

Increase Your Business with Arecont Vision Megapixel IP Technology

Customer Webinar
15 August 2012

Agenda

- The State of the Industry
- Product Updates
- Success Story
- Technology Partner Update
- Tech Tips & Tricks
- Marketing Update
- Close & Q&A

Scott Schafer [Executive Vice President]

Raul Calderon [Senior Vice President]

Frank Polidoro [Regional Sales Manager]

Jason Schimpf [Director of Partner Relations]

Ted Brahms [Director of Field Applications]

Marc Ladin [Chief Marketing Officer]

Arecont Vision Update

Scott Schafer
August 2012

Arecont Vision Results and Direction

July 2012 Results

- July 2012 was a record sales month for any July in Arecont Vision History!
- 2Q12 was a record sales quarter!
- Key Initiatives for 2H2012
 - Key New Product Releases
 - Improved Price Position in 1.3MP/1080 Product Lines
 - Increased Advertising and Promotion Activity
 - Company Expansion Internationally

IMS Research Report

From: Wong, Gary [<mailto:Gary.Wong@ihs.com>]

Sent: Friday, July 06, 2012 8:31 AM

1. What is the Global network/IP manufacturer revenue?

IMS Research estimates the size of the world network video surveillance equipment market in 2011 was \$3.6 billion.

2. What is the % breakdown of network/IP revenue by major geography - Americas, EMEA, APAC, other?

This breaks down as (roughly):
EMEA - 30%,
Americas - 40%
Asia - 30%

3. Where does Arecont Vision rank, per your study, in Americas, EMEA, and APAC?

For network cameras:
World - 8th position
EMEA - outside of the top ten
Americas - 4th position
Asia - outside of the top ten

5.0 MP 2592x1944 (16.4x VGA)

3.1 MP 2048x1536 (10x VGA)

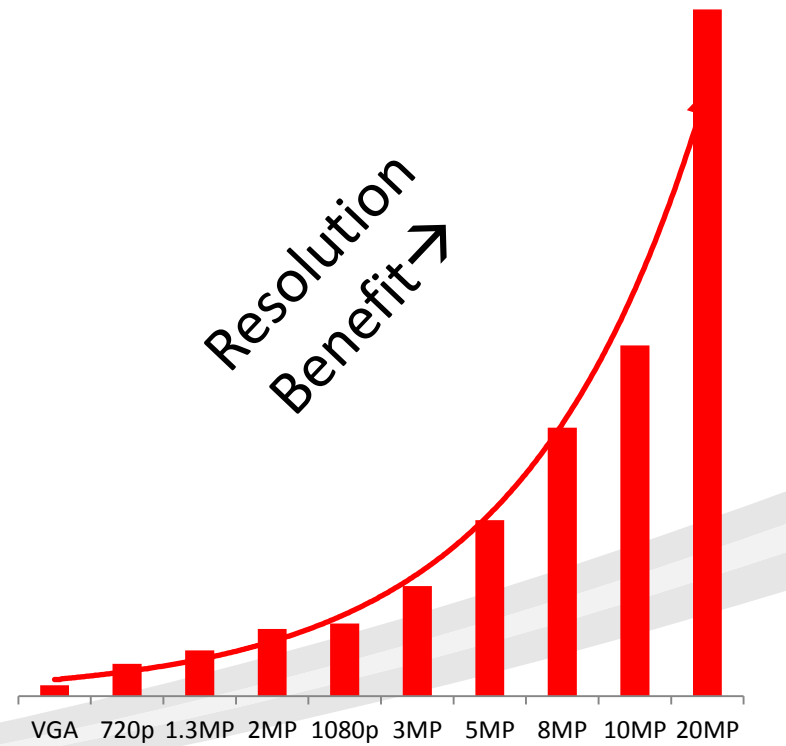
2.0 MP 1600x1200 (6.25x VGA)

1.3 MP 1280x1024 (4.25x VGA)

VGA 640x480

Resolution Benefit

<u>Class</u>	<u>Resolution</u> <u>Benefit</u>	<u>Pixels</u>	
VGA	640x480	0.3MP	none
HDTV 720p	1280x720	0.9MP	300%
1.3MP	1280x1024	1.3MP	425%
2MP	1600x1200	2MP	625%
HDTV 1080p	1920x1080	2.1MP	675%
3MP	2048x1536	3MP	1025%
5MP	2592x1944	5MP	1640%
8MP	6400x1200	8MP	2500%
10MP	3648x2752	10MP	3270%
20MP	10240x1920	20MP	6400%



Cost of Megapixel Technology

If You Thought Megapixel Cameras Were More Expensive ... Think Again!

There is a misconception in the security industry that megapixel cameras are more expensive than conventional cameras. Don't believe it.

Megapixel cameras provide superior performance and imaging capabilities versus analog and standard definition IP cameras. Megapixel cameras are also field-proven to deliver the most cost-effective video surveillance solutions. To understand real value, it's important to focus not on the price of a single camera but on the overall system cost.

Analog and standard definition IP cameras may be lower-priced than megapixel cameras (on a per-camera basis), but these cameras are far more expensive if you evaluate costs system-wide. The truth is that analog and standard IP cameras provide a weak value proposition and a poor return on investment (ROI).

Analog and standard definition VGA IP cameras provide the worst value and therefore are the most expensive cameras you can buy. Next time, go for the best image quality and best price by choosing megapixel cameras. They deliver the best ROI.

Cost of Megapixel Technology

The following grid illustrates the real cost effectiveness among various camera resolutions. VGA, or standard definition cameras provide about 300,000 pixels per camera. Megapixel cameras provide 1,300,000 to 10,000,000 pixels per camera, or more.

<u>Class</u>	<u>Resolution</u>	<u>Pixels</u>	<u>Pixels/\$1</u>
VGA	640 x 480	307,200	1,536
HDTV 720p	1,280 x 720	921,600	3,686
1.3MP	1,280 x 1,024	1,310,000	4,188
2MP	1,600 x 1,200	1,920,000	5,714
HDTV 1080p	1,920 x 1,080	2,073,000	6,170
3MP	2,048 x 1,536	3,145,728	5,454
5MP	2,592 x 1,944	5,038,848	8,333
10MP	3,648 x 2,752	10,039,296	15,385

This grid clearly shows that the most cost-effective solutions are multi-megapixel cameras. The VGA camera only provides 1,536 pixels per US dollar (\$). Compare that to 1080p cameras at 5,714 pixels/dollar and 10MP cameras at 15,385 pixels/dollar.

(Pixel/\$ calculation is derived by dividing the number of pixels by the price of an indoor dome camera, lens, housing.)

Key Actions In-Process

- Product

- MegaDome2 Deliveries to Customers (GCA) 8/12
- WDR Deliveries to Customers (GCA) 8/12
- 3 Year Warranty USA & Canada 6/12 Complete
- Quality Improvements in incoming inspection, production, assembly and QC testing, new firmware advances, new network enhancements, and 3rd Party VMS integration updates.
- Technical Support Process Improvements and Impressive Results
- RMA Process Improvements
 - Advance Replacements much more often and more liberal
 - Process improvements from Service incident to Product Receipt to Fix to Package to Shelf to Shipment

Customer Service Improvements

- Technical support metrics for calls answered within 60 seconds (65%) and 120 seconds (91%) show that we are doing much better in responding quickly to our customers. Only 1-2 customers are leaving tech support messages per day, and those are answered within 2 hours.
- Advance RMA processes are reducing in-process returns significantly.
- Our quality product and process improvements, technical support improvements, and Inside Sales support are really making a noticeable difference.
- Field Application Engineers in America, EMEA, and Asia Pacific regions.
- When you add in the training our field provides, the new on-line training for installation and troubleshooting, and improved products through our early evaluation program prior to full General Customer Availability, things look very good ahead.

Key Actions In Process

- Promotion

- Rolling Thunder Public Relations Campaign
 - “Thought leading” Articles
 - MegaLab Review by Security Products Magazine
 - Case Studies and Customer Testimonials
 - New Product and Program Releases
 - New Personnel Announcements

- Price

- Significant improvement in pricing for key products, especially 1.3MP/1080p based cameras and camera systems. 7-12% reduction effective 1 July 2012.
 - AV1115xx
 - AV2115xx
 - D4x-AV1115xx-xxxx
 - D4x-AV2115xx-xxxx
 - D4SO-AV2115xx-xxxx
 - AV1125xx
 - AV2125xx
- 3 Year Warranty USA & Canada

Complete 6/12

Key Actions In Process

- Marc Ladin joins Arecont Vision as Chief Marketing Officer (CMO)
- Arecont Vision Sales People
 - Joel Murawski, Region Sales Manager, South Central USA
 - Harry Ervin, Region Field Applications Engineer, Eastern USA
 - Cathy Li Yuen Wah, Region Sales Manager, Hong Kong
 - Tony Piyapoj Phakdeesuparithi, Region Sales Manager, South East Asia
- New Sales Representatives
 - No changes
- Recent Wins: Data Centers, Warehouses, Schools/Universities
- Office Expansion: EMEA and Asia Pacific

Webinar Questionnaire Results

We surveyed attendees of our June Webinar Update

- 93% Outstanding or Good Content
- 91% Outstanding or Good Speakers

If you have ideas for improving these sessions, please let us know.

We do them for you!

- Arecont Vision wants to get feedback on our performance and opportunities for improvement.
- Our first Customer Satisfaction Survey started this month.
- If you are contacted, please take a few minutes to respond. We appreciate your feedback.

Provide the Best

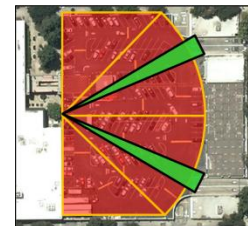
Superior Image



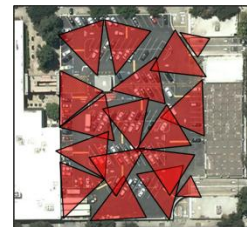
Managed Bandwidth

H.264
is the
Game Changer

Best ROI



3
vs.
17



Customers ask: "Why haven't you shown me this before?"

- Fastest Frame Rates
- Smallest File Sizes

- More detail with fewer cameras.
- Real Savings:
 - Installation
 - Management

Arecont Vision New Product Updates

Raul Calderon

August 2012



October Product Releases

- **MegaBall™**

- **All-in-one Ball Design**

- Indoor All-in-one Product
 - 1.3MP, 1080p, 3MP & 5MP
 - Surface/In-ceiling Dome & Wall Mount Configurations
 - Color & DN Versions
 - 4mm fixed or 3.3-10mm Varifocal Versions

- **Fastest Frame Rates**

- 14 fps @ 5MP
 - 21 fps @ 3MP
 - 32 fps @ 1080p
 - 42 fps @ 1.3MP

- **Casino Mode, Binned Mode, Privacy Masking**

- **PSIA & ONVIF Compliant**



Target Availability
October

e.g. 1080p MegaBall Models

AV2145-04-W

AV2145DN-04-W

AV2145-04-D

AV2145DN-04-D

AV2145-3312-W

AV2145DN-3312-W

AV2145-3312-D

AV2145DN-3312-D

- **MegaBall™ WDR**
 - 1080p & 3MP versions
 - Dynamic Range up to 100 dB
 - PSIA & ONVIF Compliant

MegaBall™



Target Availability
October

ASIS
2012



- **MegaDome[®] 2 10MP**

- Addition of 10MP with DN + IR Configuration
- 4.7-9mm RF/RZ/AI lens
- PSIA & ONVIF Compliant

MegaDome[®] 2



Target Availability
October

ASIS
2012



- **MegaDome[®] 2 WDR**

- Addition of WDR Models in 1080p and 3MP
- DN, IR and Audio Configurations
- 3-9mm RF/RZ P-iris lens
- PSIA & ONVIF Compliant

MegaDome[®] 2



Target Availability
November

ASIS
2012



- **PanoDynamic™ Camera**

- 12MP Wide Dynamic - 4 x 3MP sensors
- 180° Configuration - 4 x 5.2mm lens
- Dynamic Range up to 100 dB per Sensor
- Smaller Form Factor (same as MegaDome)
- PSIA & ONVIF Compliant

PanoDynamic™



Target Availability
December

ASIS
2012



Come See MORE!

- **Come see these and more new technologies at:**

- **ASIS 2012 in Booth # 3323**



- **Security Essen 2012 in Booth # 2.0 / 517**



“How I Shot the Bear” Success Stories

Frank Polidoro
Regional Sales Manager



An Arecont Vision Synergistic Partnership



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A Synergistic Partnership

- **Marketing**
- **Inside Sales**
- **Arecont Vision Regional Management**
- **Arecont Vision Local Representation**
- **Arecont Vision Corporate Support**
- **Qualified Arecont Vision Integrator**

Manchester Regional Airport



A Synergistic Partnership

The Opportunity:

January 19th, 2011 – Website Inquiry

"I am seeking a quality IP megapixel camera line which is fully made in the United States? Currently seeking such to comply with Buy American procurement mandates which apply to a government grant. Do you manufacture and sell such? If so, do you have any US airport installations?"

Thanks, Paul

Paul M. Mueller, CPP
Airport Security Manager

"If You See Something, Say Something"

Manchester • Boston Regional Airport
1 Airport Road, Suite 300
Manchester, New Hampshire 03103-7450

Arecont Vision Confidential

Manchester Regional Airport



A Synergistic Partnership

The Winning Process:

- 1. Website inquiry was forwarded to Inside Sales.**
- 2. The end user was contacted by Arecont Vision Regional Management for further qualification.**
- 3. The lead was forward to local representation (Rep Marketing Solutions) to arrange for a local onsite presentation.**
- 4. A local qualified integrator was introduced to the end user.**
- 5. Arecont Vision worked internally to supply the appropriate Buy America Act documentation.**
- 6. The project was closed!**

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A Synergistic Partnership

Arecont Vision's Distinct Competitive Advantages:

- 1. Arecont Vision's 20 Megapixel Panoramic Cameras.**
- 2. Arecont Vision's 5 Megapixel IR Bullet Cameras.**
- 3. Arecont Vision's Compliance to Buy America.**
- 4. Arecont Vision's outstanding local support.**

Megapixel Value Proposition

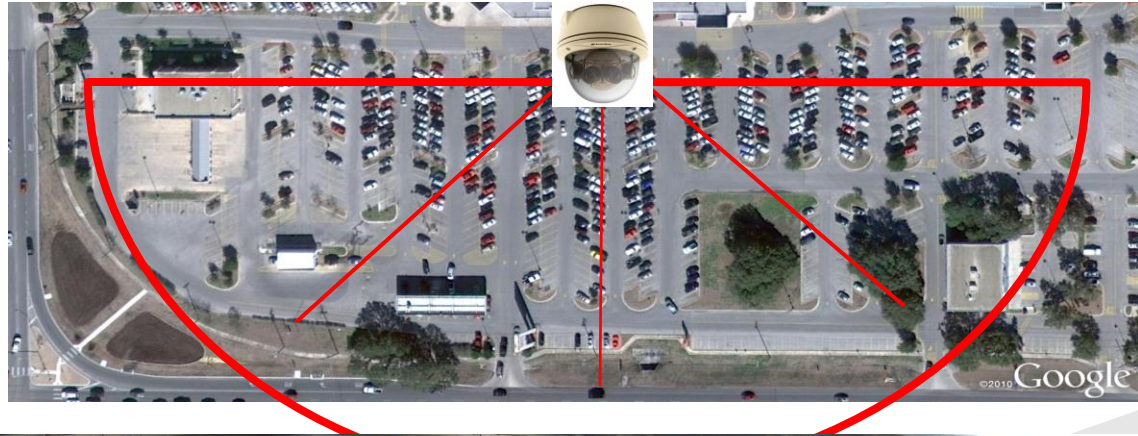
- **Camera Reduction**
 - Covering a wider FOV results in less lenses, housings, NVR license fees, cable runs, labor time.
 - Less cameras to monitor increases productivity.
- **Resolution Increase**
 - Megapixel allows you to maximize scene resolution, and yield the best image quality possible producing live and archived video with forensic evidentiary value.
- **Camera Reduction + Resolution Increase= Less Cost**

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A Synergistic Partnership

Arecont Vision Panoramics The PTZ Killers!

- Constantly Recording Entire 180° & 360° FOV
- Viewing Everything All of the Time (Unlike PTZ)
- Live or Post Recorded Forensic Zoom
- More Life Time than PTZ
- Digital Pan, Tilt, Zoom



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The Arecont Vision 20 Megapixel Panoramic Camera Applications



Runway



Ticketing



Baggage Claim

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- Arecont Vision MegaView® Camera
 - 5MP Resolution
 - First 5MP IR Bullet-style Camera
 - Binning Operation for Increased Sensitivity
- All-in-One
 - Integrated Megapixel Camera
 - Integrated 4.5-10mm MP Lens
 - IP66 Housing
 - 3-axis bracket
 - Heater/Blower option
- External Lens Adjustment
 - Zoom, Focus, Iris
- Flexible Cropping
- Extended Motion Detection
- Privacy Masking
- Complete POE solution



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A Synergistic Partnership

The Arecont Vision 5 Megapixel MegaView® Application **Low Light Exterior Identification**



IR Illumination - Off



IR Illumination - On

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The Winning Result:

1. Currently (74) 20MP panoramic cameras.
2. (15) 5MP MegaView® cameras
3. GROWING!

Technology Partner Update

Jason Schimpf

Director of Partner Relations





Certification Tests

Camera Integration Test

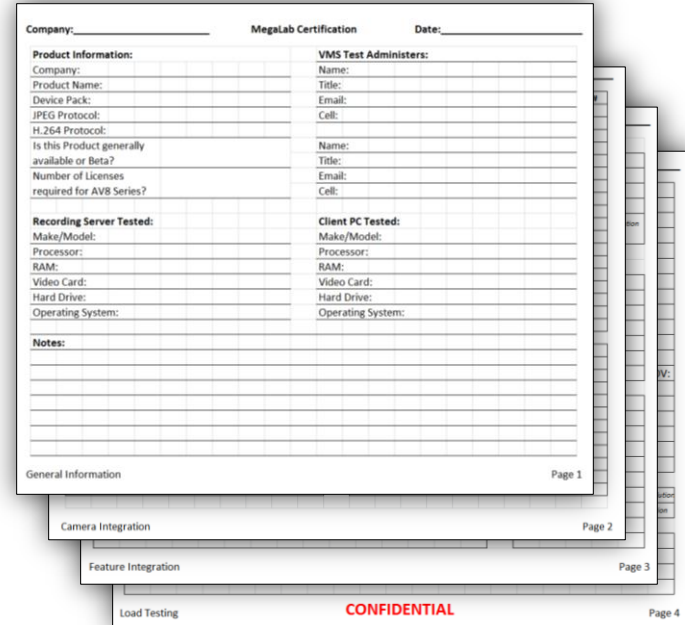
- Verifying cameras are integrated

Feature Integration Test

- Verifying which features are controlled

Load Test

- Load 8, 16, 24, 32 & 64 cameras to test Server & Client CPU
- Easily expands to more than 200 cameras upon request



The image shows a stack of four certification forms from MegaLab. The top form is titled 'MegaLab Certification' and includes fields for 'Company:', 'Date:', and 'Product Information:'. The 'Product Information' section contains fields for 'Company:', 'Product Name:', 'Device Pack:', 'JPEG Protocol:', 'H.264 Protocol:', 'Is this Product generally available or Beta?', and 'Number of Licenses required for AV8 Series?'. The 'VMS Test Administrators:' section contains fields for 'Name:', 'Title:', 'Email:', and 'Cell:'. The 'Recording Server Tested:' section contains fields for 'Make/Model:', 'Processor:', 'RAM:', 'Video Card:', 'Hard Drive:', and 'Operating System:'. The 'Client PC Tested:' section contains fields for 'Make/Model:', 'Processor:', 'RAM:', 'Video Card:', 'Hard Drive:', and 'Operating System:'. The 'Notes:' section is a large grid. The bottom of the form is labeled 'General Information' and 'Page 1'. The other forms in the stack are labeled 'Camera Integration' (Page 2), 'Feature Integration' (Page 3), and 'Load Testing' (Page 4). The word 'CONFIDENTIAL' is printed in red on the bottom form.

Certified VMS Partners

3VR

GVD

Verint

Aimetis

LuxRiot

Vicon

AxxonSoft

Milestone

Video Insight

DVTEL

Next Level

Vigilant

Exacq

Nice

Genetec

NUUO

And more to come!

GeoVision

Toshiba

Featured in Security Products

INDUSTRY Vertical

Certify VMS Software

By Ralph C. Jensen



No one likes taking tests, or the testing process, until now. Arecont Vision set up its own MegaLab several years ago to ensure the integration of its own suite of cameras with industry-leading NVRs and video management system software solutions. It is a testing process that makes the best even better by lining up to become part of Arecont Vision's technology partner program. The idea is the brainchild of Jason Schimpf, Arecont Vision's director of partner relationships, and resides in the company's Glendale, Calif., offices. The MegaLab is meant to test integration and load performance with the assistance of a quality assurance engineer. Those involved in the testing also work hand-in-hand with company development engineers.

"The MegaLab is the perfect tool to assist our efforts in expanding the integration of Arecont Vision megapixel cameras, while companies can test their compatibility with complementary state-of-the-art technologies," Schimpf said. "What we've done is created a test ground in a comfortable setting for soft-

ware workers. They can visit our facility and test their products for themselves.

"There is nothing like getting a hands-on experience during the testing phase. The more testing we complete in our MegaLab ensures a better integration of our megapixel cameras with our partners."

The MegaLab provides a level of integration that partners are able to quantify using their own open-architecture platform with Arecont Vision cameras in a completely agnostic environment. The concept is to determine the integration of a camera and which camera features—e.g., quality, saturation and brightness—are controlled by the VMS.

Rob Shaw, president of Video Insight, had high praise for the lab because it allows his staff of engineers to load test a bank of cameras with their video management system. He was equally impressed with the way his VMS worked so smoothly with the Arecont Vision panoramic camera.

"There are a number of schools that we have worked with that have that panoramic camera," said Shaw, who was awarded the Arecont Vision VMS of the year in the education vertical. "Using the lab allows us to test without having to be in the actual customer environment, and it allows us not to have to put up hundreds of cameras to test the software."

Staged in the back offices at Arecont Vision headquarters,

the MegaLab would be easy to miss without a guided tour. The thing that stands out is the straight line of cameras at ceiling height constantly monitoring two giant, high-definition screens. The cameras watch in full color as the partners begin their testing. Testing began in 2010, and testers are frequent visitors to the lab facilities.

A Milestone Solutions engineer, who worked with the certification, said that the MegaLab is "definitely impressive. It is nice to have access to all of the cameras there so we can test capabilities across the board."

In fact, Arecont Vision has set up a program through which remote testing can take place. In the past two years, more manufacturers have used the remote option rather than physically spending a couple days in the Glendale offices to test their own products. An average certification generally lasts one day, but it's not unusual for a software developer to spend up to three days performing product testing.

"This MegaLab certification provides a double-check for Milestone to verify the integration is solid between our software and their hardware," said Martin Friis-Mikkelsen, head of strategic alliances at Milestone Systems. "We have the ability to test our integration on a large volume of Arecont Vision cameras at once."

Because the testing facilities are agnostic and programs do not favor one manufacturer over another, there is no finger pointing when it comes to finding and fixing a problem. In fact, Schimpf said that when a problem is found, everyone involved in the test focuses on the fix rather than "who did it."

The Milestone device driver developers—who program the integration between XProtect VMS and alliance partners' hardware devices—do their own final stability testing of new camera models running with a mix of different camera brands. The MegaLab allows partners, such as Milestone, to also check performance with several megapixel cameras at once. It means a lot to Milestone engineers, who test certain configurations and system loads, but also for the development team in the Copenhagen headquarters working with new releases.

"The certification will carry extra weight for system installers and end users alike, helping the channel to more confidently sell and implement our joint solutions," Friis-Mikkelsen said.

"We work closely with our partners, collaborating for the benefit of customers and the industry as a whole towards mutual success for all involved."

The MegaLab has a quad core server with hot-swappable hard drives connected to more than 100 cameras, all of which are a brand off of the

Arecont Vision shelves.

The MegaLab has a dedicated gigabit network and a server rack with KVM to secure the partner's appliance equipment. In addition to a dual quad core server option, it also has a quad core client PC with dual 24-inch display in the clean work environment.

Three certification tests are offered for camera integration, feature integration and load testing. And, soon, the MegaLab will begin to offer testing outside of the video management system realm with testing for optics, housings and wireless solutions.

Quotes from Article:

"This MegaLab certification provides a double-check for Milestone to verify the integration is solid between our software and their hardware... The certification will carry extra weight for system installers and end users alike, helping the channel to more confidently sell and implement our joint solutions"

— Martin Friis-Mikkelsen, head of strategic alliances at Milestone Systems.

"It is a testing process that makes the best even better"

— Ralph Jensen, Editor-In-Chief at Security Products

"Using the lab allows us to test without having to be in the actual customer environment, and it allows us not to have to put up hundreds of cameras to test the software."

— Rob Shaw, President at Video Insight

Benefit to Customers

- Design: Test complete design before deployment
- Support: Troubleshoot replicate system to identify problem
- Access: Remotely test design, configuration, etc



- MegaLab – China
 - Opens in 2012-Q3
 - Located at our APAC HQ in Shanghai, China
- MegaLab – Germany
 - Opens in 2012-Q4
 - Located at our EMEA HQ in Frankfurt, Germany



Tech Tips & Tricks

Ted Brahms

Director of Field Applications

Illumination and Its Effect on Megapixel Imaging

Low Light Applications

Examining Effects of Illumination

- Getting the best picture from megapixel in low light requires consideration of site illumination.
- CMOS requires more illumination than lower resolution CCD in low light applications because of smaller pixel sizes.
- Site illumination can have a big effect on improving image quality, frame rate and bit rates produced by megapixel cameras.

A Backyard Experiment

- The cameras used are all Day/Night models.
- All camera settings were initially left at “factory” default; “Moonlight” mode was used for no light images.
- Camera distance to target was fixed, the license plate is 26’ / 7.92 meters from the front of the camera lens, the far wall is 46’ / 14 meters from the same point.
- IR Illuminator used IR148-A120-POE 850nm from [iluminar](#).

The Cameras

- AV10115DN – 10mp, 1/2.3" CMOS
- AV2115DN – 1080p (2mp), 1/2.7" CMOS
- AV3135 – 3mp Day/1.3mp Night, 1/2" CMOS

Day Shot



10mp, 7fps,
19Mbps, H.264



2mp, 32fps,
5Mbps, H.264



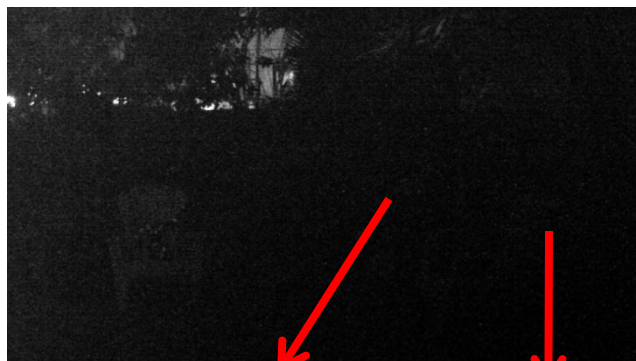
3mp, 15fps,
7Mbps, H.264



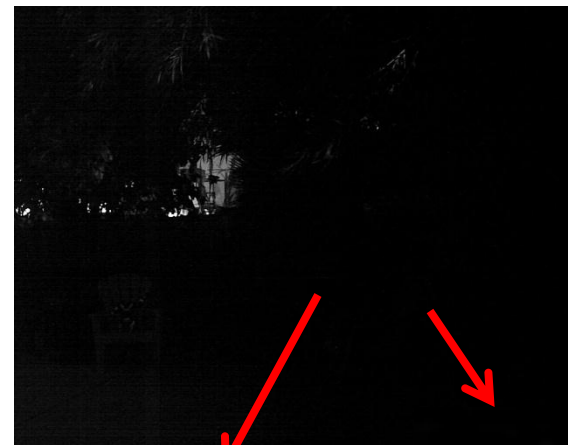
Night Shot - No Light



10mp, 2.3fps,
30Mbps, H.264
"Moonlight" +
"Binning" Modes

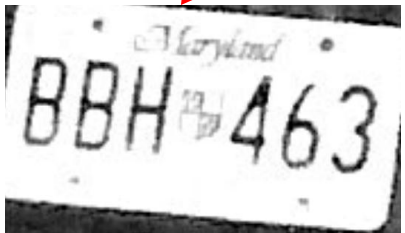


2mp, 2.3fps,
8Mbps, H.264
"Moonlight" Mode

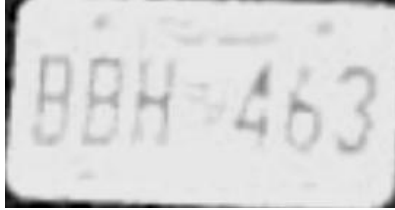


1.3mp, 2.3fps,
5Mbps, H.264
"Moonlight" Mode

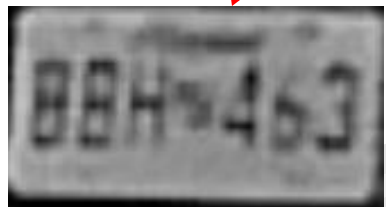
Enter the IR Illuminator!



10mp, 7fps,
19Mbps, H.264
Default Settings



2mp, 30fps,
6Mbps, H.264
Default Settings



1.3mp, 30fps,
4Mbps, H.264
Default Settings



What Did We Learn?

- Good Illumination is essential in order to get the best possible images at night.
- Image noise and bit rate increase in low light.
- Frame rates drop as exposure time increases.
- Different size sensors respond to low light differently.

- AV3135 had the most consistent bit rate and least image noise in low light.
- The AV2115DN yields less noise in low light than 10MP.
- With IR illumination, the 10MP AV10115DN can provide an excellent night time image.

Marketing Update

Marc Ladin
Chief Marketing Officer

Thank You!

Next Customer Webinars:
Wednesday, October 17, 2012