CPE/USER DRAFT 1.0

RapidLink 54 Wireless Point-to-MultiPoint Network

CPE/User Installation Guide/Users Manual

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Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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Section 1: For Your Safety

WARNING

Use extreme care when installing equipment or working near power lines.

CAUTION

When the unit is in operation, avoid standing directly in front of the antenna. Strong RF fields are present when the transmitter is on.

The antenna used for this transmitter must be installed to provide a separation distance of at least 150 cm from all persons.

This Point-to-MultiPoint device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Section 2: Components for Integrated CPE models RL54-SU-22, 23, 26

Model RL54-SU-22 comes with an integrated 22dBi gain antenna, installed from the manufacture.
Model RL54-SU-23 comes with an integrated 23dBi gain antenna, installed from the manufacture.
Model RL54-SU-26 comes with an integrated 26dBi gain antenna, installed from the manufacture.

Components for External CPE models RL54-SU-28

Model RL54-SU-28 comes with an External 28dBi gain antenna
ALL OTHER COMPONENTS ARE IDENTICAL.

N-Type RF Bulkhead Cable Adapter

Section 3: Installation

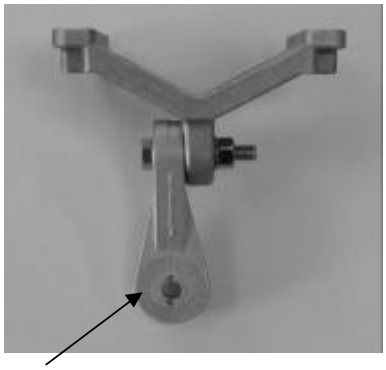
3.1 Connecting the Outdoor Units

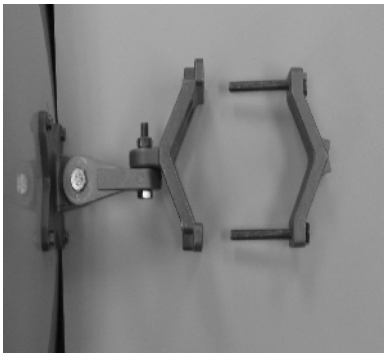
NOTICE To meet regulatory restrictions, RapidWaves' external antenna configuration and any external antenna must be professional installed.

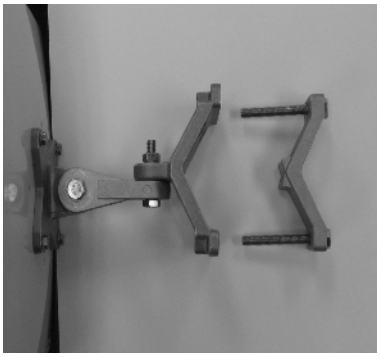
Step 1: Select optimal locations for the outdoor CPE unit, with a clear line-of-sight to the sector base station unit. Consider the following criteria to ensure maximum performance and stability of your wireless connection:

- Best signal path possible, ideally the highest spot pointing towards the sector Base Station. It is always recommended to have a professional site survey done prior to installation to confirm adequate signal strength
- Fresnel zone clearance
- Less than 320 feet of total Power-Over-Ethernet UTP cable, the shorter the better
- Optimal transmission range (visit the online range calculator at http://www.rapidwaveinc.com)

Step 2: Attach the outdoor units mounting brackets.







Tip Only use the supplied extension bracket if necessary, otherwise it is recommended to mount the antenna-mounting bracket directly to the female pole-mounting bracket as depicted below. If the extension bracket is required for appropriate installation, than it will also be necessary to remount the antenna bracket on the back of the antenna, to maintain an upright and vertical position.

Step 3: Install "User Supplied" CAT5 Weatherized Ethernet straight-through cable.
------ Do not exceed 320 feet (100 Meters) of cable per installation------

Step 4: Determine the appropriate routing length for your Ethernet cable and cut to length.

Step 5: Splice and crimp indoor mounting side of the CAT5 Ethernet Cable with an RJ-45 connector.

Step 6: The RL54 mounting side of the Ethernet cable must first be routed through the supplied weatherized wiring gland, than spliced and crimped with a RJ-45 connector. It is Highly recommended that you test the cable with an RJ-45 wiring tester before final installation.

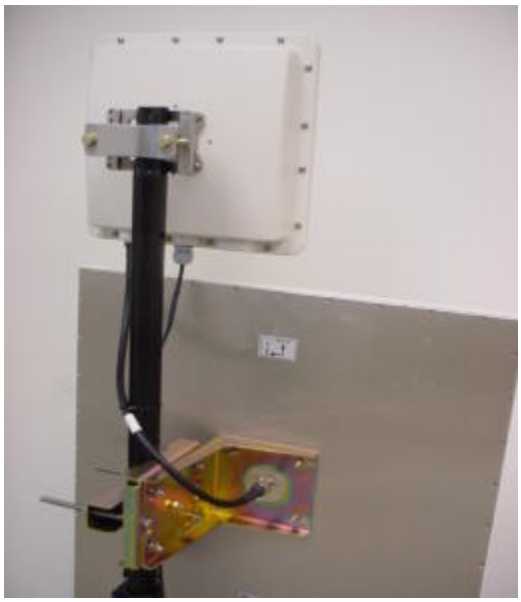
Step 7: Connect the RJ-45 to the female connecter located directly inside the enclosure, make sure the connection is locked in place before tightening the gland.

Step 8: Tighten the gland to the enclosure and than tighten the compression nut around the Ethernet cable

Step 9: Mount the outdoor units to the predetermined CPE location you chose in step 1

3.2 Mounting External CPE Antenna

NOTICE To meet regulatory restrictions, RapidWaves' external antenna configuration and any external antenna must be professional installed.



NOTE All external antenna configurations will come with an N-type Bulkhead adapter installed at the bottom of the main radio enclosure.

Step 1: Carefully attach one end of the supplied N-type RF cable to the main radio unit first and than install to the permanent poll location.

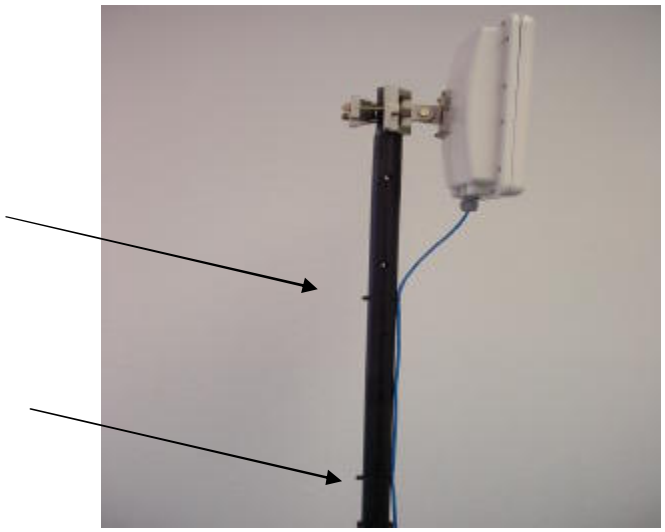
Step 2: Mount the external antenna with supplied mounting brackets to the same poll and attach the other end of the RF cable to the antenna.

NOTE When determining the location of the external antenna, keep in mind to not exceed the distance of the supplied RF cable

Tip RapidWave recommends mounting all external antennas either "under" or "back-to-back" with the main radio enclosure unit (as shown above). This will insure proper RF cable routing and maintain the best guard against the weather. Adding any other RF cable may decrease the performance of the connection.

Step 3: After mounting the outdoor units, loosen the pole mounting clamp (antenna only) just enough to maneuver to the ideal vertically and horizontally position to obtain maximum signal strength from the sector antenna.

Step 4: Secure the outdoor unit's Ethernet cable (that you attached to the bottom of the outdoor unit) along the length of the pole using tie-wraps, run the cable toward the inside of the building.



Tip For best results, secure this cable to the pole at least every 10 feet with tie-wraps.

3.3 Connecting the Indoor Units (Power-over-Ethernet Injectors)

The indoor unit is the point at which the outdoor units connect with your indoor LAN. More specifically, the indoor unit connects your wireless unit to the network and transmits both data and power to the outdoor unit.

Perform the following steps (1-6) to connect the indoor unit of the wireless outdoor unit.

Step 1: Place the indoor unit in an appropriate location that meets the following criteria:

- The distance from the outdoor unit to the indoor Power-Over-Ethernet adapter must not exceed the length of your Ethernet cable after attached to the bottom of the outdoor unit
- The distance from the indoor unit to the Ethernet network backbone device (e.g., hub or switch) must not exceed 320 ft (100 meters)
- The distance from the indoor unit to an available AC outlet must not exceed the length of the supplied power cable

Step 2: Bring the Ethernet cable into to the wiring closet (where the indoor unit is located), and plug the RJ-45 connector into the combined Ethernet/power output port (**P + Data Out**) on the front panel of the indoor unit.

Caution Connecting any device other than the outdoor unit to the indoor unit may cause permanent hardware damage. Do not confuse the RJ-45 connector of the outdoor unit's with that of the Ethernet cable connected to your backbone device.

Step 3: Connect one end of the brick style power adapter cable to the power jack (**Power In**) on the rear panel of the indoor unit, and plug the other end of the power cable into the AC wall outlet.

Step 4: Check the front panel of the indoor unit to make certain that the power LED is on**.** If the power LED is not on, confirm that the power cable is securely connected and that your power source is operational.

Step 5: Plug your Ethernet patch cable into the Ethernet input port (**Data In**) of the indoor unit and into the data port of your backbone device.

Caution Do not confuse the Ethernet input port with the Ethernet/Power output port. To avoid permanent hardware damage, make certain that you connect your backbone device to the Ethernet input port (not the Ethernet/Power output port).

Step 6: Check the link LED on your backbone device to confirm that it is on.

Congratulations! At this point, you have completed all the hardware related steps necessary to establish your point-to-multipoint wireless link. However, your wireless link is not yet operational. The next section will describe basic software configuration and antenna alignment procedures necessary to activate the wireless network.

Section 4: Basic CPE/User Radio Configuration

4.1 Overview of the RapidLink 54 PtMP CPE Web Interface

All basic radio configuration management parameters are accessible through an embedded web server interface called the Wireless Link Manager (WLM). Using a web browser, you can easily log into the web server of your wireless unit. From this user-friendly interface, you can communicate with any RapidLink 54 CPE and perform configuration, management and trouble-shooting tasks for this local radio.

4.2 Setting Basic CPE Radio Parameters

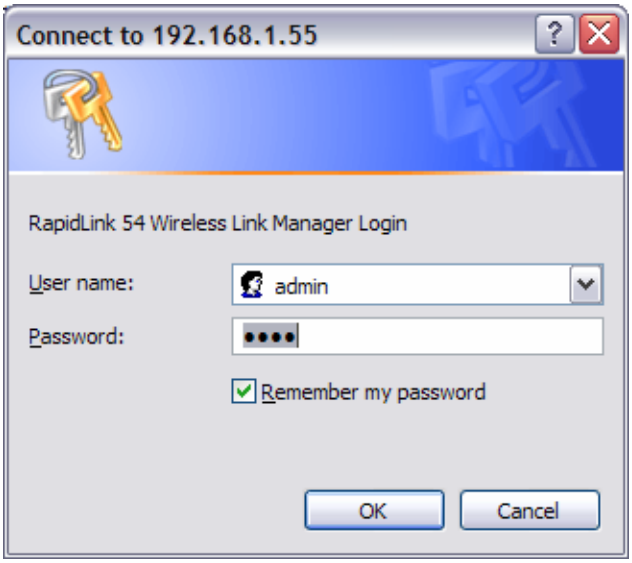
In this section, you will log into the RapidLink 54 WLM for the first time and modify your radios default settings.

NOTICE You may need to change your computers TCP/IP local area connection setting to an IP range that is compatible with the default IP of the CPE

Step 1: Load your Web browser.

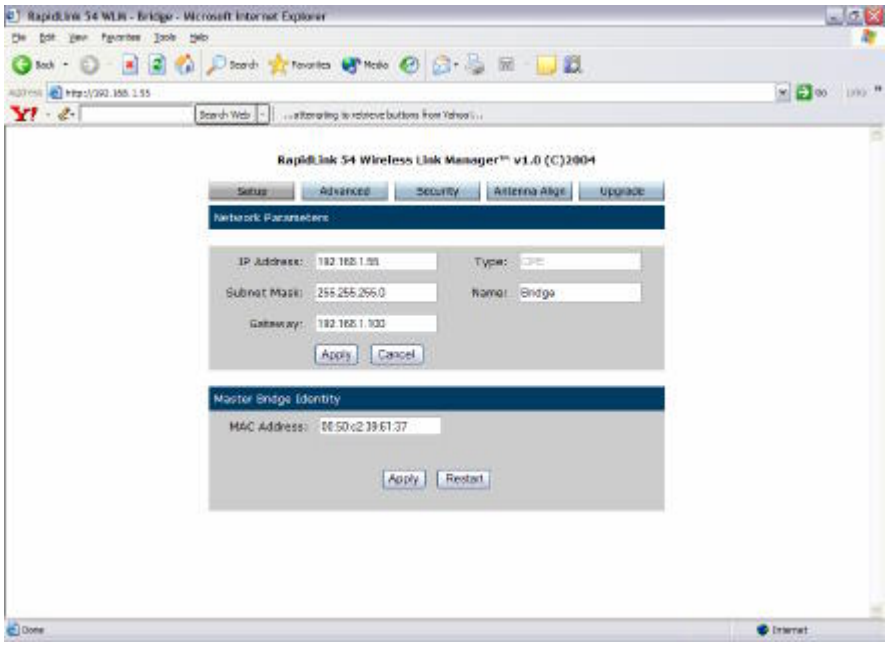
Step 2: Type the factory default IP address: **192.168.1.55** into the address field of your browser and press **Enter**. This will load the RapidLink 54 WLM.

Step 3: Enter the default (Case Sensitive) **Login: admin** and **Password: rl54** when prompted and click **Enter**.



Tip It is strongly recommended that you change the **Password** and **Login** as soon as you have completed the basic configuration by clicking on the **Security** tab. See section 5.3 under Security for full details on changing password.

Now you will see the RapidWave 54 WLM. Along the top of the page, you will find five tabs that contain all the configuration options available for RapidLink 54 CPE. These tabs are: **Setup**, **Advanced**, **Security**, **Antenna Align** and **Upgrade**. You will use the **Setup** page to set network parameters



Step 4: Enter a new **IP Address** for the CPE (the IP address of each device must be unique)
Write down your new IP Address for future reference in the NOTES section of this Installation Guide. If the IP is changed and than forgotten, you may need to reset all default values to recover, disrupting service to this CPE's wireless link.

Step 5: Enter a **Subnet Mask** (if different than the default value).

Step 6: Enter the current **Gateway Address** to which you are connected.

Step 7: Enter the **Name** of your Base Station Sector.

Step 8: Click **Apply**.

Step 9: Enter the Wireless MAC address of the Base Station this CPE should communicate with. This can be found on the back of the Base Station radio i.e. (00:50:c2:39:6x:xx). **It is critical that this number is correctly entered.** This number is not case sensitive, but does require Colons between each set of two digits.

Step 10: To put the changes into effect, click **Restart**, a dialog box will appear, click **OK**. The CPE will then restart.

Section 5: Advanced Configuration Options and Tools

From radio-related parameters and security algorithms to diagnostic tools and firmware upgrade utilities, the WLM offers numerous options that help you effectively manage the system and achieve the highest performance possible. This section describes RapidLink 54's advanced configuration options, which you can find in the following categories:

?Advanced ?Security ?Antenna Align ?Upgrade

Accessing the advanced options is simple. From the RapidLink 54 WLM, simply click on the tab corresponding to the category you need. The following sub-sections will explain how to configure each parameter within these categories.

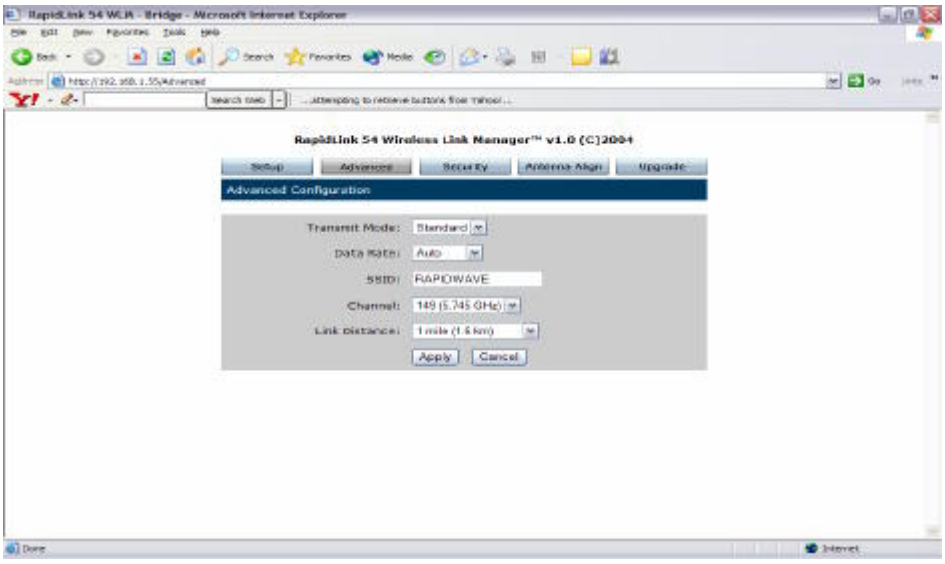
Tip While the options differ, each page functions similarly. As you read the next subsections, keep in mind that regardless of the page, any change you make can only go into effect if you click **Apply**. If you do not click **Apply** before moving to the next page, your changes will be lost.

Also be advised that certain parameters in the **Advanced** and **Security** pages require you to restart the system in order to take effect. In such cases, go back to the setup page and click on **Restart**. If you know that you will be making more changes, you can complete all other changes, and restart the system later.

5.1 Advanced Page

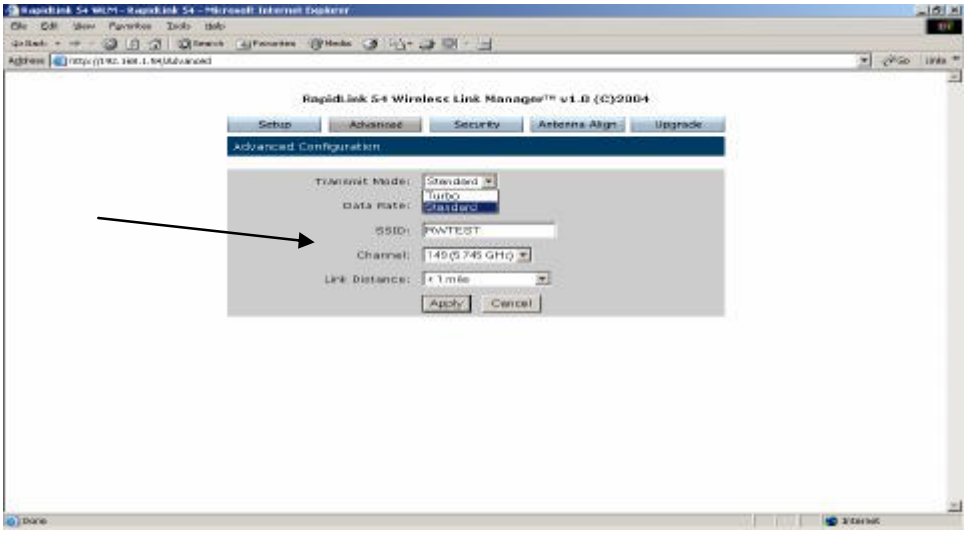
This page allows you to control radio-related parameters, including **Transmit Mode**, **Data Rate**, **SSID**, **Channel and Link Distance.** These parameters must be identical on both sides of all wireless links. Therefore, any change on the Base Station should also be executed for all CPE's. This sub-section explains the options in each field of the **Advanced** page.

Tip **Transmit Mode**, **Data Rate**, and **Channel** settings are interdependent. **Data Rate** and **Channel** are always updated according to the **Transmit Mode** setting. It is therefore recommended that you select the **Transmit Mode** first and follow the instructions below in the order that they are presented.



Set Transmit Mode:

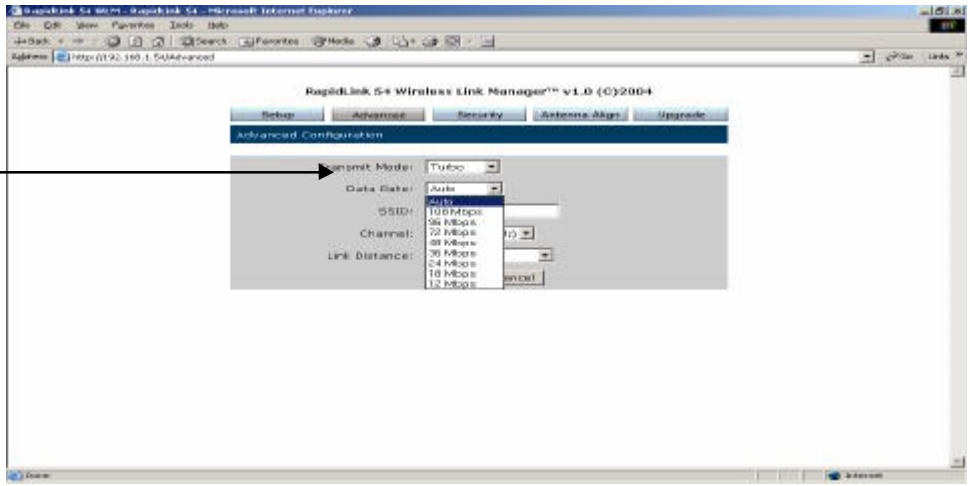
Simply click the drop-down menu in the **Transmit Mode** field and select either **Turbo** or **Standard Mode**. **Data Rate** and **Channel** options will then update according to the new setting. Must match the Base Station setting!



Set Data Rate:

RapidLink 54 supports several possible data rates ranging from 6 to 108 Mbps. The highest transmission rate is 108 Mbps, with automatic fallback rates that allow the unit to operate in the most efficient manner. By default, the system automatically switches between these rates to maximize coverage. However, you may wish to select a fixed **Data Rate** based on your specific objectives or needs.

Step 1: To adjust this parameter, click the drop-down menu in the **Data Rate** field and select the desired rate.

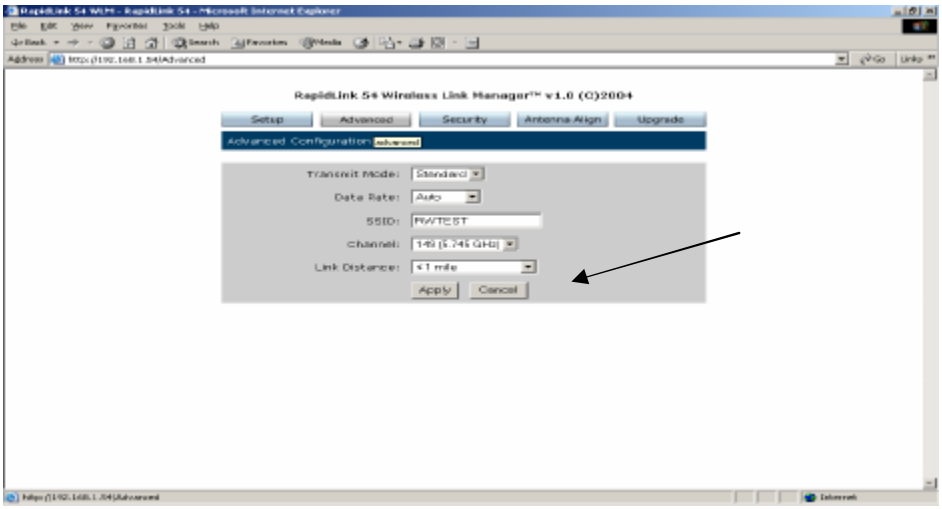


Note The default setting, **Auto**, is recommended.

- **Auto:** When the **Data Rate** is set to **Auto**, the CPE will follow an algorithm to determine the highest bit rate possible for communication with the Base Station on the network.
- **Fixed Bit Rate:** The **Auto** setting is disabled by selecting a specific bit rate to be used for the wireless link. This would be appropriate when operating in a well-understood environment, and when full rate operation is not possible. If you choose to set a fixed rate It is recommended that you start with the lowest bit rate, working your way up to the highest achievable data rate.

Enter SSID:

The SSID is a service set identifier that uniquely describes your Base Stations sector and all of the CPE's that will receive signal from this Base Station. Always use the same **SSID** for all CPE's in the covered sector.



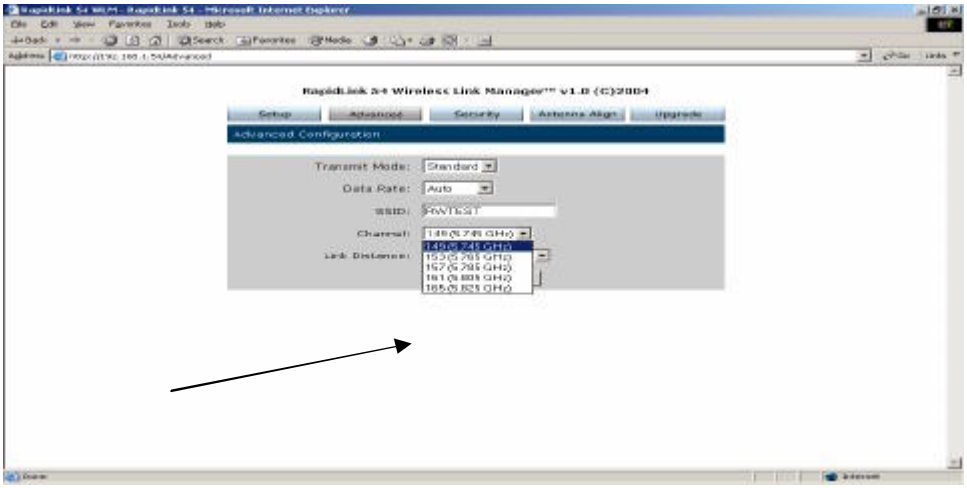
Set Channel:

Channels are used to set the center frequency used to transmit data over the wireless link. You can avoid active interference by switching channels if you suspect interferers operating on the same frequency. Available channels shown in the drop-down menu are based on local regulatory requirements.

To set the **Channel**: Click the drop-down menu in the **Channel** field and select the desired frequency.

- Five channels are available in **Transmit Mode Standard**
- Two channels are available in **Transmit Mode Turbo**

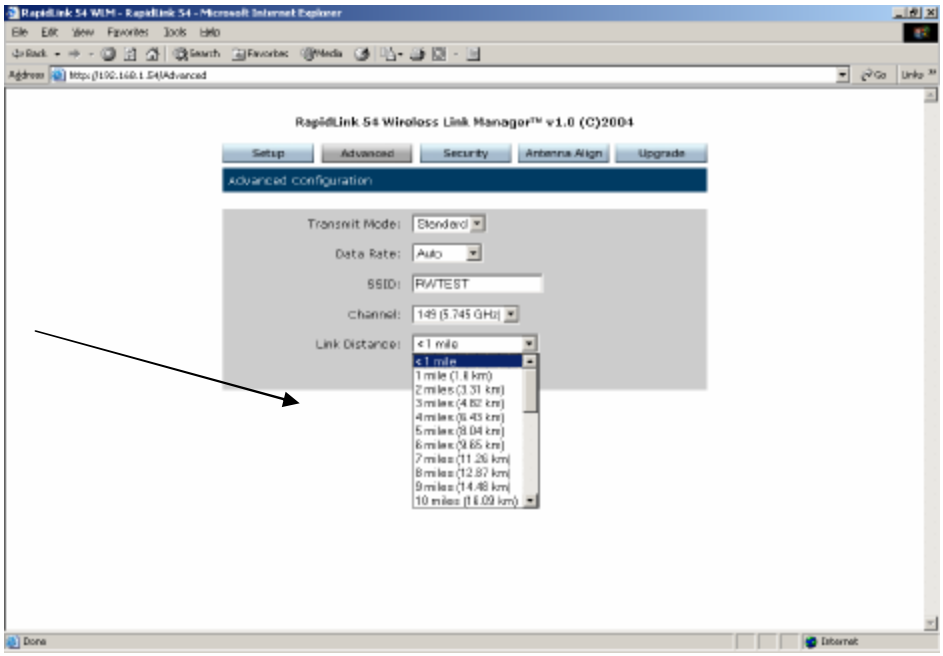
- **Note** Always set all CPE's to the same channel as the host Base Station



Tip If active interference is not an issue, it is recommended that you choose the default **Channel** (lowest frequency) in order to maximize range.

Set Link Distance:

Entering the correct **Link Distance** maximizes performance by ensuring the system is ideally tuned to the distance between the Base Station and the CPE. You should only change this at the point of installation by clicking the drop-down **Link Distance** menu and selecting the correct CPE distance form the Base Station.

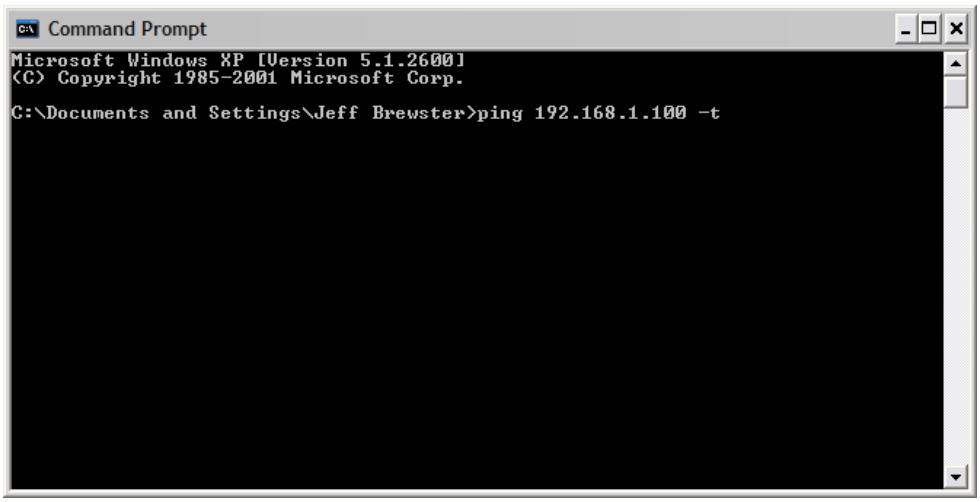


5.2 Aligning the Antennas

Depending upon the characteristics of your antennas and the distance between them, antenna alignment can be performed visually or you may opt to use more sophisticated tools and methods of aiming such as telescopes or laser pointers. The WLM provides a tool designed to help you optimize antenna alignment, ensuring the highest signal quality and stability possible, the longer the distance, the greater the need for this tool. As you make physical adjustments to the antenna, the antenna alignment tool will show the resultant transmission quality between the two devices in the form of signal strength and RSSI value. Follow the procedures below for each CPE/User.

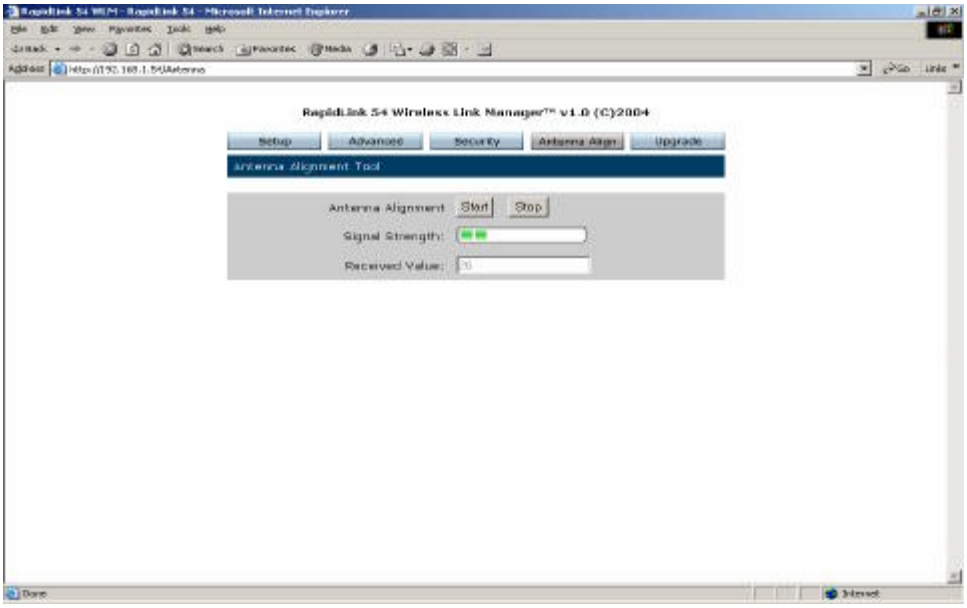
Step 1: From the Base Station and CPE sides of the link you will need to start a continuous PING to each opposing computers IP address.

- Open a command Prompt on both computers
- Type in the IP Address of the remote field laptop, followed by a space, minus sign & than a lowercase t i.e. (192.168.1.100 –t). Do the same for the base Station computer.
- Enter



Step 2: Take the laptop computer to the antenna location and load the RapidLink 54 user interface.

Step 3: Select the **Antenna Align** tab and click **Start** to enable the antenna alignment tool. The **Signal Strength** and **Received Value** indicators will now show dynamically updated measurements until you click **Stop**.



Step 3: Monitor the **Signal Strength** indicator as you align the antenna vertically (if antennas are not on the same elevation). When the signal quality reaches an acceptable level, tighten the screws.

Step 4: Repeat step 3 for horizontal alignment.

▪ **Note** Be advised that different data rates have different sensitivities, which will impact range.

5.3 Security

This section describes the parameters available through the **Security** menu. RapidLink 54 provides two forms of security, access control and privacy. Access control is achieved by MAC address authentication, which allows only known devices to associate with the Base Station and establish a wireless connection. Another component of access control is the password protected user interface, which can be configured on the **Security** page. Privacy is accomplished by enabling encryption that prevents rogue stations or wireless sniffers from decoding any captured data. RapidLink 54 provides 128-bit WEP encryption option on the **Security** page.

Changing your Password

We recommend that you change your **Login** and **Password** from the factory default setting to authenticate the identity of the RapidLink 54 administrator and ensure that no unauthorized users gain access to the WLM.

To change your **Login** and **Password**, type a new **Login** name (16 characters maximum). Next, enter a new **Password**, (16 characters maximum) and enter it again to confirm.

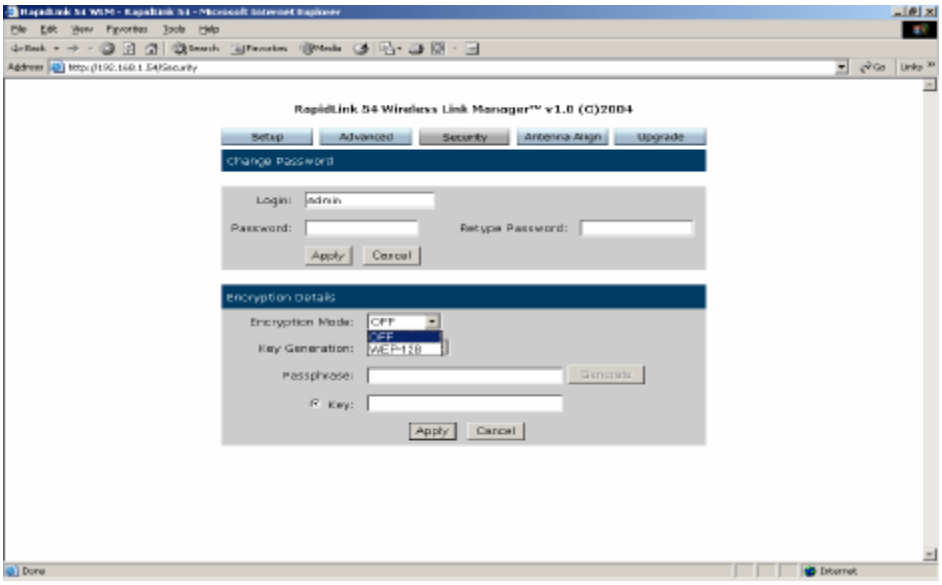
Tip Create passwords according to the following guidelines:

Do Not

- Share passwords with unauthorized users
- Use personal information easily obtained, such as your actual first or last name, system name, etc.
- Use words commonly used as passwords
- Use dictionary words or names

Do

- Base passwords on non-dictionary words, combined with obscure character substitutions
- Use the maximum number of characters
- Change passwords regularly



Privacy

You can enhance link privacy by setting the **Encryption Mode** to **WEP-128** and entering a valid encryption key. You have the option of either creating a key manually or having the system generate a key for you automatically.

By default, the **Encryption Mode** is **Off**. If you wish to increase link privacy, perform the following steps for the Base Station, then repeat these steps for all CPE's.

Step 1: If you wish to enable encryption, select **WEP-128**.

Step 2: Click the **Key Generation** drop-down menu and select either **Manual** or **Automated.** If you select **Manual**, you are required to manually enter a key as described below. If you prefer, you can select **Automated**, and the system automatically generates a distinct key based on a passphrase that you enter.

Step 3: To generate a valid encryption key. The steps are as follows:

- If the **Key Generation** field is set to **Manual**, enter a key directly into the field. The key must be composed of 32 hexadecimal characters in the range of A-F and 0-9.
- If **Key Generation** is set to **Automated,** the **Passphrase** field and **Generate** button are enabled.

  a. Type a **Passphrase** (no more than 32 characters) that you can easily memorize.

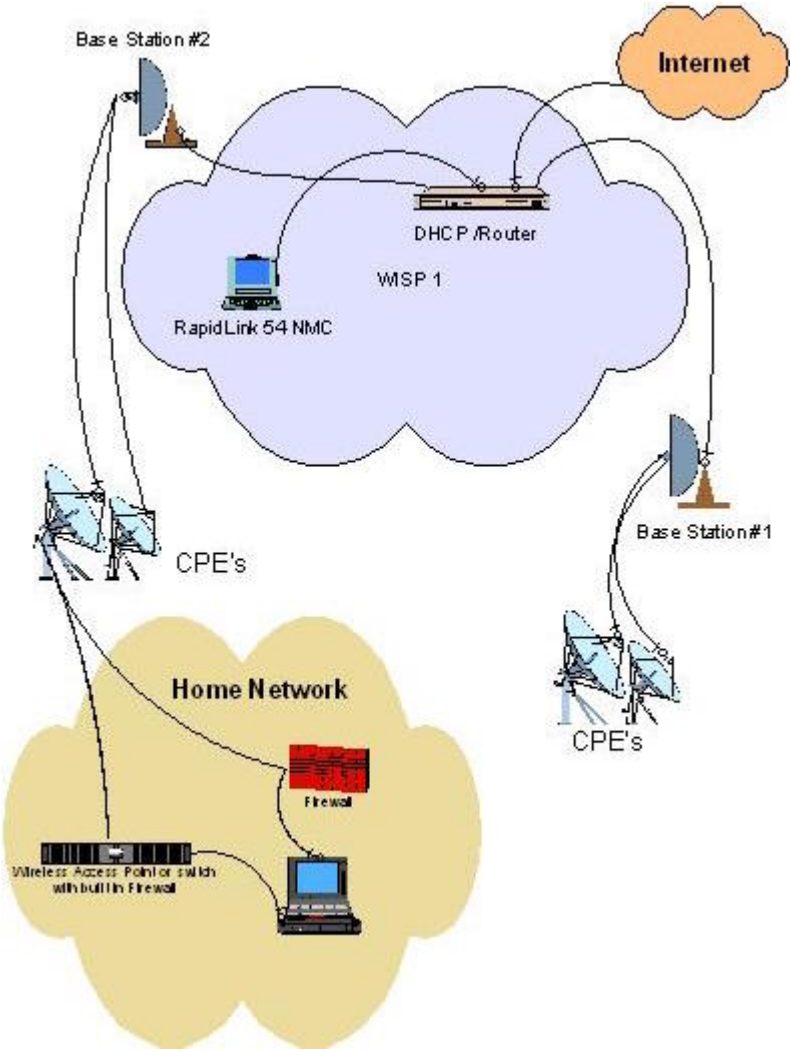
b. Click **Generate**, and a one-way hash algorithm will be applied to hash the **Passphrase** using the specified character encoding and copy the results into the encryption key field.

Note The passphrase is not exchanged over the air. It is as secure as a manually generated key, but easier to remember.

CPE / Home Network Security

By the nature of this wireless network, all CPE's located on the same Base Station will be able to access one another, opening up a potential security problem. Depending on your network deployment, it is highly recommended that you install or recommend to CPE subscribers to install a firewall inline with their home network deployment. Please see the basic network configuration below.

Note Telnet and CPE Web interface access is all password protected, so system administrators will have total control and access for updates and maintenance of the PtMP networks, dictating all individual CPE subscribers access as well, without the ability to intrude on any private home networks.



5.4 Firmware Upgrade

Periodically, RapidWave, Inc. will release firmware updates that enhance various aspects of RapidLink 54 firmware. After registering on http://www.rapidwaveinc.com, you will have access to all the firmware upgrades available. If you have questions about upgrading your firmware, please contact RapidWave's support team.

The steps involved in performing a firmware upgrade are as follows:

Step 1: Obtain firmware image from RapidWave and save it to a directory on your computer or network drive.

Step 2: Start an FTP Server on your network computer. Configure an entry for the user name "rapidwave", with the password "rapidwave". The home directory for the "rapidwave" user should be set to the directory where the firmware image is stored.

Step 3: Login to the CPE WLM Web interface

Step 4: From the RapidLink 54 WLM browser interface select Upgrade.

Step 5: Specify your FTP Server address in the space provided.

Step 6: Click browse to open the Windows browse file dialog.

Step 7: Click **Upgrade** to upload the image to the CPE.

Step 8: Click **OK** when you see the pop-up with a warning and **OK**/**Cancel** options.

Step 9: When you have successfully loaded the new firmware, the system must be restarted**.**

Step 10: Repeat steps 2-9 for the all CPE's as they will utilize the same upgrade image.

Tip For greatest interoperability, upload the same firmware image or revision for the Base Stations and all CPE's. Depending on CPE deployment, you will need to make sure to notify all users to the upgrade. Make sure that the firmware revisions match on both sides.

6.0 Establishing a Wireless Link

Now that you have your Base Station(s), CPE's and Network Management Center (NMC) tool all installed, configured and aligned, the following steps will help you establish wireless connectivity throughout your new network if it does not already exist:

Step 1: From the Base Station - type the new IP address that you created in the address field of your web browser and press **Enter** to load the web interface of the Base Station. Login with your New user name and password, before moving on to the next step, make certain that the **Setup** page shows the new settings you initiated in the Base Station Installation Guide.

Tip Now that you have assigned the final IP address, it is a good time to bookmark your user interface for easy access as you manage your wireless link.

Step 2: From the CPE - type the new IP address that you created in the address field of your web browser and press **Enter** to load the web interface of the CPE. Login with your New user name and password, before moving on to the next step, make certain that the **Setup** page shows the new settings you initiated earlier in this Installation Guide.

- **Tip** You will not be able to connect if certain Base Station and CPE settings are not identical. If you have changed any of the following parameters: **Transmit Mode**, **Data Rate**, **Channel**, **SSID**, **Encryption Mode** and **Active Encryption Key**, ensure that the configurations of both the CPE and Base Station are compatible.

Step 3: Start a continuous Ping from the Base Station computer to the CPE computers IP address and a continuous Ping from the CPE computer to the Base Station computers IP address.
(See section 5.2 Step:1 for Ping instructions)

Step 4: Start the Antenna alignment tool on the CPE Web interface. If you do not see any RSSI or signal strength, you will not be able to establish a link. You must confirm that your antenna alignment is still true and all parameters from the TIP above are identically configured.

Step 5: Bring up the NMC tool from the Base Station side of the link.

Step 6: Confirm that all MAC addresses and Radio IP addresses are correct for all Base Stations and corresponding CPE's.

Step 7: Enter the User section and select the New CPE that you are establishing a link with, confirm that all parameters are correct, hit apply. (You may see an error message during this step until the Sector has been updated. At this point you are staging the sector to receive this new CPE's information)

Step 8: Select Main.

Step 9: Go into the Station section, choose the sector network that will communicate with this new CPE and select apply. (This transaction should be successful, now the Sector can authenticate with the CPE)

Step 10: Bring up the Command Prompts that are running the pings, you should see successful ping coming though within 15 to 30 seconds.

Step 11: New that you have a link between the Base Station and remote CPE, you should go back into the NMC Users section, select the New CPE once more and hit apply. (This will send the CPE's bandwidth allocation and QoS parameters to the CPE via the Base Station, allowing the Base Station and CPE to sync up.)

Congratulations! You have now completed all the steps to set up and manage an RL54 Point-to-Multipoint High-Speed communication Network!

Section 7: Notes

Section 8: Warranty

RapidWave - Limited Warranty

RapidWave Inc. warrants that hardware products will be free from material defects in materials and workmanship for the term of one year from product shipment date. RapidWave Inc. warrants that software media will be free from material defects in materials and workmanship for a period of one year from shipment date.
This Hardware Product warranty covers all RapidWave Inc. parts, accessories, and upgrades sold with your RapidWave Inc. Hardware Product. Unless otherwise set forth, RapidWave Inc. accessories and upgrades purchased and added on to the Hardware Product after the initial Hardware Product purchase assume the warranty deliverables and term of the system into which they are installed.

Limitations

NEITHER PARTY WILL BE LIABLE FOR ANY INDIRECT, PUNITIVE, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING OUT OF THIS WARRANTY (INCLUDING, WITHOUT LIMITATION, LOSS OF BUSINESS, REVENUE, PROFITS, GOODWILL, USE, DATA, ELECTRONICALLY TRANSMITTED ORDERS, OR OTHER ECONOMIC ADVANTAGE), HOWEVER THEY ARISE, WHETHER IN BREACH OF CONTRACT, BREACH OF WARRANTY OR IN TORT, INCLUDING NEGLIGENCE, AND EVEN IF THAT PARTY HAS PREVIOUSLY BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. LIABILITY FOR DAMAGES WILL BE LIMITED ADND EXCLUDED, EVEN IF ANY EXCLUSIVE REMEDY PROVIDED FOR FAILS OF ITS ESSENTIAL PURPOSE. SOME STATES AND JURISDICTIONS DO NOT ALLOW LIMITATIONS UPON CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

YOUR SOLE AND EXCLUSIVE REMEDY AND RAPIDWAVE INC.'S ENTIRE LIABILITY FOR BREACH OF WARFRANTY WILL BE: (A) THE REPAIR OR, AT RAPIDWAVE INC.'S OPTION AND EXPENSE, REPLACEMENT OF THE DEFECTIVE PRODUCT, OR, IF SUCH REPAIR OR REPLACEMENT IS NOT REASONABLY ACHIEVABLE, THE REFUND OF THE PURCHASE PRICE. ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS, AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, SATISFACTORY QUALITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT, ARE HEREBY EXCLUDED TO THE MAXIMUM EXTENT PERMITTED BY LAW. SOME STATES AND JURISDICATIONS DO NOT ALLOW LIMITATIONS UPON IMPLIED WARRANTIES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

Founded in July 2002, RapidWave Inc. is a privately held company headquartered in San Jose, California. RapidWave is focused on designing and manufacturing high-performance point-to-point and point-to-multipoint fixed wireless access solutions to address the needs of building communication infrastructures in the emerging economies of the world. RapidWave's product line offers end-to-end solutions for service providers, government organizations, universities, and businesses to quickly and cost-effectively solve their voice and data communication needs – without wires. For more information, visit the RapidWave web site at http://www.rapidwaveinc.com.