## >>> 4.3 Encryption

To setup the Network Key, check **Encryption** option first, then cancel **The key is provided for me automati**cally option. In the wireless network environment, the administrator can set up password (Network Key) to protect the network from being attacked or unauthorized access. When building the network, you can set up 4 sets of WEP keys, which can be 5 characters (10 hex-adecimal digital) or 13 characters (26 hex-adecimal digital) and specify one of them to use.

	Association
	Network name (SSID): MSI_adhoc
	Wireless network key (WEP)
	This network requires a key for the following:
Check this	Encryption(WEP enabled)
	Network Authentication (Shared mode)
	Network key:
	Key format: ASCII characters
	Key length: 104 bits (13 characters)
	Key index (advanced):
Cancel this	he key is provided for me automatically
	✓ This is a computer-to-computer (ad hoc) network; wireless access points are not used
	OK Cancel

#### Network key

Enter a key for the network.

#### Key format

You can decide the network key to be encoded by ASCII characters or hexadecimal digitals.

#### **Key length**

In ASCII characters format, it can be 5 or 13 characters. In hexadecimal digitals format, it would be 10 or 26 digitals.

#### Key index

There can be up to 4 sets of WEP key  $(1\sim 4)$ . The 4 sets of WEP key must have the identical sequence with the key settings on the Access Point.

## >>> 4.4 Status

	Wireless Netwo	k Connection	
	Wireless Network	Status Information	
	Channet: Speed: Radio: SSID: MAC addre		Change Submit Cancel
Signal Strength: shows the received signal strength level. Link Quality: shows the measured signal level and connection status.	Packets: Signal Stre	189 3	Received ISI Cancel

In Status tab, you can configure more network settings.

#### Channel

Specify the operating radio frequency channel in Ad-hoc mode, which should be set to the same channel as the other points in the wireless network.

#### Speed

This field sets the current transmitting rate. The speed should be set to *Auto* rate to optimize performance and range, which will adjust the transfer speed for best performance and longest range automatically.

#### Radio

Set to On to activate the radio.

#### SSID

Means Service Set Identifier, a unique name shared among all points in a wireless network. It must be identical for all points in the network. Then the card will be able to connect to an access point with the same SSID. Click *Advance*, and you can get more information about the LAN traffic status and more detailed settings.

A	dv	ance Settin	gs					×
,	√isi	ble site:					Refresh	
[	S	SID	Channel	Signal Stren	WEP	MAC Add	ress	
	Å	MSI	6	-31	No	00:80:C8:	0A:04:B4	
		Selected netv	vork:					
		Standard:	802.1	1b and 802.11g				
		Supported ra	tes: 1, 2, 5	5.5, 11, 6, 12, 24	, 36Mbps			
		Fragmentatio	n threshold:		2346		5	
		RTS thresho	ld:		2347		5	
		Preamble typ	e:	Auto	•			
		Country:		Worldwide	Ŧ			
		Power save:		Off	•			
				Ж	Cance	el		

It is not recommended to change these settings if you are not familiar with the advanced configuration.

#### **Fragmentation Threshold**

You may set the length of the fragment in this field. Please note that each fragment should not be larger than the Fragmentation Threshold.

#### **RTS/CTS** Threshold

You may set the length threshold.

#### **Preamble Type**

You may set the length of preamble in this field. Setting options are: *Long* - it is set to 144 bits. *Short* - it is set to 72 bits. *Auto* - The card supports an auto-detection feature, it automatically selects the *Preamble Type* depending on the Access Point Preamble Type if this option is selected.

#### Country

Select one option according to your location you are in. The options are: **Worldwide 1-13**, **Japan 1-13**, and **USA 1-11**. The default setting is **Worldwide 1-13**.

#### Power save

The card will turn into power save mode when idle.

## >>> 4.5 Information

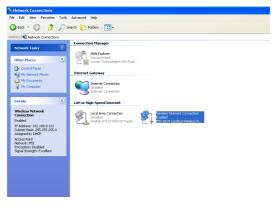
In **Information** tab, you can get some information about the manufacturer, hardware and software.

Wireless Network Connection	×
Wireless Network Status Information	
MSI Wireless LAN Utility Copyright(C) 2002, MICROSTAR http://www.msi.com.tw	
Hardware Information:	
Board Model: MS6820	
Software Information:	
Driver Version: 3.20.23.0	
Applet Version: 1.9.27.45	
Applet D ate: 2003/07/15	
Canc	el

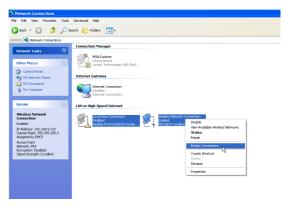
### >>> 4.6 Sharing Network under Windows® XP

Windows<sup>®</sup> XP provides a special feature to link two networks.

- 1. Go to Start -> Settings -> Control Panel.
- Select the Network Connections item in Control Panel to open the Network Connections window.



 Select Wireless Network Connection and Local Area Connection simultaneously; then, right-click to select Bridge Connections in the context menu.



 Go to Start -> Run and enter cmd in the Open box; then, click OK, and a DOS prompt window will appear.

	Run	2 🛛
		Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Enter <b>cmd</b>	Open:	amd 💌
in the box		
		OK Cancel Browse
		Click

- 5. Type *net bridge show adapter* and press [Enter].
- Type netsh bridge set adapter X forcecompatmode=enable, where X is your ethernet identifier, and press [Enter].
- Type netsh bridge set adapter Y forcecompatmode=enable, where Y is your wireless identifier, and press [Enter].

🗪 Command Prompt		- 🗆 ×
C:\>netsh bridge show\adapter		<b>^</b>
ID AdapterFriendlyName	ForceCompatibilityMode	
1 Wireless Network Connection 2 Local Area Connection		
C:\>netsh bridge set adapter 1	forcecompatmode=enable	
C:\>netsh bridge set adapter 2	forcecompatmode=enable	
C: \>		

 Click the MSI Wireless LAN icon in status area, and click *Advanced* to bring up the *Wireless Network Connection Properties* window. Click *Add...* to add a new wireless network connection.

		Wireless Network Conn	ection		>
		The following wireless netwo network, select it from the list			
		Available wireless networks:			
		🗣 MSI			
		This network requires the use this network, type the key, and Network key:		EP). To access	
		If you are having difficulty co	nnecting to a network	click Advanced	
		Advanced	Connect	Cancel	
			es ?( vanced settings gure. Configure	×	
		[	Refresh		
	Preferred networks: - Automatically connec below:	to available networks in th	ne order listed		
Clink		( )	Move down		
Click	Learn about <u>setting up</u> <u>configuration</u> .	Nemove Properties	Advanced		
		OK	Cancel		

9. Enter a name for this new network in the Network name (SSID), and check the "This is a computer-to-computer [ad hoc] network; wireless access points are not used" option. In this case, this computer will function as an access point, while other computers can use this network name (which is "aaa" in the picture below) to access. Once they connect success fully, they could access the ethernet LAN via Network Neighborhood.

	Wireless Network Prop	erties 🛛 🥐	$\times$
Enter SSID	Network name (SSID):	aaa	
Enter SSID	Wireless network key (WE	P)	
	This network requires a ke	y for the following:	
	Data encryption (WE	P enabled)	
	Network Authenticat	ion (Shared mode)	
	Network key:		
	Key format:	ASCII characters 🗸 🗸	
	Key length:	104 bits (13 characters) 💌	
	Key index (advanced):	0	
	The key is provided for	me automatically	
Check this	his is a computer-to-con Raccess points are not use	nputer (ad hoc) network; wirel ed	ess
		OK Cancel	

Please also refer to Windows XP help file for more information.

# Network Connection

This chapter describes how to prepare for connection to network and some basic outline of networking basics, including sharing files, printing from a computer on the network, or accessing the Internet on multiple computers with one connection.

## >>> 5.1 Checking the Network Elements

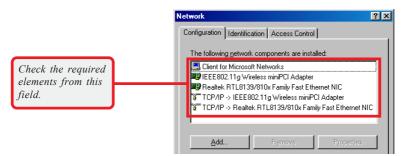
The following elements are required for all computers if you want to connect to a network:

- Client for Microsoft Network
- TCP/IP (for MSI 6820 MiniPCI Card)
- File and printer sharing for Microsoft Networks

To check the required elements are installed in the system, you can:

#### Q Under Windows 98SE/ME

- Click Start and choose Settings; then, click Control Panel to open the Control Panel window.
- 2. Double-click the Network icon.
- **3.** The **Network** window appears to show the current network settings of the system.



#### Q Under Windows 2000/XP

- 1. Click Start and choose Control Panel to open the Control Panel window.
- 2. Double-click the **Network Connection** icon to open the **Network Connection** window.
- Right-click the Wireless Network Connection icon and click *Properties* from the shortcut menu.
- The Wireless Network Connection Properties window appears to show the current network settings of the system.

	Local Area Connection 4 Properties	? ×
	General Sharing	
	Connect using:	
	MSI 6820 miniPCI Wireless Network Adapter	
	, Configure	
	Components checked are used by this connection:	
Check the required elements from this	Client for Microsoft Networks      Reg File and Printer Sharing for Microsoft Networks	
field.	File and Printer Sharing for Microsoft Networks     File and Printer Sharing for Microsoft Networks     File and Printer Sharing for Microsoft Networks	
2		-11
	Install Uninstall Properties	

## >>> 5.2 Computer Identification

Please verify that each computer has a unique name and common workgroup name, if you had previously given your Windows 98SE/ME/2000/XP computers names.

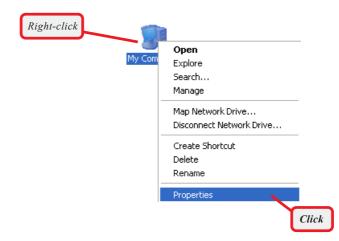
#### Q Under Windows 98SE/ME

- 1. Open the **Network** window as described in previous section, and choose **Identification** tab.
- 2. Type a name for the computer In the Computer name box. This will be the name of this computer used by other computers on your network to communicate with. Please NOTE that each computer's name must be unique on a particular network to avoid confusion.
- Type the workgroup name that the computer will belong to in the *Workgroup* box. All the computers on your network should have an identical Workgroup name.
- 4. The **Computer Description** box is optional. You may enter a description that helps to identify this computer on your network. Then, click **OK**.
- 5. Repeat the procedure above for each computer on your network to ensure that they all have unique Computer Name and identical Workgroup.

	Network ?X
	Configuration Identification Access Control
Enter a name for your computer (less than 15 characters	Windows uses the following information to identify your computer on the network. Please type a name for this computer, the workgroup it will appear in, and a short description of the computer.
without space.	Computer name: MSI
Your computer will	Workgroup: MSI
belong to this workgroup.	Computer Description:
Enter some information	
for reference.	
	OK Cancel

#### Q Under Windows 2000/XP

 Right-click My Computer icon on your Windows desktop, and click *Properties* from the shortcut menu.



2. The System Properties window appears; choose Computer Name tab.

	System Properties ? 🗙
	System Restore Automatic Updates Remote General Computer Name Hardware Advanced
Enter some information	Windows uses the following information to identify your computer on the network.
for reference. Your computer's	Computer description: For example: "Kitchen Computer" or "Mary's Computer". Full computer name: MSI.
Your computer will belong to this workgroup.	Full computer name:       MSI.         Workgroup:       MSI_DFFICE         To use the Network Identified ion Wizard to join a domain and create a local user account, click Network ID ID.       Network ID         To rename this computer or join a domain, click Change.       Change
	OK Cancel Apply

- **3.** To rename the computer and join a workgroup/ domain, click **Change**.
- 4. The Computer Name Changes window appears as below. Enter a Computer Name, select Workgroup and enter the name of your workgroup. Please NOTE that each computer's name must be unique on a particular network to avoid confusion.
- 5. Click **OK** to save changes.

	Computer Name Changes
	You can change the name and the membership of this computer. Changes may affect access to network resources.
Enter a name for your computer (less than 15 characters without space.	Computer name: MSI Full computer name:
, mour space.	MSI.
	Member of O Domain:
Enter the name of the workgroup.	Workgroup:      MSI_OFFICE
	OK Cancel

## >>> 5.3 Configuring a Dynamic/Fixed IP Address

When the drivers are installed, the default setting here is set to obtain IP dynamically through a DHCP server. If you want to change the settings, please follow the steps below:

#### Q Under Windows 98SE/ME

- 1. Go to Start -> Settings -> Control Panel.
- 2. Double-click the Network icon.
- The Network window appears as below. Select TCP/IP -> IEEE802.11g Wireless Network miniPCI Adapter, and click *Properties* to bring up the TCP/IP Properties window.

	Network	? ×
	Configuration   Identification   Access Control	
Select this	The following network components are installed: Client for Microsoft Networks FIEE802.11g Wireless miniPCI Adapter Realtek RTL8139/810k Family Fast Ethernet NIC TCP/IP-> IEEE802.11g Wireless miniPCI Adapter TCP/IP-> Realtek RTL8139/810k Family Fast Ethernet N Add Remove Primary Network Logon: Client for Microsoft Networks Eile and Print Sharing Description	Click
	TCP/IP is the protocol you use to connect to the Internet an wide-area networks.	ncel

- **4.a** To configure a dynamic IP address, choose IP Address tab and check Obtain an IP Address Automatically.
- 4.b To configure a fixed IP address, choose IP Address tab and check Specify an IP Address. Then, enter an IP address into the empty field. Suggested IP Address Range is 192.168.1.1 to 192.168.1.253, and suggested Subnet Mask is 255.255.255.0.

TCP/IP Properties	<u>?  × </u>
Bindings Advanced DNS Configuration Gateway WINS Configura	NetBIOS In Address
An IP address can be automatically assigned to If your network does not automatically assign IP your network administrator for an address, and th the space below.	addresses, ask
Check this	
O Specify an IP address:	
IP Address:	
Sgbnet Mask:	
	TCP/IP Properties ? X
Detect connection to network media	Bindings Advanced NetBIOS
	DNS Configuration   Gateway   WINS Configuration   IP Address
4.a Configuring a dynamic IP address	An IP address can be automatically assigned to this computer. If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.
Check this	<u>O</u> btain an IP address automatically      Specify an IP address
	IP Address: 192.168. 1 .101
Enter a fixed IP address and	Sybnet Mask: 255.255.255.0
Subnet Mask	
	Detect connection to network media
	OK Cancel
1	

4.b Configuring a fixed IP address

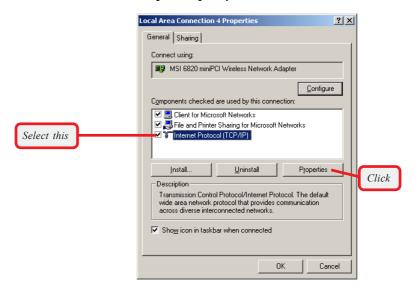
5. Click **OK**. Then, click **Yes** when prompted to reboot the computer.

#### Q Under Windows 2000/XP

- 1. Click Start and choose Control Panel to open the Control Panel window.
- 2. Double-click the **Network Connection** icon to open the **Network Connection** window.
- Right-click the MSI 6820 miniPCI Wireless Network Adapter icon and click Properties from the shortcut menu.

Wireless Network Cf Enabled MSI 6819 Cardbus	onnection Disable View Available Wireless Networks Status Repair Bridge Connections Create Shortcut Delete Rename Properties	
E		Click

4. When the Wireless Network Connection Properties window appears, choose General tab and select Internet Protocol [TCP/IP], and click Properties to bring up the Internet Protocol [TCP/IP] Properties window.



- **5.a** To configure a dynamic IP address, check **Obtain an IP Address Automatically**.
- 5.b To configure a fixed IP address, check Use the following IP address. Then, enter an IP address into the empty field. Suggested IP Ad dress Range is 192.168.1.1 to 192.168.1.253, and suggested Subnet Mask is 255.255.255.0.

	Internet Protocol (TCP/IP)	Properties	? 🗙
	General Alternate Configuration	on	
	this capability. Otherwise, you the appropriate IP settings.	ned automatically if your network supports need to ask your network administrator fo	
Check this	Obtain an IP address au		
	Use the following IP add	ress:	
	IP address:		
	Subnet mask:		
	Default gateway:		
	<ul> <li>Obtain DNS server addr</li> </ul>	ess automatically	
	Use the following DNS s	erver addresses:	
	Preferred DNS server:		
	Alternate DNS server:		
		Advanced.	
		Internet Protocol (TCP/IP) Prop	erties ? 🔀
		General	
5.a Configuring a dy	vnamic IP address	You can get IP settings assigned aut this capability. Otherwise, you need to the appropriate IP settings.	
-		Obtain an IP address automatic.	allu
	Check this	Jse the following IP address:	
		IP address:	192.168.0.101
Ento	r a fixed IP	Subnet mask:	255.255.255.0
	ess and	Default gateway:	
Subr	net Mask	Obtain DNS server address auto	omatically
		<ul> <li>Use the following DNS server are</li> </ul>	
		Preferred DNS server:	
		Alternate DNS server:	· · ·
			Advanced
			OK Cancel

5.b Configuring a fixed IP address

6. Click **OK** to complete the configuration.

## >>> 5.4 Checking TCP/IP Address

#### Q Under Windows 98SE/ME

- 1. Go to Start -> Run....
- 2. Type *winipcfg* in the Open box and click *OK*.

	Run	<u>? ×</u>
		Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Type winipcfg here.	<u>O</u> pen:	winipofg 💌
	·	OK Cancel Browse

 The IP Configuration screen will appear, click More Info to bring up a screen containing detail information of your wireless network adapter.

	P Configuration	
	- Host Information Host Name	hw5-DA7.WORKGROUP
	DNS Servers	168.95.1.1
	Node Type	Broadcast
	NetBIOS Scope Id	
	IP Routing Enabled	WINS Proxy Enabled
	NetBIOS Resolution Uses DNS	<b>√</b>
	Ethernet Adapter Information	IEEE802.11g Wireless miniPCI A(
	Adapter Address	00-10-DC-68-20-02
Check the configuration	IP Autoconfiguration Address	169.254.112.237
of IP Address, Subnet	Subnet Mask	255.255.0.0
Mask, and Default Gateway are correct.	Default Gateway	
Guleway are correct.	DHCP Server	255.255.255.255
	Primary WINS Server	
	Secondary WINS Server	
	Lease Obtained	08 22 03 1:58:50 PM
	Lease Expires	
	OK Release Re	enew Release All Renew All

#### Q Under Windows 2000/XP

- **1.** Go to **Start -> Run...**
- 2. Type *cmd* in the Open box and click *OK*.



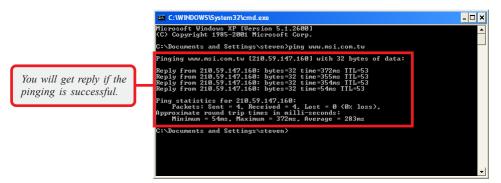
 A DOS prompt window appears. Type *ipconfig/* all and press [Enter] to display IP information.

ef       Ethe net auapter Local nrea connection 4.         Media State		D/\WINNT\System32\cmd.exe
<pre>tion et Host Name</pre>		D:\>ipconfig/all
Primary DNS Suffix : Hybrid TP Routing Enabled : No Primary DNS Suffix : Hybrid TP Routing Enabled : No Ethernet auguer Local mea connection 4: Media State : Cable Disconnected Description : MSI 6820 miniPC1 Wireless Network 6 Description : 00-10-DC-68-20-02 Ethernet adapter Local Area Connection: Connection-specific DNS Suffix . : Description : Realtek RIL8139/810% Family Fast Ethernet NIC Physical Address : 20-10-DC-65-69-08 DHCP Enabled : No IP Address : 192.168.1.101		Windows 2000 IP Configuration
21       Media State	tion	Primary DNS Suffix : Node Type : Hybrid IP Routing Enabled No
apter Physical Address : 00-10-DC-68-20-02 Ethernet adapter Local Area Connection: Connection-specific DNS Suffix . : Description : Realtek RIL&139/&10× Family Fast Ethernet NIC Physical Address : 00-10-DC-65-A9-08 DHCP Enabled : No IF Address : 192.168.1.101	et	
Connection-specific DNS Suffix .: Description Realtek RTL8139/810x Family Fast E ernet NIC Physical Address 900-10-DC-65-A9-08 DHCP Enabled No IP Address 192.168.1.101		apte: Physical Address 00-10-DC-68-20-02
Default Cateway		Connection-specific DNS Suffix         :           Description

Check the configuration of IP Address, Subnet Mask, and Default Gateway are correct.

## >>> 5.5 Checking Connection by Pinging

- 1. Go to Start -> Run....
- Type command (Windows 98SE/ME) or cmd (Windows 2000/XP) in the Open box and click OK.
- A DOS prompt window appears. Type *ping www.msi.com.tw* (or any URL address), which is the IP address of the Gateway in this case, and press [Enter].

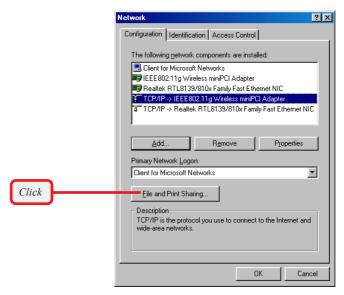


## >>> 5.6 Sharing Files

You may now open and save files on other computers once your computers are connected together on a network. You will also be able to specify particular folders or disk drives to share and even password to protect them. Please verify that each computer has a unique name and common workgroup name, if you had previously given your Windows<sup>®</sup> 98SE/ME/2000/XP computers names. Follow the steps below to share specific files and folders with other computers on your network.

- On your Windows desktop, right-click My Network Place icon and select Properties from the context menu.
- 2. You will configure your computers network settings in this dialog. It is also available through the **Network** icon in the **Control Panel**.

#### 3. Click File and Print Sharing.



4. Check the option I want to be able to give others access to my files, and click OK.

	File and Print Sharing	1
Check this	<ul> <li>Want to be able to give others access to my files.</li> <li>I want to be able to allow others to grint to my printer(s).</li> </ul>	
	Cancel	
	Click	

- 5. Click **OK** in the Network dialog box.
- 6. Provide the Windows Setup CD or direct the path to the proper location of the installation files if prompted. Then, reboot if prompted.
- 7. Now you can identify a particular folder or disk drive to share, which means you can share a folder that both you and your family member/ colleague needs to access occasionally. You can also share your CD-ROM drive for others to use if your other computers do not have one. Both of these processes are the same. Only the disk drives and folders that you specifically identify as shared will be accessible to other computers on your network.
- Locate the disk drive or folder you want to share in Windows Explore or My Computer icon on your desktop.
- **9.** Right-click the disk drive or folder and select **Sharing**.

My N	Den Explore Search ) WinZip ►
	S <u>h</u> aring
	Send To 🕨 🕨
	Си <u>t</u> <u>С</u> ору
	Create <u>S</u> hortcut <u>D</u> elete Rena <u>m</u> e
	Properties

**10.** Select **Share As** to set the parameters for sharing this particular disk drive or folder.

My Music Properties
General Sharing
C Not Shared
Shared As:
Share Name: MY MUSIC
Comment:
Access Type:
C <u>R</u> ead-Only
• Ful
C Depends on Password
Passwords:
Read-Only Password:
Full Access Password:
OK Cancel Apply

#### - Share Name

This is used to identify the disk drive or folder you are sharing to other computers in the network, which can be helpful as more resources in your network for others.

#### - Comment

This field is optional, which can be used to further describe the disk drive or folder for others in the network.

#### - Access Type

This option allows you to designate how much someone else can do with this shared disk drive or folder. Setting options are: *Read-Only* - only allows others to look at or open the files in the disk drive or folder. *Full* - allows others to read, write, open, save, copy, move, and even delete files. *Depends on Password* - gives other computers access conditional on the password they provide.

#### - Password

This option allows you to apply a level of security to your shared disk drive and folder. Any other computer (user) will be asked to enter the password you set here before accessing the disk drive or folder. Two passwords are used to give two levels of security (or access) to others in the network using the **Depends on Password** setting. Leaving the Password boxes empty will give everyone in the network access to the disk drive or folder.

- Click OK to continue. You will be prompted to type the password(s) you provided for verification. Type the password(s) just as you typed them again.
- 12. Now you may access this disk drive or folder from another computer in your network. You may do so by double-clicking the My Network Place icon on your Windows desktop or inside Windows Explorer.
- 13. Navigate to the computer with the shared disk drive or folder (recognized by the Computer Name you provided), and double-click it. If you specified a password when sharing this disk drive or folder, you will be asked for the password.
- 14. You can access a disk drive of folder shared over the network from most Windows 98SE/ME/ 2000/XP applications. you can map these disk drives and folders to a drive letter on another computer to make this process easier. For example, on a computer where you are accessing a shared folder from another computer, inside Windows Explorer right-click and select Map Network Drive. Now you are able to assign an available drive letter. Checking Reconnect at logon allows Windows to map this network drive each time when you start your computer.

# Appendix

## - MSI Software AP

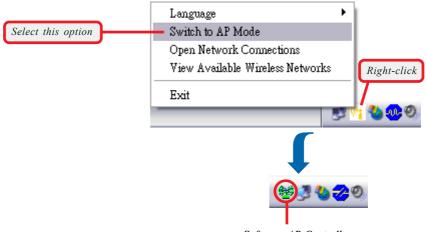
## A.1 Installing and Using the Software AP

To use the MSI Software AP, install the driver and utility for your MSI wireless adapter (for more instructions on installing, please refer to your adapter's User's Manual). When you install the driver and utility successfully, you can see the **MSI Wireless LAN** icon appears in the status area.



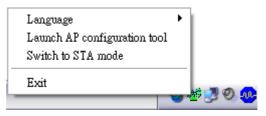
MSI Wireless LAN icon

Right-click the **MSI Wireless LAN** icon, and select the **Switch to AP Mode** option to enable the Software AP mode.



Software AP Controller

When the Software AP is enabled, right-click the **Software AP Controller** icon and a sub-menu containing more settings will appear as below.



#### Q Language

Choose a language according to your operating system.

#### **Q** Launch AP configuration tool

Launch the utility to configure your network settings.

#### Q. Switch to STA mode

Select to switch to the adapter's normal function and disable the virtual AP mode.

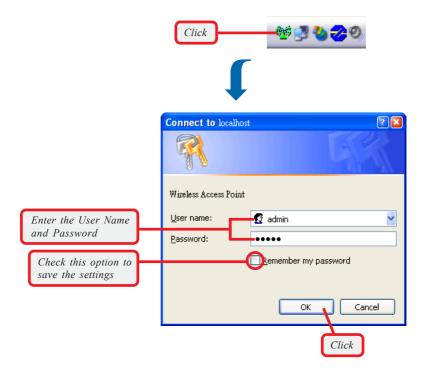
#### Q Exit

Close the program.

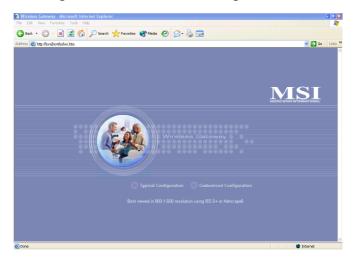
## A.2 Launching the Configuration Utility

When the Software AP is enabled, click the icon to launch the Configuration Utility (or select Launch AP configuration tool option in the previous section).

First, enter the user's information in the **Connect** dialog box. By default, the User Name is *admin* and the Password is *admin*. Then, click *OK*.



The Home window of the Configuration Utility will appear as below, which provides two options to select: **Typical Configuration** and **Customized Configuration**.



- ✔ Typical Configuration provides a step-by-step Setup Wizard to guide you through the basic settings of the gateway. Generally, after completing the three steps in this option, your virtual AP can connect to the ISP and your client computer can access to the Internet without any problem.
- Customized Configuration allows you to customize the network settings of your virtual AP for some specific purposes, such as changing password and other network settings.

#### **Q** Factory Default Settings of the Virtual AP

SSID	MSI
Channel	1
User Name	admin
Password	admin
Encryption	Disable
DHCP client	Enable

## A.3 Typical Configuration

In the Home window, click **Typical Configuration** and the Setup Wizard appears from *Step 1* to guide you through the configuration.

		Typical Configuration	ł
The Menu Bar	Step 1 > 12: Step 2 Step 3	23 Belay Wizard Bird Statement minas Stringe Plane entry pu 550.	

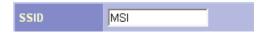
Step 1. Setting the SSID

#### The Menu Bar

During the Setup Wizard, whenever you click **HOME** in the menu bar will make you return to the Home window; click **Logout** to exit the Configuration Utility.

#### Step 1. Setting the SSID

SSID (Service Set Identifier) is the name designated for a specific wireless local area network (WLAN). The factory default setting is **MSI**.

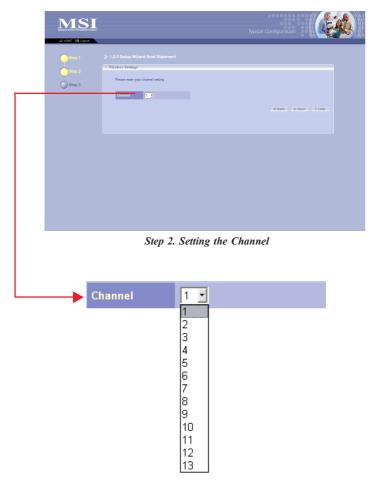


After entering your SSID, click *Next* to continue *step 2*.

The Menu Bar

#### Step 2. Setting the Channel

Channel **1** is the default value. Please note that all devices on the network must share the same channel.



Make your choice and click Next to continue step 3.

#### Step 3. WEP Setting



Step 3. Setting the WEP

#### Data Encryption

If Data Encryption is set to **Required**, the following items must be answered. If it is set to **Not Required**, you may skip *Step 3* and click *Next* to close the 1-2-3 Setup Wizard.

#### Authentication Type

- Open System : communicates the key across the network.
- Shared Key : devices must have identical WEP settings to communicate.

Select your authentication type and continue on to the next item.

#### Encryption Type

Select the level of encryption desired: *40-bit* or *128-bit*. If you want to enable the encryption, for 40-bit key, enter 10 hexadecimal digits; for 128-bit key, enter 26 hexadecimal digits.

#### Q WEP Key

Enter your 10- or 26-digit WEP Key.

When completed, click *Next* to close the 1-2-3 Setup Wizard.

**Tip: Hexadecimal** digits consist of the numbers 0-9 and the letters A-F.

## A.4 Customized Configuration

Typically your virtual AP will have no problem to connect to your ISP and let internal clients to access to the Internet without any problem after going through the three steps in **Typical Configuration**. However, if you want to customize your virtual AP for some specific purposes, you may perform the configuration here.

Click **Customized Configuration**, and the main window appears as below.



Main Window of Customized Configuration

#### The Menu Bar

There is a menu bar in the top of the Customized Configuration window, where contains two options to exit the configuration window (**HOME** and **Logout**, as described in *page 8*); and three options for advanced configuration: **System**, **LAN**, and **Wireless**, allowing you to configure these respective settings and view the system status.

The Menu Bar

#### A.4.1 System

This page includes all the basic configuration tools such as options to set up password, re-load the factory default settings, and view system status.



This window includes:

- > Password Setting
- > Factory Default
- > System Status

**Tip:** Once you have changed the settings in each option, click **Apply** to save the settings, or **Cancel** to abandon. Clicking **Help** can bring up the help window.

#### **Password Setting**

The default password of your virtual AP is *admin*. This option allows you to use other password to replace the old password. First, enter the old password, and then enter the new password twice to confirm the password changed. Then, click *Apply* to save the settings.

Old Password			
	Old Passw	ord	<b></b>
New Password	New Passv	word	+
	Confirm N	ew Password	-

#### **Factory Default**

You may re-load the factory settings of your Virtual AP.

#### System Status

This option contains detail information of your Virtual AP, including general information and respective network settings.

### A.4.2 LAN

LAN is short for *Local Area Network*. This is considered your internal network. In the LAN Setting window, you can configure the IP setting.



This window includes: > IP Setting

#### **IP Setting**

The default setting of the IP address is obtained from your DHCP server. If there is no DHCP server in your network, uncheck the **Enable DHCP client** option and set up the IP address for your virtual AP.

#### DHCP Client

When set to **Enable**, your virtual AP can obtain an IP address automatically from the DHCP server. Please note that once you enable DHCP Client, you might not be able to configure your virtual AP in the browser unless you know what IP address your virtual AP is assigned.

#### IP Address

The IP address of the LAN interface.

#### Subnet Mask

The subnet mask of the LAN interface.

#### Q Default Gateway

The IP address of the router/gateway in your network.

This window includes: > SSID & Channel > Radio Settings

> Associated Client List > Association Control

> Encryption

#### A.4.3 Wireless

In this section, you can configure all wireless related settings for your virtual AP.



#### SSID & Channel

This option is used to set the SSID (Network Name) and channel for your virtual AP. If you have changed the SSID or Channel settings, click Apply to save the settings.



#### Radio Setting

This option allows you to configure the operation parameters of the AP radio settings\*.

\* These settings are for advanced users or MIS staff only. If you do not know how to set these parameters, you are recommended to use the default value.

Radio Preamble	Auto
RTS Threshold (0-2347)	2347
Fragmentation Threshold(256-2346)	2346
Rate	Auto
Basic Rate Set	All
54g™ Mode	Auto 💽

#### Encryption

This option allows you to configure the setting of data encryption. The WEP key must be set before the data encryption is enforced.

Enable WEP		
	Data Encryption (WEP)	🖕 Enable 🔘 Disable
	Authentication Type	Open 🗾
	🗢 WEP Key 1	64-bit 🔽
	🖤 WEP Key 2	64-bit 💌
	WEP Key 3	64-bit 🗾
	WEP Key 4	64-bit 💌

#### **Associated Client List**

This option is to display information of stations that are currently associating to your virtual AP.

#### **Association Control**

This option allows you to control which PC can connect to the wireless LAN. If you enabled this feature, only PCs with MAC address located in Association Control List can connect to the wireless LAN.

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