Agent Vi Revolutionizes Search Through Surveillance Video at North Hennepin Community College

Challenge
One of the largest and most diverse community colleges in Minnesota, North Hennepin Community College (NHCC) is located on a 97-acre campus in Brooklyn Park, MN and serves more than 15,000 students with credit degrees, certificates, non-credit continuing education and customized training. NHCC is a member of the Minnesota State Colleges and Universities (MnSCU) system and is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools.

NHCC security staff patrol the campus and also rely on a video surveillance system to monitor security and safety. The security team must be alert around the clock, due to the flexible evening and weekend scheduling at the campus. Therefore, NHCC sought an automated solution, to speed up the review of video captured by the surveillance system and more rapidly search stored footage containing campus incidents. The goal was to provide even more efficient and effective post-event analysis.

Solution
NHCC turned to Agent Vi to deploy Vi-Search – Agent Vi’s search and analysis solution. Vi-Search was installed on two work stations, allowing multiple users to utilize this analysis tool simultaneously. All 60 cameras onsite were enabled with video analytics capabilities that allow rapid forensic search, investigation and business intelligence.

Vi-Search was installed at NHCC by embedding the Vi-Agent component in the various Axis cameras employed at the site, including fixed cameras, domes and PTZ cameras used to secure both indoor and outdoor areas. This embedded component undertakes continuous indexing of the video content, which allows the users to perform search queries for specific behaviors / incidents in the Vi-Search GUI client.

With Milestone XProtect Corporate, NHCC can benefit from advanced search features such as Smart Search, Instant Playback and Sequence Explorer. Through Vi-Search, these search capabilities are enhanced. For example, when a user performs a search and matches are found, thumbnails are displayed for easy navigation of the search results. The user double-clicks on each thumbnail in order to view the associated footage, and the relevant video is pulled from the Milestone XProtect Corporate

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NHCC
The deployment of Vi-Search has revolutionized the way that forensic searches are undertaken at NHCC. In the past, when an incident was reported and the security staff wanted to locate the video footage of the incident, the security officers had to browse through the recorded video which took a significant amount of time. With the installation of Vi-Search, the security officer now defines parameters such as time, location, behavior and clothing color, and Vi-Search undertakes a quick, automatic search which presents thumbnails matching the search query. The security officer only has to do a quick review of those search results and select the video segment that is associated with the incident. Moreover, the security officer can extend the playback to view footage before and after the incident, which helps the investigation and analysis of the event.

NHCC also employs Vi-Search to locate suspicious persons or vehicles, and follow their pathways/routes through the campus. If the area in which the suspect was present is known, the security officers specify which cameras they want to search on. If there is no confirmed information as to the suspect or vehicle’s location, a search can be taken across all cameras simultaneously. Either way, search results are quickly presented and the security officers review them to locate the footage of the person or vehicle.

Furthermore, NHCC uses Vi-Search to learn about the movement of students and general traffic in and around the campus bookstore. For example, Vi-Search can display the motion paths of all visitors within the bookstore, and this valuable business intelligence allows the bookstore to better plan their displays.

Vi-Search also provides NHCC with valuable statistical information, such as the number of students entering the bookstore and cafeteria per hour. NHCC can then plan staff shifts to improve customer service in heavier traffic periods.

Jesse Cashman, Director of Safety & Security at NHCC commented that “The query tools provided by Vi-Search have allowed us to slash our investigation times. In addition to the significant savings in resource hours, Vi-Search has helped to expose valuable information about events happening around campus, which were previously recorded but never viewed by anyone due to the lack of appropriate review tools.”

Tom Fuxa, Director of Sales at Paragon Solutions Group – a certified member of Agent Vi’s and Milestone’s Channel Partner Programs – said that “Deployment of Vi-Search at the campus was very easy as compared to other video analysis tools: it does not require any complex setup and tweaking of analytics rules. Installation was a simple process and within a few hours, the software was up and running and providing value to the end user.”

Result

While video recording is a basic component of most surveillance networks, the recorded video is rarely utilized due to the lack of an automated and time-efficient solution that enables search and analysis of such stored video. Through Vi-Search, all video streams in a surveillance network are analyzed during recording, and events and features are indexed and stored. Using Vi-Search’s advanced and intuitive interface, users can search for specific events and data which are retrieved automatically, replacing time-consuming and ineffective manual review.

Based on Agent Vi’s open architecture, pure software approach, Vi-Search seamlessly integrates with a wide range of edge devices and video management systems, in both new and existing surveillance networks. Vi-Search allows true leveraging of stored video by enabling instantaneous forensic searches, analysis of motion patterns and extraction of statistical data for applications such as security, post-event analysis and business intelligence.