

Baltimore Washington Medical Center

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301 Hospital Drive
Glen Burnie, MD 21061



Since it's opening in 1965 Baltimore Washington Medical Center (BWMC) has emerged as one of the largest and best-equipped medical centers in the state of Maryland. HealthGrades, an independent health care rating organization, has ranked Baltimore Washington Medical Center in the top 5 percent of America's hospitals nationwide. BWMC offers 308 beds with over 2,600 employees and 650 physicians. The new 111-bed patient care building opened in January 2009 and the new women's health center with obstetrics opened in October 2009 offering a family-like atmosphere. The recently expanded Emergency Department sees about 19,000 inpatients a year, and over 104,000 patients a year.

A 25-year law-enforcement veteran specializing in criminal investigations, Stan Mezewski is the technically minded Security Director for BWMC. In addition to a BS in Criminal Justice, Stan went back to school in 2000 to receive a Masters Degree in Public Administration with a concentration on Information Management. He also holds degrees in network management and micro computing. In 1994 he was involved in one of the first projects to bring surveillance cameras to the streets in the city of Baltimore. This event piqued his interest as to what could be done with video surveillance.

In 2008, Stan began the research to procure a new IP-based video surveillance system for BWMC. The medical center is made up of the main hospital, three smaller medical buildings, an office building and two parking garages. Their existing system at the time consisted entirely of analog cameras that did not provide enough evidence to ensure positive identification. The new solution needed to provide superior resolution while making the most of the hospital's bandwidth and storage restrictions. It was also important that the new solution be an open solution and one compatible with IP cameras from the leading manufacturers as well as analog cameras.

Stan read an evaluation report on VMS solutions by a trusted security industry researcher that led him to look into exacqVision. Based on their proven reputation, Stan reached out to Exacq Technologies Partner, S3 Integration in Baltimore, Maryland. Brian Piccolo (Senior Account Executive at S3 Integration) met with Stan, reviewed the security applications, and also endorsed exacqVision as his professional recommendation to best meet the current and future needs of the hospital's video management applications.

As a result, Stan decided to implement a pilot project to test the exacqVision solution in a working environment. S3 Integration provided the hospital with a demo system and installed it in the cafeteria of the main hospital. After the installation Stan said, "I was extremely pleased to find we



The exacqVision client running on two monitors at a reception desk.

could cover over 70% of our large cafeteria with only two Arecont Vision 5-megapixel cameras. Moreover, the digital PTZ feature on the exacqVision client allowed me to zoom in to clearly see faces, denominations of currency entering and exiting the cash register, and most impressively, read the time on the watches of the patrons making their purchases.” Stan further adds, “the system far exceeded my expectation. ExacqVision is the solution we were looking for!” According to Brian Piccolo of S3 Integration, “ We’ve been able install over 120 IP cameras campus wide at a fraction of the cost of other Video Management System (VMS) providers. Stan likes the low licensing fees and low annual costs combined with all of the features and integration he’s getting with the exacqVision solution.”

One of the two parking garages in the system was not on the BWMC network or close to any network resources. S3 Integration was able to run a fiber cable from one of the other buildings to the parking garage and then connect it to a Cisco PoE switch. This allowed them to install IP cameras in the garage and connect them to the exacqVision servers. Brian and his installation team at S3 Integration have brought everything together. “We install exacqVision more than any other VMS system,” notes Mr. Piccolo. “We like the flexibility of being able to utilize existing analog cameras on their hybrid systems or using one of the many encoders integrated into the software. Their system can be scaled to fit nearly any budget and at the end of the day you can do everything from their free client interface.”

Stan also notes that the system is very easy to use. He and his 30 staff members have picked it up quickly. While Stan uses the free exacq Mobile app on his iPad to access live and recorded video, most of his staff members make use of the two monitoring stations on the campus. They can even share video and events with local law enforcement. This sharing of information and evidence has strengthened their relationship.

Video from the exacqVision system has already proven to be very useful to the hospital and the entire community. Evidence from a fatal hit and run accident was invaluable to the families involved, the hospital and local law enforcement. When a recent shooting victim showed up at the ER, the exacqVision system was used to identify an eyewitness to the shooting that was at the hospital and left before authorities had a chance to speak with him. High resolution video from the Arecont Vision megapixel cameras was able to make out the license plate number of the witness who was later brought back into contact with the police.

Another instance involved a local vending machine company complaining that someone in the hospital was regularly stealing money from the machines located on the BWMC campus. This had been an ongoing problem from the days when an old analog system was installed. While the analog video did not prove to be useful, high resolution video from the exacqVision system was able to view a tattoo on the arm of the individual. An outdoor camera was able to obtain his license plate number and he was later brought in for questioning. The owner estimates that the accused has taken over \$15,000 from his machines.

Overall, the installation of the exacqVision system has been a tremendous success. “This was originally supposed to be a three year project based on the amount of money we had to spend and the areas we wanted to secure,” notes Mazewski. “Brian and S3 Integration were able to get it done in two years with the exacqVision system.”



One of the parking garages on the BWMC campus



Stan points out one of the cameras on the Executive Center building

Equipment List At-a-Glance

SERVER HARDWARE - 7 SERVERS TOTAL	
Model	Description
IPS-2000-R2	exacqVision A-Series, 2U Rackmount IP Camera Server, 2TB Storage
IPS-4000-R4-RAID	exacqVision A-Series, 4U Rackmount IP Camera Server, 4TB Storage with RAID-5
0800-24-2000-ELS	exacqVision EL-Series EL-S, 1.4U Hybrid Server, 2TB Storage (analog and IP cameras)
COTS Servers	Commercial off-the-shelf servers, 16TB Storage with RAID-5, exacqVision VMS software
NETWORK CAMERAS - 104 TOTAL INCLUDING THE FOLLOWING MODELS	
Axis 0185-004	P3344, Interior Dome IP Camera, 1.0 MP, 2.5-6.0 mm, WDR
Arecont Vision AV3155	3.0 Megapixel IP Camera, H.264, Vandal Resistant Dome Housing
Arecont Vision AV5155	Interior Dome Mount IP Camera, 5.0 MP, 4.5 - 10.0 mm
Arecont Vision AV5155-16	Interior Dome Mount IP Camera, 5.0 MP, 8.0 - 16.0 mm
Arecont Vision AV5155DN-1HK	Exterior Dome Mount IP Camera, 5.0 MP, 4.5 - 10.0 mm, Day/Night, Heater
Arecont Vision AV5155DN-16HK	Exterior Dome Mount IP Camera, 5.0 MP, 8.0 - 16.0 mm, Day/Night, Heater
Arecont Vision AV10005DN	10.0 Megapixel IP Camera
Sony SNC-DH140T	1.3 Megapixel IP Camera



An exacqVision IPS-2000 2U Rackmount IP Camera server sits on this rack along with COTS servers and other network hardware.

Meet the Integrator



www.s3integration.com (web)
866.S31.TECH (toll free)

S3 Integration (S3I) of Baltimore, Maryland is a relationship driven organization that provides comprehensive integrated security management solutions and services. Their professional services include a complete range of offerings allowing them to support customers in the planning, design, implementation, integration and maintenance of state of the art security systems, as well as solutions to many other business operating applications. With over 150 years of experience and access to over 600 engineers and 2,500 technicians nationwide, S3I has the resources to serve their customers worldwide.



“exacqVision is the solution we were looking for. We’ve been able to add over 120 IP cameras from all over our campus to the system at a fraction of the cost of other VMS providers. We like the low licensing fees and the overall low annual cost when you think of all of the features and integration you get with exacqVision.”

Stan Mazewski
Security Director
BALTIMORE WASHINGTON MEDICAL CENTER