



CONNECTIVITY FOR MOBILE AGRICULTURAL MACHINES

HIGHLIGHTS

- ✓ [Agrifac](#) is a Dutch manufacturer of innovative crop sprayers, spearheading smart and sustainable agriculture solutions based on the '4Es for growers' concept.
- ✓ [Capestone](#) is a distributor of mobile Internet solutions, IoT networks, and critical communications, providing solutions to telecom and IT resellers, system integrators, service providers, and manufacturers worldwide.
- ✓ Their joint solution provides Agrifac's mobile machines with stable connectivity and GNSS capabilities is our RUT956 router, bringing with it numerous control, security, and reliability features.
- ✓ Importantly, RUT956 was designed to withstand adverse industrial conditions, ensuring that no environmental or weather condition fit for growing crops would disrupt the device in any way.

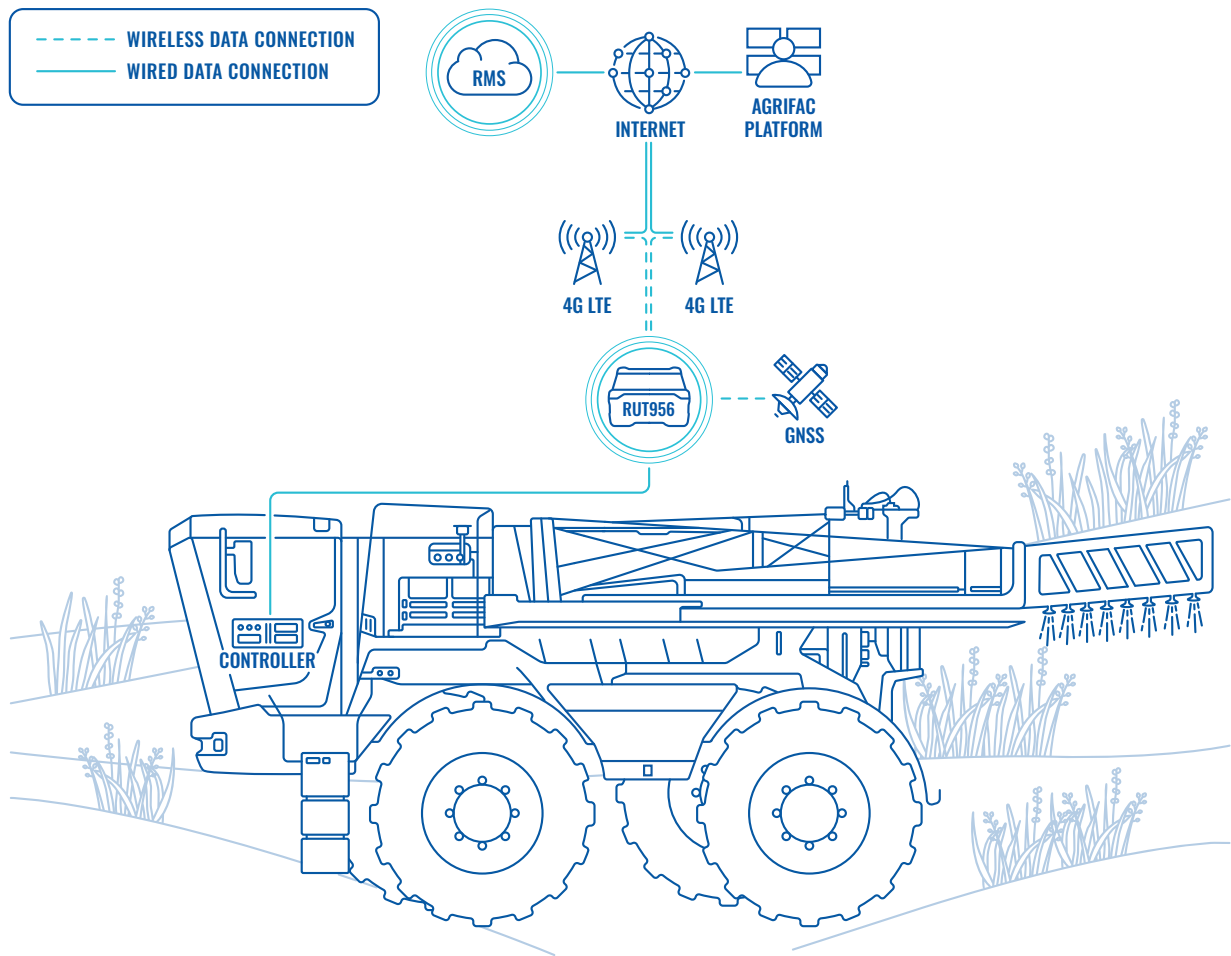
THE CHALLENGE – VAST TERRAIN & SHIFTING WEATHER

With over 8 billion people on this planet, saying the global agriculture market is vast would be an understatement. In 2022, this market grew from \$12.24 billion to \$13.39 billion at a CAGR of 9.4%, and is [currently projected](#) to reach \$19 billion by 2027. These numbers are the result of many factors, but chief among them is the rise of intelligent agriculture. This innovation capitalizes on IoT connectivity and automation tools to gather and analyze real-time data, and maximize efficiency.

However, despite the growing demand for IoT connectivity in the intelligent agriculture market, both for efficiency and sustainability reasons, implementing it requires overcoming a major hurdle: distance. In 2020, 47.38 million sq km [were reported](#) to be used for agriculture, globally. The majority consists of vast, open fields where mobile agricultural equipment is constantly on the move. Not exactly the best conditions for reliable Internet connectivity. But without that remote connectivity, automation and real-time data aren't possible.

Agrifac faced this issue when developing its self-propelled crop sprayers. It knew it needed the right connectivity device for the job, but the perfect device would also need to withstand the wide range of terrains and weather conditions its products are used in. Luckily, one of our devices was exactly what it needed.

TOPOLOGY



THE SOLUTION – DURABLE, HIGH-PERFORMANCE CONNECTIVITY

With the help of Capestone, Agrifac installed our RUT956 cellular router in each of its crop sprayers. Capestone also provided custom configuration that enabled this perfect fit. Connected via Ethernet communication, this industrial networking device provides connectivity to the mobile machines – creating a stable and secure mobile data communication bridge to Agrifac’s cloud server. On top of robust LTE Cat 4 connectivity and Dual SIM for extra reliability, this high-performance router has a number of features that make it shine all the brighter in this use case.

Firstly, RUT956 has GNSS capabilities for location services and time synchronization. This is paramount for a solution involving mobile equipment, like Agrifac’s industrial machines. Secondly, the router is encased in sturdy aluminum housing with plastic panels, ensuring that no environmental or weather condition fit for growing crops would disrupt the device in any way.

Lastly, and most broadly, RUT956 brings added control, security, and reliability to the table with a few of its additional features. Agrifac found great use in using the mobile module and FOTA updates, and sees potential in using MQTT broker and Teltonika Networks’ [Remote Management System](#) (RMS) for possible future upgrades to the solution.

