



Highlights of [GAO-06-526T](#), testimony before the Committee on Commerce, Science, and Transportation, United States Senate

Why GAO Did This Study

The radio-frequency spectrum is used to provide an array of wireless communications services that are critical to the U.S. economy and various government missions, such as national security. With demand for spectrum exploding, and most useable spectrum allocated to existing users, there is growing concern that the current spectrum management framework might not be able to respond adequately to future demands. This testimony, which is based on previous GAO reports, provides information on (1) the extent to which the Federal Communications Commission (FCC) has adopted market-based mechanisms for commercial use, (2) the extent to which market-based mechanisms have been adopted for federal government users of spectrum, (3) options for improving spectrum management, and (4) potential barriers to spectrum reform.

What GAO Recommends

In previous reports, GAO recommended that (1) the Secretary of Commerce and FCC should jointly develop a national spectrum plan to guide decision making, and (2) the relevant administrative agencies and congressional committees work together to develop and implement a plan for the establishment of an independent commission that would conduct a comprehensive examination of current spectrum management. To date, these recommendations have not been implemented.

www.gao.gov/cgi-bin/getrpt?GAO-06-526T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact JayEtta Z. Hecker at (202) 512-2834 or heckerj@gao.gov.

TELECOMMUNICATIONS

Options for and Barriers to Spectrum Reform

What GAO Found

FCC is incrementally adopting market-based approaches for managing the commercial use of spectrum. Market-based mechanisms can help promote the efficient use of spectrum by invoking the forces of supply and demand. For example, although FCC currently employs largely a command-and-control process for spectrum allocation, it has provided greater flexibility within certain spectrum bands. In addition, FCC began using auctions to assign spectrum licenses for commercial uses in 1994. Finally, FCC has taken steps to facilitate greater secondary market activity, which may provide an additional mechanism to promote the efficient use of spectrum.

While some countries have adopted market-based mechanisms to encourage the efficient use of spectrum by government agencies, the Department of Commerce's National Telecommunications and Information Administration (NTIA) has not adopted similar mechanisms for federal government use in the United States. NTIA imposes fees designed to recover only a portion of its cost to administer spectrum management, rather than fees that would more closely resemble market prices and thus encourage greater spectrum efficiency among government users; currently, NTIA does not have authority to impose fees that exceed its spectrum management costs. However, adopting market-based mechanisms for federal government use of spectrum might be difficult or undesirable in some contexts because of the primacy of certain government missions, the lack of flexibility in use of spectrum for some agencies, and the lack of financial incentives for government users.

Industry stakeholders and experts have identified a number of options for improving spectrum management. The most frequently cited options include (1) extending FCC's auction authority, (2) reexamining the use and distribution of spectrum, and (3) ensuring clearly defined rights and flexibility in commercial spectrum bands; there was no consensus on these options, except for extending FCC's auction authority. Given the success of FCC's use of auctions and the overwhelming support for extending FCC's auction authority, GAO suggested that the Congress consider extending FCC's auction authority beyond 2007. Congress extended FCC's auction authority to 2011 with the passage of the Deficit Reduction Act of 2005.

The current spectrum management framework may pose barriers to reform, since neither FCC nor NTIA has been given ultimate decision-making authority over all spectrum use, or the authority to impose fundamental reform, such as increasing the reliance on market-based mechanisms. Under the divided management framework, FCC manages spectrum for nonfederal users, including commercial uses, while NTIA manages spectrum for federal government users. As such, FCC and NTIA have different perspectives on spectrum use. Further, spectrum management issues and major reform cross the jurisdictions of both agencies. Thus, contentious and protracted negotiations arise over spectrum management issues.