WIRELESS NETWORK CONFIGURATION AND TROUBLESHOOTING

Step 1: Turning on your Wireless Device

The first step of the process is to ensure that your wireless device is turned on. Depending on your computer brand and model, the steps for doing so will vary. Use the method below that works with your computer.

Many laptop computers have a built-in wireless device that can be enabled through a **switch or button located on the exterior of the computer**. When the switch is slid to a certain direction or the button is pressed, an indicator on the exterior of the computer should be lit to let you know that the device is on.

Other laptop computers have a key on the keyboard labeled **Fn.** This key is located in the bottom left corner of the keyboard near the Windows key. On one of the function keys at the top of the keyboard (F1, F2, F3, F4, etc.) There will be a symbol resembling a tower emitting waves. By holding down the **Fn** and pressing the appropriate function key, the device will turn on and the following icon will appear in the task tray on the bottom right corner of your screen either emitting green waves as shown in the picture or marked with a red X.



Step 2: Bringing up the Control Panel

Click Start. Then click on the Control Panel.

Notepad	Control Panel
Microsoft Office Word 2003	Set Program Access and Defaults
Macromedia Contribute 3	Printers and Faxes
Ad-Aware SE Personal	Help and Support Search
Spybot - Search & Destroy	7 Run
All Programs 📡	
	🖉 Log Off 🚺 Shut Down
🦺 start 🔰 🗿 Inbox - Mic	rosoft Out 📔 🔇 Macromedia Con

Step 3: Bring up the Network Connections Window

Once the Control Panel is open, double-click on the Network Connections icon.



Step 4: Removing Bridged Connections

A list of connections should appear. If you see an entry titled **Bridged Connection**, right-click on it. A pop-up menu will appear. Click **Delete**. Repeat this process for each bridged connection displayed.



Step 5: Disable and Enable the Network Connection

Right-click the Wireless Network Connection icon. A pop-up menu should appear.

If **Enable** appears in the pop-up menu, click it and proceed to step 6.

Otherwise, if **Disable** appears in the pop-up menu, click it. Right-click the icon again. This time, click **Enable** in the pop-up menu. Finally, proceed to step 6.



Step 6: Bring up the Wireless Connection Properties Window

Right-click the **Wireless Network Connection** icon. A pop-up menu should appear. Click **Properties** in the pop-up menu.



Step 7: Bring up the Internet Protocol Properties Window

A connection properties window will appear. Scroll down in the **This connection uses the following items:** list. Click on the text (rather than the checkbox) for **Internet Protocol (TCP/IP)**. Then, click the **Properties** button.

🕹 Wireless Network Connection 2 Properties	? 🗙			
General Wreless Networks Advanced				
Connect using:				
ORiNOCO USB Card Configu	re			
This connection uses the following items:				
Network Monitor Driver Server Program Driver Server Program Driver Internet Protocol (TCP/IP)				
	>			
I <u>n</u> stall Uninstall Properti	es			
Description				
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.				
 Show icon in notification area when connected Notify me when this connection has limited or no connectivity 				
ОК	Cancel			

Step 8: Obtain all Values Automatically

The Internet Protocol Properties window will appear. Make sure the radio button in front of **Obtain an IP address automatically** is checked. Also, make sure that the checkbox in front of **Obtain DNS server address automatically** is checked. When you click the **OK** button in the Internet Protocol Properties window, you will be returned to the connection properties window.

Internet Protocol (TCP/IP) Pr	operties 🛛 🛛 🛛 🛛
General Alternate Configuration	
	automatically if your network supports d to ask your network administrator for
Obtain an IP address automa	itically
Use the following IP address:	
IP address:	i i i
S <u>u</u> bnet mask:	
Default gateway:	
Obtain DNS server address a	automatically
OUse the following DNS serve	r addresses:
Preferred DNS server:	
Alternate DNS server:	
	Advanced
	OK Cancel

Step 9: Configure the Wireless Device

Click the **Configure** button. This will bring up another window with your wireless device settings.

General	Wreless Networks Advanced	
Connec	at using:	1
	HP WLAN 802.11a/b W500 Configure	
This co	nnection uses the following items:	1
	Client for Microsoft Networks File and Printer Sharing for Microsoft Networks QoS Packet Scheduler Network Monitor Driver	<
<		
	nstall Uninstall Properties	
Desc	ription	-
Allov netw	vs your computer to access resources on a Microsoft ork.	
1000	w icon in notification area when connected fy me when this connection has limited or no connectivity	

Step 10: Enabling the Radio

Click on the **Advanced** tab. Click the entry for **Radio On/Off.** In the drop-down menu on the right, select **On.** Then, click **OK**. You will be returned to the Wireless Network Connection Properties window. Click **OK** in this window as well.

General	Advanced	Driver	Resource	es			
The foll	owing proper perty you war ight.	ties are .	available fo	r this ne left, an			
Power Radio Transn	b Preanible Save Mode On/Off nit Power ss Mode			I	On		
				(ОК	C;	ancel

Step 11: Manage My Computer

Click Start. Then, right-click **My Computer**. A pop-up menu should appear. Click **Manage**.

S Internet Explorer	My Computer	Open Explore		
Notepad	My Network Places	Search Manage		
Microsoft Office Word 2003	Set Program Access an Defaults	Map Network Drive Disconnect Network Drive		
Macromedia Contribute 3	Printers and Faxes	 Show on Desktop Rename 		
Ad-Aware SE Persona	Help and Support	Properties		
Spybot - Search & Destroy	Search			
All Programs 📡				
Log Off 🧕 Shut Down				
🛃 start 🔰 🔇 Macromedi	a Contribu 🛛 <u> </u> Untitled	- Notepad 🛛 🗋 indexnorun		

Step 12: Expand Services and Applications

The Computer Management window should appear. Click the **plus (+) symbol** in front of **Services and Applications**.



Step 13: View the Services List

Click on Services, which should appear below Services and Applications on the left pane of the window.



Step 14: Bring up the Wireless Zero Configuration Properties Window

In the right pane of the window, scroll down until you see Wireless Zero Configuration. Double-click it.



Step 15: Set the Startup Type to Automatic

The Wireless Zero Configuration Properties window should appear. Set the **Startup type:** field to **Automatic**. Then, click **Appl**y. If the startup type is already set to automatic, skip these steps and proceed to step 16.

ireless Zero C	onfiguration Properties (Local Computer) ? 💈			
General Log On	Recovery Dependencies			
Service name:	WZCSVC			
Display name:	Wireless Zero Configuration			
Description:	Provides automatic configuration for the 802.11			
Path to executat	ole:			
C:\WINDOWS\	System32\svchost.exe -k netsvcs			
Startup type:	Automatic			
Service status:	Automatic Manual Disabled			
Start	Stop Pause Resume			
You can specify from here. Start parameters:	the start parameters that apply when you start the service			
	OK Cancel Apply			

Step 16: Start Wireless Zero Configuration

Click the **Start** button. Then click **OK**. This should return you to the Computer Management window. Close the Computer Management window by clicking the **X** in the top right corner.

ireless Zero G	onfiguration Properties (Local Computer) [? 🛛
General Log On	Recovery Dependencies
Service name:	WZCSVC
Display name:	Wireless Zero Configuration
Description:	Provides automatic configuration for the 802.11
Path to executat	
C:\WINDOWS\	System32\svchost.exe -k netsvcs
Startup type:	Automatic
Service status:	Stopped
Start	Stop Pause Resume
You can specify from here. Start parameters:	the start parameters that apply when you start the service
	OK Cancel Apply

Step 17: View Available Wireless Connections

You should see the following icon in your task tray at the bottom right hand corner of your screen:

5"

Right-click on it. A pop-up menu should appear. Click **View Available Wireless Networks**.



Step 18: Bring up the Wireless Networks Tab

Click Change the order of preferred networks.



Step 19: Allow Windows to Configure Wireless Network Settings

Make sure the checkbox in front of **Use Windows to configure my wireless network settings** is checked. Then, click the **Advanced** button.

👍 Wireless Network Connection 2 Prop	erties 🛛 <table-cell> 🔀</table-cell>
General Wreless Networks Advanced	
Use Windows to configure my wireless netwo	ork settings
Available networks:	
To connect to, disconnect from, or find out mo about wireless networks in range, click the but	
ViewWin	eless Networks
Preferred networks: Automatically connect to available networks in below:	the order listed
P [vsuhallnet (Automatic)]	Move <u>up</u>
	Move <u>d</u> own
Add <u>Remove</u> Propertie	
configuration.	Advanced
OK	Cancel

Step 20: Set the Wireless to Connect Only to Access Points

An Advanced window will appear. Make sure the radio button in front of **Access point (infrastructure) networks** only is marked. Make sure the checkbox in front of **Automatically connect to non-preferred networks** is not marked. Click the **Close** button.

Advanced	? 🗙
Networks to access	
Any available network (access point preferred)	
 Access point (infrastructure) networks only 	
O Computer-to-computer (ad hoc) networks only	
Automatically connect to non-preferred networks	

Step 21: Remove Preferred Networks

You will be returned to the Wireless Network Connection Properties window. Click on any network found in the Preferred networks list. Then, click the **Remove** button. Repeat this process until no networks are listed in the Preferred networks list. Once the list is empty, click the **OK** button.

General	Wireless Networks	Advanced	
Use	Windows to configur	e my wireles	s network settings
Availa	able networks:		
	onnect to, disconnect t wireless networks in		
10000		V	iew Wireless Networks
below	v:		works in the order listed
8			Move up Move down
8	v: vsuhallnet (Automatic))	Move up

WIRELESS NETWORK CONFIGURATION AND TROUBLESHOOTING

Step 22: Returning to View Available Wireless Networks

Once again, right-click on the wireless icon in your task tray at the bottom right hand corner of your screen:



A pop-up menu should appear. Click View Available Wireless Networks.



Step 23: Refresh the Network List

Click Refresh network list. Give the wireless device some time to search for wireless networks.



Step 24: Connecting to vsuhallnet

The window may show more than one wireless network. Click on the **vsuhallnet** with the following icon in front of it. Then, click the **Connect** button.



Note: Valdosta State University's wireless network is named vsuhallnet with all lower-case letters and no spaces or symbols and will always have the icon shown above. Any other network is not owned or run by Valdosta State University. You DO NOT want to connect to them.

If these steps are performed correctly, you should see the vsuhallnet network with the word **Connected** to the right of it. Also, the **Connect** button will change into a **Disconnect** button. At this point, attempt to access the internet. You should be redirected to the Hallnet login website. If not, proceed to the next step.



Step 25: Bring up the Run Window

Click Start. Then click Run.

Spybot - Search & Destroy	P Search	
	🖉 Log Off	5 Shut Down
🛃 start 🔰 💽 Inbox - N	/licrosoft Out	🔇 Macromedia Cont

In the **Open** field of the prompt that appears, type **cmd**. Then, click the **OK** button.

Run	?	×
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.	
Open:	cmd	~
	OK Cancel Browse	

Step 26: Check your IP Address

A Command Prompt window will appear. Type **ipconfig** and press the **Enter** key on the keyboard. Look at the section for your Local Area Connection.

The IP Address listed should be between the ranges of 168.18.177.1 – 168.18.183.254.

The Subnet Mask should be: 255.255.248.0

The Gatewayshould be: 168.18.176.3

Note: If the IP Address is correct, try to access the internet. Your web browser should redirect you to the Hallnet login website. If it does not or you do not get a correct IP Address, continue these steps.

C:\WINDOWS\system32\cmd.exe	- 🗆 ×		
Windows IP Configuration			
Ethernet adapter Bluetooth Network Connection:			
Media State Media disconnected			
Ethernet adapter Local Area Connection 4:			
Connection-specific DNS Suffix .: valdosta.edu IP Address: 168.18.162.139 Subnet Mask: 255.255.252.0 Default Gateway: 168.18.160.1			
Ethernet adapter Wireless Network Connection 3:			
Connection-specific DNS Suffix .: valdosta.edu IP Address			

Step 27: Release Your IP Address

Type **ipconfig/release** and press the **Enter** key on the keyboard. Your IP Address should now display as **0.0.0.0** as shown in the image below.



Step 28: Renew your IP Address

Type **ipconfig/renew** and press the **Enter** key on the keyboard. The IP Address listed there should begin with **10.0**. For example, in the image below, the IP Address is **10.0.14.146**. If the IP Address is correct, try to access the internet. Your web browser should redirect you to the Hallnet login website.



If you have problems when trying these instructions, or if you have other question concerning the wired network, please contact the Information Technology Helpdesk at 229-245-4357 or send an e-mail to <u>helpdesk@valdosta.edu</u>.