# Extended Outlook -- Security Products

Search

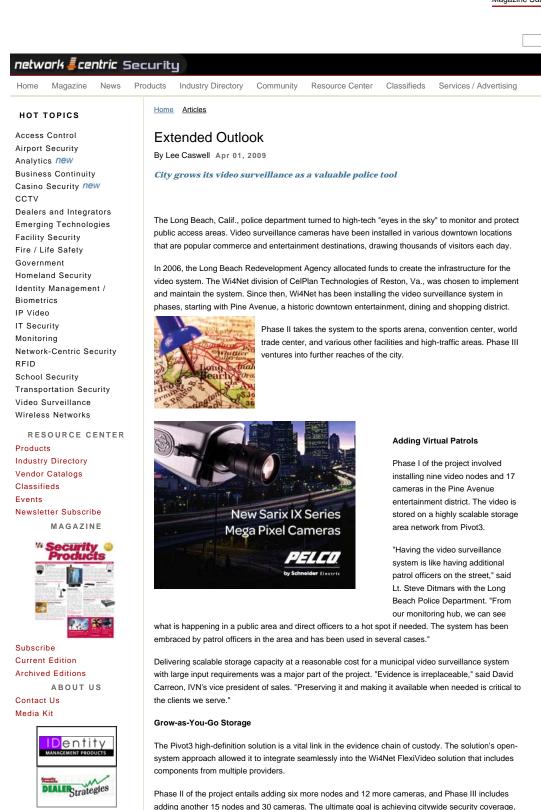
Ne



 Overcome mounting constraints
 Increase application flexibility Speed up installation
Simplify testing and maintenance



Magazine Subscription About Us Site Map





Visit the



Listen and watch videos on the network video market, security in a post-9/11 world, computer security, IP access control, anti-virus, Internet security, industy trends, and more.

# it's Completely Free!

Click Here!

Poll

What did you find the most beneficial at ISC West?

C Educational programs and seminars

C Networking opportunities

C Viewing the latest products C Other

<u>Vote</u> <u>View Results</u> <u>Archives</u>

Webinars

Rapid Action Pandemic Planning for the Private Sector

http://secprodonline.com/Articles/2009/04/01/Extended-Outlook.aspx

and the video from all those cameras will need to be effectively managed and stored.

#### etwork≜centri Security

"In the early stages of implementation, when we only had a handful of cameras, we could get by with directattached storage servers," said Jasper Bruinzeel, vice president of marketing and sales with CelPlan Technologies. "However, this gave us limited storage capacity and no growth path. The storage area network gives us the capacity we need to accommodate the current and future growth of the surveillance network. We estimate we'll need 6 terabytes of storage space in the near future, but we expect to grow far beyond this. The Pivot3 system will let us grow capacity as we need it, whenever we need it."

The high-definition storage system, built on Pivot3 RAIGE™(RAID Across Independent Gigabit Ethernet) technology has a unique way of handling vast amounts of video data streams. The RAIGE operating system drives a series of inexpensive networked nodes, called databanks, which are virtually clustered. This creates a high-performance storage cluster where the video data is distributed, protected and accessed in parallel across multiple databanks connected via common gigabit Ethernet. This unique configuration breaks the limit of physical RAID devices by using a totally virtualized environment.

The virtual architecture allows performance and capacity scaling along with flexible and dynamically changeable data protection levels and volume definitions. There are no hardware limits; by adding databanks, the capacity can grow to hundreds of terabytes, allowing enterprise scaling with affordable industrystandard drives. Each databank adds processing power, cache and network ports contributing to an overall increase in performance and bandwidth.

Contrary to most storage systems, whose performance degrades as capacity is added, the performance of a solution improves with the addition of each new databank.

For the city of Long Beach, the system can start small and grow incrementally as more surveillance capacity is added. The city doesn't have to pay for excess storage capacity that sits idle long before it is needed. Instead, the network administrator can simply plug in another inexpensive self-configuring databank at any time. The architecture supports dissimilar databank nodes, preserving the city's investment in existing technology while making the introduction of newer technology painless.

Another important feature of the RAIGE architecture is the inherent redundancy at every level. Because the video images are distributed and replicated across multiple databanks, no data is ever lost if a databank fails. The system dynamically rebuilds itself, providing peace of mind for the police department, as it can be assured that the stored video images will always be available, if and when needed.

### **Cost-Conscious without Compromise**

"We like the manufacturer's approach to storage," Bruinzeel said. "We get superior performance and growth potential from a storage area network at an affordable price. Even though we're cost-conscious with the city's money, we are not compromising a thing to get a great back-end storage solution for all our video."

"We have built one of the nation's first and largest wireless camera system infrastructures, using the 4.9 GHz spectrum for all of the cameras," Ditmars said. "Although our camera and wireless system were designed with expansion in mind, we realized only later the large scaling required from a storage perspective. We now have a storage system that can meet our current and future needs at a lower cost. The system was implemented quickly, and because of its 'pay-as-you-grow' model, it costs us only a fraction of traditional SAN solutions."

As the city of Long Beach enters the final stages of its decades-long revitalization, the city's visitors and residents can feel safe as the video "eyes in the sky" add a strong police presence to the newly remade and vastly popular public areas of the historic Southern California city.

This article originally appeared in the April 2009 issue of Security Products.

### A bout the Author

Lee Caswell is the co-founder and chief marketing officer of Pivot3.

Printable Format E-Mail this page

#### **Related Articles**

Avigilon Joins ONVIE 05/11/2009 Municipal Utility Powers Up Infrastructure Security With IP Video Upgrade 05/01/2009 Secure Investments 05/01/2009 Texas School District Uses Network Cameras To Enhance Security 05/01/2009 Bosch Will Provide Turnkey Security Installation to Hamburg-Moorburg Plant 04/30/2009 Going Critical

Deployed Integrated Intelligent Video Solutions: What's In It For Me?

View all webinars

Links

Security Cameras The Internet's #1 distribution source for all security camera products.

http://secprodonline.com/Articles/2009/04/01/Extended-Outlook.aspx