Forward-Thinking Monterey Bay Aquarium Utilizes Arecont Vision® Cameras During Security Upgrades

Monterey Bay Aquarium, main ticking area.

The Customer

The Monterey Bay Aquarium has a rich history of innovation. Since its founding in 1984, the facility has become one of the world's leading public aquariums and ocean conservation organizations.

Monterey Bay Aquarium has produced significant insights into the life history of sharks, sea otters, and bluefin tuna. The aquarium also was the first to exhibit a living kelp forest, and in 2004 it was the first to successfully exhibit and return to the wild a young great white shark. It is

therefore no surprise that the Monterey Bay Aquarium desired the most innovative and state-of-the-art cameras as a key component for its security system, and Arecont Vision® was able to deliver what they required.

The Challenge

The aquarium has a huge campus, with multiple separate properties and an average annual visitation of two million people. Until recently, the Monterey Bay Aquarium relied upon up to 60 analog cameras for its video security needs. With such a large area to cover and with so many people to monitor, this type of system proved increasingly unreliable and insufficient to its growing security needs. The aquarium's security staff also found it a major inconvenience that accessories and other parts for the system were exclusive to the original provider, limiting the security team's options both technically and financially.

The footage from the analog cameras was monitored on monochrome screens and useful viewing of surveillance video was quite difficult at times. The quality of the images was low, and the inflexible nature of the cameras resulted in a number of blind spots throughout the aquarium's large campus.
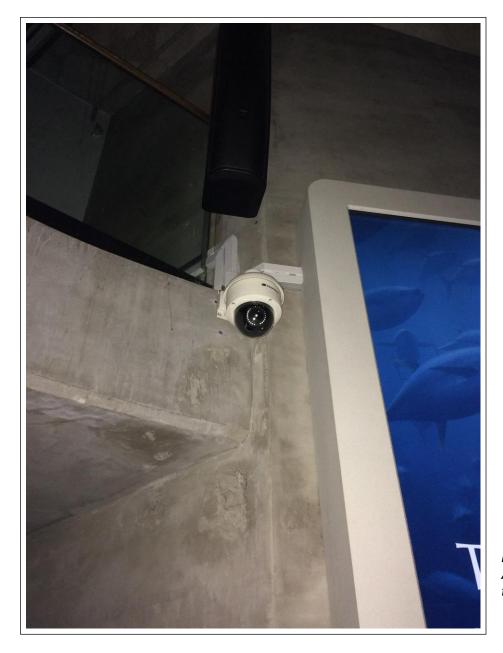
The aquarium also has some very challenging lighting situations, requiring more specialized, versatile cameras in order to properly capture images. "We have some very difficult light levels here. The reflections of the water tanks can make certain areas lighter on camera than they are in person, or vice-versa," stated Thomas Uretsky, Director of Security and Emergency Management for the facility.

The security team reached the point where they knew they needed to upgrade. "The system needed more flexibility, multiple views on one camera, the works, Mr. Uretsky said. "Blind spots needed to be eliminated, and we wanted as close to a 360-degree view as possible." After

thorough research, San Jose, California-based security integrator NSI Systems recommended

Arecont Vision for the camera solution.

The Solution

Mr. Uretsky and the team at Monterey Bay Aquarium collaborated with Arecont Vision regarding

what they were looking for, where coverage was needed, and how to best fit in into their budget.

Monterey Bay Aquarium chose ExacqVision as their video management system, another solid

partner to help upgrade their prior surveillance system.

Monterey Bay Aquarium, open sea tank coverage.

A range of different Arecont Vision cameras were ultimately deployed to serve the aquarium's varying needs. Arecont Vision MicroDome® cameras were ideal for the ticketing area and customer lines. The series includes Wide Dynamic Range (WDR) models, which can achieve clear images across extreme lighting conditions, such as those found in some of the indoor spaces at the aquarium. MicroDome cameras have an extremely low profile and only a 4" diameter, making them ideal for discreet security surveillance.

When asked for his thoughts about the MicroDome camera, Mr. Uretsky responded, "They are small and nearly invisible to anyone who doesn't know what they're looking for. The fact that they have such a small footprint makes them ideal for us in the ticketing and front entrance areas."

Another favorite at Monterey Bay Aquarium were Arecont Vision SurroundVideo® Omni G1 and G2 adjustable-view cameras. The SurroundVideo Omni series utilizes a patented 360° track where each of its four megapixel sensors can be moved to cover virtually any angle. Remote motorized focus simplified installation with the Omni G2. Combined with the ability to interchange lenses, the Monterey Bay Aquarium now has the unique and flexible camera solution it required. The customizable features of the camera also simplify future changes that may occur at the aquarium, saving time and money if construction or remodeling were to occur.

"The SurroundVideo Omni cameras are some of our favorites because we are getting four cameras in one. They have the most flexibility," said Kevin Wright, Monterey Bay Aquarium's security manager. "Our blind spots are much more limited, and we don't need to use nearly as many cameras as we previously had in those areas." Although each camera offers four separate views, only a single PoE (Power over Ethernet) cable and a single software license is required for integration with the Exacq software, further reducing costs.

The Result

The system has performed incredibly well to date. Not only was it installed on time, but it was completed within budget.

The Monterey Bay Aquarium monitors the system locally, 24-hours per day. The images are viewed on a dynamic video wall in the new Security Operations Center. While most footage is viewed on-site, some cameras have been enabled with the Exacq software for remote monitoring at satellite offices. For example, holding areas for rescued sea otters can be viewed remotely by a research team.

Arecont Vision cameras have helped the aquarium's security department in a variety of ways, one of which is increasingly common: addressing bicycle theft. Individuals will sometimes access a public recreational trail that runs along the aquarium's main campus to steal unattended bikes parked by visitors or staff. Unlike the previous analog surveillance system, Arecont Vision's megapixel cameras are able to provide the security department with good views and high-resolution images when reporting such incidents to the police department.

The project at Monterey Bay Aquarium fulfilled a vast array of surveillance requirements — indoor and outdoor scenes, large and small spaces, low- to high-lighting conditions — and Arecont Vision cameras addressed each of the challenges. The deployment of the new cameras made an impression on Mr. Uretsky and his team. One installation inspired ideas for another, and Arecont Vision helped make these potential security solutions a reality as well. The continual partnership between the aquarium, the system integrator, and Arecont Vision has resulted in an ongoing collaboration between the three entities.

"The reason we went with Arecont Vision was because it has a niche where a lot of manufacturers don't, with its multi-view cameras," Mr. Uretsky stated. Arecont Vision pioneered the first multi-sensor megapixel panoramic cameras in the surveillance industry in 2006, and has continued to enhance their capabilities, introducing adjustable-view Omni cameras in 2014. "These cameras have been fundamental as we systematically replace our old cameras with newer, megapixel versions. We are always improving and always adding cameras, so each time we've installed them we've been pleased."