



Optimizing Dairy Yields with Camera Networks, Computer Vision and AI

Digi Routers and Digi Remote Manager Optimize Feed Management, Continuously Observe Animals, and Increase Farm Transparency

Challenge

In the dairy farming industry, with its razor-thin margins, even small improvements that increase milk-per-cow yields can translate into important gains in profitability. That starts with cow comfort. Resting time, feed availability, and other behavioral improvements directly translate into higher yields.

Solution

Using computer vision and artificial intelligence, smart cameras in each barn continuously monitor and assess nutritional, behavioral, health and environmental activities that can impact production. Those cameras connect to a [Digi industrial cellular router](#) and a local server that provides local processing before that data gets shipped to a cloud server for further processing and analytics.

Digi IX cellular routers provide cost-effective, trouble-free reliability in a rugged, durable housing. [Digi Remote Manager®](#) (Digi RM), the cloud-based command center, facilitates easy setup, mass configuration, maintenance, and support for thousands of remote Digi devices and provides easy visibility into the health of the network.

Outcome

The application monitors the herd 24/7 to provide a complete behavior analysis, ensuring that cows display the behavioral patterns that result in maximum milk production and animal welfare. Each day, the farmer can access a dashboard of analytics culled from the daily data from each barn to increase resting time, improve cow comfort, and reduce costs due to lameness and related issues. With Digi RM, the company can centrally manage all devices and perform mass configurations and router updates without visiting different farm sites — many of which are in very remote locations.

“Between the rugged durability and reliability of Digi IX routers and the centralized manageability advantages that Digi Remote Manager gives us, we have the solid connectivity foundation that our application requires.”



For more information, visit:

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