

Clemson University

Unification hits high marks for campus safety and security



Industry
Higher Education

Location
Clemson, South Carolina,
United States

Products
Security Center, Synergis,
Omnicast, Plan Manager, Mobile

Partners
A3 Communications, HID Global

CLEMSON

Clemson University conducts full-scale security upgrade using Genetec Security Center for access control and video surveillance

Clemson University is a public land-grant higher-education institution in South Carolina, United States. The University is the second-largest in the state with a student enrollment of over 24,000. Its main campus spans 1,400 acres in the foothills of the Blue Ridge Mountains and includes the 17,500-acre Clemson Experimental Forest which is used for research, education, and recreation. A cluster of other research facilities and economic development hubs are spread throughout the state.

The trouble with siloed access control systems

Access control technology has been a security staple at Clemson University for over 20 years. In the late 90s, the housing department implemented access control to secure its residence halls. Over time, other academic and administrative departments followed to enhance facility security. Eventually, the University had four separate access control systems that managed over 800 doors across 84 buildings.

The problem was that each access control system stood alone. During investigations, the public safety team would have to physically meet with the department's system administrator and ask for the access control records. Determining which system had the information they needed was often the first hurdle, delaying investigations.

Since each department operated in siloes, there was also little visibility on system issues. Some departments pro-actively performed preventative maintenance on a routine schedule, while others responded only when problems were spotted. In those cases, it could take time to get issues resolved which created unnecessary risk for people and buildings.

As more departments came forward expressing interest in access control, TigerOne, the department that oversees physical security and retail systems, knew it was time to rethink their strategy. They discussed options with the Executive Leadership Team, who agreed—Clemson University needed a new access control solution that could scale across all university facilities both at the main campus and at other sites across the state.

Bringing departments together to find the right solution

As a state entity, the University couldn't just pick any system. TigerOne assembled a dream team comprising 20+ individuals from various university departments such as Athletics, Central IT, University Facilities, Public Safety, Research, Procurement, Academics, and put the security project out for public tender.

According to Steve Robbins, Executive Director of TigerOne at Clemson University, "We wanted a unified enterprise-level access control system that would be scalable, modern, and user-friendly.

We envisioned a solution that would give us options for desktop, web, and mobile capabilities as we saw the number of users of the system growing extensively.”

“We also needed a solution that could accommodate a high level of automation. We had already developed some web applications which automatically assigned cardholder rights based on a student’s housing assignment. These automations saved our team tremendous time, so we absolutely required those capabilities in the new solution,” continued Robbins.

As the search began, the consideration of video surveillance came up. Over the years, the university had accumulated over 30 different video systems. While upgrading video systems wasn’t part of the initial plans, the university knew it would be wise to think ahead and choose a solution that could unify video and access control systems.

When all proposals were submitted, a third of them were for the Genetec™ Security Center platform. Ensuring due diligence, they met with vendors, weighed options, and consulted referrals. Every member of the project team rated each solution based on must-have criteria. Clemson University chose the Security Center Synergis™ access control solution proposed by the security systems integrator, A3 Communications.

“Genetec Security Center met all our requirements. In the end, it was the culmination of everyone’s independent scores on the task force that led us to choose the unified security platform. The solution also gave us the flexibility to bring access control and video systems under the same platform, as more funds became available over time,” said Robbins.

Achieving campus-wide visibility from one intuitive platform

Today, Clemson University is using the Genetec Security Center platform to manage over 2,500 doors across 120+ buildings. While most facilities are located on the main campus, there are several facilities in adjoining counties and another five sites across the state.

The University also migrated over 700 cameras within the Security Center Omnicast™ video surveillance system. This allows staff from the public safety team, library, data center, and others to see all video and door activity within one intuitive security platform.

“Before Security Center, the public safety team didn’t have immediate visibility on what was happening on campus. Today, they can access the security platform to see what is going on and investigate within seconds,” explained Robbins.

Security operators work from a central control room to monitor events and to keep an eye on the busier areas on campus. If an incident such as theft is reported, they can quickly retrieve access control reports and video evidence without leaving their desks.

Using the Plan Manager map interface, the public safety team easily navigates the expansive university grounds. If a protest is underway or a fight breaks out on campus, they can pull up the video to see what’s happening and relay information to responding officers before they arrive. This ensures they are better prepared for the situation at hand.



“We’re in a much better position for instituting any number of threats level situations as well. Should the need arise, our public safety teams can implement any of seven levels in the Genetec platform at the click of a button. For instance, we can go into complete lockdown so that only our first responders would have access into facilities,” said Robbins.

Taking access control automation to the next level with Synergis

Clemson University has over 30,000 active cardholders. This includes all students, staff, and affiliates such as contractors, vendors, ministers, and others. To save time and keep campus life moving, assigning access control rights to everyone happens mostly without human intervention.

TigerOne took advantage of the security platform’s open architecture to automatically sync data between the Synergis access control system and the University’s enterprise systems—credentials (IDs) human resources, student directory, course registration, and housing systems.

All data from these systems are populated in a central repository, known as the Clemson Vault. The Vault collects all information from the various systems, defines individual cardholder attributes, and transfers this data to Security Center. Based on these attributes, the security platform will then automatically assign each cardholder to cardholder groups with specific user privileges.

“At the start of the semester, when we have up to 25,000 students enrolled, we don’t have to worry about making sure everyone has access to the right facilities. I can’t even imagine how many people we would need to handle those tasks. Instead, we have been able to leverage the capabilities of the Security Center platform to secure our facilities and grant access where it’s needed. That means our team can focus on other more critical tasks,” said Robbins.

Clemson has cardholder groups and automation set up based on whether a student is taking a major or a minor, or if they have enlisted in specific courses or programs. Each building on campus also has a building security coordinator who can assign specific building privileges should the need come up.

Campus residents are granted access to their residential building, and in some cases their room, as soon as they check-in with the housing department. “Our staff will check a resident into their

assigned space and the Vault will transfer information to Security Center, where access privileges are automatically granted for the residence building and room. It's all usually completed within a minute of the check-in" explained Robbins.

The perks of mobile access control credentials on campus

Over one-third of cardholders use mobile credentials at Clemson University. This allows students and staff to use their mobile devices to gain access to buildings. To make this possible, the University chose the HID iClass Seos credential technology which supports multiple form factors such as mobile devices and smart cards. While mobile credentials at Clemson University are currently offered to Apple device users only, TigerOne is currently working on an Android solution and aims to move entirely to mobile credentials soon.

"We believe mobile credentials are the future. Students already have devices in their hands and digital credentials allow us to share real-time information with cardholders such as meal-time status and declining balances for meal plans. They can also present mobile credentials as a form of ID if they are proctoring a test. And if they're using our recreation center and bringing their phone to play music, they don't need to take a smart card too. On many levels, mobile credentials provide greater ease and efficiency, and allow us to disseminate information faster," said Robbins.

Beyond physical security, students can use their access control cards or mobile credentials to check out books or equipment at the library, receive packages at the post office, use printer credits, and pay for meals in dining halls or items in campus stores.

Should a student lose their card or phone, the process of de-activation is automated too. "The student can log into TigerOne Online and deactivate their credentials. Once they do that, the Vault is notified which then alerts the Synergis system to disable those credentials. If the student simply misplaced their card or mobile device and finds it later, they can re-activate it. This saves everyone time and reinforces campus safety," said Robbins.

Bolstering facility security with door schedules and biometrics

To strengthen building security, the TigerOne team also setup facility schedules and door rules. "Every building is different in how it functions and operates, but typically, you'll find at least a handful of different schedules like a building opening at 7:30 am and locking at 9 pm from Monday to Friday. Otherwise, a building will be fully locked and only certain cardholder groups will have access to the building," explained Robbins.

During highly anticipated sports events, building security coordinators can also enable 'game-day' mode at facilities nearest to sports stadiums and arenas. This locks the buildings down to key facilities persons to minimize security concerns when people flock to the University for big events.

The Athletics department has also installed over 100 biometric readers in their facilities which are integrated with the Synergis access control system. This allows coaches and players to easily enter and move through facilities during practices when they are not carrying around their smart cards or mobile credentials.

Staying on top of security system maintenance

Using one centralized security platform, the TigerOne team has been able to facilitate faster, more effective maintenance protocols. That means if a device goes offline or the system isn't configured correctly, the team will know about it.

"Our TigerOne team can make sure all systems are working as they should. We can view device statuses in real-time and we have contracts in place for support with our integrator, A3 communications. We're much more proactive in resolving camera and door issues using Security Center," said Robbins.

Building security coordinators use the Mobile app within Security Center to respond to access denied events or monitor system health from any location. The app is particularly useful when they need to put doors in maintenance mode to facilitate upgrades, fix door hardware, or test new configurations.

Moving ahead with video surveillance expansion

As Clemson University heads into its fifth year of the access control upgrade, they are nearing completion of the access control project. Their focus moving forward will be on expanding video surveillance. The TigerOne team is looking to add 1000 cameras this year, with the potential to double that number in the following years. They also want to extend the capabilities of their Mobile app to responding officers and the public safety team and explore new capabilities within the Security Center platform.

"Since implementing the Security Center platform, we have improved campus security in big ways. Not only are we better able to secure our buildings and residential student spaces, but we're also automating a lot of the credentialing tasks which saves us significant time and resources. Unified security also gives our public safety team the tools and information to best respond to any situation. We're looking forward to evolving our Genetec system to enhance campus life and keep everyone safe," concluded Robbins.

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