CBRS BY EDX WIRELESS

COMPREHENSIVE NETWORK PLANNING FOR CBRS DEPLOYMENTS

EMPOWER YOUR CBRS NETWORK DESIGN WITH EDX WIRELESS

CBRS, powered by the industry-leading SignalPro platform from EDX Wireless, is the ultimate tool for planning, designing, and optimizing networks using the Citizens Broadband Radio Service (CBRS) spectrum. Supporting a range of applications—from private LTE and 5G to fixed broadband and industrial automation—CBRS equips network operators, consultants, and enterprises with advanced capabilities to navigate the unique challenges of CBRS deployments, ensuring reliable, high-performance coverage across real-world environments. Additionally, CBRS supports compliance with the latest Broadband Data Collection (BDC) filing requirements mandated by the FCC.

KEY FEATURES

Real-World RF Planning Accuracy

Built on the powerful SignalPro engine, CBRS delivers precise radio frequency (RF) planning that accounts for real-world factors such as terrain, building materials, and clutter. This ensures optimal coverage, minimizes interference, and enhances network performance, even in challenging environments.

Regulatory Filings

CBRS facilitates compliance with the FCC's Broadband Data Collection (BDC) requirements, which mandate the filing of detailed information on the availability of fixed and mobile broadband services. The software supports the preparation of coverage maps and GIS file exports in line with the FCC's specifications, ensuring accurate reporting of covered and uncovered areas for fixed wireless and mobile broadband services. Users can configure study parameters to meet specific requirements for 3G, 4G LTE, 5G-NR, and terrestrial fixed wireless as outlined in the FCC's guidelines.

Flexible Network Design for Private LTE, 5G, and Beyond

Plan networks that support diverse use cases, including private LTE, 5G, and industrial IoT applications, using the CBRS spectrum for both indoor and outdoor environments.

Specialized LTE Studies and Simulations

Perform LTE-specific studies for standard metrics like **RSRP, RSRQ, data rate,** and **CQI**, applicable to both area-wide coverage and fixed multipoint network designs.

Traffic Modeling and Monte Carlo Simulation

Accurately predict network performance under different traffic conditions, enabling more reliable planning for peak usage scenarios.

High-Resolution Geodata for the 3.6 GHz Band

Leverage detailed geodata to model smaller cell sizes and clutter challenges specific to the CBRS band. The software includes **Cirrus high-resolution data, clutter height information,** and **3D building data** for thorough network design.

Automated Site Placement and Power Control

Use automated tools to optimally place CBRS base stations (CBSDs), saving time in site evaluation and enhancing spectrum efficiency with automatic power control features.

In-Building Network Design Support

Design indoor networks with **3D building models**, utilizing propagation models that address outdoor-to-indoor signal challenges. CBRS allows users to import **3D structures from AutoCAD DWG files** or flat images for comprehensive network modeling.

BROADBAND DATA COLLECTION (BDC) FILING CAPABILITIES

The **FCC's Broadband Data Collection (BDC)** program requires broadband service providers to submit updated coverage data for both fixed and mobile broadband services. **CBRS by EDX Wireless** enables users to configure projects for BDC filings by supporting various parameters specified in the **FCC BDC Requirements** document:

Mobile Broadband Availability Data

Configure coverage maps for mobile broadband services (3G, 4G LTE, 5G-NR) based on FCC parameters, such as **cell edge probability** and **cell loading factors**, ensuring compliance with coverage thresholds for download and upload speeds.

Fixed Broadband Availability Data

Generate coverage maps for fixed wireless services using propagation modeling that meets FCC requirements for **cell edge probability** and **receiver height ranges**. Export results in GIS formats like **ESRI .SHP** for easy submission.

BDC Filing Workflow

Users can set up their broadband project within SignalPro, define area studies, and adjust parameters to align with BDC requirements. Once studies are complete, users can export coverage maps in SHP format using bin ranges, ensuring accurate representation of signal level contours.

USE CASES

Private LTE

As LTE covers a broad range of use cases, CBRS provides tools that support deployments across various service areas and applications. With LTE-specific studies that include traffic and capacity awareness, users can determine hardware locations and analyze system performance under different scenarios.

In-Building Networks

For indoor and outdoor-to-indoor network designs, specialized propagation models account for hardware specifications and wall material attenuation. CBRS supports the creation of 3D building models and comprehensive coverage maps, while generating an automatic Bill of Materials (BOM).

Broadband Delivery

Planning fixed broadband networks in rural and suburban areas, or providing “last mile” connectivity, requires detailed modeling of clutter heights and foliage. CBRS enables accurate coverage analysis to ensure reliable service for homes and businesses.

IDEAL APPLICATIONS

Private LTE and 5G Networks

Design high-performance wireless networks for enterprises, industrial automation, and critical infrastructure using the CBRS spectrum.

Fixed Broadband Connectivity

Plan broadband networks for rural and suburban areas, optimizing coverage for "last mile" data delivery.

Industrial IoT and Automation

Deploy CBRS networks to support connected devices and automation across industries, such as **manufacturing, mining, energy, agriculture,** and **transportation.**

Indoor IoT Applications

Design networks for IoT applications within buildings, including **sensor networks, security systems, point-of-sale terminals,** and **indoor positioning.**

Outdoor and Campus-Level Communications

Plan push-to-talk and mobile data networks for outdoor and campus environments, ensuring reliable connectivity.

WHY CHOOSE CBRS BY EDX WIRELESS?

With a history of excellence in RF planning and wireless network design, **CBRS by EDX Wireless,** built on the **SignalPro** platform, offers advanced capabilities for planning and optimizing CBRS networks in real-world settings. The software equips users to design high-performance networks that meet FCC requirements for **BDC filings** and take full advantage of the CBRS spectrum for a wide range of applications.

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