U.S. Oil, Gas & Mining Private CBRS Network Forecast, 2021 – 2026

U.S. Oil, Gas & Mining Private CBRS Network Forecast, 2021 – 2026:

CBRS Network Build, Integration and App Spending in Oil, Gas & Mining Facilities

A Market Study

Published Third Quarter, 2022
Version 1.0
Report Number: 03Q2022-05

iGR
12400 W. Hwy 71
Suite 350 PMB 341
Austin TX 78738

Table of Contents

Abstract

This report focuses on U.S. industries that extract oil, gas, and mineral resources. As of this writing, in the U.S. there are hundreds of operating oil and gas rigs, wells and refineries, and there are also more than 13,000 mines of various types. All these operations rely on wired, wireless and cellular communications systems.

Private cellular networks using LTE and 5G New Radio (NR) operating in the CBRS band, along with the accompanying Internet of Things (IoT) technologies and standards, allow companies operating in these industries to transition from their purpose-built, often legacy, wireless/cellular networks to secure, scalable, standards-based networks.

This report provides an overview of three aspects of the resource extraction activities in the U.S.:

- Oil rigs and wells
- Oil refineries
- Mines of all types, including coal, metal, and non-metal, that operate on the surface or underground.

For this report, iGR defines an in-building private cellular system as one that uses the U.S. CBRS band for 4G/5G-based services and is funded by a third party distinct from a Mobile Network Operator (MNO). Note that iGR includes campus-wide cellular networks within the “in-building” umbrella. In this report, the vast acreage covered by these operations are considered a “campus” deployment.

This market study provides a five-year forecast for spending for three types of spending on private cellular systems using CBRS in these U.S. extraction enterprises. The three types of spending include:

- Network build and operational spending: the costs associated with installing and operating the private CBRS network
- Network/systems integration spending: the costs associated with designing, sourcing equipment, integrating the network and applications, etc.
- Applications: the costs associated with purchasing and licensing the applications that run on the private CBRS network.

Key questions addressed in this market study include:

- What is a private cellular network?
- How can a private cellular network be used to create a connected oil, gas, and mining facility?
- What is the primary purpose of a connected oil, gas, and mining facility?

- What technologies are required for a connected oil, gas, and mining facility?
- What use cases are enabled in a connected oil, gas, and mining facility?
- How much will be spent to build and operate a private CBRS network in U.S. oil, gas, and mining facilities from 2021 to 2026?
- What is the forecasted network/systems integration spending associated with the private CBRS network opportunity in U.S. oil, gas, and mining facilities from 2021 to 2026?
- What is the forecasted applications spending for private CBRS networks in U.S. oil, gas, and mining facilities from 2021 to 2026?

Who should read this report?

- Systems integrators and wireless network integrators
- CBRS solutions vendors
- Mobile operators
- Infrastructure OEMs
- Financial analysts and investors.