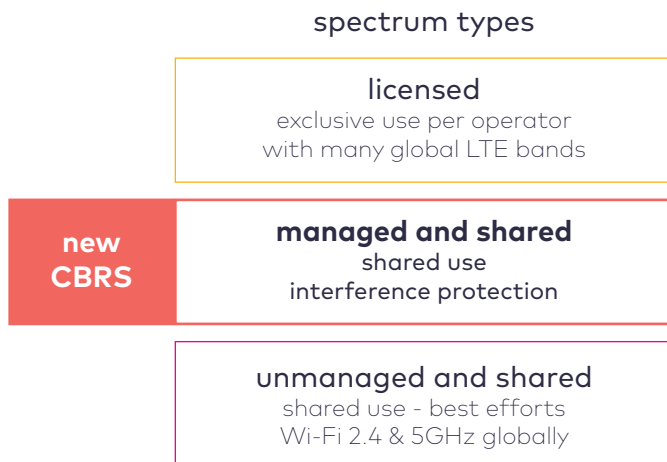


Amdocs SpectrumONE: your access to CBRS

Communication spectrum is a scarce, inefficiently utilized resource. Yet it remains a critical ingredient of network transformations, as the demands of devices and apps using those networks continue to accelerate.

To address the shortage of high-quality spectrum, The Federal Commissions Committee (FCC) introduced Citizens Broadband Radio Service (CBRS), which provides licensed shared wireless broadband use within the underutilized 3550-3700 MHz (3.5 GHz) band. Designed to support the wider economy, CBRS fosters the development of innovative new wireless broadband services, including 4G, 5G, network densification, private enterprise networks, last mile to building, point-to-point connectivity and more.



In the past, the 3.5 GHz band was allocated exclusively to the US Department of Defense and fixed satellite use. With the introduction of CBRS, FCC eased these restrictions to create a three-tiered spectrum access framework to accommodate a variety of commercial

uses on a shared basis with incumbent users. This access to spectrum and spectrum operations will be managed by a centralized dynamic spectrum access system (SAS).

The release of this newly shared spectrum has created new business opportunities for service providers. But to maximize these opportunities, it takes a qualified and experienced FCC certified partner for SAS Services. Amdocs, as one of the first companies to apply for FCC certification, is well-placed to help operators rapidly take advantage of this newly available spectrum.

The provision of successful SAS Services requires extensive experience in the areas of mobile RAN and complex OSS and network systems. Our rich experience in mobile networks, RAN provisioning, RAN optimization, network planning, site planning, spectrum re-farming, self-optimizing networks and managed services, together with our extensive portfolio of network solutions, means we can offer an effective, low-risk end-to-end solution for CBRS.

Beyond basic FCC SAS administrator tasks, we have identified a set of capabilities and services that enables service providers to be successful with CBRS. These can be tailored and prioritized to address each operator's business models and can include such capabilities as bulk CBSD planning, registering and day-to-day operations.

Main services include:

- Amdocs SpectrumONE: the SAS Administration service
- Amdocs Automated CBSD Rollout solution
- Amdocs ISEN (interoperation of shared & exclusive network) solution.

Amdocs SpectrumONE: the SAS administration service

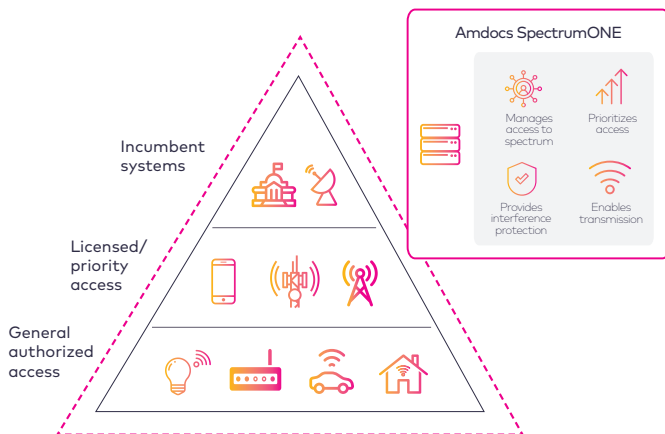
The Spectrum Access System (SAS) sits at the heart of the CBRS framework, dynamically controlling access to the spectrum across various geographic areas to enable multiple users to share the same band without radio interference. For incumbents, this means protection from interference caused by Priority Access License (PAL) and General Authorized Access (GAA) users. Meanwhile, PAL users are protected from interference by GAA users.

Key SAS capabilities include:

- Registration and authentication of CBSD identities and locations
- Determining and assigning maximum radiated power levels for the frequencies that CBSDs can use in a specific location
- Enforcing interference protection during incumbent activity and communicating changes of spectrum availability and transmission power during incumbent activity
- Synchronizing shared CBSD information with the other SAS administrators and loading the latest FCC data.

Amdocs SpectrumONE leverages proven technology and innovative deployment architecture to deliver:

- Remote access to hosted SAS Administration services
- CBSD registration services
- CBSD transmission grant services
- Incumbent & general interference services
- CBSD status services
- CBSD management and dashboarding services



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Complementary offerings for an end-to-end integrated solution

Amdocs Automated CBSD Rollout

Amdocs Automated CBSD Rollout solution accelerates the small cell (CBSD) rollout process. Capabilities include:

- Smart capacity: delivers automated capacity investment and optimization recommendations; combines ROI-based prioritization with engineering automation
- Network planning and design: ensures coverage and capacity objectives are achieved through high-level network planning and detailed design
- Network build and rollout: manages network build and orchestrates the overall rollout process to reduce time to launch
- Touchless integration: automatically discovers and manages configuration of new small cell devices for both the CBRS and LTE functions
- Operate, assure and optimize: ensures ongoing compliance with spectrum protection requirements via monitoring, optimizing, and automation.

Amdocs ISEN

The introduction of an additional LTE band brings further challenges to RAN planning and operations teams. One of the most unique is the interference caused by CBRS, especially in GAA channels, where it is possible for multiple CBSDs to be granted access to the same channel in the same location. Amdocs ISEN solution resolves this by providing information that enables better channel selection – either at the time of installation or during normal operations.

Your access to CBRS

Whether you simply need a top-notch SAS administrator or an end-to-end integrated solution, we are ready to help you accelerate your capacity endeavors.

Amdocs is a trusted partner with over 20 years of software heritage based on our expertise in open network technologies.

For more information, contact [Amdocs SpectrumONE](#)

