

## EAP – Remote Access



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## Prerequisites

### EAP Location

1. The Zigbee EAP coordinator in the mesh network must be configured on the local internal network with a static IP address. You must also have this IP address to hand.

***Note – The EAP is configured by default to use DHCP in order to obtain an IP address. You will have to use Lantronix Device installer to change this. Although a DHCP assigned IP address will work initially, the IP address assigned to the EAP is liable to change.***

2. The location of where the EAP is installed must have a working internet connection.
3. You must be able to configure the firewall to allow incoming network traffic on specific ports, and to forward those requests to a specified host on the internal local network.

### Remote Location

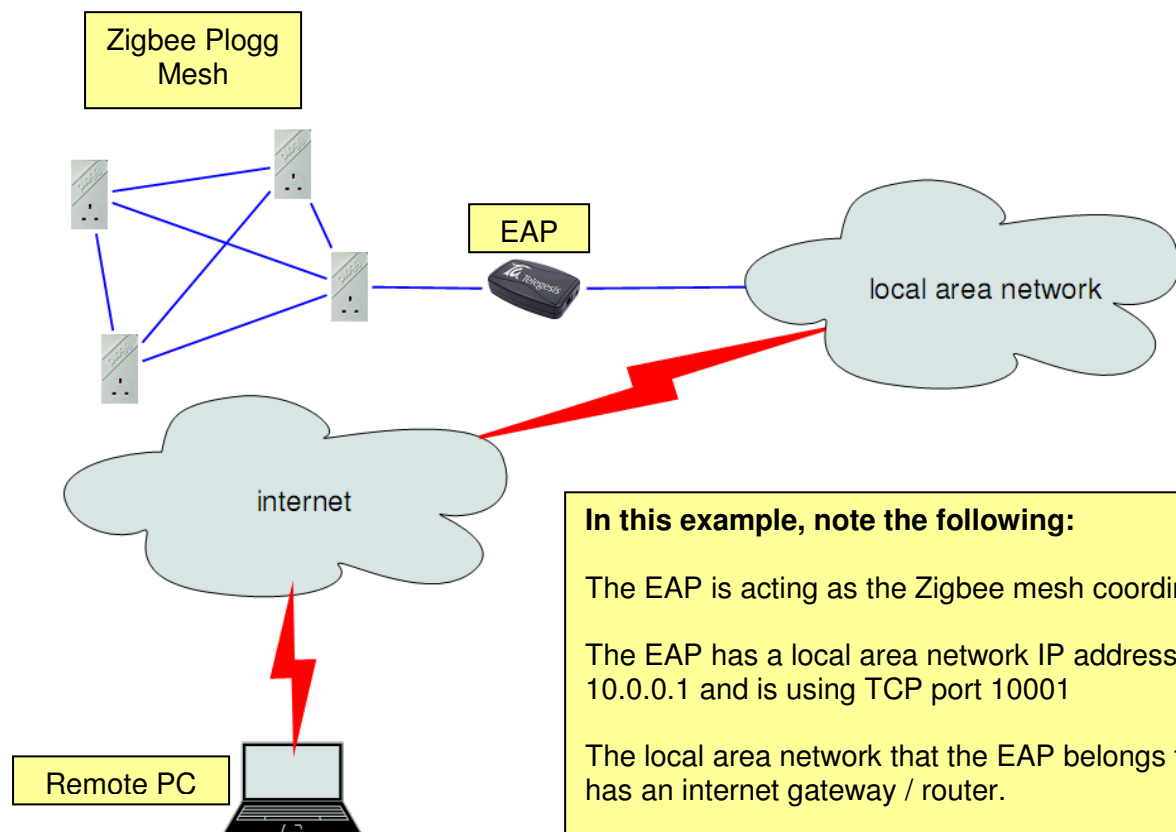
1. You must install Lantronix Com Port Redirector software, version 3.1.0.4 on the PC that will be used to remotely connect to your EAP. Please ensure that any other version is not installed on the PC you will be using.
2. The PC you wish to use to connect to the EAP must have a working Internet connection.

***If you cannot meet any or all of the requirements listed, you may not be able to set up and configure remote access for your EAP.***

## Goals

The goal of this document is to explain how to configure Lantronix COM port redirector software version 3.1.0.4 to allow a PC to access an existing Plogg network via the Internet.

The diagram below shows a typical scenario.



### In this example, note the following:

The EAP is acting as the Zigbee mesh coordinator.

The EAP has a local area network IP address 10.0.0.1 and is using TCP port 10001

The local area network that the EAP belongs to has an internet gateway / router.

The gateway external IP address is 83.37.101.98

The gateway is forwarding all inbound TCP traffic on TCP port 10001 to the internal local area network host 10.0.0.1 (The EAP)

The remote PC is using Lantronix redirector software 3.1.0.4 and is sending all COM port 20 traffic to the IP address 83.37.101.98

The remote PC has Plogg Manager software and is connecting to a Zigbee mesh on COM port 20. The remote PC can view all Ploggs installed at the remote location.

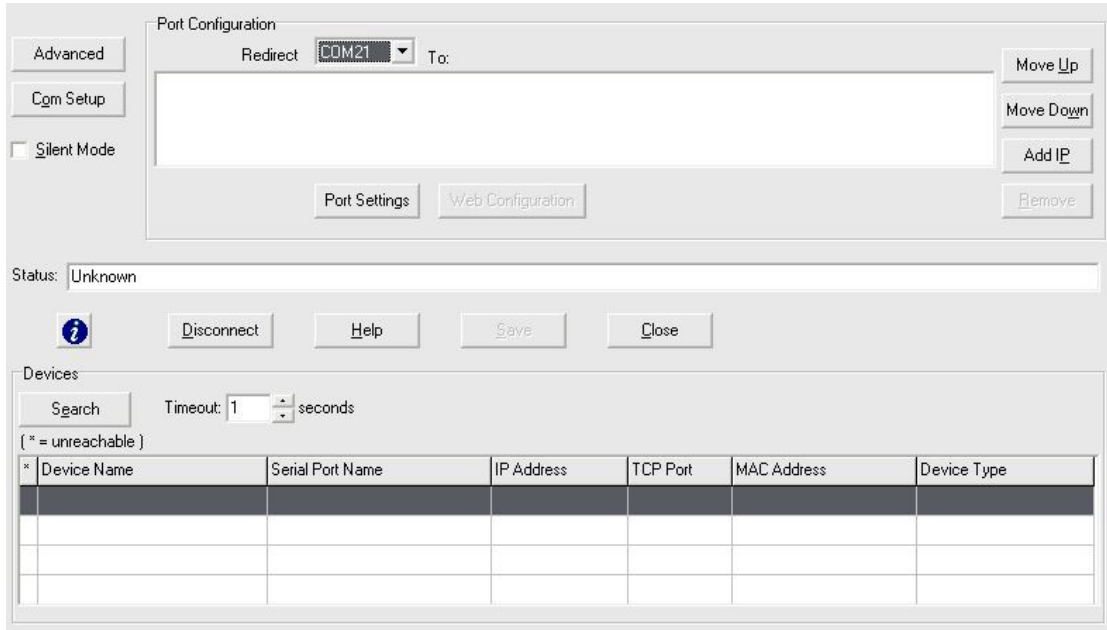
## Configuring the PC

Visit the Lantronix website, <http://www.lantronix.com> and browse to the software download section. Locate and download the COM Port Redirector software version 3.1.0.4.

After successfully downloading the software please install it. Follow the installation wizard's instructions.

Start the configuration program by clicking on the Start Menu and selecting All Programs > Lantronix > Redirector > Configuration.

The following screen will be displayed:



Port Configuration

Redirect: COM21 To:

Advanced  
Com Setup  
 Silent Mode

Port Settings Web Configuration

Move Up  
Move Down  
Add IP  
Remove

Status: Unknown

Disconnect Help Save Close

Devices

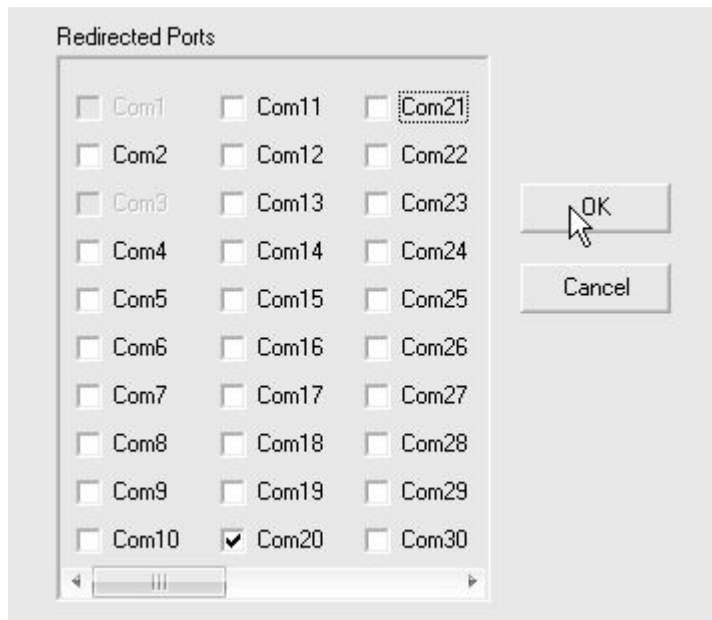
Search Timeout: 1 seconds

(\* = unreachable)

| * Device Name | Serial Port Name | IP Address | TCP Port | MAC Address | Device Type |
|---------------|------------------|------------|----------|-------------|-------------|
| *             |                  |            |          |             |             |
|               |                  |            |          |             |             |
|               |                  |            |          |             |             |

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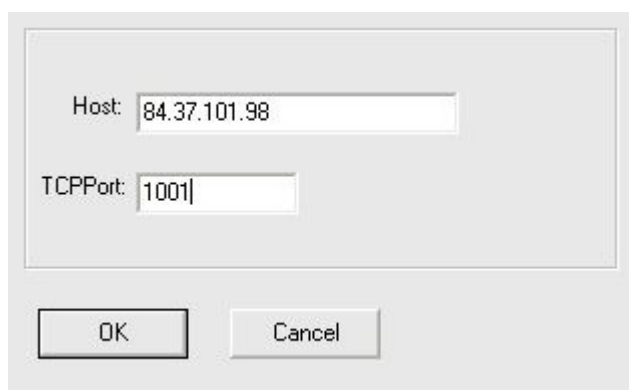
Click on the button called 'Com Setup'. A dialog will be displayed, showing a list of all available virtual COM ports. Put a tick in the box next to the COM ports you wish to create. You can create as many as you like. For the purposes of this document, we are using COM port 20. Now click on the 'OK' button to close the dialog.



Next you need to tell the configuration software where you want COM port 20 to be redirected to. Near the top of the screen is a drop down list that lists all the virtual COM ports you can choose from. Select any of these, again, for this example, port 20 is being used.



Now click on the button marked 'Add IP'. A dialog will be displayed. You must enter the IP address of the Internet gateway where the EAP is located. This is not an internal IP address but is one assigned by your ISP or similar. In this example, the address 84.37.101.98 is being used and the TCP port is 10001. Port 10001 is the default port that the EAP uses. You can use different ports if you wish.



After entering the correct details, click the 'OK' button to close the dialog.

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Now click the 'Save' button on the main window, followed by the 'Close' button. If you are prompted to reboot the PC, please do so.

Install Plogg Manager software if you haven't done so already. Plogg Manager can be downloaded from our website <http://www.plogg.co.uk>

The PC configuration is now complete.

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## Configuring the Gateway / Firewall

The internet gateway on the LAN where the EAP is located must be configured to allow inbound connections from the internet.

You must configure the gateway / firewall to allow inbound connections on the TCP port specified in the above section. The gateway / firewall must be configured to forward all inbound TCP traffic on this port to the internal IP address of the EAP.

In this example, we are accepting inbound TCP connections on port 10001 and we are forwarding these connections to the internal IP 10.0.0.101 which is the IP address of the EAP. If need be, you will also need to tell the gateway / firewall that the forwarded traffic needs to be forwarded on port 10001.

## Testing

The only true test is to install Plogg Manager on the remote PC and attempt to connect using Zigbee and the COM port you created in earlier steps. There will be a short delay whilst establishing the connection but it will either work or not. If all goes well, Plogg Manager will be connected to the remote EAP and the list of Zigbee Ploggs will be populated.

If you cannot connect to the EAP you must check that all steps have been carried out correctly, in particular the gateway / firewall configuration.