

# Introduction to co-sitting solutions

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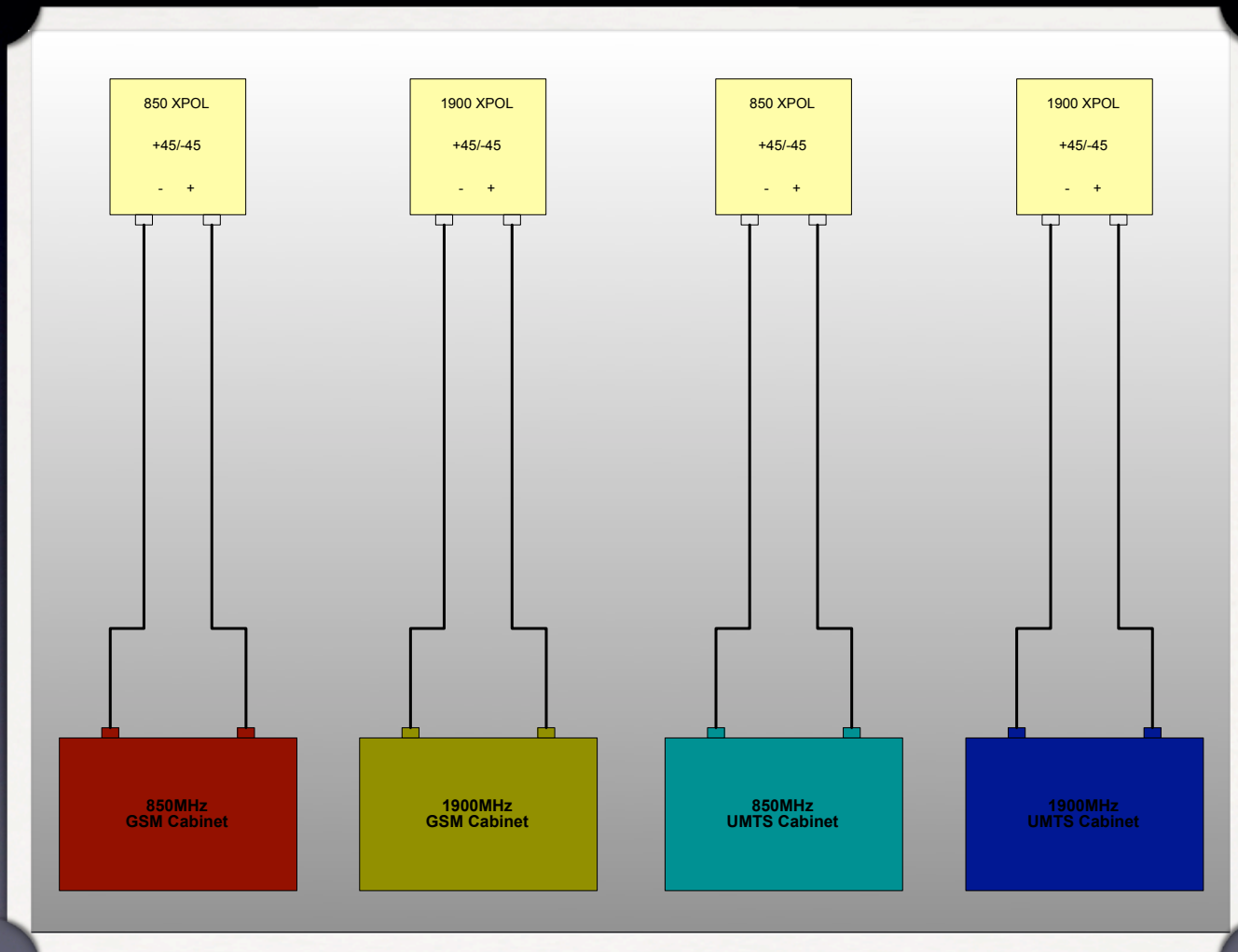
by

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# Introduction

- Each technology should have its own antenna.
- Sometimes there are cost, space or construct-ability restrictions.
- These restrictions force the sharing of antennas and/or transmission lines.
- A combination of co-sitting strategies can be used to work around these restrictions.

# Ideal configuration





# Ideal configuration PROS

- Greater flexibility for optimization
- No risk of intermodulation
- Losses are kept at a minimum
- Limited impact on service due to maintenance

# Ideal configuration

## CONS

- Zoning restrictions on amount and location of antennas
- Additional stress on the structure or building
- Budget constrains
- Increased time required to complete the antenna and line work



# Benefits of co-sitting

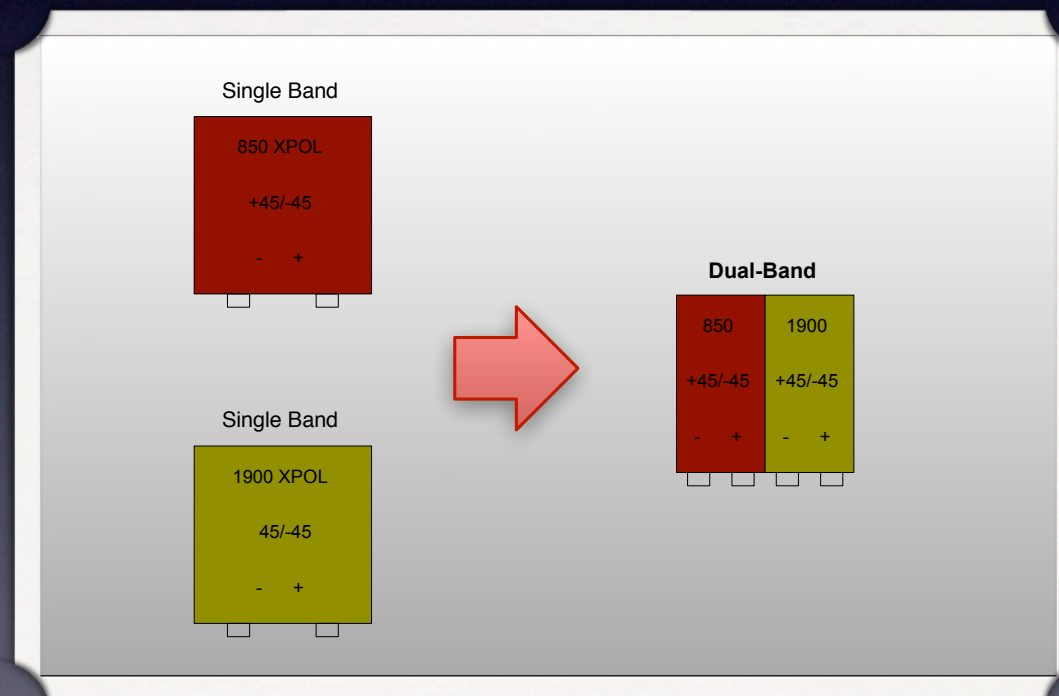
- Provides a good compromise of cost savings and service performance
- Better use of resources
- Solution is specific to a cell-site's restrictions and needs

# Types of co-sitting

- Multi-Band combining
  - Antenna combining
  - Diplexers
  - Triplexers
- Same-band combining
  - RxAIT (Rx Antenna Interface Tray) and LLC

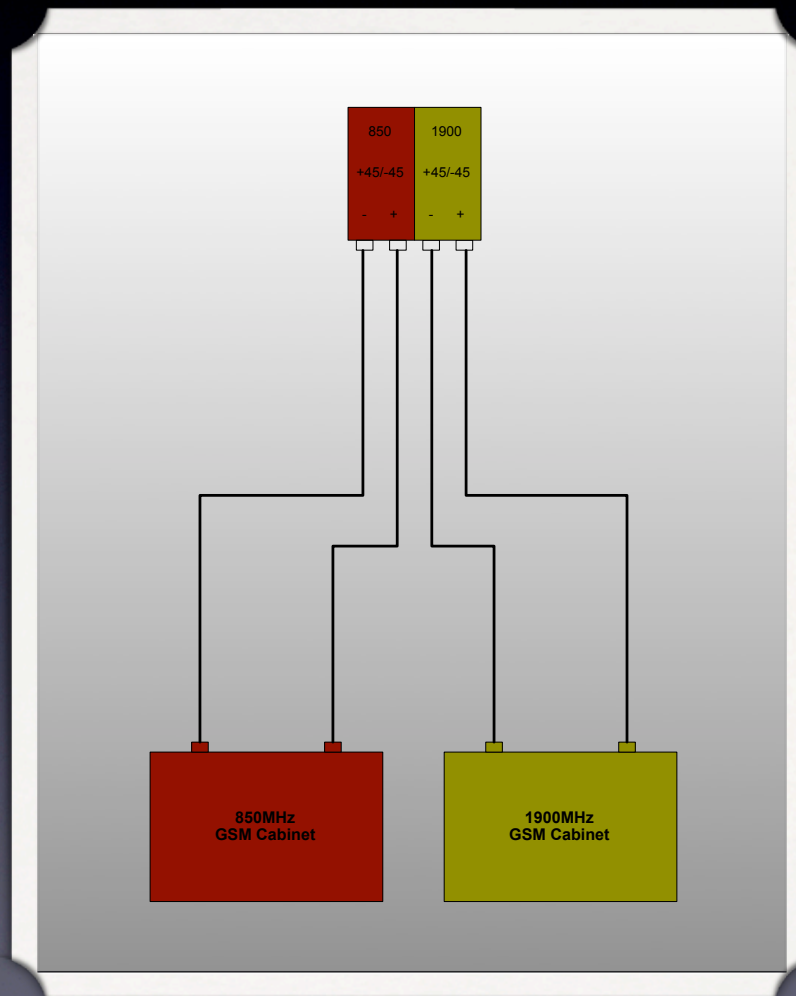
# Antenna combining

- Physically combines two single-band antennas on the same enclosure





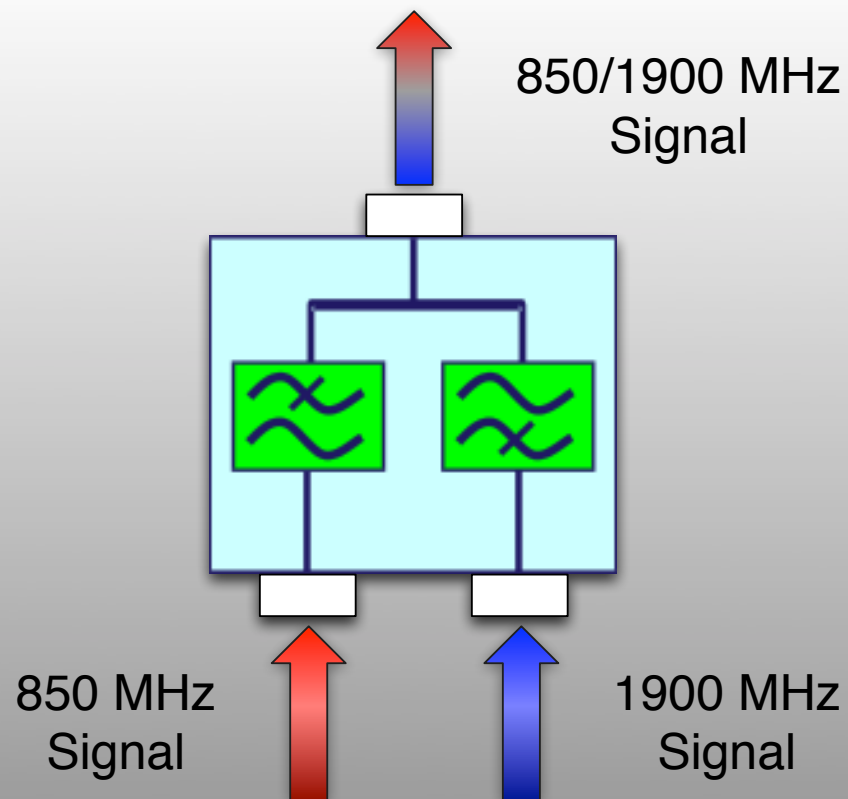
# Antenna combining



# Diplexers and Triplexers

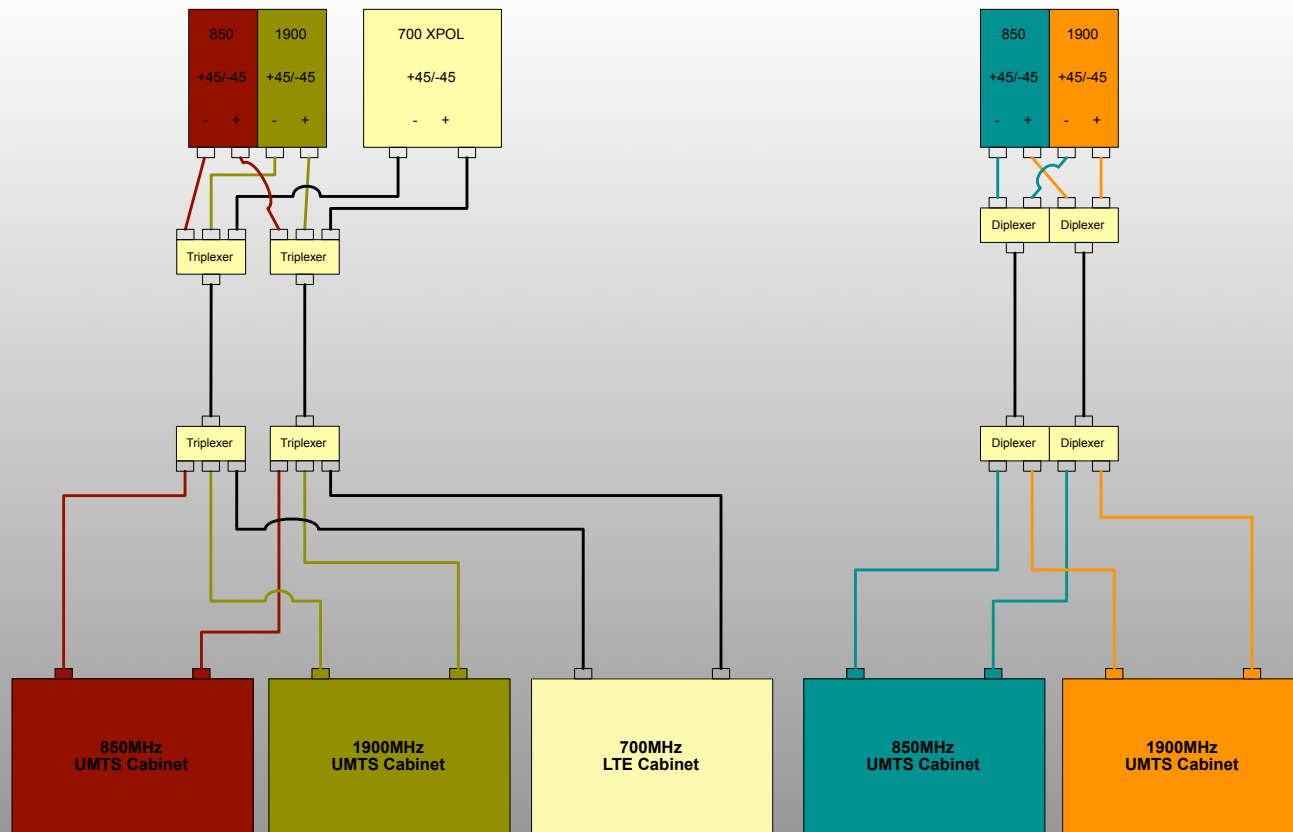
- Combine and separate up to three different frequency bands on the same transmission line
- Low-cost, low-loss compact devices
- Reduce the amount of required transmission lines

# Diplexers and Triplexers





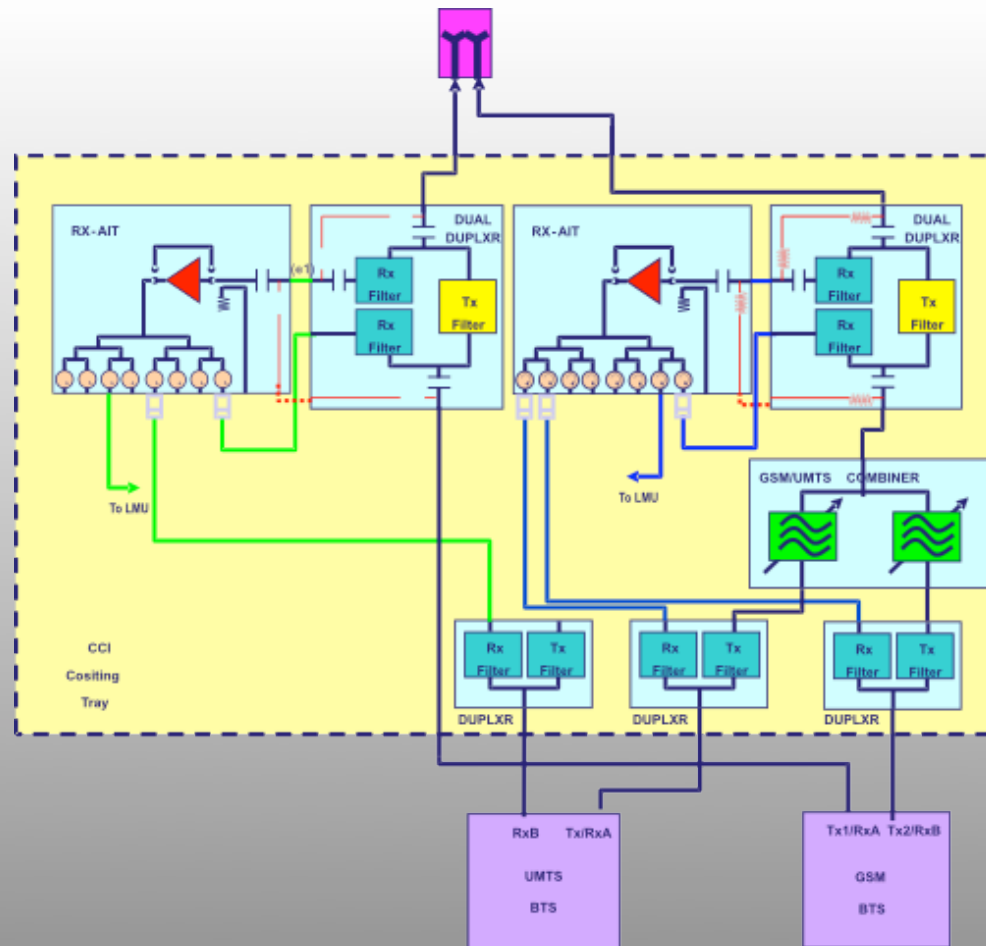
# Diplexers and Triplexers



# RxAIT and LLC

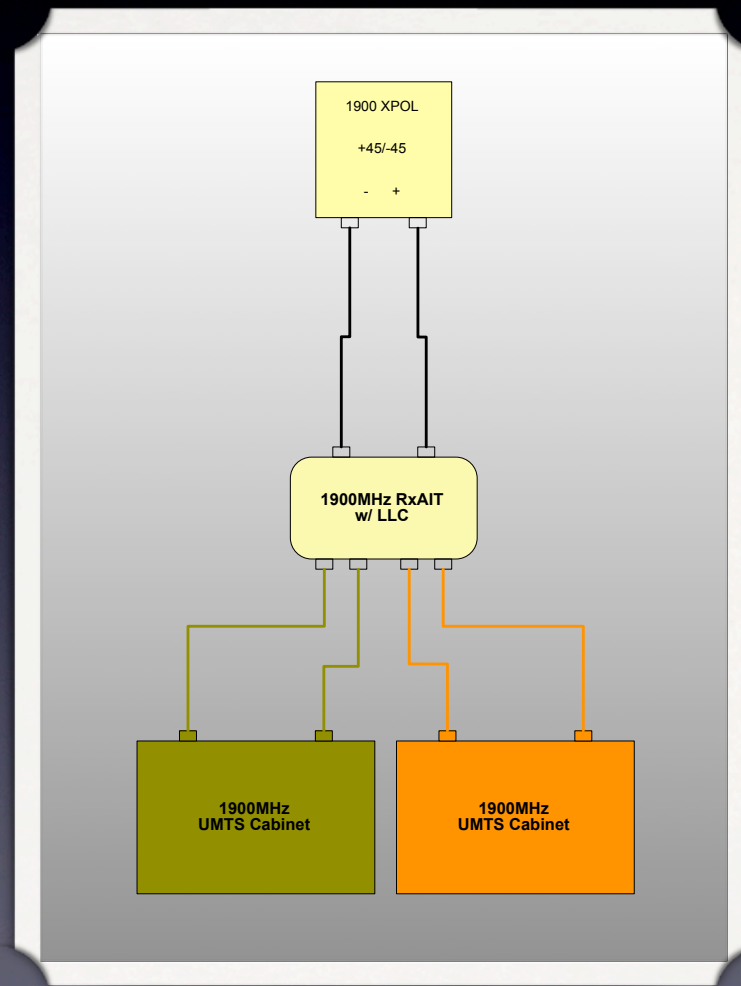
- Combine technologies operating on the same frequency band
- Higher cost and losses than Diplexers and Triplexers
- Large footprint and power requirements
- Limit capacity and scalability of the cell site
- Least desirable solution

# RxAiT and LLC





# RxAiT and LLC



Questions?