

Case study



Helping protect the production line with robust security

Avigilon Unity & ams OSRAM case study



With over 100 years of industry experience, ams OSRAM Opto Semiconductors GmbH is a global frontrunner in manufacturing optoelectronic semiconductors, serving the lighting, sensor technology and imaging sectors. Headquartered in Europe and with a workforce of over 34,000, this pioneering company brings together a wealth of expertise in semiconductor technology, conversion materials and packaging within a single organization.

One of its key global sites is the manufacturing facility in Penang, Malaysia. ams OSRAM Opto Semiconductors (Malaysia) Sdn. Bhd. has a history of excellence in technology and innovation, encompassing precision and timely product development. The site has been manufacturing LEDs for over 20 years and is the world's most advanced LED chip factory.

As the LED sector is a fast-growing market with immense potential, ams OSRAM aims to secure long-term market leadership. To achieve this, the company must deliver on multiple fronts, including securing its facilities from external threats.

Customer Profile

ams OSRAM Opto Semiconductors (Malaysia) Sdn Bhd.,
Malaysia

Industry

Manufacturing

Solutions



Avigilon Unity Video management software (VMS)



Avigilon H5SL Dome, H5A Bullet, H4 IR PTZ cameras



AI-powered video analytics



Avigilon NVR5 Premium



Radio Alert integration, now part of Motorola
Solutions Orchestrate

Benefits

- Thanks to the Avigilon cameras and AI-powered video analytics, ams OSRAM's security team can detect and respond to threats quickly, allowing it to stay one step ahead of events at its manufacturing facility.
- With improved threat detection and the easy-to-use Avigilon Unity Video VMS, the security team has reduced incident response times by at least 50%, helping to stop threats from escalating.
- Unity Video VMS' integrations with Motorola Solutions radios and the existing third-party access control and camera systems have resulted in smoother operations where the security team can perform their duties efficiently.



Challenges

Rising security concerns

ams OSRAM Opto Semiconductors (Malaysia) Sdn. Bhd. faced multiple challenges to protect its manufacturing facility and employees from external threats. Concerns about individuals disrupting manufacturing operations, stealing valuable company assets or causing harm to employees were top of mind for the company's leadership and security team.

The biggest threat to the manufacturing facility is an intrusion event in which an unauthorized individual could exploit vulnerabilities in the site's perimeter security and access control systems to gain entry through unguarded entrances. From here the intruder could commit several illegal activities, including vandalism, that would harm the safety of onsite employees, damage machinery and disrupt operations.

As mentioned, stealing raw materials, finished products and intellectual property is another major threat to manufacturing operations at this site. Not only can these types of incidents result in disruptions to processes and missed customer orders, but they can also lead to substantial financial losses and reputational damage for ams OSRAM.

Inefficient security systems

The facility's existing security systems, including video security and access control, could not deliver the situational awareness and threat detection needed by the security team. As a result, the security officers were playing catch up as they had to operate inefficient systems that wouldn't enable them to perform their duties fully, leading to human error and missed early threat detections.

ams OSRAM sought a security solution that could not only deliver better security efficiency, situational awareness and powerful features to optimize productivity, but they also wanted future-proof technology that handles challenges as the company grows.





Solutions

Avigilon Unity

After discussions with their security technology partner, ams OSRAM selected Motorola Solutions' Avigilon, specifically the Avigilon Unity on-premise technology suite, as its core security solution.

This comprehensive security suite provides a complete portfolio of physical security products and services, including cameras, VMS, video infrastructure and more. By bringing their security operations together under one centralized and scalable solution, ams OSRAM can achieve greater situational awareness, be immediately alerted to potential threats and initiate fast responses to achieve better outcomes.

As part of the unified ecosystem of physical security technologies, ams OSRAM invested in 397 powerful video security cameras, including:

- 306 dome cameras
- 83 bullet cameras
- Eight PTZ cameras

These cameras deliver the versatile video security that ams OSRAM was seeking. Backed by AI-powered video analytics, including Unusual Activity Detection (UAD) and Unusual Motion Detection (UMD), these cameras can detect and notify the security team of a potential threat requiring immediate attention, resulting in faster responses to incidents.

The dome and bullet cameras can be deployed indoors or outdoors for different security applications through their easy installation and various lens options. The PTZ camera is a high-resolution outdoor solution with a 250-meter (820 feet) IR illumination range that provides exceptional images across different applications and environments.

To support the new comprehensive video security solution, ams OSRAM procured Avigilon Unity Video VMS. This VMS elevates the operators' situational awareness by providing real-time insights, automatic alerts and an intuitive interface that allows them to analyze and respond to incidents faster. Furthermore, locating footage of suspicious individuals and vehicles is straightforward with Avigilon Appearance Search. Operators can now find what they're looking for in seconds with an easy search process combined with AI analytics.

Additionally, the company procured 12 network video recorders (NVR), specifically the Avigilon NVR5 Premium model, as part of its investment in the complete Unity technology suite. With up to 224 TB storage, the NVR5 Premium helps ams OSRAM meet their 90-day video retention requirements and lower deployment costs with the preconfigured Unity Video software on the NVR5 server.



Seamless integrations

Avigilon Unity integrated seamlessly with ams OSRAM's existing security infrastructure, helping to reduce costs and improve overall security posture. They integrated Unity Video VMS with over 300 existing third-party cameras, lowering costs and eliminating the need to rip and replace their entire system. Now, they can see video from all their cameras in Unity Video, to get a holistic view of on-site activities and help improve safety and security.

Additionally, ams OSRAM integrated Unity Video VMS with its existing third-party access control system. The security team can now utilize greater situational awareness to manage access events and use live video for visual

verification. If an unauthorized individual requests access, the team can take appropriate action to secure their premises and direct security officers to remove the potential intruder.

Before this recent move to upgrade their security operations, ams OSRAM's security officers used Motorola Solutions radios for site-wide communications. With the introduction of Unity technology, the security team has integrated its Motorola Solutions XiR P8600i Series Portable Radios and their XiR P8660i Portable Two-Way Radios with Unity Video VMS via Radio Alert (now part of Motorola Solutions Orchestrate). Now, patrolling security officers can receive instant security alerts from Unity Video VMS to their radios, enabling them to respond to threats quickly.

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Avigilon Unity has reduced our incident response times by at least 50%. Now, our security officers are on top of events and able to help secure our facility from external threats.

ams OSRAM





Benefits

Improved threat detection

ams OSRAM strategically installed its bullet, dome and PTZ cameras along the site perimeter, in the lobby area and at key entry and exit points. By doing this, the security team can observe activity across these busy spaces day and night.

Threats ranging from potential intruders and loitering to vandals and thieves at its manufacturing plant can now be detected by the Avigilon cameras' powerful AI video analytics capabilities. AI analytics, such as UAD and UMD, can identify and flag atypical events requiring the security team's immediate attention. These alerts are brought to the security team via Unity Video VMS for further analysis and to take action. As a result, the team can now stay one step ahead of security threats.

Faster incident responses

Detecting threats is not enough. What ultimately leads to better safety and security is what the team does with its enhanced threat detection capabilities. The early threat detection combined with the easy-to-use Unity Video VMS and Appearance Search enable ams OSRAM's security officers to find suspicious individuals and vehicles efficiently.

As a result, incident response times have been reduced by at least 50%. This significant reduction in response times means the security team has stopped potential security threats from escalating into critical events, protecting the manufacturing plant from operation downtime, financial damage and employee harm.

Smoother operations

The Radio Alert integration, now part of Motorola Solutions Orchestrate, has improved operations by enabling security officers to receive alerts from Unity Video VMS on their Motorola Solution radios. Not only does the team continue to enjoy efficient radio communications, but security personnel can now be instantly alerted to potential threats around their facility while out on patrol. This means officers can perform their duties and maintain situational awareness across the facility without being confined to a desk observing camera feeds.

Additionally, Avigilon Unity's integration with the existing third-party access control system has solidified the manufacturing plant's physical security. Before the integration, intruders could exploit the access control system's vulnerabilities to gain unauthorized access. Now, the integration with Unity Video VMS and security cameras has fortified the premise's access control. Should an unauthorized individual try to access the facility, they will not only be denied access but the nearest security camera will capture key footage of the interaction so the security team can investigate and respond to the event.



Conclusion

Protecting manufacturing plants is key to the success of any business. With Avigilon Unity, ams OSRAM is well placed to secure its premises from external threats. Avigilon's AI-powered security cameras, the easy-to-use Unity Video VMS and seamless integrations with Motorola Solutions' radios, third-party access control and security cameras have enabled ams OSRAM's security team to improve its threat detection capabilities, respond to threats quickly and optimize general security operations.

Since installing the Avigilon Unity solution across the manufacturing facility, the facility has not seen a theft, intrusion or other criminal activity. ams OSRAM's world-class manufacturing hub is better secured and safeguarded with cutting-edge video security technology that delivers comprehensive security and peace of mind.

In the coming months and years, ams OSRAM is looking to outfit its other facilities in Malaysia with the Avigilon Unity solution as it eyes future expansion at its existing premises.

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With Motorola Solutions and Avigilon as our security partners, ams OSRAM can now fully focus on our business goals and continue to be a leader in the LED sector.

ams OSRAM



To learn more, visit:
www.avigilon.com



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