

# *Advanced Camera Technology*

## **1. Technology changes drive thermal camera market to \$500 million by 2019**

- Source: Oliver Philippou, IHS analyst
- Date: 2015/06/10
- Related tags: [IHS](#), [thermal camera](#)



A new report by IHS estimates that the world market for uncooled thermal cameras in commercial security applications was worth \$245.0 million in 2014, and will grow to nearly \$500 million in 2019.

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IHS expects that within the next 12 month the market will start to shift away from 17 micron sensors, to smaller pixel pitch sensors. This is expected to have significant implications on the price of thermal cameras. IHS expects that price declines, and the release of lower-end entry level products will allow thermal cameras to gain traction in commercial markets that have traditionally been unable to justify the high prices associated with thermal cameras.

Other key findings of the report include:

- \* Driven by both the use of smaller pixel pitch sensors, and the expected growth in entry level products, IHS forecasts a shift towards smaller focal lens sizes.

- \* IHS expects a split in the market away from QVGA resolution, and towards VGA and QQVGA array formats. In an effort to differentiate themselves suppliers will focus on either the high-end of the market, or the low-end.

- \* Due to larger operational budgets and a measurable return on investment IHS expects significant growth of the radiometric camera market. Generally used for preventative maintenance, the concept of the radiometric camera is appealing to camera suppliers and end-users. IHS is aware of some leading manufacturers that have confirmed they will be releasing radiometric cameras within the next 18 months.

## 2. The new **FLEXIDOME IP 4000/5000** cameras make professional video surveillance easy for everyone

- Source: Bosch Security Systems
- Date: 2015/06/17
- Related tags: [BOSCH](#), [Flexidome](#)



With the launch of its next generation [FLEXIDOME](#) IP 4000 and FLEXIDOME IP 5000 cameras, [Bosch](#) updates its comprehensive portfolio of IP cameras to make it easy for small and medium-sized organizations to set up professional video surveillance solutions.

The new FLEXIDOME IP 4000 and FLEXIDOME IP 5000 cameras offer an excellent price-performance ratio and again raise the bar and set new standards in image quality, ease of installation and data management.

All FLEXIDOME IP cameras are ideal for everyday video surveillance situations, including schools, hospitality sites, retail shops, commercial buildings and more.

## **Ensuring highest image quality and lowest network strain**

The new FLEXIDOME IP 4000 and FLEXIDOME IP 5000 families offer a comprehensive range of dome cameras, ranging from the FLEXIDOME IP indoor 4000 HD model offering 720p resolution right up to the FLEXIDOME IP outdoor 5000 IR model. This model offers five megapixel resolution, Automatic Varifocal (AVF) and integrated infrared illumination.

High resolutions make it easy to distinguish individuals or minute details, significantly increasing the effectiveness of live video and retrospective analysis. All FLEXIDOME IP 4000 and FLEXIDOME IP 5000 cameras feature built-in technologies such as Intelligent Dynamic Noise Reduction (IDNR) and Intelligent Defog. These technologies ensure captured images are tailored to the content of the scene and bandwidth is used only when needed. IDNR reduces bitrates by up to 50 percent to significantly reduce storage costs and network strain. Since excess noise is reduced at the source during image capture, lower bitrates do not compromise video quality. Intelligent Defog considerably improves the camera's visibility when viewing foggy or other low contrast scenes.

## **Ease of installation**

The new FLEXIDOME IP 4000 and FLEXIDOME IP 5000 cameras are designed for extremely easy installation and configuration. All cameras, for example, offer the same Graphical User Interface (GUI) substantially simplifying set-up and configuration of the cameras. The FLEXIDOME IP 5000 models feature Automatic Varifocal (AVF) ensuring simple remote commissioning. A complete redesign of this range of cameras makes complicated cabling a thing of the past and can reduce installation time by up to 60 percent.

## **Safe data storage and data management**

All FLEXIDOME IP 4000 and FLEXIDOME IP 5000 models offer multiple solutions for easy back-up and safe storage of relevant video data. Video data can be safely stored in the cloud, on a network video recorder such as the DIVAR IP 2000 from Bosch or on the built-in SD card (depending on camera model). When required, users can easily access their video data

and control their cameras using one of the free viewing clients, such as the Video Security app for iOS or Android devices or the Video Security Client software. This software enables to view multiple sites or camera streams simultaneously and supports all devices running Windows 8, for example desktops, 2-in-1 laptops and mobile devices. The Video Security Client software offers intuitive control via touch screen or mouse and keyboard operation to ensure maximum user friendliness.

### **24/7 access and control from anywhere**

Since users or security managers cannot be everywhere all the time, all FLEXIDOME IP 4000 and FLEXIDOME IP 5000 cameras fully support Dynamic Transcoding technology from Bosch. In combination with the Bosch Video Security app or Video Security Client software it provides 24/7 remote access to camera controls, live video streams, recordings and HD still images, regardless of available bandwidth. Dynamic Transcoding automatically adjusts the bitrate to the available bandwidth on a network to ensure smooth video streaming, when the video is paused at an incident, a full HD still image is shown. To gain all benefits of Dynamic Transcoding, simply expand the IP video surveillance system with either a DIVAR IP recording solution or VIDEOJET XTC from Bosch.

All FLEXIDOME IP 4000 and FLEXIDOME IP 5000 cameras integrate seamlessly with software and recording solutions from Bosch and many other leading vendors. This is backed by ONVIF (Open Network Video Interface Forum) conformance and the Integration Partner Program (IPP). This program gives developers immediate access to software development tools so they can easily integrate Bosch products with third-party systems. Further details of the Bosch Integration Partner Program are available at [ipp.boschsecurity.com](http://ipp.boschsecurity.com).

The FLEXIDOME IP 4000 and FLEXIDOME IP 5000 cameras are available worldwide from July 2015 onwards.

### 3. Picturing alarms with Bosch fire panel

- Source: Bosch Security Systems
- Date: 2015/08/13
- Related tags: [Bosch Security Systems](#), [Fire Panels](#), [fire safety](#)



Bosch Security Systems introduces a safety management system for up to 31 networked fire panels with a maximum of 5,000 detection points. The monitoring and visualization software is compatible with Bosch's fire alarm systems 1200 and 5000 series and supports up to ten operators simultaneously. The system can be licensed for up to 2,500 (FSM-2500) or for a maximum of 5,000 detection points (FSM-5000).

FSM-2500 and FSM-5000 are sophisticated solutions for fire applications where visualization is mandatory while integration into a comprehensive building management system is not required.

They connect to either stand-alone panels or a panel network via Ethernet over copper or fiber optic cables. Both, Ethernet and CAN-based panel networks are supported.

Installation of the new Fire Monitoring System is made easy by wizards, which guide the user through all necessary steps for server and client set-up. The panel configuration is automatically detected and taken over, avoiding cumbersome and error-prone manual data input. Floor plans can be imported from different file formats such as bmp, png, jpg, jpeg, dxf and DWG, supporting both current and older AutoCAD releases. Configuration of individual objects is also easy. Sensors can be added by a simple "point & click" operation on the map with a configuration window opening automatically.

Operations and management of the Fire Monitoring System with multilingual user interface are just as easy as installation and configuration. Within any given map, specific areas can be defined and displayed as sub-maps. In case of an alarm, an automatic zoom into the respective sub-map is performed, and manual zooms into any sub-map of interest are possible. A pan function allows the operator to move maps into any direction. Authorizations and access rights of users are managed on the level of highly customizable groups with each user being member of one or multiple groups.

In case of an alarm, the Fire Monitoring System can forward a message by email to one or more users via the configured SMTP server. All alarms are logged in a comprehensive alarm log and all users' actions are stored in an event log. Log data can be searched by various criteria and be used to generate statistics and reports, which can be printed or exported into Microsoft Excel for further analysis.

## 4. Macro trends driving global demand for network security solutions

- Source: Axis Communications
- Date: 2015/06/29
- Related tags: AXIS, market, IP-based solutions



### Background

The global market for network cameras is expected to grow by between 16 to 22 percent annually in the next three to four years, according to reports by market research companies TSR and IHS. A large part of the growth is expected to be in the Asian and Latin American markets. The Chinese market for CCTV and video surveillance equipment, which also includes analogue cameras, amounted to 33 percent of the total global market in 2013, which was then worth USD 13.5 billion.

Axis has an indirect distribution model and a network of more than 75,000 partners in 179 countries. Axis' sales are made to distributors, who in turn sell to system integrators and resellers, who sell to the end customer. Axis offers a broad portfolio of network-based products and solutions to enterprise, medium and small customers in nine different customer segments: transportation, retail, bank & finance, city surveillance, critical infrastructure, education, manufacturing, healthcare and public sector.

Axis' competitors are large international vendors as well as small niched companies, in total over 400 competitors globally. Mature markets are characterized by competitiveness around quality and new technology while some emerging markets are instead characterized more by price competitiveness.

Urbanization and rapid developments in IP-connectivity are driving the continuously growing demand for network security solutions

The latest World Economic Forum's Global Risks Report identifies failure of critical infrastructure and severe social unrest as two main global risks during 2015. The need to create a safer and more secure society continues to be the overarching driving force behind continued strong growth in the global video surveillance market.

The demand for IP-based security solutions continue to grow in all market regions and the most prominent driving forces for this are urbanization and technology development, both global in nature.

On the one hand, continued strong market demand is tied to dynamic macroeconomic factors having to do with social- and economic development, especially rapid urbanization. On the other hand, rapid developments in IP-technology and the rise of hyper-connectivity, often referred to as the Internet of Things, are creating new areas of use for network video in areas not typically associated with video surveillance, namely visual and business intelligence.

Urbanization drives the need for intelligent security solutions With ongoing rapid expansion of urban areas in Asia, Africa and other areas, pressure on transportation and other critical

infrastructure is mounting. The latest World Economic Forum's Global Risks Report identifies failure of critical infrastructure and severe social unrest as two main global risks during 2015.

**Prevents and solves crime** Growing population density in urban areas across the world increases the need to build smarter cities that can meet the security needs of its citizens, who have a right to feel safe. Surveillance camera technology is increasingly viewed as a critical component for law enforcement's ability to solve and prevent crime. There is growing public acceptance for video surveillance and mounting societal willingness in general to use technology to help ensure the safety of citizens.

Innovations in network video technology have led to a number of advanced privacy protection solutions that can be used to ensure that cameras only record what's necessary and that the material is protected and safely stored. For example, functions such as privacy masks that automatically blur faces or configurable pan, tilt and zoom limits can provide additional privacy protection while encryption and IP address filtering enable increased data protection.

**Developing cities require more intelligence** Large scale investments in infrastructure such as public transportation systems, new housing developments, energy infrastructure and industries are all driving global demand for smart and effective security solutions.

**Network solutions for smart cities** Intelligent security solutions are crucial building blocks for constructing the environmentally and socially sustainable cities of the future. Network camera solutions can for example measure traffic flows and provide real-time intelligence to traffic controllers, carefully monitor large areas around power plants, ports and other critical infrastructure to help protect against sabotage and terrorist attacks, help protect passengers and employees of public transportation systems, prevent vandalization and protect government buildings and schools.

**The hyper-connected world/Developments in IP-based technology** New technology and the rise of the hyper-connected world is another main driving force for the global network video market. Increasingly sophisticated network camera technologies are allowing cameras to be integrated with physical access control systems and used together with software solutions,

mobile devices and cloud technology. Integrated security systems that combine network cameras with physical access control systems and software solutions, are now used to heighten security in for example schools, hospitals and government buildings.

The development of advanced video analytics solutions has created a new area of use, namely around video as visual intelligence, commonly referred to as business intelligence. Network camera end-users who want to optimize their business processes are increasingly looking to surveillance solutions for answers. Whether it is to optimize cost, functionality, efficiency or security, customers are increasingly relying on network video and thus demanding various new innovative solutions.

Today, customers in both private and public sector segments request solutions that are tailored for their specific needs. Whether it is to enable people to create a smarter, safer world or to find new business opportunities through visual intelligence, innovations combining network camera and IP-technology have opened the door for highly advanced and specialized solutions.

## 5. Security industry heats up, as China tries to catch up

- Source: a&s Editorial Team
- Date: 2015/06/25
- Related tags: [Secutech](#), [Chinese manufacturing](#), [Asian manufacturing](#)



From the beginning of this decade there has been much talk about the growth of Chinese physical security manufacturers and how they had begun to hurt the market-shares of Western and other Asian companies with extremely low-cost products. Analysts and media have repeatedly highlighted the pressure that Chinese manufacturers exert on their foreign counterparts and how this is changing the global physical security business landscape.

Two major Chinese manufacturers, [Hikvision](#) and [Dahua](#), had aggressively expanded their presence in global markets by 2014, moving up the value chain but continuing to maintain low prices. Research firm, Memoori Business Intelligence, had also warned that some very misleading figures are being published about their dominant size by basing their revenues on total system compared against product sales for Western companies.

Needless to say, with such strong opinions from industry-observers, distributors and systems integrators (SI) are considering how they should move forward in terms of partnerships and purchases, without having to compromise too much on their margins.

**Persisting Quality and Durability Concerns** Despite a general uplift in outlook for some Chinese manufacturers, certain concerns still exist on their performance and these have prompted some distributors and SIs to take a wait and watch attitude. They believe that the quality has improved, but not to their level of satisfaction.

Nigel Hamley, Director of IPTV Division at the US-based Marshall Electronics, whose company has significant experience in multiple verticals including medical, government, education, AV market, and enterprise security, had come to Secutech 2015 in search of expanding its involvement with IP vendors that his company could partner with to diversify its product offerings. He feels that over the past five years, the major change he has seen in the industry is the growth of China.

As of now, his company has not purchased Chinese products as they have relied on the technological and advanced quality levels seen in Taiwanese and Korean products, but he admitted that Chinese manufacturers are improving and that in the future they might decide to purchase components such as parts for dome camera, mechanical and electronic parts, and chipsets, and may look to integrate those parts into finished goods.

Some SIs, while acknowledging that the quality of Chinese products have improved, pointed out that there are still concerns on their durability. Jignesh Shah, MD of India-based SI, Dots Info Systems, which has been in the video surveillance industry for the past eight years, stressed this point.

He said that the Indian market is flooded with Chinese products and that they are exerting strong pressure on the other brands, but added “if you are looking at a product to last from a year to three, then Chinese products are okay, if looking at a longer period, you have to look for other options.”

Roshan Punnilath, Head of Operations at Mega Security Systems in Saudi Arabia, too agreed that although the quality of Chinese products has improved, their durability is still a concern in the market. Distributors compensate this by providing extended warranties and replacement offers for damaged goods, but such haphazard solutions cannot be accepted for crucial installations like government projects.

Some distributors attribute these quality and durability issues to the Chinese manufacturers' lack of understanding of the industry. According to Johan Haryanto, MD of distributor, Hotware, that began business in Indonesia eight years ago as VIVOTEK's sole dealer for the country, Taiwanese brands stand out in comparison due to their knowledge of the field.

“It's because of the experience. Even though some [Chinese] companies are growing, they lack experience in the field,” Haryanto said. “So when compared within the same field, non-Chinese brands are better. Even though Chinese products are selling more, their Return Merchandise Authorization (RMA) levels and number of defective pieces are still high.”

Margins, specialized requirements and service drive buyers to Taiwan. As the global economy tightens and businesses look to cut corners and remain profitable, it is inevitable that distributors and SIs give adequate focus to their income margins. This, in itself, is a difficult task when customers become more reluctant to spend money. But things become even more complicated when manufacturers themselves place their products at the lower end of the price chart.

Although a low-price product might look attractive to an end user, it's hardly the same for distributors and SIs who are forced to squeeze their profit margins.

Michael Grek, from Metro Global Technology Solutions in Australia said that he was looking to purchase Taiwanese products to offset the weak margins offered by Chinese manufacturers. He added that at present the Australian market is flooded with Chinese products, and as everyone begins to sell the same product, distributors are forced undercut each other constantly, a practice that hurts not just individual businesses but also the whole industry.

M Kumaraguru, MD of Malaysia-based SI, Maha Asia Sdn Bhd, took this point further, as he said that the lower prices of Chinese products are killing the market indirectly. “You need to maintain a certain standard and not try to keep taking the prices lower and lower until the margins become extremely narrow for us,” he said.

This concern is seen in other developed markets as well, according to Jonathan Okina, CEO of Okiusa, a US-based distributor of surveillance and alarm equipment with about 18 years of experience. Okina said that with Chinese brands like Hikvision becoming popular, distributors' work has doubled and tripled from before and they are forced to lower prices to stay competitive. Moises Faroy, President and CEO of another US-based distributor, CCTV Core, agreed to this, adding that low-price products from China and the price wars they have brought with them are the biggest market challenges at present.

Yet another key reason that prompts buyers to look to Taiwan is that Taiwanese manufacturers are able to provide solutions to various specific needs. Syed Jawed Ali Zaidi, President of GSS-Japan, a company that does systems integration for solar power plants, said that he comes to Taiwan for his purchases because Taiwanese manufacturers are able to provide him better customized services, which help him integrate different brands easily. Masahiko Yamamoto, President of another Japanese installer, Safety & Security, agrees that Taiwanese products are better and are improving every year, meeting Japanese quality requirements.

Then there is also the issue of service. Daniel Brami, Head of Business Development in Building Department at Mecalectro in France said that his company prefers products that are made in Taiwan, not just because of the quality but also because of the prompt response that they get from Taiwanese companies.

“China usually doesn't answer to customers,” he said. “I don't know if it's because China so big they don't care? We ask questions to both China and Taiwan [companies]. Taiwan answers on same day but China takes four to five days.”

Dean Klobucar, Export Director of Alarm Automatika, a SI and distributor based in Croatia, sums this up as Taiwanese companies being professionally stronger, despite having to compete

with the large quantities of products that are produced in China. He added that from an SI's point of view, such a strong professional support is crucial to the business.

Chinese Attempt to outgrow the 'cheap' label Chinese products evidently struggle when it comes to matching up to the required quality standards. But perhaps the biggest challenge that Chinese manufacturers face may not be the quality of their products itself, but the perception that Chinese products are low in quality. Years of exporting low-quality products at extremely low prices have created a general opinion that Chinese manufacturers cannot be trusted. Listening to views from some distributors and SIs, it was evident that consistent efforts from some major Chinese vendors to change this label have had some effect.

Harry Chang, from the Singapore-based SI, King Island, hinted that the perception of Chinese products in his local market is improving, as he elaborated on his recent experience of buying a Dahua product. Chang said in the past the company used low-quality material, like plastic casing for an IR camera, and their R&D was not sufficient. Now he found that only the base of the product is made of plastic, which is an improvement over the past.

Echoing similar sentiments, Somchai Prajaksoot, MD of Digital Focus, an exclusive distributor for Hikvision in Thailand, said that SIs in his country are increasingly interested in the Chinese brand, compared to the past. With a strong local presence, Prajaksoot's company has managed to expand Hikvision products, especially in large government projects in the country. Recently Digital Focus won many government projects, which could never have happened five years ago.

Alberto Antinucci from the Italy-based Home Defender considers this a global trend, adding that it is no longer possible to generalize products from China as of low-quality. All countries have producers that are good and bad and eventually the demand depends on the buyer's needs.

“Today, you can't put a label such that if it's made in China, it's poor quality,” he said, adding that some of the Chinese companies that he had encountered were producing good-quality products.

Such thoughts have prompted some distributors and SIs to focus more on the product and not where it comes from. Edo Pribadi, MD of SI Adhivian Mitrakarsa in Indonesia said that he does not care where the product comes from as long as the quality is good.

“I’m not looking at where the products come from, what I need to know is what functions the products provide,” Pribadi said, adding that if the products from China can come with a guarantee of longer durability, he will go for it. Joni Iswanto, Director of another Indonesia-based SI and distributor, Lintastama Jelajah Informatika, was of the same opinion.

But this cannot be seen as a general trend, as several markets still hold a cautious approach to Chinese products. According to Kumaraguru, most of Malaysian market still considers Chinese manufacturers as of low price and low quality. Mario Sergio L. Machado, from the Brazilian distributor Telematica, also said that clients in his local market believe Taiwan products have a better image compared to their Chinese counterparts.

Ahmed Faiz, GM of Khonaini Computer Technologies in Saudi Arabia, had similar comments about his local market. He said that Chinese products have only managed to penetrate the low-end consumer market, while large projects are still handled by US, European and Taiwanese products.

Increased competition to aid the industry As a general market observation though, some SIs are of the opinion that the rise of Chinese products may help the overall industry because it will boost competition. Theoretically, competition would limit complacency and force manufacturers to improve themselves. Daniel Ananthan, Head of Enterprise Business at VS Information Systems, one of the largest SIs in Sri Lanka, concurs to this idea.

“I personally believe that arrival of Chinese products is good for the market,” Ananthan said. “Once they improve themselves, other major manufacturers are also forced to change themselves and perhaps look for competitive prices.”

Such a thought does make sense, but not exactly in the sense that Chinese manufacturers are now viewing the market. Creating perfect competition does regulate the market to set realistic

product prices, but Chinese manufacturers, with their ultra-low prices, do not seem to be looking for this.

Compete to Innovate, not to lower prices Regardless of the discussions on the quality of manufacturers, industry players believe that given the sheer number of companies involved, the Chinese manufacturing sector might soon consolidate. This would inevitably remove the weaker manufacturers and let the good-quality brands survive. Some believe that at present, there are just a few Chinese manufacturers that can stand the test of time.

But regardless of improving quality, Chinese manufacturers continue to focus on low-pricing as their differentiating factor. Market analysts, while acknowledging that non-Chinese brands might need to compromise on margins while competing with China, warn against making price the sole factor for competition.

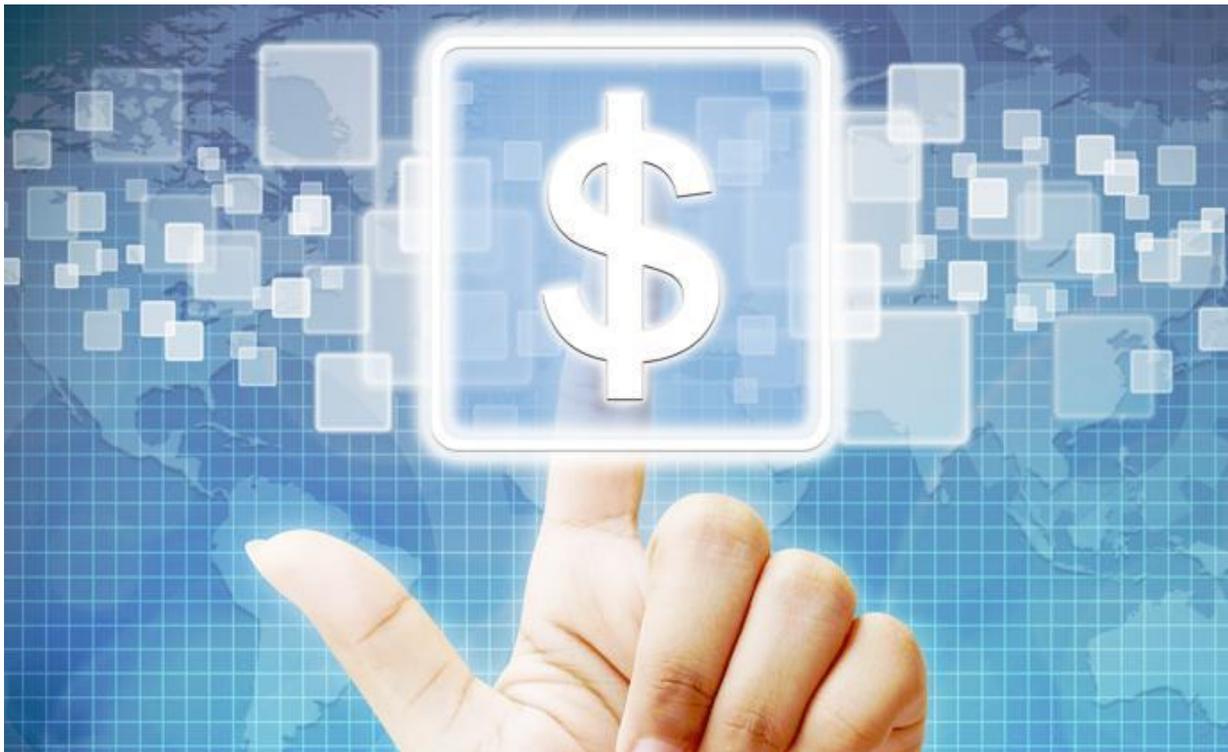
“Shaving off some margin may be necessary but to compete on price would be a disastrous policy for the Chinese will continue to lower their price if they have to,” noted Memoori Business Intelligence, indicating that the inevitable answer is, and has always been, innovation.

This is in line with opinions from some of the distributors and SIs as well. Golan Wishniya, CEO of Worldshop, a distributor from U.S., believes that Taiwanese products have better quality but said that he would like to see them focus more on smart solutions, and make more complex products like the stone camera, which are different, but are easy to use.

In the end, it is evident that distributors and SIs believe quality is of utmost priority, especially in the longer term. There is an instant attraction to lower prices, but such a consistent push to keep the costs down will not only harm product-quality, but is also a destructive business practice that crunches earnings. Going forward, the only constructive option is to invest more in R&D, understand customer requirements and proactively provide innovative solutions.

## 6. Biometric ATMs all set to forge ahead on safety and convenience

- Source: Prasanth Aby Thomas, a&s International
- Date: 2015/05/26
- Related tags: biometric, banking



In April 2014, the Federal Financial Institutions Examination Council (FFIEC), an umbrella group for US financial regulators, warned the country's banks of a new wave of automated teller machine (ATM) robberies using a combination of cyber-attacks and stolen account details.

Termed 'Unlimited Operations' by the US Secret Service, since the perpetrators were able to extract money beyond account balances and withdrawal limits, this new style of robbery put the banks at risk of losing large amounts of cash. In an instance provided by FFIEC, an attack that caused the loss of \$40 million was done using just 12 debit card accounts.

ATMs, since their introduction to the financial industry in the 1960s, have made life easier for consumers as well as banks. Cards and pin numbers have helped to keep the facility safe in the past, but as thefts become more sophisticated, banks look ready to pursue a modern technology – biometrics.

**Modern Technology for Safer Transactions** Biometrics technology is already popular in various sectors across the developed world. But when it comes to ATMs, its adoption has been slower in US and Western Europe, compared to some of the emerging economies of Asia and Latin America. But this situation may change soon as experts expect a global increase in biometric ATMs in the future due to increasing concerns on safety and convenience.

According to Guillaume Mandret, Business Development Manager for Biometric Solutions and Philippe Le Pape VP of Sales for Biometric Solutions at Morpho (Safran), strong biometric solutions prevent many widespread attacks on ATMs such as skimming, card trapping and shoulder surfing, and bring more convenience and ergonomic services.

Sujan Parthasaradhi, Director of Biometric Applications, APAC at HID Global, agrees, adding, “Fingerprint sensors have become the most widely used biometric modality at the Brazilian ATM, and the latest technologies ensure sensor reliability both at enrollment and, later, during high-volume use, while also delivering field-programmable liveness detection capabilities to prevent fake fingerprints or spoofs.”

But although fingerprint recognition technology is the most common biometrics-based authentication system today, it is only one kind of technology that is being utilized at ATM facilities. In fact, a crucial aspect of biometrics technology is that it is an umbrella term used to refer to a number of specific technologies. The industry may not have reached a consensus on which technology is better than the rest as companies try different approaches, but this is more because each approach has its own strengths.

**One Concept, Many Approaches** Fingerprint sensors may be popular in several industries but there are several concerns associated with them. One such concern is readability of fingers with cuts or bruises, another is the wear and tear that would occur to the sensor when used over

a long period. An often cited third issue is that of hygiene as several people have to touch the sensor.

Some companies have recognized these hesitations and have focused their efforts on more accommodating technology. Hitachi, the Japanese technology major, uses finger vein pattern recognition method for its biometric applications in the financial sector. In its operation, the process of data collection does not require the user to touch the sensors.

According to Saya Harada from the Public Relations Department of Hitachi, this technology has higher accuracy, with transactional false match rate (T-FMR) of 0.01 percent and False Acceptance Rate (FAR) of 0.0001 percent, and low risk of forgery as it is virtually impossible to forge and replicate the pattern of veins, unlike fingerprint. Additionally, authentication cannot be performed without bloodstream. It is also more convenient because of its quicker verification process.

Fujitsu, another Japanese company that's betting high on biometrics, goes one step further and uses palm vein pattern recognition technology for its authentication system. The company's biometric sensors use a near-infrared light scan to capture user's palm vein pattern, generating a unique biometric template that can be matched against palm vein patterns of pre-registered users. Just as in Hitachi's technology, the user does not have to touch the biometric reader and hence is considered a non-intrusive and hygienic system.

“Our biometric authentication, provides a high degree of authentication accuracy, ease of use, and also excels from a hygiene perspective,” said Akira Wakabayashi, Director of Palmsecure Business Development Department at Fujitsu.

In the end though, analysts expect banks to adopt a multi-factor authentication system, where in biometrics will be combined with traditional password or card authentication system. This will not only increase safety but also help accommodate customers with physical conditions that do not allow biometric readers to identify them.

A Gradual Rise in Global Demand A survey from Deloitte Center for Financial Services found that 72 percent of its respondents in U.S. would appreciate the use of biometrics identification to enable a device for financial services transactions. The U.S. in particular has been slow to move towards this new system mainly due to privacy concerns, but analysts point out that rising concerns of theft, increased convenience and eroding confidence in financial institutions would prompt more users to welcome biometric technology.

Meanwhile several banks in Eastern Europe, Latin America, Asia and the Middle East have already adopted biometrics technology for their ATM facilities. In Japan alone there are currently more than 80,000 biometric ATMs with over 15 million customers using them. In some places, governments are taking the initiative to bring this technology to prevalence.

“In Europe, Poland and Turkey both have commercial networks of biometric ATMs,” Harada said. “Other countries have made experiments but there is nothing more than proof of concept activity at the moment. Turkey has the largest population of biometric ATMs. IsBank in Turkey deployed Hitachi's finger vein authentication technology to around 3000 ATMs in 2011.” She added that Poland is expected to have 2000 biometric ATMs by the end of 2015.

“More and more governmental projects are implementing biometrics in their registration process (Aadhaar project in India), in their ID documents and passports issuance, as well as in their online services platform,” Mandret and Le Pape added. “Banks are strongly encouraged to use these technologies as well, as this industry is likely to face similar issues.”

Industry analysts expect a higher demand for biometrics in the banking sector in the near future, but the trend of developing countries leading the way in adopting the technology might continue. Wakabayashi said his company believes that going forward Europe and China, as well as the rest of Asia, will be markets with high-potential for adoption of their Palmsecure ATMs.

According to Biometrics Research Group, revenue streams for biometrics utilized in the global banking sector will rise from US\$900 million in 2012 to \$1.8 billion by the end of 2015.

Revenue will primarily be driven by adoption in emerging economies, but market and technological research will continue to be conducted in developed countries.

Not Just Safer and Faster, but also Cheaper Ease of use and security are the primary motives driving the demand for biometrics in the financial industry. With banking becoming electronic, financial institutions can reach customers across the globe and conduct transactions. Although this has helped the industry to grow at a massive rate, it has also increased the risks of malpractice.

“Convenience is a significant driver for adoption of biometric authentication. With biometrics, bank customers enjoy PIN-less and even card-less transactions,” Parthasaradhi said, further elaborating on a project in Brazil where HID's biometrics technology has been used.

“The fingerprint biometric authentication used at Itaú Bank in Brazil is so effective that today, limited value transactions are available to customers who key in a portion of their account number and press their finger to the sensor. This ‘beach program’ allows customers to leave their wallets at home when they go to the beach or to a nightclub and still have access to cash. Their finger is their wallet, the ultimate in banking convenience!”

To Harada, there is another aspect driving the demand for this new technology. With the introduction of biometrics, the traditional cards may not be needed anymore. This means decreasing the usage of card service providers like Master Card and Visa, and the expenses associated with them. “In the end it means cheaper cash withdrawals across different banks,” she said.

**Biometrics Beyond ATMs** Automated teller machines (ATM) are one of the most obvious areas in the banking sector where biometrics technology can be applied, but it is by no means the only one. Last year, Hitachi teamed up with Barclays bank in U.K. to introduce finger vein authentication system for customer verification. From this year, the bank's corporate customers will be able to easily access their online bank accounts and authorize payments within seconds, without the need for PIN, passwords or authentication codes.

Several banks have already been using voice biometric verification technology to authenticate users who transact through mobile devices, telephone and online. This technology compares various features of a person's voice like inflection, pitch and dialect and matches them with pre-registered data. Banks that have set up such automated login systems not only boost customer satisfaction levels, but also reduce their customer-care costs, according to Biometrics Research Group.

An additional major application that has recently received a boost is mobile banking. Major mobile phone companies like Apple and Samsung have already released fingerprint authentication systems on their handsets. Earlier this year, U.K.'s Royal Bank of Scotland and NatWest had incorporated fingerprint login technology to their mobile banking apps through Apple iPhone's fingerprint reader. In April, South African financial institution Standard Bank also launched a similar facility.

“Several of the large European banking groups are investigating the use of biometrics for a variety of applications including retail (branch counter and self-service), corporate customers (corporate treasury and cash management functions) via their regional banking operations,” said Saya Harada, from the Public Relations Department of Hitachi. “This may lead to increased take up of biometrics in banking in the coming years.”

From Security to Product Differentiation Biometrics Research Group estimates the implementation of new biometrics technologies in the financial industry can potentially reduce an institution's operational risks by at least 20 percent over the next 10 years. Biometrics companies are also encouraged by the response that they have so far received from banks and their customers.

However, although the initial purpose of using biometrics was to improve safety and convenience, the technology has surpassed this role to aid banks differentiate themselves in the market.

“What started out as a security issue has ended up being a product differentiator that satisfies existing customers and attracts new customers,” said Mandret and Le Pape.

“Banks enhance security with biometric authentication while offering customers the convenience of doing all those things people would like to do at the ATM, without the constraint of remembering a PIN or holding a bank card.”

Looking ahead, biometrics technology is certainly set to play a major role in the financial industry as banks and their customers appreciate and understand its potential. As with any new technology, there is the initial reluctance to adoption, but given the obvious advantages, it may not be too long before biometrics authentication system becomes the norm for ATM facilities.

## 7. FLIR presents affordable TCX Security Camera

- Source: FLIR
- Date: 2015/05/22
- Related tags: [FLIR](#)



FLIR Systems will presents its new TCX Thermal Mini Bullet camera at this year's IFSEC exhibition in London. The FLIR TCX security camera combines 24/7 high-contrast thermal video and high-performance built-in video motion detection with a level of affordability that the industry has never seen. FLIR TCX is powered by the company's revolutionary Lepton camera core.

New TCX Thermal Mini Bullet FLIR TCX outperforms visible-light security cameras by providing the advantage of seeing clearly in complete darkness without any illumination, in bright sunlight, through smoke, dust or even light fog – enhancing accuracy and dramatically

reducing false alarms. Flexible for integration in any environment, indoors and out – even in temperatures as cold as -40°C – FLIR TCX is ideal for ensuring safety of public buildings, industrial facilities, large and small businesses, or residential areas. Featuring both intrusion detection and accurate video alarm verification in one device, FLIR TCX supports lighting control, people counting, retail traffic flow, and queue management, and enables a whole range of other applications including:

- \* Intrusion/presence detection: vehicles, people, animals
- \* Video alarm verification
- \* Night vision – 24/7 CCTV
- \* Residential security
- \* Short-range perimeter security
- \* Safety and fire assessment

“Whether you're a small business looking for intrusion detection and video alarm verification, a retail company looking for a solution to monitor customer traffic flow, or a small business trying to prevent break-ins, the TCX Mini Bullet is an extremely accurate solution,” said John Distelzweig, Vice President and General Manager of FLIR Security. “As a leader in thermal security, FLIR is advancing the technology in such a way that makes thermal cameras accessible for anyone.”

Full line of security products At IFSEC 2015, FLIR will also present a number of innovations, which the company has recently added to its full line of security cameras, recorders, and software. One of these innovations is the FLIR FX, a compact, versatile Wi-Fi-enabled HD camera that integrates unique cloud-based analytics and flexible application-specific mounts. FLIR FX optional accessory mounts facilitate use in an array of applications including in-home monitoring, outdoor security, sports activity and vehicle dash-camera recording. Users can stream live video to a smartphone or tablet, record video to a Micro-SD card, review events that are recorded utilizing motion detection algorithms, communicate with two-way audio, and quickly review hours of video with FLIR's Cloud-based RapidRecap™ capability.

## 8. Axis introduces HDTV PTZ camera with live streaming and webcast applications

- Source: Axis Communications
- Date: 2015/05/13
- Related tags: [PTZ](#), [Axis Communications](#)



Axis Communications, the market leader in network video surveillance, introduces its first products for streaming, the AXIS V5914 and AXIS V5915 PTZ network cameras. The flexible and high performance cameras deliver high quality audio and smooth pan/tilt/zoom capabilities ideal for audio and video production and live streaming and recording in HDTV quality and can be mounted table-top, wall or ceiling. The cameras can be remotely controlled via a web interface enabling operation from mobile devices such as tablets and smartphones.

“We are building on our experience and expertise in security and video surveillance with a new versatile PTZ camera family specifically adapted for non-video surveillance applications such as live streaming of events and video conferencing. These new cameras offer high quality HDTV video and audio as well as many output connections to suit a variety of uses,” explains Roy Alves, Business Development Manager for Axis Communications Middle East and Africa “While other Axis cameras are being used for some of this functionality, with AXIS V59 Series we are now able to provide them with a camera family that is designed specifically to meet the unique requirements of live streaming and web casting.”

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The AXIS V59 Series cameras offer a powerful 30x zoom and HDTV resolutions of up to 1080p at frame rates as high as 60 fps, providing smooth video even with many moving objects. While cameras for the video surveillance market feature fast pan and tilt functionality geared to quickly capture incidents, the AXIS V5914 and AXIS V5915 offer smooth pan and tilt functionality. The camera settings are optimized for high-color fidelity in HDTV as required for studio environments.

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The many input and output connections available for professional AV (Audio Visual) processing include SMPTE compliant HDTV streaming with HDMI 1.4 output including audio for connection to an external monitor, 3G-SDI output for 3GB 1080p@60fps transmission including audio, RJ45 Ethernet port, balanced XLR-3 line/mic input with 48V phantom feed for superb audio in stereo, 3,5mm line/mic in and out and a full size SD-card slot for edge storage of recordings.

The cameras feature an open Application Programming Interface (API) for easy integration with other systems and support AXIS Streaming Assistant making video and audio streams easily accessible by streaming applications such as Adobe Flash Media Live Encoder, Microsoft Expression Encoder or Ustream.com and video conferencing applications such as Skype for Business (Lync) or Adobe Connect.

## 9. Dahua introduces Starlight series network cameras

- Source: Sponsored by Dahua Technology
- Date: 2015/04/22
- Related tags: [Dahua](#)



Dahua Technology, a world-leading manufacturer and supplier of video surveillance products headquartered in Hangzhou, China brings new levels of security to transportation, retail and parking management with the introduction of the Starlight Network Series Cameras.

### **Outstanding performance**

As the name implies, starlight series camera is an ideal device for low light condition monitoring with its 0.005Lux/ F1.65 (Color) of light- illumination. The camera features 2-megapixel, 1/1.9”progressivescan CMOS image sensor for capturing full color images, as well as supports up to maximum 50/60fps@1080P encoding. Wide Dynamic Range (WDR) features 120dB and offers high performance in extremely bright, dark areas or in backlight.

Moreover, Dahua in-house Smart Scene Adaptive (SSA) supports automatic switchover between different scenes, enabling users to experience the cameras' excellent low light performance. To speak of PTZ Dome Camera, the IR distance of DH-SD6AL230F-HNI is up to 500 meters and its IP67 provides more high-level of water- and dust-proof capabilities.

## **Smart features**

Starlight series camera not only shows excellent performance in difficult lighting conditions but also features a wide range of smart detections such as tamper detection, smart video detection and intelligent analysis. Tamper detection can be subdivided into video mask detection, defocus detection and scene change detection. Smart video detection includes tripwire detection and intrusion detection. Its image analysis function provides an integrated and simple way to perform analysis on the images.

Furthermore, the starlight cameras support people counting and heat map. Heat maps enable users to identify the hot spots and dead areas in the low light. As for PTZ Dome Camera, it supports automatic tracking which can be activated manually or by scheduling. Smart detections give users the confidence to securely protect their property day & night.

Dahua Starlight series camera can go perfectly with multi-brand NVRs via ONVIF Profile S. Meanwhile with Dahua super 4K NVR, NVR608-128-4K, it offers max 18-channel IP cameras inputs and its incoming bandwidth is up to 384Mbps. And it supports 12 megapixel resolution preview and playback.

Dahua Starlight series features a cost-effective, flexible and future-proof solution for poor low lighting conditions.

### **Recommended models:**

DH-IPC-HF8281E—2MP Starlight Ultra-smart Network Camera DH-IPC-HFW8281E-Z—  
2Mp Starlight Ultra-smart Network Camera (supports motorized lens) DH-IPC  
HDB(W)8281-Z—2Mp Starlight Ultra-smart Network (IR) Dome Camera (supports  
motorized lens) DH-SD6AE230F-HNI—2Mp Full HD 30x Starlight Network IR PTZ Dome  
Camera DH-SD6AL230F-HNI—2Mp Full HD 30x Starlight Network Laser IR PTZ Dome  
Camera

## 10. Axis announces its first video door station for identification and entry management

- Source: Axis
- Date: 2015/04/15
- Related tags: [Axis Communications](#), [video doorphone](#)



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AXIS A8004-VE Network Video Door Station is an open IP-based door station for two-way communication, high-definition video and remote entry control. It is an ideal complement to any surveillance installation and offers new levels of security for effective identification and entry control.

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“Axis has a proven track record of bringing product innovation to the security and surveillance market. With AXIS A8004-VE we will provide our customers with an easy to install video door station that extends the capabilities of the security system. AXIS A8004-VE allows our customers to quickly and easily identify and communicate with persons at the door and securely let them in. This is a perfect complement to any surveillance system and as easy to install as any network camera,” said Peter Lindström, Director of New Business at Axis Communications.

AXIS A8004-VE is a weather- and vandal-proof video door station suitable for both indoor and outdoor installations. The door station comes with a high-performing intercom function that provides clear and echo-free two-way speech with visitors and an integrated HDTV camera with WDR and excellent low-light performance. The unit offers reliable 24/7 identification of visitors even in the most challenging environments. Power over Ethernet allows for installation with a single network cable and provides sufficient power to support and control most standard door locks directly from the unit.

For small- to mid-sized installations, such as retail stores and offices, AXIS A8004-VE will help improve security of the premises and simplify everyday operations. The door station makes it possible to communicate and identify visitors and enables remote entry control from an IP-desk phone, a mobile device or directly in a Video Management System (VMS).

For enterprise installations, such as airports or larger industries where integration of different systems such as video surveillance, access control, IP telephony are needed, AXIS A8004-VE is based on open standards and Application Programming Interfaces (APIs). By being fully compliant with ONVIF, VAPIX and SIP the product is easy to integrate with other systems. This enables Axis' Application Development Partners to provide solutions that meet specific customer requirements.

“Genetec's vision to offer customers a holistic approach to security management that includes video surveillance, access control and SIP-based communications through our Security Center software, coupled with the seamless integration of the AXIS A8004-VE Network Video Door

Station, will ensure end users attain a greater level of situational awareness. Not only will they be able to respond to incoming calls while viewing live video from AXIS A8004-VE, but they will also be able to take action from a single unified interface, such as unlocking a door or locking down a facility” said Jimmy Palatsoukas Senior Manager, Product Marketing, Genetec.

The product will be supported in AXIS Camera Station 4.20 planned for launch in May and AXIS Video Hosting System (AVHS). Video management software from Axis' Application Development Partners such as Aimetis, Genetec, Honeywell, Milestone and SeeTec will have full support for AXIS A8004-VE.

Further features of the AXIS A8004-VE Network Video Door Station include:

- \* Acoustic echo cancelation and noise reduction
- \* Multiple inputs and outputs for remote control of doors-locks and other equipment
- \* Support for third party mobile application for identification and remote entry

AXIS A8004-VE will be available through Axis' distribution channels in May.

## 11. Sony's 4K security camera embedded with 1.0 type Exmor R CMOS sensor for advanced imaging

- Source: SONY
- Date: 2015/04/13
- Related tags: [SONY](#), [Cmos](#), [4K resolution](#)



Sony is adding 4K imaging to its line of security technologies, with the new SNC-VM772R camera. The new model combines the enhanced resolution of 4K with low-light sensitivity leveraging 1.0 type back Illuminated Exmor R CMOS image sensor, bandwidth optimization features, and intelligent scene capture capability to adopt the best picture quality, ideal for city surveillance, transportation, railway, traffic monitoring and airport surveillance applications.

4K technology gives security users the ability to capture content at four times the resolution of Full HD (1080p). With the exceptional detail provided by 4K technology, security professionals can expand their wide area surveillance and still capture, magnify and examine the smallest parts of a scene like a face or a car license plate number – all with a single camera. The SNC-VM772R camera combines these benefits with enhanced visibility, reduced total system costs and flexible and easy installation.

"4K is the new video security standard," said Katsunori Yamanouchi, Vice President, Sony Professional Solutions Europe. "But 4K imaging is about more than just increased resolution. It's also expanding the application potential of security cameras and helping to transform security and surveillance. The increased resolution covers a larger area, improving situational awareness and ensuring nothing is missed. These benefits help security professionals reduce installation and operating costs as fewer cameras are needed for specific areas."

The introduction of the SNC-VM772R to the security industry extends Sony's 4K leadership in the broadcast and production industries, where Sony's 4K cameras are shooting blockbuster movies, popular television shows and major sporting events. Sony's 4K digital cinema projectors are in movie theaters worldwide and Sony's 4K TVs bring content to consumers.

Sony has developed several unique technologies to overcome the challenges of 4K cameras in the market: improving visibility and light sensitivity while reducing the amount of bandwidth needed to handle large 4K files.

### **Low-light Sensitivity**

Higher-resolution imaging has traditionally come at the expense of low-light sensitivity. The new SNC-VM772R uses a 1.0 type 20MP Exmor R sensor and is capable of 0.1 lx sensitivity for clear image capture in light and dark conditions.

A back-lit structure doubles the camera's light sensitivity and a built-in infrared (IR) light source which enhances low-light use and nighttime shooting with visibility at longer distances.

In wide area coverage, various lighting conditions exist during the day and night. SNC-VM772R also has 90dB wide dynamic range and 30fps to deliver clear, sharp images for better visibility and recognition.

Finally, a 2.9-times motorized zoom lens is matched to the image sensor to maximize video resolution. The lens features optical image stabilization and helps capture images with low distortion.

### **Flexible settings and optimized streaming**

The new camera uses Sony's unique bandwidth optimization technologies so users can customize streaming settings and the camera's operation.

An Intelligent Coding feature reduces storage and bandwidth consumption by adopting different compression depending on the area of interest. Intelligent Cropping and Multi-Tracking show an overview of an area and allows for “region of interest” selection of up to a maximum four areas at a time, so users can select only the portion of an image they want to see in 4K resolution, while also streaming a scaled full HD image. This results in 50 percent less bandwidth consumption by reducing the amount of video transmitted in 4K resolution, and makes wide area monitoring more effective and targeted.

Intelligent Cropping has two patterns for selecting the size and number of areas, and also employs two modes: Static, to view multiple fixed areas in one scene; and Dynamic, to detect moving objects.

Evidence Shot lets users see critical moments in the camera's highest resolution of 20MP in still shot mode, which is 2.4 times more pixel resolution of 4K. Alarms can be sent with Video Motion Detection for specified scenes.

### **Wide selections for setting best images**

The Intelligent Scene Capture function automatically adjusts and adapts picture quality (brightness and color) depending on time, weather and lighting conditions. The SNC-VM772R

camera also allows users to customize picture parameter presets for the best settings between day/night and multiple picture configurations can be saved and switched either manually (using the Picture Profile mode) or according to schedule (Picture Profile Scheduler).

The new SNC-VM772R is planned to be available in the third quarter of 2015. It will be supported by major VMS providers, including AxxonSoft, Exacq Technologies, Genetec Inc., Genius Vision Digital Inc., Lenel Systems International, Inc., Milestone Systems, NICE Systems, NUUO Inc., On-Net Surveillance Systems, Inc., SeeTec AG and Verint Systems Inc.

## 12. Axis boosts mid-range HDTV PTZ cameras with improved performance

- Source: Axis
- Date: 2015/03/30
- Related tags: [AXIS](#), [PTZ dome](#)



Axis Communications, the global leader in network video, has launched AXIS P56 Series, which consists of outdoor-ready AXIS P5635-E and AXIS P5624-E PTZ Dome Network Cameras for wide area video surveillance in indoor and outdoor environments.

Erik Frännlid, Axis' director of product management, says: "The introduction of AXIS P56 Series changes the price point and performance level of mid-range PTZ dome cameras in the security market. AXIS P56 Series delivers all the major requirements for a PTZ camera at price levels that will be highly attractive for the majority of PTZ camera installations"

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AXIS P5635-E is ideal for demanding indoor and outdoor video surveillance applications such as city surveillance. It is an HDTV 1080p camera with 30x optical zoom, enabling fine details to be captured at a distance. It features a 360° continuous pan capability, with no mechanical stop, for fast camera repositioning and smooth, continuous tracking of an object. ”

AXIS P5635-E has day/night functionality and good low light performance. Its support for Axis' unique Wide Dynamic Range ~ Forensic Capture (120 dB) enables details in both very bright and dark areas of a scene to be visible. The camera also offers Axis' Electronic Image Stabilisation for better video and bandwidth savings in vibrating conditions.

AXIS P5635-E's built-in intelligent functionalities include audio detection and Advanced Gatekeeper, which allows the camera to detect an object in a specified area and zoom in on it. Support for AXIS Camera Application Platform enables other intelligent video functionalities to be downloaded to the camera. The camera also supports shock detection, which enables it to send an alarm when it has been hit. Other features in AXIS P5635-E include two-way audio, four configurable inputs/outputs for connection to external devices, Power over Ethernet Plus (PoE+), 24 V AC/DC and an SD card slot for local storage of recordings.

AXIS P5624-E is ideal for retail surveillance in both indoor and outdoor environments. It is an HDTV 720p camera with 18x optical zoom. Like AXIS P5635-E, it features a continuous 360° pan, day/night functionality for superb low light performance, 120 dB Wide Dynamic Range ~ Forensic Capture, Advanced Gatekeeper, shock detection, PoE+, and an SD card slot.

AXIS P56 Series cameras are compatible with AXIS T91B Mounts for ease of installation. The cameras are supported by the industry's largest base of video management software through the Axis Application Development Partner Program, AXIS Camera Station and the complimentary AXIS Camera Companion.

The cameras also include support for AXIS Video Hosting System and ONVIF for easy camera system integration.

AXIS P56 Series is available through Axis distribution channels on April 14 at the suggested retail price of €1679 for AXIS P5635-E and €1343 for AXIS P5624-E.