



AQUANTY INNOVATION HIGHLIGHT



COMPANY OVERVIEW

Aquanty is a leading-edge water resources science and technology firm specializing in predictive analytics, simulation and forecasting, research services, and the Internet of Things (IoT). Collectively, their team of scientists has been published in over 200 international peer-reviewed scientific journals. Aquanty's solution AgSat, in partnership with the Alberta Federation of Agriculture (AFA), is an online toolbox of open source and satellite information. AgSat provides farm producers across Canada with essential farm data.

LOCATION: WATERLOO, ON

TECHNOLOGY



Data Centre and Cloud

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A NEED FOR AFFORDABLE AGRONOMIC TECHNOLOGY

In farming, many field assessments are still performed manually. Manual assessments are costly in time and resources, and they produce delayed data. In response, some near real-time field monitoring solutions are beginning to come into the market that can help producers make automated agronomic decisions. Unfortunately, the services offered charge farmers per-acre. This leaves farmers who own large acreage, such as those in the Prairies, with no cost-effective tech solution for near real-time monitoring.

SECURE SOLUTIONS FOR ANY FARM

Seeing this problem, Aquanty developed AgSat, a cost-effective online toolbox of open source and satellite information that provides farm producers across Canada with essential farm data. Using AgSat, farm producers can optimize their agricultural production decisions and pinpoint areas on their land that may need more attention. The platform delivers satellite imagery, precipitation data, weather radar data, soil moisture, soil temperature, snow cover, crop inventory, land inventory, and topographic data all in one convenient place. This allows farmers to make the most informed decisions to maximize crop yields.

SCALE TESTING FOR GROWTH

Using the CENG Testbed, Aquanty completed traffic generation tests with and without caching to draw essential insights into their application's scalability. Overall, the AgSat platform was optimized to efficiently scale cloud environments, removing defects and lessening load times for users. As a bootstrapped company, Aquanty benefitted from CENG's free network services to rigorously scale test their solution. This CENG project supports the introduction of AgSat which is expected to fuel the company's growth.

**"Considerable
business value
was returned
to Aquanty by
demonstrating the
scalability of our
web application
under certain
conditions."**

Derek Steinmoeller

Scientist/Sr. Software Developer,
Aquanty

