


Solutions Brief: Multi-Megapixel Solutions for Education

Abstract

Whether in a neighborhood school or across a large university campus, the surveillance needs of those in the education market are specific and acute. Arecont Vision understands the unique needs of education and provides megapixel technology to specifically meet those needs.



The Unique Needs of Education

Whether in a neighborhood school or across a large university campus, the surveillance needs of those in the education market are specific and acute. Arecont Vision understands the unique needs of education and provides megapixel technology to specifically meet those needs.

Education Statistics

Public Schools

- During the 2007–08 school year, 85 percent of public schools recorded that one or more incidents of violence, theft or other crimes, had taken place, amounting to an estimated 2.0 million crimes.
- Institutions must also provide safety and security for parking areas, concerts and athletic events.

Colleges and Universities

- During the 2007–08 school year, 85 percent of public schools recorded that one or more incidents of violence, theft or other crimes, had taken place, amounting to an estimated 2.0 million crimes.
- In 2009, one university alone had:
 - Theft of university property totaling \$126,987
 - 432 incidents of theft or loss of personal property
 - Total loss \$87,439
 - 39 burglaries totaling \$38,104
 - A college or university is more than just a place to learn, it is a home for hundreds and more often thousands of people.
 - In 2009, there were almost 200 forcible sex offenses, 24 robberies, 85 aggravated assaults and over 1000 burglaries on college campuses.
- Institutions must also provide safety and security for parking areas, concerts and athletic events.



Schools have to do more to identify individuals, assess the intent and ability of those individuals to execute a threat and ultimately, manage that threat to disrupt an attack.

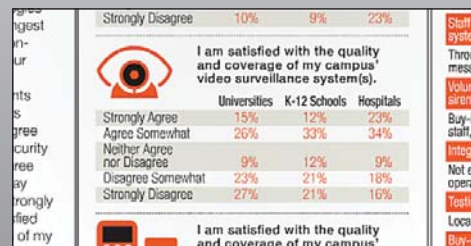
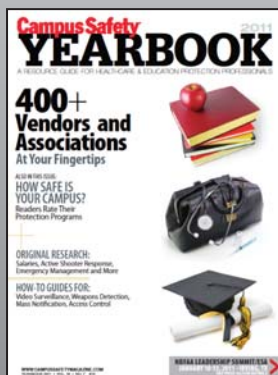
Budget Trends:

Increased	47%
Decreased	6%
No Change	41%

Critical Issues:

- Funding/Budget
- Security Technology
- Training
- Hiring/Retaining Personnel
- Drugs/Alcohol Abuse
- International Expansion
- Facilities Management
- Student Mental Health Issues
- Student Compliance

Security Budget/Employee	\$2,145
Security Budget/Operations Budget	.99%
Security Budget/Employee	\$458



Half of university respondents and 42% of K-12 respondents express some or a strong degree of dissatisfaction with their security cameras

Applications and Solutions: Megapixel for Education

Education facilities have specific surveillance and security needs that multi-megapixel technology is best suited to deliver.

- Overall Security w/enough detail for student and staff ID and vehicle/license plate ID (a previous compromise in schools due to the size of campus)
- Uniforms make ID more challenging – Megapixel provides ability for facial detail
- Prevention of False Claims
- Graffiti Prevention
- Improve Staff Productivity
- Resolve Staff and Student Disputes
- Increased coverage of potential areas of concern
- Ability to cover more with less (instead of manpower to control PTZ's, 180's can cover it all of the time)
- Increased detail equals better forensics and reduced time from security professionals in post event investigations
- Remote Accessibility
 - Monitor video between administration offices and remote locations
- Easy future proof integration
 - Megapixel provides better image quality
 - Easily migrate existing system to HD
- Scalability and Flexibility
 - Easily expand your system to meet growing needs
- Cost effectiveness – Lower total cost of ownership
 - Less cameras, licenses and accessories
 - Use existing infrastructure
 - Lower maintenance
 - Lower operational costs
- Distributed intelligence
 - Put intelligence where you want it – Motion Detection or system based analytics
 - Reduce false alarms
- Proven Technology
 - 1,000s of installations across the entire security market
 - Applicable to any installation

Education Applications

- Entry/exit
- Classrooms
- Hallways
- Cafeteria
- Gymnasium
- Quad
- Parking lot
- Storage rooms

Education Benefits

Remote accessibility

- Monitor video between administration offices and remote locations

Easy future-proof integration

- Megapixel provides better image quality
- Easily migrate existing system to HD

Scalability and flexibility

- Easily expand your system to meet growing needs.

Cost effectiveness – lower total cost of ownership

- Fewer cameras, licenses and accessories
- Use existing infrastructure
- Lower maintenance
- Lower operational costs

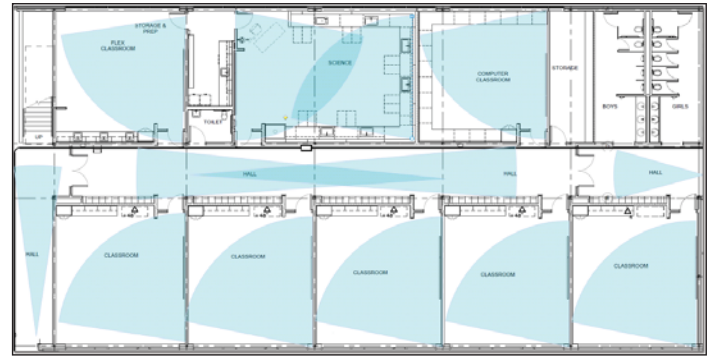
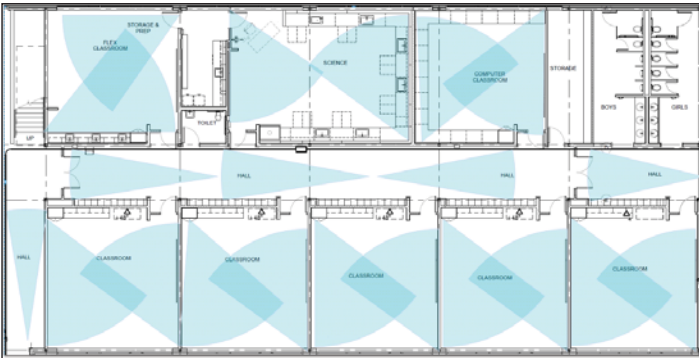
Distributed intelligence

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Proven technology

- Thousands of installations across the entire security market
- Applicable to any installation

Analog/VGA vs. Megapixel Cost Comparison - Classroom



Analog

21 cameras to cover classrooms.

Multi-Megapixel

13 Arecont Vision 1 megapixel cameras yield better clarity and more than double the resolution.

	Analog				VGA (SD)				MegaPixel		
	Qty	Cost	Extended		Qty	Cost	Extended		Qty	MSRP	Extended
Dome Cameras 768 x 494	21	\$430	\$9,030	Dome Cameras 640 x 480	21	\$680	\$14,280	Dome Camera (1MP) 1280 x 1024	13	\$1,190	\$15,470
Encoder Channels	21	\$200	\$4,200								
NVR Lics	21	\$300	\$6,300	NVR Lics	21	\$300	\$6,300	NVR Lics	13	\$300	\$3,900
Cables	21	\$150	\$3,150	Cables	21	\$100	\$2,100	Cables	13	\$100	\$1,300
Power Supplies	21	\$20	\$420								
Labor (2/ cam)	42	\$95	\$3,990	Labor (3/ cam)	63	\$95	\$5,985	Labor (3/cam)	39	\$95	\$3,705
30 Days Storage (2TB drives)	1	\$1,000	\$1,000	30 Days Storage (2TB drives)	1	\$1,000	\$1,000	30 Days Storage (2TB drives)	2	\$1,000	\$2,000
System Cost			\$28,090	System Cost			\$29,665	System Cost			\$26,375
Total System Pixels	7.96 MP			Total System Pixels	6.45 MP			Total System Pixels	17.03 MP		

Arecont Vision Product Applications For Education

- Classroom, Cafeteria and Quad, Situational Awareness: SurroundVideo®
- Over Reception, records management integration: Compact MegaVideo®
- Front Entrance Outdoor, Face ID: MegaView™
- Front Entrance Indoor, PVM (facial recognition) integration: MegaDome®
- Parking Lot, Situational Awareness: SurroundVideo®
- Parking Lot, License Capture: Single Sensor and Dual Sensor MegaVideo®
- General Surveillance, Hallways: Compact MegaVideo®, MegaDome®

Education Case Study

CUSTOMER

Flagship university of a six-campus university system.

CHALLENGE

A high resolution video surveillance system passively monitored by campus police dispatchers to focus on situations that:

- May require police, fire or safety assistance.
- As well as to protect staff, students and visitors to the campus from being victimized.
- The system will also be used for behavior analysis, traffic patterns and security for athletic events.

MULTI-MEGAPIXEL SOLUTION

- All models of Arecont Vision MegaDomes and SurroundVideo cameras are being deployed at 54 locations in Phase 1 and 56 locations in Phase 2.
- OnSSI provides the VMS solution with DELL servers and Direct Attached Storage.
- The system resides on the university network with a 20GB backbone.
- The project will be in two phases and is budgeted at 1.4M.

MULTI-MEGAPIXEL BENEFITS

The image quality and digital PTZ capabilities of multi-

megapixel cameras far exceeds analog and conventional IP cameras allowing the educational institute to capture and record extremely detailed video images over large coverage areas. Combined with recent cost reductions in NVR storage and network switches, the use of fewer cameras allows the company to transition to high-quality video with the highest levels of cost-efficiency, which translates into lower total cost of ownership and overall higher ROI.

Multi-megapixel cameras also allow for significant upgrades in system functionality compared to standard-resolution IP cameras. In addition to lower bandwidth and storage requirements, multi-megapixel IP cameras dramatically decrease costs related to other elements of a system, including fewer software licenses, fewer lenses and a decrease in man-hours needed to install and operate systems. Additionally, multi-megapixel IP cameras' ability to provide highly accurate digital PTZ functionality translates into fewer moving parts than traditional PTZ systems, which reduces maintenance costs and the potential for failure.

The megapixel system proves its value on a daily basis providing forensic quality video.



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Arecont Vision is the leading manufacturer of high-performance multi-megapixel IP cameras and associated software. Arecont Vision products are made in the USA and feature low-cost massively parallel image processing architectures MegaVideo® and SurroundVideo® that represent a drastic departure from traditional analog and network camera designs. All-in-one products such as the MegaDome®, MegaView™ and D4F/D4S/D4SO series provide installer friendly solutions. Compact JPEG and H.264 series of cameras address cost sensitive applications. These innovative technologies enable Arecont Vision to deliver multi-megapixel digital video at IP VGA camera price points.

