

Case study:

Preparing for Tomorrow: Why Black Hills State University Took an Open, Scalable Approach to Video Security

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Corey Compton, Director of Public Safety, BHSU

Building a Foundation for Future Needs

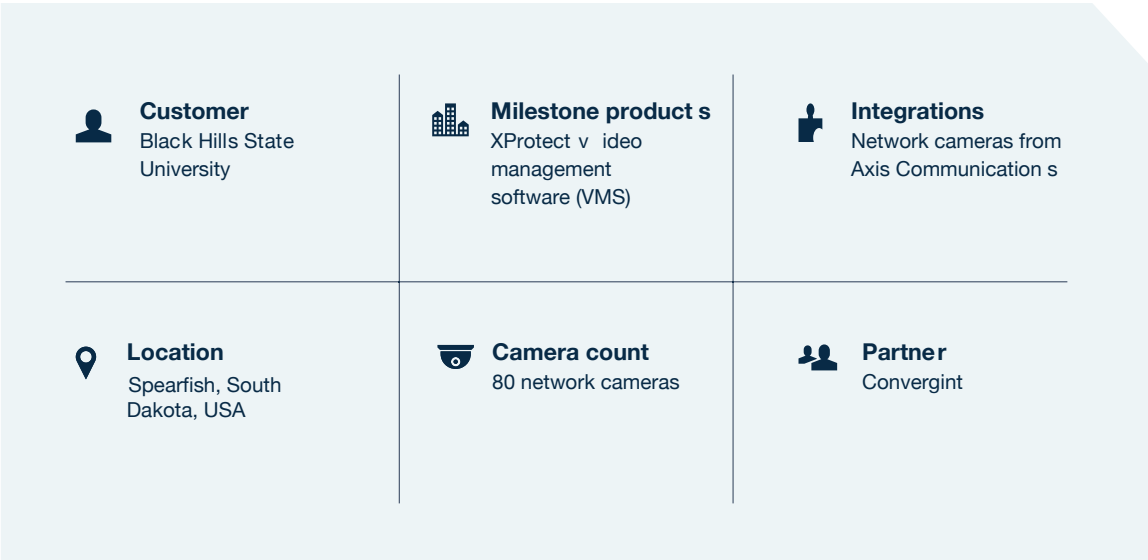
Nestled in the scenic northern Black Hills of western South Dakota, Black Hills State University is a public university focused on providing quality higher education opportunities for nearly 3,500 students. With roots dating back to 1883, the university continues to modernize and expand its 130-acre Spearfish campus and smaller Rapid City locations. Part of these ongoing improvements include adopting innovative video technology aimed at strengthening security and streamlining operations across school departments.

Prior to 2011, BHSU lacked any centralized video system, according to Corey Compton, the university's Director of Public Safety. The new system has provided the foundation for significant expansions down the road.

“We have cameras in every building, including the common areas of residence halls,” said Compton. “And we have exterior cameras covering the campus green, several parking lots, the Young Center fitness facility, and more.” Compton added that the system incorporates a mix of pan-tilt-zoom (PTZ) and static cameras from Axis Communications, with plans to add more advanced, high-definition devices in the future.

The Milestone XProtect open platform video management system currently supports over 13,000 different security devices from over 700 of the industry’s leading manufacturers. Technology Partners include providers of network video cameras, NVRs, cloud technologies, access control, alarm and detection systems, video analytics, GPS technology, laser scanners, emergency call boxes, and much more. Axis Communications provides a range of network solutions in video security, access control, intercom, and audio systems. Axis network video camera solutions include dome, box, bullet, PTZ, panoramic, thermal, wearable, and other specialty camera solutions.

Black Hills State University recognized the need for a centralized video system to improve campus security and streamline operations. The university sought a solution that could unify its main campus with a satellite location, enable cross-department access, and scale with future growth. By implementing open platform video technology, BHSU laid the foundation for a comprehensive, flexible, and scalable security infrastructure.



Challenge: Centralized Management Needed

Prior to 2011, Black Hills State University (BHSU) lacked a centralized video system for campus security and operations. The university sought to install cameras as an investigative resource, covering its 20 building complexes, common areas, exterior grounds, and parking facilities. BHSU aimed to create a unified system that could support multiple departments, scale with future growth, and enable seamless monitoring across its main Spearfish campus and smaller Rapid City location, 45 miles away.

Solution: Expanded, Integrated Video

BHSU worked with Convergent Technologies and Milestone Systems to deploy a mix of approximately 80 network cameras from Axis Communications.

XProtect open platform video management software (VMS) from Milestone Systems brings everything together efficiently and securely. This flexible, scalable solution allowed BHSU to integrate its campuses via a VPN, enable cross-department use, and lay the foundation for ongoing system enhancements and expansions.

Result: Seamless, Shared, Multi-Department Use

The video system provides an integrated view across BHSU's campuses, allowing authorized staff to seamlessly monitor live and recorded video. The system's open platform approach enables easy scaling to support future growth and technology integrations. Cross-department access to the VMS increases its use and value, assisting Public Safety in investigations, IT in maintenance, and Facilities in weather monitoring. This flexible foundation helps ensure that BHSU can adapt to emerging safety, security, and service innovations.

A Unified Campus View

A key advantage of BHSU's video system is its integration of the main Spearfish campus with the university's smaller Rapid City location.

"It's all on one system that we can access. Everyone can check the Rapid City campus cameras with just a few clicks," said Compton. "And as that campus grows, we will certainly deploy more cameras and capabilities at that facility and tie it together as a unified system."

This connectivity is achieved via a VPN connection established by BHSU's IT department. It enables authorized staff and security personnel to seamlessly monitor live and recorded video from all university cameras.

This flexibility allows the video system to scale with BHSU's future growth. The Spearfish campus has plans to continue enhancing coverage in line with Compton's goal to expand and maximize camera use. Meanwhile, the Rapid City campus is expecting major facility expansions to house new academic programs that will also require upgraded security. The unified open platform video management approach supports easy system hardware, software, and performance scaling.

"Convergent Technologies is proud that Black Hills State University chose our innovative security solutions to safeguard their campus," said Bob Peplinski, General Manager, Convergent Technologies. "By selecting a system that is meticulously future-proofed, the university demonstrates their commitment to staying ahead in ensuring the safety and security of their community."

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Cross-Department Usage

While some campus video deployments focus solely on security staff, BHSU strategically grants system access to stakeholders across operational units. This matrixed use approach accounts for each group's unique monitoring needs, from security to technical maintenance to weather incidents.

"There are three main offices with full access: Public Safety, IT, and Facilities. Student Union staff also have view-only access to those specific cameras," said Compton. "Video data can seamlessly assist in various cases without being siloed in one department."

Public Safety directs most day-to-day video usage with live monitoring and forensic video review after crimes occur on campus. According to Compton, the system previously helped close out an assault investigation by tracking the suspect through residence hall common spaces leading up to the attack. The system has also provided visual evidence to support hit-and-run cases and other offenses on campus.

Beyond security, the school's IT staff access the cameras as required for technical diagnostics and maintenance. Campus facilities personnel use the system for weather and grounds monitoring to dispatch snow removal crews or identify storm damage. Collectively, this cross-department use increases the video network's value and ensures that it's actively being used to serve the university's administrative needs.

Ongoing Enhancements

As effective as BHSU's video system has proven, Compton sees room for improvement as video technologies progress. He summarized various upcoming initiatives geared toward increased safety and smarter campus management. These include:

- Expanding the number of installed cameras to eliminate dark, unsafe pocket areas.
- Upgrading aging equipment with modern PTZ and 360-degree cameras.
- Adding portable pole cameras for temporary coverage of remote areas or special events when needed.
- Investigating new software capabilities like video license plate recognition (LPR) and audio detection for campus use.
- Integrating the system with access control platforms for streamlined door locks/unlocks during incidents and for regular business hours.
- Implementing data-driven video analytic software to quickly extract video clips based on suspicious attributes like clothing or vehicle color, backpack detection, left behind objects, and more.
- Enabling smartphone VMS integration so on-duty guards can seamlessly view video feeds while patrolling campus.

Compton also discussed longer-range possibilities, such as deploying standalone emergency kiosks with integrated cameras, first aid kits, and automated external defibrillators (AEDs). Areas like the athletic facilities and the campus stadium would benefit from rapid emergency and medical response, and the situational awareness and the flexibility and scalability that only an open platform VMS provides.





Future-Proof Video for Long-Term Success

As a model for campus video system use that tangibly improves the school experience for students and staff, Black Hills State University established the proper foundation early on. University officials were able to avoid common pitfalls such as proprietary technologies or departmental silos that often inhibit such projects. Instead, BHSU opted for a flexible solution that captures robust video data while allowing easy access to departments and key users. As new camera integrations, smart devices, and security data use emerge in the years ahead, the university can avoid rip-and-replace headaches and integrate in new equipment and capabilities as needed.

“The exciting part is knowing our system can easily expand thanks to the flexible software backbone tying everything together. With an open platform, there are almost no technological barriers to whatever new cameras or analytics innovations emerge in coming years,” said Compton. “The Milestone software has been simple to pick up and use across our team, and that means we’re leveraging the system to its full potential.”

