

Customer

Heifer International in Little Rock, Arkansas, works with communities globally to end hunger and poverty and to care for the earth. Heifer provides gifts of livestock and training to help families improve their nutrition and generate income in sustainable ways. The non-profit organization refers to the animals as “living loans” because, in exchange for their livestock and training, each family agrees to give one of its animal’s offspring to another family in need. Heifer’s impressive World Headquarters facility in Little Rock blends art and eco-friendly innovation. The layout of the buildings allows natural light in, and sensors adjust lighting for overcast days and night. Heifer’s headquarters maintains the highest LEED (Leadership in Energy and Environmental Design) certification developed by the U.S. Green Building Council.

Challenge

Heifer International was expanding its campus and needed a surveillance system in their new warehouse. The previous analog system had been problematic and expensive to maintain as well as poorly designed and implemented. The customer sought a solution based on better technology to address surveillance needs both in the new construction and to upgrade the existing system.

Heifer International Expands, Upgrades Surveillance Using Megapixel Video



Arecont Vision megapixel cameras are used for indoor and outdoor surveillance at Heifer International.

MEGAPIXEL SOLUTION

Arecont Vision’s image quality and panoramic view functionality met the new requirements for Heifer International. A very critical need was the cameras’ compatibility with leading network video recorder (NVR) platforms, which provided flexibility to meet the customer’s needs now and in the future. Arecont Vision cameras are compatible with leading NVR platforms.

“Analog solutions are not in our arsenal,” said Zachary Wirges, President, Genesis Datacom LLC, the system integrator. “In today’s world, IT professionals are making the decisions for security in their environments.

We want to make sure we provide a solution that is IT-friendly, and rich with features that make sense to IT staffers.”

Genesis Datacom’s staff members average 15 years of experience as reflected in their certifications. The company’s focus does not stop at the “jack” but extends to providing solid, applicable IP solutions, including Arecont Vision megapixel cameras that are “edge devices” on the network.

The new system at Heifer International provides

SurroundVideo®

8 Megapixel 180° Panoramic IP Camera

AV8185DN

- 6 fps @ Full Resolution
- 0 Lux, IR Sensitive (Day/Night mode)
0.2 Lux @ F1.8 (Color Model)
- 4 x 2MP, 1/2” CMOS Sensor
- Over 6 Billion Operations Per Second
- Forensic Zooming
- Region-of-Interest (ROI)
- Image Cropping
- On Camera Motion Detection



AV8185DN

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surveillance for three buildings, and cameras are monitored by a central guard station. The IP-based system also makes it possible for multiple departments to monitor their areas, according to Tom Spinnato, Facilities/IT Specialist, Heifer International.

“Arecont Vision provided the most robust features, and the panoramic options are beyond impressive,” said Mr. Wirges. “The customer easily perceived the quality of the product, which allowed performance and versatility to be the focus of the design rather than price.” Mr. Wirges and Neil Jones designed the video system and performed the installation.

At Heifer International, three Arecont Vision AV8185DN SurroundVideo® Day/Night 8 megapixel H.264 IP cameras are now being used. The cost-effective cameras are designed for applications where mechanical pan-tilt-zoom (PTZ) devices might otherwise be used or where multiple cameras would be needed to view expansive areas. Each SurroundVideo® camera allows surface-mount or in-ceiling mounting options out of the box, an IP66-rated environmental chassis and a 5.5 inch polycarbonate dome that needs no external housing.

Arecont Vision Model AV8185DN is an 8 megapixel, 180-degree panoramic H.264 IP camera that incorporates four 2 megapixel CMOS image sensors that can be switched between day and night manually or automatically to provide 6400 x 1200-pixel panoramic images at 5.5 frames-per-second (fps). The panoramic view can also be set at lower resolutions to provide faster frame rates, such as 1600 x 1200-pixel images at 22fps or 800 x 600-pixel images at 88fps. Low-light sensitivity is 0.2 lux at F2.0. The 180-degree panoramic camera can substitute for up to 24 analog cameras.



The Arecont Vision 360° Surround Video® camera replaces multiple standard definition cameras that might be used to secure the entry of Heifer International's headquarters.

Features include on camera image cropping and up to four region of interest simultaneous streams in addition to the full scene.

In addition, Heifer International uses an Arecont Vision AV8365DN camera, which is a SurroundVideo® Day/Night 8 megapixel H.264 camera providing 360-degree panoramic views. Other features are similar to the AV8185DN.

Also used at Heifer is the Arecont Vision AV2825IR camera, a full-HD mode, 1080p H.264 MegaView™ IP camera that includes an

IR illuminator. The multi-megapixel camera is enclosed in an all-in-one IP66 (environmentally rated) and vandal-resistant cylindrical (bullet-style) housing. The camera also includes a 4.5-10mm IR-corrected vari-focal lens, and the IR illuminator has 48 infrared LEDs for a 25-meter (82-foot) IR distance. The camera provides up to 24 frames-per-second in 1080p mode, and has an embedded heater and blower.

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Other Arecont Vision cameras incorporated into the Heifer International system include Arecont Vision AV3155DN cameras, each a 3 megapixel H.264 network (IP) MegaDome® integrated camera, lens and IP66-rated dome providing 2048 x 1536-pixel images at 15fps and 0.2 lux light sensitivity at F1.4. Features of the all-in-one integrated camera, lens and housing include a 1/2” CMOS sensor and Arecont Vision’s MegaVideo® image processing at 80 billion operations per second. The camera employs H.264 (MPEG-4, Part 10) compression to minimize bandwidth and storage requirements while maintaining real-time image resolution. The Day/Night model (DN) features a motorized IR cut filter.

Finally, Arecont Vision AV1355 H.264 MegaDome® IP cameras provide 1.3 megapixel (1280 x 1024-pixel) images at 32 frames per second in an

Heifer International Expands, Upgrades Surveillance Using Megapixel Video — 3

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Arecont Vision megapixel cameras provide superior alternatives for wide area surveillance.

The picture quality and digital zoom capabilities of Arecont Vision cameras far exceed analog technology and allow Heifer International to retrieve usable video. Combined with recent cost reductions in NVR storage and network switches, the use of fewer cameras allows Heifer to transition to high-quality video at a minimum cost.

Megapixel imaging represents a significant upgrade in system functionality compared to standard-resolution cameras. In addition to lower bandwidth and storage requirements, megapixel cameras can dramatically decrease costs

related to other elements of a system, such as fewer software licenses, fewer lenses, and a decrease in man-hours needed to install the system.

Arecont Vision collaborates with various NVR suppliers such as Next Level Security Systems to ensure smooth integration of systems using Arecont Vision megapixel cameras. Arecont Vision also works with technology partners for full integration with complementary products, including servers, storage and other systems, which makes the integrator’s job even easier.

MEGAPIXEL BENEFIT

The increased image quality of megapixel video played the largest role in solving surveillance system issues at Heifer International. Expanded coverage areas and day/night options of Arecont Vision cameras also contribute to a successful and effective new system.

Image detail at the forensic level gives Heifer International the confidence in their surveillance system they previously lacked. “We can now see areas of the campus that were not previously addressed and acquire the necessary information to address whatever event occurs,” said Mr. Wirges. “The system can clearly deliver faces, license plates, vehicle details, physical details and even capture video in low light.”

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Arecont Vision is the leading manufacturer of high-performance megapixel IP cameras. Arecont Vision products are made in the USA and feature low-cost massively parallel image processing architectures MegaVideo® and SurroundVideo® that represent a drastic departure from traditional analog and network camera designs. All-in-one products such as the MegaDome®, MegaView®, MegaBall®, MicroDome™ and D4F/D4S/D4SO series provide installer friendly solutions. True Wide Dynamic Range (WDR) and remote focus/remote zoom enhance camera utility. Compact JPEG and H.264 series of cameras address cost sensitive applications. These innovative technologies enable Arecont Vision to deliver multi-megapixel digital video at IP VGA camera price points.

