



# CBRS Seminar

Our Citizens Broadband Radio Service (CBRS) seminar is the only seminar of its kind offered to enterprises that are considering launching 5G services over CBRS band in the US. When enterprises launch private LTE services, The Besen Group will define them as Mobile Virtual Network Operators (MVNOs). MVNOs offer mobile and mobile data services with or without spectrum. The spectrum can be licensed, unlicensed or shared.

While our seminar includes an overview of CBRS with a business guide and use cases and multiple private LTE case studies. It also includes a customized workshop designed to develop a comprehensive business case with step-by-step instructions.

Our seminar will not only help enterprises gain a solid understanding of the CBRS band, but it will also provide them with key success factors when launching their 5G services. Our seminar is offered at our client locations with 3 weeks advance notice. Depending on our client needs, we can also customize the seminar to fit their particular situation and their use case.

CBRS Seminar Sponsored by



## Session I : CBRS Overview

### ■ In-Depth Look at 3.5 GHz Band & Licensing

- Understanding three-tier sharing model for CBRS, protection of incumbents and neighboring users
- Priority Access Tier: Eligibility, configuration, frequencies, geographic area and license term
- Priority Access License Auction: PAL application, auction rules and bidding credits
- General Authorized Access Tier: Authorization methodology, geographic area and license term

### ■ CBRS Network Architecture & Citizens Broadband Service Device (CBSD)

- Describing the Spectrum Access System (SAS) and SAS Functional Architecture
- Determining the registration criteria for CBSDs with SAS and CBSD requirements
- Identifying Spectrum Access System (SAS) function and requirements
- Ensuring the operations of Environmental Sensing Capability (ESC)

### ■ Private LTE Network Technical Architecture

- Defining the role of Radio Access Network (RAN) and Evolved Packet Core (EPC)
- Establishing the integration of EPC with current enterprise management systems
- Configuring private LTE network as neutral host for public LTE networks

## Session II : CBRS Business Guide

### ■ Enterprise Market Entry Evaluation & Strategy Planning

- Examining the benefits of owning private wireless networks and identifying key success factors
- Determining CBRS use cases for launching private wireless networks and CBRS service providers
- Developing go-to-market strategy and a comprehensive business plan with financial indicators
- Evaluating multiple CBRS business models and the next steps to move forward
- Selecting SAS administrators and ESC operators and evaluating pros and cons

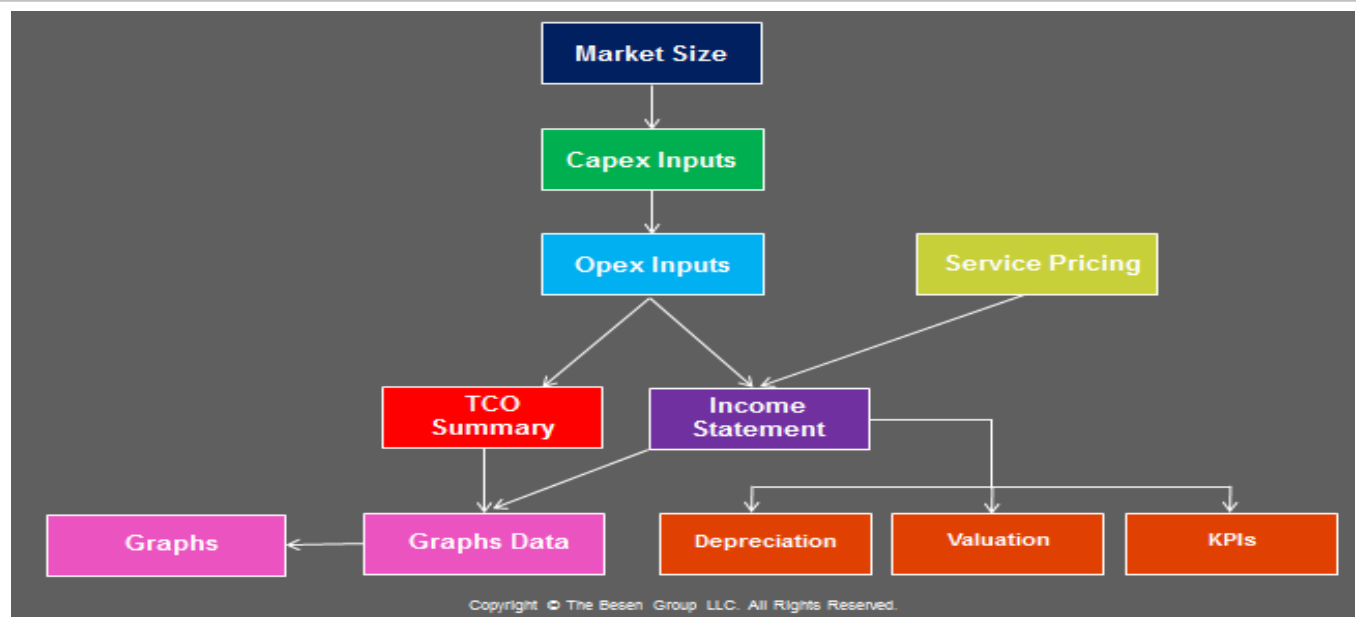
## Session III: CBRS Use Cases

- Cable Operator MVNO Use Case
- Enterprise Private LTE Network Use Case
- Fixed Wireless Access Use Case
- Mobile Network Operator Backhaul & Capacity Use Case
- Neutral Host Network (Mobile Virtual Network Aggregator) Use Case
- Venue Owners Use Case

## Session IV: CBRS Private LTE Case Studies

- Aerospace: Airbus
- Office Space: CBRE
- Cable Operator: Comcast
- Public Safety: FirstNet
- Satellite: Intelsat
- Hotel: Marriott
- Sports Venue: National Football League (NFL)
- Sports Organizer: PGA Tour
- Smart Port: Port of Los Angeles

## CBRS Business Case Development Workshop



## About The Presenter

[Alex Besen](#) is the Founder & CEO of The Besen Group LLC. He provides advisory and training services to corporate executives in the mobile data industry.

Alex has over 22 years of hands-on experience in the mobile industry working for operators and vendors in North America and Europe in numerous roles including business development, marketing, project management and finance. He has been working with mobile network operators in developing their wholesale business models, advising MVNOs to launch their mobile and mobile data services as well as helping MVNEs with their services portfolios.

Previously, Alex worked at Ericsson with mobile operators on MVNO and UMTS projects in the EMEA (Europe, Middle East and Africa) region. He was also responsible for identifying potential partners and hosting workshops at Ericsson Mobility World (a mobile data laboratory) where developers create, optimize and commercialize mobile applications. Prior to Ericsson, Alex was employed at T-Mobile USA (Omnipoint Communications) where he was responsible for partnerships, joint ventures and provided billing, customer care, marketing and financing solutions to mobile operators. Alex began his mobile career with Pocket Communications based in Washington DC where he managed the company's auction activity for C-block spectrum licenses as well as other activities associated with market research, market segmentation, pricing plans and market distribution strategies.

He holds a BS degree in Management from the University of Tampa and an MBA degree in International Business from the American University. He is fluent in French, Turkish and proficient in Italian.

He has delivered a 4G LTE wholesale seminar to International Telecommunications Union (ITU) in March 2012, Cellular Telecommunications Industry Association (CTIA) in January 2011, Competitive Carriers Association (CCA) in December 2010 and Federal Communications Commission (FCC) in October 2010.

He has spoken at CCA – Mobile Carriers Show 2018, Mobile World Congress Americas 2017, CES 2017, CTIA Super Mobility 2016, Wi-Fi Now USA 2016, CCA - Mobile Carriers Show 2016, CTIA Super Mobility 2015, Sprint Mobility in Action 2014, MVNO Industry Summit USA 2013, MVNO World Congress 2013, CCA Global Expo 2013, MVNO Industry Summit 2012, MVNO Industry Summit 2011, MVNO Industry Summit Latam 2011, LTE North America 2011, LTE North America 2010, MVNO Industry Summit 2010, Eurasia Com 2009, Mobile World Congress 2008, MVNO Summit 2008, MVNO Summit 2007, MVNO Congress 2007, Emerging Mobile Partnerships & MVNOs Conference 2007, CTIA Wireless 2006, and CTIA Wireless 2005.

He was quoted in Bloomberg, Boston Business Journal, Business News Americas, Business Week, CableFax, Chicago Tribune, Computer World, FierceWireless, Hurriyet, Information Week, Le Journal du Net, Light Reading, Los Angeles Times, MIT Technology Review, New York Times, RCR Wireless, Red Herring, SNL Kagan, Telephony Online, The Kansas City Star, The Prepaid Press, The Seattle Times, The Washington Post, Triangle Business Journal, USA Today and Wireless Week.

## About The Besen Group

The Besen Group LLC is an international management consulting practice to the mobile data industry headquartered in the Washington DC area, with representatives in Paris and Tokyo.

The Besen Group brings global perspective and an open approach to client engagements, where the transfer of our mobile data knowledge, hands-on experience, and strategic thinking become part of our clients' ongoing competitive strength. Its mission is to provide mobile data players with tools, knowledge, and services enabling them to perform optimally in their mobile environment. The Besen Group's competitive edge is based on practical experience with mobile operators, mobile vendors, and a mobile data laboratory.

Our references include Amdocs, Arterra Mobility, BeQuick, BICS, Cosmote, Ericsson, Fenerbahce, Globecomm, Globalstar, Ligado Networks, Limitless Mobile, MTS, Nokia, Orange, Panasonic, Plintron Americas, Reglo Mobile, Sprint, T-Mobile US and Turk Telekom.

The Besen Group offers the following service portfolios: [Mobile Data Service Portfolio](#), [MVNO Service Portfolio](#), [MVNE Service Portfolio](#) and [HNO Service Portfolio](#).

The Besen Group offers the following training programs: [Mobile Wholesale Seminar](#), [US IoT Seminar](#), [US MVNO Seminar](#), [MVNO Seminar](#), [MVNO Workshop](#), [MVNE Seminar](#), [Cable MVNO Seminar](#) and [CBRS Seminar](#).

All of our services are tailored to ensure that each of our clients' needs are met and surpassed. We work on a project basis or retainer basis with mobile operators, MVNOs, MVNEs, mobile vendors, law firms, investment banks, venture capital and private equity firms from all around the world.

## Pricing

### CBRS Seminar includes:

- Session I: CBRS Overview
- Session II: CBRS Business Guide
- Session II: Use Cases for CBRS
- Session IV: Customized CBRS Business Plan Strategy & Business Case Development Workshops

For pricing information, please send an email to: [seminar@thebesengroup.com](mailto:seminar@thebesengroup.com).

The seminar price is for unlimited number of participants. The seminar price will vary for a customized seminar.

The duration of the seminar can be one day or half-day. Customers will be responsible for all travel related expenses including air, transportation, and lodging for the presenter.

In case, customers will need a training facility, all Regus business center expenses will be billed additionally.

## Payment

Full payment is required prior to the scheduled seminar date.

All payments should be made by check, wire transfer or major credit card.

To arrange for a wire transfer, please contact us at +1.703.981.8168 or by email to: [seminar@thebesengroup.com](mailto:seminar@thebesengroup.com).

## Scheduling

To schedule a seminar, please send your request to: [seminar@thebesengroup.com](mailto:seminar@thebesengroup.com) with your contact details and availability.

For a customized seminar, please contact us at +1.703.981.8168 or by email to: [seminar@thebesengroup.com](mailto:seminar@thebesengroup.com).

## Cancellation

All cancellations must be in writing. Cancellations received two weeks prior to the scheduled seminar date won't be responsible for any service charge.

A service charge of \$1,000 will apply to cancellations received less than two weeks prior to the scheduled seminar date within North America and a service charge of \$2,000 for all other international countries.

## Legal Notice

No part of this publication may be reproduced by any means in whole or in part without the express written consent of The Besen Group LLC and may not be changed or modified in any way. The Besen Group LLC does not accept any legal responsibility for any actions taken on the basis of the information provided in the seminar.

All opinions, assumptions, estimates and recommendations cannot be guaranteed and participants to the seminar use this information at their own risk. This seminar is provided as is without warranty of any kind, express or implied, including, but not limited to, the implied warranties or merchantability, fitness for a particular purpose, or non-infringement.

The Besen Group LLC reserves the right to cancel the seminar, modify, alter or otherwise edit the content of the seminar and change the price for the seminar at its discretion at any time. Furthermore, The Besen Group LLC accepts no liability for any loss or damage or unforeseen consequential loss or damage arising from the use of the information contained in the seminar. The seminar presentation is the exclusive property of The Besen Group LLC.

Certain images and/or photos on the cover page are the copyrighted property of Getty Images and are used with permission under license. These images and/or photos may not be copied or downloaded without permission from Getty Images.

No part of the seminar may be reproduced, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the written permission of The Besen Group LLC. A limited version of the seminar presentation will be provided to seminar participants.

All trademarks are the property of their respective owners. This seminar is for informational purposes only.

THE BESEN GROUP LLC MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS SEMINAR.

© Copyright 2018. The Besen Group, LLC. All Rights Reserved. Updated: September, 2018.