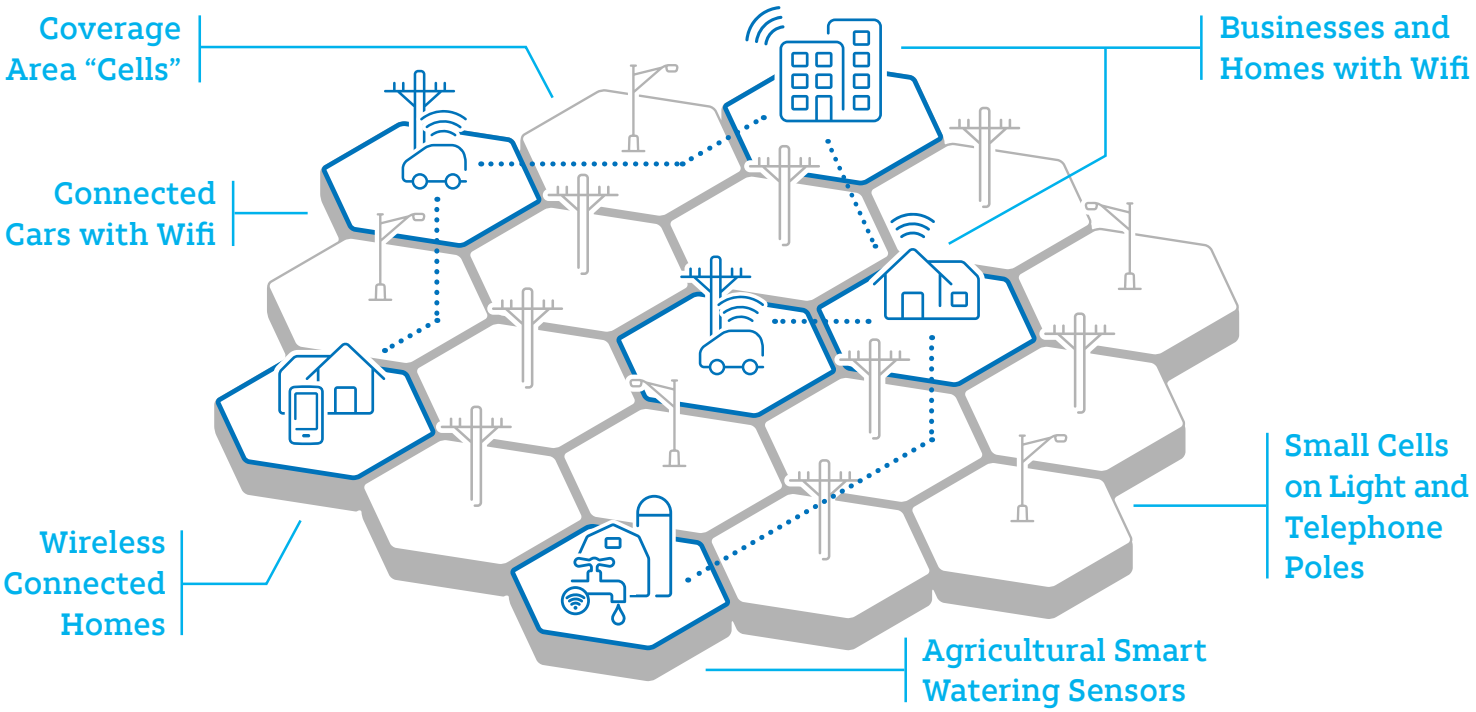
AT&T Policy Issues

How the Commercial Wireless Industry Makes Spectrum Work

The Federal Communications Commission (FCC) is the government agency that decides which frequencies of spectrum can be used and for which purposes. For mobile phones, it has allocated spectrum generally between 700 MHz and 2.6 Ghz and is now looking at mid-band spectrum in the 3 – 6 GHz range and millimeter wave spectrum that exists above 24 GHz.



How Spectrum Works:

- A wireless network is made up of a **series of individual radio coverage areas or "cells."** At the middle of each cell is a **cell site** that broadcasts radio waves.
- Cell sites **allow wireless companies to re-use their radio channels** within a geographic area.
- Each cell site is equipped with a **wireless antenna facility that receives, sends, and routes transmitted radio signals** to and from wireless devices.
- **Calls stay connected to the wireless network** as mobile phones move across a geographic area through a "hand-off," transferring from one cell site to the next.
- **Cell sites are generally connected to each other and to the broader communications network** via fiber or microwave.