Detailed Moxa Setup Guide

You will need to set your PC network adapter to the same network the moxa is set to (either the default network or what you programmed it to) so that you can access the Moxa's web configuration page and program the unit. As you change the Moxa's settings, the IP address of the Moxa will change which will require you to adjust your network adapters IP address settings in order to continue to make programming changes. The following steps will guide you through this process.

1. Go to Control Panel > Network and Sharing Center > Change adapter settings



- a.
- 2. Right click the network adapter you will be using and select properties.
 - a. If a Diamond USB-Ethernet adapter will be used, plug the adapter in at this time and wait for it to appear as a connection option. In this example I will be using my laptops built-in network adapter.

÷ 1	atz 💦	Bluetooth Network Not connected Bluetooth Device (I	Connection	Cisco AnyConnect Secure Mobility Client Connection Disabled
•	Disable	Local Area Connec	tion 1 net	USB Unidentified network Microsoft KM-TEST Loopback Ad
	Status Diagnose		Network Ada	
•	Bridge Connect	tions	Network Add	
•	Create Shortcut Delete	t		
•	Rename			
b. 🎴	Properties			

3. Highlight "Internet Protocol Version 4" and select properties.

Local Area Connection 1 Properties		
Networking Sharing		
Connect using:		
🚽 Lenovo Giga Ethernet		
Configure		
This connection uses the following items:		
Client for Microsoft Networks		
File and Printer Sharing for Microsoft Networks		
QoS Packet Scheduler		
Internet Protocol Version 4 (TCP/IPv4)		
Microsoft Network Adapter Multiplexor Protocol		
DeviceMaster NDIS Protocol		
Microsoft LLDP Protocol Driver		
< >>		
Install Uninstall Properties		

- a. Description
 4. Click "Use the following IP address:" and set the following values:
 - a. IP address: 192.168.126.253 (or any available address on the .126 network)
 - b. Subnet mask: 255.255.255.0

nternet Protocol Version 4 (TCP/	IPv4) Properties X
General	
You can get IP settings assigned this capability. Otherwise, you ne for the appropriate IP settings.	automatically if your network supports eed to ask your network administrator
Obtain an IP address autom	atically
• Use the following IP address	
IP address:	192 . 168 . 126 . 253
Subnet mask:	255.255.255.0
Default gateway:	
Obtain DNS server address	automatically
Use the following DNS serve	r addresses:
Preferred DNS server:	
Alternate DNS server:	
Validate settings upon exit	Advanced
	OK Cancel

- c. NOTE: The moxa default wired IP address is 192.168.126.254. By setting you PC to ".253" you will be on the same subnet and allow your network interface to talk to the moxa when it is defaulted.
- 5. Plug the provided blue Ethernet cross over cable into the Ethernet port of the moxa unit
- 6. Plug the other end of the Moxa crossover cable in to you network adapter you set the static address to.
- 7. Now plug the power cable into the wall outlet and screw the other end into the moxa. This will power on the unit.

Note: Step 6 MUST be done before step 7 for process to work properly!!! The Moxa unit will only enable the wireless or the wired connection at any given time. This process takes place during boot time and if a network cable is plugged in, it will boot to wired mode. If no cable is plugged in to the Ethernet port, it will boot to wireless mode. To switch between modes, a power cycle is required so it can go through this process again.

- Using a small object such as a paper clip, insert it into the "reset" hole on top of the Moxa unit. The "ready" light will blink green a few times; hold the small object into the hole until a solid red light is displayed.
- After a few short moments, the "ready" light will turn green and a beeping sound will be heard. The Moxa unit is now defaulted and you are ready to proceed. <u>This is best practice even if the</u> <u>unit is brand new or an RMA unit.</u>
- 10. Open a web browser, type the wired default IP address of 192.168.126.254 into the address bar at the top of the screen, then hit enter.

G Google		× +
$\leftarrow \ \rightarrow$	Ö	192.168.126.254

Go	ogle	
Google Search	I'm Feeling Lucky	

11. Click "Login" (No password needed to logon by default)

Account	admin 🗸
Password	
	Լլոgin

12. On the left side's drop down menu, select System Management > Maintenance > Configuration Import.

- Main Menu

Overview

Wizard

- Basic Settings
- Network Settings
- Serial Port Settings
- System Management
 - Misc. Network Settings
 - Auto Warning Settings
 - Maintenance

Console Settings

Ping

Firmware Upgrade

Configuration Import Configuration Export Load Factory Default

- Change Password
- Certificate
- System Monitoring
- Restart
- 13. On the Configuration Import screen, check the box saying "Import all configurations including IP configurations". Select "Browse" and choose the provided <u>text file</u> if used. If changes are made to the wireless network, a simple export configuration of a working unit on your network will provide the updated parameters.

NOTE: Profiles contain the IP address of the unit they were obtained from. Putting the configured unit on the network without completing this guide and updating the IP address to one that's not currently used on your network will result in duplicate IP addresses on the network and cause issues with the duplicate devices. For new units, a new address will need to be obtained. For replacement of a Moxa unit, make sure the old unit is turned off.



- 14. Click submit; the device is configured once a series of beeps is heard and the ready light is a steady green.
- 15. Go to Control Panel > Network and Sharing Center > Change adapter settings



16. Right click the network adapter you will be using and select properties



17. Highlight "Internet Protocol Version 4" and select properties.

Local Area Connection 1 Properties	×
Networking Sharing	
Connect using:	
🛃 Lenovo Giga Ethernet	
Configure	
This connection uses the following items:	
✓ The Client for Microsoft Networks	
File and Printer Sharing for Microsoft Networks	
QoS Packet Scheduler	
Internet Protocol Version 4 (TCP/IPv4)	
Microsoft Network Adapter Multiplexor Protocol	
DeviceMaster NDIS Protocol	
Microsoft LLDP Protocol Driver	
< >	
Install Uninstall Properties]

- 18. Click "Use the following IP address:" and set the following values:
 - a. IP address: On same subnet as wired ip address
 - b. Subnet mask: 255.255.254.0

Internet Protocol Version 4 (TCP/IPv4)	Properties	×
General		
You can get IP settings assigned autor this capability. Otherwise, you need to for the appropriate IP settings.	natically if your network supports ask your network administrator	
Obtain an IP address automatical	ly	
• Use the following IP address:		
IP address:	10 . 70 . 30 . 170	
Subnet mask:	255 . 255 . 254 . 0	
Default gateway:		
Obtain DNS server address autor	natically	
Use the following DNS server add	resses:	
Preferred DNS server:		
Alternate DNS server:		
Validate settings upon exit	Advanced	
	OK Cancel	

19. Open a web browser, type the new Moxa IP address of 10.70.30.171 into the address bar at the top of the screen, then hit enter.



Go	ogle	
Google Search	I'm Feeling Lucky	

20. Click "Login" (No password needed to logon)

Account	admin
Password	
	Լլոgin

21. On the left side's drop down menu, click Network Settings > Ethernet/Bridge Settings



22. In the IP address bar, change the <u>last set</u> of numbers to correlate with your Moxa unit (171 in this example), and click "submit".

NOTE: "10.70.30", in this example, should be consistent for all moxa units and thus we will only need to change the last set to a unique, unused number for network communication. If the IP address the unit will be set to is not known, contact Don Barns or IT. Assuming you will only be changing the last 3 numbers, no adjustments to your network connection will be needed at this time.

Submit

: Network Setting - Ethernet/Bridge

Network Setting - Ethernet/Bridge	
Ethernet bridge	Disable 🗸
IP configuration	Static V
IP address	10.70.30.171 ×
Netmask	255.255.254.0
Gateway	10.70.30.2

23. Once the network settings for the Ethernet port are submitted, we will change the wireless network settings. Since the moxa only boots to one mode at a time (wired/wireless) we can set the IP addresses the same. This will allow you to switch between wired and wireless by simply power cycling the unit. To do this, Click on Network Settings > WLAN Settings > WLAN

- Main Menu
Overview
Wizard
Basic Settings
- Network Settings
General Settings
Ethernet/Bridge Settings
- WLAN Settings
WLAN
Profile
WLAN Log Settings
Advanced Settings
- Serial Port Settings
- System Management
- System Monitoring
- Restart

24. In the IP address bar, change the last set of numbers to correlate with your Moxa unit (171 in this example), and click "submit".

• WLAN Settings									
WLAN Settings									
IP configuration	Static V								
IP address	10.70.30.171 ×								
Netmask	255.255.254.0								
Gateway	10.70.30.2								
	Submit								

At this point the Moxa unit should be fully functional on your wireless network. If it is plugged into a shop floor switch with the wired or using the shop floor wireless, you can then access the web interface at any time using its IP address. The next steps will show you how to upgrade the moxa's firmware which is recommended. Firmware version can be seen at the top of the Moxa's web page and currently has the newest version. Units showing a version prior or equal to 1.8 should be upgraded immediately.

25. To update the firmware, click on the left side's drop down menu, System Management > Maintenance > Firmware Upgrade



26. On the Firmware Upgrade screen, select "Browse". Choose the provided *firmware upgrade file*, and click "submit". A series of beeps indicates that the firmware has been upgraded.

• Firmware Upgrade					
!!! Warning !!!					
	Note: Upgrade firmware will discard your un-saved configuration changes and restart the system!				
Select firmware file	Browse				
	Submit				

- 27. IF you used the Diamond USB-Ethernet adapter, you can leave the settings as they are. If you used your PCs built in network interface card, you will need to complete steps 13-15 once more.
- 28. Once at the IPv4 page, Click the bubble saying "Obtain an IP address automatically, then click ok.

Internet Protocol Version 4 (TCP/IPv4	 Prope 	ertie	s		
General Alternate Configuration					
You can get IP settings assigned aut this capability. Otherwise, you need for the appropriate IP settings.	omatical to ask y	ly if y our n	our n etwor	etwork k admir	supports istrator
Obtain an IP address automatic	ally				
ID address:		_			
Dr douress:	_	•			
Subnet mask:		•			
Default gateway:		•			
Obtain DNS server address auto	matical	Y			
Use the following DNS server ad	dresses				
Preferred DNS server:					
Alternate DNS server:					
Validate settings upon exit		Advances			
			ОК		Cancel

29. The Moxa device has now been configured to your network requirements and upgraded from previous firmware. It is now safe to unplug all connections to the device and plug it in where it will reside.