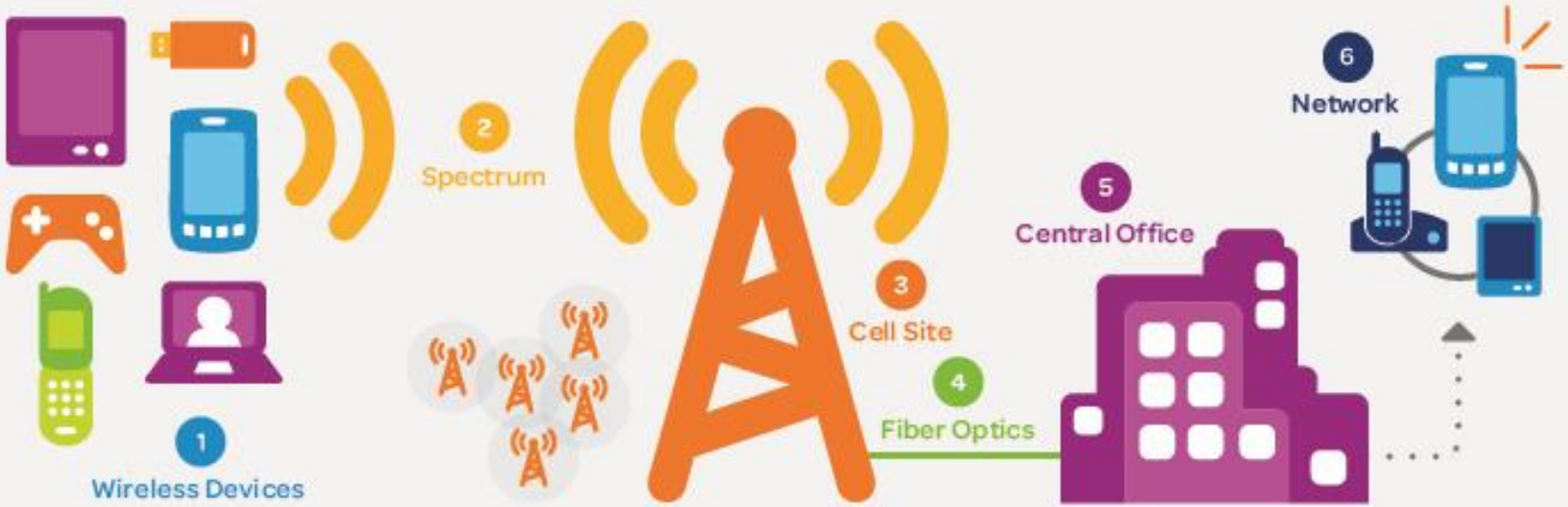
How Wireless Works



1. Wireless Devices

Wireless devices consist of all consumer and business devices, smartphones, tablets, data cards, PDAs, etc.—used to make voice and video calls, send and receive text or access the Internet through the Wireless Network.

2. Spectrum

Spectrum is the essential resource made up of invisible airwaves carrying wireless data (voice, video, texts, email, Internet traffic, etc.) between wireless devices and cell sites or WiFi base stations. Spectrum may be 'licensed'—owned and operated by a single operator, or 'unlicensed'—available for all to use, such as the spectrum used by WiFi connections.

3. Cell Site

Cell sites host the radio and processing elements used to send and receive wireless data to and from wireless devices. Multiple cell sites are usually deployed to serve a large area using an overlapping pattern of cells, which allows users to remain connected while on the move.

4. Fiber Optics

Fiber optic lines are the modern way to transport wireless data via pulses of light between cell sites and central offices.

5. Central Office

(Wireless Switch Building)

At the central office, home and business lines connect to the network.

The central office houses equipment that routes calls locally or to long-distance carrier phone offices and wireless data to and from the Internet.

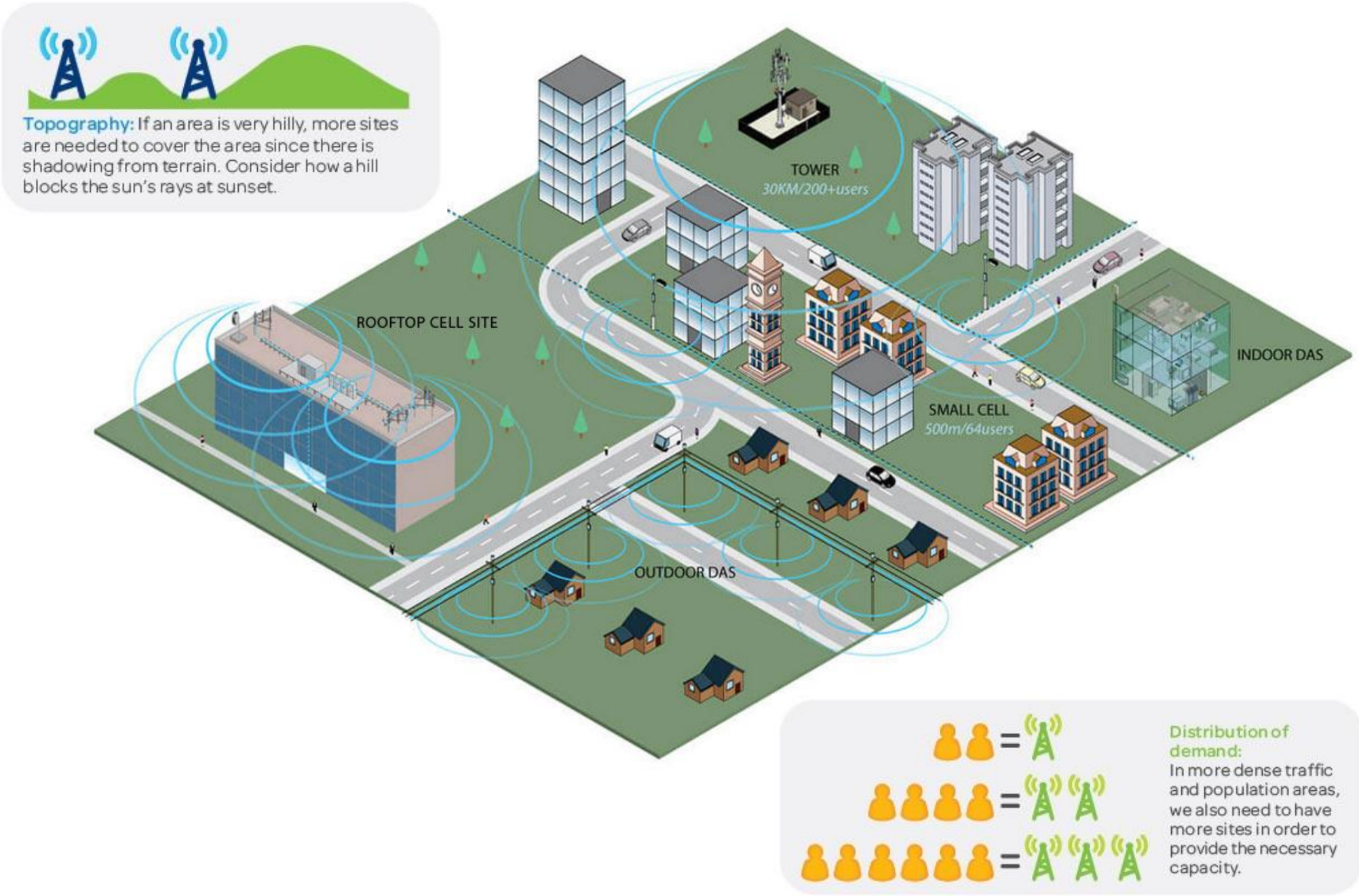
6. Network

All of these together bring AT&T customers the nation's largest 4G network.

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Illustration of How Wireless Systems Function

The City Ordinance is ONLY Related to Small Wireless Facilities (including oDAS) in the Right of Way (ROW)



Prohibited Wireless Facility Designs on Utility Poles



Exposed cables and antennas not painted to match pole





Bulky equipment not flush mounted or painted to match pole

Allowed Wireless Facility Designs on Utility Poles



Cables are flush mounted and all equipment is painted to match pole





Cables and equipment are flush mounted and painted to match pole

Prohibited Wireless Facility Designs on Street Lights



Exposed slack on cables and bulky equipment



Allowed Wireless Facility Designs on Street Lights





Lineal designed equipment and flush mounted on pole with colors to match pole





The Ordinance is NOT Related to the Following Types of Wireless Facilities

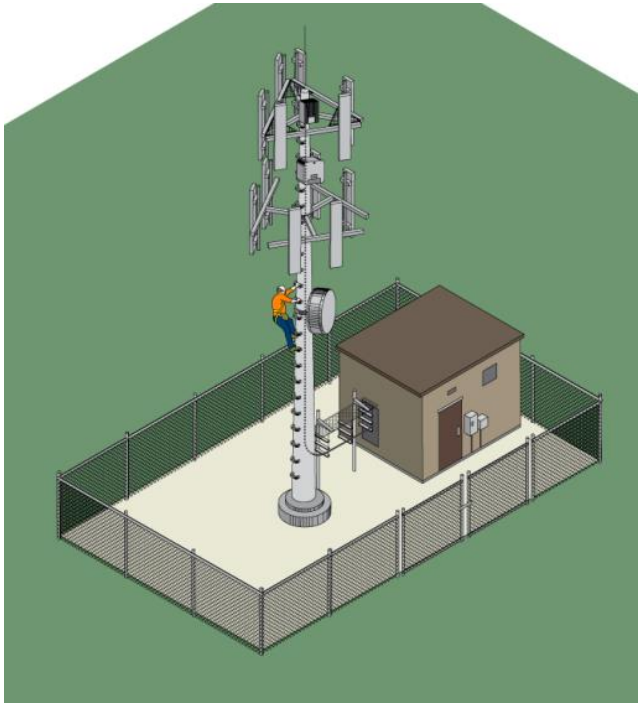
Cell on Wheels (COW)





Macro Cell Sites







City of Hermosa Beach Sample Street Light Poles, Utility Poles and Traffic Signals (Prohibited and Allowed)



Prohibited on decorative street light poles



Allowed on standard street light poles



Prohibited on all traffic signals



Allowed on utility poles extending above adjacent buildings