

MultiVision Ramps Up Operations, Sets Up Office In Singapore

Following closely at the heels of MultiVision Intelligent Surveillance's successful listing on the Singapore Stock Exchange, we have established a representative office in Singapore. The opening of this new office adds on to the list of offices MultiVision has worldwide.

"Singapore offers many opportunities in digital video surveillance implementation. In the past, as we do not have the presence here, we have let opportunities slipped by. With our new Singapore office set up, we are able to proactively pursue the business opportunities here," said Dennis Li, President and COO, MultiVision Intelligent Surveillance Limited.

The Singapore office boasts the full range of MultiVision's digital video surveillance solutions. It is an excellent demonstration center to showcase the company's products, technologies and vertical applications for the unique requirements of the different industries. Customers by taking a quick tour around the office can have a first hand understanding of how digital surveillance solutions can be optimized for security within an organization.

Aside from being the launch pad for the company in Singapore, the Singapore office will manage investor relations of the company as well as provide distribution support for its partners in the South East Asian region.



Mr. Jappy Wah Joon Pang



Miss Tan Siang Peng

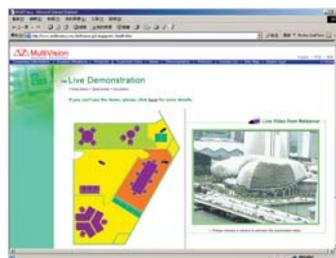
New Hires

Two new faces are added to the MultiVision team. Jappy Wah and Tan Siang Peng are the first two employees hired in Singapore to kick start the company's operations at the new office. Wah, sales manager for Singapore, is tasked to help MultiVision develop its business in the country. He also works closely and provides support to the local channel partners. Tan is the marketing manager, focusing on marketing communications and investor relations for the company. Aside from managing marcom and PR activities, she oversees event marketing programs as well.

Website Updates

New IR And Demo Links On The Website

Log on to www.multivision.com.hk and you will notice that new sections have been included on our website for a better user experience. For the analyst/ investor community, we have created a new Investor Relations section on our website. You will be able to, at the click of your mouse, learn about MultiVision's financial status and news updates.



The website has also added Singapore as one of the locations where you can catch online, real time. MultiVision's digital video surveillance solution set up in the Singapore office allows you to view the Singapore landscape and her newly constructed arts centre, the Esplanade.

Simply go to the demonstration section of the website and try out how the graphical user interface of our solution can make video surveillance a breeze!

■ Case Study



Gamers in the Pharaoh's Palace casino in Macau are constantly under the "watching eye" of MultiVision Intelligent Surveillance's digital video surveillance solutions

Macau Casino Deploys MultiVision Solutions

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In January this year, MultiVision was contracted to implement an end-to-end digital video surveillance solution at the Pharaoh's Palace casino. The project demanded mission-critical digital video surveillance systems which offer high frame rate and high-resolution MPEG2 quality video images to hook up to more than 200 cameras in the casino. Making the job more daunting is that the project was to be executed and delivered within two weeks, just before the opening of this new casino facility.

MultiVision was chosen over the rest of the competitors for our extensive experience in infrastructure projects and our commitment in delivering the solution within the tight timeline given. The project highlighted MultiVision's ability in delivering cutting-edge technology and solutions, and delivering them within the time and budget constraints determined by our customers.

■ Product News



MultiVision will release 2 new products based on hardware compression

NetServer Super And NetServer Legend

MultiVision will release 2 new products based on hardware compression. The NetServer Super features MPEG4 compression with CIF (352 X 288) resolution and can support up to 24 channels in a single system within a 4U rack-mountable cabinet. This makes NetServer Super one of the most powerful and advanced systems, providing simultaneous real-time display, recording, retrieval and playback on all the 24 channels.

The NetServer Legend offers MPEG2 compression with 4CIF or D1 (704 X 576) resolution. Supporting up to 8 channels in a single system, NetServer Legend is indisputably the highest-quality digital video surveillance system available in the market.

■ New Order



MultiVision won the Hong Kong Housing Authority surveillance bulk tender to qualify as one of the three suppliers for the project

In late 2002, MultiVision won the Hong Kong Housing Authority surveillance bulk tender to qualify as one of the three suppliers for the project. The project requires digital video surveillance solutions to be implemented to the various housing estates in Hong Kong.

Early this year, MultiVision has started fulfilling this tender, supplying over 20 systems to housing estates in Hong Kong.

MultiVision gained a good footing in the public sector through this project. In view of the heightened awareness for improved security using surveillance technology in public areas, we expect demand from the Hong Kong government to increase over the next few years.

■ What's News

International Trade Shows Showcase MultiVision Solutions



*ISC West 2003, Las Vegas, the USA
Booth 6033S*

Come 26 to 28 March, you will be able to view MultiVision's full range of digital video surveillance solutions at the ISC West 2003 show. The security show to be held in Las Vegas will be the launch pad for MultiVision's NetServer Super series which leverage MPEG4 hardware compression technology. Other core products such as the NetServer series and NetServer Smart will also be on display.



*IFSec, Birmingham, the UK
Booth N70*

IFSec is the much awaited annual trade show for the security/ surveillance community. Held at Birmingham, the UK, the event has always been the spring board for new technologies and solutions. MultiVision will be participating at IFSec from 19 to 23 May. The attendees will be able to learn more about our latest digital video surveillance solutions and even try their hands on them.



*Safety and Security Asia, Singapore
Booth 2G32*

MultiVision will be exhibiting at Safety and Security Asia from 8 to 10 October. The show is an excellent platform for MultiVision to showcase our solutions to the Asian community. MultiVision's full range of solutions will be available for attendees to try their hands on. For updates on MultiVision events, please visit our website at <http://www.multivision.com.hk/events.html>.

■ Technology Corner

A Focus On Compression Technology

Compression technology has come a long way evolving from software-based compression solutions to hardware-based ones.

The compression technology adopted in digital video recording systems can impact the quality of the video images, the storage capacity required, the bandwidth needed for data transfer and indirectly the possible methods of transferring data via the LAN or WAN. Huge video file sizes result in limitations in data sharing and may result in data loss where some data could be dropped during the transmission process. In some cases, transmission of the data within the LAN or through the Internet may not be viable.

Compression standards and technologies such as the Motion Joint Photographic Experts Group (MJPEG) and the H.261 format offer end users intra-frame compression capabilities. However, most of the technologies have been developed for specific applications. The H.261 format, for example, is designed for video conferencing and is not able to provide high video quality images required for most surveillance application. MJPEG, on the other hand, has produced large image files which are not suitable for transmission.

The next phase of compression technology using the Motion Picture Experts Group (MPEG) algorithms looks to address audio and video delivery. Instead of storing entire frames, MPEG stores only the changes from one frame to another frame.

However, the first range of applications designed for MPEG1 was not widely accepted because of image quality. There were also issues with integration. In many cases, customization is required for the system to integrate with other applications or systems. Subsequent technology developments using MPEG2 compression have resulted in much better image quality but are extremely taxing on CPU

power. Also, transmission of the video images via the Internet is not possible due to the high bandwidth requirement.

The MPEG4 compression algorithm strikes the balance between image quality, processor power requirement and compressed video file size. It can provide high compression ratios and is capable of offering high resolution audio and video images in file sizes/ formats small enough for transmission. On top of that, current processor power of a PC and the bandwidth of the PCI bus can provide eight real-time channels without extra hardware resources.

Within the last few months, hardware MPEG compression chipsets have become available in the market. This technology is able to overcome the drawbacks of software-based compression solutions that require high CPU processing power and huge PCI bus bandwidth to process the video signals. These invariably pose quality, bandwidth and CPU power constraints.

Compression when carried out in the hardware frees up the processor to engage in other applications. By not taxing the CPU of the system, real-time display, recording and playback can be carried out simultaneously and transmission of the images is faster and more effective. The excess processor power freed up by the hardware compression chips can be redeployed in improving motion detection algorithms, integration with security applications such as biometrics, access control etc.

Hardware compression technology has been adopted by MultiVision in our new range of products. Using hardware compression, our customers can benefit from the seamless migration from our previous models while continuing to leverage our UCW range of remote monitoring software. Significant improvements have been experienced by our customers who have deployed our NetServer solutions which are based on this technology.

