



**AVIGILON™**

# **PLYMOUTH-CANTON COMMUNITY SCHOOLS CASE STUDY**

**Bringing Together Safety and Security for Plymouth-Canton  
Community Schools With Avigilon Unity**



**MOTOROLA SOLUTIONS**



Located on the outskirts of Detroit, Michigan, is Plymouth-Canton Community Schools (P-CCS). This expansive school district includes 14 elementary schools, five middle schools, three high schools, an early childhood school, a post-secondary school, an alternative learning high school and numerous administrative buildings.

P-CCS provides learning excellence with an environment that facilitates over 16,000 students of all abilities to achieve their highest potential. With 1,500 highly-qualified staff and various support programs available, P-CCS continues to provide its students with the educational opportunities they need to become productive citizens in a global community.

With such a large number of students and a school district encompassing almost 30 buildings across a vast area, the school district's security operations must continue to meet the ever-changing needs of modern educational facilities.

## CUSTOMER PROFILE

Plymouth-Canton Community Schools (P-CCS), Michigan

## INDUSTRY

Public K-12 Education

## SOLUTIONS/TECHNOLOGY

Avigilon Unity Access

Avigilon Unity Video

Avigilon Unity Cloud Services

Avigilon H5A camera line

Avigilon H5A-PTZ camera

Avigilon H5A Fisheye camera

Avigilon H5A Dual Head camera

Avigilon H5 Pro camera

Avigilon H4 Multisensor camera

Avigilon Next-Generation Video Analytics

HALO Smart Sensor

Motorola Solutions MOTOTRBO SL300 portable radio

Motorola Solutions MOTOTRBO XPR 7550e portable radio





# CHALLENGE

## Dealing With the Worst-Case Scenario

Ensuring they have the security solutions needed to handle any incident that could jeopardize safety within the school district is at the forefront of the P-CCS security and administrative team's mind. This became especially true following a school shooting incident in a neighboring district, which escalated security concerns. Responding to such events is both crucial and challenging; even though the incident did not take place at a P-CCS school, the team had to secure its campuses out of an abundance of caution. In active situations, risk management can be extremely difficult, with multiple internal and external teams communicating simultaneously within a high pressure environment and a flood of information pouring in. This event encouraged the security and administrative team to rethink its strategy for critical events to ensure P-CCS had the technology and processes in place to effectively mitigate active situations in the future.

To prepare itself for major incidents that may require a strong security response, such as a site-wide lockdown, P-CCS knew it needed to reinforce its security setup with a solution that could provide an instant lockdown while also giving them the situational awareness the security and administrative team needs to handle the event remotely.

## Enhanced Investigations

When a security concern arises, security administrative teams must be able to analyze video footage from their security cameras to understand what happened and what kind of response is required to de-escalate the situation. The analysis also helps to identify any perpetrators or victims and allows the security and administrative team to revise their response strategy to better deal with similar incidents in the future. P-CCS prioritized this as an area of their operations that required urgent improvement to allow them to respond to, investigate and mitigate incidents effectively.

## Addressing Student Behavior

Across their schools, P-CCS monitors the events that take place inside and outside their buildings to ensure students, staff and visitors are kept safe. In the event of student misbehavior or truancy, the school district's security and administrative team and administrators can utilize their security camera footage to see what happened and help quickly locate an individual to address the behavior.

However, P-CCS' previous video security system was not available in every building and unable to provide them with the evidence they needed to handle matters of misbehavior, as it wasn't always clear what happened or who was involved due to gaps in video security coverage and poor image clarity.



# SOLUTIONS

To overcome the challenges its schools face, P-CCS selected the Avigilon Unity security suite to take their safety and security operations to the next level.

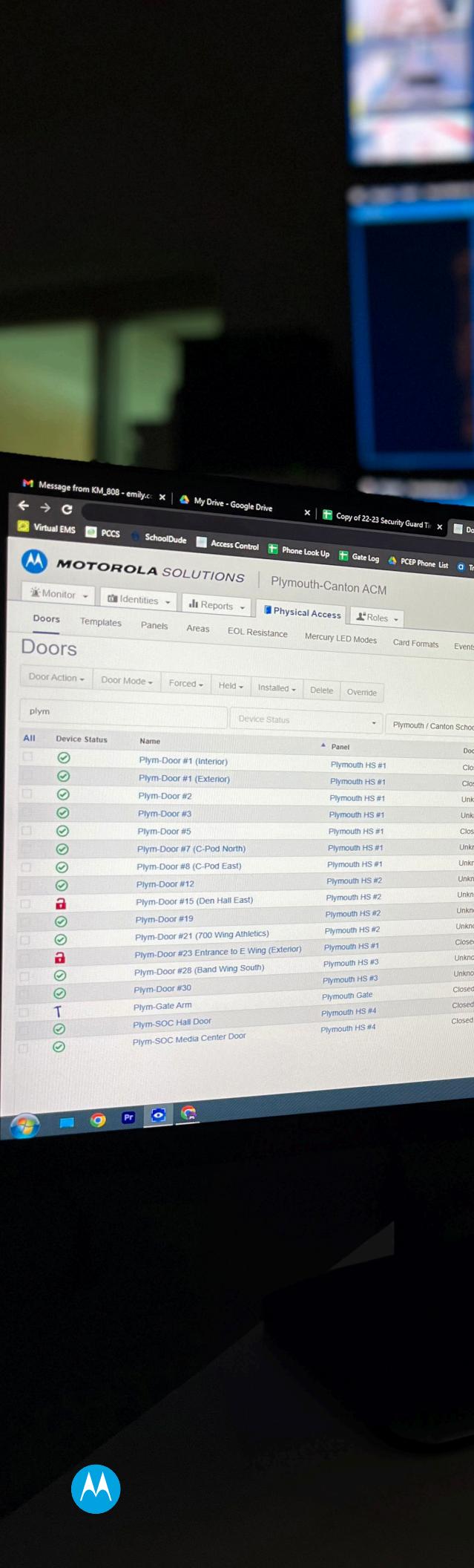
Within the Avigilon Unity suite of AI-powered on-premise technologies, P-CCS deployed a range of security cameras. This included the H5A camera line — a versatile set of AI-powered cameras that are utilized across the school district. The H5A-PTZ and H5 Pro are used to monitor exterior locations thanks to their expansive coverage capabilities. The H5A Fisheye, the H5A Dual Head and the H4 Multisensor cameras have been installed along hallways, stairwells and cafeterias to provide coverage from all angles so no incident is missed.

Almost 1,500 of these cameras have been installed across the interior and exterior of all their sites. Most of these Avigilon cameras feature Next-Generation Video Analytics, which help focus the operator's attention on potential threats, providing a smarter and more proactive video security solution. Appearance Search and Unusual Activity Detection were also deployed to enhance their security operations and investigatory processes.

To complement these powerful video security cameras and provide operators with a seamless video management experience, P-CCS acquired Avigilon Unity Video. It delivers the right information so the security and administrative team can respond to any situation captured by their Avigilon cameras. The easy-to-use, AI-enabled software provides the analytic experience operators want as the VMS' Focus of Attention interface uses AI to determine what information is important and should be presented to the operator to review and easily see where attention is needed. P-CCS also connected its Unity Video system to Avigilon Unity Cloud Services, which allows the security team to view live and recorded video and monitor and manage their system's health remotely.

With vaping a major concern for schools nationwide, P-CCS was proactive in combating this issue by installing the HALO Smart Sensor in areas where video security cameras would not be appropriate, such as washrooms. This solution is a real-time vape detector that helps to detect vaping in privacy concern areas. This smart sensor is able to detect vaping, smoking, chemicals and noise level fluctuations that can indicate bullying and fighting, too — providing an additional use-case for this versatile technology.

To bolster its access control operations, P-CCS chose Avigilon Unity Access. Unity Access is a scalable physical access control system that is 100% browser-based and mobile-enabled, allowing the security and administrative team to manage operations from anywhere, anytime. In total, 258 doors across the school district are secured with Unity Access.



# THE BENEFITS

## Prepared to Handle Any Security Situation

P-CCS is now better equipped to manage security incidents of all sizes. By pairing Avigilon Unity Video with Unity Access, the security team can take advantage of enhanced situational awareness that allows them to detect, monitor and respond to potential threats instantly.

In late 2021, a nearby school experienced a major school shooting incident, putting P-CCS on high alert. The security and administrative team had been investigating alleged threats to their own schools, including an unconfirmed report of a weapon on campus. Upon being notified of this potential threat, the security and administrative team activated the Avigilon Unity Access lockdown feature across Plymouth-Canton Educational Park high school campus.

The district's security center became a command center from which the security and administrative team used Appearance Search to find footage of the suspect's last known location, and from there, they monitored real-time footage to locate their whereabouts so they could mitigate the incident and relay vital information to law enforcement. To relay information about the location of the suspect to school resource officers assigned to the campus' campuses, the team can use their Motorola Solutions MOTOTRBO SL300 and XPR 7550e radios, which interface with Unity Video. In the end, no firearms were found on the suspect, and after careful investigation, the lockdown was lifted.

"We were able to resolve the lockdown within a few hours, which would have taken two to three times longer to lift without the cameras and their analytic capabilities," said Josh Meier, Director of School Safety and Security at P-CCS.

This situation proved the immense capabilities of Motorola Solutions' end-to-end security solutions, from video security and access control to radio communications. As a result, P-CCS's security team was able to handle the high-pressure event efficiently while ensuring the safety of all those in their school district, something they weren't able to achieve with their previous security setup.

## Enhanced Investigatory Capabilities

The coverage the new Avigilon security cameras have provided the P-CCS security and administrative team has been eye-opening. No longer do operators need to worry about blind spots or low-quality footage, as each Avigilon camera provides enhanced coverage of sites and delivers sharp imagery that helps improve investigation times.



Working with Avigilon allows us to see not only what security solutions we need now but what's on the horizon for tomorrow. Avigilon is a partner for future-proof security evolution, and we couldn't be happier.

— Dr. Monica L. Merritt, P-CCS Superintendent of Schools

When an incident occurs, the security and administrative team can rely on the footage from their cameras to provide the images they need to see what happened, who was involved and where they are now. The Unity Video VMS speeds up the investigation of incidents with its incredibly easy-to-use footage search feature, and with the aid of AI based analytics, operators can find the suspect quickly. Not to forget, all of this can be done remotely via Avigilon Unity Cloud Services, which means the security and administrative team doesn't need to be at their desk to receive alerts and view footage. The staff has been able to use this feature out-of-hours when perimeter breaches have occurred, or building alarms are set off.

## Avigilon Unity Supports Day-to-Day Operations

P-CCS prides itself on providing an environment where students feel safe and thrive, but it can't always stop unforeseen situations or school threats. The security and administrative team and staff can rely on the power of Unity Video to deliver clear video footage to identify issues and address them efficiently and proactively. In most cases, the mere presence of the cameras is enough to prevent the students from misbehaving.

The Avigilon Unity suite of technologies that P-CCS has installed aids in discovering other potential problems. For example, a door that has been left ajar, creating a potential security risk, can be identified and resolved instantly. Unity Access can provide an alert to the security and administrative team, which, when paired with footage from Unity Video, can support them in addressing the situation and finding out who left the door ajar.

General access control operations have vastly improved. The security team no longer needs to deal with numerous master keys or visit each building across their school district to unlock and lock the doors. Unity Access has revolutionized access management for the team through its remote capabilities. Now, the operator can lock or unlock a door and grant access instantly from their office or on the go and seamlessly distribute or revoke access credentials as needed.





I credit our Avigilon Unity solution for helping us resolve this firearm threat quickly. Without it, we would not have been able to address it so quickly and ensure safety across the school district. Avigilon technology has made it very possible for us to secure a building efficiently.

– Joshua Meier, Director of School Safety and Security at P-CCS

## CONCLUSION

By being proactive with their security operations, P-CCS continues to provide a secure environment for students to achieve their full potential, staff to feel safe when carrying out their duties and parents to feel reassured that the school district understands that the safety of their children is a very high priority. By investing in

future-proof technologies from Motorola Solutions, the school district is well-positioned to take advantage of the latest products and integrations that further enhance security operations when new challenges arise in the coming years.





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