

2024 CASE STUDY SUMMARY BOOK Overview | Retail | City Surveillance | Financial Services | Transportation | Education | Hotel / Residence | Commercial Bldg. | Healthcare | ETC 🏠 📃 2

## **About This Book**

## **Summary Book Overview**

Since 1990, Hanwha Vision has pioneered the global video surveillance industry through its mastery of world-class optical design, image processing, and cybersecurity.

Beyond mere monitoring, our vision solutions leverage cutting-edge technologies, like edge Al and Cloud, to quickly and efficiently transform collected data into valuable insights, empowering customers with actionable intelligence.

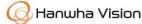
This book showcases real-world examples of why companies, in nearly every industry, are choosing Hanwha Vision's security systems and Al-powered vision solutions to:

- Enhance security for employees and customers
- Reduce costs
- Improve customer/shopper experience
- Maximize operational efficiency

For more information, please visit HanwhaVision.com

#### User Guide

Hanwha Vision 2024 Case Study Summary Book is an interactive PDF. Simply click the icons at the top of each page to navigate to the specific section you're interested in.



## **Value Proposition**

# **Our Solutions Can:**

Create safer environments for employees, customers, and partners

**Enable easy monitoring** for your entire operations from entrances/exists, parking lots, reception areas, operating centers, shipping, etc.

**Provide deeper insights into** the customer experience, and the efficiency of your staff and operations, with license-free Al data analytics

**Deliver high-quality images** even under poor light and extreme weather conditions

**Help you make more informed business decisions** to reduce costs, delight customers, and increase profits



#### **INNOVATION LEADER**

Since 1990, Hanwha Vision has set the benchmark for innovation in video surveillance. Today, we are once again leading the industry's transition, as we accelerate the launch of new intelligent camera solutions that are Al-powered, cloud-enabled, and deliver data, instantly, at the edge.



#### SUPPLY CHAIN EXCELLENCE

As a direct manufacturer, Hanwha Vision owns and operates facilities to design, develop, test, and build all of our own products. This is a significant supply chain advantage that we have over many competitors who typically outsource production to various third-parties.



#### **INDUSTRY EXPERTISE**

Our industry experts deliver consultative support and training to guide partners and end-use customers through every phase of a project – from the earliest planning stages, execution, and post-installation analysis. Their deep understanding of all industry challeng es and regulations enable them to create the most cost-effective video surveillance solutions.



## **FLEXIBLE FORM FACTORS**

Our more than 350 types of video surveillance solutions are available in a wide range of rugged form factors. This flexibility allows our partners and end-use customers to address any security and surveillance needs, and easily comply with all building, health, and safety requirements.



#### CYBERSECURITY HARDENED

Hanwha Vision's innovative hardware technologies and usage of cybersecurity best practices ensure that our network and IP camera devices meet the highest levels of security achievable.

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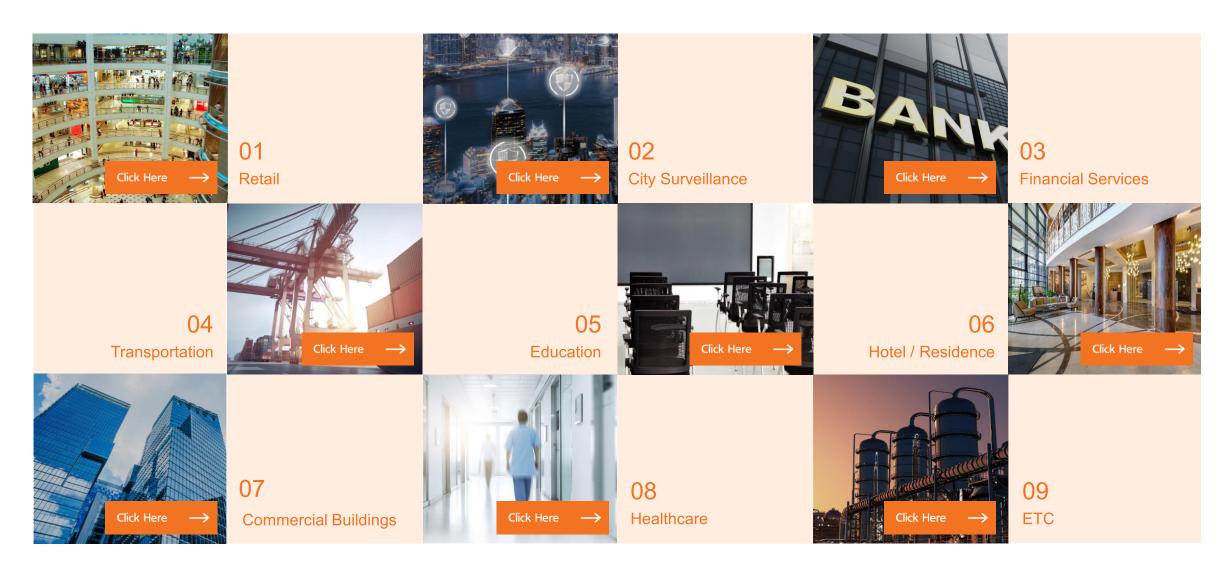
## **Our Customer**

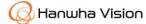
Key case study location



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## **Our Verticals**

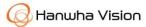




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## **Case Studies Overview**

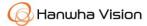
NO	Vertical	Country	Case Study	Year of Installation (or Announcement)
Î	Retail	United States	MOD Pizza	2023
		United States	Justice Cannabis	2022
		United States	Kirkland's Home Décor	2020
		Vietnam	Innisfree in Ho Chi Minh and Da Nang	2020
		Austria	STORE SAFE PEOPLE	2020
	City Surveillance	Denmark	Vorbasse Market	2023
		Italy	Piazza Lucio Dalla	2022
		Italy	Pedemontana Veneta Highway	2022
		Czech Republic	City of Turnov	2019
		Italy	City of Bologna	2019
		Canada	<u>Airdrie</u>	2019
	Financial Services	United States	VyStar Credit Union	2022



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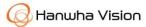
No	Vertical	Country	Case Study	Year of Installation (or Announcement)
	Financial Services	United States	Wilson Bank & Trust	2021
		United States	<u>Columbia Bank</u>	2019
<u> </u>	Transportation	Türkiye	Yalova Ro-Ro Port Terminal	2024
		Türkiye	Assan Port	2022
		Türkiye	Rize-Artvin Airport	2022
	Education	United States	Putnam City School District	2022
		United Kingdom	Glasgow Science Center	2021
		United States	South Pittsburg High School	2020
		United States	Army and Navy Academy	2020
Q#	Hotel / Residence	Czech Republic	MVM Group	2023
		United States	We-Ko-Pa Casino Resort	2021
		United States	Gaylord Opryland Resort and Convention Center	2021



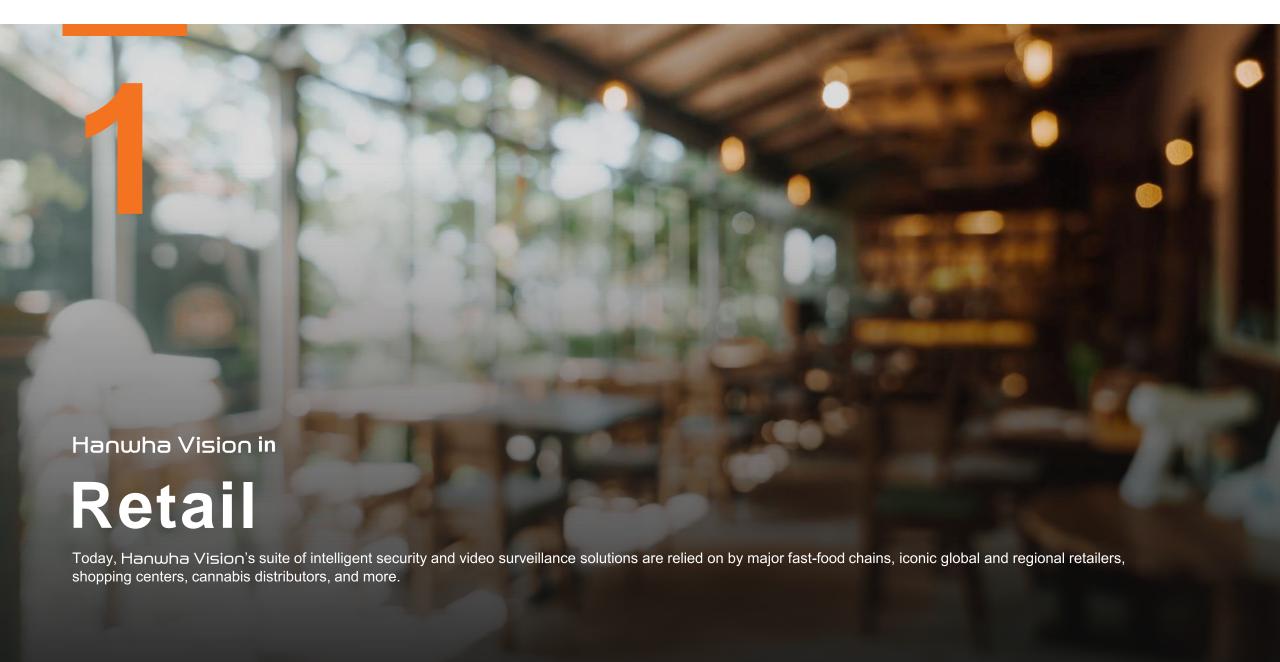
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## **Case Studies Overview**

No	Vertical	Country	Case Study	Year of Installation (or Announcement)
<b>⊘</b> #	Hotel / Residence	United States	Star of Hope Mission	2021
	Commercial Building	Czech Republic	Seznam data centers	2024
		France	Stade des Alpes	2023
		Poland	Centre for Contemporary Art, Ujazdowski Castle	2022
		United Kingdom	Brooklands Museum	2022
		United Kingdom	East Midlands Logistics Centre	2022
		Korea	CJ Logistics' Mega Hub Gonjiam	2019
	Healthcare	Korea	Yongin Severance Hospital	2020
		United Kingdom	New Cross Hospital	2020
<b>&gt;</b>	ETC	United Kingdom	MFG's Electric Vehicle (EV) Charging Hubs	2021
		lceland	MBL (Live streaming of volcanic activity)	2021







#### **MOD Pizza** United States

"Hanwha Vision has been a great partner, whether it's helping us find a different camera system, placing something in a different area, or using technology in a way that we hadn't previously thought of."

- Jason Swanson, Director of Asset Protection for MOD Pizza









## Challenge

 With more than 500 company-operated and franchised locations across the U.S. and Canada, MOD Pizza wanted to add the latest security and surveillance technologies to its environment.

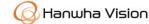
#### Solution

• MOD Pizza deployed Hanwha Vision solutions including Q series and X series cameras, a mix of dome and 360-degree fisheye models to cover larger areas.

#### Result

- MOD Pizza enhanced ability to deter and resolve in-store incidents involving customers and Squad members as well as "slip and fall" accidents or crashes in the parking lot.
- The MOD team can respond faster to police requests for surveillance footage, whether related to in-store events or activities occurring in the immediate areas surrounding a MOD location.





## Justice Cannabis United States

"The cameras were so clear we could see the license plate numbers. We saw hand-to-hand dealing. It was phenomenal."

- Stuart Johnson, National director of security for Justice Cannabis









#### Challenge

 Justice Cannabis, which has cultivation manufacturing, labs, and retail, needed to secure a cannabis operation encompassing several states and state laws. Many regulatory aspects impact the security side of cannabis operations, including retention length of video, camera angles, and access control.

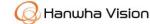
#### Solution

- The company installed Hanwha Vision's 5MP dome cameras, 4K Al cameras, XNF-8010R fisheye infrared cameras, QND-8080R varifocal dome cameras, and PNM-9084RQZ PTRZ multi-directional cameras at existing and new facilities.
- They have also used P series AI cameras to capture and search for unique personal attributes such as clothing color, wearing of glasses, carrying a bag, and approximate age and gender.

#### Result

• Hanwha Vision's cameras have helped identify illegal activity like straw purchasing while increasing ease of use.





## Kirkland's Home Décor United States

"The wide-angle capability – as well as the camera's quality– is what sold us on Hanwha Vision. We are getting the best views possible, and they are allowing us to see the entire sales floor, which is exactly what we wanted and needed."

- Saraya Charlton, Kirkland's Loss Prevention Investigator



#### Challenge

With over 400 stores in 37 states. Kirkland's wanted an IP-based security solution that could be accessed remotely, make investigations for loss prevention more efficient, and improve safety for employees and shoppers. Management leaders also wanted cameras that provided clear pictures and had data analytics capabilities, while minimizing bandwidth usage.

#### Solution

• To accomplish these goals, Kirkland's chose to deploy an IP video surveillance solution consisting of Hanwha Vision cameras managed by Salient enterprise VMS. They deployed 1,800 X series XNV-6011 2-megapixel HD dome cameras and Lite vandal-resistant dome cameras at 200 Kirkland's locations, as well as a distribution center and e-commerce building.

#### Result

- ♦ With the Hanwha Vision-Salient solution, Kirkland's has simplified its loss-prevention investigation process. Team members can easily pull recorded video from any camera via the Salient VMS rather than wait for information to be extracted from an analog DVR.
- Along with delivering clear, quality images and an improved field of view, the Hanwha Vision solution has also helped Kirkland's conserve valuable bandwidth with Hanwha Vision's WiseStream II compression technology.





## Innisfree in Ho Chi Minh and Da Nang Vietnam

"We have high expectations on Hanwha Vision's retail solution as it can help identify main customers per store and sophisticate our business strategies such as placement of products to achieve more effective store operation."

- Officials at Innisfree



#### Challenge

• Korea's leading beauty brand, Innisfree, expanded into the Vietnamese market, operating 10 stores. The company wanted to use visual data of store visitors to make more informed business decisions that elevate sales and improve the customer experience.

#### Solution

- Innisfree initially installed Hanwha Vision's Retail Insight v2.0, 6MP fisheye cameras (XNF-8010R), and 2MP dome cameras (XND-6010) in stores of Ho Chi Minh and Da Nang.
- Retail Insight, a solution for franchise retail, uses visual data taken from security cameras
- to provide valuable business intelligence. It supports People counting to measure the number of customers in a store and Heatmap with Timelapse feature to estimate high dwell times and their locations through an intuitive interface.

#### Result

- Innisfree's store operators are using this information to assist with timely product placement decisions and identify popular products. The information can be utilized to analyze the number of visitors during a certain time, the number of visitors per store, or hotspots within a store.
- Retail Insight also offers centralized management capabilities for multiple stores, enabling effective integrated monitoring by combining Ho Chi Minh and Da Nang stores to others. Mobile devices can be used to check the status or information of stores in real-time.





## STORE SAFE PEOPLE

"As well as being completely satisfied with the quality of the captured images, control room operators have said they are also impressed with how simple it is to take full advantage of the innovative functionality built into the Hanwha Vision cameras and VMS."

- Vadasz Richard, Chief Executive Officer, Greystone (Hanwha Vision's STEP partner)





#### Challenge

STORE SAFE PEOPLE, a retailer specializing in outdoor sports, survival equipment, and clothing, must protect its high-quality products by deterring and detecting intruders and thieves.

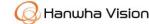
#### **Solution**

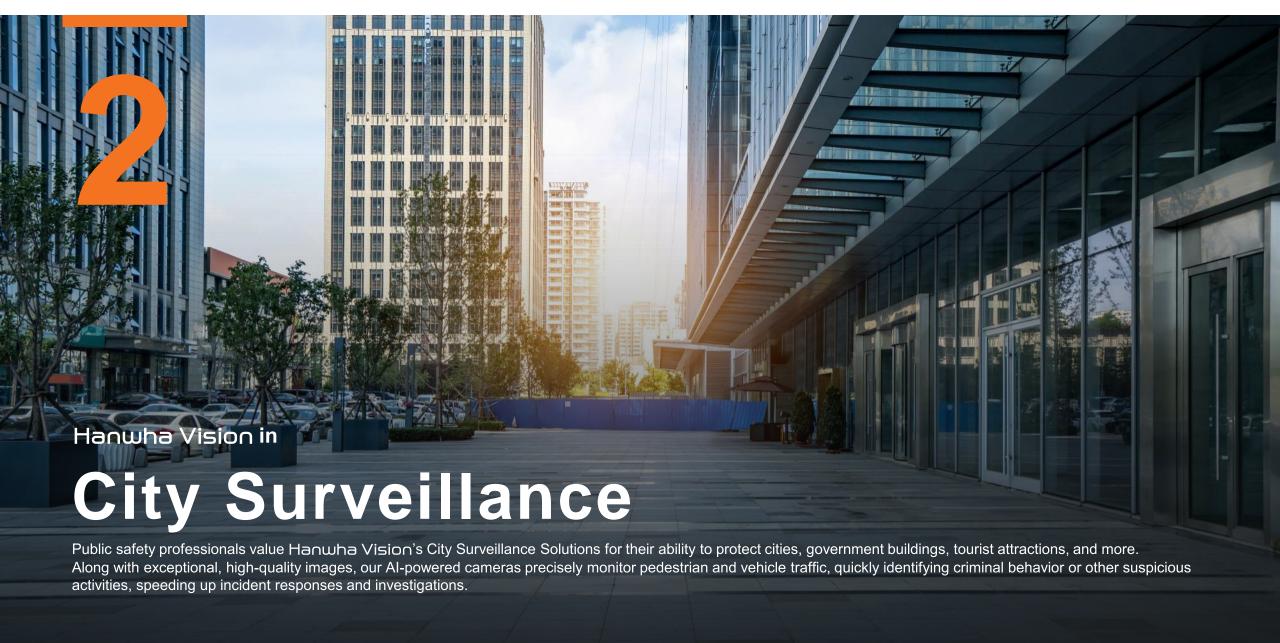
- To ensure store managers and security personnel have access to video evidence of the highest possible quality, 17 Hanwha Vision IP network cameras have been deployed throughout one of the company's newest stores in Wiener Neustadt.
- Among the cameras installed, the PND-9080R 4K IR dome camera has the ability to capture superb 12-megapixel images with digital auto-tracking. QNF-8010 mini fisheye camera offers 4 display modes, including single fisheye, single panorama, double panorama, and quad view mode.
- Built-in people counting and heatmap video analytics offer STORE SAFE PEOPLE the opportunity to monitor store efficiency in terms of the relationship of footfall data with actual sales.

#### Result

 Hanwha Vision cameras helped STORE SAFE PEOPLE to reduce theft, identify intruders and thieves, and achieve the highest levels of security at the new store.







## Vorbasse Market Denmark

The team at Vorbasse Market turned to Hanwha Vision to provide an intelligent, easy-to-use, video surveillance system for 24/7 monitoring of the market's nearly 250,000 annual visitors.







#### Challenge

Overbasse Market needed a way to manage queues, crowds and bottlenecks in critical areas around the market while also ensuring the safety of visitors, traders, animals, and equipment.

#### Solution

• In total, 55 X and P Series cameras were installed across the site, with 45 of these XNV-6080R vandal-resistant IR dome cameras which are complemented by PND-A9081RV Al dome cameras.

#### Result

 As well as protecting visitors, video data insights are being shared with Vorbasse market leadership to inform future event planning. By consolidating all footage into a single place, operators now have a greater understanding of activities across the market, when open and closed.



## Piazza Lucio Dalla Italy

"Hanwha Vision cameras play an important role in keeping people using the busy piazza safe and secure, but also integrate with other systems, including Genetec's, to improve collaboration across departments and agencies."

- Ing. Alberto Nuzzo, Head of Office 'Digital Infrastructure' presso Comune di Bologna.







#### Challenge

• The Piazza Lucio Dalla hosts a range of events and entertainment, including concerts, theatre performances, street food, and children's workshops. As part of the restoration, the city authorities realized the need for a video surveillance system to monitor the square in all conditions, morning and night.

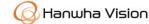
#### Solution

- Hanwha Vision's Q series PTZ cameras were selected for numerous reasons, including proven durability, exceptional image quality, and ability to integrate with the monitoring system already in use in the control rooms.
- The cameras were installed across the square, with pan, tilt, and zoom cameras chosen to move easily across the square when investigating an event or tracking a person of interest.

#### Result

• Hanwha Vision cameras play an important role in protecting the people visiting the piazza. They also seamlessly integrate with other systems, including Genetec's, to improve collaboration across departments and agencies.





## **Pedemontana Veneta highway**

"Using the performing combination of Sprinx's AI video analytics and the WAVE platform, we are able to instantly detect incidents along hundreds of kilometers of road to provide a faster response, while the insights it has provided into how the highway is being used are proving invaluable in maximizing the efficient use of the road."

- Gerando Capezzuto, SIS scpa





#### Challenge

A major commercial region of Italy needed effective video technology that would keep traffic flowing while providing operators with the information they need to effectively manage the SPV, the toll highway built to address traffic challenges.

#### Solution

- Hanwha Vision's partner SIRIUS COMPASS, SIS scpa, and Pagano Spa worked together to install 600 cameras along the route of the SPV. The installation features Hanwha Vision's 32x zoom PTZ dome cameras, all managed through a WAVE video management system.
- The cameras are integrated with Sprinx's 'traffix.ai,' which uses deep learning and image processing to deliver various server-based analytic functions. These functions include automatically detecting traffic incidents in real-time and immediately alerting the highway's operators to initiate an emergency response.

#### Result

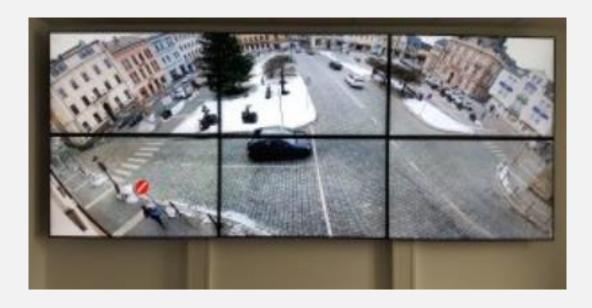
- The Al-powered video technology has helped to deliver greater mobility for the 4.9 million inhabitants and nearly 500,000 businesses that call the region home.
- The surveillance solutions have led to greater safety and ease of use for motorists while providing operators with insight into the most effective uses of the SPV.





## City of Turnov Czech Republic

Hanwha Vision has provided a city centre video surveillance system solution for the City of Turnov, Czech Republic. Demonstrating the flexibility and depth of the solution range, Hanwha Vision enabled police to closely monitor and respond quickly to any suspicious activity throughout the city.



#### Challenge

The City of Turnov, which attracts large numbers of tourists, decided to invest in a new city centre video surveillance system in order to deter anti-social behaviour and create a safe environment for its 14,000 inhabitants.

#### **Solution**

- ♦ A combination of Hanwha Vision cameras were installed, including:
  - PNM-9030V 15-megapixel panoramic camera, designed for larger open areas, was installed within Turnov Square.
  - At the city's railway station, a 2-megapixel XNP-6550RH was deployed.
  - QNO-6070R 2-megapixel IR bullet cameras were installed within and around the recently built city hall
  - An XNO-6120R ANPR camera solution was installed to monitor traffic. The camera produces real-time reports on the number of vehicles entering the village while generating alerts if vehicles on a blacklist are recognized.
- Operators are able to retrieve video evidence recorded and stored on a PRN-4011 Network Video Recorder (NVR).

#### Result

● As the City of Turnov chose to maintain a long-term partnership with Hanwha Vision, it effectively monitored and provided a safe environment for the citizens, tourists, and villagers who visit the City Centre.





## City of Bologna Italy

"Our control room operators have been particularly impressed with the exceptional clarity of the images captured by the cameras and the data analytics capabilities of the system, which are enabling them to accurately visually verify what may be occurring and quickly take appropriate action."

> Alberto Nuzzo, Head of Office 'Digital Infrastructure and Telecommunications', at Commune di Bologna



#### Challenge

The City of Bologna wanted to invest in a video surveillance solution that would allow the monitoring of 12 vehicle access gates to the city in order to provide authorities with reliable real-time information about urban mobility.

#### Solution

- A total of 89 Hanwha Vision cameras were installed including cameras dedicated to vehicle counting and classification, and ANPR cameras, which have been installed on strategic gates. The cameras monitor both directions of travel to allow local authorities to study the most important and strategic vehicle access flows to the city.
- Some of the cameras installed are XNO-6120R/TD bullet cameras equipped with Traffic Data, an edge-based application developed in cooperation with Sprinx Technologies.
- Some of the others are XNO-6120R/FNPs. These feature Roadway License Plate Recognition application which is able to help the local authority's control room operators detect illegally parked vehicles and other traffic infringements.

#### Result

• The data captured by the Traffic Data and ANPR applications running onboard the cameras, is allowing the City of Bologna to far better manage the existing levels of traffic, whilst also helping them capture and store valuable data for future plan of the city.





## Airdrie Canada



"Hanwha Vision's wide field of view, coupled with the crisp and clear pictures, is exactly what they were seeking in a video surveillance solution. In fact, it was just 45 minutes after they installed that first Hanwha Vision multi-sensor camera, that it was used to help solve a crime."

- Matt Cameron, The City of Airdrie Corporate Security Advisor

#### Challenge

• The City of Airdrie Corporate Security Department protects everything the city of 70,000 citizens owns - from the city's water reservoirs to fire trucks to lockers in the recreation center. When law enforcement approached the Corporate Security department to obtain video surveillance footage to aid in the investigation of a crime, the team wasn't able to produce video evidence.

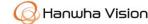
#### Solution

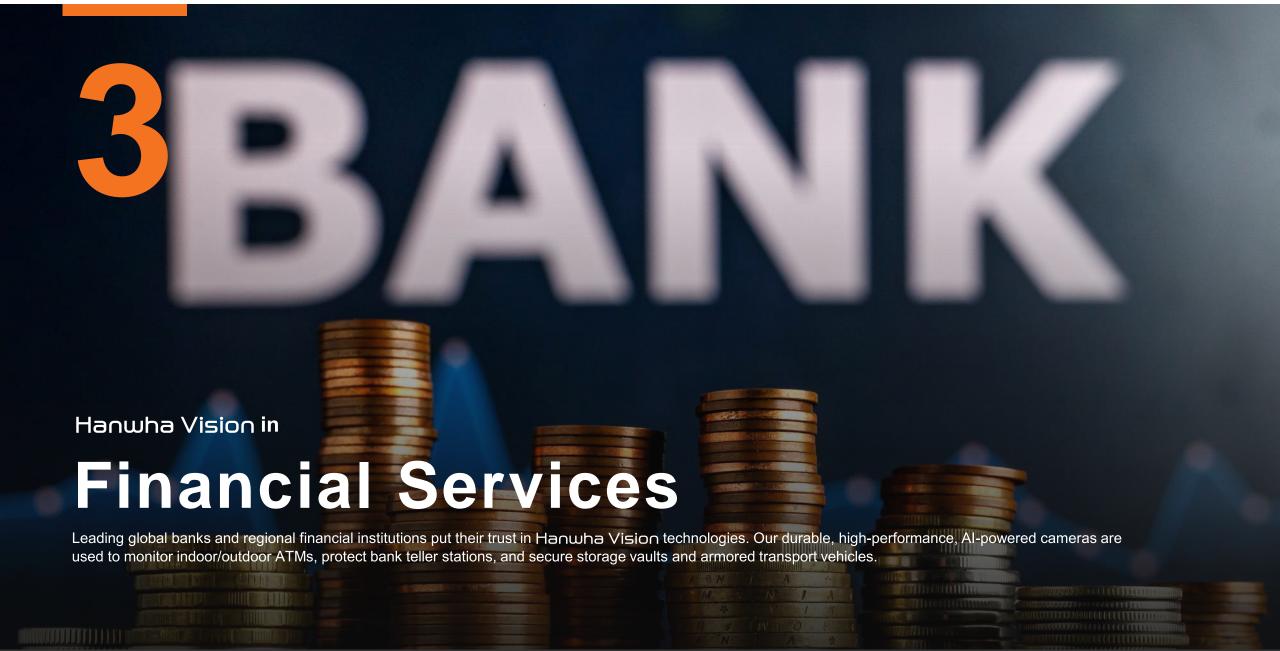
- They chose a mix of Hanwha Vision multi-sensor cameras such as PNM-9081VQ 20-megapixel and PNM-9080VQ 8-megapixel cameras to improve their video surveillance coverage.
- These cameras offer triple codec H.265/H.264/MJPEG combined with WiseStream II compression technology for ultimate bandwidth reduction without sacrificing image quality.

#### Result

Now, when the police request footage for an incident, if it is in an area where the Hanwha Vision cameras are installed, they are confident they will have the video the police are looking for and the quality images they will need to aid in the investigation.







## VyStar Credit Union United States

"We were simply wowed by how well the Hanwha Vision cameras could accurately capture data in the dark, or in any lighting condition."

Jeff McDonald, VyStar Security Operations Manager







## Challenge

• VyStar needed to deter criminal activity at all branch offices and remote locations. At the same time, they needed to upgrade image quality and performance and enhance data capture and storage processes to comply with state regulations.

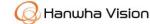
#### **Solution**

- VyStar chose Hanwha Vision security and surveillance solutions equipped with ALPR technology to safeguard its assets, protect its members and employees, and better serve its communities.
- They replaced all of their video cameras with the Hanwha Vision model, including 360-degree and other models. This includes teller lines, waiting areas, and hallways inside the branches. Exterior security includes a 360-degree view of the building perimeter, drive-through lanes, and ATM stations.

#### Result

• VyStar improved image quality and performance on their surveillance system. With the new Hanwha Vision cameras, VyStar can now more easily capture fraudulent transactions and turn them over to law enforcement immediately.





#### Wilson Bank & Trust **United States**

"The ability to work with a company that does everything from manufacturing the chipset and camera to developing the software was a game-changer for us. We knew it would give us tremendous peace of mind."

— Elvis Huff, Assistant Vice-President and Director of Security at Wilson Bank & Trust







## Challenge

The Bank wanted IT-based, PoE (Powered over Ethernet) cameras that could produce high-quality video and did not require licenses. They also wanted DVRs or NVRs that would give them longer-term retention rates, 90 days at a minimum.

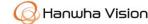
#### Solution

- The installation included several panoramic cameras and network IR dome cameras. The PNM-9020V multi-sensor 180° panoramic camera provides up to 30fps at full resolution and is able to capture good quality images of a large area.
- For branch and building interiors, they installed a variety of dome cameras, including the QND-6010R Network IR. This indoor camera provides 2MP maximum resolution, 30fps at all resolutions, motion detection, as well as tampering and defocus detection.

#### Result

• The bank has upgraded the security infrastructure at 40 of its locations with Hanwha Vision cameras. By switching to industry standard PoE, IP-based cameras, the bank has realized significant savings with regards to installation and maintenance costs.





## Columbia Bank United States

"Hanwha Vision has been a phenomenal partner We're very pleased with the solution from Cook Security Group, Hanwha Vision, and Genetec and we look forward to completing all phases of the project."

- Ross A. Armstrong, Columbia Bank Vice President of Physical Security



#### Challenge

 Columbia Bank needed to upgrade their video surveillance solution to improve image quality and retention time. They also wanted to maximize field of view to deliver a more forceful and expansive – yet, less intrusive – solution.

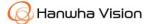
#### **Solution**

• The bank chose to install a mix of Hanwha Vision models including P series PNM-9000VQ multi-sensor / multi-directional outdoor vandal-proof dome cameras with 5-megapixel lens modules and X series XND-8020F 5-megapixel indoor flush mount dome cameras. One reason that the bank chose Hanwha Vision's cameras was that they come bundled with many analytics. One useful analytics feature the Columbia Bank security team uses regularly is the loitering function, specifically at their ATM machines.

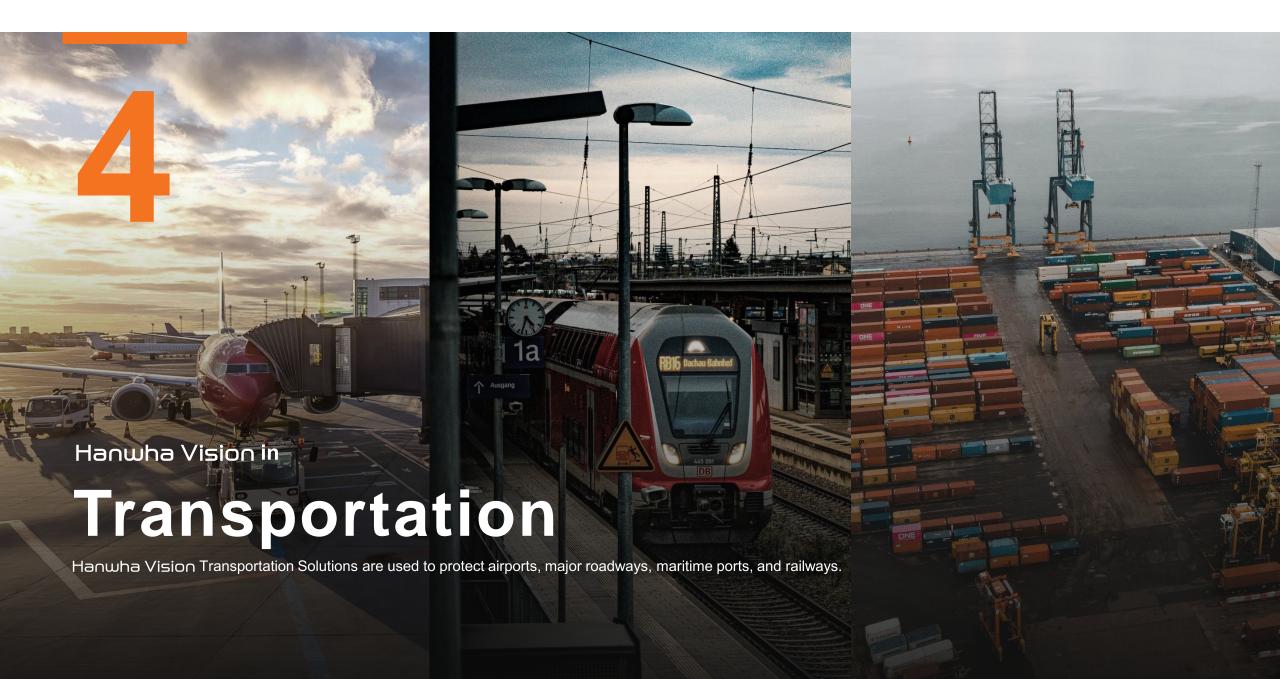
#### Result

 Columbia Bank has provided video evidence to help law enforcement investigate a variety of incidents including drive-by shootings, traffic accidents, and arson.





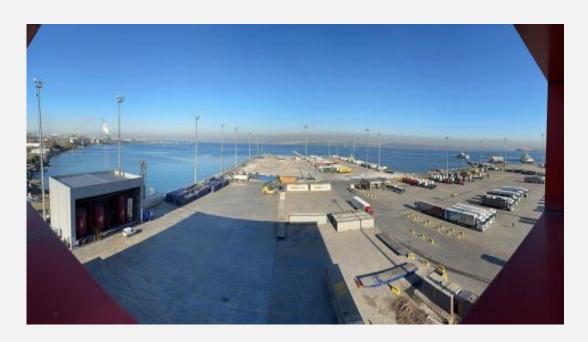




## Yalova Ro-Ro Port Terminal Türkiye

"As a busy international Ro-Ro Port with millions of dollars of stock and equipment, having the best security, that's intuitive to use and easy to install, was essential."

- Eyup Tetik, Corporate Sales Manager at ENTPA ELEKTRONİK A.Ş.



#### Challenge

• The Yalova Ro-Ro Terminal team was looking for a way to intelligently monitor activities at the port and quickly search footage for investigations if needed. Because of the size of the port - nearly 800,000 square meters (appx. 861,000 feet) - an efficient way to store and deliver video footage back to the control room was required.

#### Solution

The team turned to Hanwha Vision to provide a robust and Al-enabled video surveillance solution comprising 48 PNO-A9081R cameras, 17 XNO-C7083R cameras, and 7 XNP-6400RW cameras.

#### Result

With AI analytics carried out on the device, the cameras provide the on-site Yalova Ro-Ro Terminal security team with alerts only to events that require their attention. This frees them up to focus on other responsibilities, while the cameras constantly scan for relevant objects or possible incidents that require human input.





## Assan Port Türkiye

"Using AI to automatically track objects and calling on deep learning to search for and classify objects helps keep this vital port secure and the shipping that relies on it flowing efficiently."

- Adnan Sanli, Employee of Teknoteam Teknoloji Ürünleri







#### Challenge

 Assan Port's security operations were hindered by an old CCTV system that wasn't flexible or detailed enough for operators to fully understand what was happening on-site. Assan Port's security identified a need to improve security efficiency and situational awareness, to effectively protect the Port's ships, equipment, shipyards, and containers.

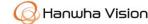
#### Solution

The entire system was replaced with Hanwha Vision devices, including over 177 Q series cameras and three X PTZ PLUS cameras. The team also invested in the 64-channel XRN-6410DB4 NVR, which is equipped with a dual switched-mode power supply that ensures continuity of recording for mission-critical applications.

#### Result

• With new Hanwha Vision's solution, security team members are able to monitor the shipyard and its assets 24/7 both on-site and remotely. They can also view live and recorded video via smart tablets — which enables them to continue monitoring the Port and investigate events while moving around the site.





## Rize-Artvin Airport

"The safety of passengers and staff is vital to the airport experience. Recognising this, the Rize-Artvin Airport security team wanted to install a comprehensive and reliable video surveillance solution that also worked seamlessly with access control, perimeter protection, and the announcements system."

- Mubin Cakmak, CEO of system integrator Bes Teknoloji,







#### Challenge

• As a completely new airport, the General Directorate of State Airports Authority (DHMI) needed to install a video surveillance system that would ensure the security of the airport itself, protect staff and passengers, and monitor any assets, vehicles, equipment, or airplanes. The surveillance system also needed to be flexible enough to scale as the airport grows.

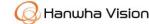
#### **Solution**

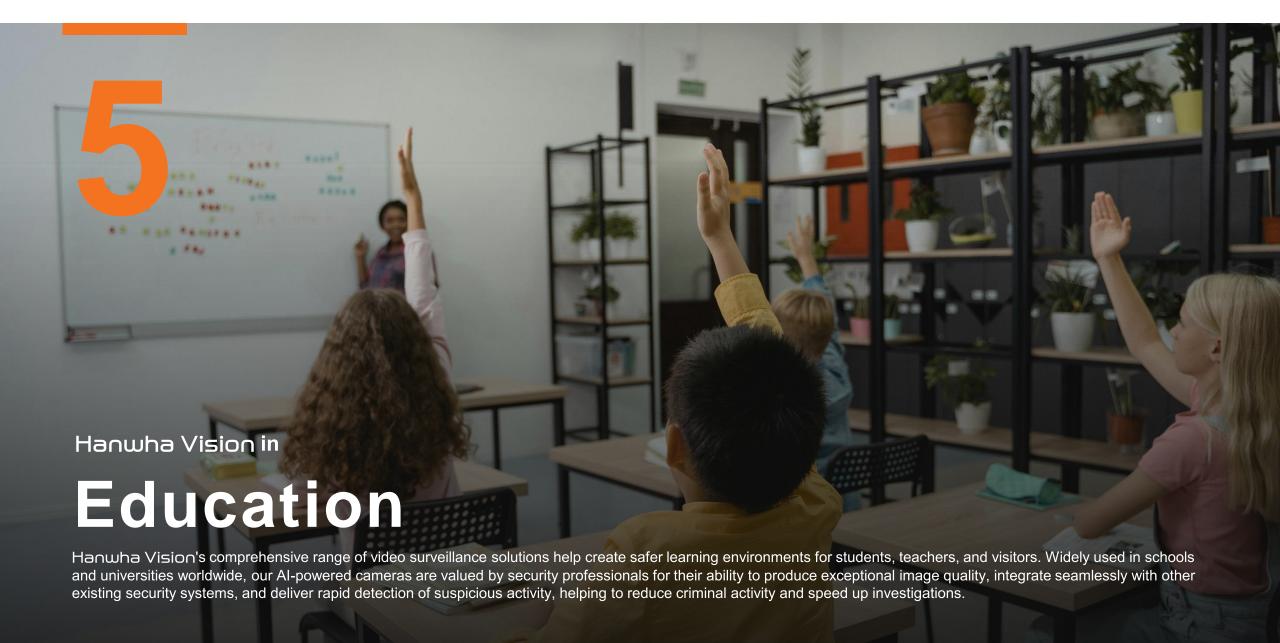
- on total, 710 Hanwha Vision cameras were installed including:
  - TNO-4050T thermal cameras for perimeter and runway security
  - XNV-6080R dome cameras inside and outside the airport
  - XNO-6080R bullet-type cameras inside the airport's car park
  - XNP-6321H PTZ cameras inside of the terminal building
- The cameras run on the Milestone XProtect VMS and are integrated with the airport's fire alarm and access control systems.

#### Result

Starting from outside the airport site, a multi-level security system was created that requires security verification at every crossing point, runway, elevators, and counters. This, coupled with line crossing analytics is improving flight safety by preventing unauthorized runway access. This is complemented with thermal cameras that detect people moving on the runway in low light conditions.







## Putnam City School District United States

"Our response times are faster, our security procedures are more efficient and we can allocate our resources more appropriately to match the unique needs of each school."

- Mark Stout, Chief of Police for the Putnam City School District









#### Challenge

• To replace an aging and outdated security system, security leaders at Putnam City School District, sought new cameras equipped with critical technologies, such as Artificial Intelligence and data analytics.

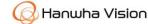
#### Solution

Ongoing installation of more than 1,500 Hanwha Vision cameras, a mix of P series Al dome, multi-sensor, panoramic, X series fisheye and PTZ models. More installations planned in the future as the district adds new facilities and expands its current venues.

#### Result

- The Hanwha Vision Al-based cameras deliver enhanced facial and object recognition and analytics combined with Deep Learning algorithms to counter any environmental factors that may trigger a false alarm.
- Now, campus security is only alerted about potentially suspicious or criminal events, reducing false alarms for more efficient operations and targeted data gathering for use in forensic searches.





## Glasgow Science Center United Kingdom

"We are very happy with the performance of the new system and are pleased that we could take advantage of the cost-saving benefits of the Hanwha Vision's HD+ cameras while improving quality and functionality."

- Roddie Galbraith, Facilities Manager at the Glasgow Science Center





#### Challenge

 Glasgow Science Center needed to replace an existing analogue video surveillance system which was unable to provide the features and image resolutions of the latest cameras and to create a safer environment for visitors.

#### Solution

- A total of 68 new Hanwha Vision cameras were installed at the center, 48 of which have been deployed as replacements for existing analogue cameras, while 20 additional cameras have been installed in new locations to negate any blind spots.
- Among them, 28 Bullet, PTZ and mini-dome cameras were selected from the Hanwha Vision HD+ analogue series to deliver superb 2-megapixel HD images over coaxial cables.

#### Result

♦ Hanwha Vision HD+ cameras minimize the cost and disruption of installing new data cabling as they support the transmission of HD images using standard coax cabling at distances of up to 500m.





# South Pittsburg High School United States

"The picture quality of Hanwha Vision cameras far exceeds the competition. We also like the ease of set up and the price point."

- Tory Smith, Director of technical operations at MCW/Diversified







#### Challenge

• The school needed to upgrade to a high-quality, digital IP-based video security system to be able to give the weapons detection system the resolution required for maximum accuracy.

#### Solution

• 10 Hanwha Vision cameras were chosen for their ability to provide the best possible video quality in all lighting conditions, including PNM-9000VQ multi-sensor cameras for maximum quality exterior and perimeter coverage including the parking lot, and QND-6082R dome cameras for interiors and hallways. QNO-8080R bullet cameras were used outside on the school's entrance bridge area.

#### Result

• The image quality of Hanwha Vision cameras coupled with a proactive solution to detect weapons, makes the school truly feel that they've invested in the highest level of security to keep their students and staff safe.





#### **Army and Navy Academy United States**

"One of the main things we were looking for was a strong package with analytics. Since Hanwha Vision cameras and their WAVE VMS both have intuitive features, they were a perfect fit for our needs."

- Jeffrey Gibson, Assistant Commandant, Operations, Safety, and Security, Army and Navy Academy







#### Challenge

The school needed to replace their existing, out-of-date analog camera system and they needed a system that could keep up with current technology such as analytics to keep close watch on the campus could act as a force multiplier.

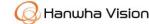
#### Solution

- The school deployed a video surveillance solution comprised of Hanwha Vision cameras integrated with WAVE.
- The Academy installed a total of 141 cameras, including PNM-9081VQ multi-sensor, multi-directional cameras for covering wide areas, PNM-9320VQP multi-sensor multidirectional PTZ cameras for zooming in or for covering long distances, and PNM-9020V multi-sensor 180° cameras for monitoring between buildings and covering their coastline.

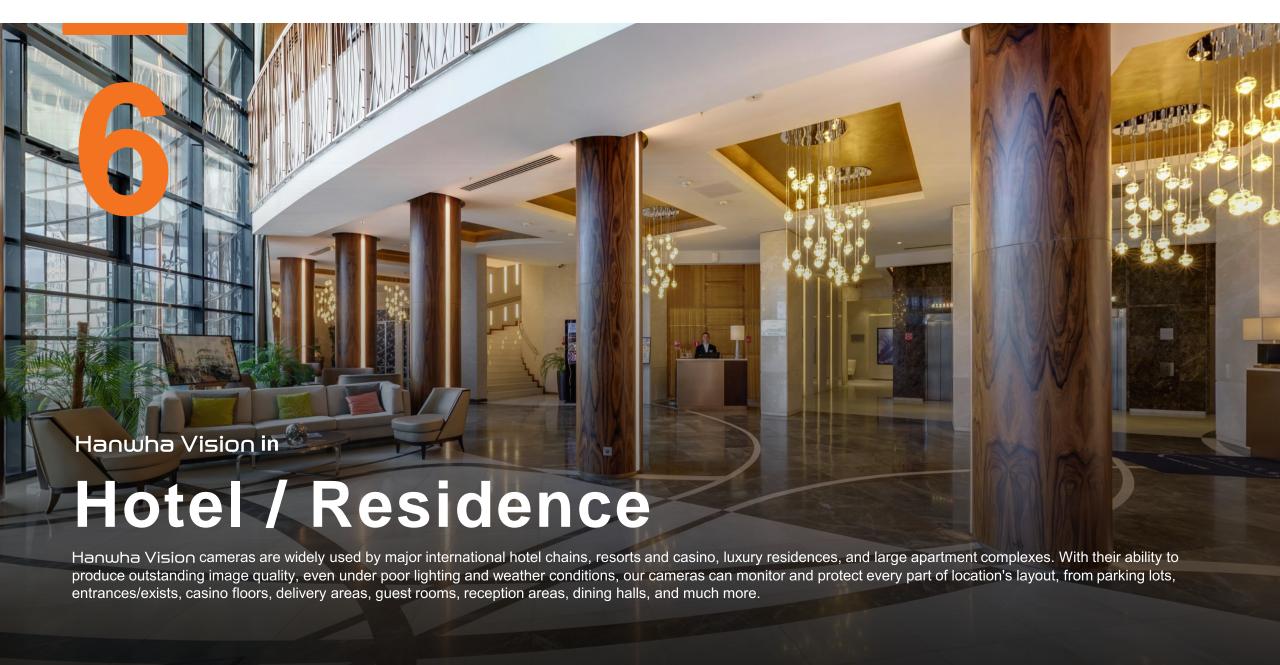
#### Result

 By taking advantage of the in-camera and VMS analytics available in their new system, the teams can now monitor internal and external areas. Primary cameras focus on higher priority, greater risk areas, while the analytics keeps track of the rest. As a result of the upgrade, most of the campus perimeter is now protected using line crossing analytics.









## MVM Group Czech Republic

"Ha∩wha Visio∩ has a very balanced product line with good features and reasonable pricing. It was a natural choice when we realised that on these sites we couldn't use fence protection, infrared, or microwaves to detect intruders. With the thermal cameras, we could rest assured that no personal data would be gathered"

- Tamás Tánczos, Security Engineering at MVM



#### Challenge

- MVM had 14 photovoltaic power plants that needed to be protected in high-residential areas while protecting the privacy of neighboring residents. Because of their locations, these sites were at high risk of vandalism, trespass, and theft of equipment.
- Due to the adjacent residential settings, traditional security technology such as fence detection and outdoor visual CCTV could not be used.

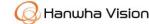
#### Solution

Over 100 Hanwha Vision thermal cameras were installed along with PTZ cameras with a handover function. The thermal cameras included the TNO-4030T, TNO-4040T, and TNO-4050T.

#### Result

The thermal cameras help MVM protect its photovoltaic sites without compromising neighboring residents' privacy. They come equipped with Motion detection, Handover, Tampering, Loitering, Directional detection, and Audio detection features built-in to boost operators' situational awareness. This made operators continue to work on other activities with alerts and the system more intelligent and efficient.





# We-Ko-Pa Casino Resort United States

"We were looking for a manufacturer that had a variety of camera offerings to give us what we wanted and that also had a good reputation for quality. We found what we were looking for with Hanwha Vision."

- Lee Brown, Lead Surveillance Technician for the Fort McDowell Tribal Regulatory Agency









# Challenge

• We-Ko-Pa Casino Resort needed to ensure coverage of every machine which moves around every day in the slot floor in the new facility.

#### Solution

 Casino decided to use the higher resolution P series 4K cameras and place them strategically throughout the space. Today, the new Casino has over 800 Hanwha Vision cameras, including the XNV-8080R, PNV-9080R, and PNF-9010R models.

#### Result

• Hanwha Vision could provide high quality and flexibility with its cameras for the casino to avoid having to reconfigure and reinstall cameras all the time. The image quality with the Hanwha Vision cameras gave the casino the edge they needed to work within the ceiling constraints.



# Gaylord Opryland Resort and Convention Center United States

"Our older security camera images are grainy or black and white, which means we could not get the level of detail we needed. But, with Hanwha Vision cameras, we are able to capture high quality images that show us, for example, how a guest fell. Whether there was an obstruction, water on the floor, or an indentation or whether the guest simply tripped."

- Stuart Johnson, National director of security for Justice Cannabis







# Challenge

 Ryman Hospitality found out that CCTV systems were lacking in all of its hotels. So, they decided to invest in a complete upgrade of all its hotels and chose the Gaylord Opryland as its test case.

#### **Solution**

• The Resort designed a solution that features a new VMS from Milestone Systems and 400 cameras from Hanwha Vision. They purchased a variety of Hanwha Vision cameras, including 145 XND-6010 full HD cameras with video analytics, 182 Q series indoor and outdoor dome cameras with IR, and more than 20 PNM-7000VD and PNM-9000VD multi-directional cameras.

#### Result

 Security is now easily able to track persons of interest clearly as they move throughout the Resort. This helps to protect them against liability from potential lawsuits by providing captured high-quality images in real-time.



# Star of Hope Mission United States

"To my knowledge, there is nothing else on the market that compares with WAVE. It is incredible how easy it is to use and just amazing how much it helps us with both active monitoring and finding the recorded video."

- Ike Kimmel, Director of Facilities Development, Star of Hope Mission







### Challenge

Star of Hope had to install a security system at the new facility called Women and Family Development Center. They had to make sure that they had coverage inside the buildings and the fence and outside on the surrounding perimeter area.

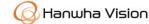
### Solution

They selected a total of 262 Hanwha Vision (S, X, and P series) cameras and later adopted WAVE as its VMS. They use 12 MP cameras on the perimeter, 4 MP cameras in courtyards, and 2 MP cameras inside buildings. P series 12 MP 360° fisheye cameras were installed in classrooms.

#### Result

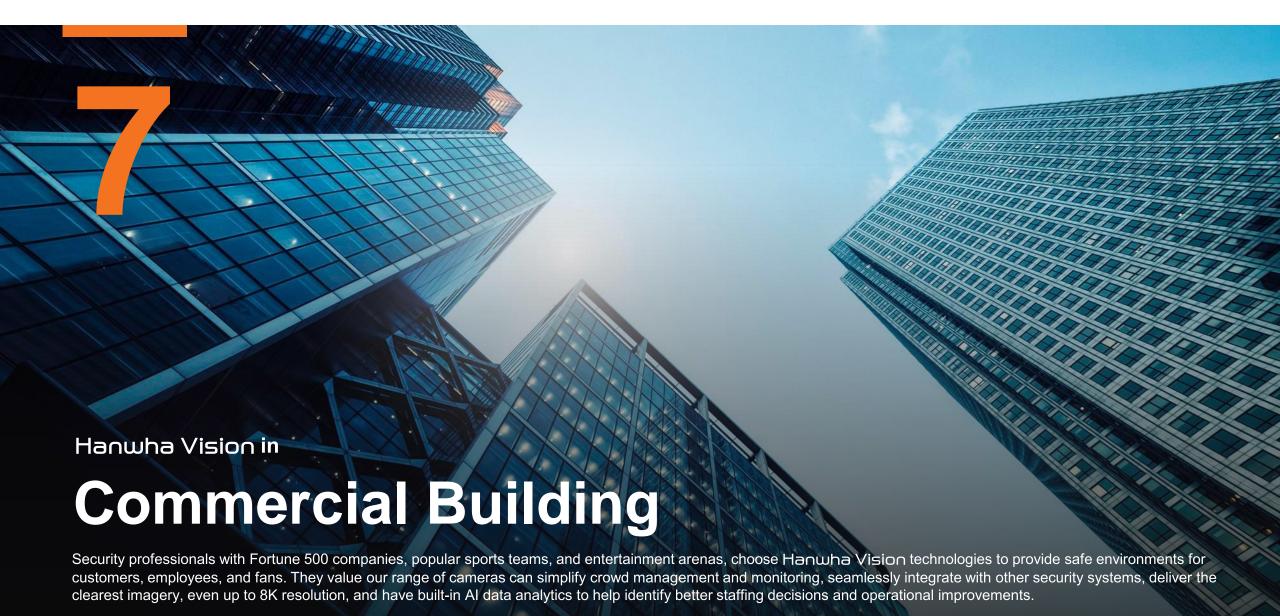
• In a case of theft, Star of Hope was able to find and share video footage with local law enforcement to support the investigation and prosecution of the crime with WAVE which is easy to use for monitoring and finding the recorded video.





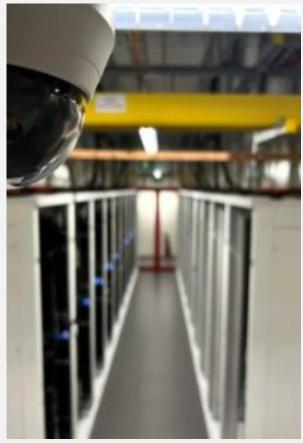
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# Seznam data centers Czech Republic

Hanwha Vision devices come with several cybersecurity trustmarks that highlight the company's ongoing commitment to securing its cameras and data.







# Challenge

- Seznam, a major Czech internet portal and search engine, needed to secure its two data centers against cyberattacks and operational emergencies like fire or flooding.
- Existing CCTV infrastructure was outdated and required an upgrade for better monitoring and faster response times.

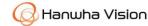
#### Solution

Seznam replaced its CCTV with Hanwha Vision cameras because of their proven cybersecurity credentials, Al analytics (XNF-8010RV, XNO-8080R and XNO-C9083R cameras), and the ability to integrate with current infrastructure and be rolled-out in phases.

#### Result

Seznam now enjoys enhanced security with reduced vulnerability to breaches and unauthorized access. Al analytics streamline operations by expediting response to real threats while minimizing false alarms. Furthermore, the seamless integration and phased rollout ensured minimal disruption to existing infrastructure.





# Stade des Alpes France

"Not only have we increased the number of cameras across the stadium but they are delivering exceptional images back to operators. We are very satisfied with how the cameras are working. They are supporting our events like football, rugby, and concerts. Additionally helping local police to identify any possible antisocial or criminal behaviour."

Jean Mouton, Director of the Stade des Alpes





# Challenge

The Stade des Alpes team needed to update its existing system and bring it up to date with the requirements of the LFP (Ligue de Football Professionnel). In particular, there was a need to monitor sensitive areas with high footfall, namely entry and exit points, routes up to the stands, refreshment areas, and the stands themselves.

#### Solution

ົວ In total, 136 Ha∩ພha Visio∩ cameras were installed across the site including the XNP-6321H and XNV-9082R dome cameras, XNO-9082R 4K bullet camera, TNV-8010C compact corner mount camera, the XNB-9002 box camera with deep learning Al video analytics and the <a href="PNM-9085RQZ">PNM-9085RQZ</a> multi-directional camera.

### Result

The comprehensive video security system enables easy access to and view of all parts of the stadium. The PTZ cameras span the stadium's field and stand with a wide field of view, while dome cameras provide more detailed visibility of internal areas and the stands.







# Centre for Contemporary Art, Ujazdowski Castle

"Our operators can manage everything easily through WAVE, including alarms so they are not distracted by false alarms being sounded all of the time. There is also the option to search using Al attributes and different parameters and to create rules that automate processes. All of this helps to make our security more intelligent and efficient."

- Rafał Filipowicz, Head of IT and Multimedia Department at Ujazdowski Castle







# Challenge

 Located in Warsaw, Poland, The Centre for Contemporary Art, Ujazdowski Castle, needed a system that was flexible to the different needs of the many spaces in the museum, and that worked with the castle's 13th-century aesthetic.

#### Solution

• The team decided to invest in advanced IP cameras to deliver state-of-the-art video and audio analytics to protect people, assets, and artwork with great accuracy. Hanwha Vision's P and X series Al cameras were chosen due to their built-in deep learning analytics, along with the intuitive and easy-to-use WAVE VMS and WAVE Video Wall.

### Result

The WAVE video wall functionality allows the Ujazdowski Castle team to create multiple layouts of the most critical parts of the museum. Operators can proactively monitor what's happening in these high-value spaces. Video analytics running in the background will issue automatic alerts for any events that need further investigation.





# Brooklands Museum United Kingdom

"Our security personnel are now able to view 24/7 the superb quality images captured by the cameras on monitors at our central control room. We now have a highly effective video surveillance solution which will be put to good use as we strive at all times to maintain a safe and secure environment for our employees and visitors."

- Mark Dover, Brooklands Museum's facilities manager







### Challenge

The Museum's security team recognised a need to replace the site's old analogue CCTV cameras with high-definition IP models that utilise the latest technology to keep exhibits and visitors safe.

#### Solution

Among the cameras installed at the Museum are internal QND-6082R 2-megapixel dome cameras that feature built-in IR illumination and a 3.1x motorised varifocal lens. New external 5-megapixel QNO-8080R bullet cameras have also been installed.

#### Result

• The cameras enable the Brooklands Museum security team to have a better view of all parts of the site, and enable continuous monitoring for any events that require 24/7 surveillance.





# East Midlands Logistics Centre United Kingdom

"Operational disruption is not an option for this leading logistics company, so it was vital that we installed a system that was reliable and provided the highquality footage needed to keep operations running. Hanwha Vision was a natural choice for us and the client, as its products have a proven track record in performance and reputability"

- Dave Salisbury, Managing Director at Zicam



# Challenge

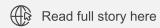
• East Midlands Logistics Centre needed to find a video surveillance system that could keep up with the fast-paced environment of its automated warehouse and be reliable.

### **Solution**

• The company implemented a video surveillance system from Hanwha Vision, which included cameras such as QND-8080R, WAVE VMS, and high-capacity RAID server storage.

### Result

• The new system helped the company to avoid downtime and maintain productivity.



# CJ Logistics' Mega Hub Gonjiam Korea

"Thanks to Hanwha Vision's security solution, we were able to build a safe video surveillance system that can match the size and the cutting edge facilities of Asia's largest logistics terminal."

- Official at Mega Hub Gonjiam, CJ Logistics









# Challenge

• CJ Logistics looked for a top-notch surveillance solution that can match the terminal's grand scale and state-of-the-art automated facilities.

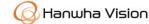
#### **Solution**

• CJ Logistics installed around 1,660 Hanwha Vision cameras throughout the terminal. This includes IR PTZ cameras XNP-6330RH for the building exteriors, Q series cameras for inside the building, IR license plate recognition cameras XNO-6090RH for the main gate, and X series cameras (XNO-6120R and XNP-6120H) for indoor staircases and corridors of the office building.

### Result

• Now CJ Logistics can safeguard every corner of the terminal including vehicles, parcels, and personnel not to mention indoor and outdoor spaces.





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# **Yongin Severance Hospital**

"With the largely improved user convenience and operational efficiency, we are highly satisfied with the ability to seamlessly operate our systems despite its large-scale. Hanwha Vision's video security solution is also proving to be useful in identifying the movements of patients who tested positive after being tested at the COVID-19 screening centers."

- Yongin Severance Hospital Facility Team Official



# Challenge

The hospital needed a video security solution that would enhance operational efficiency for managers, provide ease-of-use to users, and most of all, protect personal information and assets with careful consideration of patient and customer needs.

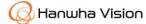
#### Solution

€ The hospital installed approximately 720 Hanwha Vision products including video security cameras, recorders, monitors, and decoders in various locations both inside and outside of the hospital. They also adopted the VMS, SSM.

### Result

• The hospital is now able to provide more reliable medical services by establishing a customer-centered video security system.





# New Cross Hospital United Kingdom

"It is essential during this challenging time that we are able to continue to provide a secure and safe working environment for all our heroic colleagues who are so compassionately caring for all of our patients and service users during these challenging times. I have been impressed with how quickly various companies within the electronic security supply chain have been able to come together and use their combined expertise to provide us with an effective and cost-effective solution."

- Stuart Johnson, National director of security for Justice Cannabis



# Challenge

- New Cross Hospital needed to quickly erect portable buildings to expand their capacity, to meet the coronavirus (COVID-19) outbreak and needed to expand the scope of CCTV systems.
- The installation of a 4K camera over 300 meters from the hospital's control room initially seemed daunting - in terms of cost placing the network cabling necessary to send high-definition images from IP cameras.

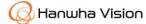
### **Solution**

• They used Hanwha Vision's PNP-9200RH camera and Smart R's 602POE-2P single port PoE Ethernet Extender as a much simpler and cost-effective solution.

### Result

• The hospital could succeed the installation in quick and effective way with Hanwha Vision and other companies' products and their co-works.

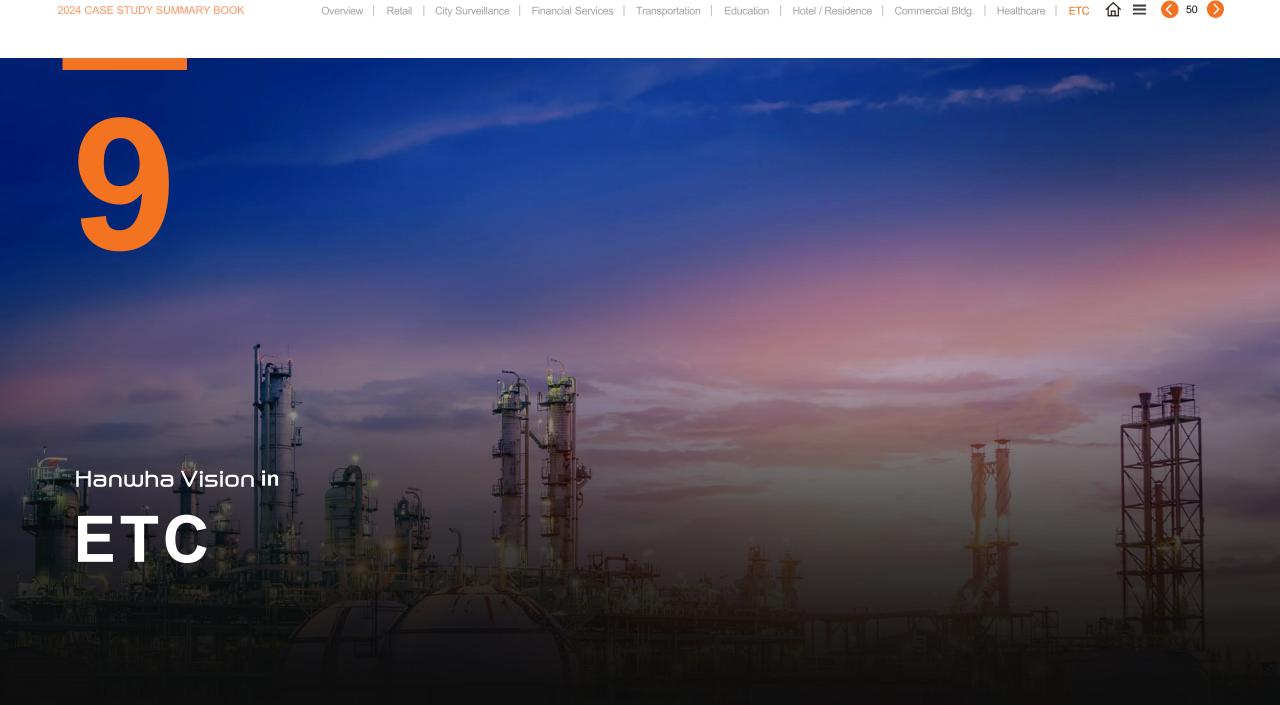












# MFG's Electric Vehicle (EV) Charging Hubs United Kingdom

"We are delighted with how AGE CCTV and Hanwha Vision are continuing to work in partnership to help us achieve these objectives."

- Andrew Edwards, group infrastructure director at MFG



# Challenge

MFG needed to deter and detect vandals, as well as maximize the customer experience by helping personnel to quickly identify if any charging equipment has been damaged.

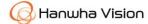
### **Solution**

Depending on the number of charging bays at each location, AGE CCTV has installed one or more 5-megapixel Hanwha Vision QNO-8080R bullet cameras.

#### Result

With many MFG (EV) charging sites being unmanned, authorised MFG personnel are able at any time to remotely access the live images captured by the H.265 Hanwha Vision QNO-8080R cameras or retrieve the recorded video of any incidents via a desktop PC or laptop, and their smartphones or tablets.







# MBL (Live streaming of volcanic activity)

"We are pleased to share with viewers worldwide the images of volcanic activity near Reykjavik through Hanwha Vision's high-quality cameras. It will entertain the general public and provide a valuable resource for geology students and volcanologists."

- Hafliði Jónsson from Hafnes ehf, Hanwha Vision Europe's authorized distributor



# Challenge

 Icelandic media company MBL was looking for a camera to stream live volcanic eruption via its website. A high-quality, durable camera was required to remotely monitor volcanic activity under challenging weather and operating conditions, even amidst the risk of an unexpected earthquake event.

#### Solution

• Three Hanwha Vision cameras — XNO-8082R, XNP-6120H, and PNM-9030V were deployed to monitor activity at a volcano erupting near Reykjavik, Iceland. Located in a remote area with no building around, the cameras were installed within a weather-proof housing and are powered by solar panels and wind turbines.

### Result

♦ Hanwha Vision cameras have proven their ability to deliver exceptional performance despite the harsh, exposed conditions, successfully capturing clear images of the volcanic activity.







