

# How the Spectrum is Allocated

The management of the spectrum in the US is a complicated situation. It involves two federal agencies, The National Telecommunications and Information Administration (NTIA) and The Federal Communication Commission (FCC).

While the NTIA's primary responsibility is to administer the spectrum for governmental use the agency also deals with issues of internet access and privacy. Within the agency there are two offices involved in spectrum related activities: The Office of Spectrum Management and the Office of Policy Analysis and Development. The Office of Spectrum Management is responsible for ensuring the federal government's spectrum needs are met. They assure this by assigning frequencies for all government uses of the spectrum (military and scientific). The Office of Policy Analysis and Development focuses on policies around equal access to the internet and online privacy.

The FCC administers the spectrum for all local and state government agencies as well as commercial users. The FCC has been charged with ensuring all individuals in the US have access to fairly priced communication services. One way the FCC affects the pricing of spectrum access is through competition. They provide licenses to many providers in an area under the assumption the competition between companies will cause service prices to remain low. However, there are more companies interested in providing services than there are licenses available in an area. Therefore, The Wireless Telecom Bureau started auctioning off the available licenses. In order for a company to participate in an auction they must provide proof they are capable of providing services and have the capital (money) to back their projects. There are two additional components of the FCC that focus on spectrum use. The Office of Engineering and Technology manages the usage of the spectrum. This office allocates bands of the spectrum to specific uses and creates rules for unlicensed devices that use the spectrum such as baby monitors and garage door openers. However, the office also provides opportunities for innovators to develop new technologies that utilize the spectrum. The Enforcement Bureau supports the efforts of the previous two offices by monitoring the users of the spectrum to ensure it is being used as permitted by the law. This office is entrusted with consumer protection as well ensuring competitors have equal opportunities.

Ultimately, the two agencies work together to allocate the spectrum bands to specific users. In addition, the public is also given a voice in this process. Whenever, the FCC is considering changing one of the rules concerning how the spectrum is allocated there is a period of public comment. During this time everyone is permitted to express their opinion on the matter. The public comments are considered as the agency makes a final decision on the rule.

## Sources

<https://www.fcc.gov/engineering-technology>

<https://www.fcc.gov/wireless-telecommunications>

<https://www.fcc.gov/enforcement>

<https://www.ntia.doc.gov/office/OSM>

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