

# New Technology:



## *The Pathway to Rural Connectivity*

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# Presentation Summary



- Our Story
- Projects
- Telecom Made Simple
- Some Lessons Learned
- Why Enhanced Broadband Critical

# The W&H Pacific Story

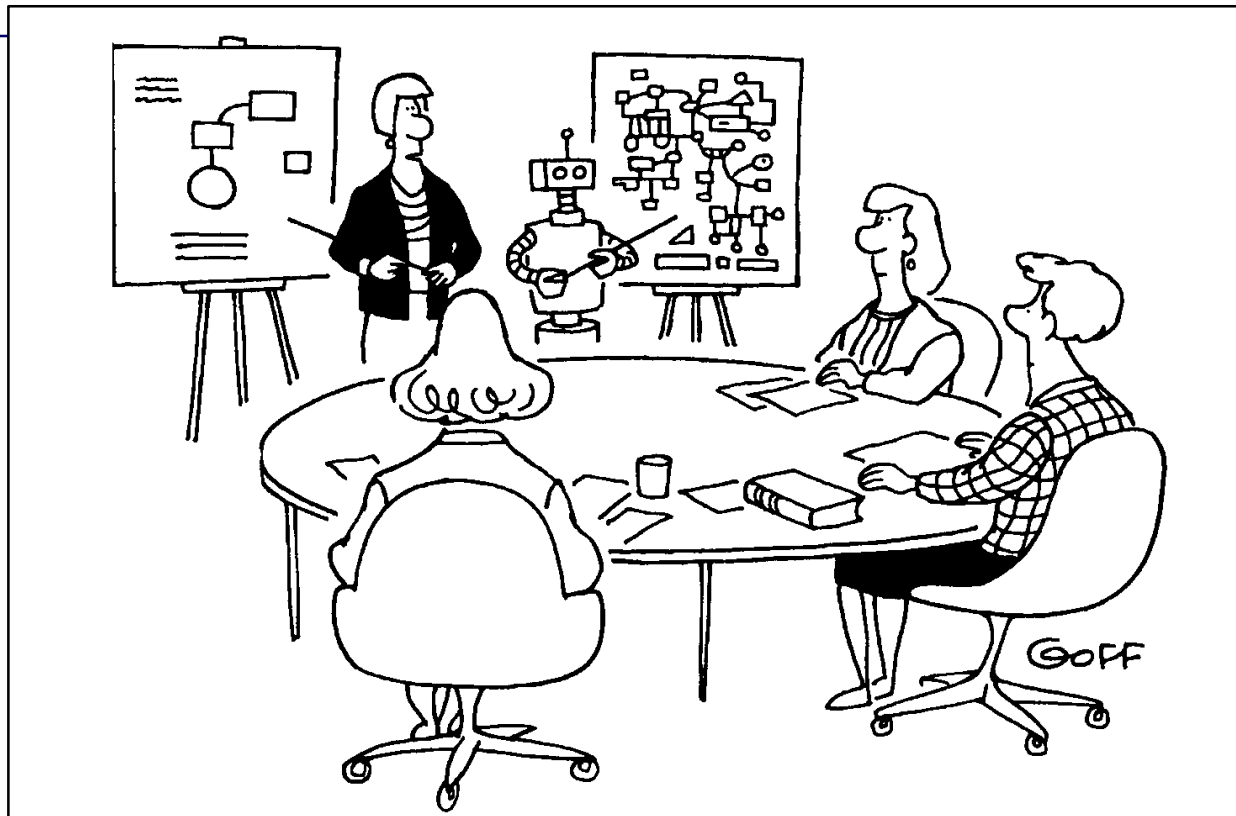
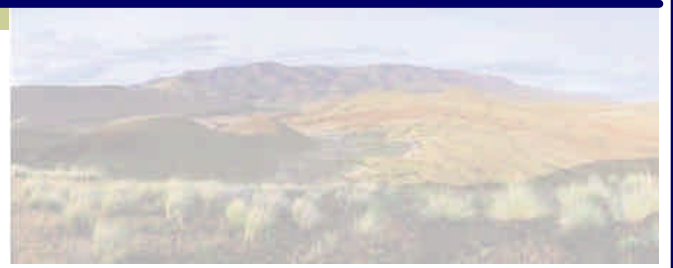


- In business for 30 plus years
- Offices throughout the Northwest including Bend
- Land development, transportation, planning & telecommunications
- Consult to cities, counties & public agencies

# Sample Projects

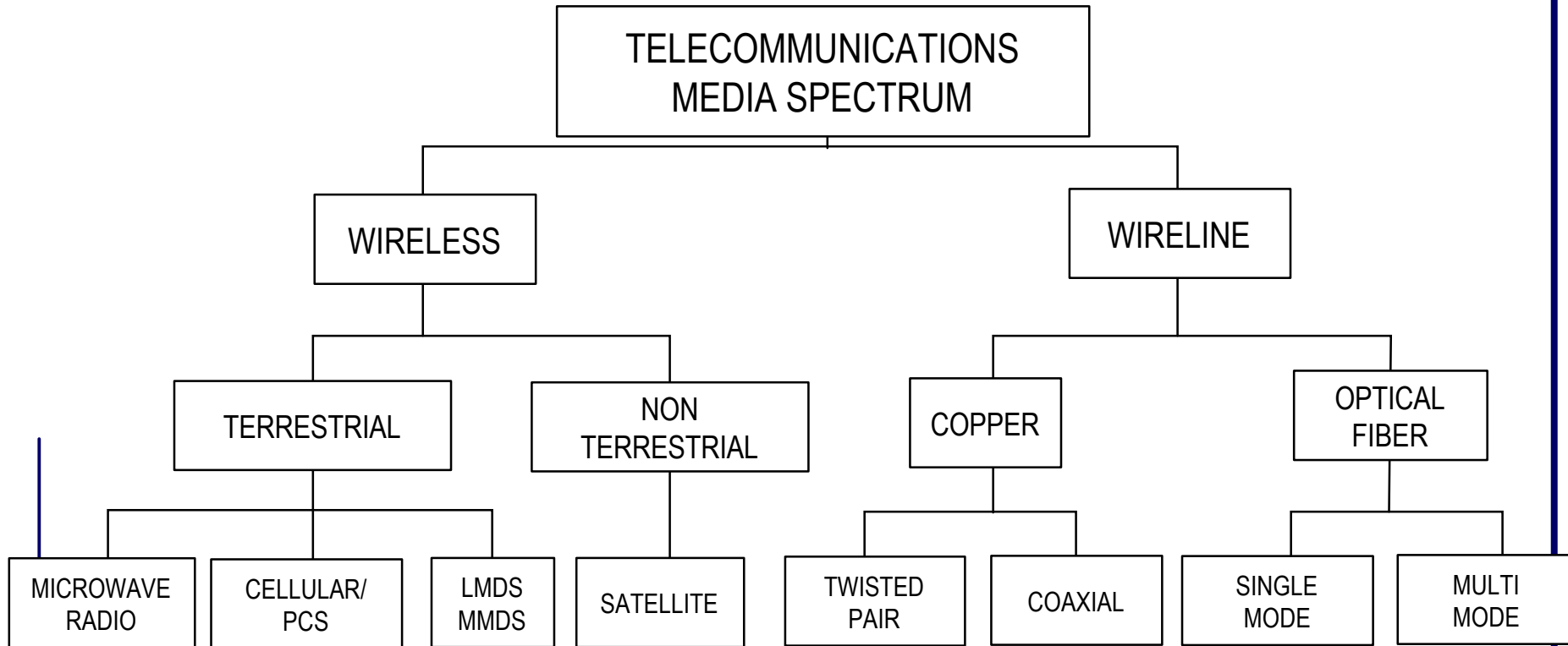


- Northern Wasco PUD
- Douglas County PUD
- Clackamas County
- City of Portland



“Would you like the technical or the non-technical presentation?”

# Telecommunications Transmission Media



# TLAs

<http://techweb.com/encyclopedia>

<http://www.acronymfinder.com>



- POTS (plain old telephone service)
- T-1 (24 simultaneous conversations 1.54 Mbps)
- T-3 (28 T-1s or 45 Mbps)
- High Speed Internet (always on, 256k versus 56k)
- DSL (Digital Subscriber Line)
- VoIP (Voice Over Internet Protocol)

# Fiber Terms



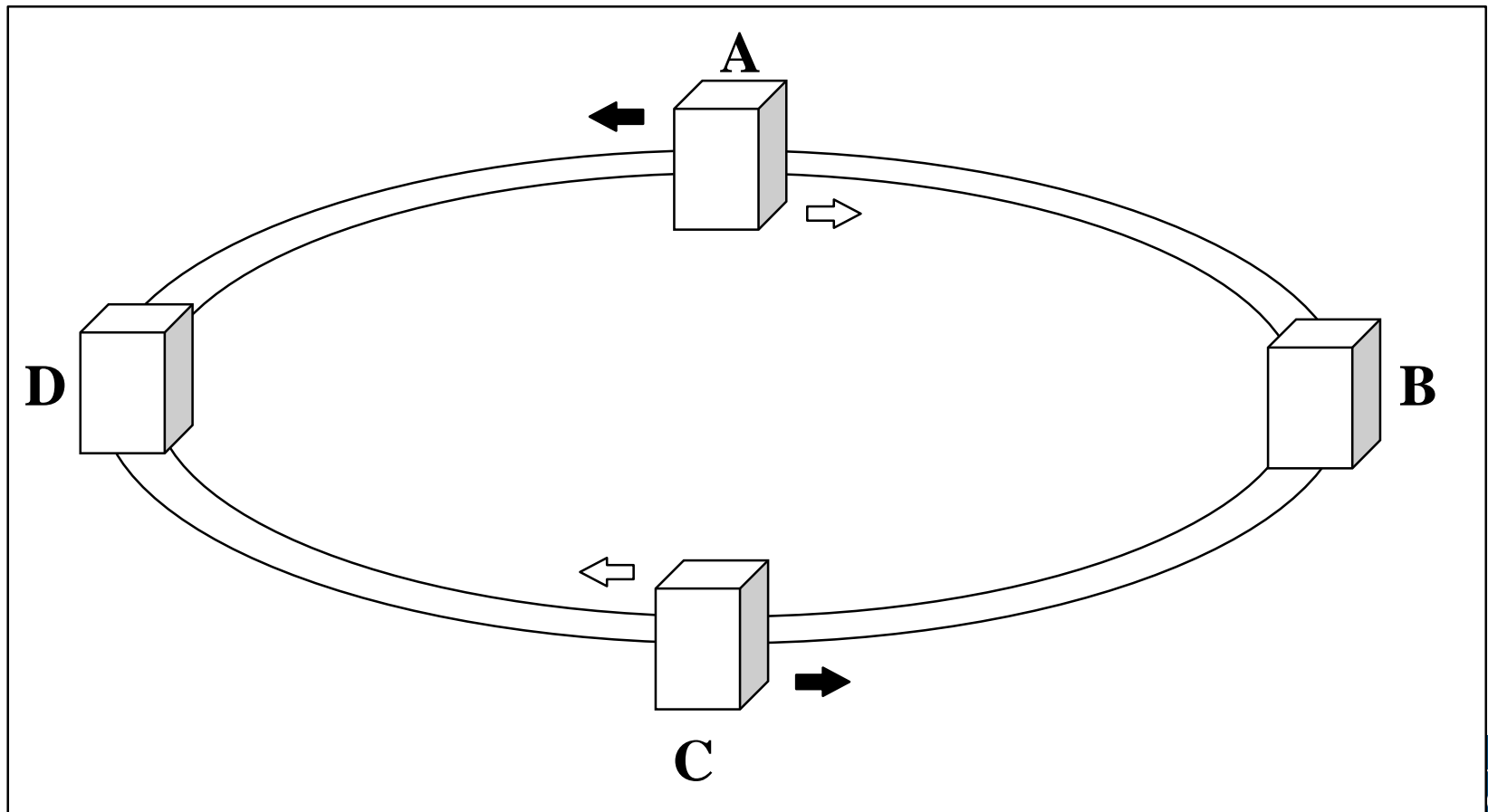
- ADSS Fiber Optic Cable (all dielectric self supporting - no metal conductors)
- SMF(single mode fiber = long distance +Lasers)
- MMF (multi mode fiber = short distance + LED)
- SONET (**S**ynchronous **O**ptical **N**ETwork)



# Fiber Optics:

*Counter*

*Rotating Ring Topology - SONET*



# Lessons Learned



- Design network to ensure low cost of entry
- Put more fiber in the diet
- Promote & leverage economic development
- Timing is right; \$\$s are available
- Keep capital and operating costs low
- Don't repeat CLEC experience

# Why Enhanced Broadband is Critical



- Incumbents are cash strapped
- Through competition, prices fall and services grow
- Rural communities are ideal users of broadband access

# Contact Information



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