



Trailblazer™

4.9 GHz Digital Microwave System

**Region 43 RPC Presentation
February 22, 2006**

Carlson Wireless Mission

**To Design and Manufacture
Affordable Radio-Based
Telephone & Data Solutions
for Remote Applications
Worldwide**



Key CWT Milestones

- **February 1999**, following a year of preliminary R&D, Carlson Wireless Technologies, Inc. (CWT) founded.
- **Mid-1999**, CWT ships first fixed wireless Point to Point digital system using CDMA Spread Spectrum technology.
- **2001**, CWT reached annual sales of \$1 Million.
- **2002**, CWT purchases the technology and patents for the CDMA fixed wireless technology developed by Adicom Wireless,
- **2003**, CWT launches the **RuralConnect™** PMP system.
- **2004**, Certified by QWEST and Frontier/Citizens
- **2005**, CWT launches 4.9 GHz **Trailblazer™** system to replace 2/4 wire leased telephone lines.



4.9 GHz Licensing

- **General License**
 - Easy - submit a form on the internet
 - No cost
 - Fast - license comes within hours
- **Permanent Point-to-Point License**
 - Permanent links require site-specific license
 - Same easy, no-cost and fast process
 - Coordinate information must be entered on license application

4.9 GHz Band Rules

- **Permitted use**
 - Unattended and continuous operation
 - Voice, data and video
 - Multipoint applications
 - Temporary point-to-point links
 - Permanent point-to-point links with separate license
- **Prohibited use**
 - Aeronautical mobile operations
 - Commercial use
- **All channels available to all users**

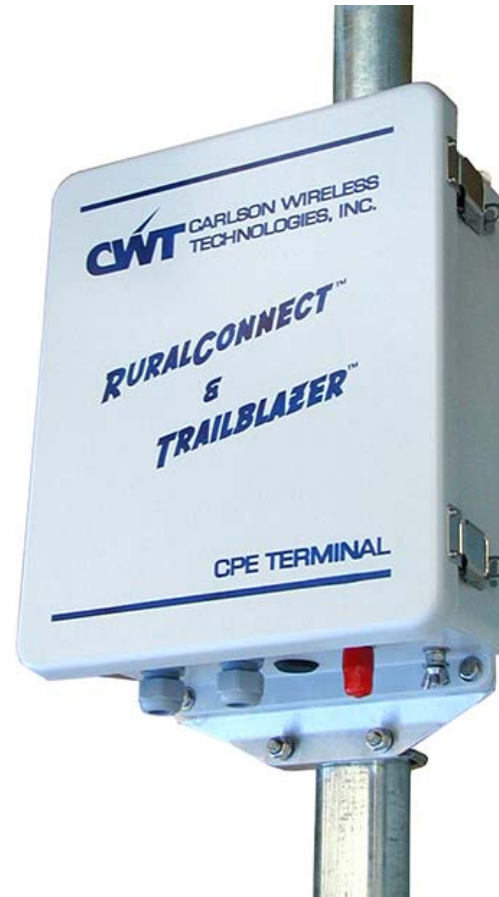
4.9 GHz Advantages

- **Free, Unencumbered Spectrum**
 - Unused spectrum, no users to be relocated
 - Public Safety can use the spectrum today
- **Provides Another Alternative**
 - Unlicensed band equipment is cheap, but subject to general public interference
 - Licensed microwave is expensive and overkill for many applications
 - 4.9 GHz is shared spectrum, but eliminates general public use

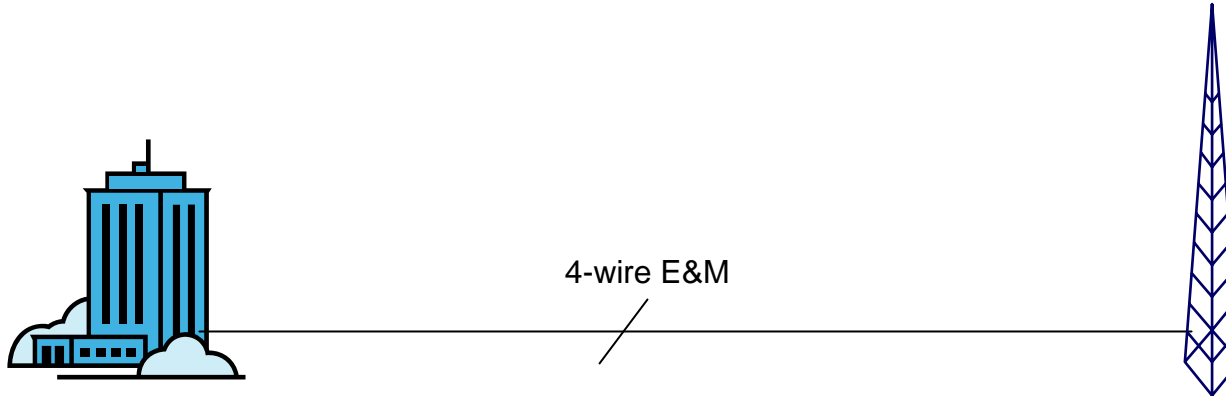
4.9 GHz *Trailblazer*[™]

- Digital microwave radio with telephone and data interfaces
- Backhaul of 2-way radio 4-wire telephone lines
- Ethernet data
- Point-to-Point
- Small scale Point-to-Multipoint
- No channel bank needed

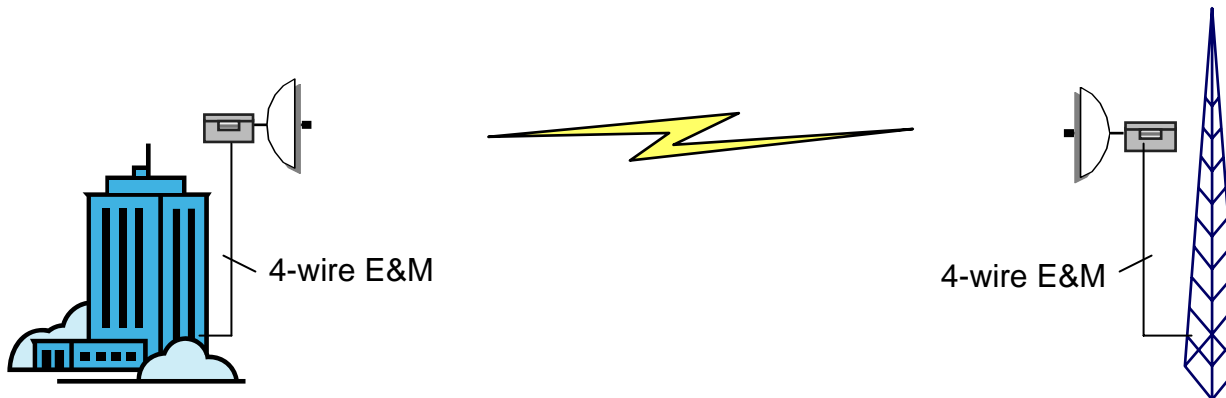
4.9 GHz *Trailblazer*



2-Way Radio Backhaul



Traditional Method using leased telephone lines

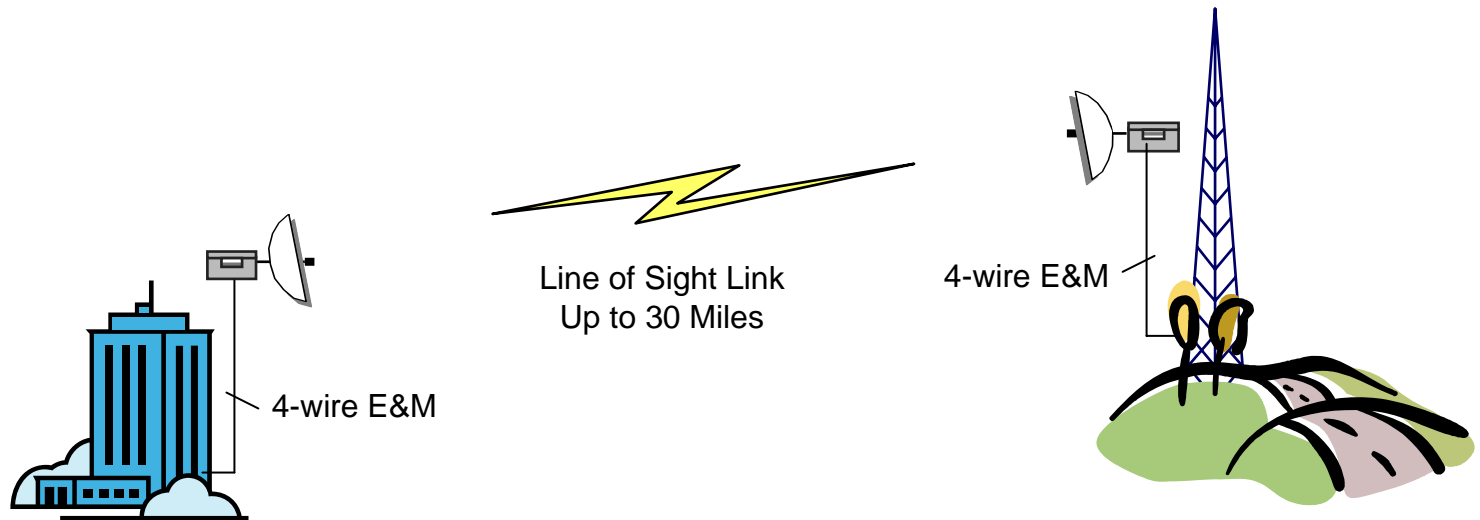


Same application using **Trailblazer**

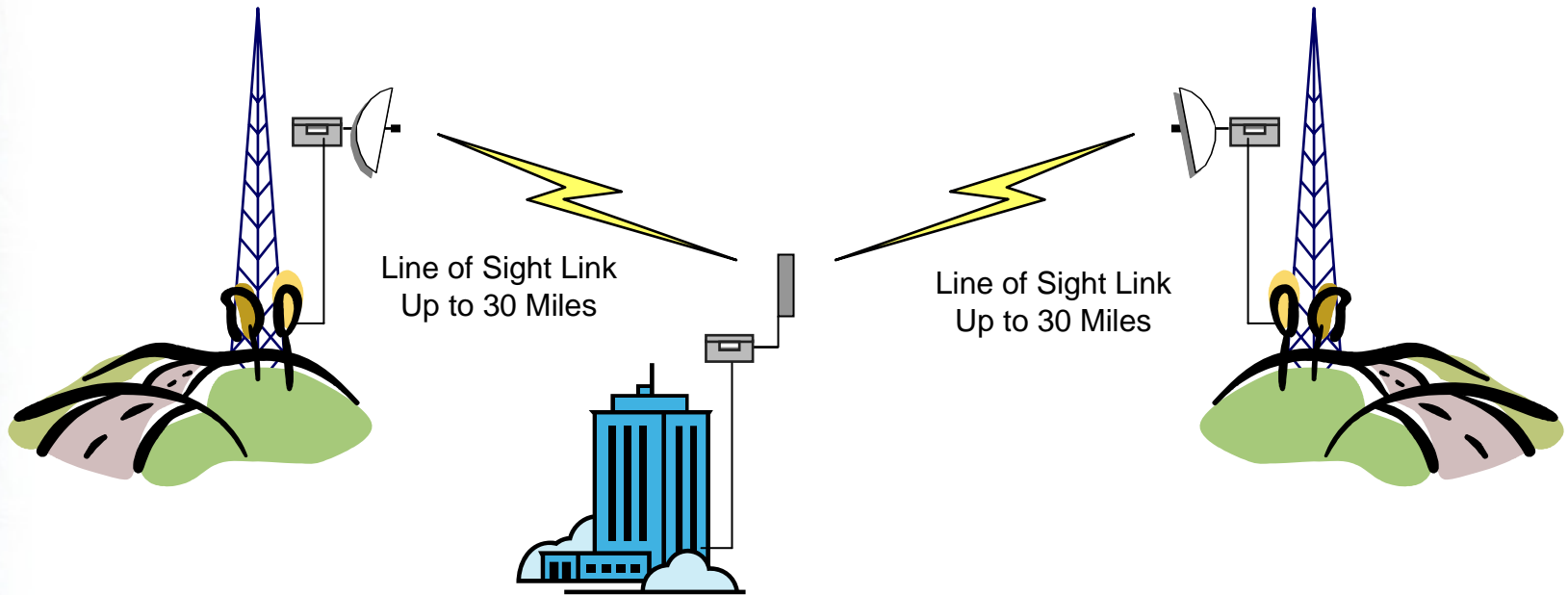
Trailblazer Advantages

- Transports POTS, 4-Wire, 4-wire E&M, or data
- Direct phone line interface, no channel bank needed
- Eliminates leased line monthly charges
- Network reliability not dependent on phone company
- Carrier class/wireline quality of service
- All PSTN services fully supported
- Point-to-Point or Multipoint
- Repeater capability

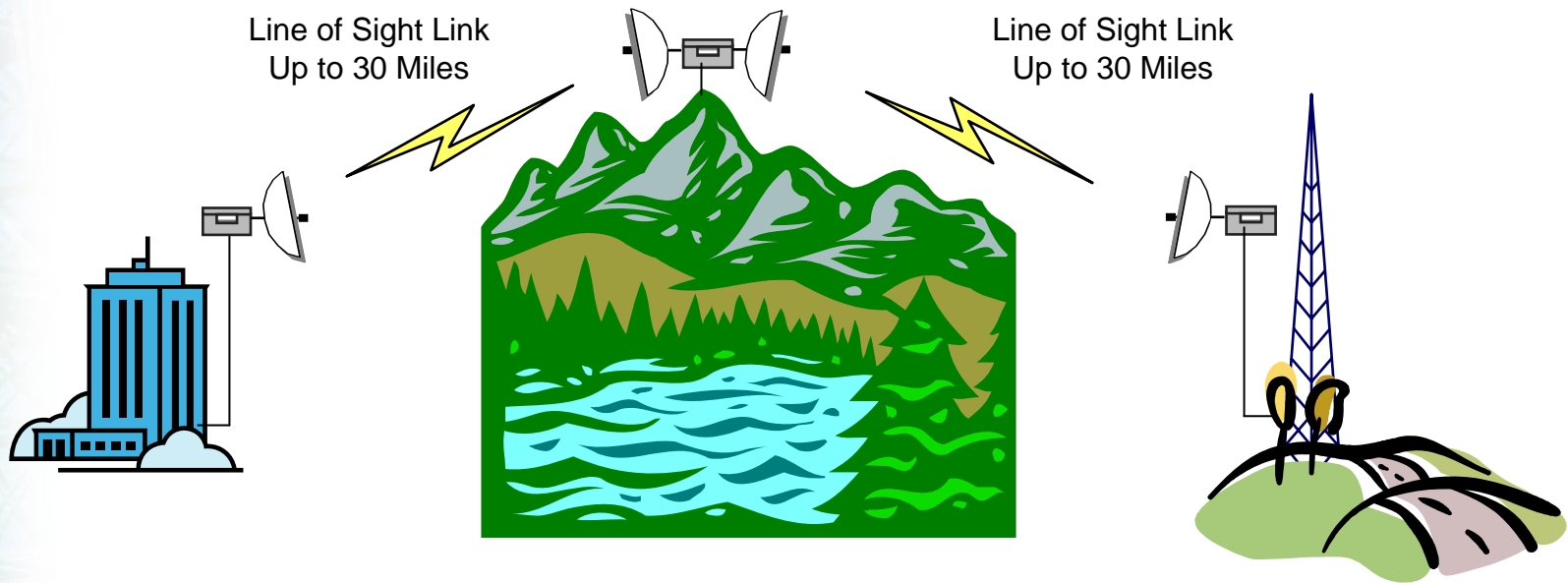
Trailblazer P-to-P Application



Trailblazer Multipoint Application



Trailblazer Repeater Application



Trailblazer Specifications

- 4940 to 4990 MHz
- Operates in single 5 MHz RF channel
- All audio passed through unrestricted
- Standard telco and data interfaces
- +20 dBm RF output power
- -30 to +60 degree C operating temperature range



CWT CARLSON WIRELESS
TECHNOLOGIES, INC.
Leading the Charge Across the Digital Divide

4.9 GHz *Trailblazer*[™]

For a more reliable and more cost effective voice and data network.



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