



POWERING THE

Wireless Future with CBRS

2019 Broadband Communities Summit

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WORLD CLASS WIRELESS

FOR THE

WORLD'S PREMIER
PROPERTIES

Boingo delivers
unparalleled wireless
solutions at iconic
venues serving
more than

▶ 1 ◀

BILLION
CONSUMERS
ANNUALLY

NEUTRAL HOST APPROACH

CURRENT



WI-FI

- Unlicensed Spectrum
- 2.4GHz, 5GHz, 900MHz, 60GHz
- Up to 160MHz bandwidth
- WFA standards



DAS/SMALL CELLS

- Licensed Spectrum
- Carrier agnostic
- Up to 20MHz bandwidth
- 3GPP standards

FUTURE



CBRS (3.5GHz)

- Spectrum sharing
- Tiered Spectrum access
- Carrier agnostic
- Controlled by Spectrum Access System (SAS)



MulleFire

- LTE in Unlicensed
- Carrier agnostic
- 3GPP standards



MILLIMETER WAVE

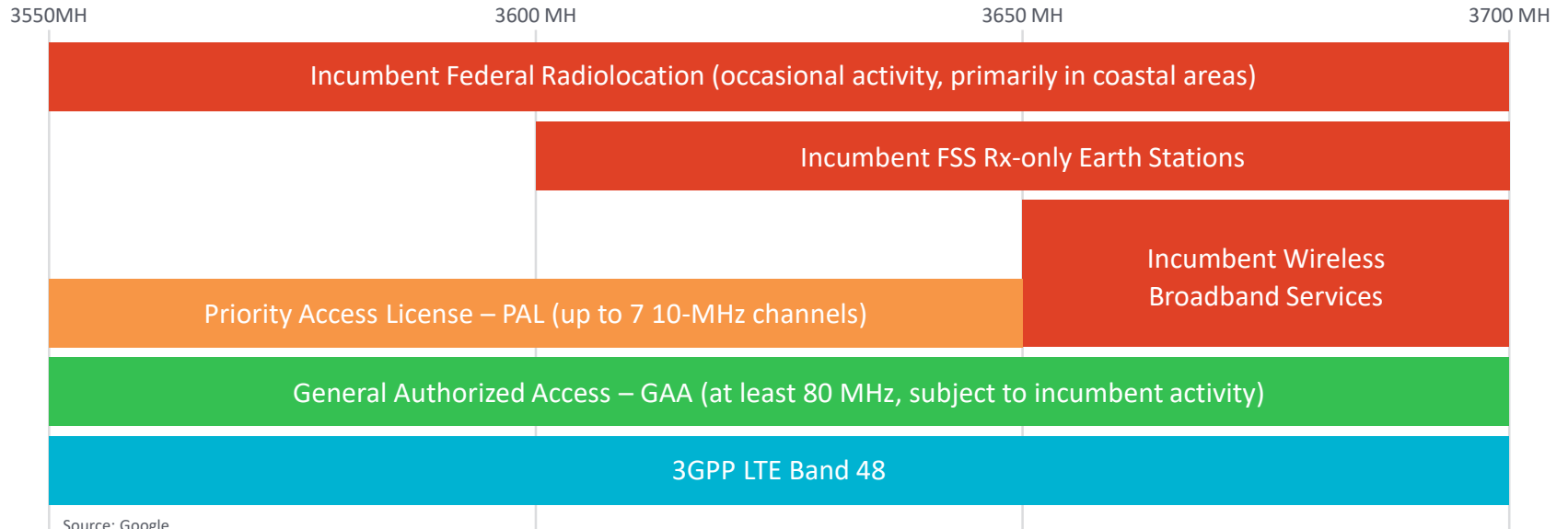
- Broadcast between 30 and 300 GHz
- Can greatly increase capacity and speeds
- Will require small cells

NEUTRAL HOST CARRIER OFFLOAD MONETIZATION OPPORTUNITIES

5G

CBRS CLOSE UP

150MHz in the 3.5 GHz Band



Source: Google

CBRS ADVANTAGES



Offers attractive economics for mobile coverage and capacity.

150MHz

Up to 150 MHz of favorable mid-band spectrum opens new business opportunities to multifamily properties that have been prohibitive in the past.



Support of all four Tier 1 mobile operators in the U.S.



Strong interest from the device ecosystem.



Supports up and coming future carriers such as cable companies.

CBRS Use Cases

- Public LTE
 - Open public Wi-Fi over CBRS LTE network
 - Data analytics to understand user behavior
- Private LTE
 - Secure internet access for venue and employees
 - Connectivity for in-house devices and IoT sensors



DAL: Landmark CBRS Launch

- Boingo deployed private LTE cellular network on the 3.5 GHz CBRS band at Dallas Love Field Airport
- Private LTE offers maximal radio resource utilization, expanding wireless coverage and capacity for streamlined airport operations—
IT staff relies on network
- Shared spectrum merges the quality of service of LTE with the low cost of unlicensed spectrum
- Boingo operates neutral host converged network at DAL across licensed, unlicensed and shared spectrum—
DAS, Wi-Fi, Passpoint and CBRS



A person is holding a smartphone, and a Siamese cat is visible in the background. The scene is dimly lit, with the person's hands and the phone being the primary focus. The background is slightly out of focus, showing the cat and some indoor elements.

THANK YOU

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