

Why haven't Secondary Markets been Successful?

Peter Stanforth
CTO
Spectrum Bridge Inc
peter@spectrumbridge.com
www.spectrumbridge.com



Spectrum Bridge & Secondary Markets

Spectrum Bridge runs a secondary market place for spectrum as well as several spectrum sharing databases (TWDR, TVWS)

We focus on radio spectrum between 50MHz and 6GHz as this is the most useful for portable and mobile applications.

Conventional wisdom says that this spectrum is getting very scarce

Yet numerous studies have determined that up to 90% is unused at any given time.

So lack of spectrum is not the problem lack of access is.

Secondary Markets are a way to solve this problem yet despite being enabled for several years they have not matured



Secondary Markets Rules

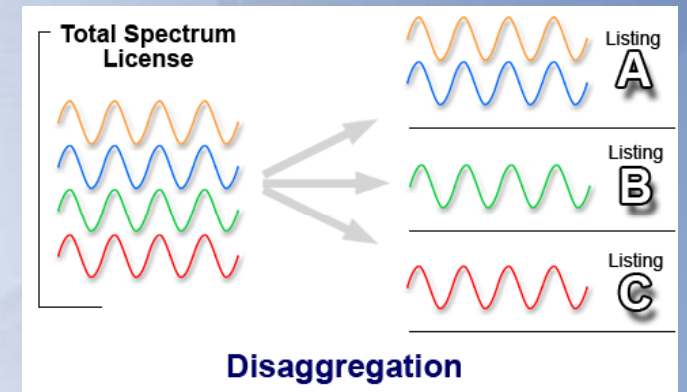
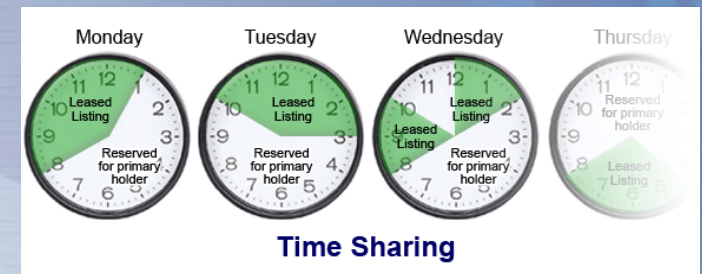
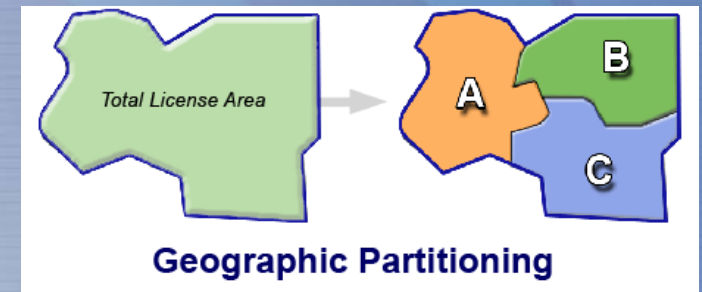
The FCC began modification to rules and regulations in 2002 that enable spectrum to be sliced and diced, bought, sold, leased and lent in a number of ways including:

Geographic Partitioning

Time Slicing

Frequency Disaggregation

So while these rules could be enhanced the basic problem is not regulation



Technology & Business Issues

It is not really a technology issue either.

There is an existing, albeit immature secondary market today and existing technologies can exploit it

There are no specific business issues that restrict the secondary market

So what is it that is holding it back and how does TV White Space become a catalyst to it's success?

The Real Issues

Education, or lack thereof

Even today people question whether our secondary market is legal and, even if it is, if they are able to participate.

Technology fear, Interference and availability

They fear that sharing spectrum will lead to interference

They fear that spectrum that they can use today won't be available tomorrow.

Lack of incentive

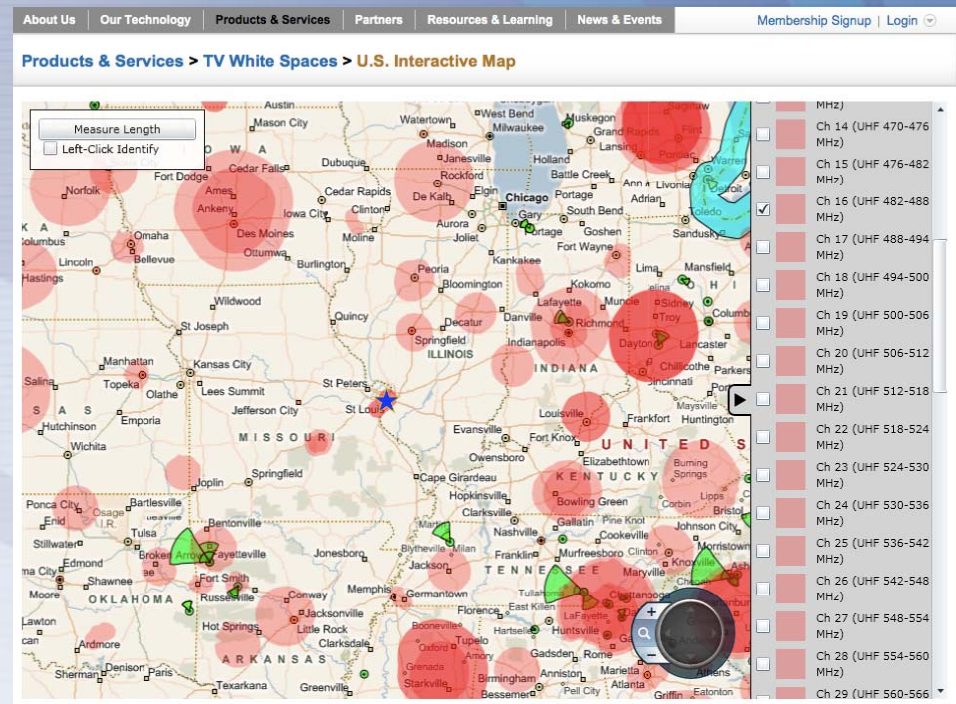
There need to be carrots and sticks to stop spectrum holder from simply hoarding spectrum

Lower cost

The licensing system is geared towards multi million dollar transactions

TV White Space

TV White Space solutions are comprised of a Database to protect against interference and a frequency agile radio that can address the Technology fears and significantly improve secondary market opportunities



White Spaces Trials

 **“Smart Grid” Network Deployment Using SBI’s TV White Spaces Architecture – Plumas County, CA, In Partnership with **

 **Nation’s First TVWS Broadband Network – Claudville, VA, In Partnership with**



 **First Global Exposure of SBI’s TV White Spaces Architecture in Europe**

 **“Smart City” Network Deployment Using SBI’s TV White Spaces Architecture – Wilmington, NC**
In Partnership with
Local Authorities and
Public Safety Entities

 **Corporate Headquarters – Lake Mary, FL
TVWS Prototype Radios Development**
In Partnership with



 **TVWS Trial Network Deployment Proposed – Singapore**



The Hope

Secondary markets are the only realistic way that significant amounts of spectrum will be made available in the near term.

Spectrum Bridge believes that TV White Space is just the tip of the iceberg

Once this concept is understood and accepted significantly more spectrum, both licensed and unlicensed could be shared in near real-time by secondary market solutions





Thank you



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