

# Licensing Pt-Pt Links in the U.S.



## Introduction

With the explosive growth of the unlicensed bands at 2.4 GHz and more recently 5.8 GHz, interference has become more and more of a networking issue. FCC Pt-Pt licensing provides maximal reuse of channel frequencies in the microwave bands whilst providing protection of interference from geographically adjacent users of the spectrum. With a point to point licensed system, interference free operation is guaranteed for 10 years, and is renewable indefinitely every ten years thereafter. Additionally, the process from when you can start deploying licensed equipment now takes only 30 days, and is very low cost.

### Important Licensing Facts:

- **10 Yr License Cost - <\$3000 (incl. Coordination)**
- **Processing Time - 30 Days**
- **License Duration - 10 Years**
- **Process - Simple (Completed by 3<sup>rd</sup> party)**

## How to License a Link

The simplest way to license a link is through a 3<sup>rd</sup> party co-ordination service. A quick summary of the process is as follows:

- Co-ordination service firm will take the output of the DragonWave Link Engineering tool and perform link co-ordination on your path
- Co-ordination service firm will send out what is called a "Prior Coordination Notice" to all license holders of similar frequencies within 150 miles of your path informing them of your intent to transmit
- Co-ordination service firm will complete your application to the FCC which takes a few months to approve
- Equipment can be deployed once co-ordination is completed and Prior Coordination Notices have been sent out (~ 30 days)
- 2 commonly used co-ordination firms are:
  - <http://www.micronetcom.com/>
  - <http://www.comsearch.com/>

## Licensing Costs

As a general idea for the above process for a full-duplex link including co-ordination and notifications is <\$3000. This also includes the direct FCC fees which are based per Transmitter Site. (Two sites for one path)

If an organization is re-using a Transmitter site for multiple Pt-Pt paths in a network configuration, the total fees aren't necessarily a linear cost based on the number of links you have. For example, Site "A" transmitting to both Site "B" and Site "C" (using 2 Pt-Pt links), total licensing costs would be approximately \$5000.

Alternatively, some of the total cost of the process can be reduced by manually applying for the licensing, and only using a 3<sup>rd</sup> party for the co-ordination and notification portions.

## License Duration

Once the application has been successfully submitted to the FCC, it will generally take 2-3 months to receive final approval. Therefore, including the "Prior Notification Period", the entire process will take up to 3-4 months from start to reception of a permanent license.

Once approved, owner of the license has the right to transmit for a period of 10 years, at which time they have the choice of renewing, modifying or cancelling.

## Exemptions

Certain organizations are exempt from the FCC Transmitter Site fee associated to licensing costs. Entities such as local Town, City or State divisions, School District Administrations, as well as certain not for profit organizations are all exempt, providing they are recognized by the Internal Revenue Service as such.

For these organizations, only the co-ordination, notifications and application fees are incurred, reducing the licensing costs by about 50%. For a complete list of exempt organizations contact the FCC.