

BGAN from Stratos

Application Note

D-Link DWL-G730AP Wireless Router



Data Optimization



Security

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AuthID:SE.AH

Purpose

This document describes the configuration, installation and basic use of the DWL-G730AP Wireless Pocket Router Solution from D-Link Systems Inc. over an Explorer 500 BGAN terminal.

Description

The pocket-sized DWL-G730AP gives all the features of a full-size router/access point with pocket-size convenience and portability. Carry it along on business trips and vacations, and experience the convenience of wireless networking with colleagues and family almost anywhere you travel. With 3 different operating modes, the versatile DWL-G730AP can be used as a portable access point, AP client or router.



Requirements

With 3 different operating modes, the versatile DWL-G730AP can be used as a portable access point, AP client or router.

System Requirements

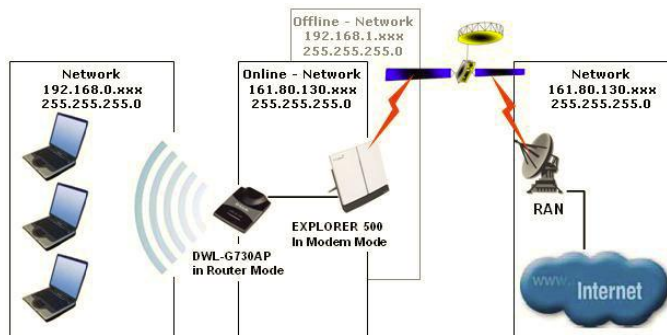
The D-Link AirPlus- G DWL-G730AP Wireless Pocket Router/AP is an 802.11g high-performance, wireless device that is also compatible with 802.11b devices. It is an ideal way to extend the reach and number of computers connected to your wireless network.

Configuration Settings

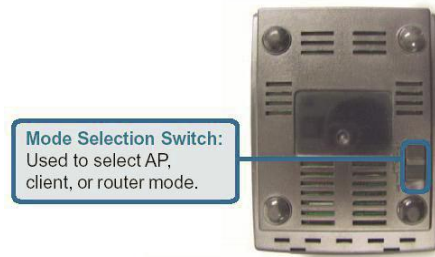
The system comprising an EXPLORER 500 and the DWL-G730 Pocket Wireless Router can be set up in multiple ways. For this solution it is decided that the DWL-G730 Pocket Wireless Router will be configured in Router Mode and with DHCP enabled so the DWL-G730 Pocket Wireless Router will distribute IP addresses to the PCs that will connect with it. The EXPLORER 500 will be configured to Modem Mode (Bridge Mode) and with an IP address different from the network of the wireless network IP addresses that is distributed by the DWL-G730 Pocket Wireless Router

Router Mode DHCP enabled Configuration

Network drawing of the configuration described above:



The possible network address range with the DWL-G730 Pocket Wireless Router is only in the network 192.168.0.xxx. The DWL-G730 Pocket Wireless Router will default distribute addresses starting from 192.168.0.100 and up to 192.168.0.199. The configuration of the DWL-G730 Pocket Wireless Router will be to switch it to Router Mode, see below picture of the bottom of the DWL-G730 Pocket Wireless Router:



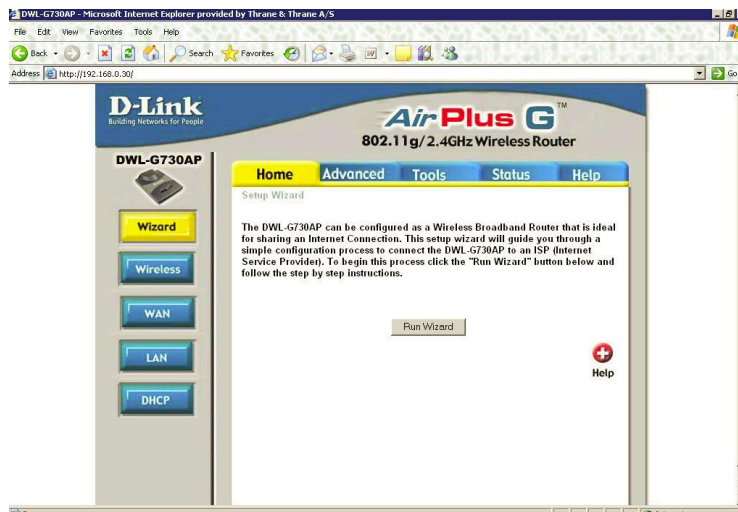
Set the Switch for Router Mode

Now configure the DWL-G730 Pocket Wireless Router from a PC with wireless network as that is the only way to access the DWL-G730 Pocket Wireless Router web server when it is set to Router Mode. Scan for a wireless network and connect to it using e.g. Internet Explorer:

- open the webpage 192.168.0.30
- username: admin
- let the password remain empty to get access to the configuration



The following page will appear



Home page of Air Plus- G

Change the SSID to a name of your choice. In this test the DWL-G730 Pocket Wireless Router SSID is set to: "E500 Access Point". Remember to press Apply when done.

D-Link
Building Networks for People

AirPlus G™
802.11g/2.4GHz Wireless Router

DWL-G730AP

Wizard
Wireless
WAN
LAN
DHCP

Home Advanced Tools Status Help

Wireless Settings

These are the wireless settings for the AP(Access Point)Portion.

SSID : E500 Access Point

Channel : 6

Authentication : Open System Shared Key WPA-PSK

WEP : Enabled Disabled

WEP Encryption : 64Bit

Key Type : HEX

Key1 :

Key2 :

Key3 :

Key4 :

Apply Cancel Help

Now press the WAN button to go in to the WAN configuration. See below picture:

DWL-G730AP

Wizard
Wireless
WAN
LAN
DHCP

Home Advanced Tools Status Help

WAN Settings

Please select the appropriate option to connect to your ISP.

Dynamic IP Address Choose this option to obtain an IP address automatically from your ISP. (For most Cable modem users)

Static IP Address Choose this option to set static IP information provided to you by your ISP.

PPPoE Choose this option if your ISP uses PPPoE. (For most DSL users)

Others PPTP and BigPond Cable

PPTP (for Europe use only)

BigPond Cable (for Australia use only)

Dynamic IP Address

Host Name DWL-G730AP (Optional)

MAC Address FF FF 00 00 00 00 (Optional) Clone MAC Address

Primary DNS Address 0.0.0.0

Secondary DNS Address 0.0.0.0 (Optional)

MTU 1500

Apply Cancel Help

The WAN settings must be set to Dynamic IP Address as the EXPLORER 500 is using its built-in DHCP server to distribute IP address to the DWL-G730 Pocket Wireless Router. Remember to press Apply when done.

Now press the LAN button to go in to the LAN configuration. See below picture:

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AirPlus G™
802.11g/2.4GHz Wireless Router

DWL-G730AP

Home | Advanced | Tools | Status | Help

LAN Settings
The IP address of the DWL-G730AP.

IP Address: 192.168.0.30
Subnet Mask: 255.255.255.0
Local Domain Name: (Optional)

Apply Cancel Help

At the LAN web page the IP Address of the built-in web server of the DWL-G730 Pocket Wireless Router can be configured. Note, in this test the IP Address is not altered, but kept to the default address 192.168.0.30. Remember to press, Apply when done.

Now press the DHCP button to go to the web page where the settings of the DHCP can be configured. See below picture:

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AirPlus G™
802.11g/2.4GHz Wireless Router

DWL-G730AP

Home | Advanced | Tools | Status | Help

DHCP Server
The DWL-G730AP can be setup as a DHCP server to distribute IP addresses to the LAN network.

DHCP Server: Enabled Disabled
Starting IP Address: 192.168.0.100
Ending IP Address: 192.168.0.199
Lease Time: 1 Week

Static DHCP
Static DHCP is used to allow DHCP server to assign same IP address to specific MAC address.

Static DHCP: Enabled Disabled
Name:
IP: 192.168.0.
MAC Address: - - - - -
DHCP Client: Clone

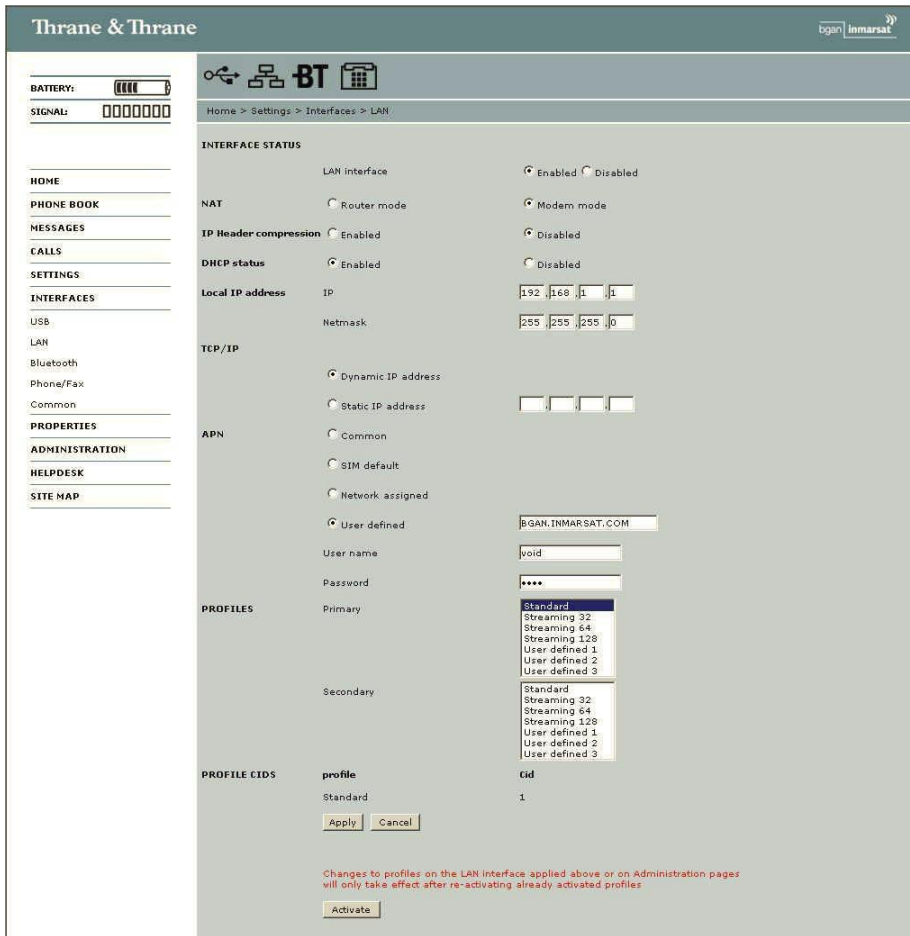
Apply Cancel Help

Enable the DHCP Server and set the wireless network range as needed. Note, in this test the IP Address is not altered but kept to the default settings 192.168.0.100 to 192.168.0.199. Remember to press Apply when done.

Network Configuration

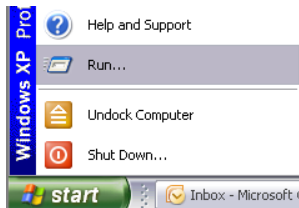
In this solution it is decided to configure the EXPLORER 500 with network 192.168.1.xxx in order not to conflict with the wireless network 192.168.0.xxx of the DWL-G730 Pocket Wireless Router. Furthermore the default subnet mask must be changed from 255.0.0.0 to subnet mask 255.255.255.0. And last the EXPLORER™ 500 must be configured to modem mode (bridge mode). The configuration can be done via the built-in web interface <http://192.168.0.1> of the EXPLORER 500 under Settings – Interfaces – LAN. Press Apply and Activate to store and activate the new settings.

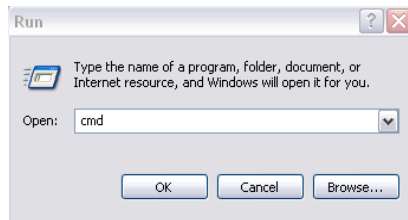
See below screen shot of the EXPLORER 500 web server configuration.



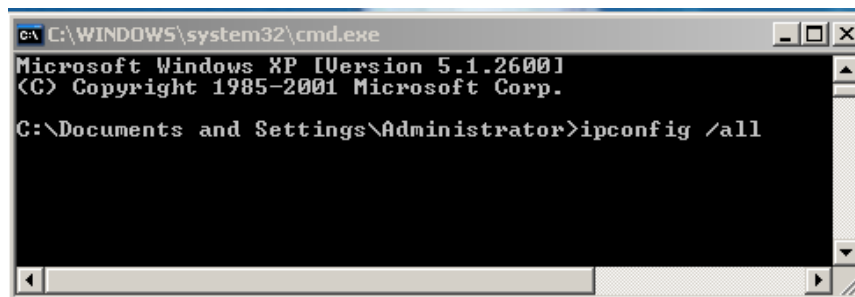
If you change the IP address of the Thrane E500 terminal it is recommended that you document the address change prior to changing the configuration. If the new IP address is forgotten, you will need to follow the steps below to identify the new IP address of the terminal. Once the new IP address of the terminal is known, you can log back into it and change the IP address back to the default.

Start> Run>

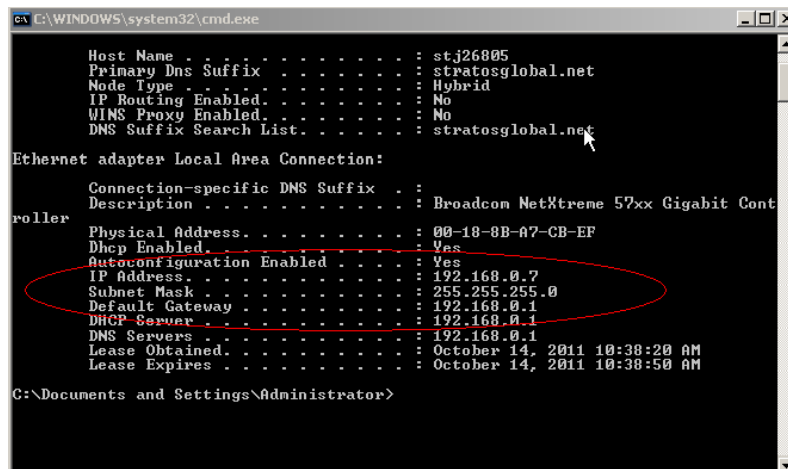




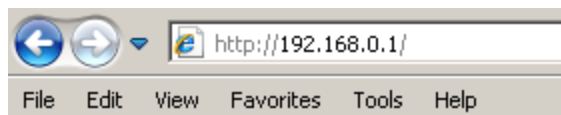
Type cmd



Type in "ipconfig /all" and press Enter



Once the text is displayed it will show you the IP address of the terminal and the Gateway IP address. The Gateway IP address of the terminal can be used to log into the MMI of the terminal if one need to change it from the default. Typing the Gateway IP address into the Browser URL



**Technical
Summary**

It is strongly recommended to take security precautions when working with wireless LANs. Consider to all or some of the following security mechanisms:

1. Change the default SSID.
2. Disable SSID Broadcast.
3. Change the default password for the Administrator account.
4. Enable MAC Address Filtering.
5. Change the SSID periodically.
6. Change the WEP encryption keys periodically.

For information on implementing these security features, refer to the Product manual.

Tested

Standard Data

Product	Result	Comments
Explorer 500	Successful	documented

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