**Background**

The Air Force Academy’s Polaris Hall is the newest architectural gem to grace the organization’s historic campus. Located in Colorado Springs, Colorado, the building houses the Center for Character and Leadership Development (CCLD), which is responsible for training students on how to become honorable leaders of the United States Air Force. The building’s centerpiece is a 105-foot-tall glass tower featuring an oculus that is oriented toward Polaris, or the North Star. Polaris not only has a strong connection to aviation navigation, but it also represents the true north of moral character and leadership the organization impresses upon its students. Through daily, high-quality interactions with faculty and staff, including visual signage, trainings, guest speakers, and high-profile thought leadership, the CCLD helps cadets understand, practice, and integrate character and leadership development into their lives in preparation for service to the nation in the profession of arms.

**The Challenge**

Encompassing 46,000 square feet, the new facility needed an affordable way to distribute digital signage content and to record and stream training video and high-profile guest speeches with low latency and high quality. The solution needed to provide a simple, secure, and versatile platform that would allow its faculty and cadets to view both live video broadcasts and on-demand content from anywhere.

**The Solution**

The CCLD chose to utilize VITEC’s EZ TV IPTV system with support from VITEC’s MGW 1100 carrier-grade blade encoders to create, store, view, stream and share HD and SD video from any source, anytime, anywhere and to any screen. The most deployed IPTV delivery system in the world, EZ TV provides high-quality delivery, recording and management of live and on-demand video streams over its existing IP network securely and cost-effectively - making
it an ideal solution for many applications. This centralized IP approach to video distribution reduces the costs associated with traditional coax cabling while making distribution more efficient. With the EZ TV's scalable architecture, CCLD has an affordable end-to-end streaming solution that can meet its channel needs now and in the future.

Currently, the organization has nine channels consisting of internal sources, including a feed from the director’s conference room; training videos; a Blu-ray™ player; a camera and mic feed from the auditorium where many keynote speeches take place; and cable and satellite feeds. These channels are distributed to five 65-inch flat panel displays in CCLD’s hallways; 10 collaboration rooms that are designed for two-way videoconferencing and feature a display and set-top box; and 10 conference room displays with set-top boxes. Beyond these 25 displays within the facility, the channel-based system can be distributed over LAN or WAN to the desktop, allowing cadets and staff to effortlessly watch both live and on-demand content and see emergency alerts via the browser-based EZ TV Player. EZ TV even has the capability to be distributed to mobile devices, giving the organization a wide range of distribution options going forward. The EZ TV platform supports the latest compression standard HEVC (H.265) in addition to HD and SD live and on-demand streams in MPEG-1/2/4 and H.264 formats. It also enables administrators to dynamically create and manage video assets and distribute them across a network with AES 256/128-bit encryption, conforming to the most stringent network and information assurance security standards. For further security, access can be controlled on the user and group level through seamless integration with Microsoft® Active Directory®. Administrators can view real-time dashboards to measure and easily generate reports on the content consumption, user activity, network bandwidth utilization, and other insights.

The Result

With VITEC’s comprehensive EZ TV IPTV streaming solution, CCLD has tapped into a versatile tool that allows the organization to affordably record and distribute the dynamic video content that’s vital to its vision for creating honorable and ethical leaders for the United States Air Force. From signage, to training and guest speakers, the organization can capture and distribute all their video content to any screen installed in the facility or directly to a cadet’s desktop.

VITEC’s IP Streaming Solution for CCLD

- Provides a comprehensive solution for high-quality delivery, recording, and management of live and on-demand video over IP networks securely and cost-effectively
- Offers advanced viewing options, collaboration, and distribution tools
- Seamlessly integrates with any IT environment and deploys on all types of networks: LAN, WAN, and Wireless
- Allows operators to deploy and maintain an advanced, scalable IPTV solution that offers cutting-edge video viewing, sharing, collaboration, archiving, and distribution capabilities on any device - all without user seat licensing and no annual fees

*This article does not imply an endorsement by the federal government or the US Air Force Academy.

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