TV White Spaces: Overview Presentation

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Broadband access and digital inclusion

Broadband is the oxygen of a digital economy
More connected objects than people ...

The internet of things

50 billion by 2020
What are white spaces?
What are TV White Spaces?

TV band white spaces are gaps left between broadcast channels. They occur in different places on different channels.
White Spaces transmissions travel farther
Potential TV White Spaces use cases

Utilizing long range characteristics

- Cellular offloading
- Rural broadband/backhaul
- Wide-coverage hotspots
- Bridge among small networks
- Sensor network
- Wireless surveillance system
Potential TV White Spaces use cases

Utilizing obstacle penetration/avoidance characteristics

• Indoor video distribution
• M2M – factory floor automation
• Device to device network
TV White Spaces signals penetrate more walls

In a typical home, a Wi-Fi signal can penetrate up to two walls. At the same power, a TV white spaces signal can penetrate more walls and obstacles, enabling whole home media distribution.

This will simplify and enrich in-home/in-building networking opportunities.
Database Access Safeguards Incumbents from Interference – This is No Free-For-All!

1. Devices only use the TV white spaces channels specified by the database.

2. Devices are required to re-check the database for the list of available channels.

3. Databases are prohibited from providing devices access to the channels occupied by incumbent operators (e.g., broadcasters).

4. Databases are required to maintain up-to-date lists of protected operators.

5. Databases can block newly occupied channels to prevent further white spaces device access.
Summary

The technology is real and works

The ecosystem is ramping up quickly

Policymakers should think differently about spectrum allocation and regulation

Results are only limited by imagination