

Axis network cameras monitor construction of remote fish farm.

IP cameras provide mission-critical data from a remote location and fill a vital marketing role for AgriMarine.



Organization:
AgriMarine Technologies, Inc.

Location:
Comox, B.C., Canada

Industry segment:
Commercial

Application:
Remote monitoring and marketing

Axis partner:
Tremain Media

Mission

AgriMarine Technologies Inc. of Comox, B.C., is a producer of innovative aquaculture fish-farming technology. The company uses proprietary, solid-walled floating tanks to meet the public's growing demand for sustainably raised seafood. However, the fish farms are built in remote marine locations, making it a challenge to monitor their construction. The company also wanted time-lapsed videos of the construction for marketing purposes.

Solution

AgriMarine turned to full-service media integrator Tremain Media to provide monitoring and daily time-lapse video of its construction site at Lois Lake, where it was assembling four fish tanks. To provide optimal coverage, both a fixed Axis network camera and a pan/tilt/zoom (PTZ) network camera were deployed onsite.

The PTZ camera allows AgriMarine to remotely adjust the camera's angle of view when the location of the tanks change, and the HDTV 1080p resolution provides detailed zooming when needed. Real-time images are stored at the edge on the cameras, on local FTP servers and pushed via satellite to time-lapse processing and storage system in the cloud.

Result

Prior to implementing the Axis network cameras, AgriMarine staff needed to travel for hours to retrieve video footage. With remote access, that time is saved, and AgriMarine can use the time-lapse footage and daily recaps to manage the project. Additionally, they can also use the clear and detailed images to support their marketing efforts.

“Remote monitoring with Axis network cameras is just what we needed. The 10-minute refresh of the images allows us to capture the information we need without the time and carbon footprint of travel, while the high-quality images and ability to manipulate the viewing angle allows us to zoom in and out to see exactly what we need to.”

Robert Walker, President, AgriMarine Technologies Inc.

Remote monitoring

AgriMarine has been involved with fish aquaculture since the 1980s using traditional net systems. In 2000, they became involved with land-based systems on Vancouver Island and discovered that, while the fish thrived within the tanks, the pump-ashore land-based farms were far too costly. Instead, the company deployed a team of designers and engineers to develop a solid-wall marine tank for finfish farming in the species' natural habitat. The eco-friendly, in-water tanks are 3,000 m³ in size and designed to reduce energy use, curb environmental impact and improve management of animal health.

Originally, AgriMarine installed analog cameras to monitor the tanks' construction, but the tanks were being built in the remote Lois Lake on Vancouver Island. Accessing the site required a three-hour ferry ride followed by another hour of driving, and this significantly limited how often their head office could retrieve footage.

“During the pilot project, we had to spend half a day getting to the site, so we could only do it every six days,” says Robert Walker, President of AgriMarine Technologies. “This wasn't acceptable, since we needed more timely information.”

Eyes on the ground and water

AgriMarine turned to Tremain Media for help. The Vancouver Island-based company provides remote video monitoring and daily time-lapse solutions that can be accessed over the Internet. They installed an AXIS Q6035-E PTZ Dome Network Camera and an AXIS P3364-VE Network Camera to monitor tank construction through time-lapse images taken at 10-minute intervals.

The high-resolution HDTV 1080p time-lapse video allows the design team to analyze specific details of construction without making additional trips to the site. Because of their ease of installation, the cameras can also be moved without hassle in the case of drift or tidal changes.

Both cameras target different locations to give a wide view of the farm: the PTZ camera follows tanks as they move, while the fixed camera is installed on a pole with a concrete base that can be moved if required.

Covering the distance

AgriMarine originally wanted to employ a real-time feed, but a constant data stream was too costly to transmit over satellite Internet, and they opted for time-lapse video instead. They can, however, activate a live video feed for special events or emergencies.

Each camera has a 32GB SD card onboard for local edge storage. This data is also backed up to two FTP servers on location and sent via satellite to Tremain Media's cloud-based visual data system, where it is managed by the company's Render Engine video management software. From there it is processed into daily time-lapse footage provided to AgriMarine in whatever size or format is needed.

“We have a lot of redundancy built into the system. We're dealing with a mission-critical implementation, and there's only one chance to get the footage,” Tremain says. “We only use Axis cameras for our time-lapse and monitoring systems because of their reliability and quality. As a videographer by trade, quality is key to me.”

Marketing in high definition

Beyond the ability to monitor construction, AgriMarine found the videos could also be used as an effective marketing tool to raise their profile in the industry.

“It's very exciting. At the same time as we're building the tanks, we can now show investors and prospects what we're building,” Walker says.

At a trade conference in Abu Dhabi, the time-lapsed video was the focal point of their display. “They found it really drew people to their booth,” Leah Tremain, owner and CEO of Tremain Media. “That type of 'booth bait' is really important, because their product isn't necessarily easy to understand if you don't see the size and scope of these projects.”



AgriMarine

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