Secure your premises.

Easily managed video surveillance with end-to-end Axis solutions.

Focus on... YOU.

We'll take care of the rest.

With an end-to-end solution from Axis that is easy to manage, you can rest assured that the security and safety of your premises will be in good hands. Even for the occasional operator, the user-friendly AXIS Camera Station video management software will meet your every need, so that you can focus on the rest.

Analytics for improved efficiency

Video and surveillance and more...

Voice announcements and alert

Control of other equipment such as lighting

Visitor management

A camera for every need

Out-of-the-box ready recording solution

“I’m finding the system very user-friendly. It’s easy to do recordings and go back after the fact and look at the footage. And I like the fact that I can monitor the cameras on my phone when I’m home at lunch or out of town and see what’s going on.”

Frank Louvelle, owner and pharmacist for
Wallace Drug Store. Ontario, Canada.

Stop that thief!

AXIS Camera Station and HDTV-quality network cameras help small town drug store catch them red-handed.

Organization:
Wallace Drug Store

Location:
Cochrane, Ontario, Canada

Industry segment:
Retail

Application:
Loss prevention

Axis partner:
Tech Galaxy

Mission

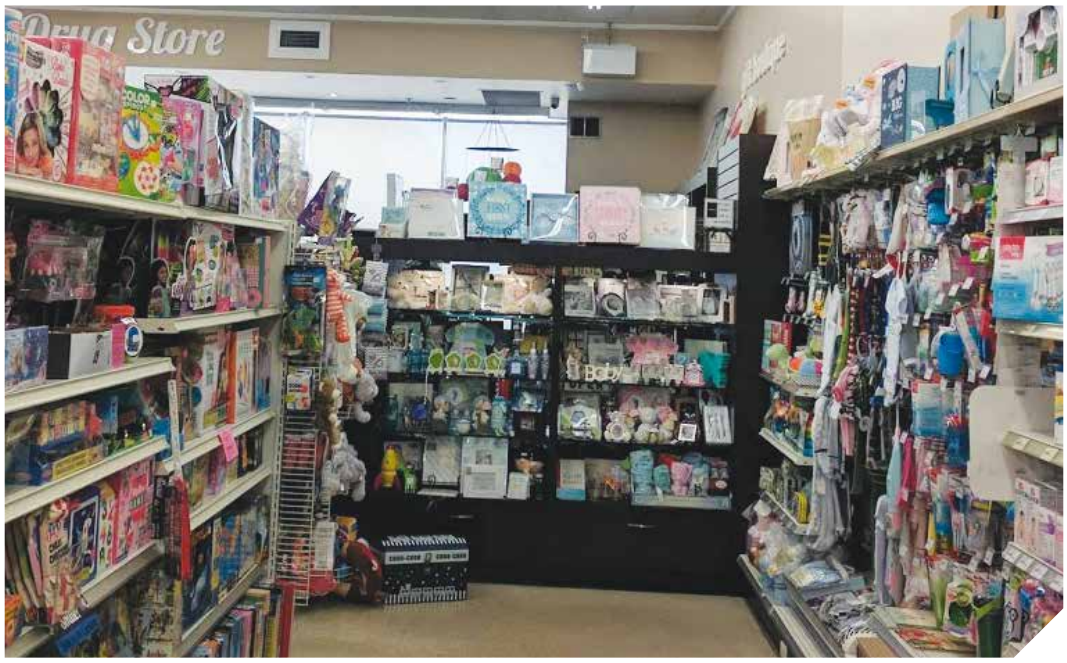
Wallace Drug Store in the small town of Cochrane, Ontario, knew petty theft was eating into their bottom line. But even when their old analog security cameras caught someone pilfering, often the image wasn't clear enough to prosecute. The store needed a much higher resolution surveillance system, one that could be easily learned and operated.

Solution

Wallace Drug Store turned to Tech Galaxy, a technology solutions provider and Axis partner, to design and install a new network video camera system that could deliver the forensic quality evidence they needed. Tech Galaxy installed a mix of Axis HDTV-resolution network cameras controlled by AXIS Camera Station, a straight-forward plug-and-play video management system. Tech Galaxy also installed Axis video encoders to integrate the drug store's legacy cameras into the new system. A mobile viewing app allows the store owner to monitor store activity remotely from his smartphone or tablet while at home or on the road.

Result

In the first six months of operation, the new Axis cameras caught half a dozen shoplifters stealing over $1,000 worth of merchandise. Thanks to the exceptionally high image quality of the video, the police were able to identified and apprehend the individuals in very short order.



Creating a theft deterrent zone

Despite its small town location, there's nothing small about Wallace Drug Store. The 8,000 square foot building is one of the largest retail buildings in town. In addition to a bustling pharmacy business and an in-store health and wellness clinic, the store carries $650,000 in inventory that includes home healthcare supplies, personal care products and sundries.

When the company moved to its new location five years ago, owner Frank Louvelle took great pains to design the floor in such a way as to make it hard to shoplift. The new store has lower shelving, wider aisles and lots of straight lines to minimize opportunities for theft. But despite everyone's best efforts, the thefts continued. And the old analog cameras weren't providing much help. Not only was the system complicated and cumbersome, the low-resolution video made it difficult to identify what was being stolen and who was doing the stealing.

Tech Galaxy stepped in with a simple solution. The company installed an Axis Camera Station system, complete with half a dozen HDTV-quality Axis network cameras and a 16-channel AXIS M7016 Video Encoder to integrate into the store's legacy analog surveillance cameras into a complete security solution. The integrator chose several AXIS M3104 Network Cameras operating in corridor view to monitor the aisles. The cameras' built-in infra-red illumination and Wide Dynamic Range (WDR) with Forensic Capture would provide crisp video even after store closing hours.

At the store's entrance, an AXIS M3024-LVE was installed to capture video of patrons as they leave the store.

The camera's infra-red illumination and automatic IR-cut filter ensure crisp video images day or night. To monitor pharmacy activity, Tech Galaxy installed an ultra-compact and covert AXIS M3046-LV. The versatile camera provides a 128° field of view as well as WDR and digital pan/tilt/zoom for closer observation as needed.

"I'm finding the system very user-friendly," says Frank Louvelle. "It's easy to do recordings and go back after the fact and look at the footage. And I like the fact that I can monitor the cameras on my phone when I'm home at lunch or out of town and see what's going on." Louvelle also appreciates how easy it is to download camera footage to a USB drive and hand it to the police for evidence.

No plausible deniability

In the first six months of installation, the Axis cameras caught half a dozen people stealing from the store. "That's more people than I pressed charges against in total for the two previous years," states Louvelle.

One woman came in empty-handed, proceeded to the store's purse section and took the largest bag she could find, stuffed it with items and left the store. "Everything she grabbed was caught on camera," shares Louvelle. "So we were able to give the police the actual SKUs of what she took along with the video."

"Our Axis system is getting a great reputation around town. One of my staff overheard a judge say that our cameras have such great resolution that it's easy to identify suspects."

Frank Louvelle, owner and pharmacist for Wallace Drug Store.

Another woman caught on video managed to steal $200 worth of cosmetics in a matter of minutes. "I was surprised how much somebody could steal in so short a time, especially in a store laid out the way ours is," remarks Louvelle.

In another incident, a man grabbed an expensive medical device, went into the washroom, stuffed it in his knapsack and then left the store. "We caught the grab on camera after the fact and sent the video to the police who subsequently arrested him," reports Louvelle.

Learning from what he saw on the video, Louvelle has made a few changes in the store such as moving certain high-theft items behind the counter and locking the washroom and requiring customers to request the key from an employee. He also added new pegboard anti-theft technology to prevent people from sweeping an entire display of products.

Improving accountability

Louvelle has discovered other benefits to having a quality surveillance system on site. "If I'm at home I can log into the dispensary camera and see if prescriptions are piling up in the drop-off section," explains Louvelle. "If it's busy, I'll cut my lunch short and go back. If it's not, I can take my time."

With cameras in every section of the store Louvelle can keep an eye on the staff to make sure they're doing what they're supposed to be doing. "If somebody's not at the front register and they should be, I'll know it," he says.

Gaining a reputation for toughness

Louvelle has plans to step up surveillance in the receiving area and loading dock with new Axis network cameras to monitor deliveries and discourage impulse pilfering. And as the old analog cameras reach their end of life he'll replace them with new Axis cameras as well.

In the meantime, Louvelle feels that the new Axis system is definitely helping Wallace Drug Store significantly lower incidents of theft. "I was surprised that we've arrested so many people in just a short period of time," states Louvelle. "But this is a small town. Word gets around. We're already seeing the number of incidents dropping."

According to Louvelle, even the local police and judges are wondering why anybody would steal from Wallace Drug Store given all the high-resolution cameras they have. "When people look at the video evidence, it's hard to deny their accuracy," declares Louvelle. "They make identifying people so very easy."

WALLACE DRUG STORE

TECH GALAXY

“With AXIS Camera Station, all we have to do is turn on our computer, select whatever Axis camera we want to use, adjust the volume of the Axis microphone and we’re good to go. When we do remote viewing, we can pull up whatever camera we want and stream it live to students in a different room. It’s really quite easy.”

Carol Butler, simulation lab coordinator,
Fanshawe College. Ontario, Canada.

Innovative mobile CCTV command centre: Axis products deployed.

End-to-end solution provided by Axis – maximum output for rapid deployment CCTV.

Organization:
Intelligent Security Integration (ISI)

Location:
Melbourne, Australia

Industry segment:
Commercial

Application:
Mobile surveillance, remote monitoring

Axis partner:
Intelligent Security Integration (ISI)

Mission

Intelligent Security Integration was looking to create a Mobile CCTV Command Centre – a van-based command centre that required the latest video surveillance and communications technology to create remote area CCTV for events and outdoor locations, with rapid deployment capabilities.

Solution

A complete end-to-end solution from Axis was the answer. Including network cameras, horn speaker and video recorder loaded with AXIS Camera Station, the van was equipped to rapidly respond to any need for mobile and remote area CCTV.

Result

The finished unit was unveiled at the Security Expo in Melbourne in July 2016 it received huge amounts of attention. As a result of the performance and versatility demonstrated, ISI was approached by a number of government departments and event organisations.

"We chose to partner with Axis as it is the top end of the market. The service is highly professional with superior expertise and support. With Axis, even the sales people are highly knowledgeable and technical which makes a big difference when deciding what solution to go for. Axis is a great fit for any company who needs that higher level of technicality and service."

Steve Bell, Managing Director, ISI.

Innovation

The story of the mobile CCTV Command Centre started back in 2008 on a trip to the UK for ISI's Managing Director, Steve Bell, where he saw many mobile CCTV vehicles operating. As a technician saw the opportunity to bring the product to the Australian market and meet the needs of mobile and rapid deployment CCTV here.

Steve talks about how the development process happened, "We knew we needed a vehicle that anyone could drive so we chose the largest vehicle available on a regular drivers license. Once we had the suitable vehicle we set about kitting it out with the most reliable and state of the art camera equipment – which is why we came to Axis."

The ISI mobile CCTV Command Centre has: eight roof-mounted HD cameras providing 360-degree visibility with either stationary or mobile recording capabilities; eight rapidly deployed HD cameras with GPS, 4G and point-to-point transmission options and two-week battery life; a 12.5 aluminum telescopic mast with a pair of 180-degree fixed HD cameras and one long range IR PTZ camera, ideal for perimeter protection.

Providing additional support for operations are: seven HD crowd controller body cameras with live streaming capabilities, an IP 2-way PA systems an onboard UHF2 way radio system with multiple handsets; five outdoor PoE network horn speakers to provide clear, long range remote communication to video surveillance applications.

Inside the MCCC is a full control room with two workstations and an observation area. Cameras are managed using Axis' flexible Camera Station software, which includes video content analytics. Video streams are monitored on six 21-inch HD LCD monitors and a pair of 28-inch 4K LCD monitors.

Live event and incident management

There's live streaming for event and incident management and a full onboard recording system for investigations. The unit has GPS tracking and remote viewing can be undertaken through the cloud, as well as at the MCCC. The MCCC has a generator, giving it a stand-alone power source and there are mains capabilities and integrated battery backup with solar support, giving 24 hours of operation without mains or generator.

Steve continued, "We chose to partner with Axis as it is the top end of the market. The service is highly professional with superior expertise and support. With Axis, even the sales people are highly knowledgeable and technical which makes a big difference when deciding what solution to go for. Axis is a great fit for any company who needs that higher level of technicality and service."

"Axis products are so versatile and everything is so flexible – open platform and works with anything. It future proofs any new client's installation or thinking, as anything that comes along in the future can integrate so seamlessly. "

A winning concept

There's been interest in the MCCC from many government departments, international interest from Hong Kong, Taiwan, Vietnam, and New Zealand so it's clear that the concept is a winner for ISI.

"There are many applications in which users need the ability to rapidly deploy an integrated security solution. Making it more appealing, the MCCC is capable and compact, and that makes it versatile – it's possible to get the MCCC quickly into place, set up fast and be operating in support of manpower teams – and there's room in it still. There's no truck license and it drives well, too," Steve added.

MCCC
MOBILE CCTV COMMAND CENTRE

INTELLIGENT SECURITY INTEGRATION
AUSTRALIA

Training tomorrow's health care professionals with Axis.

Fanshawe College records human patient simulation scenarios with Axis cameras, microphones and AXIS Camera Station to prepare students for demanding careers.

Organization:
Fanshawe College

Location:
London, Ontario, Canada

Industry segment:
Education

Application:
Remote training and monitoring

Axis partner:
Durell Control Systems, Inc.

Mission

Fanshawe College in London, Ontario uses clinical simulation in order to provide realistic training scenarios for aspiring health care professionals. During simulation, students interact with actors or high-tech simulation manikins (mannequins) portraying patients with clinical issues and independently providing care. The sessions are recorded so students can reflect on and review their performance afterwards—ultimately improving their practice. The lab originally relied on a complex analog camera system that generated unreliable, poor quality audio. The college needed a simplified solution that could deliver high-definition video synched with a crystal clear soundtrack.

Solution

Systems integrator and Axis partner, Durell Control Systems, Inc., recommended an IP-based solution featuring HDTV-quality fixed dome Axis cameras, Axis omni-directional microphones and AXIS Camera Station video management system.

Durell outfitted each simulation room with four to six cameras and paired each camera with its own high-performance microphone. Lab technologists manage the system with AXIS Camera Station in a separate control room. Video of the simulation is archived on dedicated servers and can be retrieved to share with professors and students on request.

Result

The Axis camera solution provides high quality audio and video that gives valuable insight to students during their learning and development. Managing sound and video through the same AXIS Camera Station software eliminates the synching problems the college experienced with its old analog system. The simulation training videos are easy to download and incorporate in presentations or broadcast over the web for remote viewing by more students. Based on this success, the system is being expanded to all simulation rooms at the college.

"With AXIS Camera Station, all we have to do is turn on our computer, select whatever Axis camera we want to use, adjust the volume of the Axis microphone and we're good to go. When we do remote viewing, we can pull up whatever camera we want and stream it live to students in a different room. It's really quite easy."

Carol Butler, simulation lab coordinator, Fanshawe College.

Recording reality-based clinical simulations

Located in London, Ontario, Fanshawe College is dedicated to producing career-ready graduates in a wide range of professions. Students in its health science programs get practical, hands-on training to fully prepare them for the life-or-death situations they will face on the job. To create the most realistic scenarios, the students interact with actors or high-tech simulation manikins in simulation rooms where a clinical environment can be created. Professors and staff view the scenario from a control room out of sight from the students. The simulations are recorded so the students can review their performance afterward.

"This kind of learning is very interactive. It allows students to put all the things they've learned together and actually apply it to a patient care scenario," said Carol Butler, simulation lab coordinator, Fanshawe College.

Originally, the recordings were made with an ad hoc analog surveillance system featuring DVRs, joysticks and a large mixing board for the microphones. While the video was valuable, the audio quality was unreliable, and the college was not able to successfully sync both pieces together. The college began to investigate more tightly integrated solutions. The college's security team recommended the Axis network cameras they used for campus surveillance.

"Our Security Systems Specialist, James Robertson, came into our rooms and saw all the equipment we had on the tables. He was shocked by all the stuff we were using," Butler said. "He suggested that I come and look at what they had. He said, 'The videos that we pull off here are good enough quality that we can send them to court.' He sold me right there."

Simplifying operation with an integrated solution

The college hired systems integrator Durell Control Systems, Inc. to design and implement the system. Durell installed four to six AXIS P3364 Network Cameras in each simulation room, pairing each camera with its own AXIS T83 Series Microphone. In the control room, Durell replaced the DVRs, joysticks and mixing boards with an AXIS Camera Station VMS. The Axis software allows the lab technologists to manage all of the equipment through one portal directly from their desktops. The simplicity of the software makes it easy for camera operators to obtain the best quality footage.

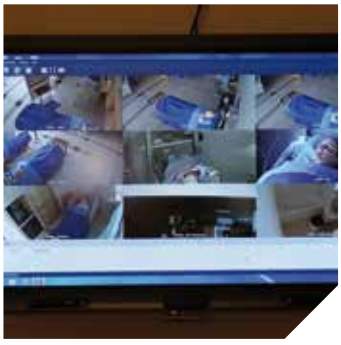
Improving training with clear audio and crisp video

The sessions are recorded and viewed in the control room, and the audio can be streamed to multiple headset stations so more than one person can listen at a time. After the simulations are complete, staff reviews the video with the students while the activity is still fresh in their minds. With the student's permission, a video can be exported for presentations or classes. The video can also be broadcast over the web for remote viewing in a separate room—an activity that had been hampered in the past by the poor audio quality of the system.

"With this new sound system, that is not an issue anymore. We can hear and see more clearly," Butler said.

With the increased clarity in both audio and video, faculty and staff can observe the scenarios as if they were right in the room with the students. The system has been so successful that the college will deploy it in all of their simulation rooms on campus, including a simulated operating room.

"This is all possible because it is an IP-based system," said Nazem Abou Chami, control engineer/VP for Durell Control Systems, Inc. "It's easy to scale up the system for future needs. You put a camera up, you get a data drop and the rest is done right at your computer."



FANSHAWE

DURELL CONTROL SYSTEMS INC.

Timber! Sprucing up the industrial process with Axis.

Hampton Affiliates branches out operational and safety efforts at lumber mills with network video.

Organization:
Hampton Affiliates

Location:
Portland, Oregon, USA

Industry segment:
Industrial

Application:
Remote monitoring, operational processes

Mission

Operating expansive lumber mills across the Pacific Northwest, Hampton Affiliates controls a group of industrial sites that play host to massive pieces of machinery that provide countless risks to staff. With the company's focus on the creation of forest products, management has a need to identify safety hazards before anybody becomes in danger.

Solution

Operators have found a common solution using a mix of Axis fixed and PTZ network cameras running on AXIS Camera Station to keep watch over their expansive facilities. Sticking to just two models of cameras across the over 800 deployed throughout their sites, setups are easily duplicated for countless people to manage and access.

Result

Hampton Affiliates has seen countless scenarios play out in which the video recordings provide high quality answers to operational and safety questions. Engineers are able to proactively address mechanical concerns across the mills and depend on the cameras daily for assistance. The entire process has become extremely simple and streamlined, allowing resources to be reallocated in a more productive manner.

"The whole process of bringing everything on board is extremely simple and streamlined. Your engineering team came through and did a phenomenal job paying close attention to our needs and making sure that they understood the seriousness of this operation."

Network Engineer, Hampton Affiliates.

Stemming across the Pacific Northwest

Hampton Affiliates has grown to be one of the largest manufacturers of forest products across North America, operating nine lumber mills spread through Oregon, Washington and Canada. With a focus on natural renewable resources, these mills primarily produce stud lumber, common precut wood pieces used in construction and other projects.

Each mill spans across multiple hundreds of acres in secluded parts of towns and remote from urban areas. While close to 100 individuals appear at each mill on a daily basis, the modern setups take only about 10 people to run from an operational standpoint. Therefore, many spaces within the property go without 24-hour attention and thus require remote monitoring in case of issues. Massive pieces of machinery and equipment come with certain risks, and it is top priority for operators to maintain a safe workspace for their staff.

Rooted in an Axis solution

A need for cameras in the facilities arose years ago when operators wanted the ability to identify safety hazards and mechanical concerns even in places without a staff member at any given time. An analog system previously in place provided intermittent real-time views but came with very limited recording capabilities.

"It was a very manual intensive process," said one network engineer with Hampton Affiliates. "It required bodies to physically be there and see what was going on, so we tied up a lot of resources."

Hampton Affiliates turned their focus to on an IP video system using Axis network cameras. AXIS M1014 Network Cameras have become standard across each facility, providing an effective option to operators who quickly become familiar with each camera's features. Certain spots, requiring more flexibility on recording views, deploy AXIS P55 PTZ Dome Network Cameras for those pan/tilt/zoom capabilities.

Operators at each site pull these streams together on AXIS Camera Station, running on their own individual servers and storing roughly seven days of footage from a majority of the cameras. Additionally, multiple mills have leveraged the AXIS Camera Station software on iPads, streaming camera views and previous recordings with the help of a 4G cellular connection.

"The software is coming alive for us," the engineer explained. "We keep seeing features that are very helpful to us; it is huge for us to be able to watch cameras in a synchronized time state, and having pre-set views ready to go has been a giant time saver."

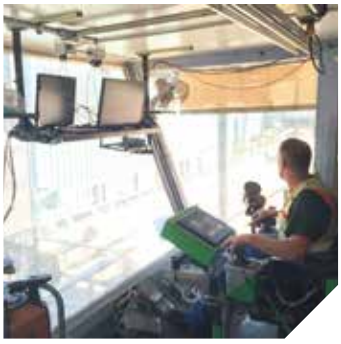
Eyeing over the forest

When a saw blew up in a remote space and recording data showed operators multiple camera angles of exactly what happened, the system already proved to be paying dividends.

"It's always humbling to see things occur, but we are able to use the footage to troubleshoot as happens nearly every day at all of the mills," the engineer remarked. "The engineers absolutely depend on this system to work and to work well."

Every day provides new and unique circumstances to each mill, and engineers rely on camera recordings to troubleshoot equipment failures. If a person is away from a station at any point, footage can provide insight directly into mechanical problems. In turn, issues are addressed much quicker and more efficiently on a frequent basis.

While the network video system was injected to promote safety awareness and operational proficiency, Hampton Affiliates has seen a potential need for security of their mills as well. One site has already shown interest in an outdoor camera for surveillance purposes. Beyond that, the goal is to eventually mainstream the system completely onto the network. "We want to continue to upgrade our cameras and standardize on [Axis]," the engineer concluded.



Intersport Megastore in Roermond uses Axis network cameras.

IP cameras ensure efficient store monitoring and loss prevention.

Organization:
Intersport Megastore Roermond

Location:
Roermond, The Netherlands

Industry segment:
Retail

Application:
Store monitoring and loss prevention

Axis partner:
Mosaic Consultancy

Mission

At 4,000 square meters in size, the Intersport Megastore in Roermond is a prominent member of the International Intersport organization. The retail store, located in a 35,000 square meter retail park in the south of the Netherlands, is open 363 days a year. A large surface area implies a large number of visitors and a wide range of products. Under these conditions video surveillance is an absolute necessity in order to be able to manage everything well.

Solution

Intersport chose IP-based surveillance systems, chiefly because of how easy they are to implement and use. These IP systems allow both images and power to run through the same cable, which saves a retail store of this size thousands of meters of cables.

IP systems also offer the best options for the future. In the summer of 2009, an order was placed for 25 Axis network cameras and AXIS Camera Station software. Their implementation went smoothly and one week later the HP camera server went live. Installing the software proved extremely simple and the system worked perfectly from the start.

Result

The cameras have a highly preventative effect. Intersport has noticed that the number of stock shrinkage problems has dropped significantly. Both customers and staff state they have no problems with the camera surveillance. It does nothing but increase security.

"In addition to the preventative effect, a couple of times we have also identified people who have left the store without paying. We can make excellent use of the clear images to inform both staff at our own store and those at other stores about these people."

Leon Joosten, Floor Manager, Intersport Roermond.

Intersport Roermond sells items for sports, leisure and outdoor activities to Dutch, German, and Belgian visitors. In May 2009, management decided to install a video surveillance system to obtain a better overview of the store and to reduce any possible damage caused by shoplifting. Various parties were approached to provide a quote for both an analog CCTV solution as well as for an IP-based system.

Leon Joosten: "The key factors in choosing a new system were image quality, ease of installation and value for money. Another important thing we considered was ease of use. If a security company is not available, the staff themselves must be capable of using the system, to assess images and process them."

Needs and requirements

Just about every supplier initially proposed traditional analog CCTV systems. Roy van den Bergh, owner of Intersport Megastore Roermond: "We did a lot of research, and also looked at what other businesses in the retail park were using in the way of video systems. We discovered, however, that the image quality of the systems we came across would be wholly insufficient. IP solutions were not included in most providers' quotes, or were offered at prices that were 50% higher."

"This turned out to be caused by the relative unfamiliarity with this new technology. Mosaic, a specialist in network solutions, did provide us with a good proposal based on Axis network cameras. IP-based surveillance systems seemed the most logical solution to us, particularly because they are easy to implement and use. For example, IP systems with PoE (Power over Ethernet) require just one cable for both video and power supply, which easily saves a retail store of our size thousands of meters of cables. Besides that, IP systems offer the most options for the future."

"IP-based systems enable us to view live camera images on multiple PCs, even from remote locations or to play back images that were recorded earlier."

Sharp images, day and night

The video surveillance system comprises four AXIS 210A Network Cameras, ten AXIS 211 Network Cameras, ten AXIS 216FD Network Cameras and one AXIS Q1755 HDTV Network Camera. The 2-megapixel AXIS Q1755 is installed at the store entrance to allow correct identification of visitors on entry. The images are then displayed in crystal clear quality on a large monitor, visible to all visitors, which strengthens the preventative effect.

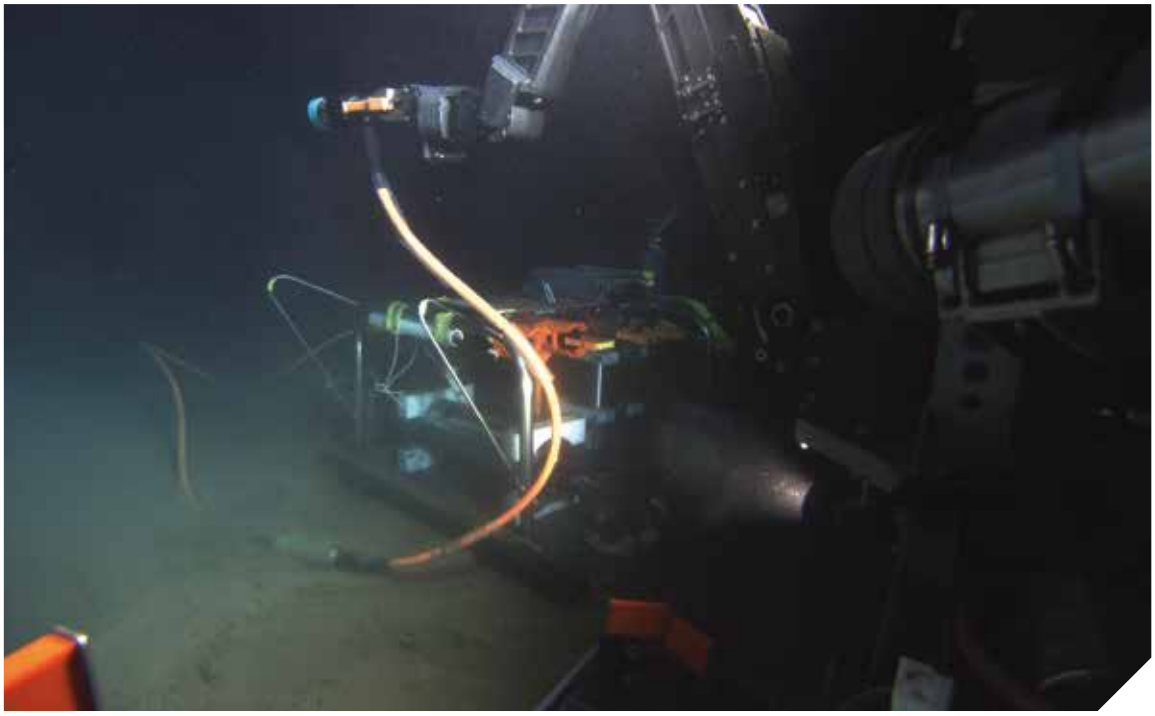
All cameras are linked using ordinary Cat.5e cables from an HP PoE switch in the cable conduit in the middle of the store. This switch is attached via Cat.6 cables to the camera server in the server room. The AXIS Camera Station Server software runs on an HP Z400 workstation with a Xeon Quad Core processor with 6 gigabytes of memory, 2.5 terabytes of storage and a 64-bit Windows XP system. A 42-inch full HDTV monitor is used to show the camera images in a series of different configurations. Up to fifteen images can be shown on one screen, thus giving an excellent idea of what is happening in the store.

Evidence

Video surveillance has already proven itself for Roy van den Bergh: "When we opened this retail store two years ago, it was a very exciting time. The economy was noticeably worsening and it absolutely did not seem like the right time to start a retail business. But both the range of products and the location have worked well and simultaneously the crisis has also offered good opportunities to improve purchasing margins. By using video surveillance, one can minimize losses through theft or disappearance, which has a positive effect on the bottom line."

Diving deep toward the ocean floor with Axis.

University of Hawaii ALOHA Cabled Observatory sends Axis PTZ network cameras three miles down under the Pacific Ocean to obtain continuous footage of deep sea marine environment.



Organization:
University of Hawaii ALOHA Cabled Observatory

Location:
Honolulu, Hawaii, USA

Industry segment:
Education

Application:
Remote monitoring

Mission

In 2002, scientists at the University of Hawaii (UH) School of Ocean and Earth Science and Technology were given access to a retired telecommunications cable three miles below the surface of the Pacific Ocean. The cable offered a unique opportunity to establish an unmanned underwater observatory that can continuously record and transmit data. Along with sensors measuring currents, temperature and more, the university wanted to capture video 24/7. Since the area is only accessible by remotely operated underwater vehicles (ROVs), the lab team needed technology that could function reliably under heavy environmental stress.

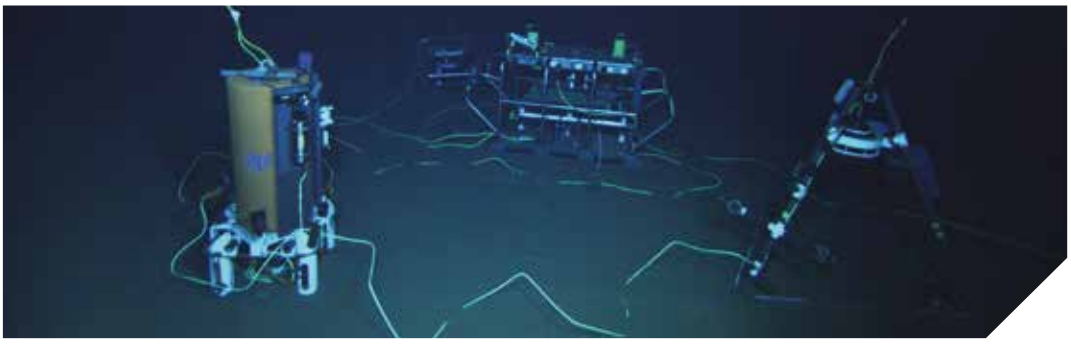
Solution

With analog technology being far too vulnerable to water pressure damage, the researchers deployed two Axis network cameras housed in pressure-resistant glass domes.

The pan/tilt/zoom (PTZ) cameras also offered intelligent features such as automatic guard tour and H.264 compression that helped UH explore the depths most efficiently. At the surface, the university is able to record and manage video easily with the user-friendly AXIS Camera Station video management system (VMS).

Result

The Axis cameras, mounted on tripods equipped with LED lights, give researchers an uninterrupted view of life on the ocean floor. Biologists captured footage of unknown creatures, and they can observe behaviors that previously went unseen. The university also streams the video live on its website and shares the footage with schoolchildren at various events to inspire an appreciation for ocean life.



Seeing beneath the waves

The world's oceans hide many secrets deep underwater and far from the shore. In 2002, AT&T donated a retired telecommunications cable to scientists at the University of Hawaii (UH) School of Ocean and Earth Science and Technology that was previously laid three miles below the surface of the Pacific Ocean. The cable supplies continuous power for research instruments and transmits data around the clock. Over the next decade, the university developed a remote underwater research station called the ALOHA Cabled Observatory (ACO).

In addition to sensors gathering data about water pressure, salinity, ocean currents and temperatures, the ACO wanted cameras that could provide uninterrupted footage from an environment still shrouded in mystery.

"The long term observation of the changes in the world's oceans is considered one of the keys to understanding the changes to our planet. A submarine or boat passing through the area can take measurements, but what happens the other 99.99% of the time?" said Brian Chee, UH School of Ocean and Earth Science and Technology.

Taking network video to new depths

The Observatory is managed by a remotely operated underwater vehicle (ROV), which costs tens of thousands of dollars to rent. Because of the expense, the lab needed camera technology that would require as little maintenance as possible. They determined analog cameras were far too susceptible to damage under heavy water pressure.

"Unfortunately, when you're dealing with 500 atmospheres, cables do change and deform over time," Chee noted. "Because of the way analog cables mix power and signal, those changes can dramatically affect the quality of the image."

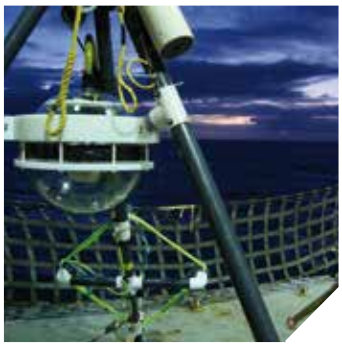
In contrast, a network-based camera produces a digital signal that would be much less affected by the changes. "There's no tuning process involved," Chee added.

The ACO selected Axis network cameras based on their reputation for quality and reliability. They first sent down an AXIS 214 PTZ Network Camera, followed by an AXIS Q6035 PTZ Network Camera two years later. The cameras are encased in pressure-resistant glass domes and secured to a tripod frame with LED lights illuminating the area.

A scientist at the surface records the video with AXIS Camera Station. Even though he did not have experience with VMS technology, a scientist was able to learn how to use the AXIS Camera Station software quickly and operate the cameras with ease. Additionally, the observatory uses AXIS Q6035's intelligent features to improve the efficiency of their research, such as the PTZ functionality to manually adjust viewing angles and pre-set guard tours to observe specific areas automatically. With H.264 compression, the ACO can capture HDTV-quality 1080p resolution without overriding the other data coming through the pipe.

With the current setup in place, the camera station underwater is adjusted entirely remotely without needing to bring the system up to make individual adjustments.

"We only have 100 megabytes per second coming up that underwater cable, and we've got a lot of data we can't afford to lose," Chee said. "With H.264, I can change the amount of bandwidth the video stream will take. That feature alone made it worthwhile using the AXIS Q6035."



"Because of the effects of water pressure, damage to the cable connecting our cameras to the observatory can dramatically affect the quality of the image. With a network-based system, it's all digital and it is less susceptible to those types of changes. The Axis cameras have been ultra-reliable. We've actually had more problems with the lights than we have had with the cameras."

Brian Chee, UH School of Ocean and Earth Science and Technology.

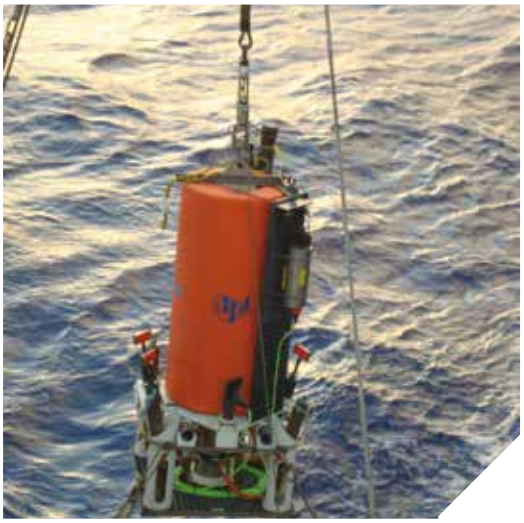
Discovering the ocean's beauty in the classroom

The Axis cameras open up a 24-hour window to the ocean floor. The ALOHA Cabled Observatory is already leading to new discoveries, including recording unidentified creatures and documenting behaviors that largely go unseen.

"Biologists are absolutely clamoring for camera time," Chee acknowledged.

In addition to scientific work, the video is live-streamed for the public on the ACO website. Members of the project also share the video with schoolchildren at functions like the Coast Guard's SeaPerch project, Maker Faire, and individual unique visits to schools. SeaPerch is a robotics program that sets up students with resource-filled kits that allow them to learn how to assemble their own Remotely Operated Vehicles (ROV) through engineering and science lessons in the classroom. With this outreach, the observatory hopes to inspire wonder about life under water.

"Nothing gets schoolchildren excited more than being able to take a peek three miles under water and see what kind of things are down there," Chee said.



“Many of our customers travel from far and wide and spend the whole day at the store. Thanks to the cameras, our sales staff can see when a customer needs help and when they want to test microphones or listen to speakers.”

Stefan Thomann, Head of IT at Thomann GmbH, Germany.

Always in the right rhythm with AXIS Camera Station and musical equipment retailer Thomann.

The largest retailer of musical instruments relies on Axis network cameras in its warehouse, its outdoor area and its showrooms.

Organization:
Thomann GmbH

Location:
Treppendorf near Burgebrach, Germany

Industry segment:
Retail

Application:
Safety and security, customer service, logistics monitoring

Axis partner:
Bechtle AG

Mission

Thomann GmbH, a family-owned company, is Europe's largest retailer of musical instruments, selling its products to over 6 million customers. As a professional, the company aims to provide top-notch advice and customer service to its customers, whether their instruments are for solo artists, bands, DJs or orchestras. Sales take place online and in a 6,000 m² store in the Bavarian town of Treppendorf. Thanks to the company's huge success, the showrooms have been expanded continuously over the past 60 years. Individual theme worlds have been created, which often have "blind spots". Cameras provide valuable images here. Another field of application is the extensive warehouse, which contains about 80,000 products at 18,000 pallet storage locations.

Solution

A professional video security system is needed to monitor and ensure the security of both the warehouse and the showrooms. In the showrooms, the cameras enable the staff to see where in the vast area the customers are located so they can go to them and provide service and advice.

In the warehouse and the packing area, the cameras serve as extra eyes to help monitor logistics processes. In addition, there are cameras in the outdoor areas to secure the accesses to the building. For its video management software, Thomann uses AXIS Camera Station, which combines with the cameras to form a perfect fit.

Result

Currently, more than 120 cameras are in use, managed by AXIS Camera Station software. This makes the search for the relevant video images quick and uncomplicated in the event of an incident. New camera setup is simple, and done with just a few clicks. With a growing company like Thomann, this guarantees further scalability. The security cameras are located indoors in the warehouse and the showrooms, as well as in outdoor areas. The addition of more cameras is being planned to ensure security and further optimize service.

What began as a small business in 1954 is now an international company with both online shopping and a store in the Bavarian town of Treppendorf near Burgebrach, Germany. Thomann GmbH is family owned and is the largest retailer of musical instruments in Europe. The Company has an inventory of 80,000 products in its warehouse, and up to 25,000 packages are shipped out each day during the Christmas season. The family credo – passion for music – has been the guiding star throughout the Company's history. At present, more than 1,200 employees provide professional advice. Whether it is the person's first musical instrument, a unique violin for a professional, or a state-of-the-art mixer for the DJ scene, Thomann has specialists for each individual musical instrument who are ready to provide sound and honest advice.

A particular highlight is the simulation room, where any musical situation can be simulated. Does the customer want to know how the instrument would sound in a concert hall or in a church? No problem. In addition, trained employees tune each individual musical instrument before it is delivered to the buyer.

As a musical instrument manufacturer, you can also present your product to potential buyers in the amphitheater. You are then also given the option of making these melodious presentations available on the internet.

Improved customer service with network cameras

Historically, the showroom has grown steadily over the past few decades, with additions, conversions, and subdivisions into individual theme worlds. For this reasons, there are areas that are difficult for the staff to keep an eye on. To remedy this, Axis cameras have been installed to enable employees to see when customers are in these areas.

This not only facilitates the work of the sales staff, but also improves service and thereby increases customer satisfaction. Thomann's aim is to make the customer's time in the showrooms as pleasant as possible, including the opportunity to look at the products in peace. Thanks to the cameras, the sales staff can see whether the customer has already been approached by another salesperson.

Another challenge is the occasional credit card fraud, which can now be quickly investigated thanks to detailed video images. The cameras in the warehouse and at the packing stations ensure that the process runs smoothly. The cameras act as extra eyes in the logistics area and monitor whether the transport boxes travel from A to B as required. Up to 25,000 packages are shipped out each day during the Christmas season. A coordinated and flawless process plays a key role in achieving this. Thomann is also planning to expand the security system with an automatic alarm that is triggered when a transport box does not take the prescribed route.

The cameras also record the packing process. In the event of a damage or loss claim by the customer, Thomann can then quickly see whether the product was correctly packaged, and whether a part was lost during transport or is in the box and simply overlooked by the customer.

Video management software delivers video images with just a few clicks

In certain cases, it is important to have access to a professional video management system that is easy to operate. For example, if there is a theft the relevant video images must be made available quickly and without great effort.

"As a family business, it is important to us to continue delivering a high level of quality and professionalism. This includes a professional security system. In addition to security, we are also optimizing our customer service. Many of our customers travel from far and wide and spend the whole day at the store. Thanks to the cameras, our sales staff can see when a customer needs help and when they want to test microphones or listen to speakers. We look forward to further application possibilities with the cameras."

Stefan Thomann, Head of IT at Thomann GmbH.

Thomann has recently begun using AXIS Camera Station 5. This system has been developed specifically for the needs of small and medium-size businesses and is in use worldwide in over 50,000 installations. The advantage: AXIS Camera Station increases system reliability since the software works well with the wide range of network products from Axis and their features. A setup assistant with automatic camera recognition facilitates installation. Thus, the video surveillance system is ready for use within minutes. In general, the software offers simple and intuitive operation. Another advantage is the Mobile Viewing app, which enables the user to retrieve video images remotely, without having to be directly at the scene.

Conclusion

Axis network cameras support the sales staff in the showrooms and deliver an overview of the processes in the warehouse and the packing area. Thanks to AXIS Camera Station video management software, the musical equipment retailer can quickly and easily access video images. In addition, Thomann plans to use additional cameras, some with intelligent applications, to further optimize service and security. For example, because the company is so pleased with their experiences, they plan to use Axis hardware and software in the upcoming construction of a new building.

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MUSIC IS OUR PASSION

About Axis Communications

Axis offers intelligent security solutions that enable a smarter, safer world. As the market leader in network video, Axis is driving the industry by continually launching innovative network products based on an open platform - delivering high value to customers through a global partner network. Axis has long-term relationships with partners and provides them with knowledge and ground-breaking network products in existing and new markets.

Axis has more than 2,700 dedicated employees in more than 50 countries around the world, supported by a global network of over 90,000 partners. Founded in 1984, Axis is a Sweden-based company listed on NASDAQ Stockholm under the ticker AXIS.

For more information about Axis, please visit our website www.axis.com

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