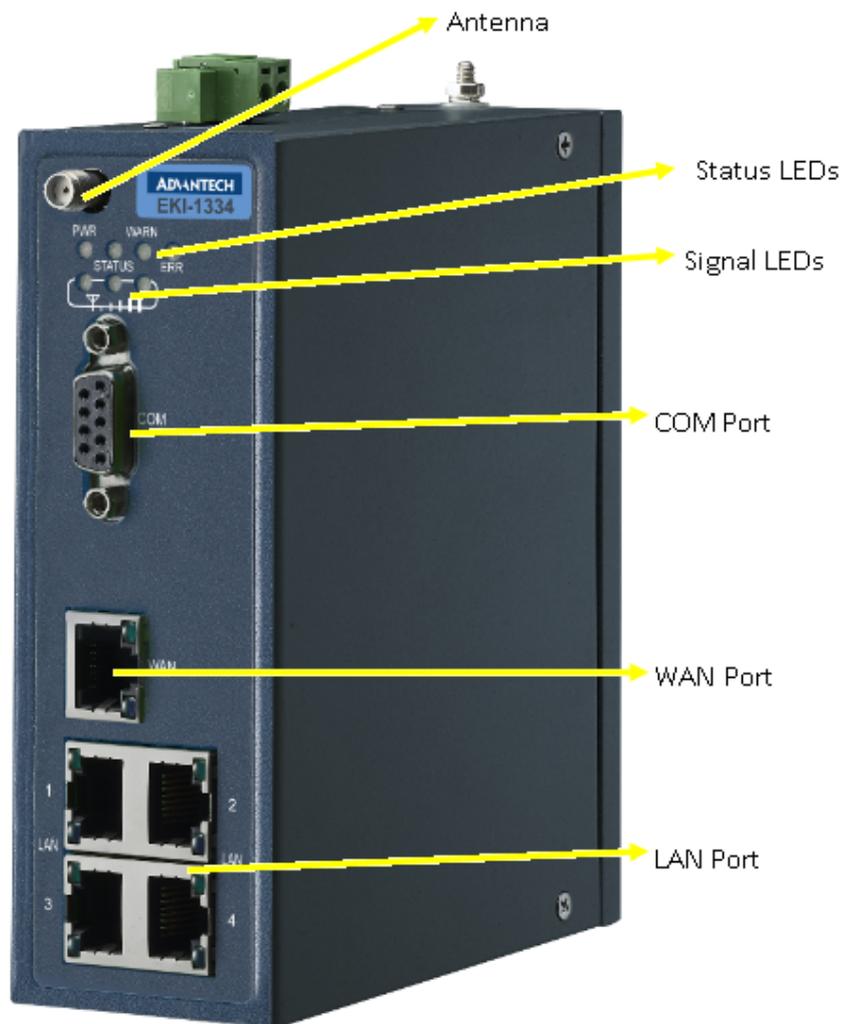
Sections include:

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

2.1 Typical Application

EKI-1334 can be used to connect your device (with RS232/Ethernet Interface) to Internet via GPRS/ 3G cellular network. Meanwhile, to ensure the security and access, EKI-1334 support VPN, enabling remote access and secure data transmission through Internet.

2.2 Panel Layout



The Reset bottom, SIM card slot and power supply are on above panel.

Description of LED

Legend: On-- ● Off-- ○ Blink-- ⚡



Power on



Start to run firmware



Begin dial to Internet



Connect to internet



Upgrading firmware



Restore factory default

Signal Status LED Description



----- Signal: 1-9 (poor signal level, router cannot work, please check the antenna and local signal level)



----- Signal: 10-19 (Router can work under this signal level)



----- Signal: 20-31 (Perfect signal level)

2.3 Quick Connection to Internet

2.3.1 Insert SIM Card

Open EKI-1334 SIM/UM card case at the bottom, insert the SIM card and close the case.

2.3.2 Antenna Installation

After install the EKI-1334, connect the interface of enhanced antenna to the interface of skin antenna and screw tightly. Put the amplifier of enhanced antenna to where it can receive the signal well.

Caution! Position and angle of the antenna may influence the quality of signal.



2.3.3 Power Supply

Connect EKI-1334 to power supply with the power supply cord in the package, observe whether the Power LED on the panel of EKI-1334 goes on. If not, please contact Advantech for technical support.

You can start to configure EKI-1334 after the Power LED turns on.

2.3.4 Connect

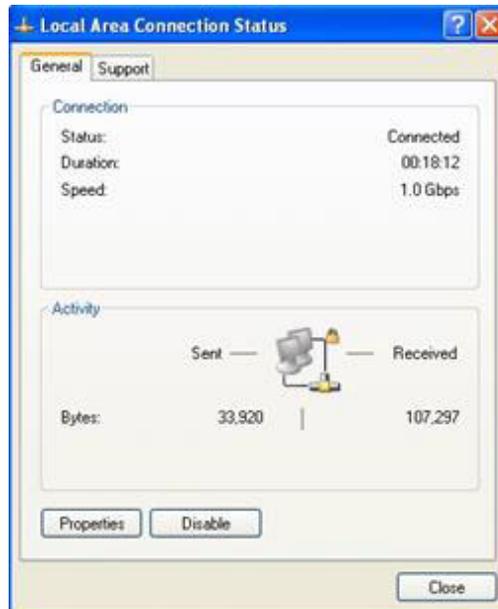
Link EKI-1334 with PC:

1. Using a cable to link EKI-1334 with a PC;
2. After the connection, you can see one LED of RJ45 Interface turns green and the other flashes.

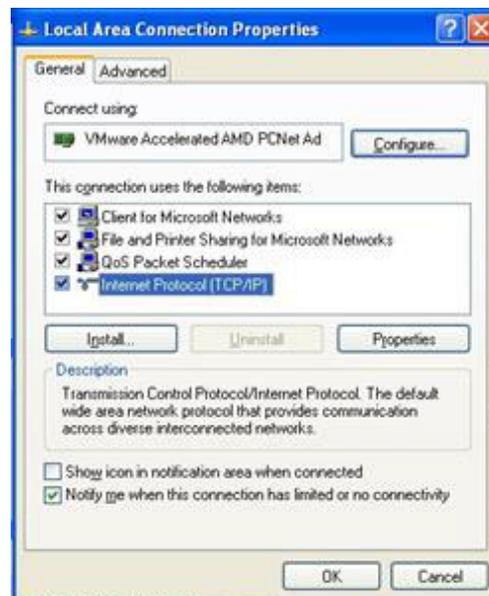
2.3.5 Build Connection between EKI-1334 and PC

EKI-1334 Router can auto-distribute IP address for PC. Please set the PC to automatically obtain IP address via DHCP. (Based on 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”, EKI-1334 will allocate an IP address: 192.168.2.x, and a gateway: 192.168.2.1(the default address of EKI-1334).

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

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

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 PC and EKI-1334 are correctly 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),

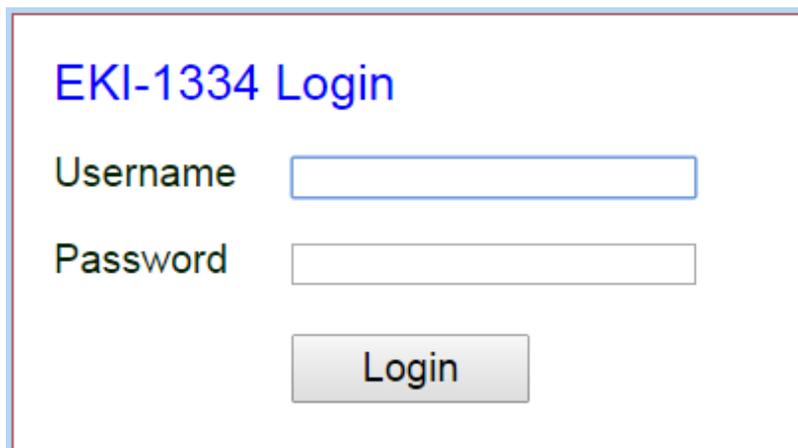
C:\Documents and Settings\inhand>
```

The connection is not built, you need to check step by step starting from Section 2.3.4.

2.3.6 Start to configure your EKI-1334 (Optional)

After you have finished the former steps, you can configure the EKI-1334:

1. Open IE browser, input the default IP address of the Router: <http://192.168.2.1>, you can see the login page as below:



EKI-1334 Login

Username

Password

Login

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

2. Change the IP configuration:

Caution! After updating the configuration, please click “apply” to activate your configuration.



If you want to set your own IP of EKI-1334, 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 EKI-1334 has been reset, and in order to enter the configuration page, you need to set your PC in the same subnet as EKI-1334, for example: 192.168.1.10/24 then input the updated IP address (192.168.1.254) in your IE Browser.

2.3.7 Connect EKI-1334 with Internet

Follow the configuration steps below to enable EKI-1334 to connect to the internet.

1. Click “Network”=>“Dialup”, enter dialup configuration interface:

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System Network Services Firewall QoS VPN Tools Status

Dialup

Enable

Time schedule ALL Schedule Management

PPPoE Bridge

Shared Connection(NAT)

Default Route

Network Provider (ISP) Custom Manage

APN internet

Access Number *99#

Username web

Password ***

Network Select Type 3G Only

Band ALL

Static IP

Connection Mode Always Online

Redial Interval 30 Seconds

Show Advanced Options

Apply Cancel

2. Please check the APN, Dialup Number, Username and Password:
Dialup Number, Username and Password are provided by local mobile operator.
The following examples show parameters provided by China Mobile, Vodafone.
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

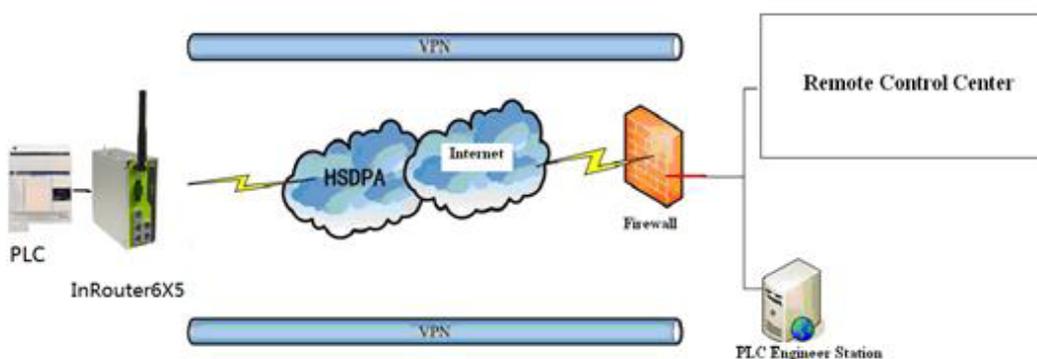
Password: web

3. After correctly configuring, EKI-1334 can now access Internet. Open IE Browser, input www.google.com, you should see the Google home page:



2.4 Quick IPSec VPN Configuration

If you need to build a VPN tunnel to access to your remote PLC through Internet or you need to ensure security of the data transmission, here's a quick configuration guide of IPSec for EKI-1334 .



Connect PC with Router to enter router configuration interface, select “VPN” => “IPSec setting”:

System	Network	Services	Firewall	QoS	VPN
IPSec Settings					
Enable NAT-Traversal (NATT)		<input checked="" type="checkbox"/>			
Keep alive time interval of NATT		60	Seconds		
Enable Compression		<input checked="" type="checkbox"/>			
Debug		<input type="checkbox"/>			
Force NATT		<input type="checkbox"/>			
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>					

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 actual situation.

Click “Apply” to complete the configuration.

1. Select “VPN”=> “IPSec Tunnels” to check or modify parameters of IPSec Tunnels.



2. Click “Add” to add a new IPSec Tunnel:

Basic Parameters: 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: configuration parameters during 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: configuration parameters during 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 have successfully built a high-security IPSec tunnel.

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:

```
C:\Documents and Settings\Jason Hu>ping 192.168.123.250

Pinging 192.168.123.250 with 32 bytes of data:

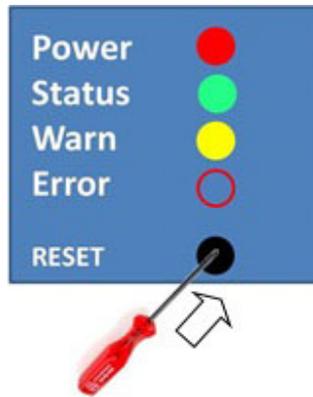
Reply from 192.168.123.250: bytes=32 time=428ms TTL=63
Reply from 192.168.123.250: bytes=32 time=395ms TTL=63
Reply from 192.168.123.250: bytes=32 time=397ms TTL=63
Reply from 192.168.123.250: bytes=32 time=393ms TTL=63
```

2.5 Reset to Factory Defaults

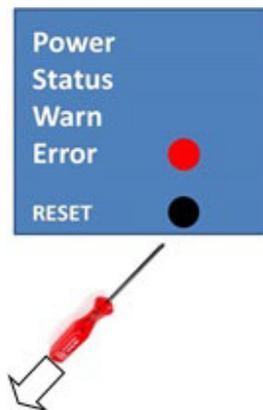
2.5.1 Hardware Approach

Legend: On-- ● Off-- ○ Blink-- ⚡

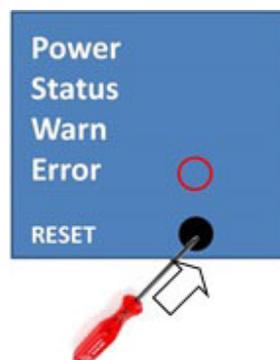
1. Press and hold RESET button while turning on EKI-1334:



2. When you see ERROR LED turns on (about 10 seconds after power on), release the RESET button:



3. After a few seconds, the ERROR LED will turn off, now press RESET button again:



4. Then you will see ERROR and STATUS LED blink, which means reset to factory defaults succeed!



Factory default settings:

IP: 192.168.2.1

Net Mask: 255.255.255.0

Serial parameter: 19200-8-N-1

2.5.2 Web Approach

1. Login the web interface of EKI-1334 , select “System”-->”Config Management”:



2. Click “Restore default configuration” to Reset EKI-1334.

Chapter 3

Advanced Configuration

Sections include:

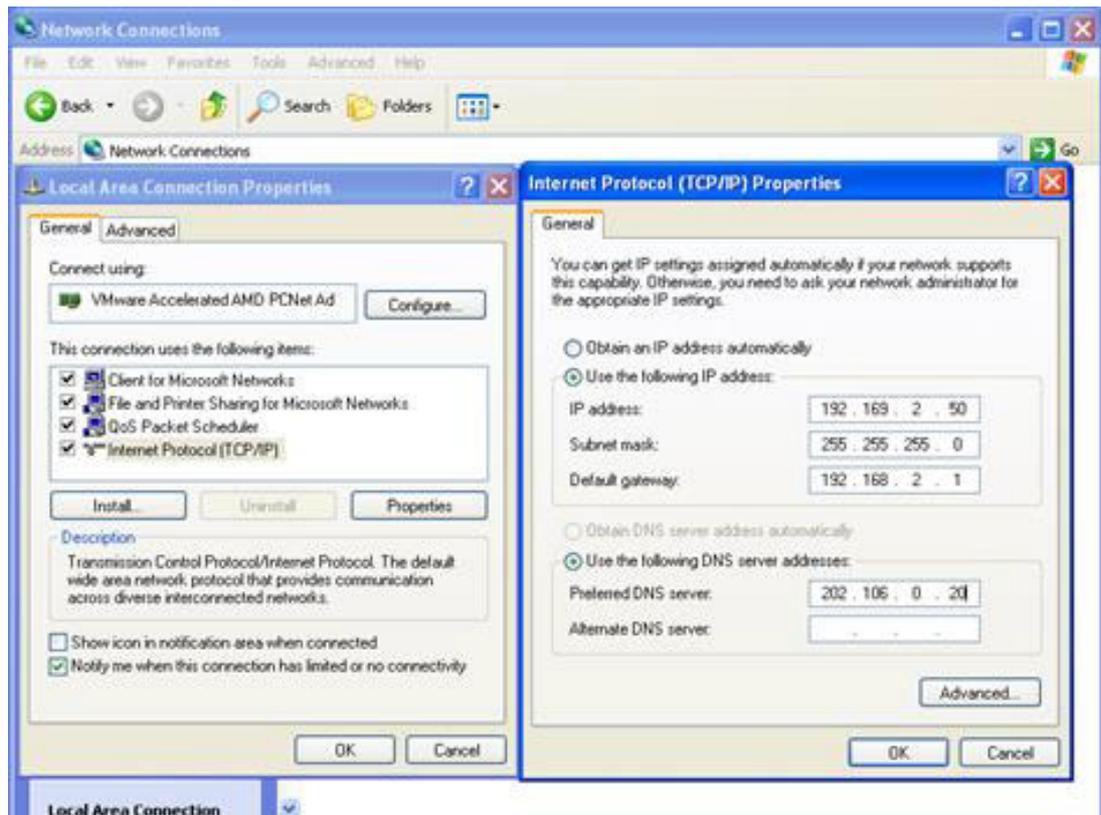
- Configuration on Web
- CLI Configuration

3.1 Configuration on Web

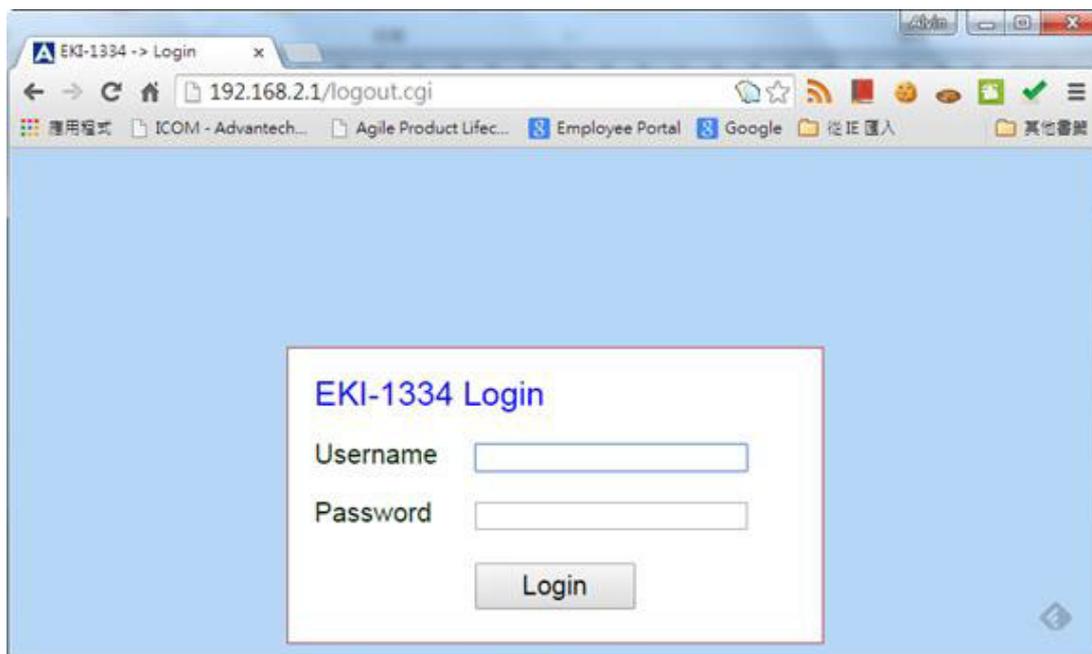
EKI-1334 must be correctly configured before use. This chapter will show you how to configure EKI-1334 via Web interface.

3.1.1 Preparation

1. First, connect your devices to EKI-1334 with a cable or a HUB (switch), then set the IP of PC and EKI-1334 in the same subnet, for example: Set PC IP to 192.168.2.50, net mask: 255.255.255.0, gateway (default IP of EKI-1334: 192.168.2.1):



- Open IE browser, input the IP address of EKI-1334: `http://192.168.2.1` (default IP of EKI-1334).
Then you'll see the Login Window pop up, you need to login as Administrator. Input the username and password (default: `adm/123456`).



- Click "Login" to enter configure interface:

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System Network Services Firewall QoS VPN Tools Status

System Status

Name	EKI-1334
Model	EKI-1334
Serial Number	RP6151412250228
Description	www.advantech.com.tw
Current Version	1.2.0.r3559
Current Bootloader Version	1.1.3.r2421
Router Time	2000-01-01 08:41:00
PC Time	2015-02-17 10:25:00 <input type="button" value="Sync Time"/>
Up time	0 day, 00:26:38
CPU Load (1 / 5 / 15 mins)	0.00 / 0.00 / 0.00
Memory consumption	28.89MB / 20.37MB (70.50%)
Total/Free	

3.1.2 System

System settings include the 9 parts: 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 EKI-1334	Router	My Router
Host Name	Name the device/PC linked with EKI-1334	Router	My Router

2. Time

Name	Description	Default
Router Time	Display router time	2000-01-01 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

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Serial Port

Baudrate: 115200
 Data Bits: 8
 Parity: None
 Stop Bit: 1
 Software Flow Control:

Apply Cancel

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

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System Network Services Firewall QoS VPN Tools Status

Admin Access

Username / Password

Username: adm
 Old Password:
 New Password:
 Confirm New Password:

Management

Enable	Service Type	Service Port	Local access	Remote access	Allowed addresses from WAN (Optional)	Description
<input checked="" type="checkbox"/>	HTTP	80	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	HTTPS	443	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	TELNET	23	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	Console					

Non-privileged users

Username	Password
<input type="text"/>	<input type="text"/>

Name	Description	Default
Username/Password		
Username	Username for configuration web login	adm
Old Password	To change the password, you need to input the old one	123456
New Password	Input new password	
Confirm New Password	Input the new password again	
Management		
HTTP/HTTPS/TELNET/SSHD/Console		
Enable	Select to enable	Enable
Service Type	HTTP/HTTPS/TELNET/SSHD/Console	80/443/23/22/Blank
Local Access	Enable—allow manage Router by LAN(e.g.: HTTP) Disable—forbid manage Router by LAN.	Enable
Remote Access	Enable—allow to manage EKI-1334 by WAN. (e.g.: HTTP) Disable—forbid to manage EKI-1334 by WAN. (e.g.: HTTP)	Enable
Allowed Access from WAN (Optional)	Set the range of allowed IP address for WAN (HTTP/HTTPS/TELNET/SSHD)	Control services server can be set at 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 EKI-1334)	
Other Parameters		
Log Timeout	Set the Log Timeout, configuration web will be disconnected after timeout	500 seconds

5. System Log

Name	Description	Default
Log to Remote System	Enable remote log server	Disable
IP address/Port (UDP)	Set the IP and Port of remote log server	Port: 514
Log to Console	Enable remote log server	Disable

6. Config Management

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System Network Services Firewall QoS VPN Tools Status

Config Management

Router Configuration

選擇檔案 未選擇任何檔案 Import Backup

Restore default configuration

Network Provider (ISP)

選擇檔案 未選擇任何檔案 Import Backup

Name	Description
Router Configuration	Import/Backup configuration file
Restore default configuration	Click to reset EKI-1334 (to enable RESET, you need to reboot EKI-1334)
Network Provider (ISP)	Used to configure the APN, username, password and other parameters of major operators

7. System Upgrade

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System Network Services Firewall QoS VPN Tools Status

Upgrade

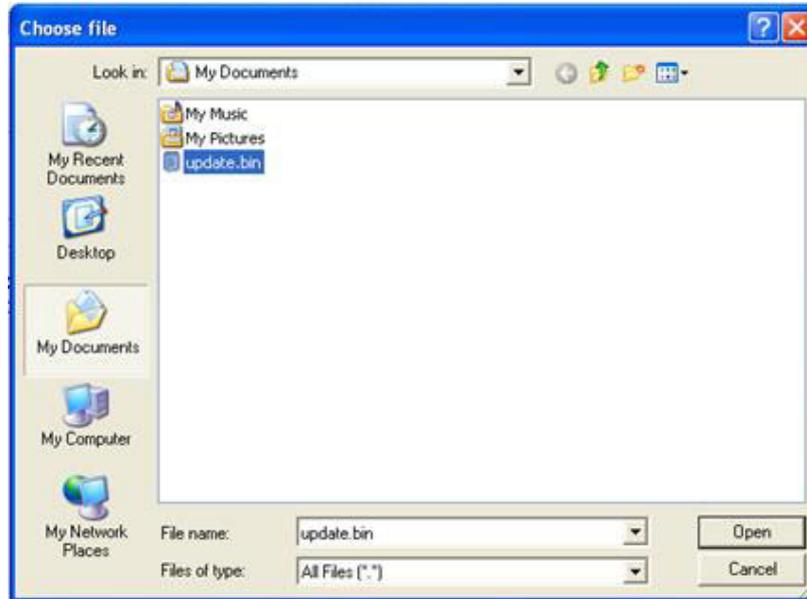
Select the file to use:

選擇檔案 未選擇任何檔案 Upgrade

Current Version : 1.2.0.r3559
Current Bootloader Version : 1.1.3.r2421

To upgrade the 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, the window will show as below.



Upgrade firmware succeed, and click “reboot” to restart EKI-1334 .

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 Dialup, LAN, DNS, DDNS, Static Route, and etc.

1. Dialup



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Dialup

Enable	<input checked="" type="checkbox"/>
Time schedule	ALL ▾ Schedule Management
PPPoE Bridge	<input type="checkbox"/>
Shared Connection(NAT)	<input checked="" type="checkbox"/>
Default Route	<input checked="" type="checkbox"/>
Network Provider (ISP)	Custom ▾ Manage
APN	<input type="text" value="uninet"/>
Access Number	<input type="text" value="*99***1#"/>
Username	<input type="text" value="gprs"/>
Password	<input type="password" value="****"/>
Network Select Type	Auto ▾
Band	ALL ▾
Static IP	<input type="checkbox"/>
Connection Mode	Always Online ▾
Redial Interval	<input type="text" value="30"/> Seconds
Show Advanced Options <input checked="" type="checkbox"/>	
Initial Commands	<input type="text"/>
PIN Code	<input type="text"/>
Dial Timeout	<input type="text" value="120"/> Seconds
MTU	<input type="text" value="1500"/>
MRU	<input type="text" value="1500"/>
TX Queue Length	<input type="text" value="64"/>
Authentication Type	Auto ▾
Enable IP head compression	<input checked="" type="checkbox"/>
Use default asyncmap	<input type="checkbox"/>
Use Peer DNS	<input checked="" type="checkbox"/>
Link Detection Interval	<input type="text" value="55"/> Seconds(0: disable)
Link Detection Max Retries	<input type="text" value="3"/>
Debug	<input type="checkbox"/>
Expert Options	<input type="text" value="nomppe nomppc nodeflate nobsdcomp novj novjccomp noccp"/>
ICMP Detection Server	<input type="text"/>
ICMP Detection Interval	<input type="text" value="30"/> Seconds
ICMP Detection Timeout	<input type="text" value="20"/> Seconds
ICMP Detection Retries	<input type="text" value="5"/>

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. Disable—device Can NOT access to internet via Router.	Enable
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 dialup parameters (APN/Username/Password) and set one as backup	cmnet/uninet
Access Number	Dialup parameters provided by Local ISP	"*99#" or "#99***1#" or #777
Username	Dialup parameters provided by Local ISP	"GPRS" or "CDMA"
Password	Dialup parameters provided by Local ISP	"GPRS" or "CDMA"
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, EKI-1334 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 (IR700 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	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 (IR700 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



This page is to set the type of WAN port:

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

Caution! There can only be one WAN type at one time, enabling one type WAN will disabled another.



WAN—Static IP

IP Address	Netmask	Description

Name	Description	Default
Type	Static IP	
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	
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
Type	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

Name	Description	Default
Type	ADSL Dialup (PPPoE)	
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
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. LAN

Name	Description	Default
MAC Address	The MAC address in LAN	00:10:A1:86:95:02 (Provided by Advantech) , 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 Over LAN (WOL) function, you should also set "Networks"à "Dialup" and change dialup mode into "Trigger by SMS".	Blank
Multi-IP Settings (Support additional 8 IP addresses at the most)		
IP Address	Set additional IP Address of LAN	Blank
Description	Description about this IP address	Blank

4. DNS

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

5. 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	

6. 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 obtained by DHCP	60 minutes
DNS	Set DNS Server	192.168.2.1
Windows Name Server	(WINS)	Set WINS
Blank	Static DHCP (can set 20 designated IP address at the most)	MAC Address
Set the MAC address of a designated IP address	Blank	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. VRRP

Name	Description	Default
VRRP-1	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
Virtual MAC	Set Virtual MAC	Blank
Monitor	Set Monitor	None
VRRP-II		

4. 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
Mode	Set DTU as client or server	Client
Frame Interval	Set Frame Interval	100
Serial Buffer Frames	Set Serial Buffer Frames	4
Multi-Server Policy	Optional between Parallel/Poll	Parallel
Min Reconnect interval	Set Min Reconnect interval	15
Max Reconnect interval	Set Max Reconnect interval	180
DTU ID	Set ID of DTU	Blank
Source IP	Set Source IP	Blank
Multi Server	Set the IP address and Port of server to receive data.	Blank

5. 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	

Note!  Before using this function, please make sure you have a SIM card in the EKI-1334 that has SMS function. Otherwise, please contact local mobile operator to get one.

SMS you will get in your mobile phone:

Host: (SN);

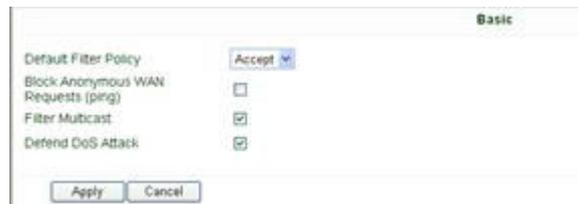
Uptime: (the uptime of router for this time of reboot);

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

3.1.5 Firewall

This page is to configure the firewall parameters.

1. Basic Configuration



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

2. Filtering



Name	Description	Default
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 the 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 EKI-1334.

Caution! This function cannot map the admin port of EKI-1334 (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 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

1. Bandwidth Control

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

2. IP BM Limit

Name	Description	Default
Enable	Click to enable	Disable
IP Address	Set IP Address	Blank
Rate	Set Rate	100 kbit/s
Priority	Set the Priority	Medum
Description	Describe this configuration	Blank

3.1.7 VPN

This page introduces the parameters in EKI-1334 Web.

1. IPSec Settings

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



IPSec Settings

Description:

1. Select to Enable or Disable NATT, normally we need to enable, unless you ensure there is no NAT routers in the network.
2. Select to enable Compression Mode or Debug

Name	Description	Default
Enable NAT Transversal (NATT)	Click to enable NATT	Enable
Keep alive time interval of NATT	Set live time for NATT	60 sec
Enable Compression	Click to enable	Enable
Enable Debug	Click to enable	Disable
Force NATT	Click to enable	Disable

2. IPSec Tunnels



Click “Add” and enter the configuration page:

IPSec Tunnels

Edit IPSec tunnel

Show Advanced Options

Basic Parameters

Tunnel Name:

Destination Address:

Startup Modes:

Restart WAN when failed:

Negotiation Mode:

IPSec Protocol:

IPSec Mode:

Tunnel Type:

Local Subnet:

Local Netmask:

Remote Subnet:

Remote Netmask:

Phase 1 Parameters

IKE Policy:

IKE Lifetime: Seconds

Local ID Type:

Remote ID Type:

Authentication Type:

Key:

Phase 2 Parameters

IPSec Policy:

IPSec Lifetime: Seconds

Perfect Forward Serecy(PFS):

Link Detection Parameters

DPD Time Interval: Seconds(0: disable)

DPD Timeout: Seconds

ICMP Detection Server:

ICMP Detection Local IP:

ICMP Detection Interval: Seconds

ICMP Detection Timeout: Seconds

ICMP Detection Max Retries:

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/Triggered by Data/Passive/Manually Activated	Enable
Negotiation Mode	Optional: Main Mode or Aggressive Mode	Main Mode

IPSec Mode (Enable Advanced options)	Optional: ESP or AH	ESP
IPSec Mode (Enable Advanced options)	Optional: Tunnel Mode or Transport Mode	Tunnel Mode
Tunnel Type	Optional: Host—Host, Host—Subnet, Subnet—Host, Subnet— Subnet	Subnet—Subnet Mode
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? Lifetime	86400 sec
Local ID Type	Optional: FQDN, USERFQDN, or IP Address	IP Address
Local ID (Only for FQDN and USERFQDN)	Set the ID according to ID type	Blank
Remote ID Type	Optional: FQDN, USERFQDN, or IP Address	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 Type)	Set IPSec VPN Negotiation Key	Blank
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
ICMP Detection Max Retries	Set ICMP Detection Max Retries	3

3. GRE Tunnels

Enable	Name	Local virtual IP	Peer Address	Remote virtual IP	Remote Subnet	Remote Netmask	Key	NAT	Description
<input checked="" type="checkbox"/>	tun0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	255.255.255.0		<input type="checkbox"/>	

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

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	l2tpserver
Startup Modes	Set Startup Modes: Auto Activated, Triggered by Data, Manually Activated	Auto Activated
Authentication Type	Set Authentication Type: CHAP, PAP	CHAP
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

Edit PPTP Tunnel
PPTP Clients

Enable	<input checked="" type="checkbox"/>
Tunnel name	<input type="text" value="PPTP_TUNNEL_1"/>
PPTP Server	<input type="text"/>
Username	<input type="text"/>
Password	<input type="text"/>
Startup Modes	<input type="text" value="Auto Activated"/>
Authentication Type	<input type="text" value="Auto"/>
Local IP Address	<input type="text"/>
Remote IP Address	<input type="text"/>
Remote Subnet	<input type="text"/>
Remote Netmask	<input type="text" value="255.255.255.0"/>
Link Detection Interval	<input type="text" value="60"/> Seconds
Max Retries for Link Detection	<input type="text" value="5"/>
Enable NAT	<input type="checkbox"/>
Enable MPPE	<input type="checkbox"/>
Enable MPFC	<input type="checkbox"/>
MTU	<input type="text" value="1500"/>
MRU	<input type="text" value="1500"/>
Enable Debug	<input type="checkbox"/>
Expert Options (Expert Only)	<input type="text"/>

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, Triggered by Data, Manually Activated	Auto Activated
Authentication Type	Set Authentication Type: CHAP, PAP, MS-CHAPv1, MS-CHAPv2	Auto
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 Advantech R&D only	Blank

6. OpenVPN Settings

OpenVPN Tunnels

Edit OPENVPN Tunnel

Tunnel name	<input type="text" value="OpenVPN_1_1"/>
Enable	<input checked="" type="checkbox"/>
Mode	<input type="text" value="Client"/>
Protocol	<input type="text" value="UDP"/>
Port	<input type="text" value="1194"/>
OPENVPN Server	<input type="text" value="211.189.3.69"/>
Authentication Type	<input type="text" value="User/Password"/>
Username	<input type="text" value="test"/>
Password	<input type="password" value="••••"/>
Pre-shared Key	<div style="border: 1px solid gray; height: 60px; width: 100%;"></div>
Remote Subnet	<input type="text" value="192.168.8.0"/>
Remote Netmask	<input type="text" value="255.255.255.0"/>
Link Detection Interval	<input type="text" value="60"/> Seconds
Link Detection Timeout	<input type="text" value="300"/> Seconds

This page is to configure the OpenVPN settings, including Tunnel Name, Work Mode, Protocol, Port No. and other items.

Name	Description
Tunnel name	default
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
Authentication Type	<ol style="list-style-type: none"> 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 Cert -----CA 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 mode-----username + 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. OpenVPN Advanced Settings

This page is to configure the OpenVPN advanced settings.

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

Caution! CA can only be produced by customer's PC; EKI-1334 cannot produce CA.



8. Certificate Management of OpenVPN Settings

Name	Description	Default
Enable SCEP (Simple Certificate Enrollment Protocol)	Click Enable	
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, WLAN, 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 signal level.

3. Network Connections

Network Connections	
WAN	
MAC Address	00:18:05:00:56:10
Connection Type	Static IP
IP Address	203.86.43.190
Netmask	255.255.255.0
Gateway	203.86.43.185
DNS	
MTU	1500
Status	Connected
Connection time	0 day, 17:26:19
Dialup	
Connection Type	Disabled
IP Address	0.0.0.0
Netmask	0.0.0.0
Gateway	0.0.0.0
DNS	0.0.0.0
MTU	1500
Status	Disconnected

This page shows the network connections via WAN or LAN

4. Route Table

System	Network	Services	Firewall	QoS	VPN	Tools	Status
Route Table							
Destination	Netmask	Gateway	Metric	Interface			
10.0.0.2	255.255.255.255	0.0.0.0	0	wan0			
192.168.5.0	255.255.255.0	0.0.0.0	0	lan0			
192.168.3.0	255.255.255.0	10.0.0.2	0	wan0			
203.86.43.0	255.255.255.0	0.0.0.0	0	wan0			
10.0.0.0	255.255.255.0	10.0.0.2	0	wan0			
192.168.9.0	255.255.255.0	10.0.0.2	0	wan0			
127.0.0.0	255.0.0.0	0.0.0.0	0	lo			
default	0.0.0.0	203.86.43.185	0	wan0			

Manual Refresh Refresh

This page shows the route table of EKI-1334 .

5. Device List

System	Network	Services	Firewall	QoS	VPN	Tools	Status
Device List							
Interface	MAC Address	IP Address	# Host	Lease			
wan0	00:18:46:37:C3:FF	203.86.43.190					

1 Seconds Step

This page shows the devices linked with EKI-1334 .

6. Log



Level	Time	Module	Content
			Too many logs, old logs are not displayed. Please download log file to check more logs!
debug	Jun 19 13:06:49	InAgent	DESI:0123456789ABCDEF
info	Jun 19 13:06:49	InAgent	Firmware Version(1.3.0.v1773):Entity Config Timestamp(a-1275632533021):Sysconfig Timestamp(0000000000000000)
info	Jun 19 13:06:59	InAgent	Try to login(94b/10)
info	Jun 19 13:06:59	InAgent	server system_timestamp not found!
debug	Jun 19 13:06:59	InAgent	DESI:0123456789ABCDEF
info	Jun 19 13:06:59	InAgent	Firmware Version(1.3.0.v1773):Entity Config Timestamp(a-1275632533021):Sysconfig Timestamp(0000000000000000)
info	Jun 19 13:07:09	InAgent	Try to login(104b/10)
info	Jun 19 13:07:09	InAgent	server system_timestamp not found!
debug	Jun 19 13:07:09	InAgent	DESI:0123456789ABCDEF
info	Jun 19 13:07:09	InAgent	Firmware Version(1.3.0.v1773):Entity Config Timestamp(a-1275632533021):Sysconfig Timestamp(0000000000000000)
info	Jun 19 13:07:19	InAgent	Try to connect OVDP AP(10.8.0.6:9000)
info	Jun 19 13:07:19	InAgent	Try to login(14b/10)
info	Jun 19 13:07:19	InAgent	server system_timestamp not found!
debug	Jun 19 13:07:19	InAgent	DESI:0123456789ABCDEF
info	Jun 19 13:07:19	InAgent	Firmware Version(1.3.0.v1773):Entity Config Timestamp(a-1275632533021):Sysconfig Timestamp(0000000000000000)
info	Jun 19 13:07:29	InAgent	Try to login(24b/10)
info	Jun 19 13:07:29	InAgent	server system_timestamp not found!
debug	Jun 19 13:07:29	InAgent	DESI:0123456789ABCDEF
info	Jun 19 13:07:29	InAgent	Firmware Version(1.3.0.v1773):Entity Config Timestamp(a-1275632533021):Sysconfig Timestamp(0000000000000000)

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

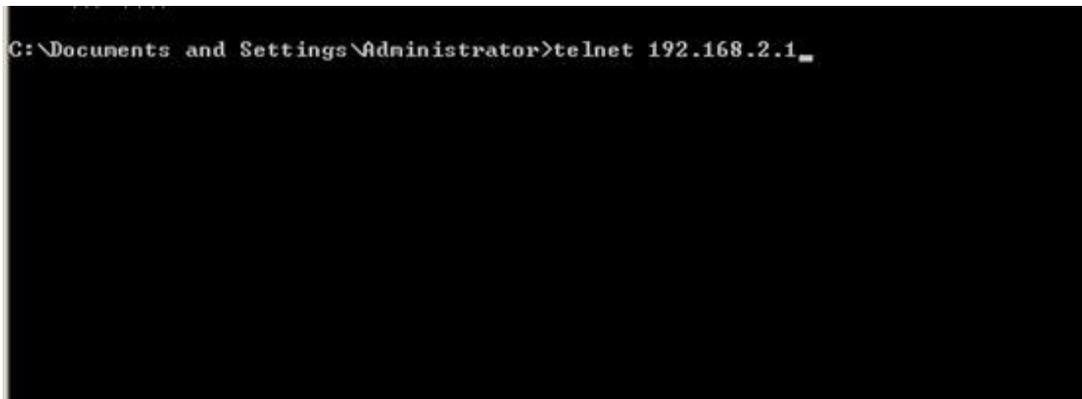
Under certain situation when there're problems that can't be diagnosed at the moment, you'll be asked to provide the diagnose log to Advantech engineers.

3.2 CLI Configuration

This chapter will show you how to configure via CLI.

3.2.1 CLI Operation

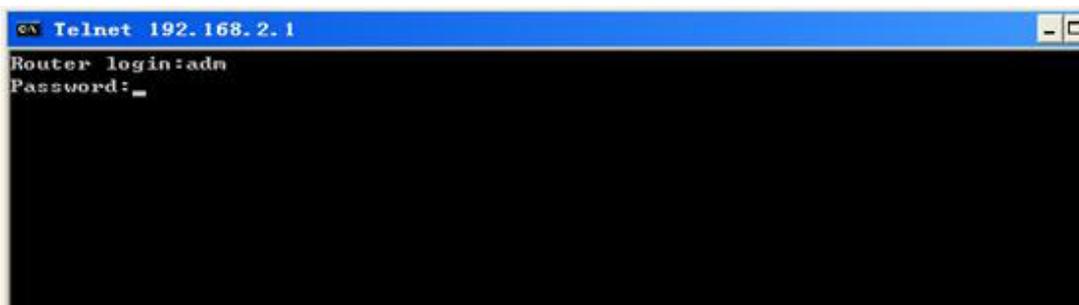
1. Input telnet LAN IP to login CLI configuration. For example:



```
C:\Documents and Settings\Administrator>telnet 192.168.2.1_
```

2. After connection is succeed, input username and password of EKI-1334 . The default username/password is adm/123456.

Caution! Password will not be showed.



```
Telnet 192.168.2.1
Router login:adm
Password: _
```

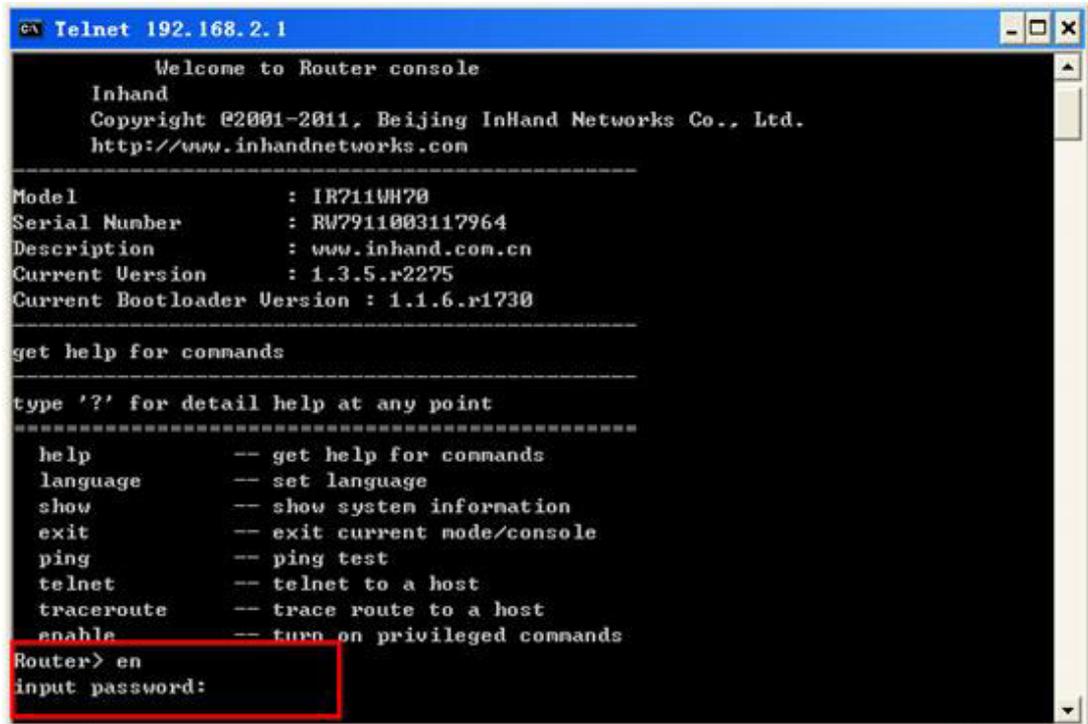
3. Login to User Mode



```
cn Telnet 192.168.2.1
*****
Welcome to Router console
Inhand
Copyright ©2001-2011, Beijing InHand Networks Co., Ltd.
http://www.inhandnetworks.com
-----
Model          : IR711WH70
Serial Number  : RW7911003117964
Description    : www.inhand.com.cn
Current Version : 1.3.5.r2275
Current Bootloader Version : 1.1.6.r1730
-----
get help for commands
-----
type '?' for detail help at any point
-----
help          -- get help for commands
language      -- set language
show         -- show system information
exit         -- exit current mode/console
ping         -- ping test
telnet       -- telnet to a host
traceroute   -- trace route to a host
enable       -- turn on privileged commands
Router>
```

This screenshot is the config-view of IR700.

4. Enter privileged mode, password is 123456



```
cn Telnet 192.168.2.1
Welcome to Router console
Inhand
Copyright ©2001-2011, Beijing InHand Networks Co., Ltd.
http://www.inhandnetworks.com
-----
Model          : IR711WH70
Serial Number  : RW7911003117964
Description    : www.inhand.com.cn
Current Version : 1.3.5.r2275
Current Bootloader Version : 1.1.6.r1730
-----
get help for commands
-----
type '?' for detail help at any point
-----
help          -- get help for commands
language      -- set language
show         -- show system information
exit         -- exit current mode/console
ping         -- ping test
telnet       -- telnet to a host
traceroute   -- trace route to a host
enable       -- turn on privileged commands
Router> en
input password:
```

5. Login to privileged mode successfully

```
Router#
Router#
Router#
Router#
Router#
Router#
Router#
Router#
```

6. Enter configured mode, then you could configure parameters you want to set up.

```
Router# conf terminal
Router(config)#
```

3.2.2 CLI command

Configure username and password

```
Router(config)# nvram set adm_user adm
set adm_user=adm
Router(config)# nvram set adm_passwd 123456
set adm_passwd=123456
Router(config)#
```

Enable serial function

```
Router(config)# nvram set console_enable 1
set console_enable=1
```

Configure serial port parameters, like baudrate, parity, stop bit and so on.

```
Router(config)# nvram set com4_config 192008n1
set com4_config=192008n1
```

Enable advanced options of dialup

```
Router(config)# nvram set advanced 1
set advanced=1
```

Configure ICMP server

```
Router(config)# nvram set wan1_icmp_host www.sina.com
set wan1_icmp_host=www.sina.com
```

Configure LAN IP

```
Router(config)# nvram set lan0_ip 192.168.2.1
set lan0_ip=192.168.2.1
```

Enable DHCP function

```
Router(config)# nvrn set dhcpd_enable 1
set dhcpd_enable=1
```

Configure DHCP IP pool: 192.168.2.10-192.168.2.20

```
Router(config)# nvrn set dhcpd_start 192.168.2.10
set dhcpd_start=192.168.2.10
Router(config)# nvrn set dhcpd_end 192.168.2.20
set dhcpd_end=192.168.2.20
```

Enable HTTP function

```
Router(config)# nvrn set http_enable 1
set http_enable=1
```

Configure HTTP service port

```
Router(config)# nvrn set http_port 80
set http_port=80
```

Enable HTTP local access

```
Router(config)# nvrn set http_local 1
set http_local=1
```

Enable HTTP remote access

```
Router(config)# nvrn set http_remote 1
set http_remote=1
```

Check device ID

```
Router(config)# nvrn get ovpn_device_id
ovpn_device_id=711122732
```

After configuration, please don't forget to commit and reboot router!

```
Router(config)# nvrn commit
% command ok!
Router(config)# reboot
are you sure to reboot system?[Y;N] y_
```

Appendix **A**

FAQ

A.1 FAQ

1. EKI-1334 is powered on, but can't access Internet through it?

Please check?

- Whether the EKI-1334 is inserted with a SIM card.
- Whether the SIM card is enabled with data service, whether the service of the SIM card is suspended because of an overdue charge.
- Whether the dialup parameters, e.g. APN, dialup number, username and password are correctly configured.
- Whether the IP Address of your computer is the same subnet with EKI-1334 and the gateway address is EKI-1334 LAN address.

2. EKI-1334 is powered on, have a ping to detect EKI-1334 from your PC and find packet loss?

Please check if the network crossover cable is in good condition.

3. Forget the setting after revising IP address and can't configure EKI-1334 r?

Method 1: connect EKI-1334 with serial cable, configure it through console port.

Method 2: within 5 seconds after EKI-1334 is powered on, press and hold the Restore button until the ERROR LED flashes, then release the button and the ERROR LED should goes off, press and hold the button again until the ERROR LED blinks 6 times, the EKI-1334 is now restored to factory default settings. You may configure it now.

4. After EKI-1334 is powered on, it frequently auto restarts. Why does this happen?

Please check:

- Whether the module works normally.
- Whether the EKI-1334 is inserted with a SIM card.
- Whether the SIM card is enabled with data service, whether the service of the SIM card is suspended because of an overdue charge.
- Whether the dialup parameters, e.g. APN, dialup number, username and password are correctly configured.
- Whether the signal is normal.
- Whether the power supply voltage is normal.

5. Why does upgrading the firmware of my EKI-1334 always fail?

Please check:

- When upgrading locally, check if the local PC and EKI-1334 are in the same network segment.
- When upgrading remotely, please first make sure the EKI-1334 can access Internet.

6. After EKI-1334 establishes VPN with the VPN server, your PC under EKI-1334 can connect to the server, but the center can't connect to your PC under EKI-1334?

Please make sure the firewall of your computer is disabled.

7. After EKI-1334 establishes VPN with the VPN server, Your PC can't connect to the server?

Please make sure “Shared Connection” on “Network=>WAN” or “Network=>Dialup” is enabled in the configuration of EKI-1334.

8. EKI-1334 is powered on, but the Power LED is not on?
 - Check if the protective tube is burn out.
 - Check the power supply voltage range and if the positive and negative electrodes are correctly connected.
9. EKI-1334 is powered on, but the Network LED is not on when connected to PC?
 - When the PC and EKI-1334 are connected with a network cable, please check whether a network crossover cable is used.
 - Check if the network cable is in good condition.
 - Please set the network card of the PC to 10/100M and full duplex.
10. EKI-1334 is powered on, when connected with PC, the Network LED is normal but can't have a ping detection to the EKI-1334?
 - Check if the IP Address of the PC and EKI-1334 are in the same subnet and the gateway address is EKI-1334 LAN address.
11. EKI-1334 is powered on, but can't configure through the web interface?
 - Whether the IP Address of your computer is the same subnet with EKI-1334 and the gateway address is EKI-1334 LAN address.
 - Check the firewall settings of the PC used to configure EKI-1334, whether this function is shielded by the firewall.
12. The EKI-1334 dialup always fails, I can't find out why?
Please restore EKI-1334 to factory default settings and configure the parameters again.
13. How to restore EKI-1334 to factory default settings?
 - Press and hold the Restore button, power on EKI-1334;
 - Release the button until after the STATUS LED flashes and the ERROR LED is on;
 - After the button is released, the ERROR LED will go off, within 30s press and hold the Restore button again until the ERROR LED flashes;
 - Release the button, the system is now successfully restored to factory default settings.

A.2 Support

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

icg.support@advantech.com.tw.

www.advantech.com.cn

Please verify specifications before quoting. This guide is intended for reference purposes only.

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