

A decorative graphic on the left side of the page consisting of white and light blue lines that resemble a circuit board or a network diagram. These lines are vertical and horizontal, with small circles at various points, creating a stylized, abstract pattern.

CELL PHONES 101

EVERYTHING YOU DIDN'T WANT TO KNOW ABOUT YOUR PHONE BUT WILL BE
GLAD YOU DO

BY TANYA DEMMEL

WHEN WAS THE FIRST CELL PHONE CALL MADE?

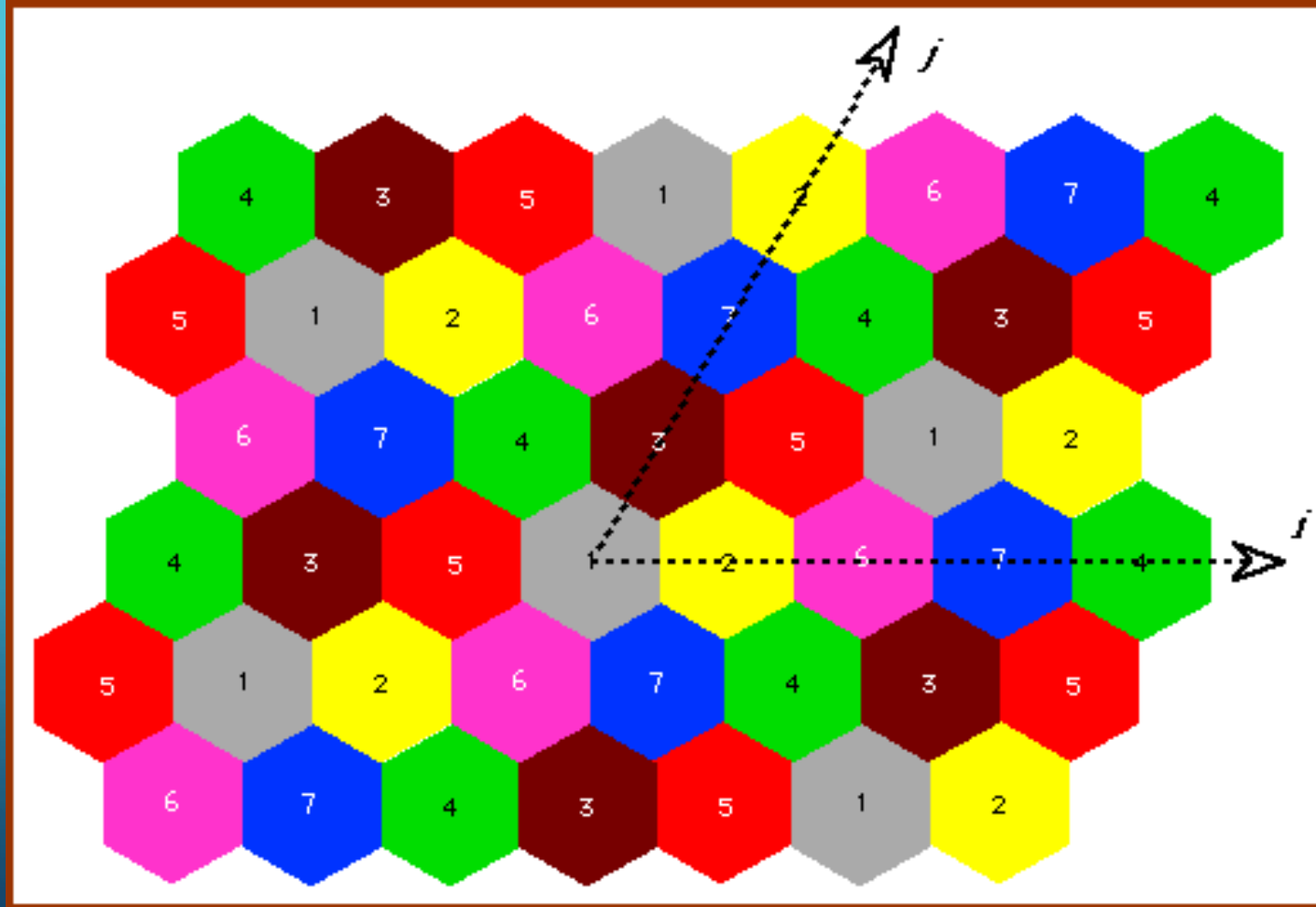
- 1973 Martin Cooper of Motorola called Dr. Joel Engel of Bell Labs.
- Another 10 years before cell phones are sold to consumers.
- The “mobile phone calls” prior to that 1973 call were radio transmissions.



WHY “CELL” PHONE?

What's in a Name Trivia:

- Where did “reboot” come from?
- Where did “debug” come from?



LAN OR WAN ????????

LAN

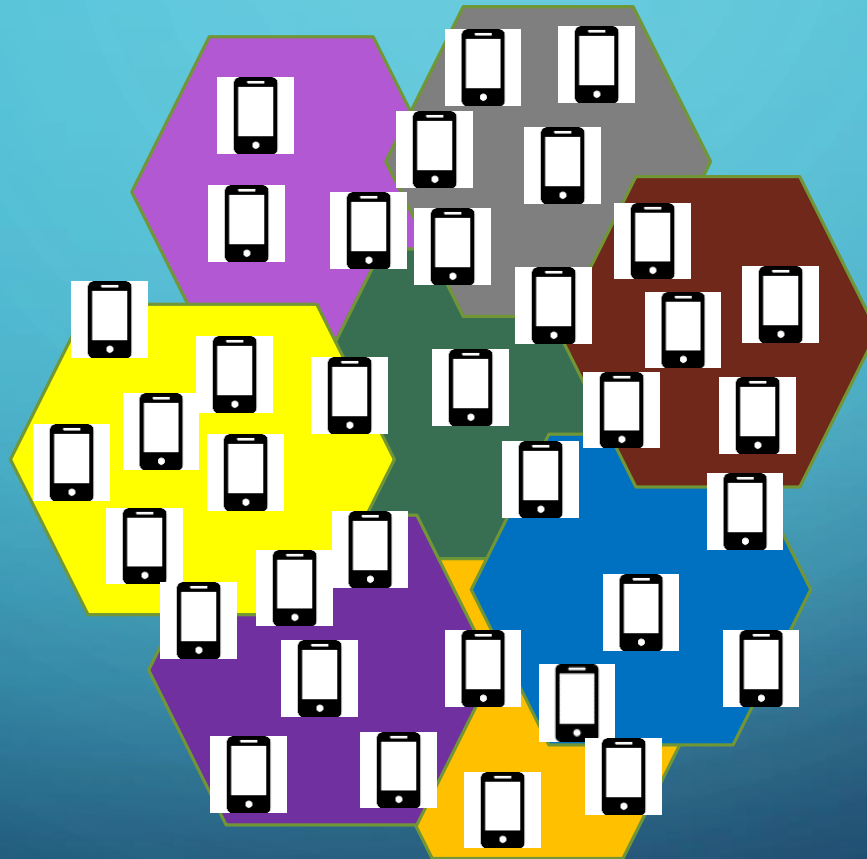
Local Area
Network



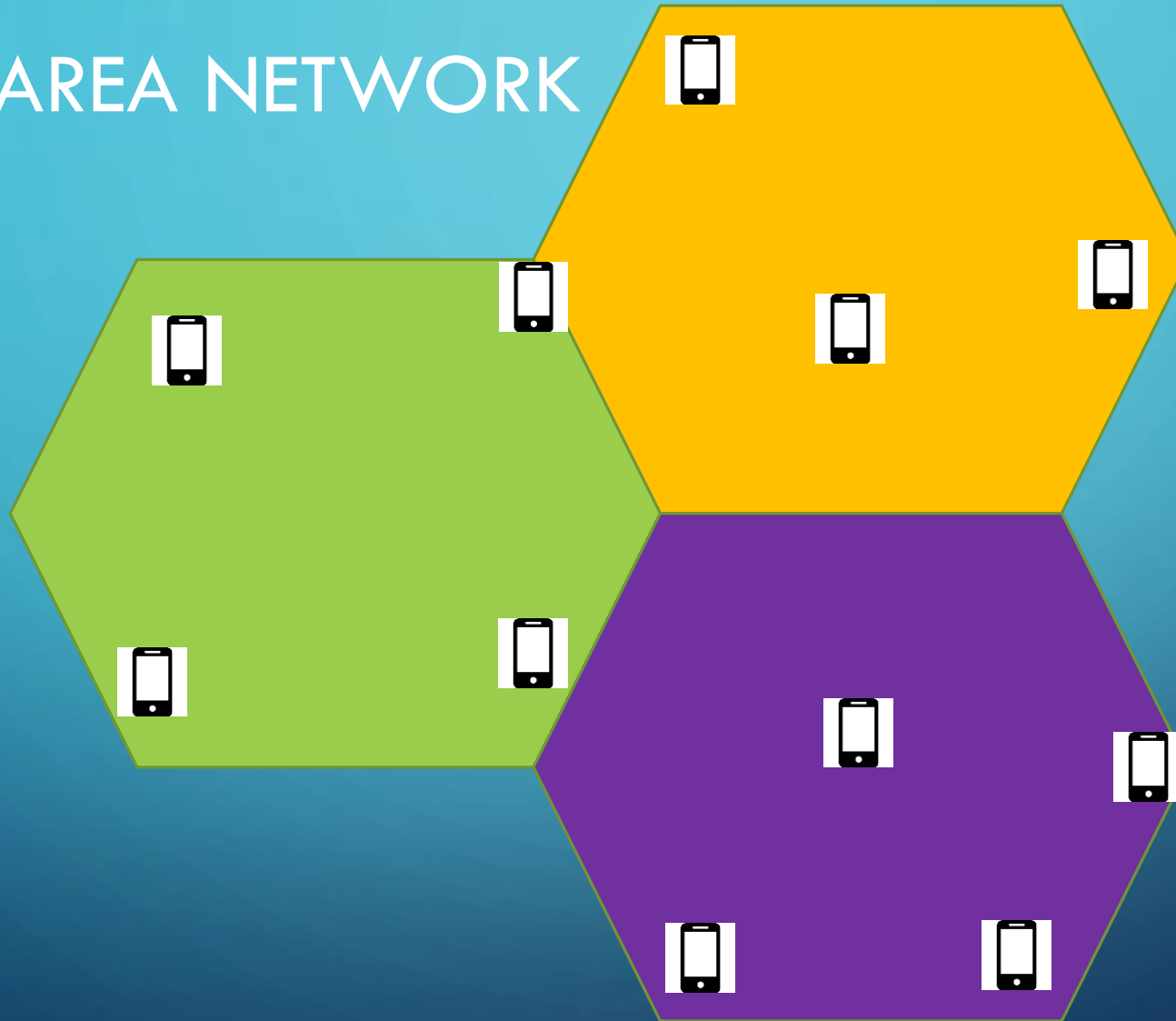
WAN

Wide Area
Network

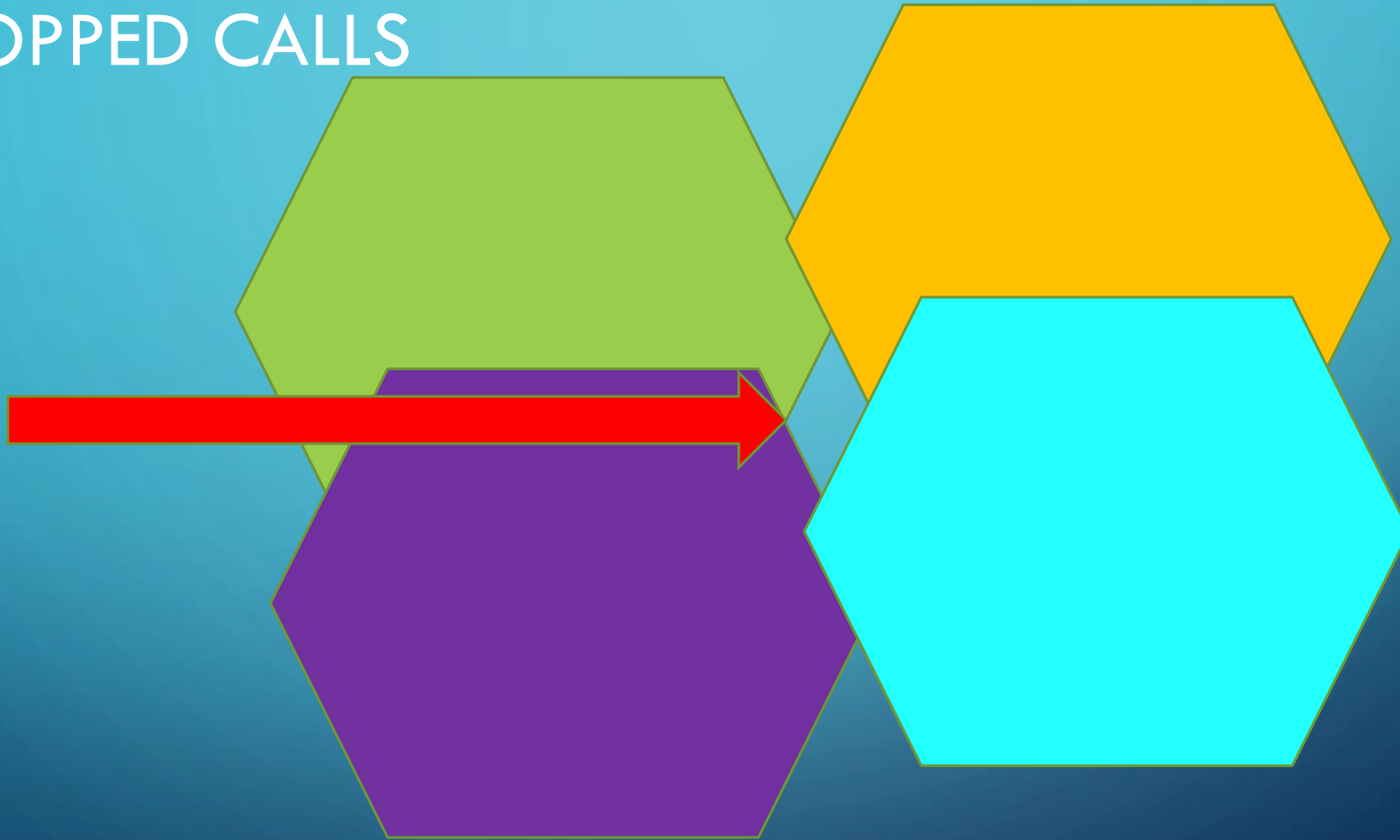
LOCAL AREA NETWORK



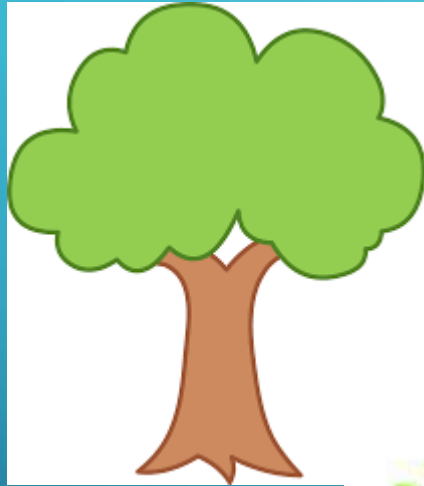
WIDE AREA NETWORK



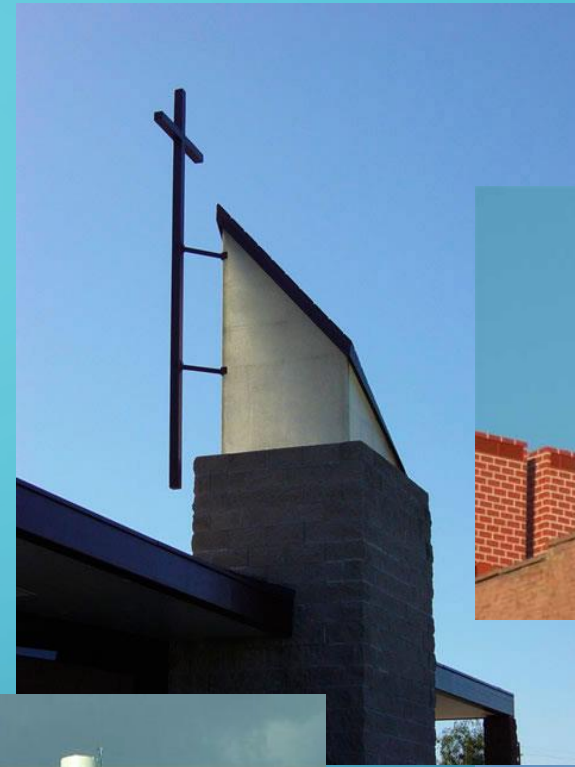
DROPPED CALLS



CAUSES OF DROPPED CALLS



WHERE'S THE TOWER?



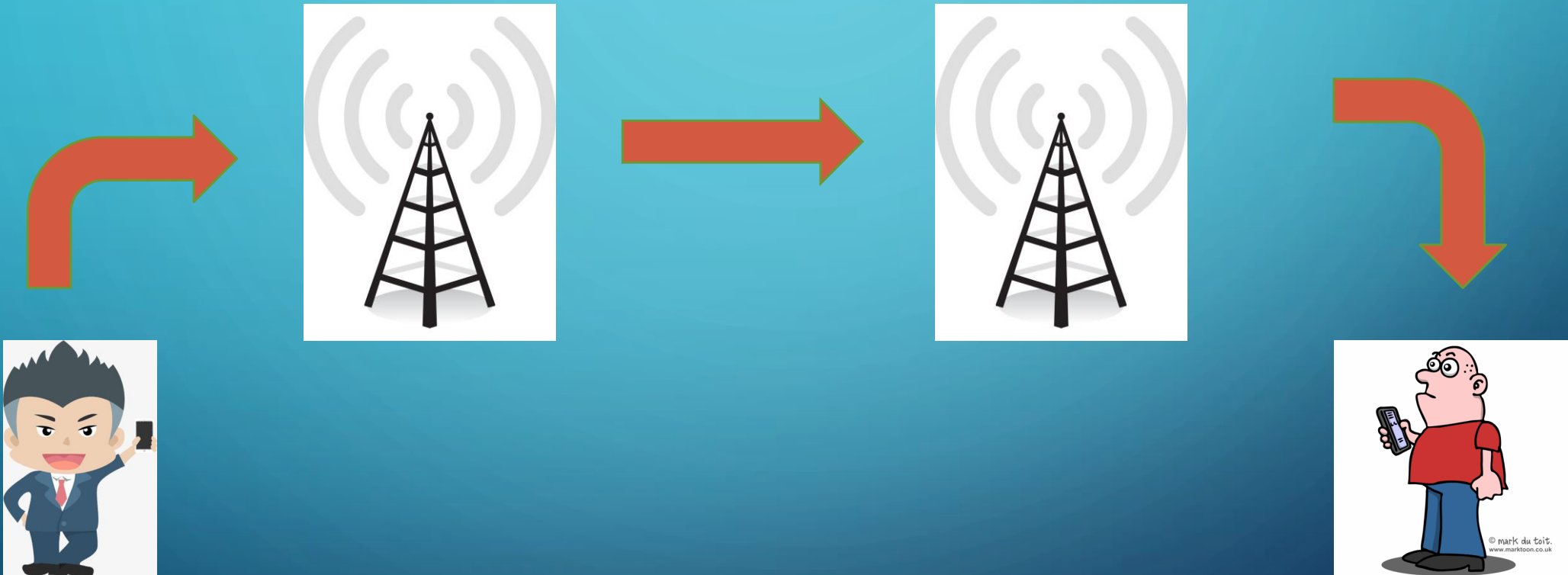
BUT THE TOWER IS RIGHT BESIDE ME!



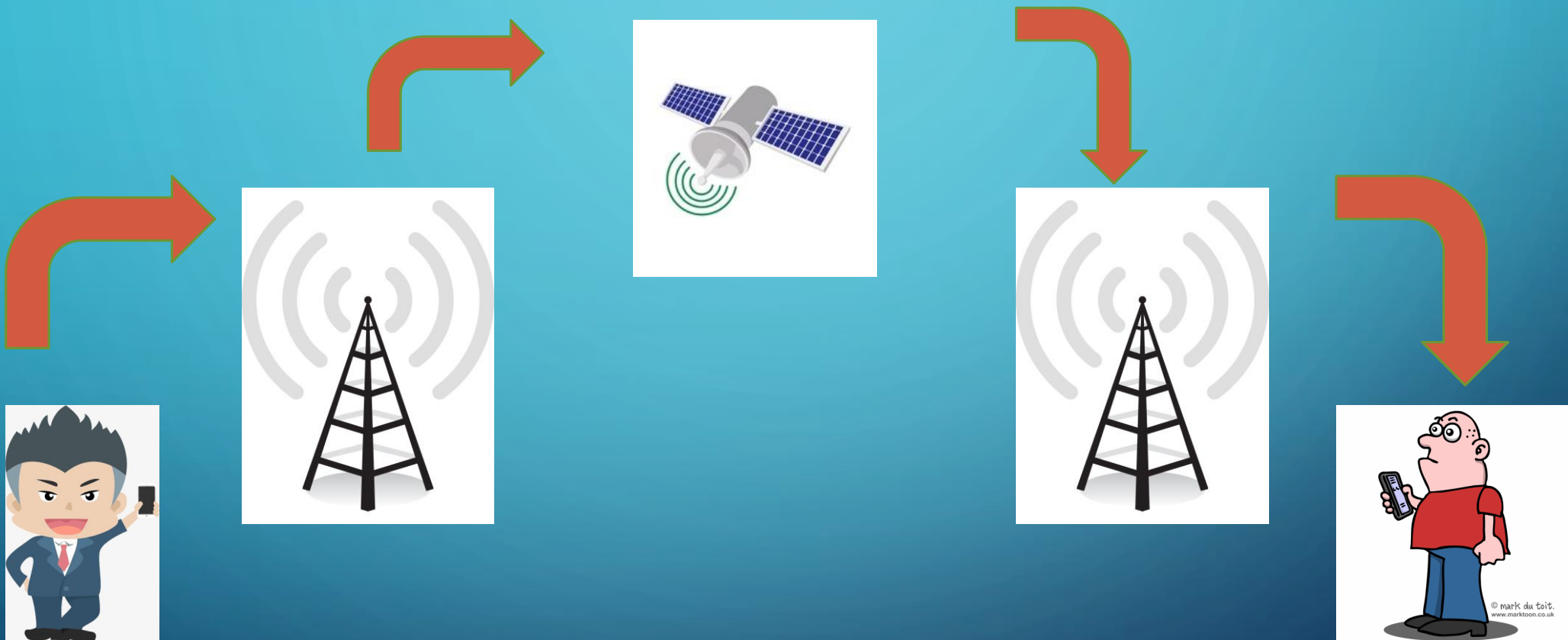
THE UMBRELLA EFFECT



WHERE DOES MY CALL GO?



WHERE DOES MY CALL GO?



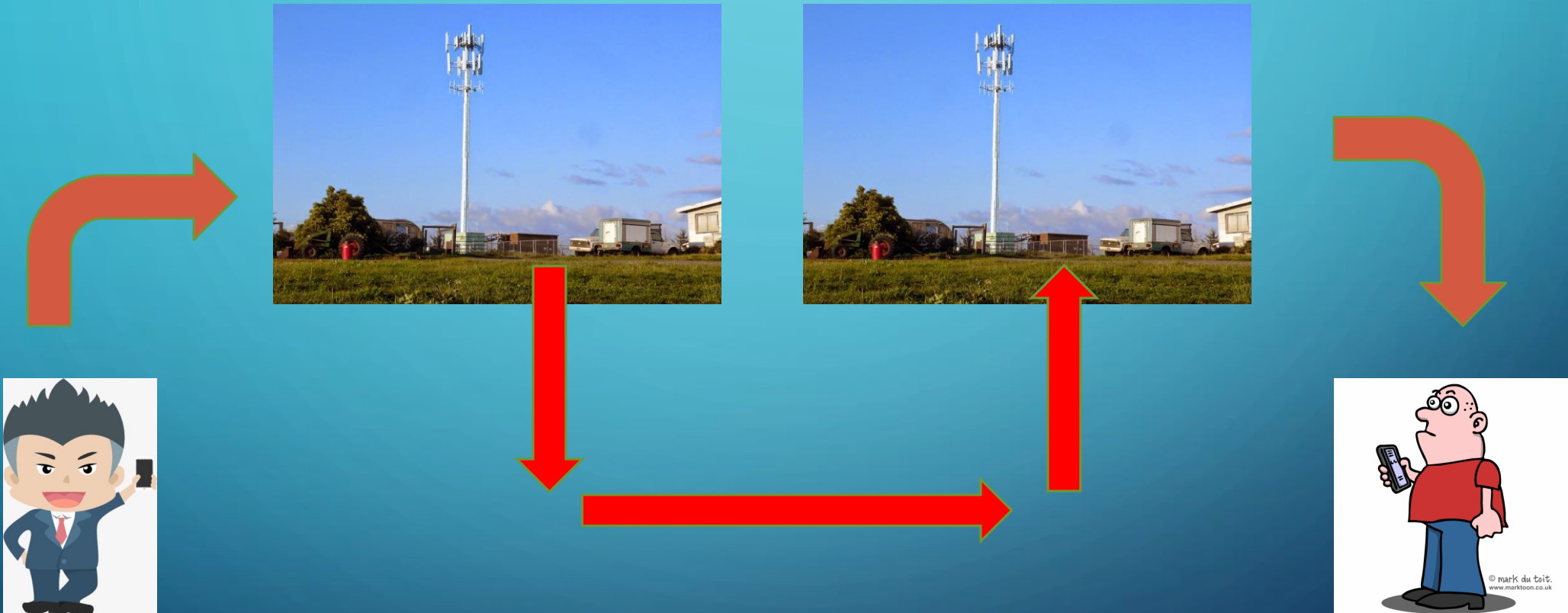
WHERE DOES MY CALL GO?



ABARA
CADABRA



WHERE DOES MY CALL GO?



ALPHABET SOUP

GSM

2G

CDMA

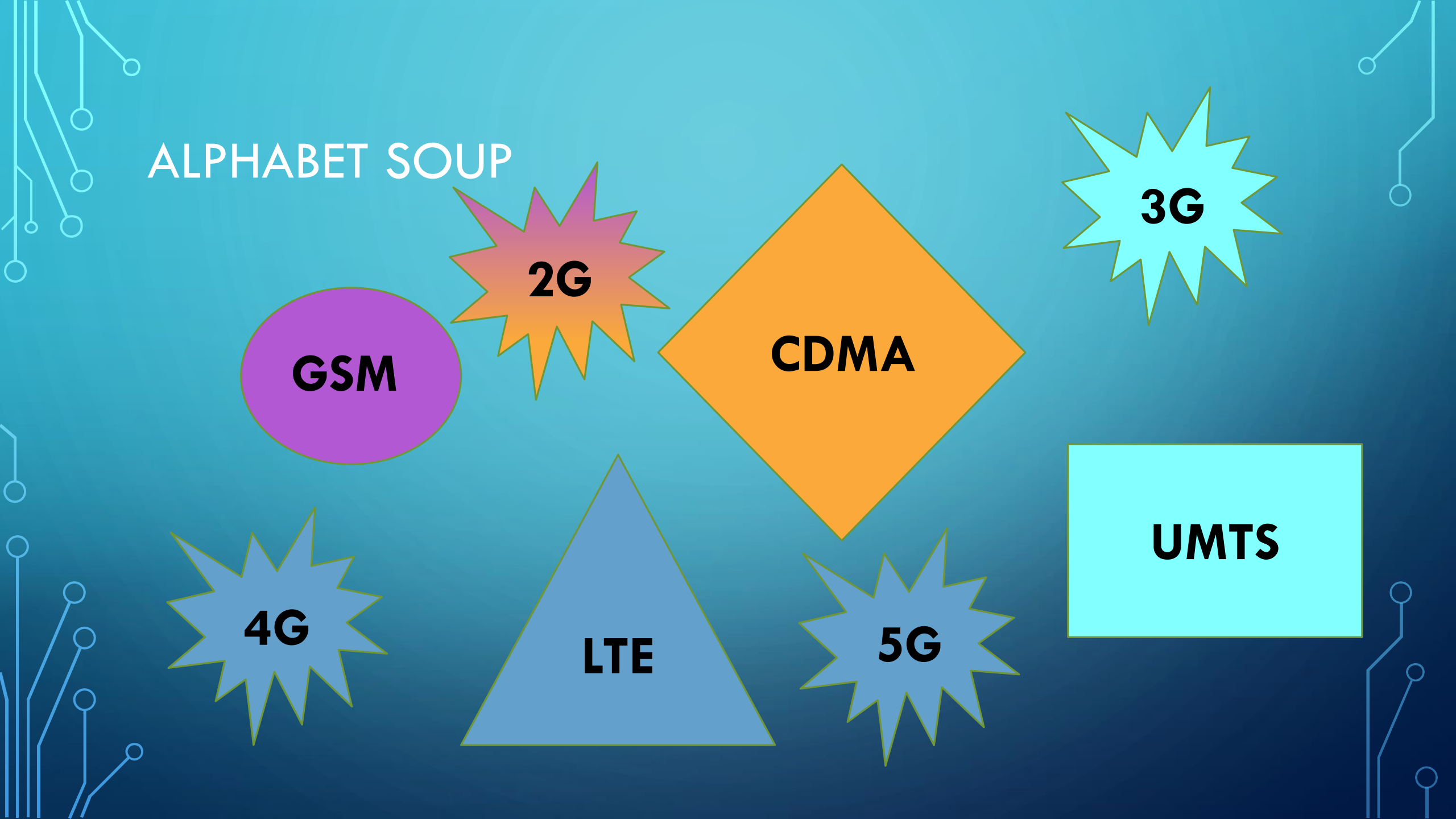
3G

UMTS

4G

LTE

5G



ANALOG



GSM VS CDMA

- Global System for Mobile Communication
- 2G
- AT&T and T-Mobile
- Voice and Data



- Code Division Multiple Access
- 2G
- Sprint, Verizon, US Cellular
- Voice or Data

UMTS



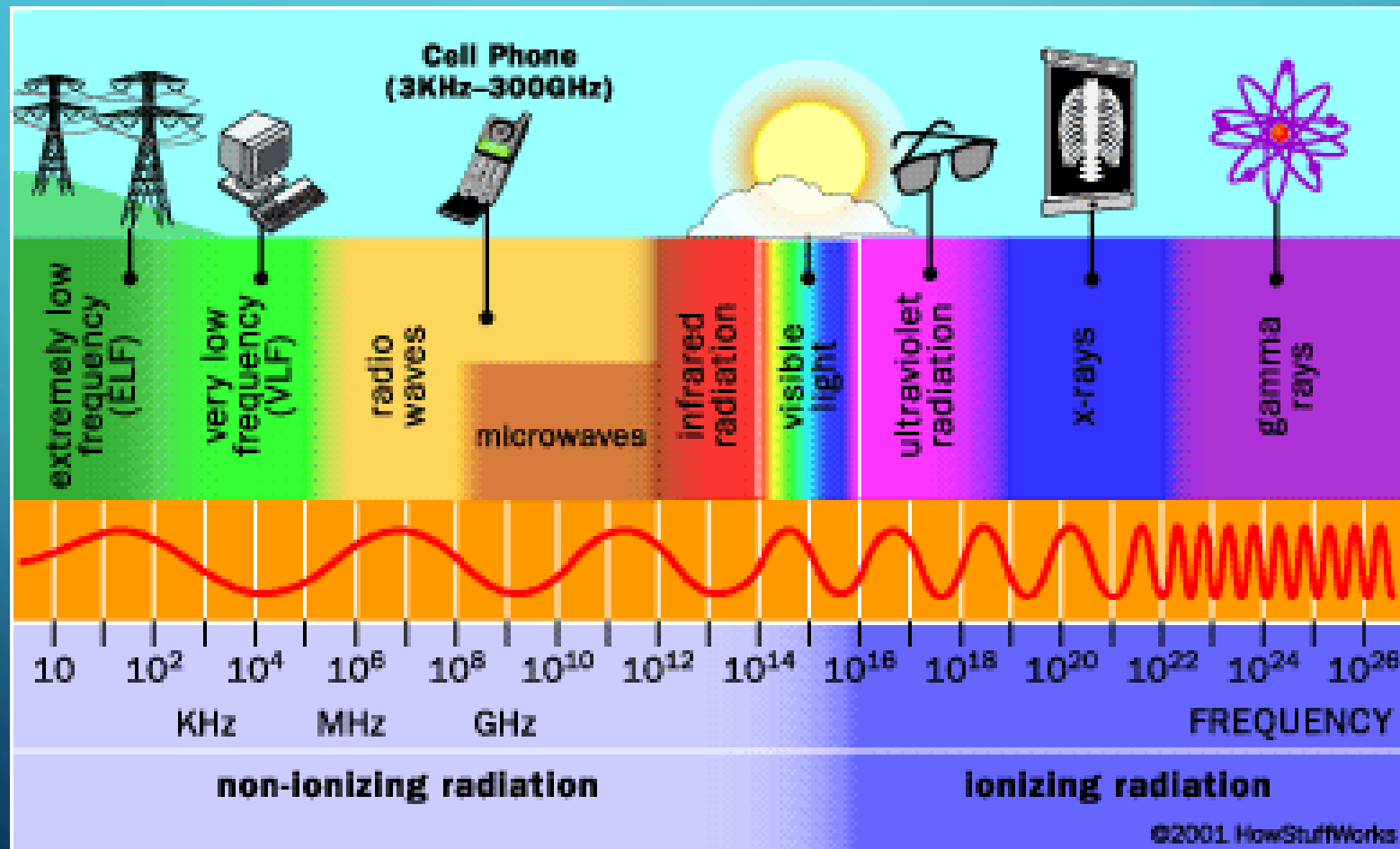
- Universal Mobile Telecommunications System
- 3G
- Based on GSM

LTE

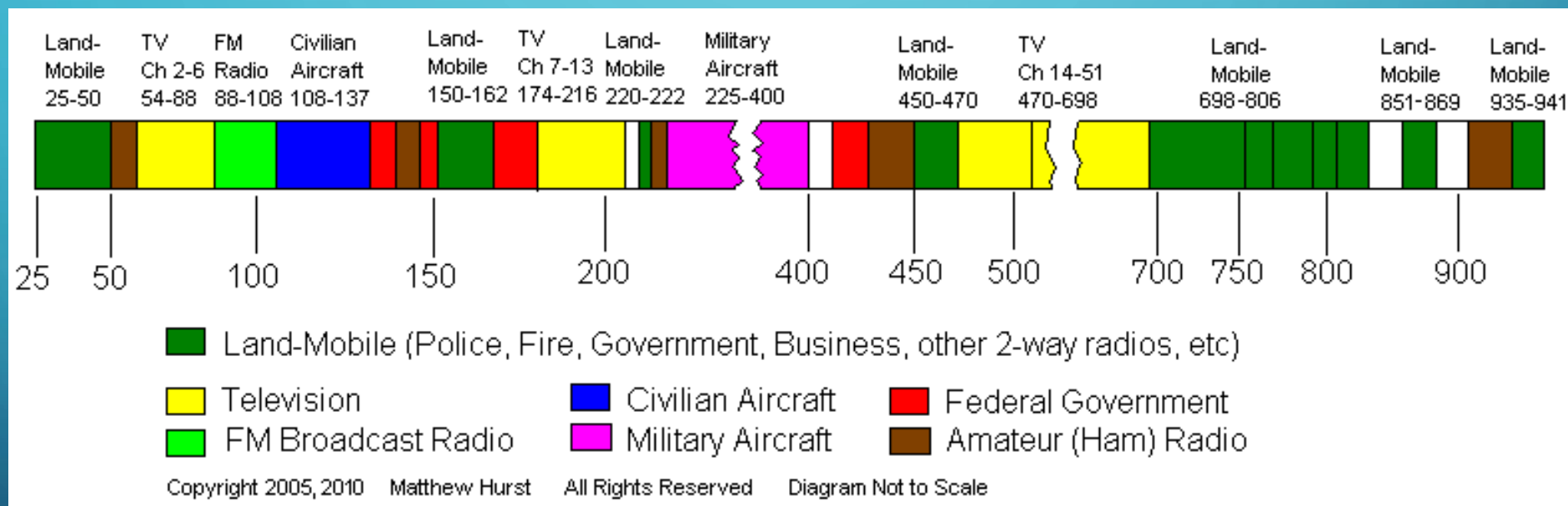
- Long Term Evolution
- 4G & 5G
- A Speed not a Technology
- Data Only



SPECTRUM AKA BANDWIDTH



SPECTRUM DIVIDED



BIGGER IS BETTER - MAYBE



Trivia: Which of the 4 major US carriers has the most spectrum aka bandwidth?

BACK TO LTE = SPEED



WHAT QUESTIONS REMAIN?

