COMTREND

PG-9182AC
Powerline Ethernet WiFi Adapter

User Manual of web UI Management

COPYRIGHT

Copyright ©2013/2014 by this company. All rights reserved. No part of this Publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of this company

This company makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties, merchantability or fitness for any particular purpose. Any software described in this manual is sold or licensed "as is". Should the programs prove defective following their purchase, the buyer (and not this company, its distributor, or its dealer) assumes the entire cost of all necessary servicing, repair, and any incidental or consequential damages resulting from any defect in the software. Further, this company reserves the right to revise this publication and to make changes from time to time in the contents thereof without obligation to notify any person of such revision or changes.

Preface

This manual provides information related to the installation and operation of this device. The individual reading this manual is presumed to have a basic understanding of telecommunications terminology and concepts.

If you find the product to be inoperable or malfunctioning, please contact technical support for immediate service by email at INT-support@comtrend.com

For product update, new product release, manual revision, or software upgrades, please visit our website at http://www.comtrend.com

Leading the Communication Trend

NOTE:	This document is subject to change without notice.

Protect Our Environment

	This symbol indicates that when the equipment has reached the end of its useful life, it must be taken to a recycling centre and processed separate from domestic waste.

The cardboard box, the plastic contained in the packaging, and the parts that make up this PLC can be recycled in accordance with regionally established regulations. Never dispose of this electronic equipment along with your household waste; you may be subject to penalties or sanctions under the law. Instead, please be responsible and ask for disposal instructions from your local government.

Save Our Environment

When this equipment has reached the end of its useful life, it must be taken to a recycling centre and processed separately from domestic waste.

The cardboard box, the plastic in the packaging, and the parts that make up this device can be recycled in accordance with regionally established regulations. Never dispose of this electronic equipment along with your household waste.
You may be subject to penalties or sanctions under the law. Instead, ask for disposal instructions from your municipal government.

Please be responsible and protect our environment.

Leading the Communication Trend

CATALOG

The setup images used in this manual are for reference only. The contents of these images may vary according to firmware version. The official image contents are based on the newest firmware version.

Leading the Communication Trend

Chapter 1: General Information

1-1 Safety Information

In order to keep the safety of users and your properties, please follow the following safety instructions:

1. This power line access point is designed for indoor use only; DO NOT place this power line access point outdoor.

2. DO NOT put this power line access point at or near hot or humid places, like kitchen or bathroom. Also, do not leave this power line access point in the car under direct sunlight.

3. DO NOT pull any connected cable with force; disconnect it from the power line access point first.

4. If you want to place this power line access point at high places or hang on the wall, please make sure the power line access point is firmly secured. Falling from high places would damage the power line access point and its accessories, and warranty will be void.

5. There's no user-serviceable part inside the access point. If you found that the power line access point is not working properly, please contact your dealer of purchase and ask for help. DO NOT disassemble the access point, warranty will be void.

6. If the power line access point falls into water when it's powered, DO NOT use your hand to pick it up. Switch the electrical power off before you do anything, or contact an experienced electrical technician for help.

⚠ WARNING

- Disconnect the PLC from the power source before servicing
- For indoor user only
- Do NOT open the casing
- Do NOT use near water
- Do NOT insert sharp objects into the adapter's socket
- Socket maximum output is 15A

Power Specifications:

I/P： 100-240Vac, 50/60Hz, 15A

O/P：100-240Vac, 50/60Hz, 15A

Federal Communications Commission (FCC) Statement

15.21

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

15.105(b)

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.

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

1) this device may not cause interference and

2) this device must accept any interference, including interference that may cause undesired operation of the device.

FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

ISED

Canadian Notice

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. *This device may not cause interference.*
2. *This device must accept any interference, including interference that may cause undesired operation of the device.*

Avis Canadien

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. *L'appareil ne doit pas produire de brouillage;*
2. *L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

Caution: Exposure to Radio Frequency Radiation.

1. To comply with the Canadian RF exposure compliance requirements, this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.
2. To comply with RSS 102 RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.

Attention: exposition au rayonnement radiofréquence.

1. Pour se conformer aux exigences de conformité RF canadienne l'exposition, cet appareil et son antenne ne doivent pas être co-localisés ou fonctionnant en conjonction avec une autre antenne ou transmetteur.
2. Pour se conformer aux exigences de conformité CNR 102 RF exposition, une distance de séparation d'au moins 20 cm doit être maintenue entre l'antenne de cet appareil et toutes les personnes.

```
Operation in the band 5150-5250 MHz is only for indoor use to reduce the
potential for harmful interference to co-channel mobile satellite systems.
```
La bande 5 150-5 250 MHz est réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

For the frequency 5600-5650 MHz, no operation is permitted
Pour la fréquence 5600-5650 MHz, aucune opération est autorisée.

1-2 System Requirements

- Computer or network devices with wired or wireless network interface card.
- Any connected devices must feature a network port.
- Web browser (Microsoft Internet Explorer 4.0 or above, Google Chrome web browser, Opera web browser, or Safari web browser).

Leading the Communication Trend

Chapter 2: System and Network Setup

2-1 Connecting to power line access point by web browser

PG-9082 supports two kinds of management IP simultaneously.

(1)   DHCP client, which gets dynamic IP address from Modem/Broadband Router/Home Gateway.

(2)   Static IP, 192.168.0.10 by default, which can be configurable in web UI.

Before you can connect to the power line access point and start configuration procedures, your computer must be able to get an IP address automatically (dynamic IP address). PG-9082 gets dynamic IP address from Modem/Broadband Router/Home Gateway that it is connected to by default. However, the current IP info of PG-9082 would be displayed at Modem/Broadcom Router/Home Gateway.

On other side, Static IP of PG-9082 can be accessed The default static IP address of PG-9082 is 192.168.0.10, subnet mask 255.255.255.0. Please use static IP address 291.68.0.100, subnet mask 255.255.255.0 for accessing web UI management.

2-2 Connecting to Web Management Interface

All functions and settings of WiFi AP of PG-9082 must be configured via web management interface. Please start your web browser, and input '192.168.0.10'in address bar, then press 'Enter' key. The following message should be shown:

Please input user name and password in the field respectively, default user name is '**root**', and default password is '**12345**', then press 'OK' button, and you can see the web management interface of this access point:

NOTE: If you can't see the web management interface, and you're being prompted to input user name and password again, it means you didn't input username and password correctly. Please retype user name and password again. If you're certain about the user name and password you type are correct, please go to '4-2 Troubleshooting, to perform a factory reset or to set the password back to default value.

Leading the **Communication** Trend

2-3 View System Information

The system information will be displayed, as shown below:

The system information is on the left-side corner of the web page.

Leading the Communication Trend

Here are descriptions of every item:

2.4GHz Network	*Displays 2.4GHz AP status, Channel, SSID string and BSSID.*
5GHz Network	*Displays Firmware version of Wireless. This information is helpful when you need online help from the dealer of purchase.*
Common	*WiFi and G.hn Image version information.* *WiFi Image version:* PG-9082-WLAN-684151CTL-B01_R0 *G.hn Image version:* PG-9082-PLC-76R5488CTL-B01_R01

2-3 Network Settings

The static IP for local management. Click "Apply" will reboot system for new modifications activation.

2-4 Station List

This is page shows the information of wireless Stations that are connected to PG-9082.

Here are descriptions of every item:

MAC address	*This option will disable your Wireless station connecting to PG-9082 at 2.4G or 5GHz Interface.*
Rate (MCS)	*MCS# on wireless interface with the station.*
Bandwidth	*Bandwidth, 20/40MHz for 2.4GHz, 20/40/80MHz for 5GHz*

2-5 Time Settings

Network Timing

Enable NTP:	☐
Primary NTP Server:	204.152.184.72
Secondary NTP Server:	
Local Time Zone:	(GMT+01:00) Czech Republic ▼

Apply   Cancel

This page is set the local time zone for TR069 management, in the current version, local time zone is not configurable through web UI.

Thee current setting is (GMT+0, England).

2-6 Access Policy

Access Policy

Policy:	Disable ▼
Add a station MAC:	[ ] Add MAC format is XX:XX:XX:XX:XX:XX

To save changes in the MAC addresses list please press the Apply button

Apply   Cancel

Here are descriptions of every item:

Policy:	*This option will allow/reject the list of wireless stations.*
Add a station MAC	*MAC format is XX:XX:XX:XX:XX:XX*

maximum 32 entries can be configured.

To save changes in the MAC addresses list please press the Apply button

2-7 Administration

Here are descriptions of every setup item:

Software Upgrade	*Select the firmware file of WiFi AP of PG-9082 at the local driver of the laptop.* *The PG-9082 is supporting a single TR069 entity for both WiFi and G.hn PLC*

Components Versions	*Wi-Fi Image version:*
	    PG-9082-WLAN-684151CTL-B01_R01
	G.hn Image version:
	    PG-9082-PLC-76R5488CTL-B01_R01

Change Password	Only for "admin" account.
Download Log Files	Reserved for debugging purpose.
Restore Defaults	Factory reset of the PG-9082 (WiFi & G.hn PLC)
System Reset	System reboot by software.

2-8 Monitor

Monitor is to show the statistics on LAN, 2.4G & 5G interfaces.

2-9 Logout

.
Log out the web management.

Leading the Communication Trend

Chapter 3: Wireless Configurations

3-1 2.4G Wireless Settings

This page is to configure basic setting for 2.4GHz interface of access point.

2.4Ghz Wireless Settings

Wireless Mode:	802.11b/g/n ▼
Broadcast SSID:	☑
SSID:	ComtrendAB21_2.4GHz
Beacon Interval:	100 ms (range 20 - 999, default 100)
Channel:	Auto ▼
Rate (MCS):	Auto ▼
Channel bandwidth:	20 MHz ▼
WMM:	☑

Apply   Cancel

Multiple BSS

Add a BSS: [   ] Add   Up to 3 BSSs can be supported

Configured BSSs:
To save changes in the BSS list please press the Apply button

Apply   Cancel

Here are descriptions of every setup item:

Enable 2.4Ghz Radio	Ticked is enabling 2.4GHz radio.
Broadcast SSID	*Decide if the wireless power line access point will broadcast its own SSID or not. You can hide the SSID of your wireless power line access point (set the option to 'Disable'), so only people those who know the SSID of your wireless power line access point can get connected.*
Wireless Mode	*802.11b/g legacy: auto selection of 802.11b/g. 902.11b/g/n: auto selection of 802.11b/g/n*
SSID	*Please input the SSID (the name used to identify this wireless access point) here. You can input up to 32 alphanumerical characters. **PLEASE NOTE THAT ESSID IS CASE SENSITIVE.***
Channel	*Auto, in channel1, 6, 11 Or manually select either of channel 1-13.*
Channel Bandwidth	*Select wireless channel width (bandwidth taken by wireless signals of this access point). It's suggested to select Auto for 'Auto 20/40MHz'*

	& '20 MHz' only.
VWM	WMM (Wi-Fi Multimedia) technology, which can improve the performance of certain network applications, like audio/video streaming, network telephony (VoIP), and others. When you enable WMM function, the power line access point will define the priority of different kinds of data, to give higher priority to applications which require instant responding. Therefore you can improve the performance of such network applications.
Multiple BSS	Two more SSID are required.

3-2 2.4G Security Settings

2.4Ghz Security Settings

Wireless Interface:	1 - "ComtrendAB21_2.4GHz" - D8:B6:B7:2A:AB:24 ▾
Security Mode:	WPA2-PSK ▾
Encryption Type:	○ TKIP ⦿ AES ○ TKIP+AES
Pass Phrase:	7WkaLhpjdseb

Apply Cancel

Here are descriptions of every setup item:

Security Mode	Select the encryption supported over wireless access. The encryption method can be None, WPA-PSK, WPA2-PSK or WPA-PSK+WPA2-PSK.
Encryption Type	There are three types of Cipher : TKIP, AES, TKIP+AES
Passphase	8 to 63 alphanumerical characters

3-3 2.4G WPS Settings

2.4 Ghz Wi-Fi Protected Setup

WPS: Enable ▼

Apply Cancel

2.4Ghz WPS Connection:
Configure Enrollee:
  ⦿ via PBC
  ◯ via PIN

[Activating WPS]

WPS Status:
WPS:Idle

WPS Summary	
WPS Current Status:	Idle
WPS Configured:	Yes
WPS SSID:	ComtrendAB21_2.4GHz
WPS Auth Mode:	WPA2-PSK
WPS Encryp Type:	AES
WPS Key (ASCII):	7WkaLhpjdseb

3-4 5G Wireless Settings

This page is to configure basic setting for 5GHz interface of access point.

5Ghz Wireless Settings

Enable 5Ghz Radio: ☑
Broadcast SSID: ☑
SSID: ComtrendAB21_5GHz
Beacon Interval: 100   ms (range 20 - 999, default 100)
Channel: Auto ▼
Rate (MCS): Auto ▼
Channel bandwidth: 80 MHz ▼
WMM: ☑

Apply Cancel

Multiple BSS

Add a BSS: [   ] [Add]   Up to 3 BSSs can be supported

Configured BSSs:
To save changes in the BSS list please press the Apply button

Apply Cancel

Here are descriptions of every setup item:

Enable 5Ghz Radio	Ticked is enabling 5GHz radio.
Broadcast SSID	*Decide if the wireless power line access point will broadcast its own SSID or not. You can hide the*

	SSID of your wireless power line access point (set the option to 'Disable'), so only people those who know the SSID of your wireless power line access point can get connected.
SSID	Please input the SSID (the name used to identify this wireless access point) here. You can input up to 32 alphanumerical characters. **PLEASE NOTE THAT ESSID IS CASE SENSITIVE.**
Country Region	9 for Euprope
Channel	Auto, Or manually select either of channel
Channel Bandwidth	Select wireless channel width (bandwidth taken by wireless signals of this access point). It's suggested to select for '20MHz', 40MHz, and 'Auto' (20/40/80MHz).
VWM	WMM (Wi-Fi Multimedia) technology, which can improve the performance of certain network applications, like audio/video streaming, network telephony (VoIP), and others. When you enable WMM function, the power line access point will define the priority of different kinds of data, to give higher priority to applications which require instant responding. Therefore you can improve the performance of such network applications.
Multiple BSS	Two more SSID are required.

3-5 5 G Security Settings

5Ghz Security Settings

Wireless Interface: 1 - "ComtrendAB21_5GHz" - D8:B6:B7:2A:AB:28 ▼
Security Mode: WPA2-PSK ▼

Encryption Type: ○ TKIP ● AES ○ TKIP+AES
Pass Phrase: 7WkaLhpjdseb

Apply | Cancel

Here are descriptions of every setup item:

Security Mode	Select the encryption supported over wireless access. The encryption method can be None, WPA-PSK, WPA2-PSK or WPA-PSK+WPA2-PSK.
Encryption Type	There are three types of Cipher :TKIP, AES, TKIP+AES
Passphase	8 to 63 alphanumerical characters

3-6 5G WPS Settings

5Ghz Wi-Fi Protected Setup

WPS: Enable ▾

Apply   Cancel

5Ghz WPS Connection:
Configure Enrollee:
○ via PBC
○ via PIN

Activating WPS

WPS Status:

WPS:Idle

WPS Summary	
WPS Current Status:	Idle
WPS Configured:	Yes
WPS SSID:	ComtrendAB21_5GHz
WPS Auth Mode:	OpenWPA2
WPS Encryp Type:	
WPS Key (ASCII):	7WkaLhpjdseb

Leading the Communication Trend

Chapter 4: CLI commands for TR069 settings via Telnet

A system reboot is required for new settings.

- **ACS URL settings,**

nvram_set 2860 TR069URL [http://domain or IP/string]

For example:
nvram_set 2860 TR069URL http://220.128.128.235/cpe/?pd128

Display the current settings,
nvram_get 2860 TR069URL

- **ACS username,**

nvram_set 2860 TR069Username [username]

For Example:
nvram_set 2860 TR069Username comtrend

Display the current settings,
nvram_get 2860 TR069Username

- **ACS password,**
nvram_set 2860 TR069Password [password]

For example:
nvram_set 2860 TR069Password comtrend

Display the current settings,
nvram_get 2860 TR069Password

- **Periodic interval in seconds.**
nvram_set 2860 TR069InformInterval [seconds]

For example:
nvram_set 2860 TR069InformInterval 3600

Display the current settings,
nvram_get 2860 TR069InformInterval