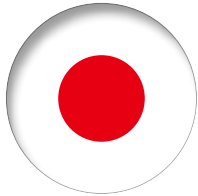


U.S. Spectrum Challenges

CURRENT ACCESS TO MID-BAND



JAPAN
1100 MHz



UK
790 MHz



CHINA
460 MHz



U.S. AVERAGE GLOBAL DEFICIT

Today: 198 MHz
Tomorrow: 518 MHz

FASTER TIME TO AUCTION



2006: AWS-1



2021: 3.45 GHz

2.5X faster than AWS-1

U.S. policymakers have the opportunity to drive next-generation leadership in 5G and the industries of the future with a clear commitment to spectrum policy, focusing on mid-band spectrum and providing greater licensed access. This will ensure a balanced spectrum policy between both commercial and government users, as well as licensed and unlicensed applications. The federal government should be recognized for how efficient and fast the clearing process has become in recent years.

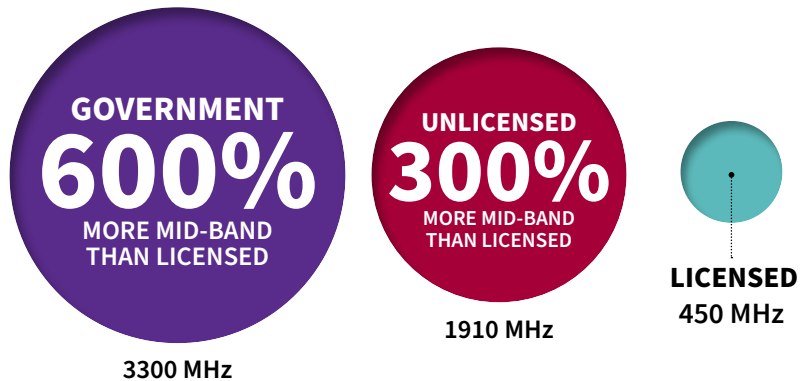
Global Rivals Leading on Mid-Band Access

Nearly every 5G deployment outside the U.S. relies on mid-band spectrum. Today, the U.S. lags its peers by an average of 198 megahertz in mid-band access. That means our peers have access today to 44% more mid-band. By 2027, the U.S. deficit will actually grow to 115% absent swift government action.

Spectrum Imbalance Should be Remedied

The U.S. needs to ensure robust spectrum access for government, military, and commercial usage. Commercial spectrum must support wireless service, unlicensed services, broadcasters and satellite users. But despite work across administrations, the federal government still controls over 600% more mid-band spectrum than licensed users. Commercial access is similarly unbalanced; right now unlicensed mid-band spectrum eclipses licensed by over 300%. The U.S. must explore ways to rebalance its spectrum allocations to provide the licensed spectrum necessary to power our wireless future.

MID-BAND SPECTRUM IMBALANCE TODAY (3-8.4 GHz)



Government Auction Process Has Improved

Since 1993, auctions have raised over \$230 billion for the U.S. Treasury and congressional priorities. Thanks to key advancements with the Spectrum Relocation Fund, the government has gotten far more efficient clearing spectrum. The 3.45 GHz spectrum is set to be cleared and auctioned in six years less time than the shared access regime right next door at 3.5 GHz. Similarly, the C-Band auction took far less time than the 3.5 GHz auction.