DreamPlug User Guide

Thank you for purchasing our DreamPlug – **The Power to Innovate!**

Contents

Package contents

	DreamPlug Content List		Remark
1	DreamPlug	1 unit	
2	Detachable AC-DC Power Supply Unit	1 pc	
3	Detachable DC-DC Power Cable	1 pc	
4	Detachable AC Slider	1 pc	
5	Detachable AC Power Cord Adaptor	1 pc	
6	AC power Cord	1 pc	
7	Protective Slide Cover for DreamPlug	1 pc	
8	Protective Slide Cover for Power Supply Unit	1 pc	
9	Ethernet Cable	1 pc	
10	Warranty Card	1 pc	
11	Quick Reference Guide	1 pc	
12	External JTAG Debug Module	No	Optional item. Not included

Note 1: All files will be available download: https://www.globalscaletechnologies.com/t-downloads.aspx

Note 2: JTAG debug module is sold separately. It's highly recommended for you to purchase this module to use in programming and debugging.

A. For Initial Use

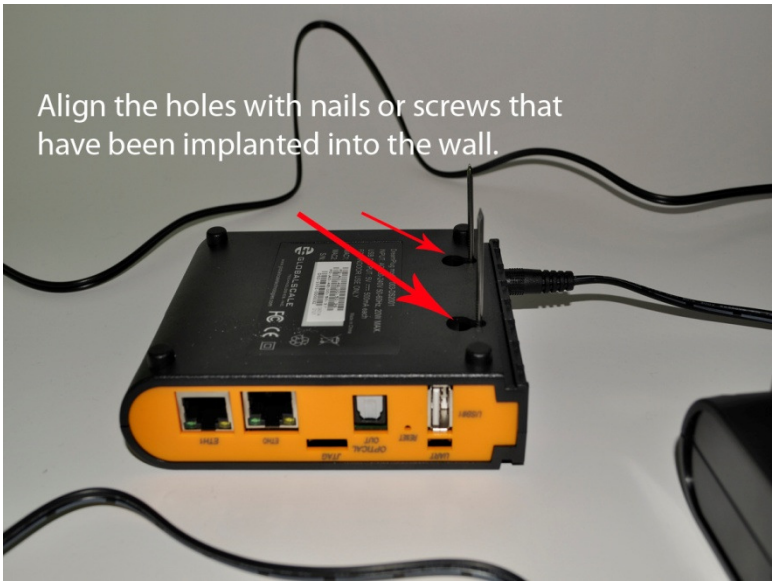
1. **To be used as a Plug Computer:**

2. **To Be Used as a "Desk Top" Computer.**

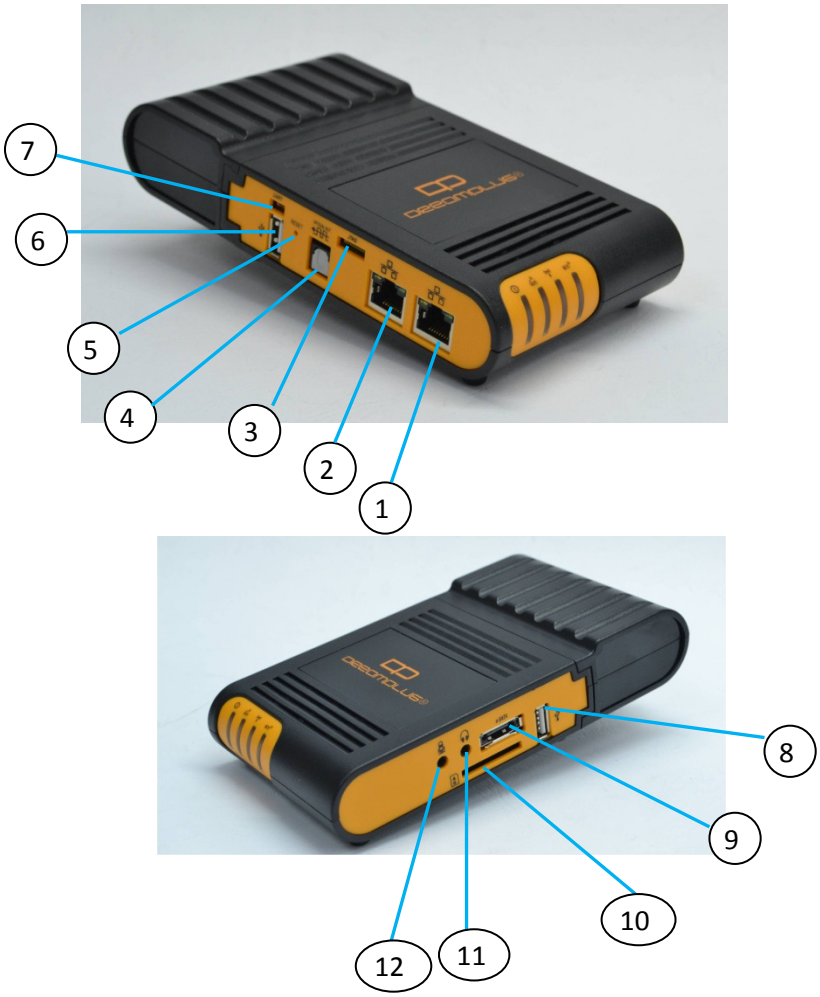
Desktop – 1

Desktop – 2

3. To Have the "DreamPlug" Wall Mounted.



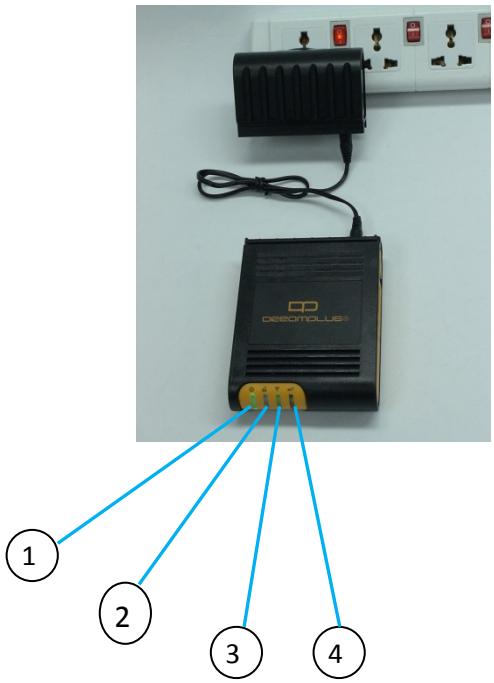
B. DreamPlug Server appearance and connecting ports



Ports description- DreamPlug Server

	Connection port	Description	Remark
1	RJ45 #1	Gigabit Ethernet port 1	CAT5e or CAT6 cable
2	RJ45 #2	Gigabit Ethernet port 2	CAT5e or CAT6 cable
3	JTAG port	Debug interface	For JTAG board connection only
4	Optical out	S/PDIF digital audio out	
5	Reset button	System reset	
6	USB port #1	USB 2.0 high speed host	
7	UART port	Debug interface	For JTAG board connection only
8	USB port #2	USB 2.0 high speed host	
9	eSATA	eSATA port	
10	SD	Secure Disk card slot	for user expansion/ application
11	Head Phone	Analog audio out	
12	Mic in	Analog microphone in	

C. LED indication

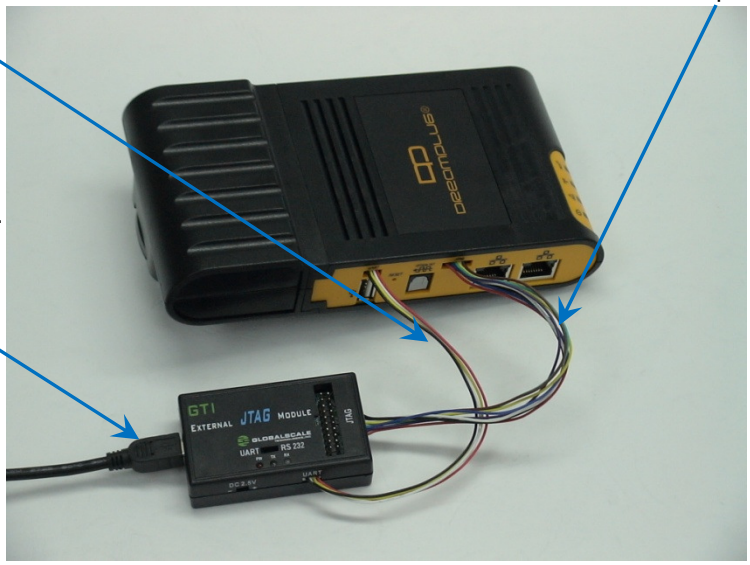


LED indication table

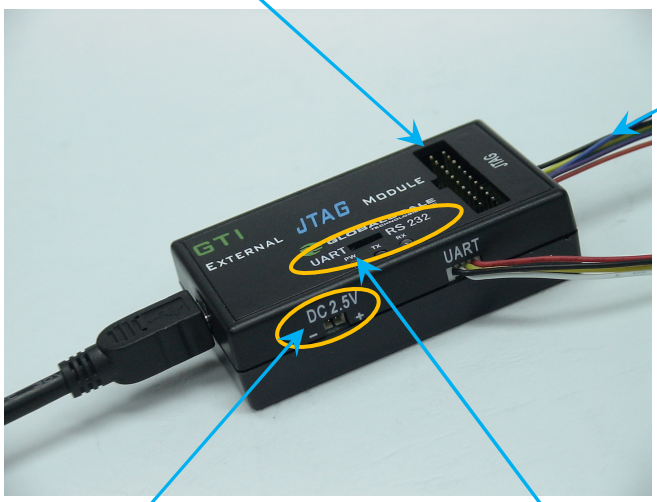
	LED	Color/ Pattern	Description
1	Power on LED	Solid green	Upon power on, this LED lights up
2	WiFi AP mode	Solid blue	WiFi will go into AP mode as default after boot up
3	WiFi Client mode	Solid green	Light up when change to client mode by user
4	Bluetooth	Blinking blue	Bluetooth will be on as default after boot up

D. Connect to JTAG board

1. Connect 4 pin UART cable
2. Connect 8 pin JTAG cable
3. Connect Mini USB cable here. The other end connects to computer's USB port.



This is the standard 20pin JTAG connector which has the same pin signals as 8 pin cable



This DC 2.5V is for Dream Plug CPU e-fuse programming only, do not use it for other purpose.

Normally, this switch (or jumper wire) should be on the left side for UART selection

E. Tools and files you need to start debugging

1. Prepare one PC with Fedora 9 (or Fedora 11) Linux operating system
2. Download and install the following tools and utilities

	File name	Description	Where to get it
1	Minicom	Used as Board console	Re-Install command: yum install minicom note 1: Fedora9 has a built-in minicom
2.	Ftdi_sio.ko	FTDI device driver module for Linux	http://www.globalscaletechnologies.com/t-downloads.aspx
3.	Ftdi_sio.ko	FTDI device driver module for Linux	http://www.globalscaletechnologies.com/t-downloads.aspx

3. Setup minicom

minicom –s

Set the Configure properties as follows:

Bits per sec field to *115200*

Data bits to 8

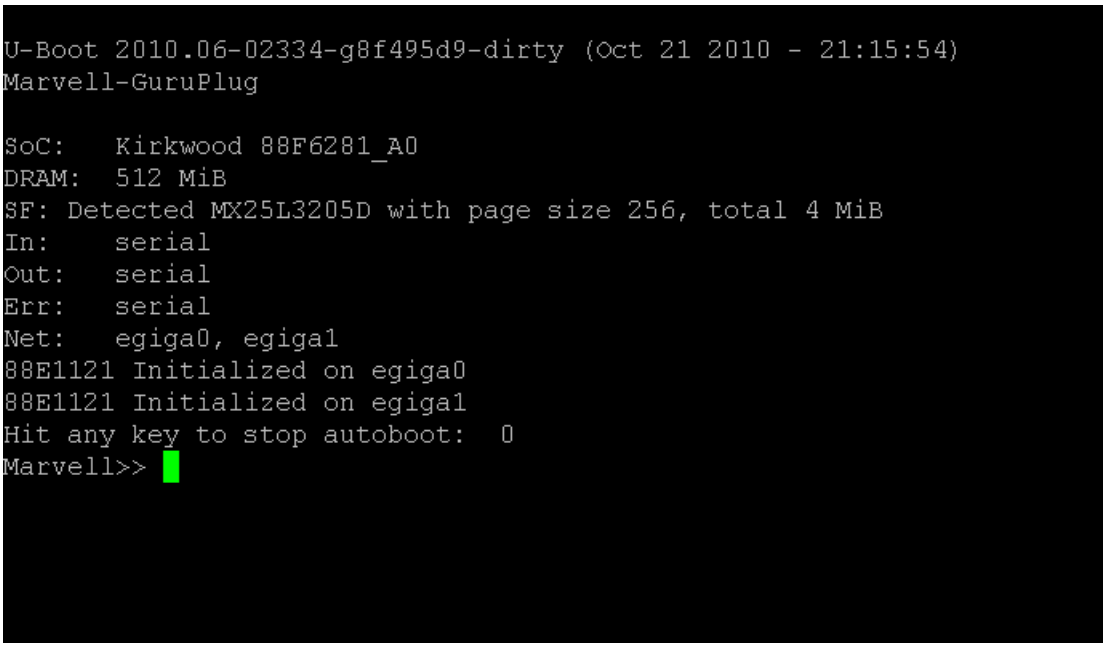
Parity to *None*

Stop bit to *1*

Flow Control to *None*

F. Basic procedures for debugging

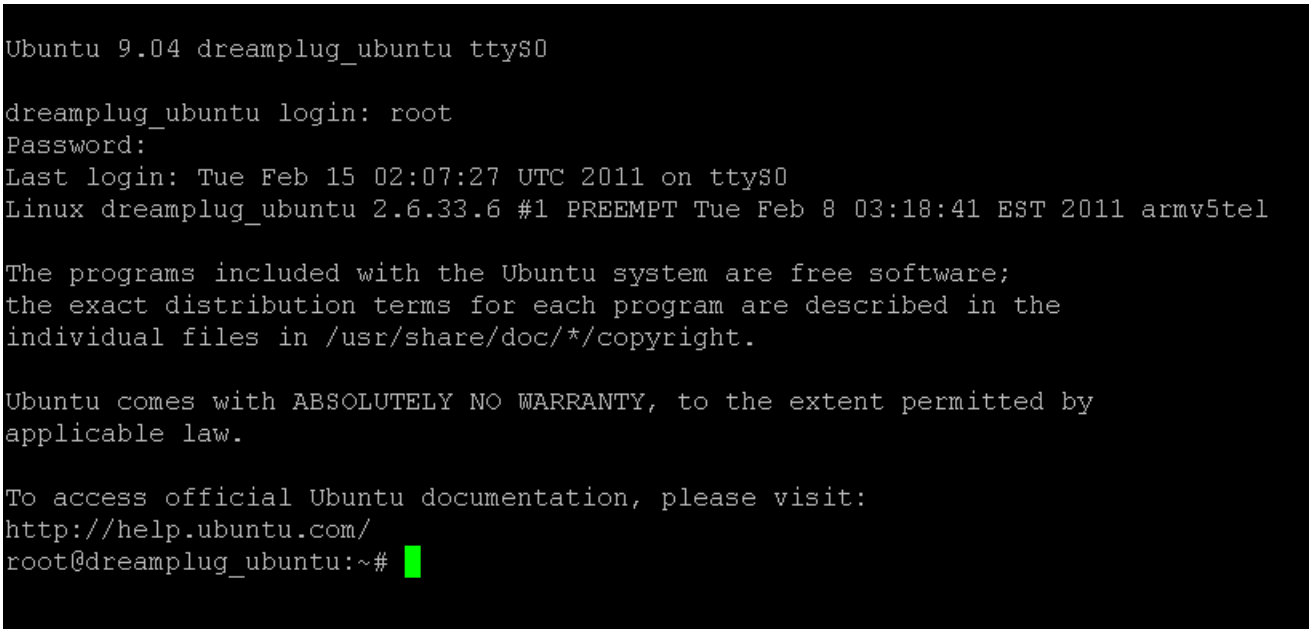
1. Connect cables as illustrated in section D.
2. Run terminal program on Linux PC.
3. Type in # minicom –o marvell
4. Power on the DreamPlug Server.
   Normally , you will see messages on screen as below：



You can press any key to stop auto-boot when you see the boot delay timer is counting down.

After entering the uboot prompt, you can also change the uboot environment variables such as boot delay time, Ipaddr, serverip and so on.

If no key has been pressed to interrupt the uboot, it will continue running to the login screen where it urges you to input the login name and password, here is the default login information.
Login : root
Password: nosoup4u



Now, you have the full control right of it.

G. Wi-Fi / Bluetooth

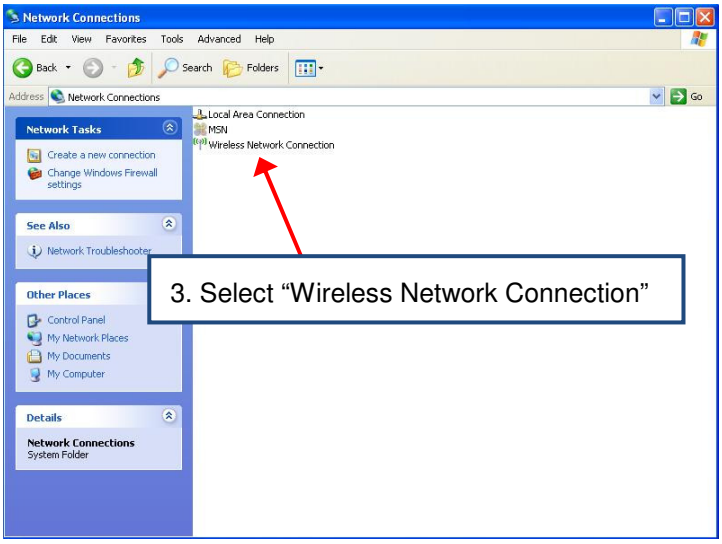
DreamPlug Server has a built-in WiFi module which is compliance with 8.2.11 b/g standard and Bluetooth 2.1 + Enhanced data rate (EDR).

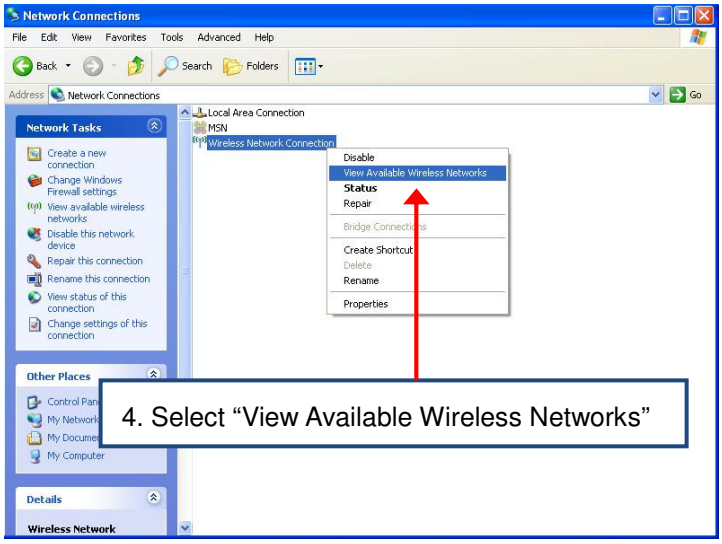
The WiFi works as both client and AP mode but only one at a time.

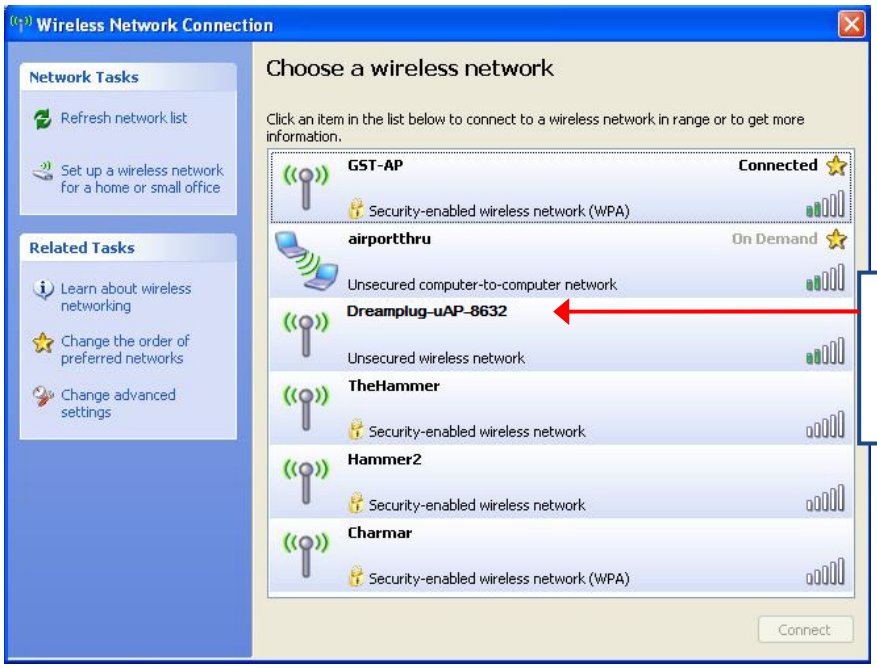
The default mode is AP mode every time when it powers on and can be switched to client mode manually by entering the setup page, please follow the procedures below to set-up the functionalities for WIFi and Bluetooth.

1. Prepare a Bluetooth earphone and one computer installed with Wi-Fi Lan card, here we use computer with Windows XP operating system for example.

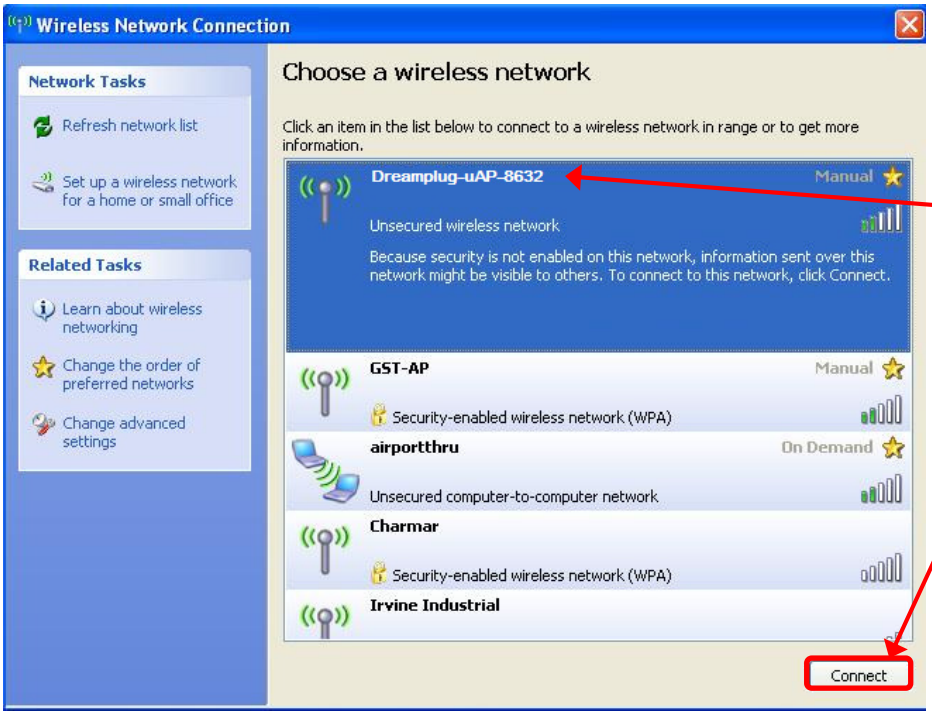
2. Go to “Network Connections”



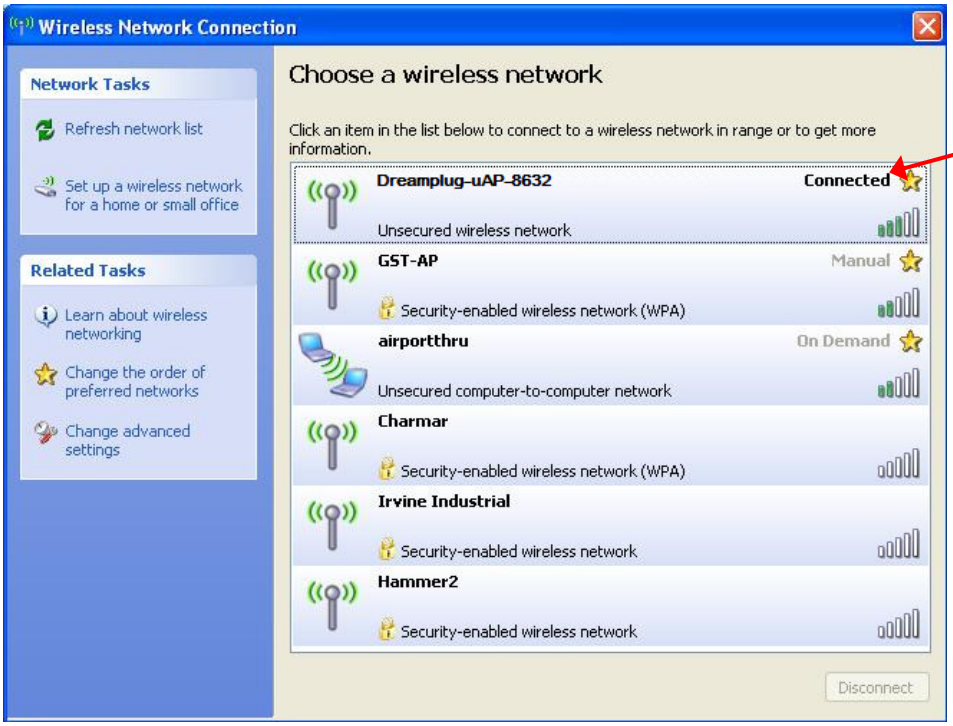




5. Choose name starts with “Dreamplug-uAP-xxxx” which xxxx are last digits of the MAC address



6. Choose this one and click here to connect.



7. Connected

8. Open console terminal, type wlan.sh command to switch client mode.

H. Download sites

To download the files for Dreamuplug server, please visit:
http://www.globalscaletechnologies.com/t-downloads.aspx

Other useful resource links are:
http://www.plugcomputer.org/
http://plugcomputer.org/plugwiki/index.php/GuruPlug