

# Configuring Winlink for use on the ham radio mesh network

## Prerequisites:

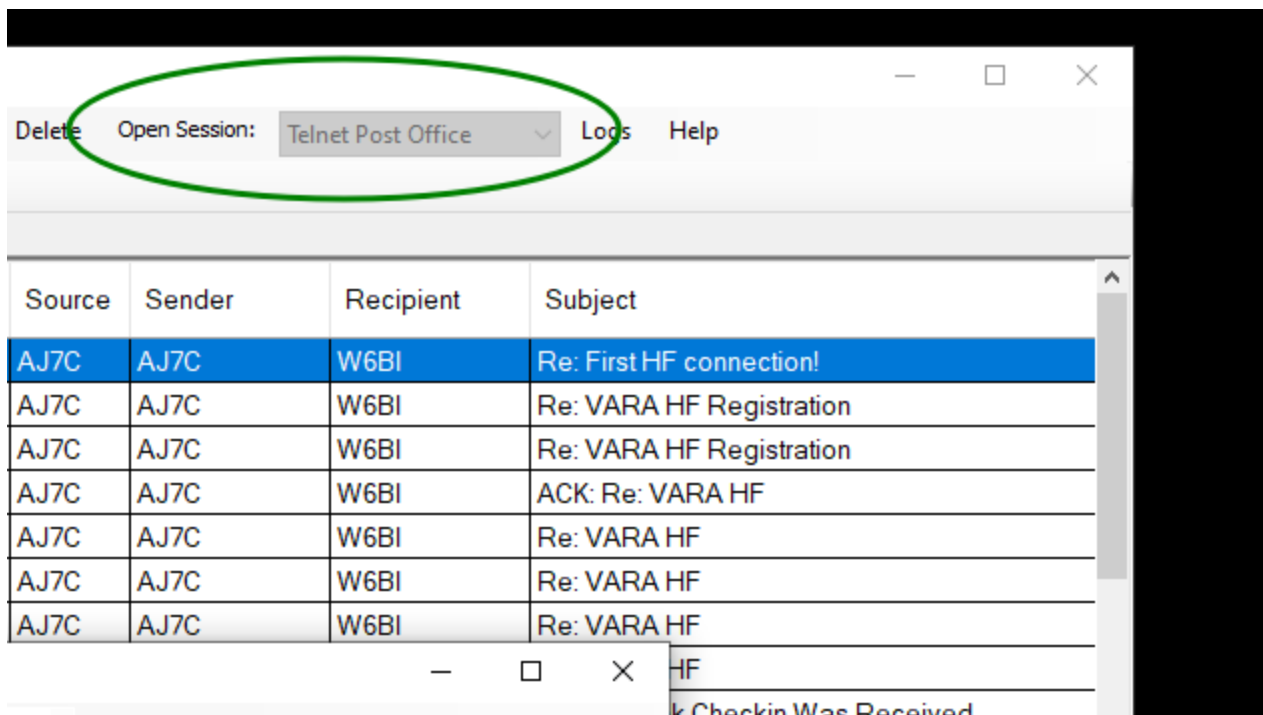
- You already have a connection in your ham shack to the mesh network.
- Your Winlink computer has an IP address from the mesh network.
- If those aren't met, see my AREDN\_Beginners\_Guide, available various places, or from me.
- Winlink Express is installed and operational.

There are two methods of moving Winlink traffic via the ham network, via a Winlink Post Office, or point-to-point between two Winlink Clients.

## Sending traffic to a Post Office over the ham network

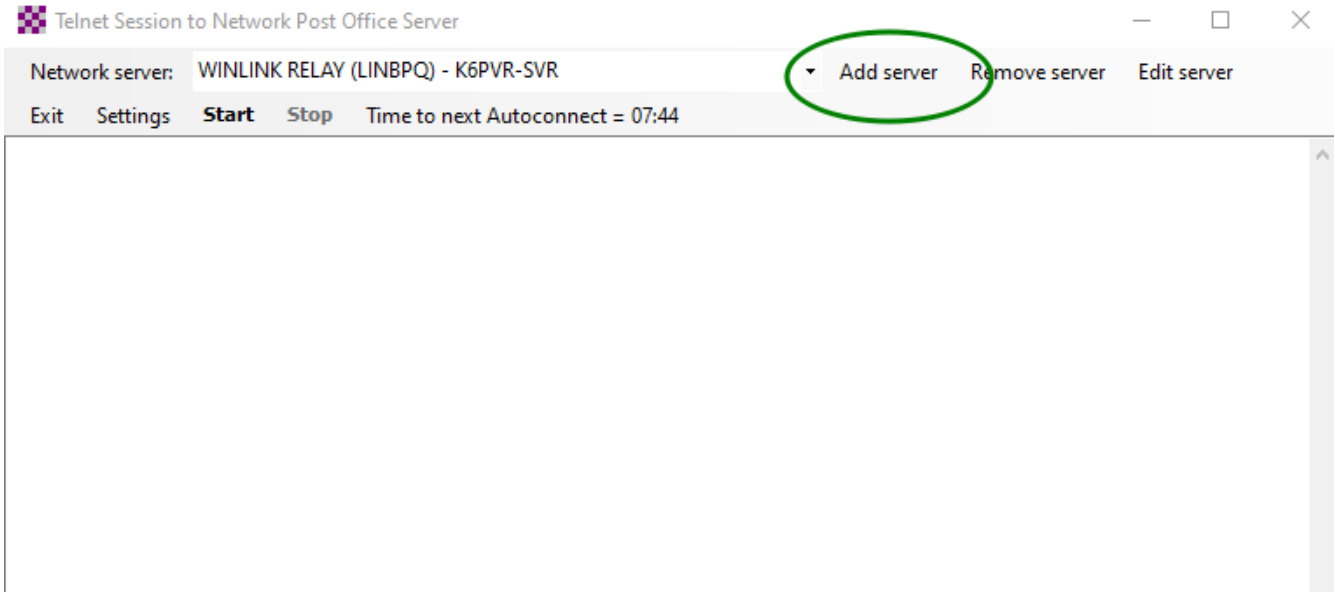
There are an increasing number of Post Offices listening on the mesh network. For best results, pick one that you know to be the closest one.

In order to find a local Post Office, open a session to a Telnet Post Office:

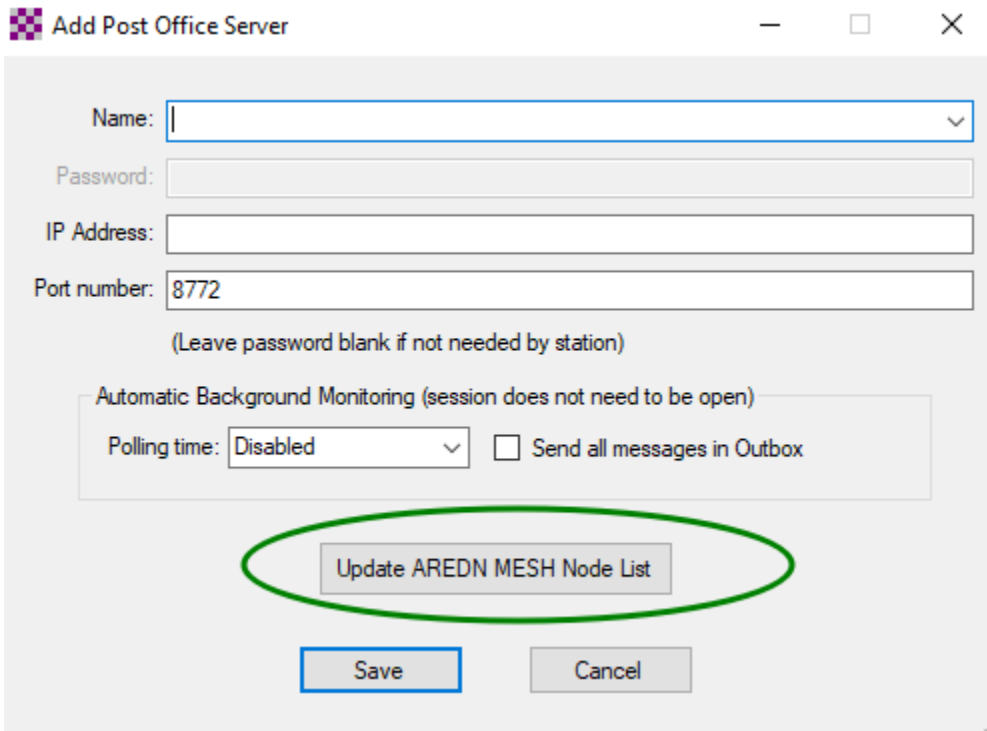


In the window that opens select Add Server:

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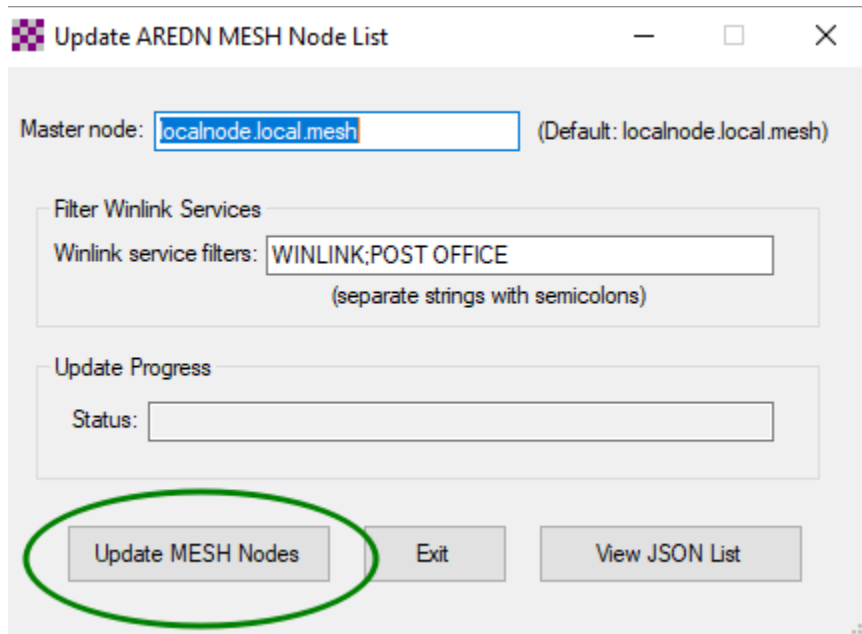


In the window that opens, click on Update AREDN MESH Node List

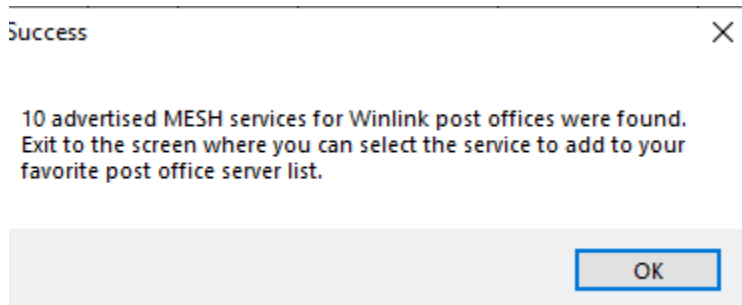


In the window that opens, click on Update MESH Nodes

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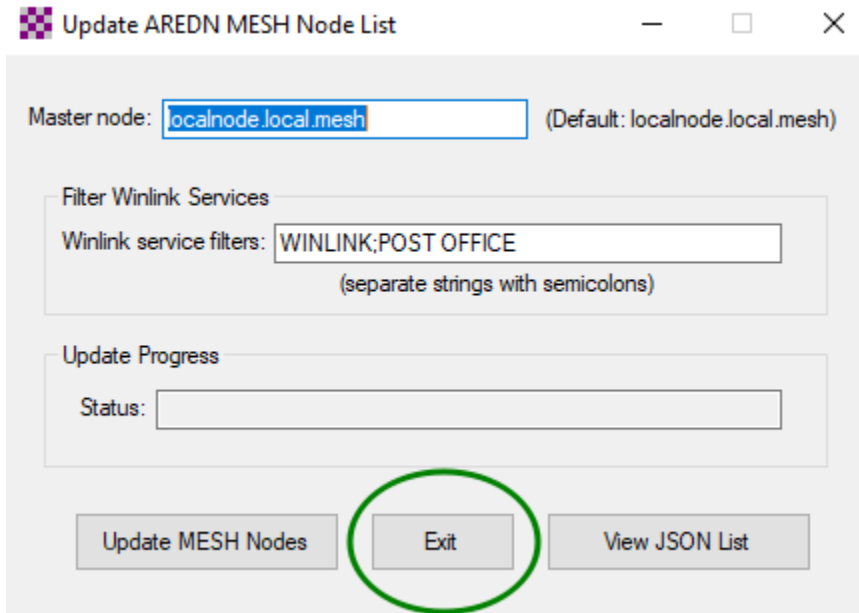


You should see this pop-up window. Note: the number of post offices found will vary as they come and go.



Click on OK.

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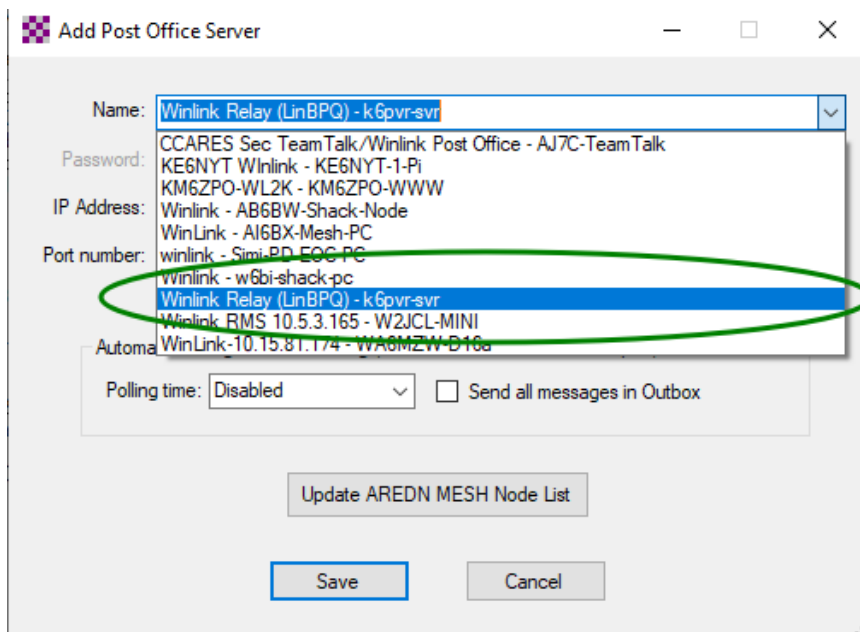


Click on Exit.

You'll be returned to the Add Post Office Server window. In the Name: drop-down, select the Post Office closest to you. For this tutorial we're using the Sulphur Mountain Post Office.

Note – if you leave Winlink Express on all the time, set the Polling time to something other than Disabled, so you'll pull in Winlink email destined for you periodically.

Click on Save.

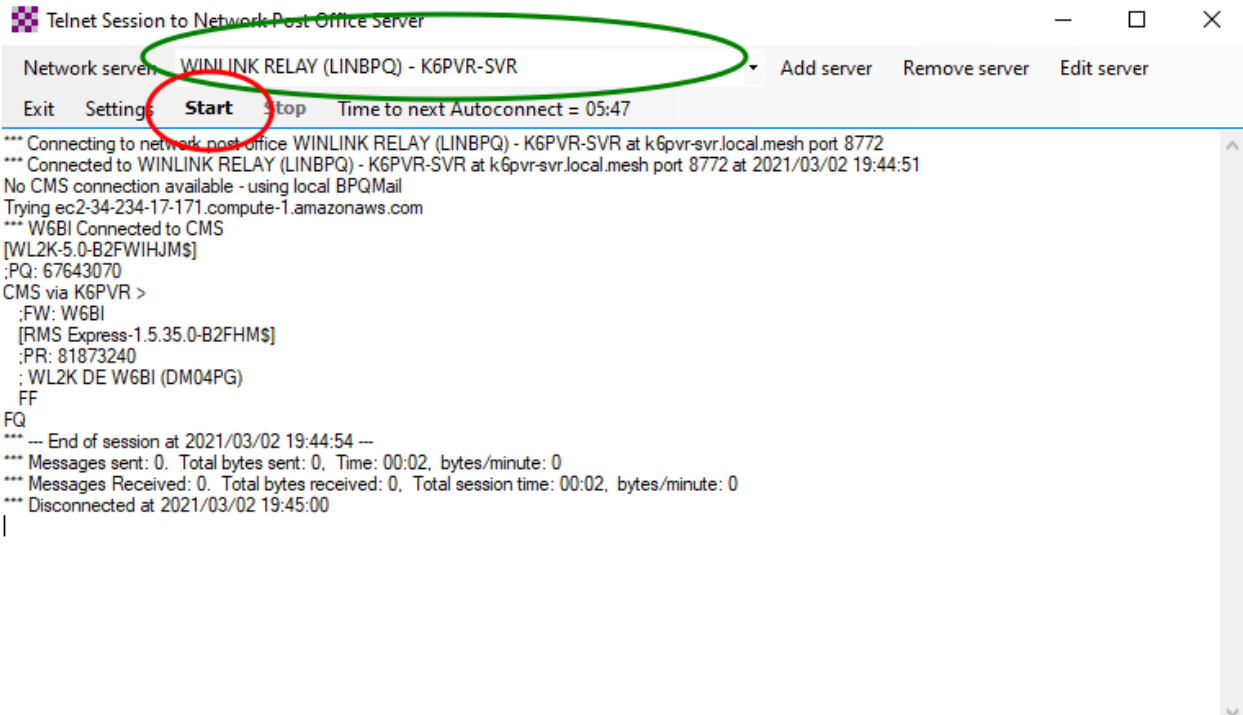


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You'll be returned to the "Telnet Session to Network Post Office Server" window. K6PVR-SVR should be selected as your Network Server (in this example).

If you've selected a Polling period, the "Time to next Autoconnect" should be counting down.

In order to test it, click on Start to start a connection cycle. If successful, you should see the connection sequence shown below. It should take less than 10 seconds – a bit longer if there's mail waiting for you.



The screenshot shows a window titled "Telnet Session to Network Post Office Server". The "Network server" dropdown menu is set to "WINLINK RELAY (LINBPQ) - K6PVR-SVR", which is circled in green. Below the menu, there are buttons for "Exit", "Settings", "Start", and "Stop". The "Start" button is circled in red. To the right of the buttons, it says "Time to next Autoconnect = 05:47". The main text area shows the following log output:

```
*** Connecting to network post office WINLINK RELAY (LINBPQ) - K6PVR-SVR at k6pvr-svr.local.mesh port 8772
*** Connected to WINLINK RELAY (LINBPQ) - K6PVR-SVR at k6pvr-svr.local.mesh port 8772 at 2021/03/02 19:44:51
No CMS connection available - using local BPQMail
Trying ec2-34-234-17-171.compute-1.amazonaws.com
*** W6BI Connected to CMS
[WL2K-5.0-B2FWIHJM$]
:PQ: 67643070
CMS via K6PVR >
:FW: W6BI
[RMS Express-1.5.35.0-B2FHM$]
:PR: 81873240
:WL2K DE W6BI (DM04PG)
FF
FQ
*** --- End of session at 2021/03/02 19:44:54 ---
*** Messages sent: 0. Total bytes sent: 0, Time: 00:02, bytes/minute: 0
*** Messages Received: 0. Total bytes received: 0, Total session time: 00:02, bytes/minute: 0
*** Disconnected at 2021/03/02 19:45:00
```

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## Sending traffic to another Winlink client over the ham network

Sending traffic point to point is different from sending it to a post office (regardless of how it's sent). You first have to create the destination station. To do that, you need to know the IP address of the PC that's running the destination Winlink program. You can find that by either asking the station operator, or frequently it's advertised on their mesh node, and you can determine its IP address by pinging it on the command line.

```
C:\Users\orvbe>ping AJ7C-10-QTH

Pinging AJ7C-10-QTH.local.mesh [10.8.157.38] with 32 bytes of data:
Reply from 10.8.157.38: bytes=32 time=23ms TTL=63
Reply from 10.8.157.38: bytes=32 time=19ms TTL=63
Reply from 10.8.157.38: bytes=32 time=18ms TTL=63

Ping statistics for 10.8.157.38:
    Packets: Sent = 3, Received = 3, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 18ms, Maximum = 23ms, Average = 20ms
```

Once you've determined the destination computer's IP address, open a session to Telnet Peer to Peer and click on Add station.

The screenshot shows a dialog box titled "Add P2P Station". It contains the following fields and options:

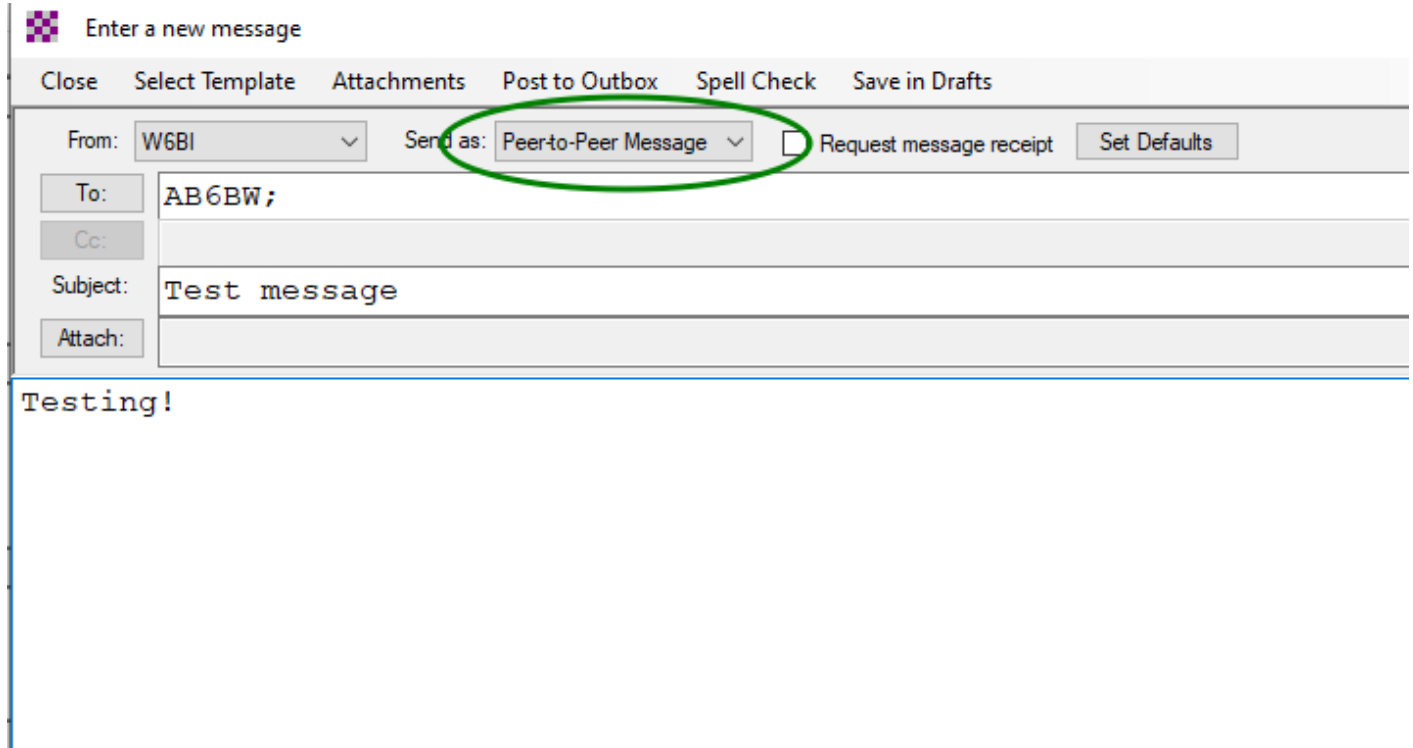
- Name:** A text input field with a dropdown arrow, circled in blue.
- Password:** A text input field.
- IP Address:** A text input field, circled in green.
- Port number:** A text input field containing the value "8774".
- (Leave password blank if not needed by station)** A note below the password field.
- Automatic Background Monitoring (session does not need to be open)** A section with a dropdown menu for "Polling time" set to "Disabled".
- Save** and **Cancel** buttons at the bottom.

Enter the IP Address. The Name does not have to be the hostname of the destination computer. It's a tactical name – it could be "Bob's Winlink" or "Red Cross Chapter", whatever is meaningful to you.

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If you want to set a Polling time, it can be done in this screen. Save it.

When you've completed creating a message to go direct to a local station, it must be saved as a Peer-to-Peer Message. You can then post it to the Outbox as usual.



Enter a new message

Close Select Template Attachments Post to Outbox Spell Check Save in Drafts

From: W6BI Send as: Peer-to-Peer Message Request message receipt Set Defaults

To: AB6BW;

Cc:

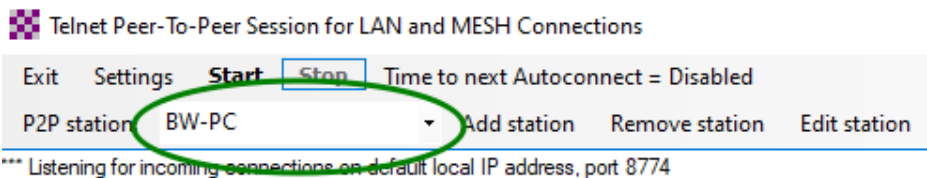
Subject: Test message

Attach:

Testing!

You can then open a session to Telnet Peer-to-Peer Session. Ensure your destination station is selected, and **Start** the session. Your Winlink client will connect to the destination and transfer your message(s).

NOTE: the receiving station must also be in the Peer-to-Peer mode for the transfer to work.



Telnet Peer-To-Peer Session for LAN and MESH Connections

Exit Settings Start Stop Time to next Autoconnect = Disabled

P2P station BW-PC Add station Remove station Edit station

\*\*\* Listening for incoming connections on default local IP address, port 8774