



SIMULCAST & VOTING



SIMULCASTING FROM RACOM





Introduction



- **Basic Concepts**

- **Simulcast** is the simultaneous operation of two or more transmitters with overlapping coverage on the same frequency
- This means that **several repeaters** operating on the **same frequency** is deployed to cover the area required.



Typical problems

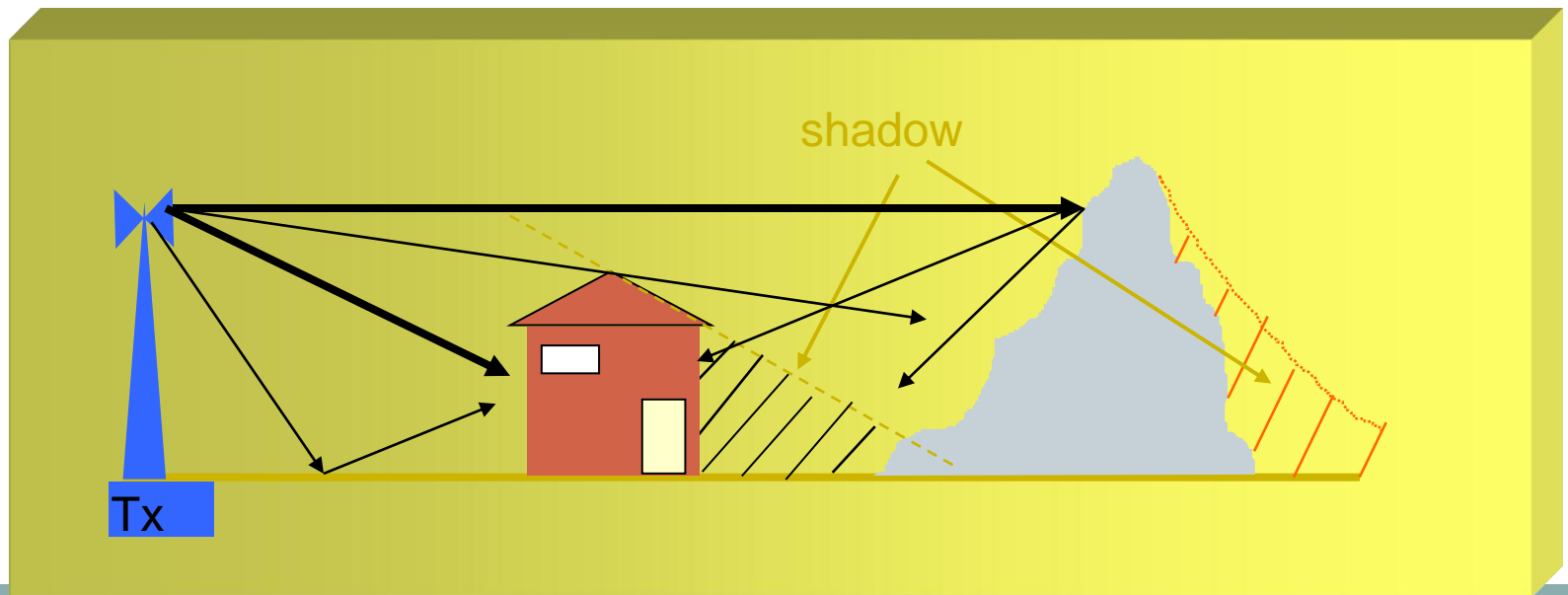


- Handheld radio's can hear the repeater but **cannot talk back**.
- No coverage **inside buildings**.
- No coverage **in low lying areas**.
- No coverage **behind hills or mountains**.
- No coverage **inside pits** in opencast mining operations.
- No coverage **behind dumps** at mines.

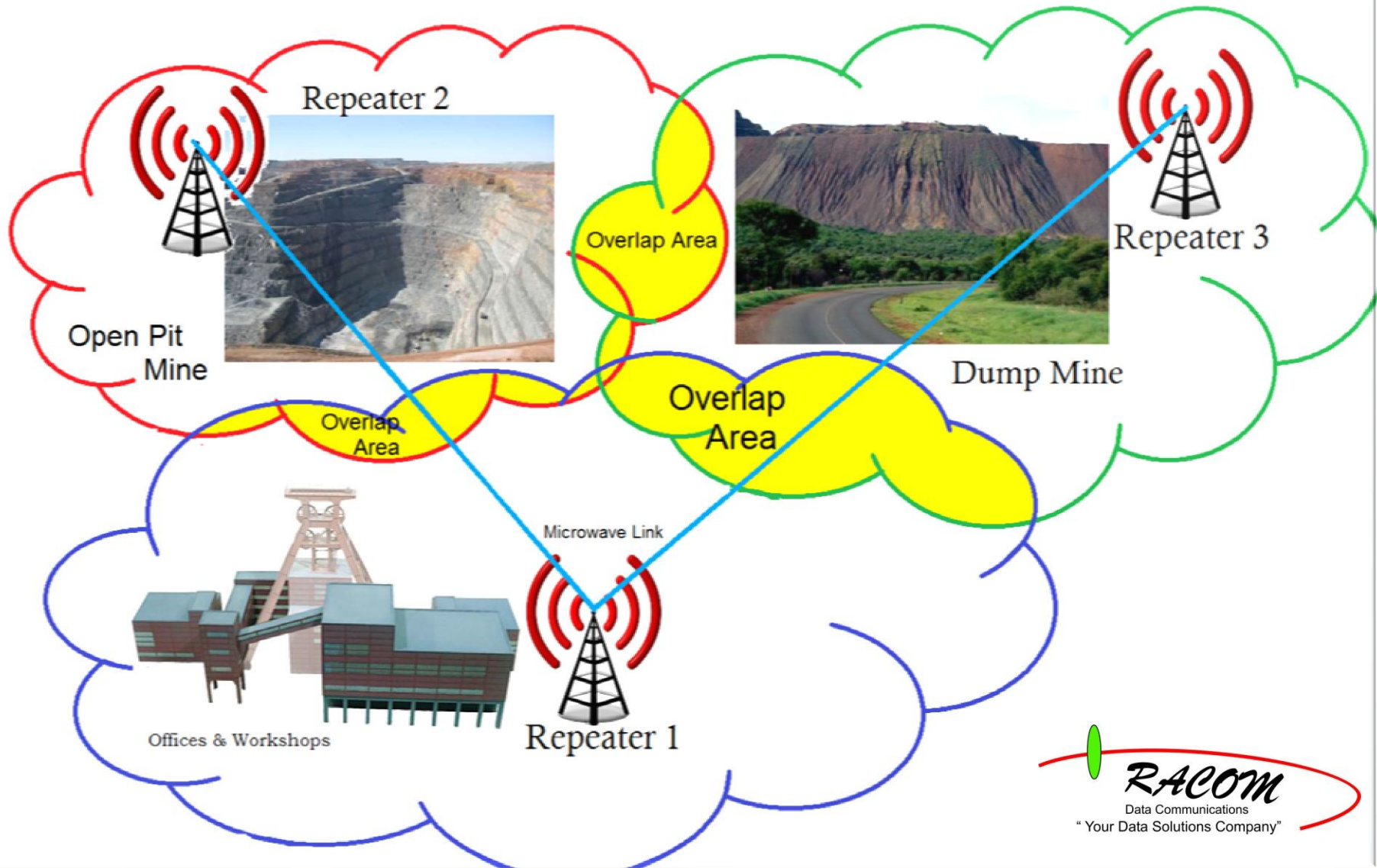
Transmission Pro. - Deep Radio Shadow



- Radio waves at low frequencies can diffract (bend) around object.
- In mobile systems (high frequency band), wave diffraction does not take place, therefore a **deep radio shadow** occurs on the unilluminated side of the obstruction (e.g., building, hill, truck, or even human being)



Typical Simulcast Coverage



What is “nice” about this system



- Existing equipment is used, you do not need to replace mobiles and handheld radio's.
- Additional repeaters can be added or moved depending on own specific coverage requirements.
- Handheld equipment can now have the same coverage capabilities as mobiles.





Maintenance Issues



- Our equipment does **not** require technical people with **high expertise**
- A Two-way Radio Technician will have all the know how to maintain and set up the system
- It is modular and it is **easy to expand** the system





Why Simulcast



- The **right technology** for modern times
- **Spectral efficient**
- Provides **excellent coverage** at the right price
- **Few alternatives** offer the same coverage and you do not need to change existing communications equipment



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