Case Study

# University of South Florida


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*Nate Rice, USF's engineer for video surveillance*

*Solution: Infinova V2216 network video management and IP Cameras*

## University of South Florida Becomes Bullish on IP Video

Anyone who has witnessed the emergence of the University of South Florida (USF), including its Big East athletic teams – the Bulls – recognizes it as one of America's leading universities. Founded in1956, federal funds for academic research and development increased 213 percent from 2000 to 2007. According to The Chronicle of Higher Education, that makes USF the fastest growing research university in the United States.

Security at USF is also a priority, protecting 40,000 students plus staff and assets at the main campus in Tampa, which also includes the USF Health campus. Nate Rice, USF's engineer for video surveillance has over 700 analog cameras plus 70-80 digital video recorders (DVRs) located throughout the grounds. Their camera array is primarily fixed cameras with a handful of PTZ's as their solution is an event based one where University police utilize recorded video as an investigative tool.

"A key factor in determining which IP cameras to use besides video quality is reliability and maintenance," Rice states. "We are very used to having dependable cameras and receiving exceptional service. Infinova's advance replacement plan, in which they ship the replacement as soon as we report a need for it and prior to them receiving the defective unit, has been great. They have really stepped up and have been very helpful to us during our migration planning to an IP system."

Infinova has worked with Rice's team, performing site surveys to analyze where the new IP cameras can provide the greatest coverage and the best costs. This includes undertaking vulnerability and risk assessments to assure that cameras are placed in areas that will get USF the maximum advantage of their performance and life cycle. This also includes coordinating with the remaining VMS providers as the selected VMS will need to integrate with Infinova cameras. The goal is to provide the University with reliable, consistent coverage.

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One of the contributors to such reliability is assuring that the cameras are ruggedized. This goes beyond being simply vandal-resistant, always a concern on a college campus. Cameras also need to provide resistance to hot, cold, vapor, water or dust, depending on the local conditions. With a campus just north of downtown Tampa, itself on a bay, the weather can be quite hot and, frequently, there can be quite a bit of rain and heavy winds. In addition to vandal-resistance, USF cameras need to be able to handle Florida's high humidity and protection from the Gulf of Mexico's salt water mist. As a result, the campus needs cameras that meet IP66 standards, which assure that they are protected against any ingress of dust, coast salt water mist and rain.

Throughout the campus, much of the communication is via fiber, using Infinova transceivers and receivers. "Cameras can reside in several buildings, often six to eight separate units, all several hundred feet apart but with the head-in located at one," Rice explains. "Instead of having to place a DVR with each of those cameras, we simply use existing fiber infrastructure, which saves us thousands of dollars."

**Why USF Decided to Migrate to IP**

"There are several reasons why it is important that we begin to migrate to an IP solution," Rice reports. "First of all, we must reduce costs. We have over 200 buildings on campus. Any one of them may request surveillance coverage and, when they do, our team visits them, analyzes their needs and designs a system. In too many cases, we end up with a need for only one camera and there is no way to connect it to another head-in running fiber. So, all too often, that means we need to include a dedicated DVR. Even when we use a 10-port DVR, the cost of that one-camera solution is ridiculous. With an IP camera, we can simply plug it into the network and allocate storage for that camera. Thus, the cost is dramatically less expensive than a single camera connected to a multiport DVR. "In addition," Rice adds, "we have many departments who have created their own "big box retailer" surveillance system with "no-name" DIY residential type cameras and DVRs. Then, they want us to service and manage it. In almost every case, we decline."

According to Rice, these systems have no value campus-wide. Only those few people at that building or department have access to these systems. They cannot alert others of an incident when it happens, provide others with information in a real time basis nor easily provide the rest of the campus with forensic evidence. "With our new system, we want a single solution for all video surveillance used throughout the campus," imparts Rice. "We will be using the VMS and IP cameras we select to set our standard."

"Equally as important, we also want to take advantage of the higher resolution that an IP surveillance solution provides. We want to have the availability of megapixel images when needed and that is very difficult to provide in a DVR environment."

USF also wants the system to integrate with their present GE (Casi-Rusco) access control system, run by the access control department, which also includes some cameras. "They integrate a minimal number of cameras with DVRs running under GE's SecurePerfect that are not available to our users," Rice informs. "They are strictly locked in to their system. Both departments want the capability to integrate."

By doing so, the campus would be able to start creating a total, integrated surveillance solution that brings together disparate hardware left over from legacy systems and lets all the pieces communicate, not only together, but with other security systems. Ultimately, in addition to surveillance and access control, it could be integrated with other systems, including fire and intrusion and building systems such as heating, ventilation and air conditioning.

For example, once smoke is detected cameras start rolling, doors unlock, digital video recorders record in high resolution and security managers are alerted via PCs, PDAs, pagers or text messages on their cell phones.

**Managing the Migration**
The migration process is being done in stages. Rice and his team started by interviewing multiple manufacturers on VMS software. Upon selection of the VMS, they will build a platform, create storage areas and launch the software.

To standardize surveillance equipment throughout the campus, an important attribute of the VMS and all other components in the new IP system is that it integrates with university police clients. "We do not want a variety of DVRs, each with its own operating software program, creating problems for the university police system," Rice emphasizes. "Admittedly, during migration, we will be running two systems. However, that is a big difference from running ten. In all cases, which system is running will be transparent to the police on the ground."

According to Rice, the migration will happen slowly. "As analog cameras die, they will be replaced by IP cameras," he states. " And, as DVRs die, they will be replaced by IP encoders.

**Future-Proofing the Solution**
"We're trying to move into a true open platform program, one that is favorable to our IT department, integrates all brands of cameras on campus into a single best-in-class solution and does not limit us to one manufacturer," Rice attests. "With such a system, we will be better able to help provide increased safety for our students and staff and provide a better return on our surveillance system investment, both now and in the future."

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By helping channel partners provide their customers with complete, affordable, best-in-class, large and small video surveillance solutions, Infinova helps integrators generate more business more profitably. Leveraging a manufacturing process certified to ISO 9001:2000 standards and over 250 engineers with a list of video industry firsts, Infinova channel partners provide their end-users with industry-acknowledged product reliability and technical leadership.

So that Infinova channel partners can create complete solutions, Infinova provides IP surveillance cameras and components, CCTV analog cameras, DVRs and components, camera accessories, monitors, power supplies and fiber optics communications devices. Infinova also has the technical ability and manufacturing flexibility to let integrators propose customized solutions. In addition, Infinova will partner with other manufacturers making other surveillance equipment and software to help its channel partners create turnkey solutions. Contrary to most other companies, Infinova will back-up their partners' products as well as its own to assure both the integrator and its customers that one call – to Infinova only – takes care of everything.

Infinova works diligently to assure its channel partners can provide cost-conscious solutions. With Infinova's hybrid systems, channel partners can propose systems that protect a customer's investment in its already-installed analog surveillance system but that also put them on a dynamic migration pathway to IP systems.

Infinova is lauded for its exceptional maintenance programs. A major highlight is the company's 24-hour advanced replacement policy in which a substitute product is shipped immediately upon notice of a problem.

With such customer focus, Infinova is often referred to as "the integrators' manufacturer."

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