



George Mason University

George Mason University
Fairfax, Virginia



George Mason University is an innovative, entrepreneurial institution with global distinction in a range of academic fields. Located in Northern Virginia near Washington, D.C., Mason provides students access to diverse cultural experiences and the most sought-after internships and employers in the country. Mason offers strong undergraduate and graduate degree programs in engineering and information technology, organizational psychology, health care and visual and performing arts.

The culture of the institution has changed dramatically with more than \$900 million devoted to the construction of new facilities that include research buildings, a hotel/conference center, retail outlets and faculty/staff housing. At the forefront of these additions is a significant increase in the number of residential communities for students. Since the 2005-06 academic year Mason has opened nearly 30 new facilities. Today there are nearly 170 buildings on campus. In addition, a number of buildings have been completely renovated.

With an enrollment of over 32,000 students, the usual challenges to overall security can be expected including instances of theft and vandalism. Jim McCarthy serves as George Mason University's Director of Physical Security. In just the past year he has been involved with 12 different construction and renovation projects. The university had over 200 analog cameras and another 300 IP cameras operating on approximately 14 completely different types of legacy DVRs on the campus with no way to view and administrate all of them from a single location. "We were in need of a solution that would unite our legacy equipment and new technologies that could also be managed from a centralized location," notes McCarthy. After a vigorous due diligence process, George Mason University selected S3 Integration (S3I), a National Security Integrator, to be their solution provider. S3I's challenge was to design, install, and maintain an efficient solution that would allow the campus to integrate all of the existing analog cameras into a state of the art head-end that would also be compatible with the latest IP cameras being added through campus expansions. The system would also need to be robust enough to keep up with the aggressive pace of the growth planned at George Mason University. According to Jim McCarthy, "S3I was tasked with the challenge to provide us with a scalable, open solution that would be intuitive enough to be easily used by security professionals, police and university personnel, while being sophisticated enough to meet the university's various changing applications".

With the help of Brian Piccolo, Senior Account Executive with S3I, Jim looked at the leading video management system (VMS) solutions in the industry and decided on exacqVision hybrid and IP camera servers with factory-installed exacqVision Professional VMS software and the Enterprise Server option. Hybrid servers incorporate both analog and IP cameras into a single system—an important feature for an installation that already includes 200 analog cameras. The hybrid systems and the IP camera servers utilize the same server software and, more importantly, the same client front-end software so that they can all be viewed and controlled from a single location. The freely distributed exacqVision client software runs on Windows, Linux or Macintosh computers and connects to exacqVision servers via the network or an internet connection. According to Piccolo, S3I's design approach and product selection was simple. "With several



A command center at George Mason University featuring the exacqVision client running on multiple monitors.

other satisfied S3 Integration customers throughout the Mid-Atlantic region that have already made the transition from an analog camera system to an exacqVision IP video system, it was an easy choice for us to once again recommend exacqVision as the preferred solution to meet the requirements that George Mason University was searching for in their VMS Solution.”

To date they have installed two A-Series exacqVision hybrid servers, two EL-Series hybrid servers and eight A-Series IP Camera Servers—three of which are running RAID-5 for additional storage security. They plan to add several enterprise-class Z-Series servers and integrate the entire exacqVision system with their RS2 Technologies access control system—another reason that McCarthy chose an open system. They currently have 200 analog and 165 IP cameras spread out over the campus and on the servers with plans to add an additional 245 IP cameras by the end of the year. “When an analog camera gives out, we replace it with an IP camera,” says McCarthy. Within the next two years the total camera count will be near to or exceed 1000 in order to keep up with enrollment increases, campus renovations and new construction. “We like the licensing structure used by exacq. It’s easy and cost-efficient to

add IP camera licenses and they provide three years of free software updates on all of their hardware.”



The system has already proven to be powerful and efficient. In the past, when video of a reported theft was investigated, hours of video had to be reviewed. The exacqVision’s powerful search feature allows users to quickly zero in on incidents. The presence of a state-of-the-art and effective system on the campus of George Mason is now working as a deterrent to prevent theft and vandalism. Students, parents and faculty members feel safe.

Using the exacqVision system has also reduced the costs of personnel. Attendants are no longer needed at every parking lot gate as video from all of the lots can be monitored and reviewed from one client machine and an intercom system. The exacqVision system was recently used to deal with the university’s response to a medical emergency that took place on campus. Video was able to confirm

that appropriate, timely steps were taken to save the life of someone who suffered a heart attack on the grounds of George Mason.

Hardware & Software Review

- 2 - A-Series exacqVision 4U rackmount Hybrid Servers
- 2 - EL-Series EL-S Hybrid Servers
- 3 - A-Series exacqVision 4U rackmount IP Camera Servers with RAID-5
- 5 - A-Series exacqVision 2U rackmount IP Camera Servers
- 200 - analog cameras (various manufacturers)
- 165 - IP cameras including the following:

- Arecont Vision AV1355 - 1.3 MP dome with H.264 video compression
- Arecont Vision AV3155 - 3 MP dome with H.264 video compression
- Arecont Vision AV3155DN - 3 MP day/night dome with H.264 video compression
- Arecont Vision AV8365 - 8 MP 360° Panoramic dome with H.264 video compression
- Arecont Vision AV8185 - 8 MP 180° Panoramic dome with H.264 video compression
- Panasonic WV-NF284 - VGA image size dome camera with MPEG-4 & JPEG compression
- Pelco ID10C8-1 - 1.3 MP dome with H.264 video compression

- exacqVision server and client software
- exacqVision webservice software



exacqVision EL-S hybrid server



exacqVision A-Series 4U hybrid server with RAID-5



“Before I started at George Mason, we had many different video security systems, but no standard,” notes Jim McCarthy, Director of Physical Security, George Mason University. “We brought in the exacqVision video management system and servers to bring all of the cameras together— analog and IP. The software is incredibly easy to use and now we can control all of our systems from any computer on the network or from the Internet. We are extremely pleased with the solution and services delivered by S3I and Exacq Technologies. Both have exceeded our expectations.”

Jim McCarthy
Director Physical Security
George Mason University