Troubleshooting 920i® / iQUBE® Email Issues

If you are having trouble connecting to your networked 920i, the problem might be caused by IP addressing or network firewall issues. First, see the below diagram for a typical network setup:
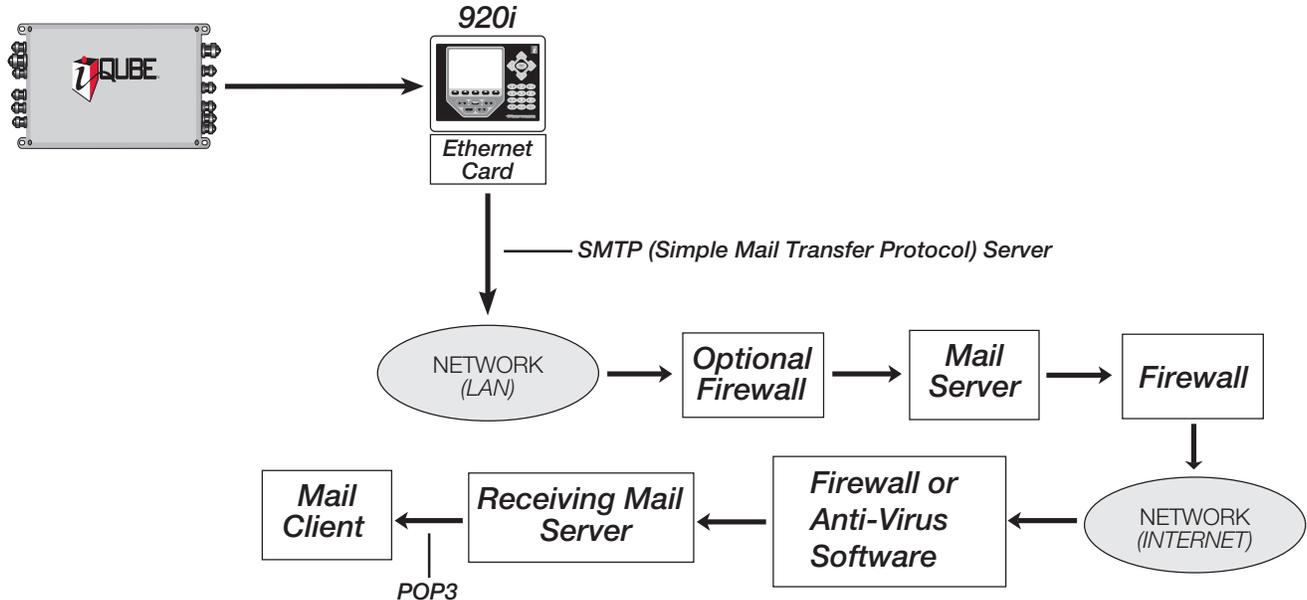
One of the most common problems is a firewall (or multiple firewalls). In many cases, the firewall simply doesn't know the Ethernet address of the 920i. Thus, it is rejected and can't make it past this point. The remedy is a firewall configuration by the company's IT department to add the 920i's address to the device.

Other common problems occur within mail servers. Local email clients use the Post Office Protocol version 3 (POP3), an application-layer Internet standard protocol, to retrieve email from a remote server over a TCP/IP connection. If the 920i's IP address isn't allowed to relay (send) mail, the message could be rejected. The email server needs to be manually configured to allow the 920i to do this.

Additionally, the receiving mail server might get an email from the 920i and go back to ask the network's mail server if it, in fact, sent the message, which would make it allowable. Since the 920i sent the message, the mail server replies with "No, it's not from me" and the email is discarded. Again, a typical IT department is fully capable of correcting this.

There may also be multiple spam filters existing within the network, any one of which could interpret the message as coming from a fictitious address. The address from which the 920i sends an email must be added to the server and added to any third-party spam filters as being a "safe sender." The address will follow the format 920_1@companydomain.com, where "1" could be any number, depending on how many 920s are installed.

Of course, before the 920i can begin to function on a network, it needs to be assigned an IP address and be configured. If this has not been done, refer to the following information.

Assigning an IP Address to the 920i

An IP address must be assigned and configured before a network connection is available. The preferred method is to use Lantronix's Device Installer, which is located on the Ethernet Configuration CD provided by Rice Lake Weighing Systems (PN 72763) or downloadable from www.lantronix.com. Ensure you are using the latest version of Device Installer and consult your company's IT department for a recommended IP address to assign.

1. Insert the Ethernet Configuration CD and follow the Lantronix Device Installer on-screen instructions.
2. Start the Device Installer program.
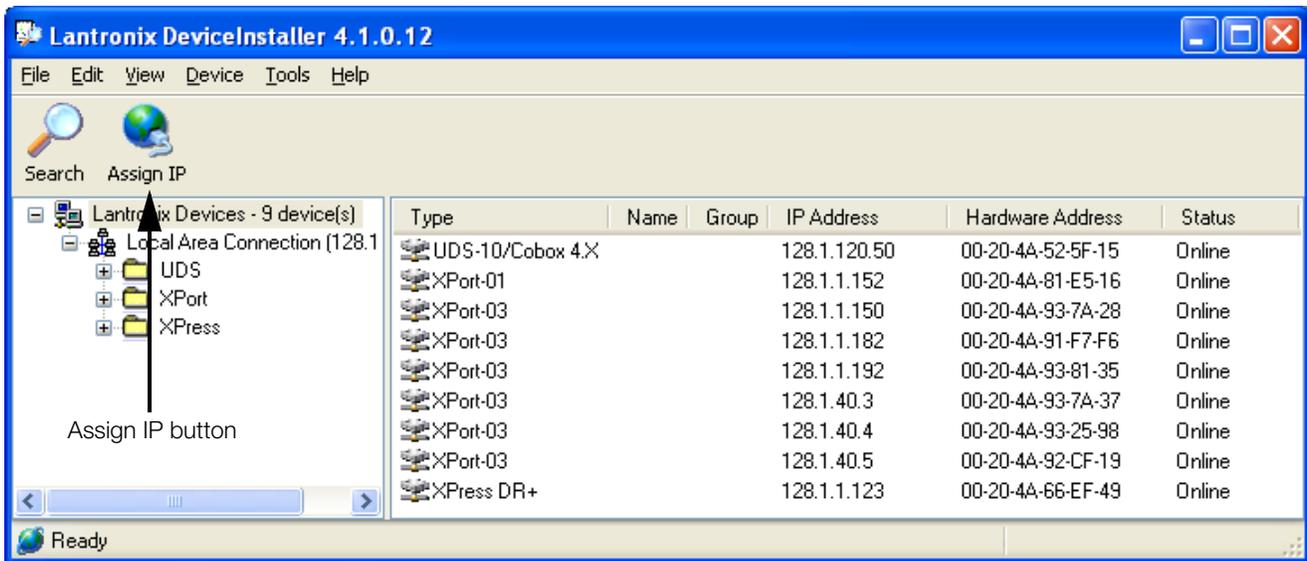
Note: Make sure you assign a Static IP address rather than enabling Dynamic Host Control Protocol (DHCP).

The Web connection to the 920i Ethernet card requires the original JAVA by Sun Microsystems. For a free download, go to www.JAVA.com.

3. Using the *Hardware Address* column to determine which card is yours, locate your card and click on it.
4. Click the Assign IP button as shown in the above illustration.

   The *Assign IP Address* dialog box appears.
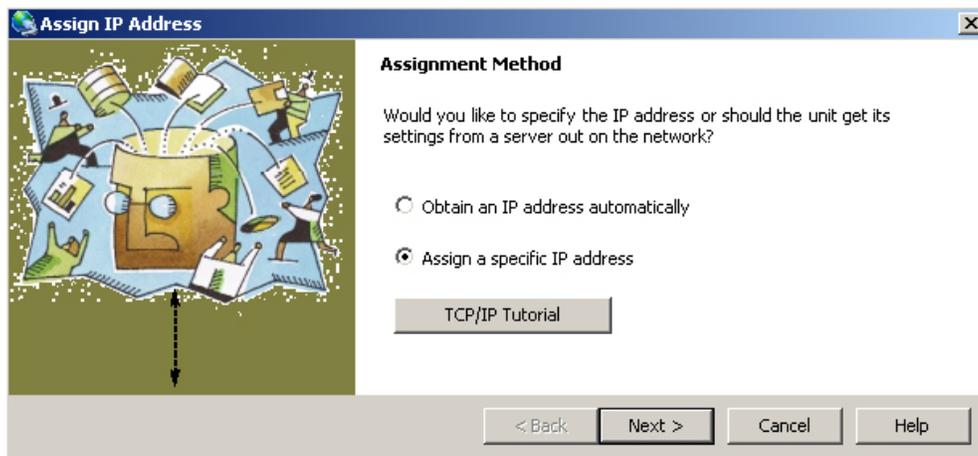
5. Select *Assign a specific IP address* and click Next.
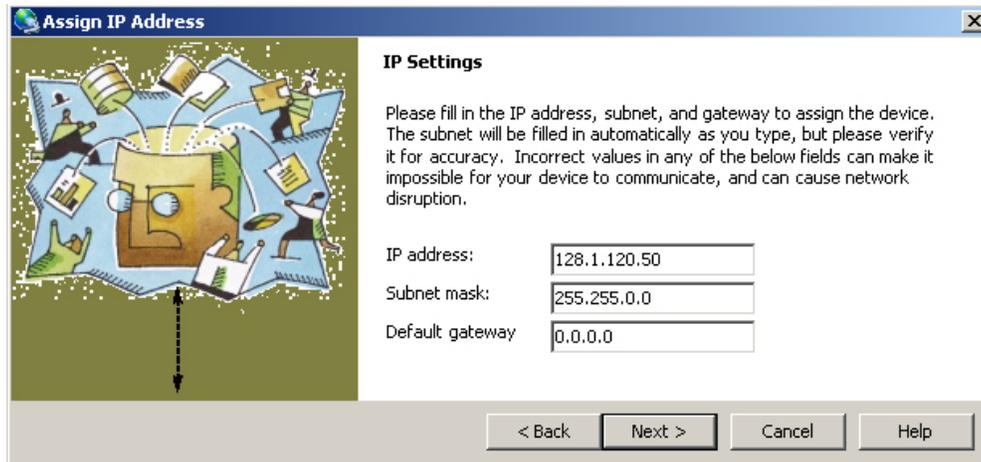
6. Type the IP address you would like to assign to the card, enter the Subnet mask and Default gateway, and click Next.

7. Click Assign to assign the IP address to the device.
   A status message indicates when the assignment is complete.

8. To exit, click Finish.

Configuring the 920i and Lantronix Card

Once you have an IP address assigned to the 920i, accessing the configuration parameters is simple.

1. Configure the Lantronix card to the correct settings. This can be done via Web configuration or a telnet session on Port 9999 under *Channel 1 configuration*. If using telnet, it is recommended that you first default the card and then proceed with the following settings.
   There are only three settings that need to be changed: *connection mode* needs to be set to C4 in telnet or Manual Connection using the Web interface; the *inactivity timer* needs to be set to 00:15; and the *alert port* must be set.

   Note: The alert format port must be set (within the 920i) to the port the Ethernet option is wired to.

   The following screen shots illustrate correct settings in telnet and the Web configuration.

XPort-03 v.6.1.0.0

Selected Channel : 1

Menu

- Unit Configuration
- Server Properties
- Port Properties
- Factory Settings1
- Update Settings

Select Channel

- Channel1

Serial Port Settings

Serial Protocol	RS232
Speed	9600
Character Size	8
Parity	None
Stopbit	1
Flow Control	None

Connect Mode Settings

UDP Datagram Mode	Disable
UDP Datagram Type	
	Change Address Table
Incoming Connection	Accept unconditional
Response	Nothing (quiet)
Startup	Manual Connection

Change Startup to Manual Connection →

Dedicated Connection

Remote IP Address	
Remote Port	
Local Port	10001

Flush Mode Input Buffer (Network to Line)

On Active Connection	Disable
On Passive Connection	Disable
At Time To Disconnect	Disable

Packing Algorithm

Packing Algorithm	Disable
Idle Time	Force Transmit 12ms
Trailing Characters	None
Send Immediate After Sendchars	Disable
Sendchar Define 2-Byte Sequence	Disable
Send Character 01	00
Send Character 02	00

Additional Settings

Disconnect Mode	Ignore DTR
Check for CTRL-D To Disconnect	Disable
Port Password	Disable
Telnet Mode	Disable
Inactivity Timeout	Enable
Inactivity Timer	0:15
Port Password	

Set Inactivity Timeout to 0:15 →

XPort-01 v1.50
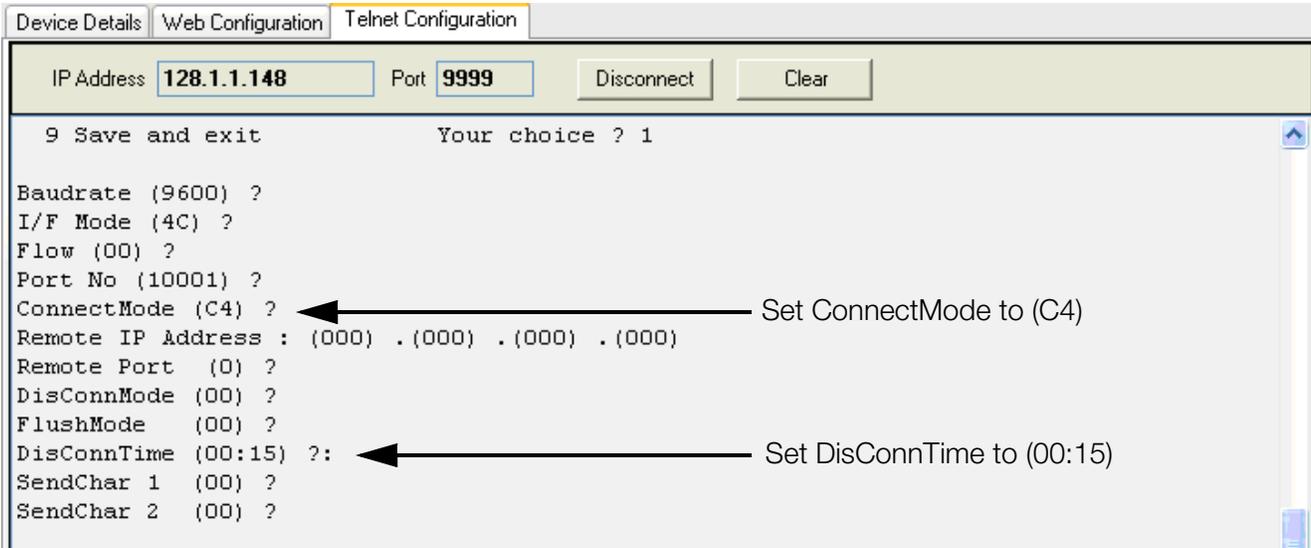
Telnet

2. In iRev, enter the SMTP address and desired email address. This parameter is found under System Parameters » Features » Contact Information tab. Only the SMTP address and email address are needed to get the system to mail an alert. The rest of the information is the contact info. The alert format port must be set to the port the Lantronix card is connected to.
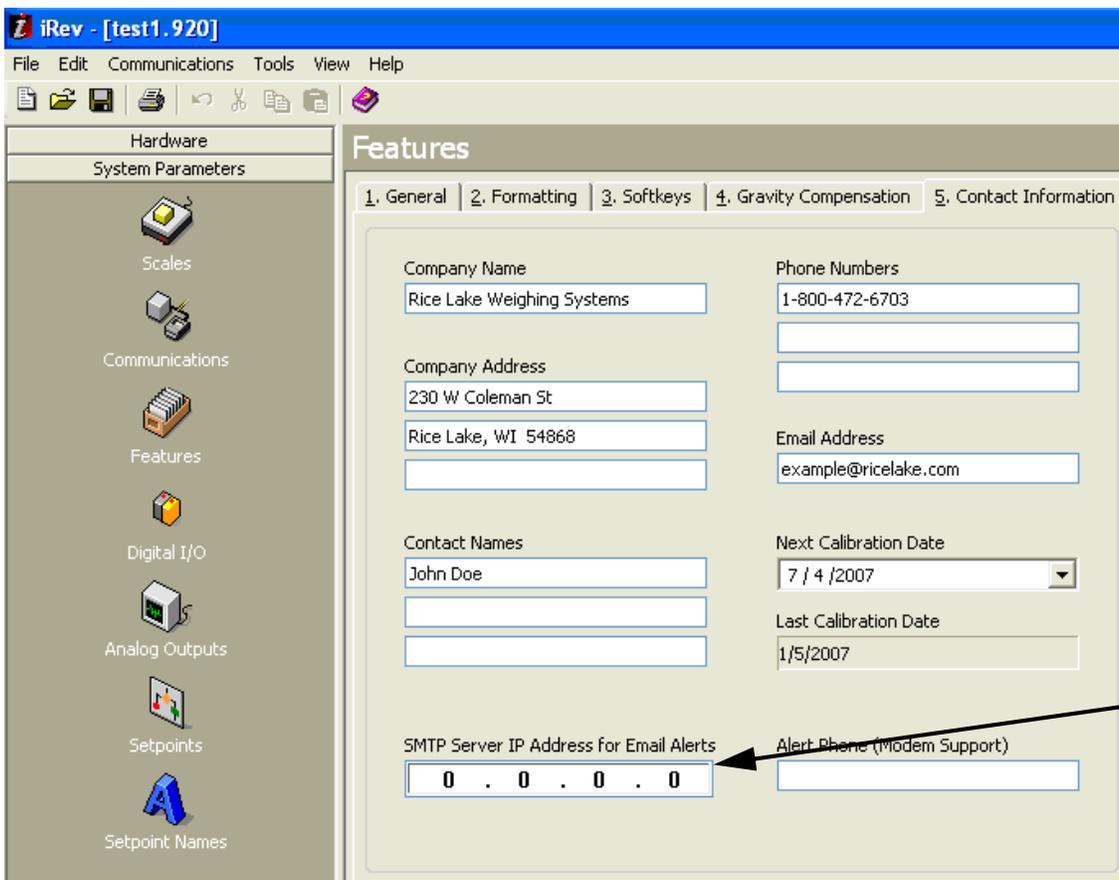
iRev settings

- The *SMTP server address* must be set in the 920i. This value can be set in iRev or by using the ALERT.SERV serial command. The SMTP server address cannot be set using the 920i menus. To disable alert notification, set the SMTP server address to 0.0.0.0.

- The *alert contact email address* must be set to a valid address. This value can be set using the 920i menus (FEATURE menu, CONTACT submenu, email PARAMETER), through iRev or by using the CONTACT.EMAIL serial command.
- The *920i alert port* must be set to the port wired to the Ethernet card. This value can be set in iRev, by using the ALERT.PORT serial command, or by using the 920i front panel.

Troubleshooting RLWS Equipment on a Network

Due to a high number of variables, problems typically lie within the company's network. To double-check that all RLWS equipment is set up correctly and functioning properly, you can use Rice Lake's free SMTP Test Server program. This simulates a mail (SMTP) server, isolating the iQube and 920i from the network and making it easy to determine where the problem lies. For example, if you have not been able to receive an email from the 920i but the program shows it is functioning properly, you know there is an issue elsewhere on the network.

Notes: When an error occurs, the 920i makes one attempt to contact the mail server. There is a 15 second time out when unsuccessful. Before further troubleshooting, you should ensure the Ethernet card has blinking lights. If the lights are blinking, proceed with troubleshooting. If they are not, there is a problem with the card and/or cable.

Common Problems
- Mis-wiring the card
- Port settings
- Using crossover cable rather than patch cable (e.g., if you are connecting a computer directly to the card, use crossover cable between the card and the computer--and you must use a static IP address; if you are using a computer connected to a local area network, use a patch cable)
- Server address (must be set last)

Using the Email Test Server
1. Visit www.ricelake.com and download the SMTP Test Server program.
2. Once the Email Test Server program is installed and running, set the appropriate server address on the 920i.
3. Intentionally generate an error.
4. The Email Test Server program will show data sent from the 920i, confirming whether the email is sent successfully.
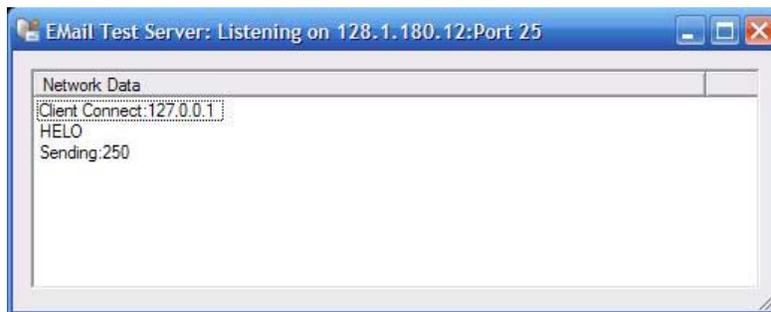
SMTP Test Server.

Alternatively, you can follow these steps:
1. Ping the 920i to ensure you have network connectivity.
2. Telnet to Port 10001 at the IP address of the card. Press Enter and see if question marks are returned. If they are, the 920i is communicating properly with the card.

Note: Question marks will not be returned after the SMTP server address is set to a value other than zero.

3. Ensure the port is set up for command.