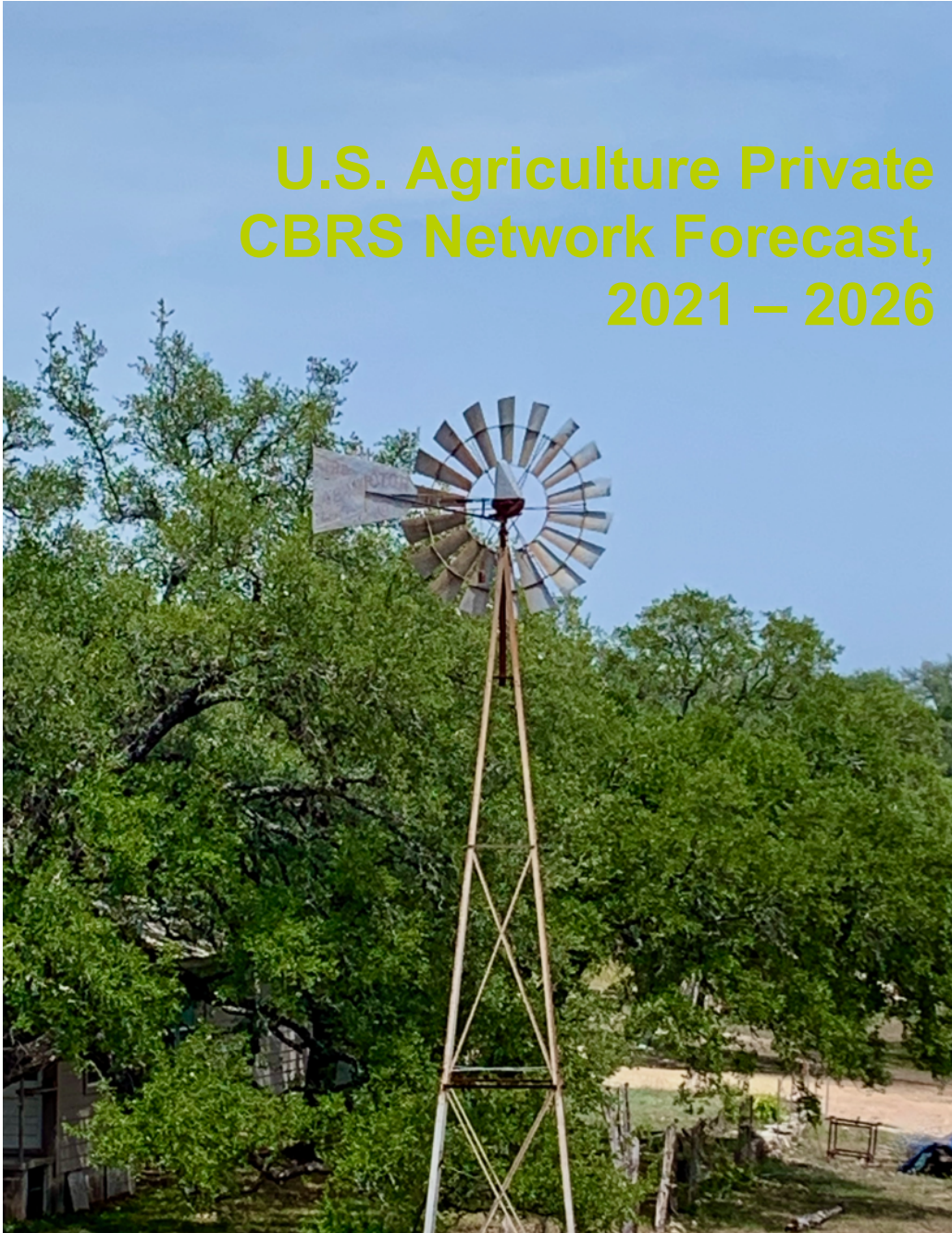


U.S. Agriculture Private CBRS Network Forecast, 2021 – 2026





U.S. Agriculture Private CBRS Network Forecast, 2021 – 2026: *CBRS Network Build, Integration and App Spending in Agriculture*

A Market Study

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Abstract

Cellular technologies (LTE in particular) have been used by farm operations for many years. More recently, IoT-centric radio frequency technologies – e.g., LoRa, Bluetooth, ZigBee and Z-Wave – have all been adopted to various degrees both in the agriculture sector as well as other industry sectors.

Compared to these other solutions, private CBRS-based networks have one key selling point: CBRS does not require an MNO signal source nor, even, a third-party service provider (other than for backhaul). Any business can install a CBRS-based network and never involve an MNO unless that enterprise wants their “private” 4G/5G network to become semi-private via a neutral host scenario.

iGR is generally bullish on the adoption of private CBRS networks in the agriculture sector. There are more than two million farm operations in the U.S. Many of these farms, particularly the larger ones, have adopted some type of advanced / precision agriculture solutions. Even a small percent of these farms adopting private CBRS networks would result in significant spending.

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, such as the acreage of a farm operation, within the “in-building” umbrella.

This market study provides a five-year forecast for spending for three types of spending on in-building private cellular systems using CBRS in U.S. farms. 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 farm operation?
- What is the primary purpose of a connected farm operation?
- What technologies are required for a connected farm operation?

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- What use cases are enabled in a connected farm operation?
- How much will be spent to build and operate a private CBRS network in U.S. farm operations from 2021 to 2026?
- What is the forecasted network/systems integration spending associated with the private CBRS network opportunity in U.S. farm operations from 2021 to 2026?
- What is the forecasted applications spending for private CBRS networks in U.S. farm operations 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.

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