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SHARED SPECTRUM STRATEGIES
Affordable Access in Rural Areas

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DR. MARTHA SUÁREZ

President, Dynamic Spectrum Alliance

MarthaLSuarez

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WHAT WE DO

The Dynamic Spectrum Alliance (DSA) is a global, cross-industry, not for profit organization advocating for laws, regulations, and economic best practices that will lead to more **efficient utilization of spectrum**, fostering **innovation** and affordable **connectivity for all**.

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OUR GLOBAL MEMBERSHIP

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OUR MISSION

Make spectrum abundant for broadband

- Connect the next 4 billion people
- Stimulate wireless innovation for next generation broadband
- Accelerate an inclusive digital economy

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Spectrum sharing for rural areas

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Connecting the hardest to reach places

Connectivity challenges everywhere.
South Africa example:

- Two million people do not have 3G/4G coverage / 55.8 million*
- The largest coverage gaps include Eastern Cape (9.55%) and Kwa-Zulu Natal (6.5%)*
- Internet traffic has risen by 15% during lockdown, according to SEACOM

**The latest figures according to the Council for Scientific and Industrial Research*

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Efficient use of spectrum

Benefits:

Digital growth

Positive social and economic benefits for all

Access to healthcare, education, work etc.

For example, ICASA recently temporarily assigned the use of TVWS spectrum to provide affordable broadband connectivity to rural areas during the health pandemic this year.

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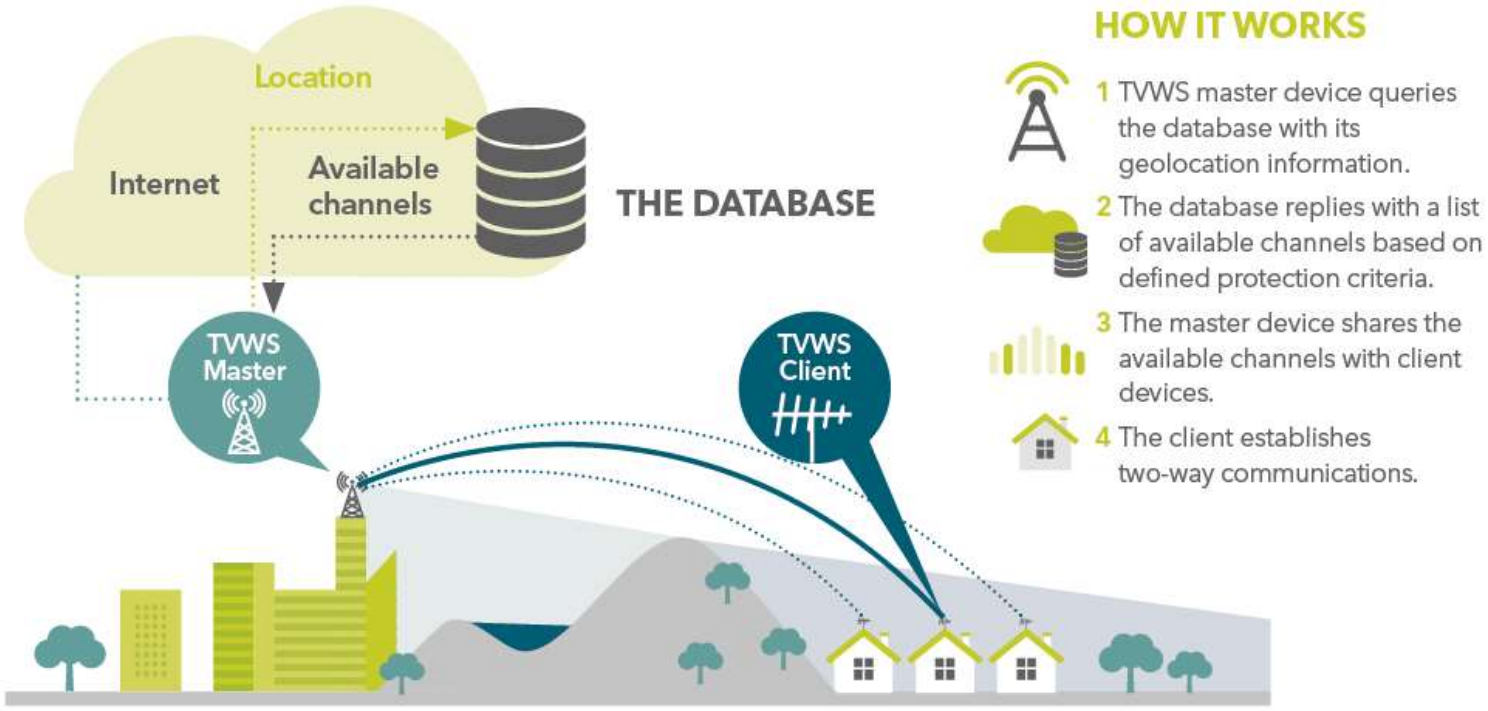
Dynamically managing TVWS

Dynamic spectrum access techniques enable broadband services in TVWS spectrum without interfering with existing broadcast and other incumbent services.

TVWS radios are coordinated by a spectrum database, which calculates the availability of unused TV channels at a given location.

Frequencies are dynamically allocated in real time based on the usage in a geographic area by incumbent users.



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Bridge the broadband gaps

Coordinated spectrum sharing allows for diverse entities to deploy and operate wireless networks, both for internal (private) and external (public) uses.TV White Spaces and CBRS are both current examples of this model.

Key use cases include enterprises, universities, schools, hospitals, clinics, hotels, airports, municipal authorities, ports, industrial manufacturers, agricultural enterprises, small farms and rural wireless ISPs.

Incumbent spectrum users can keep using spectrum without interference in a specific location while making it available for others elsewhere.

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Meet demand with the 6 GHz band

- USA, the UK, South Korea, Europe are starting to use the 6GHz band to support Wi-Fi demand
- The FCC enabled unlicensed use of 1200 MHz
- Helps to address increasing bandwidth demands
- Internet traffic is expected to triple in South Africa between 2016 to 2021 - 26% annual growth rate*

**2021 Forecast Highlights by Cisco*

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Internet coverage in remote areas

- Flexible, shared use of E-Band to support coexistence of terrestrial, non-terrestrial, and hybrid point-to-point networks.
- Adopting dynamic spectrum sharing in E-Band will promote the seamless integration of innovative non-terrestrial backhaul networks to support 5G, IoT, and rural broadband connectivity
- Technical innovation

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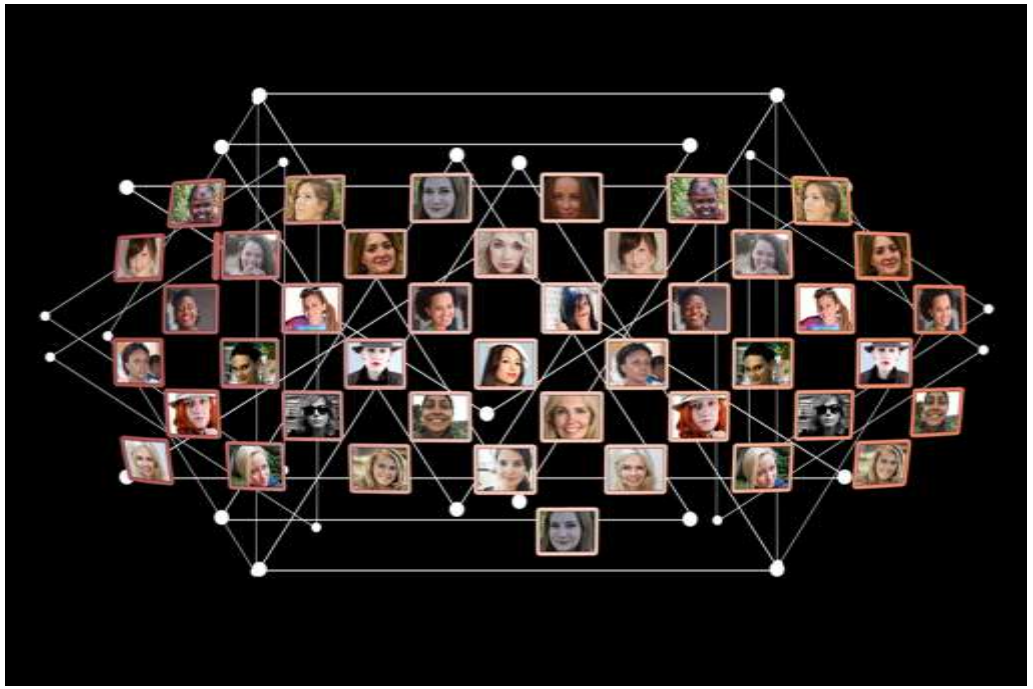
Affordable access

- Affordability is a key barrier
- Data connectivity plans represent a high percentage of the average monthly salary in many countries
- Competition is necessary to level prices
- Policymakers and regulators must encourage new entrants

*A4AI Affordability Report



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Any questions?

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