



## **Monetizing Your Spectrum and Meeting Substantial Service Requirements in 2009 and Beyond**

### **Changing Market Dynamics for 2.5 MHz Spectrum**

The last few years have been very lucrative for many EBS license holders. Clearwire, Sprint and a handful of smaller WiMAX players were snapping up licenses and driving up prices of EBS spectrum. Times changed in 2008 as EBS license holders have seen declining demand and prices for their spectrum. The Clearwire/Sprint merger gave the resulting company more spectrum than it can practically build out in the next few years. The current financial crisis is making it more difficult for large and small WiMAX players alike to raise money needed to build out networks using the spectrum they already have - never mind fund new spectrum lease acquisitions. The result of these changing market forces has been swift and dramatic. EBS license values are down from just a year ago while demand from WiMAX service providers has weakened considerably in most markets.

### **Looming Substantial Service Deadline**

In addition to these changing dynamics, May 1, 2011 is the deadline for EBS licensees to demonstrate substantial service. The FCC defines “substantial service” as service which is sound, favorable, and substantially above a level of mediocre service which just might minimally warrant renewal.” If substantial service standards are not met by this date, the FCC can take back any and all frequencies not meeting the requirements. And unlike past requirements and deadlines, the FCC is signaling it is serious this time and will act to revoke license holder rights quickly.

Given the current economic conditions, industry consolidation and looming build-out deadlines, EBS holders who wish to generate maximum revenue and retain their valuable spectrum rights must leverage new technology and ideas in this difficult market environment.

### **Moving Beyond Yesterday’s WiMAX Leasing Opportunities**

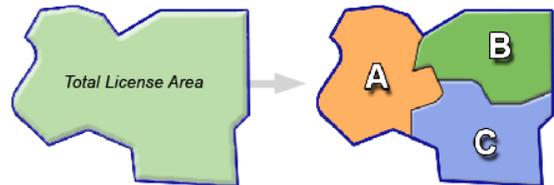
Make no mistake; WiMAX is still a driving force in the EBS leasing market. However, EBS (and BRS) license holders need to think beyond national and regional wireless service providers. Demand for wireless applications and bandwidth is growing rapidly in enterprises, local governments, utilities, public safety, energy production and distribution as well as a host of other industries. Wide area video security monitoring, automated meter reading, vehicle tracking, positive train control, mobile workforce applications, and other private network applications will continue to drive growth in demand for private broadband networks and spectrum.

In order to successfully penetrate these untapped business and government customers for EBS spectrum, license holders have to take a different approach and create lease offers that appeal to entities with small geographic footprints and bandwidth requirements as compared to the national WiMAX carriers. Pursuing this strategy will entail leasing spectrum to multiple customers, and tailoring “retail” spectrum offering to their needs.

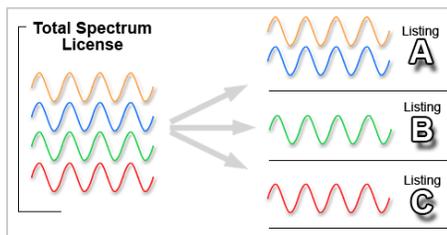
In its Secondary Markets for Spectrum Initiative, the FCC describes new ways that license holders can package and offer their spectrum to potential buyers and leases. These revolve around three main techniques: Partitioning, Disaggregation and Time-Sharing:

### Geographic Partitioning

Partitioning allows spectrum holders to break up licenses into smaller geographic footprints. This makes it easier for customers to lease or purchase the right amount of spectrum to fit their needs. Licenses can be partitioned so that multiple business and government agencies can lease and use the spectrum simultaneously. By creating targeted offers that fit the needs of the local market, spectrum holders can realize higher \$/MHz/Pop, while offering a better value to prospective customers.



### Channel Disaggregation



Disaggregation lets spectrum holders divide up a licenses by channel, channel group or by frequency & bandwidth. The illustration shows how four channels or frequencies can be disaggregated into three parts. The FCC now allows spectrum to be offered in any amount - down to the size of an individual EBS or BRS channel. This puts idle capacity to work via sales or leasing to interested customers.

### Time Share Leasing

A new concept promoted by the FCC can best be described as time sharing of spectrum. Time sharing allows the creation of time-of-day, day of the week, etc. leases for buyers who may have a need for limited duration on-peak or off-peak services. Utility meter reading, overnight inventory updates, nighttime video surveillance can all be operated during off peak hours. By using time share leases, a single spectrum license can be used by multiple parties - including the primary license holder in order to satisfy 5% usage or other FCC requirements - each day.



### New Challenges Require New Solutions

Reaching new markets and new customers for EBS and BRS spectrum can be challenging for license holders. Successfully marketing, pricing, portioning, disaggregating spectrum, etc. may be beyond the expertise, capabilities or time available within the spectrum holder's organization. Fortunately, a solution has been developed by a company founded by proven wireless industry experts who understand the shifting dynamics of the current marketplace. Spectrum Bridge Inc. is leveraging internet technology to enable spectrum holders to quickly market and monetize their licenses while meeting the substantial service requirements needed to retain their licenses.

### SpecEx – The Online Marketplace for Spectrum

Spectrum Bridge has created SpecEx *the online marketplace for spectrum™*, that provides a powerful platform for spectrum holders and buyers to sell, lease or exchange spectrum in a real-time and trusted environment. The system is designed to simplify the process of creating attractive spectrum listings, while making it easy for buyers to find and lease or purchase the spectrum they need.

Spectrum Bridge's solution allows license holders to determine how, where, and when others can lease or buy access rights and in turn generate additional revenue from their valuable spectrum asset. This process is enabled by a full service marketplace for secondary spectrum transactions.

However, SpecEx is more than just a marketplace for spectrum. SpecEx creates an entirely new way to create "retail" spectrum offerings that appeal to multiple private businesses, municipalities, institutions and other wireless users. Spectrum Bridge works with spectrum holders to take advantage of new techniques allowed by the FCC in the secondary spectrum leasing market.

## Tools and Expertise to Monetize Spectrum and Meet Service Requirements

In addition to the marketplace itself, Spectrum Bridge has created online tools for spectrum holders that make it simple to package their licenses to attract more customers.

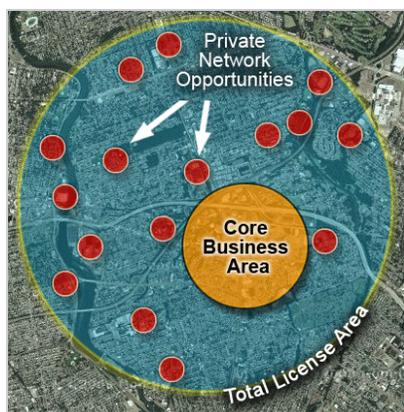
Using database-driven geographic mapping and display technology, custom spectrum offers can be created rapidly in order to meet the need of a wide range of leasing opportunities. SpecEx tools coupled with Spectrum Bridge's expertise makes it simple to partition, disaggregate and time share spectrum (or any combination of these techniques) to create retail friendly listings that attract more customers that help optimally monetize license value, while meeting substantial service requirements.

## More Than a Website

Spectrum Bridge offers EBS holders more than just a set of Internet tools and a website. It was founded by wireless veterans with proven track records of creating successful new technologies and business models. The company employs over 27 Sales, Marketing and Engineering professionals dedicated to bringing spectrum holders and seekers together. By working closely with spectrum holders, the company helps develop innovative strategies and tactics that meet a holder's FCC obligations as well as financial and license retention goals.

## 2.5 GHz license holder Case Study: Partitioning & Disaggregation

A spectrum holder recently revisited plans to optimize the value of his spectrum assets using the tools and expertise developed by Spectrum Bridge. The company conducted a comprehensive



analysis and uncovered that the holder not only had sufficient spectrum to operate his core wireless services operations, but that he had a significant amount of underutilized and unused spectrum within this license. The spectrum holder decided to take advantage of the more flexible leasing policies allowed in the FCC secondary market initiatives by leveraging the SpecEx marketplace to monetize his unused channel capacity and footprint. By partitioning and disaggregating his licenses he was able to not only retain the spectrum he needed to continue to run his business, but was able to create spectrum offerings that were attractive to local business and government agencies who needed to deploy high performance private wireless broadband networks. These new private

business and government customers not only helped monetize the holder's excess spectrum assets, they also contribute significantly to meeting the licensee's substantial service requirements.

**Next Steps** If you would like to find out how the team at Spectrum Bridge can help you monetize your spectrum in new ways – while satisfying your upcoming substantial service requirements, please contact them toll free at 866-598-7426, or visit them online at [spectrumbridge.com](http://spectrumbridge.com).