

Soil Moisture Monitoring

wanwave's soil moisture monitoring system offers a comprehensive solution for agricultural operations to optimize irrigation practices, enhance crop productivity, and conserve water resources. By deploying the solution farmers can make informed decisions regarding irrigation scheduling, water usage, and crop management.

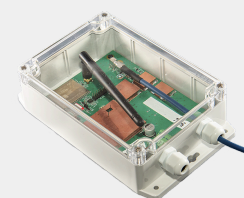
Key aspects of using wanwave's solution for soil moisture monitoring in agricultural settings include:

- 1. Real-Time Monitoring:** Wireless sensors continuously monitor soil moisture levels at various depths and locations within the field, providing farmers with up-to-date data on soil moisture content. This real-time information allows farmers to track moisture variations, assess plant water requirements, and adjust irrigation strategies accordingly to ensure optimal growing conditions.
- 2. Resource Conservation:** wanwave's soil moisture monitoring system contributes to water conservation efforts by helping farmers optimize water usage and reduce environmental impact. By avoiding over-irrigation and optimizing irrigation efficiency, farmers can conserve water resources, minimize energy costs associated with pumping and distribution, and mitigate the risk of soil erosion and nutrient leaching.
- 3. Seamless Integration:** wanwave's soil moisture monitoring system seamlessly integrates with precision agriculture technologies, farm management software, and irrigation control systems. Integration allows farmers to automate irrigation scheduling, remotely monitor soil moisture levels, and receive alerts. By integrating soil moisture data with other agricultural systems, farmers can streamline decision-making, improve resource allocation, and enhance overall farm productivity and profitability.

Hardware Components Used in this Solution



SOIL MOISTURE
SENSOR



WNG-20 NETWORK
GATEWAY

About the wanwave Network

wanwave offers the first true end-to-end Massive IoT ecosystem comprising a highly efficient & secure communication protocol, and a wide range of end-devices to serve any application or use-case:

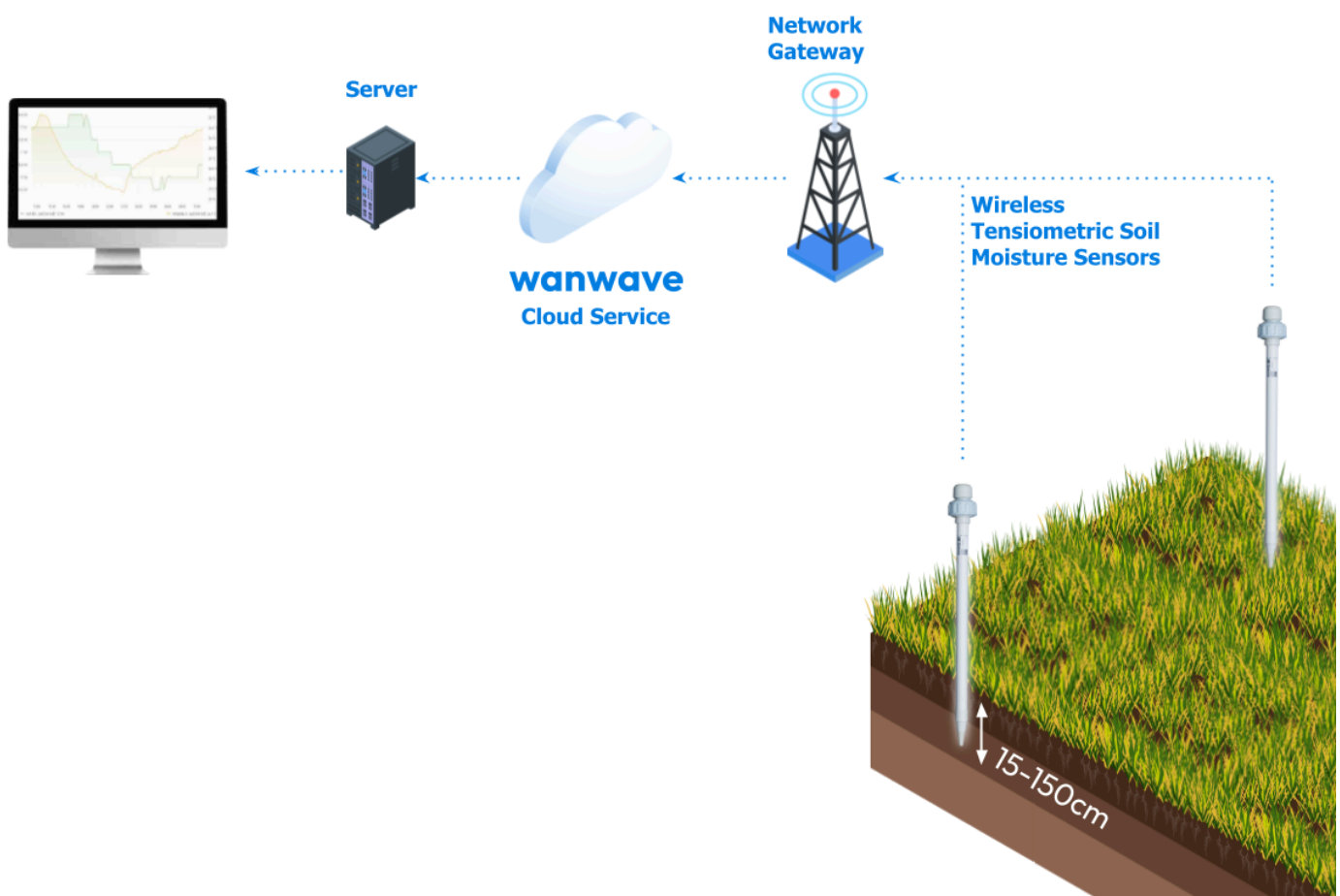
Learn more at <https://wanwave.com>.

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Mode of Operation

A sensor inside the housing provides continuous monitoring. Based on the measurement results, the unit calculates humidity and transmits data to the radio channel. The sensors are completely autonomous, with a built-in battery designed to support the transmission of 50,000 messages, which is equivalent to 5 years of operation when transmitting messages once an hour.

The transmitted information is received by the network gateways which automate the reception and transmission of messages between end devices and the **wanwave** server.



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