



Must-have item for smartphone users

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## 1 About WifiAn-Mini

### A. What is WifiAn-Mini?

WifiAn-Mini is a portable Wi-Fi Router which is USB type and the most compact size among WiFiAn products. WiFiAn-Mini, looking like a small accessory, creates a free and fast Wi-Fi Zone from an internet connected computer by plugging it into the PC's USB port. It also enables the PC to wirelessly share media files with electronic devices such as smart phones and tablet computers etc.

### B. Contents of WifiAn-Mini Package



### C. Operating System & Requirements

#### C-1 As a Router

- (1) Recommendation: Window XP(Service Pack3), Vista, Win7  
XP Service Pack3: “. (dot) Net Framework 2.0 SP2” which fits in your computer O/S language should be installed first.
- (2) Minimum: Window XP(Service Pack 2).  
“. (dot) Net Framework 2.0 SP2”, “Hotfix KB933579, KB918997, KB917021” should be installed.  
# Note: Unfit for use on Win XP 64 bit, Win7 Starter.

#### C-2 As a LAN adapter

Win2000, XP, Vista, Win7, Linux, WinCE, Mac

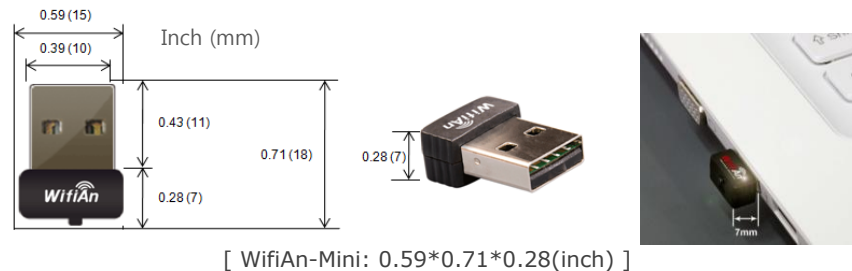
## 2 Features

### A. It creates a free and fast Wi-Fi zone easily

As long as there is an internet-ready computer, WifiAn can create a free and fast Wi-Fi Zone. After WifiAn driver SW is installed with installation CD and WifiAn-Mini device is plugged in the USB port of a PC, smartphone and tablet computer users can use wireless internet service for free instead of pay 3G. It is also available for multi users.

## B. It is compact

It is super compact router just looking like a small accessory so that it is handy to carry.



## C. It enables the PC to wirelessly share media files with your smart phone

You can set certain folders in your PC to interact with WifiAn-accessed devices (smart phones etc.). By doing that, you can open the folders immediately on your smart phone without the need to download them. You can view images in PC on your smart phone and even play videos in the way of streaming. In addition, you can wirelessly transfer files in your smart phone to the PC.

## D. It is faster than 3G

It is based on the 802.11 B/g/n so that it provides a data rate up to 150Mbps in a wireless environment. You can enjoy its high speed.

## E. It is easy to get started

Only with one click, all necessary S/W installation is processed automatically. You can start to enjoy free WiFi just right after the installation.

## F. It provides wireless network security

Since it is based on 128-bit encryption, it provides secure wireless network.

## G. It can set an intro web page with your own short messages

An intro web page can be shown to users once when they open a web-site. It can be useful when the WiFi zone host is a shop owner of such as café or restaurant etc. The host can inform any messages about events or ads etc. customers may be interested.

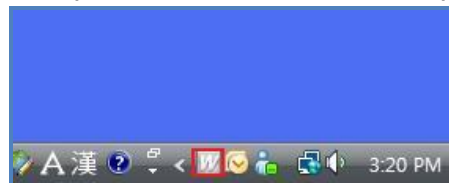
### 3 Installation and Connection

#### Step1> Installation of Driver S/W

- ① Insert the enclosed installation CD into your internet-ready PC and click 'installation' button.
- ② You can see the installation window.
- ③ Select language.

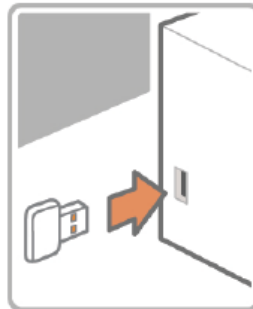


- ④ When it is completed, you could find  of the tray on the right bottom.



#### Step2> Plugging WifiAn into the USB port

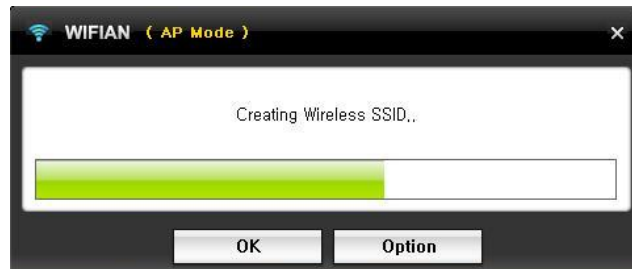
- After installation completed, plug WifiAn into the USB port of your PC.



# Note: Please install Driver S/W first(step1) before connecting WifiAn.


#### Step3> Connecting network automatically

- ① When Driver S/W recognizes that WifiAn is connected to the USB port, network connection works automatically.
- ② Following window appears while network connection progress is working.



- ③ Network connection progress is completed within about 20 seconds. However it might differ depending on the system.

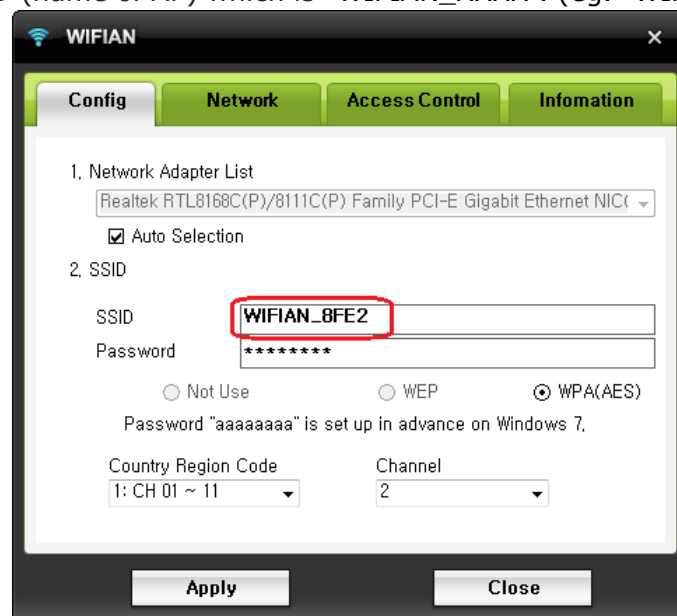
### Step4> Completion of network connection

When the yellow-green bar reaches to the end of the right side, the window disappears automatically. "W" icon is turned to red like  which means WifiAn is configured as a router. Now, free WiFi zone is created around the PC.



### Step5> Make sure of finding SSID(name of AP) at your PC

- ① Click W icon then you can see the menu of WifiAn window.
- ② Go to 'Options > Access Point> Config'. Here, you can find the default SSID (name of AP) which is "WIFIAN\_XXXX". (eg. "WIFIAN\_8FE2")



- ③ You can change SSID and set password. It is advisable to use for security. Please see chapter 5-A.

**Step6> Make sure of WifiAn access at your device** (smart phone, tablet computer etc.)

- ① Find the SSID which is the same name you found on WifiAn window at step 5.



- In the case of iPhone:  
Settings>Wi-Fi>Choose a Network> Select WifiAn\_XXXX
- In the case of Galaxy-Android: Main menu> Settings> Wireless and network> Wi-Fi settings> select WifiAn\_XXXX
- In the case of lap top or other devices:  
Select WifiAn\_XXXX among the available networks

- ② Select the SSID

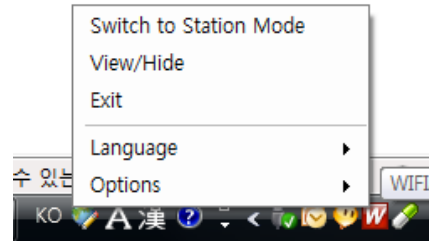
**Step7> Get ready**

If you finished all steps above then now you can simply access to the internet using free WiFi generated from WifiAn.

## 4 Understanding Tray menu and status

### A. Tray Menu





Click 'W' icon to see the menu



- Switch to station mode: to change network mode
- View/Hide: to view or hide WifiAn window
- Exit: To exit WifiAn program
- Language: To select language
- Options > Access Point: To set up WifiAn network
- Options >Media Server: To set up media server
- Options >Intro Webpage: To set up intro page

### B. Status by tray icon color

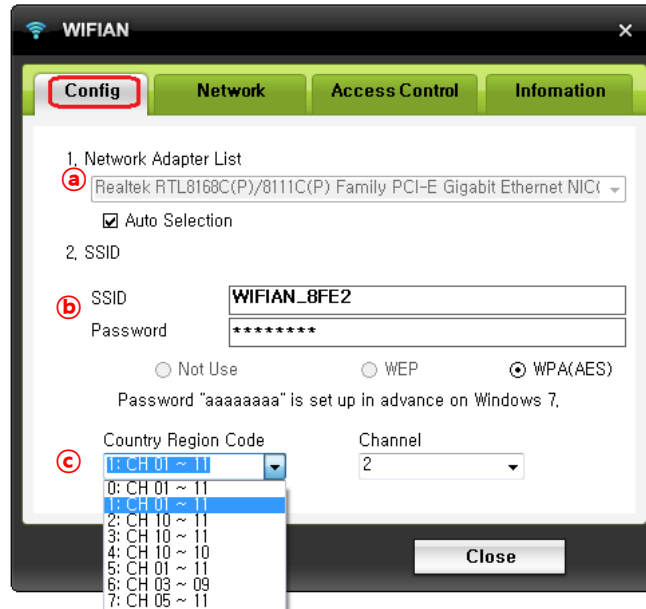
Tray icon informs you 4 different statuses of connection by colors.

-  : Configured as router, you can use both of internet sharing and media server function.
-  : Configured as AP, you can use media server function but internet sharing is not possible.
-  : Configured as Network Adapter, You can use it as a Wireless Lan Card.
-  : Not recognized by PC.

## 5 Options > Access Point

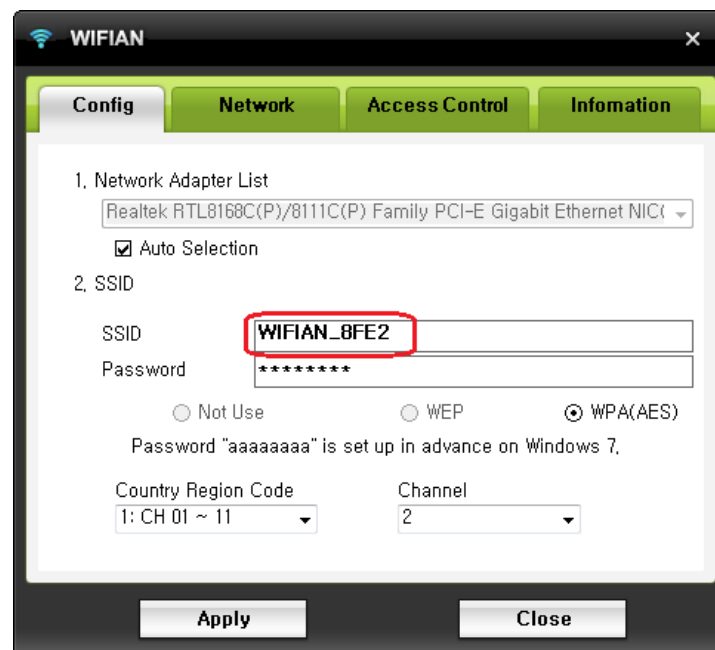
### A. Config

Here, you can change SSID and set password. Also you can adjust country region code and channel



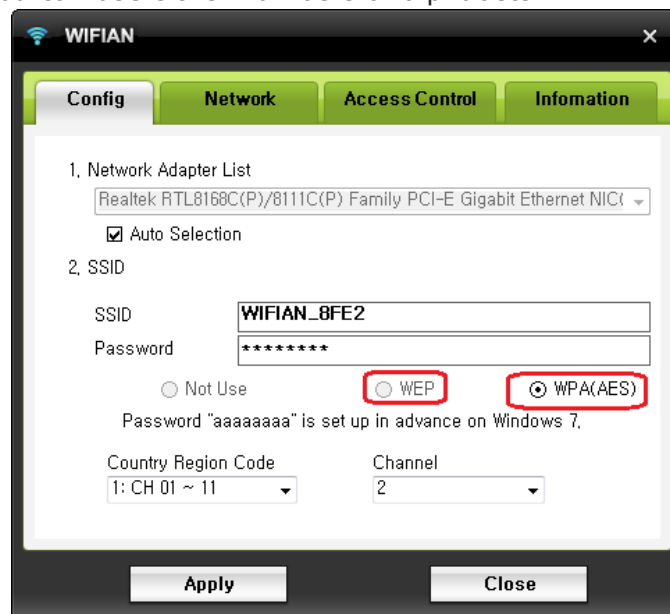
- Ⓐ You can choose a certain Network Adapter if you want. (Default: Auto selection)
- Ⓑ you can change SSID and set password.

- **How to change SSID:** Please type any new name you want. You can use either numbers or alphabets. There is no limit to the number of letters to use.



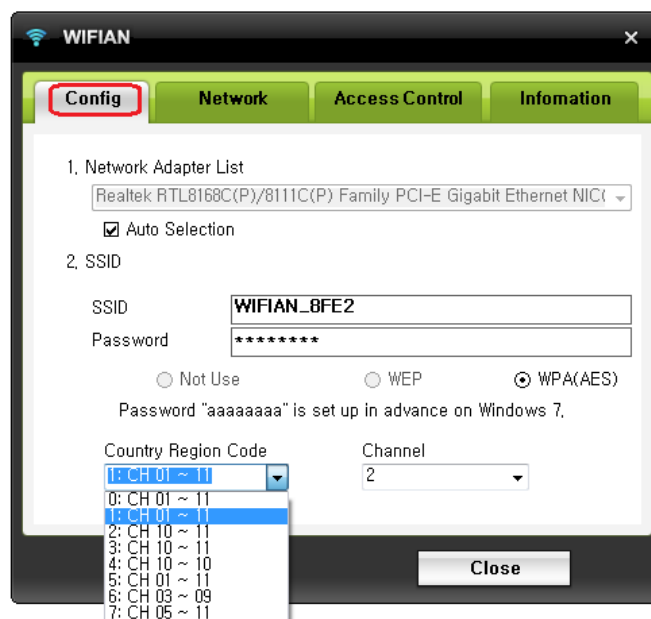


- **To set password:** Please click 'WEP' or 'WPA(AES)' then you can type password. You can use either numbers or alphabets.



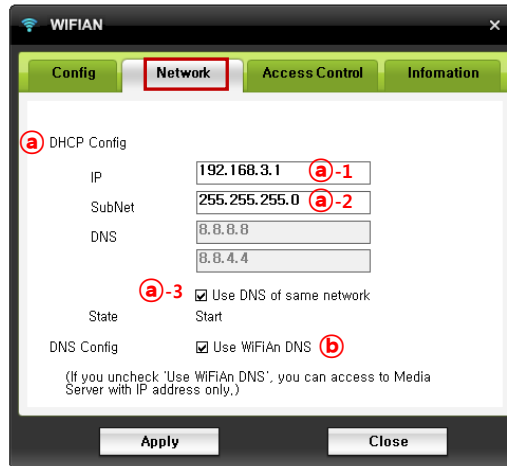
- In case of WEP, you can use only 5 or 13 letters. You can use WEP password on Windows XP and Vista.
- In case of WPA(AES), you need to use at least 8 letters. You can use WPA password on Windows Vista and 7. Initial password on Win7 is configured as "aaaaaaaa", and it can be changed.

© Also you can adjust country region code and channel when it is needed.



## B. Network

Here, if you want, you can set a certain IP among private inner IP band.



Ⓐ **DHCP:** Through this function, you can configure DHCP(Dynamic Host Configuration Protocol) to minimize any possible network collisions. However, it is not imperative to adjust the initial value.

Ⓐ-1 **IP:** '192.168.3.1' is given as the initial IP(Host). It is not imperative to change. However, please bear in mind that if the numbers of the first three section of your private inner IP band is the same with the given IP like '192.168.3.XX', it is advisable to change the first '192.168.3' part like '192.168.4.1'. Otherwise, there might be a network collision.

Ⓐ-2 **SubNet:** SubNet defines the number of access to WifiAn and also how to allocate IP to WifiAn connected devices. It is not imperative to change. Initial value is '255.255.255.0' which refers that WifiAn connected devices is automatically set to get IP with new numbers at the last section up to 254 devices. (eg. '192.168.3.2', '192.168.3.3'...'192.168.3.255')

[When WifiAn IP is '192.168.3.1' (Initial value)]

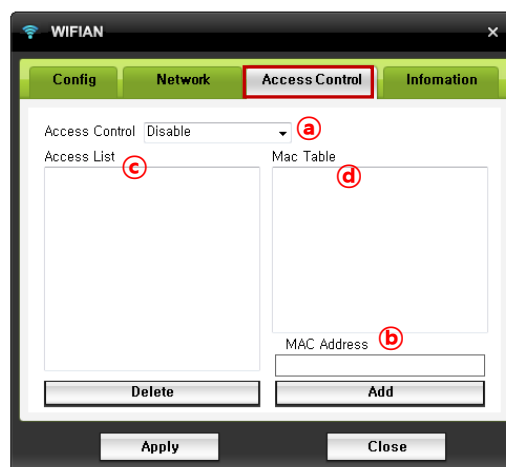


Ⓐ-3 **DNS:** Initially, it is checked to use DNS of the same network. When you want to use a specific DNS, you need to uncheck this box. (DNS: Domain Name Server)

Ⓑ **WifiAn DNS:** Initially, it is checked to use WifiAn DNS. It is needed when you want to use 'Intro Page' also when you want WiFi users can access to media server by typing 'pc.WifiAn.com' on the internet address bar instead of IP numbers. If you uncheck this, you can access to Media Server with IP address only.

(notice: This function makes users to use intro page and media server easily but cannot avoid a decrease in data rate)

### C. Access Control



You can control access here. You can block or allow certain addresses.

- Ⓐ Disable: You do not use 'Access Control' function. (Allow all)
  - Allow List: You allow only certain addresses
  - Reject List: You block certain addresses

If you want to use access control, choose 'Allow List' or 'Reject List' at Ⓐ. Next to that, type certain MAC addresses you intend to block or allow at Ⓑ and click 'Add'. You can see the designated addresses at Ⓒ. When you type addresses, do not include '-'.

- Ⓓ 'Mac Table' shows current accessed addresses.

## D. Information

Here, you can check the latest version of the current program.

WifiAn updates itself automatically when it is operated but also you can update it manually.



## 6 How to use other functions

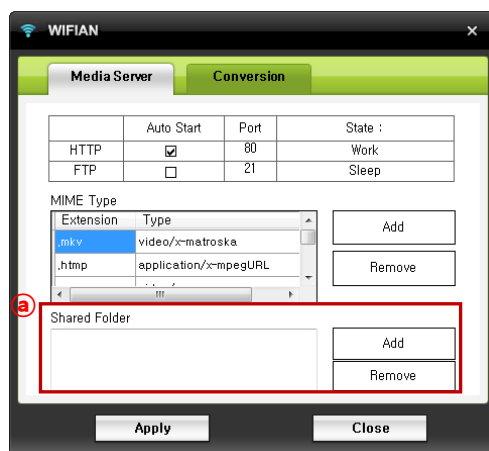
### A. Options > Media Server

The function called 'Media Server' enables the PC to wirelessly share media files with your wireless devices such as smart phones, laptops, and tablet PC's.

You can set certain folders in your PC to interact with WifiAn-accessed devices (smart phones etc.). By doing that, you can open the folders immediately on your wireless devices without the need to download them. You can view images in PC on your smart phone and even play videos in the way of streaming. In addition, you can wirelessly transfer files in your smart phone to the PC.

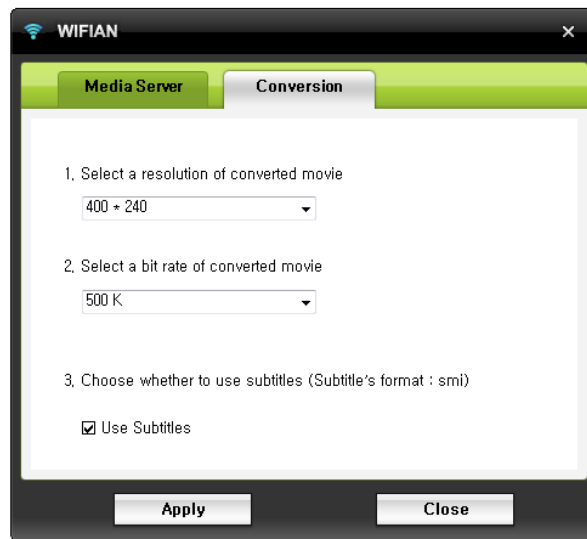
#### (1) Select folders to be shared with wireless devices

- You need to select certain folders in the PC which you want to be shared with WifiAn-accessed devices
- Click W tray menu and go to 'options' > 'Media server'
- You can add/delete certain folders which contain media files at ㉠. Then you can browse these folders on your smart phone like below.



#### (2) Conversion setting

At 'options' > 'Media server' > 'Conversion', you can set resolution, bit rate of converted movie and also you can choose whether to use subtitles.



### (3) Streaming media files of PC on smart phones

Make your smart phone to access to the folders

- ① Open web browser on the smart phone
- ② Input acquired IP address (Initial value: 192.168.3.1) or 'pc.WifiAn.com' in the address bar. (When you uncheck WifiAn DNS, you can use IP address only) Please see chapter 5-B.
- ③ You can see folders you set on your smart phone.
- ④ You can immediately open text, image, pdf, ppt(Android), music and video files on your smart phone without download.

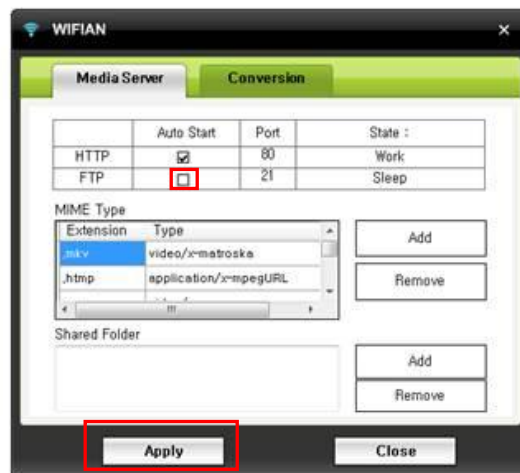


## (4) Upload/download files from smart phone to PC

Set 'FTP' protocol in WifiAn menu activated, first . After running ftp client utility of your smartphone, input IP address of WifiAn (initial value: 192.168.3.1) and access the PC on your smart phone using

**ID: wifian / PW: SSID password.**

You can upload and download files between PC and smart phones.

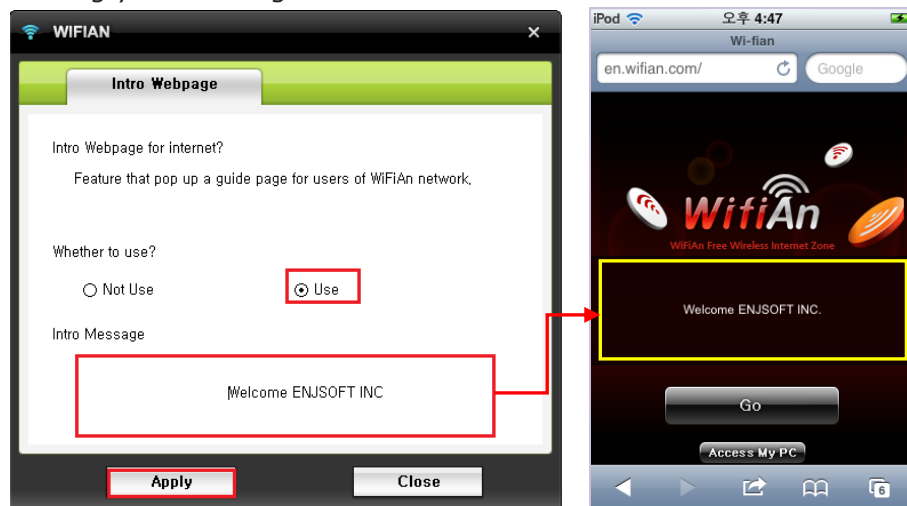


## B. Options > Intro WebPage

You can set an intro web page with your own short messages.

The function called 'Intro Page' conveys certain notes (messages) to WifiAn wireless network users through the first web-browser they open. It can be useful when the WiFi zone host is a shop owner of such as café or restaurant etc. The host can inform any messages like about events or ads customers may be interested.

- ① Go to W tray menu > Options > Intro Page
- ② Select 'use' button
- ③ Type any messages you want to convey to users in the message box and click 'apply'.
- ④ When users opens web browser on their smart phone, intro page containing your messages is shown as below

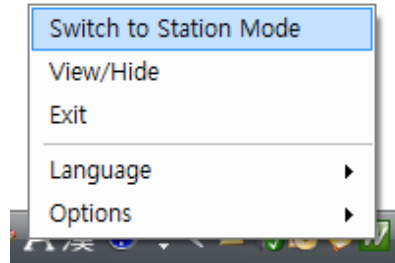




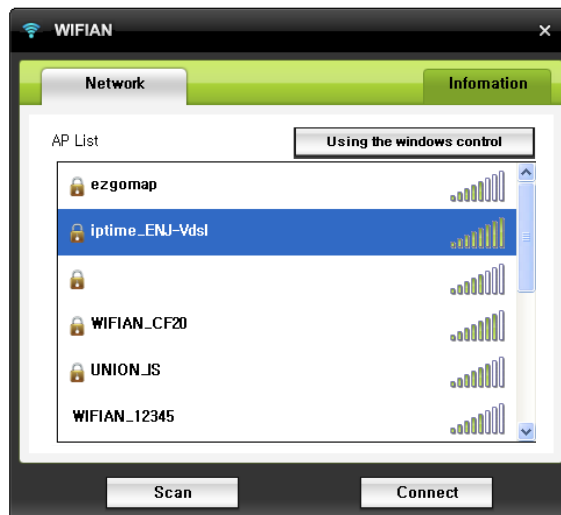
## C. WifiAn as a Wireless LAN card (Station mode)


If you select station mode, you can WifiAn as a wireless LAN card.

- ① Click 'Switch to station mode' on tray menu



- ② After you turn the mode as station mode, WifiAn starts searching wireless network and then you can see AP lists. Select AP you want to use.



- ③ When it is station mode, tray icon turns to Green .

## 7 H/W Specification

	Chip	RTL8188CU
	LED	Link/Activity
Wireless Spec.	Frequency band	2.412GHz-2.4835GHz
	Wireless Signal Rates	- 802.11n: Up to 150Mbps - 801.11g: Up to 54Mbps - 802.11b: Up to 11Mbps
	Wireless Transmit Power	14dBm (MAX EIRP)
	Modulation	OFDM /CCK/16-QAM/64-QAM
	Transmission distance	- Maximum : 30m - Stable : 15m
	Receive sensitivity	- 135Mbps : -68dBm@10% PER - 108Mbps : -68dBm@10% PER - 54Mbps : -68dBm@10% PER - 11Mbps : -85dBm@8% PER
	Wireless Security	- 64/128 bit WEP - WPA2(AES)
	Transmission distance	- Maximum : 30m - Stable : 15m
	Number of Selectable Channels	- USA , Canada(FCC): 11 channels(2.412GHz-2.462GHz) - Europe(CE): 13 channels (2.412GHz-2.472GHz) - Japan: 14 channels (2.412GHz-2.4835GHz)
	Interface	USB2.0 Hi-Speed connector
	Environment	- Operating Temperature: 0° to 40° C - Storage Temperature: -40° to 70° C - Operating Humidity: - 10% to 90 % non-condensing - Storage Humidity: - 5% to 95% non-condensing

## 8 Trouble Shooting

(Captured images: Version Win 7)

When WifiAn doesn't work normally, you can check in order listed as below.

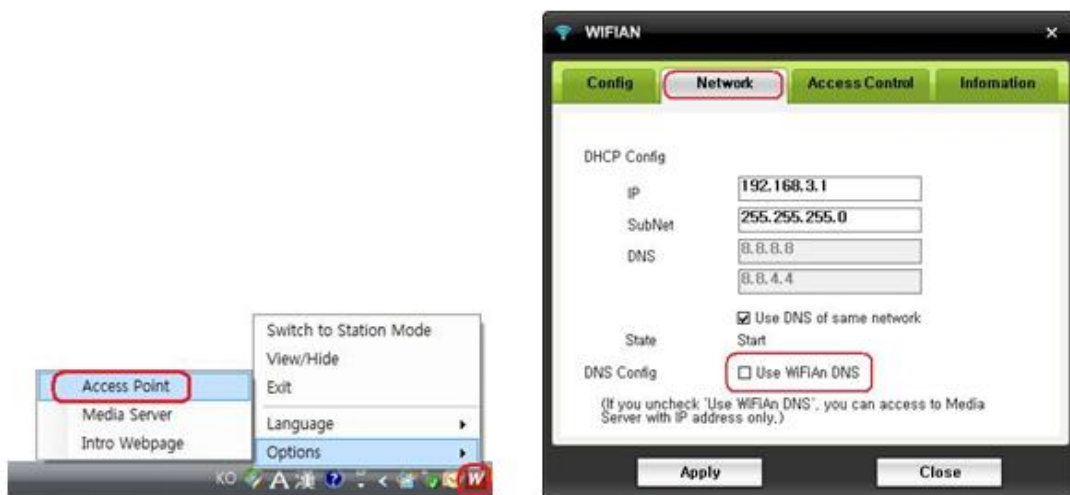
- (1) Is DNS configured correctly?
- (2) Is H/W recognized correctly? In other words, is the driver installed correctly?
- (3) Is network configured correctly?
- (4) Does ICS(internet connection sharing) service of the WifiAn connected PC work correctly?

Normally, above actions are proceeded automatically but when it does not work automatically, depending on system environments, you may need to set manually. Sometimes ICS service may not be installed even manually due to the security program VPN (Virtual Private Network) in some companies, public offices and financial organizations.

### A. Checking DNS

When the tray icon on the right bottom is red (  ), it means installation is done correctly. In this case, it is advisable for you to check DNS first.

- Click W tray and go to 'options>access point>network'
- Uncheck 'Use WifiAn DNS' and click 'Apply'
- Now, try again to access the WifiAn network on our Smartphone



Access point > Network

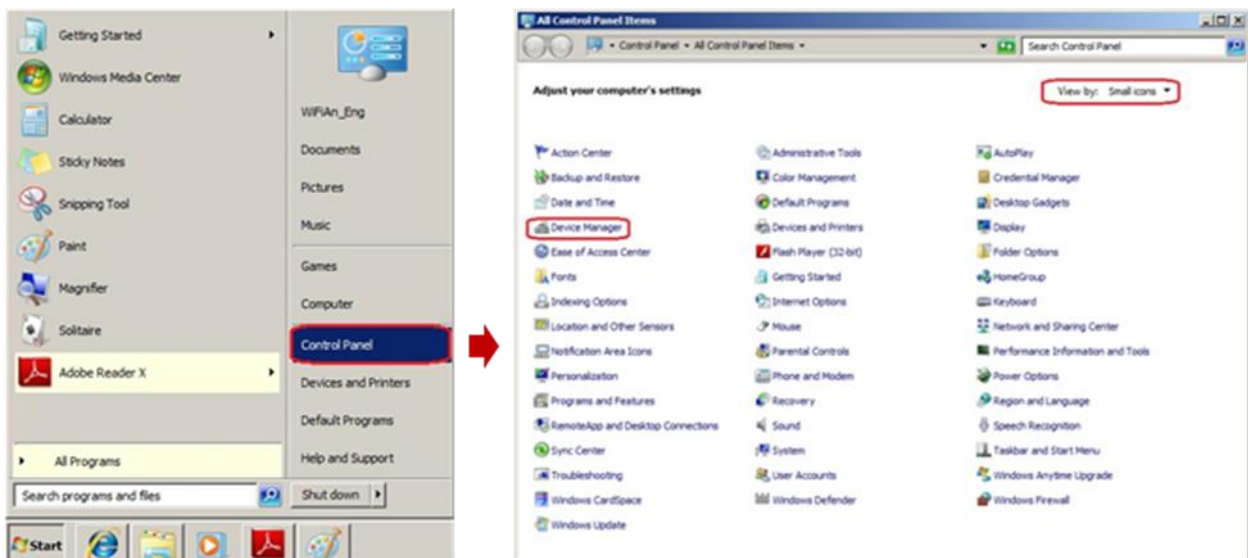
## B. Checking Driver Installation

You can check whether the WifiAn driver is installed correctly at "Control Panel > Device Manage > Network Adapters". In case of WifiAn-Mini, you need installation CD while the driver S/W is installed automatically in case of WifiAn-MS when it is plugged into a PC.

### B-1 How to go to "Device Manager" in Win7

The format may differ depending on computer systems.

- a. Go to 'Device Manager' directly: Click 'Start menu' on the left bottom and type 'device manager' on the searching bar (Keep it mind that there is a space between the two words).
- b. Go to 'Device Manager' through Control Panel (view by big or small):
  - Go to Control Panel
  - You can find the 'Device Manager' icon directly then click it.



- c. Go to 'Device Manager' through Control Panel (view by category):
  - Go to Control Panel
  - Click 'Hardware and Sounds'
  - Then you can find 'device manager' under 'devices and printers'



## B-2 Checking Driver Setting

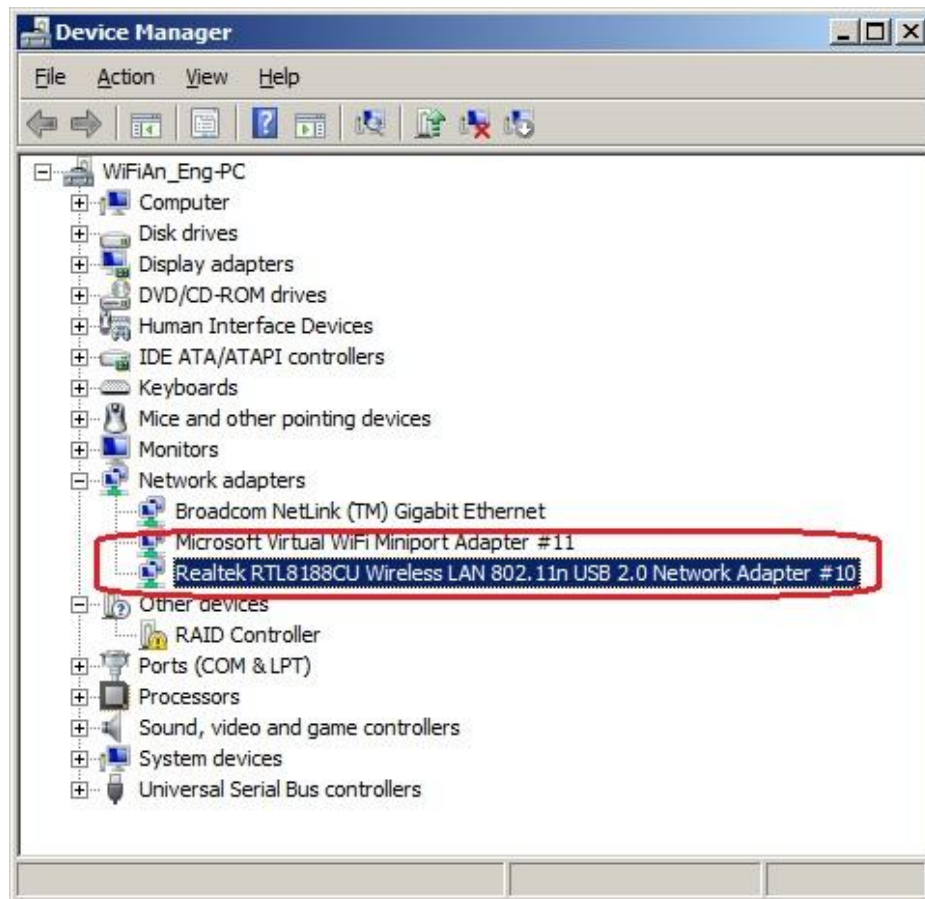
Driver names are as below

- WifiAn-Mini : "Realtek RTL8188 CU Wireless LAN 802.11n USB 2.0 Network Adapter"

In case of Win 7, Miniport driver is installed additionally because each wireless network is controlled by miniport driver

- Miniport: "Microsoft Virtual WiFi Miniport Adapter" (Win7 Only)

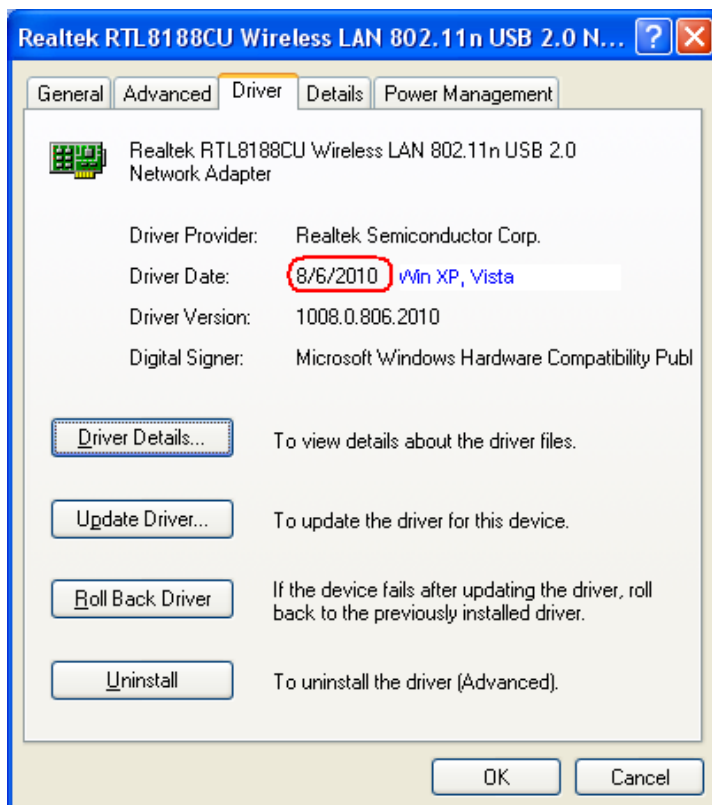
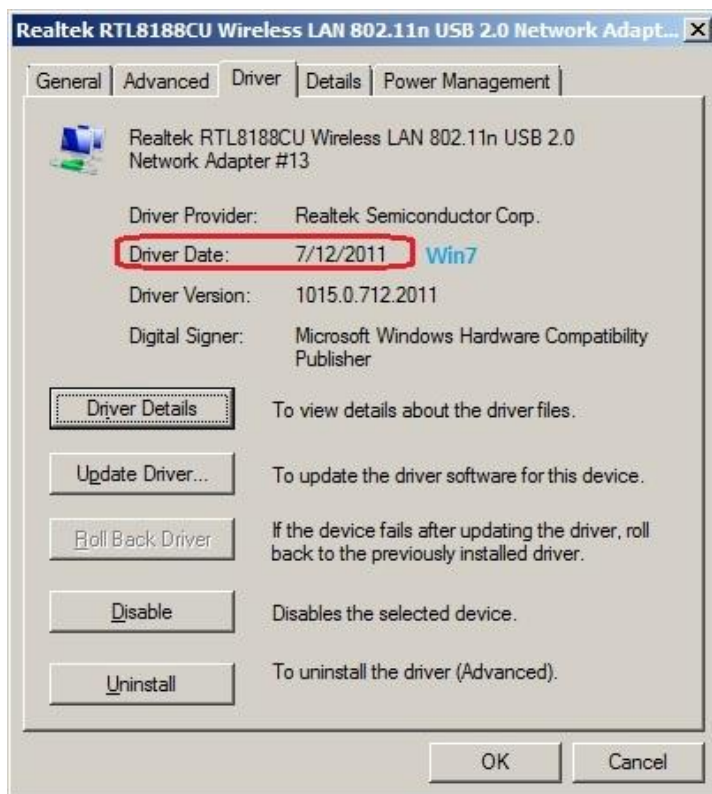
(※ Each driver name can be followed by # the number of times the driver is installed)



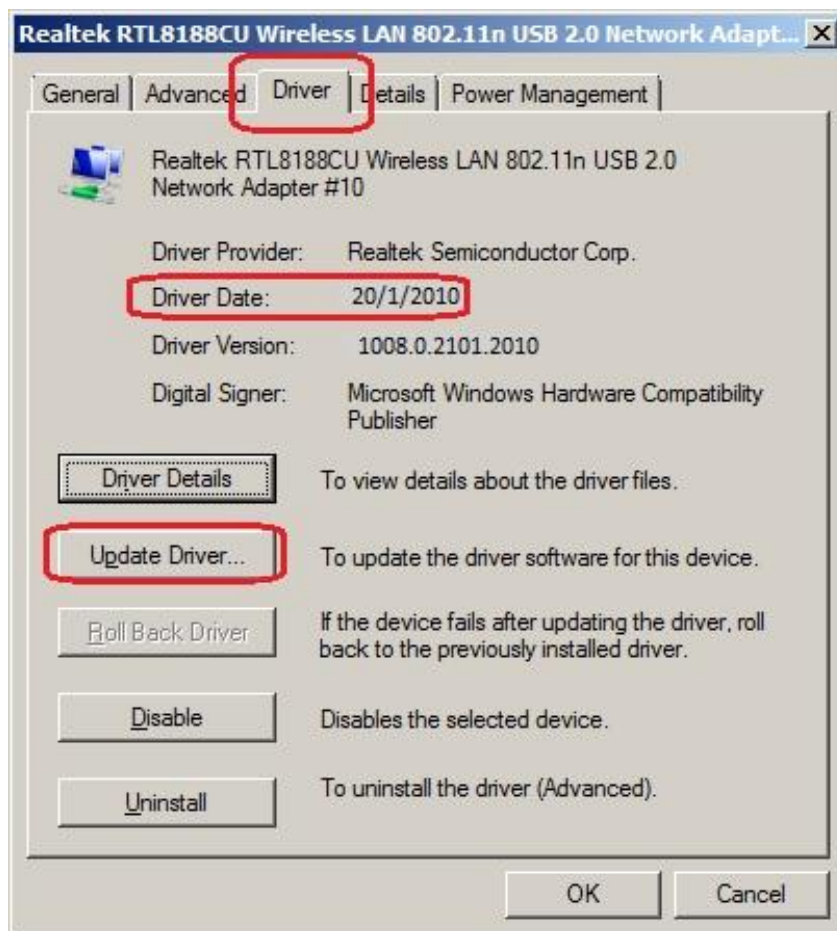
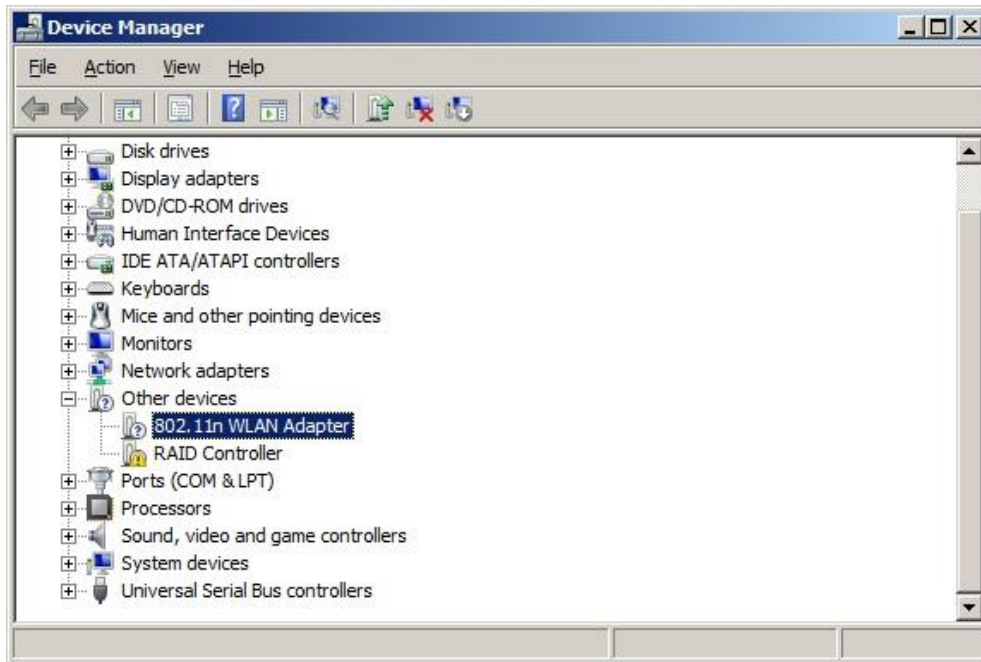
[e.g. When WifiAn-Mini is installed]

- a. You can see the driver names under 'network adapters' at 'Device Manager'
- b. The above image shows the status when WifiAn-Mini is plugged into the USB port that the driver is installed correctly.
- c. In case of Mini, you also need to check the version of the driver.
- d. check the version
  - Click the right mouse on WifiAn-Mini driver
  - 'Go to properties > driver'
  - You can see the version date here.

Proper version - Win7 : 7/12/2011, Win XP & Vista : 8/6/2010



- e. In case driver was installed wrong or different version was installed, you should update the driver with proper version.



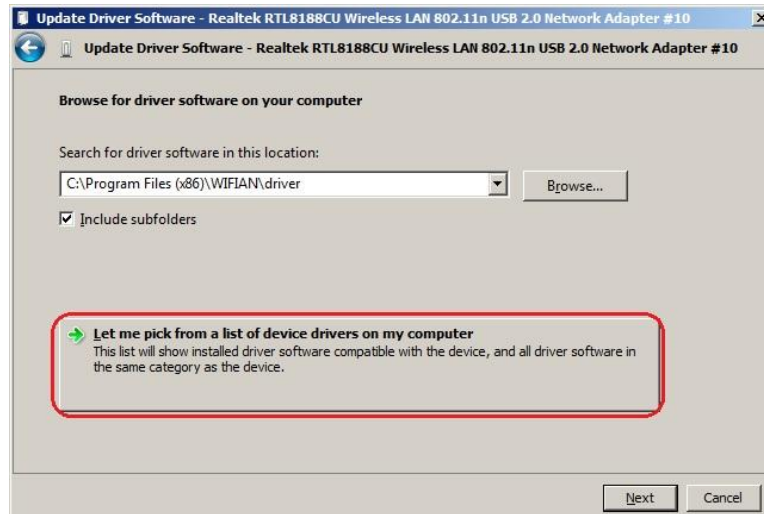
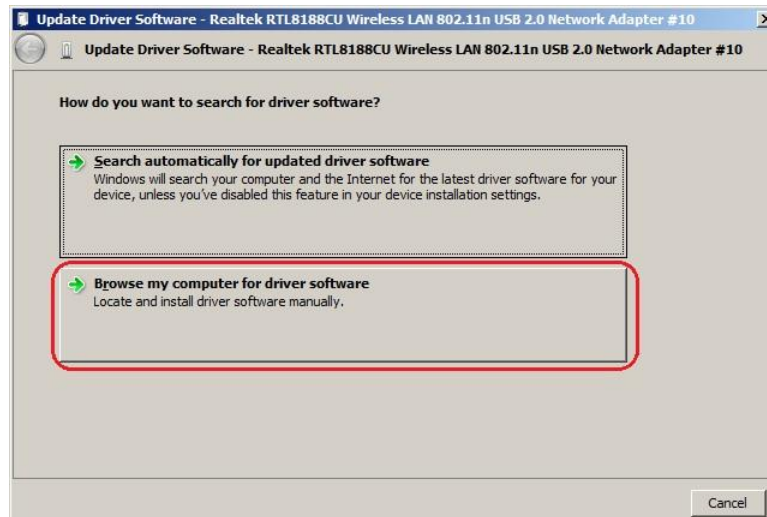
[When the driver date is not 2010-08-06]

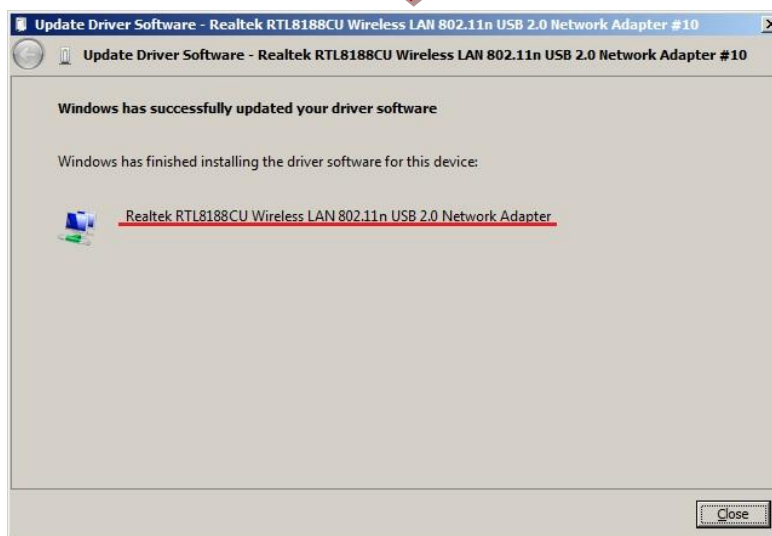
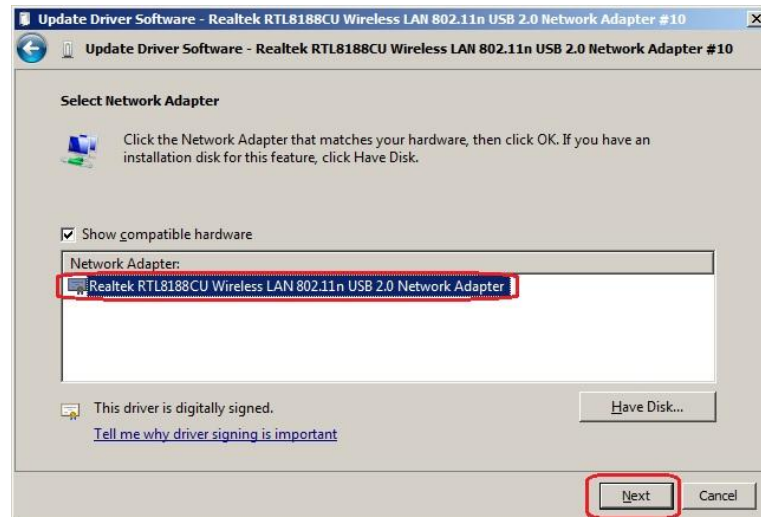


## WifiAn User Manual

To find the proper drive and update it, please follow the below steps.

- Click 'Update Driver'
- Click 'Browse my computer for driver software'
- Click 'let me pick from a list of device drivers on my computer'
- Then the driver software will be installed





### C. Checking Network Configuration

When you can find the installed driver for WifiAn on Device Manager, it means the PC recognizes the WifiAn as hardware. Thus, to make it run normally, network should also be set correctly. You can set network at 'Network Connections'.

You need to check below lists at Network connections.

- (1) Whether the Miniport driver is activated. (although you can check correctly installed Miniport Driver at 'device manager', sometimes it is not seen at Network connections')
- (2) Whether the current internet connected Network Adapter is allowed to share with WifiAn adapter(In case of Win 7, it is Miniport driver)
- (3) Whether the adapter is selected correctly on WifiAn program. (at Options > Access Point > Confi. > Network Adapter List)

## C-1 How to go to 'Network Connections'

Go to Control Panel > Network and Internet > Network and Sharing Center > Changing Adapter Settings. You can refer below captured images.



[ Click 'Network and Internet' at Control Panel ]

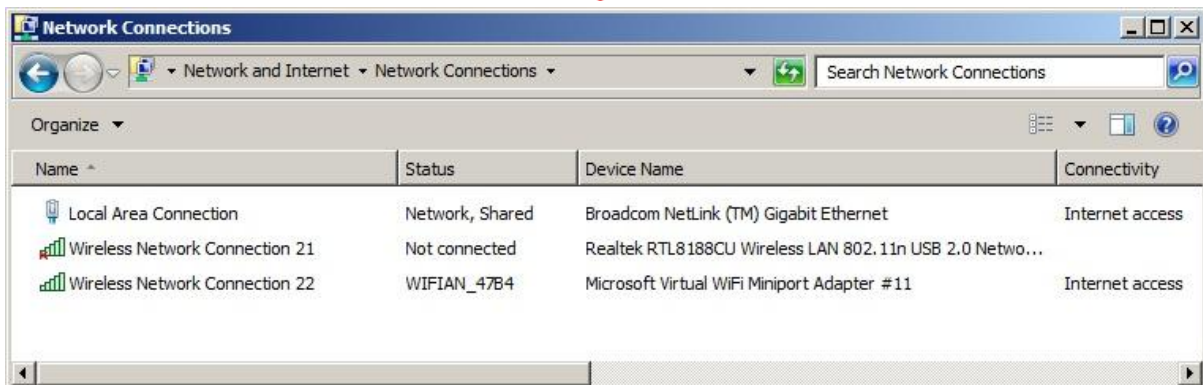


[ Click 'Network and Sharing Center' ]



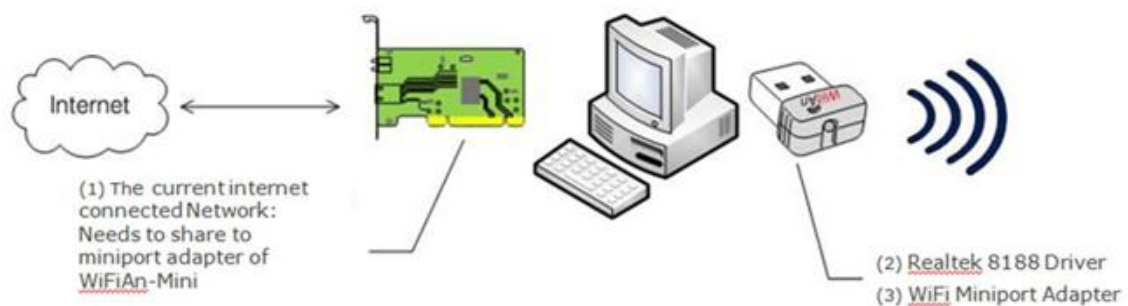


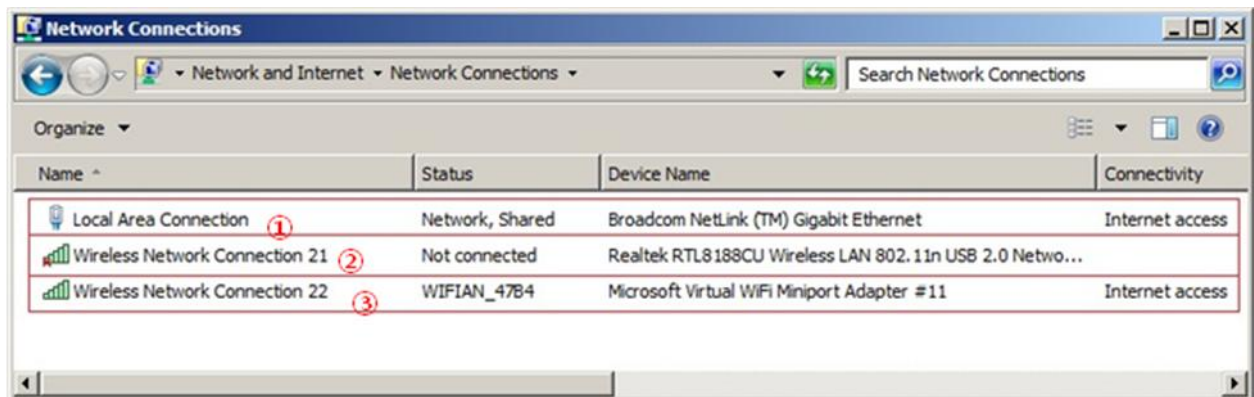
[ Click 'Change adapter settings' ]



[ You can see Network Connections ]

### C-2 Network Setting Status





[Check Network Setting]

You can check network setting status at 'Network connections' as the above image.

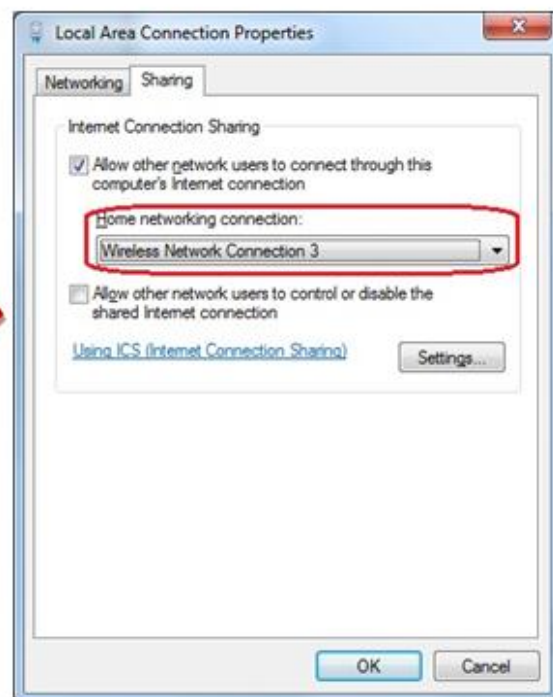
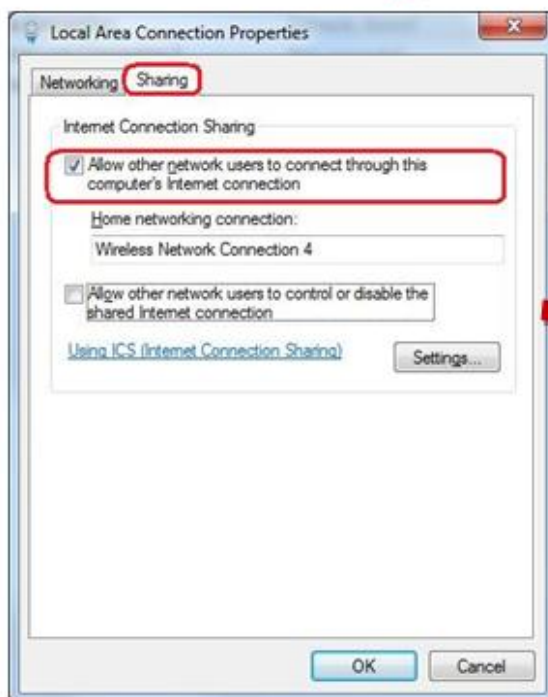
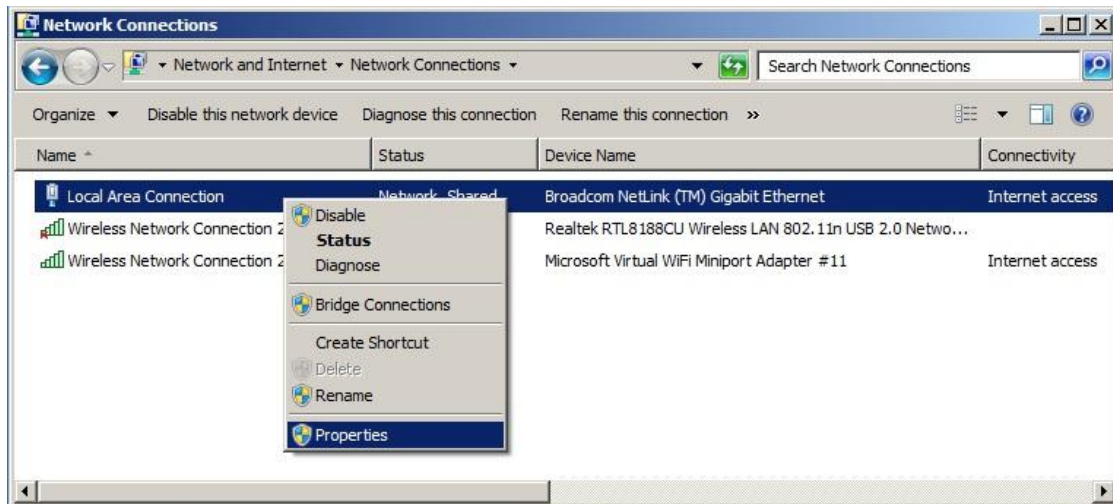
- (1) You can see the WiFi Miniport is on the device name list. It means the driver is installed correctly.
- (2) You can see the status of the current internet connected adapter(①) is as 'Network, shared'. Also, you can see its connectivity is 'internet Access'. It means ① network adapter is allowed to share with ③ network adapter.
- (3) The status of ② Network adapter is as 'not connected' because it uses Miniport Adapter ③.
- (4) Connectivity of Miniport Adapter ③ is as 'Internet Access' because it is shared with ①.

If ① network adapter is not shared with, you need to make it to be shared with ③ manually. Please see C-3.

### C-3 How to set network sharing

Please follow the below steps.

- Select ① Network Adapter (Local area connections) and click right mouse.
- Go to 'Properties' > 'Sharing'
- Check 'Allow other network users to connect through this computer's internet connection.'
- At 'Home Networking Connection', check the WifiAn network adapter ③



**C-4 When there is other network adapters besides WifiAn network adapter.**

WifiAn program has to select a internet connected network adapter automatically. However, sometimes, there is a possibility that a wrong network adapter is chosen. In this case, you need to set it manually.



To check the chosen network adapter.

- Please Click W tray and go to 'Options>Access Point>Config'
- You can see which network adapter is being selected on 'Network Adapter List'

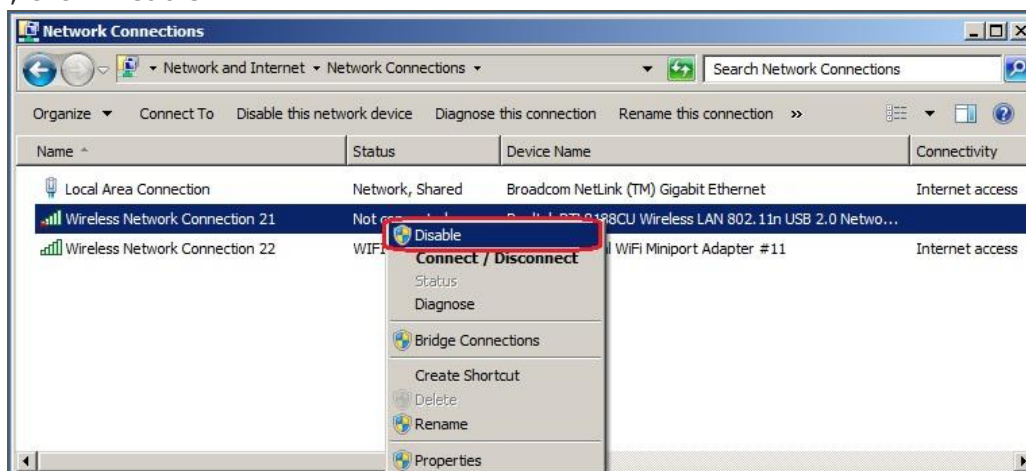
When it is not the internet connected network adapter, you need to uncheck 'Auto Selection' and select it manually.

### C-5 When the WifiAn connected PC is a laptop.

There might be a collision between an embedded wireless network adapter and WifiAn network adapter when you use a laptop as the host PC. If you use wired internet you need to set the embedded network adapter as 'disable'.

How to set

- Please, go to 'Control Panel > Network and Internet > Network and Sharing Center > Changing Adapter Settings'
- Select the embedded wireless network adapter and click right-mouse.
- Then, click 'Disable'

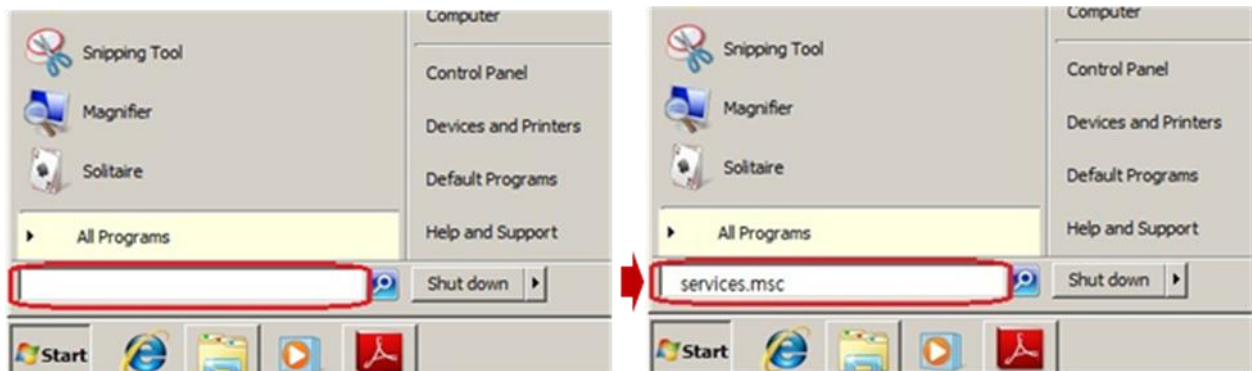


## D. Checking ICS setting

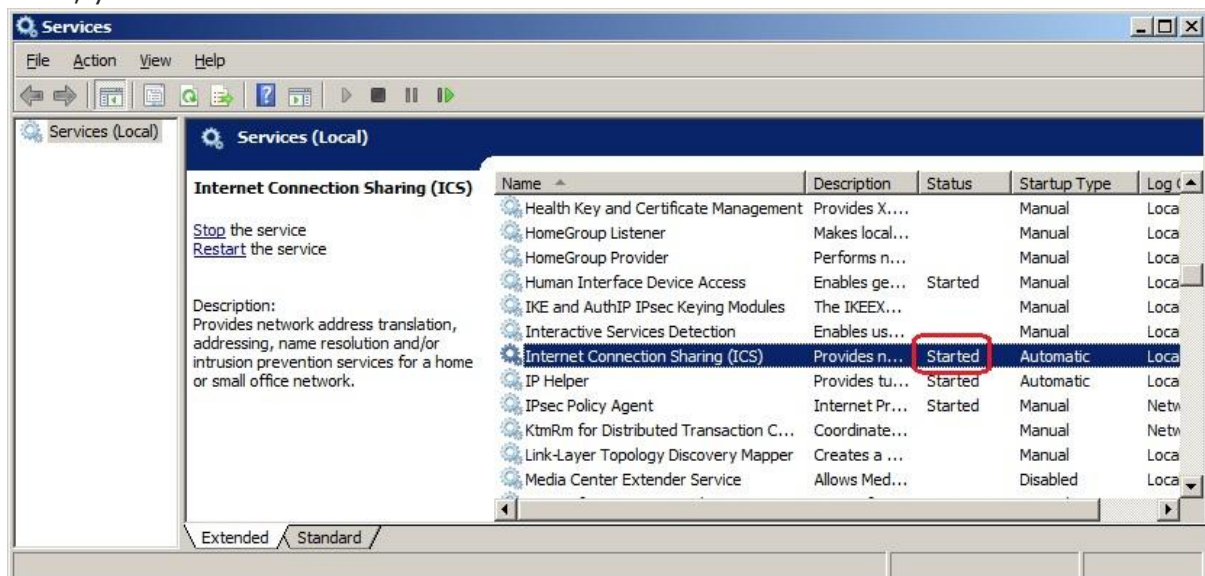
WifiAn is operated by using ICS(Internet Connection Sharing) service Window provides. Thus, ICS should be set as 'started'.

### D-1 To check ICS status

- Go to 'Control Panel > Administrative Tolls > Services' or
- 'Control Panel > System and Security > Administrative Tolls > Services' or
- Type 'services.msc' on program searching bar on start menu (see below image)



Then, you can check ICS status.



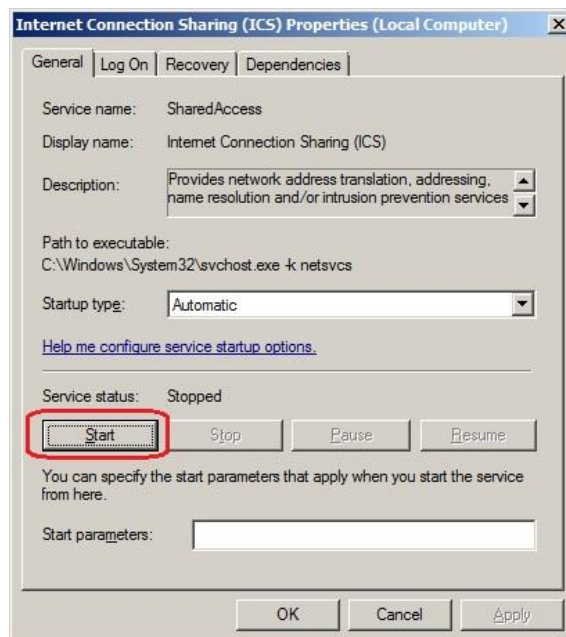
[Status of ICS: Started]

When it is not as 'started' you need to change it.

### D-2 To configure ICS as 'started'

- Double click on the 'Internet Connection Sharing (ICS)'
- Then click 'Start' button

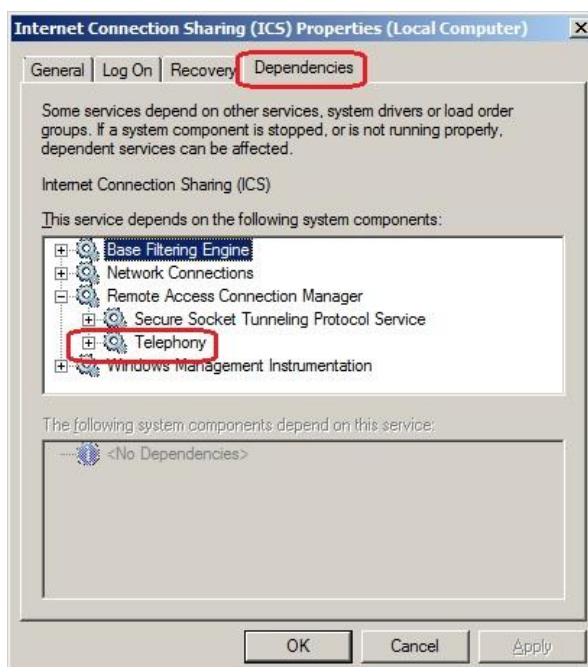




If the status does not turn to 'Started' although you click the 'start' button, you need to check status of 'Telephony'.

### D3 To check Telephony

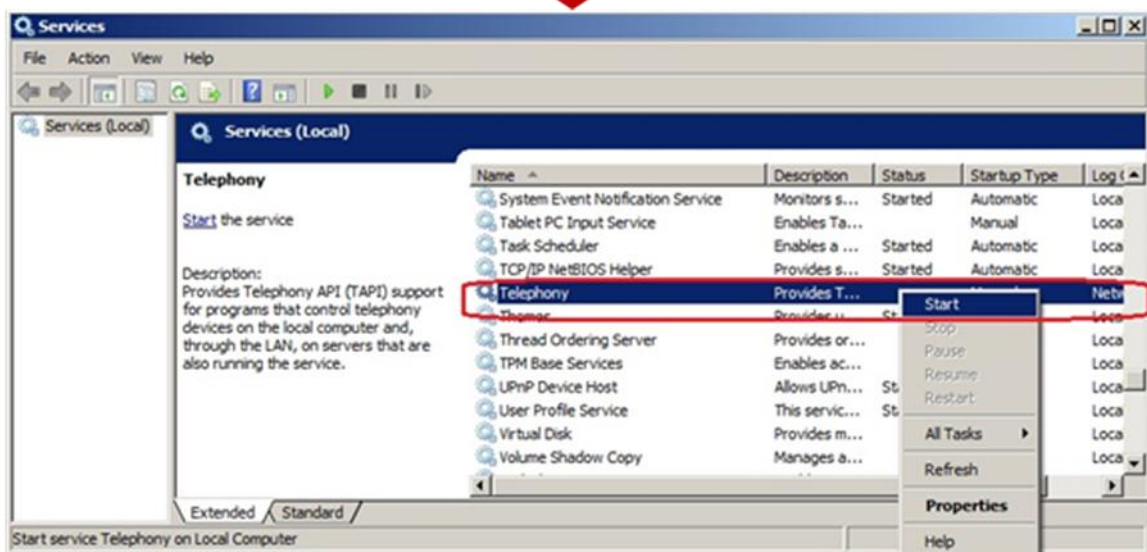
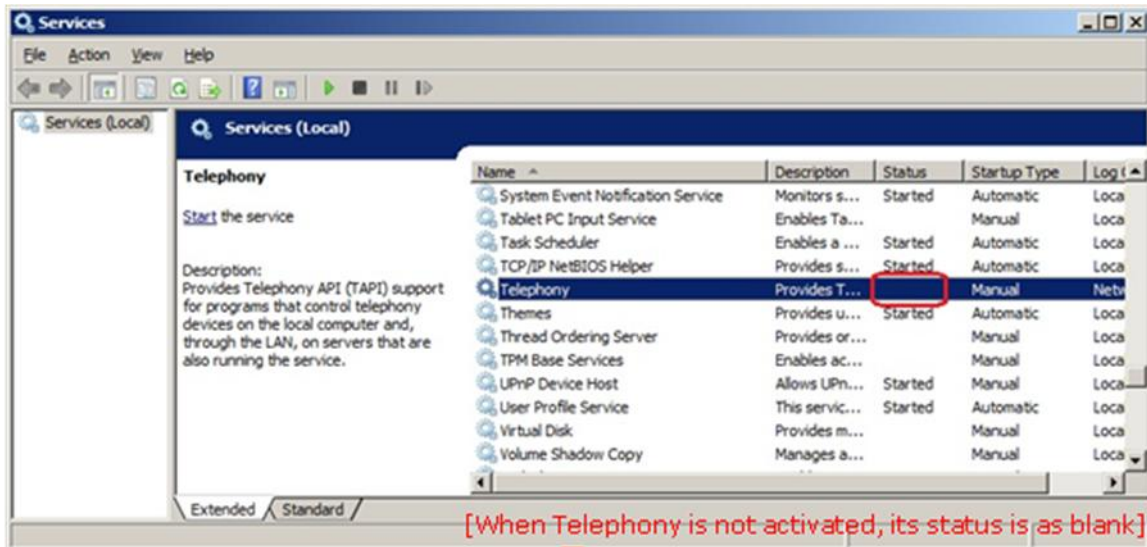
- Go to 'Dependencies' tab
- Then you would see 'Telephony' is one of dependencies.



Normally, Telephony should be working automatically but sometimes it can be blocked by some security programs. In this case, you need to set it as 'started'.

#### D4 To configure Telephony as started

- Go to 'Services'
- Find 'Telephony'
- If its status is not 'started', then click right mouse and click 'start'.



### **E. Environments that WifiAn service is limited**

WifiAn service could be limited in below environments.

- Sometimes, it can be blocked by security programs in financial institutions, public offices and some companies. (Virus or firewall programs at you personal PC does not matter to use WifiAn)
- When a company use VPN(Virtual private network), if the host PC of the VPN doesn't use ICS. (Usually in case of groupware)
- When a security program, which had been installed in the past, still act at 설정 프로세서, after it was deleted because only its application was deleted, blocks ICS configuration. In his case, you need to delete this process through Task Manager after that, block the processes at 'msconfig > Window Startup'
- Win7 Starter version doesn't support ICS. (Often in case of Netbook)

## FCC STATEMENT

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

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operations.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### FCC Radiation Exposure Statement:

The output power from the device is below the threshold for requiring RF exposure evaluation and may be used in portable conditions within 20cm of the body.

### Caution:

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.

ENJsoft  
USB dongle type Wireless LAN  
Model : WifiAn-Mini  
FCC ID : BDD-WifiAn-Mini 

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