

GIT SECURITY MMEA

MAGAZINE FOR SAFETY AND SECURITY



Fire Protection

Smart City

Logistics

Security for Stadiums

Access Control

COVER: Wagner Group – Fire Protection Solutions for Lithium-Ion Batteries

WILEY

Nothing Has Changed

When you celebrate an anniversary and prepare a speech, the look back to where everything started is usually the dominating element. We did look back these days, but shifted the focus soon to what lies ahead of us. This issue is a little bit different from the regular issues of GIT SECURITY. We wanted to let leading experts in various fields speak about what are the hottest topics in the industry, what we can expect for the future, and talk a little bit about the past.

We discussed in our team how to approach the experts. We wondered if it is better to ask them individual questions or ask them more or less the same set of questions. We decided to ask them a set of questions. Secretly we feared that we would get a lot of duplicate answers. Please take the time and read carefully through all the interviews in this issue. The answers our experts came up with are not the same. Definitely not. They show different views and approaches for the challenges and opportunities our industry faces.

Offering our readership a forum to explore different approaches for today's safety and security challenges was our mission right from the start. 'We're unlocking human potential. Lighting the path forward for research and education,

tearing down barriers to society's advancement, and giving you the help you need to turn your steps into strides.' This is Wiley's mission statement and GIT SECURITY's team aims to walk this talk.

Nothing Has Changed

Similar to the situation we had at the start of GIT SECURITY 20 years ago, the time ahead will be full of opportunities for our industry. 20 years ago the move to digital products just started and we have come a long way from 100% proprietary systems and stand-alone systems. The silos safety, video surveillance, fire protection and access control were dominant twenty years ago and only some pioneers started to connect systems. Did this change dramatically? We think that the fight for integrated systems and thinking out of the box is not over yet. Like 20 years ago, we see a strong demand for more teamwork and intercompany co-operations to design the future of the industry.

A Lot Has Changed

Almost 8 years ago, Lisa Holland started with GIT

in December 2015. Coming from university, she was soaking everything up to learn and get the idea of the security industry, the products and companies. Video surveillance was very big on the market, but at this point, the access control sector was already in the middle of a big upturn as well that should last for 7 years to come. Access systems did become more interconnected. Terms like integrated building management systems, system operability, connectivity features, mobile access solutions and electronic locks are only some access control-related topics that dominated the discussions in the security industry during this period. It was the time of introduction of the



High profile meets low profile: Our Commercial Manager Jörg Wüllner and the safety car



Our safety expert: Timo Gimbel



Our team at Security Essen show last year (f.l.t.r): Steffen Ebert, Miryam Reubold, Lisa Holland, Heiko Baumgartner, Tina Heuberger, Eva Kukatzki and Stormy Haust.

in 20 Years

smartphone as a mobile key. Even today this is still a topic for many companies. But it was not the rise of the access market that created this momentum, it was the general interconnection of systems, digitization and boost in data volumes. 2016 was a year that 4k and the term Big Data became more prominent in the video sector. Camera resolution was getting higher, data from buildings and other security systems became more accessible and available, so that everybody had to take better care of their data. With all of that, the unpopular topic of cybersecurity was lurking around the corner – too much data, too many possible breaches.

Impressive to look back, even on a part of the past. Of course, the global crisis has shaped and facilitated many technological and remote functions.

Everything Will Change

When you take a closer look at the answers to the AI question we asked our experts, you will get an impression on what we can expect from AI in the security and safety industry (and what not). The question is what impact the technology will have on our daily work and how we can manage the risks and chances on a global scale. We will certainly cover this topic in the upcoming issues.



Heiko Baumgartner

Our Way

What will be our way in the following years? As you will know, we are already on a digital path with GIT SECURITY via our website and our newsletters. Will there be a change for the print version of GIT SECURITY? Yes, and no. Knowing the power of websites, search engines and social media, we still think that magazines like ours play an important role in the world of media. In our view, magazines are a unique offering when it comes to a more laidback approach to consume information. We doubt that self-congratulation and self-appraisal posts on social media are the right fuel for economic success and fulfill the content demands of safety and security professionals. So, starting in 2024 you will have the option to receive the latest issue of GIT SECURITY in the print version or in a new format, a digital magazine that goes beyond a website or a flip-through magazine experience. If you opt for the digital version, all you have to do is subscribe to our GIT SECURITY newsletter and you will receive an issue alert every time a new issue of GIT SECURITY is published.



A Big Thank You to Our Partners

We have seen a lot of competitors come and go over the past twenty years and we are well aware that our strong position in the market is based on strong partnerships we have developed over the past twenty years and the support from our authors and corporate partners. Thank you to all our partners for 20 years full of support and the passion you show for our industry.

Greetings from the whole
GIT SECURITY editorial team!

Lisa Holland and
Heiko Baumgartner



Miryam Reubold and Steffen Ebert



Lisa Holland





■ **MANAGEMENT**

2 Editorial

INTERVIEW

12 Enterprise Shaping Technology

An Interview with Genetec President Pierre Racz on AI, Video Analytics, and Cybersecurity

INTERVIEW

16 Keeping It in the Family

Continuity and Further Growth. In Conversation with Thomas Dallmeier

INTERVIEW

20 AI and AIoT Will Reshape the Industry

A Look Back at the Past Two Decades and into the Future

STANDARDS

22 Evolution of Metadata

How to Standardize Handling of Analytics Metadata

3 QUESTIONS

24 20 Years of Security

GIT SECURITY has asked leaders in the industry to give a reflect on 20 years back and on future developments

■ **FIRE PROTECTION**

COVER STORY

30 There Is No Standard Solution for That

Fire Protection: The Challenge of Lithium-Ion Batteries



FIRE DETECTORS

34 Fire Detector Compilation 2023

Everything You Need to Know on Fire Detectors



FIRE PROTECTION

38 Intelligent Fire Detection

The Bosch Approach to Protecting Life and Assets

FIRE PROTECTION

40 Solar Power

Leveraging Fiber Optic Linear Heat Detection for Reliable Solar Photovoltaic Monitoring



20
Years

of
Industry Expert
Insights for
Decision Makers

■ SECURITY

SOLUTIONS

42 An Eye on E-Charging
The Mobotix E-Mobility Solution Pack
Comprehensively Covers the Application
Areas of This Growth Industry

5X3 QUESTIONS

45 Stadium Security

SMART CITY

48 Utopia or Dystopia?
The Complete Smart City Is
Possible Now, Everywhere



INTERVIEW

50 "Our Radars See Outside, On and
Within the Perimeter"
Navtech Radar Celebrates Production
of Its 5000th Radar

ACCESS CONTROL

52 Italian Reboot
Ksenia Security Renews Its Strategy

ACCESS CONTROL

53 One Headache Less
How Openings Studio Software Simplifies
Complex Specifications

■ SAFETY

RISK CONTROL

54 Dealing with the Risks
Associated with Arc Faults in
Electrical Installations
The "Hierarchy of Risk Control" is intended
to help to jointly define concrete measures
to prevent arc faults

■ SECTIONS

- 06** Security News
- 57** BusinessPartner
- 59** Imprint | Company Index

www.GIT-SECURITY.com

REGISTER NOW
for our free
NEWSLETTER



BSIA Appoint Paddy Kyle as Chief Commercial Officer

The British Security Industry Association (BSIA) has appointed Paddy Kyle as its Chief Commercial Officer. Paddy joins the Association bringing 25 years of commercial experience in the fire and security industry, specialising in leading sales teams. Paddy has a strong track record in aligning marketing strategy with sales objectives for companies such as Texecom. His prime responsibility will be to drive membership retention and accelerate membership growth, working closely with the Marketing/Communications and Membership teams. Mike Reddington, Chief Executive, Bsia, said: "I am delighted that Paddy will be joining the Bsia as our new Chief Commercial Officer. His many years of experience in the industry working with leading companies in the field will provide great assistance to the Association as we build on our recent successes and drive for accelerated growth in the coming years." Paddy is based in Yorkshire and takes up his post at the beginning of August.



www.bsia.co.uk

Euralarm Welcomes ExxFire as New Member

Following a decision of its Board, Euralarm has welcomed ExxFire as new member. The company will join the Extinguishing Section of Euralarm which activities cover automatic extinguishing systems using gas, water, foam, powder and aerosols, oxygen reduction systems, portable equipment and other manual means of fire-fighting as well as fire-fighting agents used in either fixed automatic systems or in portable equipment. ExxFire (Noordwijk, the Netherlands) will now benefit from Euralarm's services in terms of representation towards European institutions and standardisation organisations. This includes the monitoring of legislative and standardisation issues relevant to the industry, such as the energy transition and chemicals regulation. ExxFire will have access to the extended network of national associations and major companies in the electronic fire safety and security sectors, which form Euralarm's members. The new membership will create opportunities for both sides, as it also strengthens the association.

www.euralarm.org

Cybersecurity Expertise

Hanwha Vision has been authorized by the Common Vulnerabilities and Exposures Program as a CVE Numbering Authority (CNA). In a demonstration of its commitment to best practice in cybersecurity, authorization as a CNA allows Hanwha Vision to identify, define, and catalogue publicly reported cybersecurity vulnerabilities for the benefit of users, partners and the wider information technology (IT) and cybersecurity communities. The CVE program is an international, community-based effort that relies on technology firms to share any vulnerabilities they discover, which are then assigned and published to the CVE List. In turn, IT and cybersecurity professionals use these CVE records to coordinate efforts to prioritize and address these vulnerabilities. The CVE List feeds the U.S. National Vulnerability Database. CNA authorization will augment the work of Hanwha Vision's long-established S-CERT department.

www.hanwhavision.eu/cybersecurity

Integration of Halo Smart Sensor with Vicon VMS

IPVideo Corporation announced the integration of its Halo Smart Sensor with Vicon's Valerus Enterprise Video Management System (VMS). The Halo Smart sensor operates without audio or video recording to detect and monitor vaping, THC, chemicals, air quality, and sound abnormalities like gunshots, and the device will notify facility personnel of abnormal ranges or levels. This collaboration enables dealers and clients to monitor Halo alerts directly from their Valerus VMS, while providing an added layer of protection within facility privacy areas.

"Our customers benefit from strategic technology partnerships like we have with Vicon and all the possibilities it brings for client safety," said Rick Cadiz, VP of Sales and Marketing at IPVideo Corporation. "Be it vaping prevention, security, or identifying healthy spaces for occupants, this integration is a value proposition that allows Vicon clients worldwide to provide security for privacy areas across markets."

The latest version of Halo technology, Halo 3C, is a true multifunctional solution featuring all the benefits of Halo 2C, in addition to enhanced features like gunshot detection, emergency spoken keyword, panic button, emergency/escape lighting, and a people counting sensor available only with the Halo 3C-PC model. Halo is suitable for use in areas previously off limits to surveillance or other detection because of privacy concerns, such as restrooms, locker rooms, hotels, and patient rooms, expanding the possibility for security detection and protection.

"The integration between Halo Smart Sensor and Valerus VMS empowers schools, hospitals and other facilities worldwide to further unify their physical security and air quality devices," said Haim Shain, SVP of Product Management at Vicon Industries. "Beyond vape and air quality alerts, the Halo Sensor's gunshot, aggression and panic keyword detections add tremendous value to an increasingly robust and unified Valerus system. These new features greatly expand the sensor's applications and, when combined with Valerus' alarm and video management system, they will help users respond to these invisible threats faster and more effectively; ensuring a safer, healthier space for occupants." www.vicon-security.com

TDSi Announces Its Forthcoming Appearance at GSX 2023 in the US

TDSi announces its forthcoming appearance at GSX 2023 (Global Security Exchange), which is being held at the Kay Bailey Hutchinson Convention Center in Dallas, Texas, from 11th-13th September. Appearing on Stand #2332 alongside its fellow Vitaprotech Group member Protech USA, TDSi will be showcasing its hybrid on-premise and cloud-based Gardis integrated security and access control range, including the Gardis web-embedded controller. John Davies, Managing Director of TDSi commented, "We are very excited to be attending GSX again this year. During the event last year, we got our first project from a US installer, and we are looking to build upon this success again this year to further expand our market reach. We will also be looking to further enhance our sales through our distribution network, building upon relationships with the likes of ADI. We are also looking to put manufacturer representative networks together to support our products outreach and disseminate awareness through to installers within their geographical areas."

www.tdsi.co.uk



access control &
power integration

fire & emergency
communications power

network power
management

surveillance
power & data

YOU DESERVE BETTER

 Altronix

Altronix secures and connects critical infrastructure to make every environment safer and more efficient, providing the foundation for any physical security system. Our comprehensive range of solutions is designed and manufactured to the highest standards – backed by Altronix lifetime warranty with the best support in the industry.

altronix.com



Sicurezza 2023: Cyber Security Arena

Digitisation and new technologies turn the spotlight on IT and data protection. Sicurezza 2023, which will be held from 15 to 17 November 2023 at Fiera Milano, will delve into these issues through the Cyber Security Arena and its training programme with the goal of establishing a digital security culture.

Conference and Workshop Programme includes Training for Digital Security

For this reason, Sicurezza, one of the leading European trade events and scheduled to take place at Fiera Milano (Rho) from 15 to 17 November 2023, has also chosen to give value and space to training in this edition. To expand the exhibition programme, which will feature many leading companies in the sector, there will be an extensive conference and workshop programme open to industry professionals. The highlights of the programme include the well-established Cyber Security Arena, the training and information programme dedicated to digital security and built around the needs of manufacturers, security managers and installers.

The Cyber Security Arena 2023: Tips, Trainings and Talks

Sicurezza 2023 is once again offering the Cyber Security Arena, a project by Business International, the events and education unit of Fiera Milano, created to provide a broad vision of the upcoming Cyber Security and Data Protection scenarios. Following a well-established format, the Arena will host alternating Cyber Security Talks, in-depth meetings with sector experts, who will offer their views on the main trends in the industry, and Cyber Security Tips, short training sessions with suggestions and good practices of immediate application. Four talks are scheduled over the three days of the fair.

Agenda Day 1-3

The first day will focus on the convergence and integration of information technology (IT) and operational technology (OT), an increasingly relevant aspect, especially for industrial processes and the manufacturing sector. On the second day, in the morning, the international geopolitical situation will be presented together with cyberattack scenarios. On the third day, the topic of Cyber Security Compliance will be addressed.

www.fieramilano.it

International Security Expo: 26-27 September 2023

International Security Expo returns to London on 26-27 September 2023, backed by more government agencies and industry partners than ever before and showcasing the widest range of solutions designed to improve the security and resilience of businesses, people and critical infrastructures.

In the face of ever-changing threats to global security, International Security Expo (ISE) will welcome a high-quality vetted audience of over 10,000 active buyers to London's Olympia, and will play host to 350+ exhibitors offering the latest security solutions devised by the world's leading suppliers. This security event, chaired by former UK Security Minister Admiral Lord West, is once again co-located with International Cyber Expo, which brings an additional 5,000+ visitors who have free and open access across both events. ISE features an International Delegations Programme attracting buyers from around the world coming to see and source the latest security solutions. Many will join tours around the show floor and also take part in Connect + Live led by 'Hosted Meetings' brand Newbridge, who identify the needs of global buyers in purchase and discovery stages, and connect them with the most suitable exhibitors to have face-to-face meetings at the event. www.thesecurityevent.co.uk

iLoq Rolls out Auditable Access Management for Telecommunications Infrastructure

Waveconn, developer and investor in Australian telecommunications infrastructure, has been an early adopter and innovator of digital locks for telecommunications infrastructure with the first solution deployed in 2017. In order to ensure continuous secure, reliable, and auditable access management across its network, Waveconn has entered into a partnership with iLoq to roll out iLoq's battery-free and keyless mobile access sharing solution.



"Waveconn has demonstrated a culture of innovation and is at the forefront of global thinking on the use and implementation of iLoq products for integrated telecommunications access management. By pioneering the use of our battery-free smart locks in the Australian market, Waveconn are both securing their assets and fulfilling their sustainability obligations. We are excited to take this digital journey with them," states Ivan Roman, iLoq Global Key Account Manager, Telecom. iLoq's solution features the first lock cylinder on the planet to harvest operating energy from the NFC field generated by a smartphone for unlocking. This innovation takes batteries and excess wiring out of the equation ensuring zero maintenance, minimizing lifecycle costs and eliminating battery waste. www.ilq.com



Gunnebo Styles out Entrance Control at Its Headquarters

Gunnebo has become the first facility worldwide to install its SpeedStile FLs Max entrance control solution at its headquarters in Gothenburg, Sweden. The newly-launched SpeedStile FLs Max entrance control solution combines sleek design with touchless technology and cutting-edge functionality, offering a seamless and controlled access experience for employees and visitors that can all be remotely monitored. Gunnebo's decision to install it at its headquarters is a testament to the company's commitment to maintaining a secure and modern entrance control infrastructure. By choosing this advanced solution, Gunnebo aims to present a stylish entrance control solution to its headquarters, while maintaining a high level of protection.

The SpeedStile FLs Max was designed as a user-friendly, chic solution that can seamlessly blend with the architectural aesthetics of any building. With multiple customisation options available, the system can be tailored to suit various security requirements. For Gunnebo Headquarters, the wide passage solution was installed, with the specification including card reader integration and a specialist wheelchair sensor. The solution was designed with dynamic lights that follow an authorised user through the system and finished with ambient LED lighting, featuring on the side glass in turquoise. The additional benefit of the SpeedStile FLs Max is the capability to enable monitoring and management via cloud technology through the powerful EntraLinq remote access control app. This provides authorised users with full control and analytics from the entrance control solution on a remote basis, using the latest smartphone and tablet technology.

www.gunnebo.com

Reece Paprotny Rises from Apprentice to Commercial Director at Amthal

Amthal has announced the appointment of Reece Paprotny to Commercial Director, having initially joined the company as an apprentice. The promotion comes as the company announces a strategic shift in its approach to fire safety and security services. Reece, who joined Amthal as a finance apprentice in 2015, instantly developed a strong drive to succeed and a keen eye for business development opportunities. He quickly established himself as a valuable asset, joining the Senior Management Team in 2018. The promotion comes as Amthal announces a new chapter in the company's evolution, including a refreshed brand identity and vision for growth, alongside a strategic alignment with a commitment to delivering compliance and excellence in service. Reece Paprotny will spearhead strategic initiatives, lead the commercial team and oversee key business operations.



www.amthal.co.uk

ICT Announces Appointment of Sarah Thompson as Chief Product Officer

Sarah Thompson has been appointed by ICT as Chief Product Officer (CPO) to lead the strategic development and management of the organisation's product portfolio. With a background in strategy development, business transformation, and executive leadership, Sarah brings a wealth of experience and expertise to lead the maturation of ICT's customer-focused product management capability. In her previous role as



Chief Product Officer at Eroad, a global regulatory fleet telematics company, Sarah played a role in supporting the company's growth target, expanding connections, and driving innovation across markets. Her accomplishments included aligning the executive team on go-forward strategy, increasing market penetration in North America, and championing sustainability product development with a focus on reducing carbon emissions. "I am delighted to join Hayden and the team at ICT as we continue to build sustainable growth across key markets, while maturing our customer-focused product management capability," Sarah remarked.

<https://ict.co/>

GIT SECURITY 20 Years

GIT SECURITY is relevant for us, because it always offers interesting project reports and valuable insights from the security industry.

Jan Meiswinkel
CEO and CO-Founder Advancis



Vicon Partners with CCTV User Group

Vicon Industries announces its new partnership with the CCTV User Group, the national organization for professional surveillance system managers in the UK. As a Business Partner, Vicon are joining the CCTV User Group on their mission to provide guidance and support to all public space surveillance CCTV operators in the UK. The CCTV User Group is a national organization dedicated to providing relevant advice and guidance to all public space surveillance CCTV operators. They are also committed to influencing and shaping the UK CCTV discussion and the development of new standards, policies, and procedures. "We are thrilled to be partnering with the CCTV User Group," said Guy Nixon, Managing Director of Vicon Industries EMEA. "Their mission to provide relevant advice and guidance to all surveillance system managers aligns perfectly with our own commitment to serving as a valued security technology partner. We look forward to working with the CCTV User Group and offering our expertise to help elevate the industry as a whole." As a Business Partner, Vicon will work alongside the CCTV User Group to shape the discussion around UK CCTV standards, policies, and procedures. In addition, Vicon will offer guidance and support to new and experienced CCTV operators alike, ensuring that they are operating their systems in a compliant, professional, and ethical manner. Vicon Security has over 55 years of industry experience and provides advanced security solutions for a variety of verticals. Their solutions include the Roughneck AI IP camera series, Valerus Video Management software, and VAX Access Control. www.vicon-security.com

SDS Integrates with Hanwha Vision

Shooter Detection Systems (SDS) announces that they have integrated technologies with Hanwha Vision to deliver improved safety when gun violence occurs. The integration between the SDS Indoor Gunshot Detection System and Hanwha Vision's Wisenet Wave VMS platform will enable organizations to automatically alert security teams at schools, office buildings, and other facilities to gunshot activity by triggering alarms, associate live video feeds with real-time tracking of assailants, and take other automated actions when gunfire is detected by the SDS system.

Hanwha Vision's Wisenet Wave VMS is a NDAA compliant, leading IP Video Management platform designed to create tailored networked video solutions for any type of project, for use by anyone, on any device. By integrating these systems, SDS and Hanwha Vision are enabling customers to enhance their active shooter emergency response planning to include instant video capture, recording, and tracking of gun violence events. This additional situational awareness and instant automation will alert customers and their security teams to gunfire activity faster and with more accuracy, thereby reducing response time to gun violence incidents. "We are excited to be collaborating with Shooter Detection Systems," said Mark Heintzman, Hanwha Vision America's Technical Partnership Manager. "With this integrated solution we can provide our Wave VNMS customers with better visibility during emergency situations involving gunfire." www.hanwha-security.eu

Traka on Display with Partners at The Barcode Warehouse

Traka's intelligent key management and locker solutions are on display at The Barcode Warehouse's state-of-the-art Innovation and Customer Experience Centre. The Barcode Warehouse has collaborated with Traka to present a comprehensive and integrated security solution to its customers. On show in the centre, itself purpose-designed to showcase the latest technologies and smart solutions, is Traka's compact TUK24 equipment management locker, offered for a wide range of organisations. Also on display is Traka's S-Touch Pro, providing a high-end key cabinet combining advanced technology with sleek design. Traka's product portfolio is now also available in a dedicated section on Barcode Warehouse's website, to present the full portfolio offering. "We are thrilled to be working with Traka to showcase their TUK24 and S-Touch Pro key cabinets at our Innovation and Customer Experience Centre," said Liam Reid Director of Technology And Innovation at The Barcode Warehouse. "These intelligent solutions demonstrate Traka's commitment to providing innovative, reliable, and secure management systems, available for any size business across every sector. And with the systems on display and available to view in digital format, we can discuss requirements with our customers right from specification, to ensure security solutions can be tailored to meet specific needs." www.traka.com



Amthal: New Branding, Website and Outlook

Fire safety and security specialist Amthal is excited to mark a new chapter in the company's evolution with a refreshed brand identity and vision for future growth in the industry. The rebranding initiative represents a strategic move to align the company's visual identity with its growth targets, core values, commercial expertise, and commitment to excellence in the fire and security industry. Amthal has undergone a comprehensive brand transformation, including a redesigned logo, updated website, and refined messaging to a targeted audience as part of the rebranding process. The new logo captures the essence of the company's expertise, professionalism and pledge to deliver compliant, high-quality services, incorporating elements that symbolise security, trust, and reliability. Says Jamie Allam, Amthal CEO: "We are thrilled to unveil our rebranding efforts and present a fresh, modern identity for Amthal. This project not only represents our evolution as a company but also reinforces our unwavering commitment to providing innovative and compliant fire and security solutions that meet the growing needs of our clients." www.amthal.co.uk



Pierre Racz, President and CEO at Genetec

INTERVIEW

Enterprise Shaping Technology

An Interview with Genetec President Pierre Racz on AI, Video Analytics, and Cybersecurity

When you talk about thought leadership in the security industry, one name will be on almost everybody's list: Pierre Racz, President of Genetec. Over the past 20 years, we had several interviews and inspiring talks with him in GIT SECURITY and very often the talk went beyond the security horizon. When we interviewed him this time we started to talk about global warming, had a long chat about AI, trends and hypes in the industry and ended with hygiene, cyber hygiene to be exact.

GIT SECURITY: Mr. Racz, as you know, we are celebrating our 20th anniversary this year. So, the first question we would like to ask you is, what do you think was the greatest game changer in our industry?

Pierre Racz: I was thinking, there were definitely a couple, but the biggest one is going digital. At Genetec, we started promoting digital video in the late 90s. I think we had our first sale in 97/98 and I remember presenting digital video to representatives of the City of New York, the NY Metro and the Transportation Authority. One of the engineers told me after the meeting that New York is never going to use this technology. Ten years later, I met him at a trade show and he told me: "Oh, Pierre, I was so wrong." Of course, these systems are the standard now for all the infrastructure in New York City.

So, going digital did a few things and, of course, I expected it to happen a lot quicker. It changed two things. The first thing is obvious: We got rid of the horrible resolution analogue systems offered. But the big game changer was putting data on a network, and once it's on a network, you could use technologies like multicast. Before networks, video went from point to point like analogue technology, but now it can go from point to multi point.

And I remember one of our early slogans: We would say the network is the matrix. People started to realize that they could share the video material. The primary user would be the security department. But then they could let the operations department and maintenance and other departments like marketing access that video.

How much of a game changer IP became clear to me when I talked to a Vice President for Loss Prevention of a retail chain that went from about 100 stores to 2000 stores in under 10 years. They developed a strategy to make their parking lots "the safest place in any city in the United States." In order to achieve that, they created partnerships with the various law enforcement agencies and installed an IP video surveillance network.

He told me back in 2006 that the Genetec software is an enterprise shaping technology and I did not understand those words. He said, "Not only does the software make us more efficient, it also changes the way we are designing the company. The system helped the community to make places safer, it helped the merchandising people to buy the right products, and it prevented most of the loss for high margin products, in short, it was an amazing game changer. 30% of retail crime is organized retail crime. It's

the third biggest revenue generating activity for gangs. These people hit the stores geographically and systematically." With a network video system, retailers installed an early warning system and told all the stores to watch out for the bad guys.

You did not mention AI and video analytics as the biggest game changers. Some say that the next ten years will be dominated by AI applications. What is your view on this?

Pierre Racz: The last time we talked, I remember saying, "Real stupidity exists, but artificial intelligence does not." I dislike the term AI, because real artificial intelligence does not exist. Very often when people mention AI, they are talking about the use of simple algorithms. For example, when it comes to speech recognition, in my eyes even the latest AI solutions are not intelligent. AI, as it is now, is mindless, and in fact, at the very best, we have achieved the intelligence of an earthworm. It will remain dependent on human oversight and judgment for decades to come. I'm not saying that algorithms like Chat GPT don't work, but we must not confuse them with intelligence and unfortunately, calling it artificial intelligence is bad because already we have the word intelligence in there, and that's a lie.

What are your thoughts on video analytics?

Pierre Racz: Video analytics is a useful tool, but unrealistic promises around analytics have led to operational disappointment. I am not saying that there are no benefits to video analytics. I am saying that you need to know the limitations and be open and honest about the limits. Ignoring the limitations will lead to disappointment. For example, in a relatively simple application like license plate recognition, if you do it wrong or if you expect accuracy close to 100%, you will be disappointed. In other applications, bad engineering can lead to a lot of false positives and false negatives and a false sense of security. My advice is to operate the technology within its limits and make contingency plans for when the technology fails.

What is your approach to video analytics?

Pierre Racz: First of all, before you start, you have to use the scientific method. Ask the customer, what is the business outcome they are trying to achieve. And then you write down all the criteria for a successful operation. For example, I want to do people counting, and I need an accuracy of 90%. Then you think about the error rates and what the impact of those error rates on the downstream business is. Then we can run the experiment and see if it's successful. If you engineered the conditions properly, you can achieve the business outcome, but most of the time, it's improperly engineered, and you don't get the anticipated business outcome.

What is your strategy when it comes to analytics tools? Are you developing your own analytics tools for your solutions?

Pierre Racz: Yes, we have about 30 PhDs working in our R&D teams. One of the groups is located in London and another one is in Vienna. They are working on machine vision and machine learning that are subsets of what others refer to as artificial intelligence. Their engineering is targeted to reduce false positive and false negative rates for our customer applications. So, for example, one of our groups is working on license plate reading cameras and another on semantic processing. I would say they are working on IA, intelligent automation, not on AI.

And what does intelligent automation mean?

Pierre Racz: You have the human supply, the creativity, and the intuition, and you have the machine do the heavy lifting, and you close the loop like that. But it's the human that drives it.

We have a group in England, and they are working with a tool for visual analyst analytics for sense making in crime. The analyst has a canvas and every time there are crimes, it creates a crime card, which is like a record of the crime. Then, they can put the crime cards on the screen and, just by sliding them together, the computer will compute all kinds of correlations with them, like time correlations and word correlations. Then the system tells the human what correlations were found. The next step is that a human is driving it. They can



see how things correlate and they can slide the cards around. They can do that and connect the system over an interface to around 200 different databases. It's all done by the machine in the background and the crime analyst doesn't have to be trained on computers. They have to be trained in human psychology.

You mentioned the business outcome as the criteria for a successful operation of AI/IA. Can you disclose results for that system?

Pierre Racz: With our help, two cases were solved that I know of. One was in England. I'm not allowed to tell you where. The description of the first crime was, 'break-in through the back door'. A messy search started and via the words that the officers had written in their report, we found the correlation and we made a geographic search for all of those events that occurred in a certain area and then noticed that the break-ins were happening Tuesday, Wednesday and Thursday of the week. And then, I think in June or July, the crimes stopped for two months and then started up again. So, the analyst made a hypothesis: They didn't think the

perpetrator went on vacation, but that maybe he went to prison. Then they did a search in another database that had the information who went into prison around the time the crimes stopped, and who came out of prison. They found two people. One of them was the guy. All in all, it was a human who solved the case. It wasn't the machine.

We also helped in an unsolved murder in a major city where we leveraged the PD's crime database. One of our PhDs was doing a demo using that database. They realized what happened: One person got into a car accident with a gang member, and three days later another gang member killed the person who caused the accident. The police were able to find them. It was the tool that helped them to see. That's a good use of machine learning. But the human is the driver.

Do you integrate video analytics from other vendors like you do with video streams?

Pierre Racz: As I said, we are working on our own systems, but of course we integrate with a lot of other products out there. There is a change in the industry. At the beginning there was a lot of wishful thinking and many companies that started to do analytics quickly found out that there was no money to be made in there, because they wouldn't make it past proof of concepts. Too many false positives and false negatives kill the business case. So, what we do is that we will use those tools, but only in situations where we can control the quality. They're useful tools. I'm not saying they're not useful, but you mustn't have this magical thinking. You have to do good engineering.

Genetec was one of the first companies in our industry who started to talk about cybersecurity. What was the reason?

Pierre Racz: We sort of stumbled into this. It's not like we woke up one day and said we need to do something. It was our customers, who told us that something happened to their system and we had to help and invest a lot of energy to sort things out.

Unsafe computer networks are an annoyance for the whole industry. We all should apply the same thinking we have applied during the pandemic. Like kids have to take their flu vaccines, so that they don't make all the other children sick in class, we have to run our computer anti-viruses and we have to have good computer hygiene, because the internet is precious, and we can't let it get sick.

I think that cybersecurity should be very high on everybody's agenda to protect the

whole industry. You should have different layers of protection, so maybe they come into the first layer, but then that would set off the alarm so that you can stop them. Those investments pay off. We have a customer and two years ago they had a cryptoware attack that got into their facility. The cryptoware took out all of their systems except ours, because our Streamvault system uses pre-hardened appliances that meet the latest cybersecurity standards, pre-configured out of the box.

In your opinion, what are the most pressing challenges your customers currently face and what special demands do they have?

Pierre Racz: With a more general view, to ensure business outcomes is still the biggest demand. We concentrate on solving the business problems that our customers are trying to achieve. This is maybe the big differentiator between us and most of our competition. We work with our customers on business outcomes. We don't sell the technology, we sell business outcomes and I think that explains a little bit about how we operate and who we are. This is also why we do take things like cybersecurity more seriously than others. It's important to us to be a good corporate citizen.

That is about the mindset. What about technology, what is the biggest challenge here?

Pierre Racz: One thing that keeps us busy, both internally and externally, is system architecture and data storage and finding the right equilibrium between what is installed on premises and in the cloud. People that have the answer, '100% in the cloud', have the wrong answer. And people who think that all organizations are the same, that's another wrong answer. So, the challenge is to find out what is the correct optimization of what you put in the cloud, and what you keep on premises.

We have one big customer that keeps all the video recordings on premises because in fact nobody ever goes and watches the video. But all the management software and the permissions are done in the cloud. All the user interfaces are distributed via the cloud, that's their optimization. Another large organization has everything in the cloud and, even if you are in the same building and the camera is right next to you, you have to go to the cloud and come back because they put all their security data in the cloud. That's the way they want to run their business.

In short, there is no easy way to figure out what is the right answer for a given

organization. The Web 3.0 architecture is a hybrid architecture with some of your workload run on premises, some of them run in the cloud. It's not easy to predict which is optimal for any given customer, but we can run simulations based on over 10,000 different test cases sitting on top of about 100 different test strategies. Each test strategy is the idiosyncratic configuration of one of our customers. Within about 15 minutes, we can set up a test for our customers. We run these simulations based on anonymized configurations of their systems. They can give us an anonymized database, we strip out all the names, the locations, but we have the number of cameras, and we know where they're grouped together, and we know what kind of quality their connections have. On the latest version of the software, we can do a full-scale test of our customer's system, a full-scale simulation of our customer's facility.

CONTACT

Genetec Europe
www.genetec.com



Professional solutions for video surveillance

EIZO's high-performance IP decoding solutions are designed for the computerless display of video streams. They are built for 24/7 operation and characterized by highest reliability and durability.

- ✔ **Alert-to-Action - see what you need, when you need it**
- ✔ **Data protection through live streaming without storage**
- ✔ **Failover function in case of VMS stream failure**
- ✔ **Low installation and maintenance effort**
- ✔ **Choose between monitors with integrated decoder or a flexible decoding box**



More information
www.eizo.eu/ip-decoding

DuraVision®

MACHINE AND SYSTEM SAFETY

The Key to Safe Food

Flexible Access Management for the Food Industry

Complying with strict safety and quality standards is the top priority in the food industry. Many manufacturers, including well-known companies such as Löwensenf and Ritter Sport, have opted for the freely programmable Electronic-Key-System EKS from Euchner to help them meet these requirements. The EKS enables efficient access control in different production areas, be it in raw ingredients warehouses, in quality control or in recipe management.

Food safety is hugely important for any consumer. High standards for quality and safety are therefore essential in the processes used during product manufacturing. The International Food Standard (IFS) is a significant global standard that is regularly updated and expanded. Companies with IFS certification must undergo periodic audits to prove that all of their raw materials and ingredients are traceable, from the finished product to the relevant suppliers. In addition to this, food manufacturers must ensure that their raw materials, ingredients, processes and packaging meet the applicable regulations and directives and provide documentation to prove this compliance.

Manufacturers must also make every effort to rule out any risk of their products becoming contaminated or adversely tam-

pered with. Safety standards require critical manufacturing processes to be monitored by allocating access rights, which in many cases is done electronically. This is where many food manufacturers turn to Euchner's highly effective Electronic-Key-System EKS. The device functions as an intelligent alternative to systems that require a password. The RFID-based EKS features the main advantage of being freely programmable and therefore highly versatile. As a specialist for industrial safety engineering, Euchner also offers versions with different performance categories in its product range, from the simple EKS Light with integrated Electronic-Key detection and digital outputs to a version with a data interface for greater data transfer and for optimum flexible handling.

The Perfect Choice for the Food and Pharmaceutical Industries

EKS is ideally suited to a broad range of industry applications. Euchner has expanded the system to include a special Electronic-Key adapter design for use in the food and pharmaceutical industries. The materials and the product design were specially adapted for applications in hygiene-sensitive areas. The main priority was creating a robust device that is easy to clean and has high resistance to high-pressure water jets, ensuring that it provides the highest degree of protection IP69K for electric equipment. This means that the EKS can easily withstand regular exposure to the high temperatures and pressure used in hot-water steam-jet cleaning. The housing of the EKS Electronic-Key adapter is made from a high-molecular plastic that is specially

Euchner's Electronic-Key-System EKS enables efficient access control in different production areas in the food industry, be it in raw ingredients warehouses, in quality control or in recipe management. Euchner can provide the right solution for any requirements





The modular Electronic-Key adapter for the EKS Light can be seen on the right-hand side of the operating unit



Ritter Sport's raw ingredients are unloaded at the right receiving station and into the right container via a programmed EKS chip

approved for the food industry and meets the requirements of FDA conformity.

What's more, the system is extremely easy to clean thanks to its closed design. EKS enables access control without any need for a keyboard, which can be problematic in a hygiene-sensitive environment. The Electronic-Key and the read/write station communicate contactlessly: all the user has to do is place the Electronic-Key. The same goes for energy transfer between the two components.

Quality Assurance with the EKS Light at Löwensenf

Löwensenf in Düsseldorf uses the EKS Light, the simplest version of Euchner's Electronic-Key-System. This is a read-only system with internal user identification for small, decentralized applications. Users identify themselves simply by placing their Electronic-Key with RFID transponder onto the Electronic-Key adapter. If the identification is successful, the system grants the user the access rights assigned to them – in this case those allowing access to the quality assurance area. This is where cameras monitor each tube of mustard to check that the printed production data and the tube fold are acceptable before the tubes are transferred to the packaging machine. "It was particularly important for us to protect the system parameters," explains Rainer Lang, Technical Director at long-standing food manufacturer Löwensenf. According to Lang, their control systems would have allowed password functions, "but passwords soon become common knowledge." This is why he favored the Electronic-Key, which allows users only selective access to the system parameters for the camera system – a reliable prevention against incorrect operation of the QM system and packaging machinery.

The EKS Light has four different access rights. The first is for basic users who are allowed to operate the machine's basic functions without a chip; the second is for technicians who are allowed to change individual settings once they have been successfully identified; and the third is reserved for quality management, while the fourth unlocks administrator rights.

Controlling Raw Materials Logistics at Ritter Sport with the EKS Data Interface

Germany's well-known chocolate manufacturer Ritter Sport uses the EKS with data interface at its plant in Waldenbuch, South Germany. The Electronic-Key-System ensures that ingredients and raw cocoa are stored in the right containers when they arrive at the raw ingredients warehouse. This would normally require 32 key-operated rotary switches and a great deal of complex administration. Euchner's EKS is a significantly more efficient solution as it needs only four read/write stations plus the Electronic-Key chips.

When the raw ingredients arrive, an EKS chip is issued. For every drop-off point and container, there is one corresponding programmed and marked chip. Only when the read device has clearly identified the chip's code is access granted. The delivery can then be unloaded at the right receiving station and into the right container. The access rights are recorded along with other information in a central database. The read/write devices are coupled via Profinet to the control system, which can process all relevant data. This makes it very easy to track who was given access to a specific delivery station, when and for how long. In addition to Profinet, interfaces are available via USB, Ethernet, TCP/IP and Profinet.

EKS with Data Interface for Comprehensive Access Management in the Bakery Industry

The EKS version with data interface also offers easy-to-use, comprehensive access management. The bakery industry is a highly suitable field of application. Industrial bakers in particular have a lot to gain from the many potential uses of the EKS system. For example, it can be integrated into bakery machines used for processing dough-based products such as bread, pretzels and croissants.

Possible applications range from individually accessible recipe management with information on ratios, ingredients and temperatures encoded onto the Electronic-Key, to the associated authorization to change the particular products being made. Once the relevant information has been processed, the control system can control the process completely automatically. The EKS system allows access rights to be clearly assigned and enables users to understand disruptions in production so that they can be avoided in future. This helps increase machine availability as well as productivity and quality.

CONTACT

Euchner GmbH + Co. KG
www.euchner.com



INTERVIEW

Keeping It in the Family

Continuity and Further Growth. In Conversation with Thomas Dallmeier

Thomas Dallmeier was a member of the board of directors years before he took over from his father Dieter Dallmeier as CEO, and has been heavily involved in strategic company decisions of the family-run business. GIT SECURITY spoke with Thomas Dallmeier, amongst other matters about succession and continuity, about globalization and the 'Made in Germany' motto, about partnerships and growth plans as well as about the cloud and new projects.

GIT SECURITY: Mr Dallmeier, last year ended with a heavy loss – you lost your father Dieter Dallmeier, and your company its founder and CEO. How have your employees, customers and partners coped?

Thomas Dallmeier: The unexpected death of my father in December 2022, despite his previous illness, was of course a massive shock for all of us, not only for me as his son. Especially in a family-managed business like ours, our employees had built up a very personal relationship with Dieter Dallmeier over the many years, and in some cases decades, of working together. He was present in the company almost every day, in all departments and at all levels. I have experienced and continue to experience a high degree of loyalty and support from our employees, for which I would like to take this opportunity to express my gratitude. In

this sense, this tragic event has brought us even closer together as a company.

I would also like to thank our customers and partners for their continued trust. We have received words of sympathy from many quarters, and my father Dieter Dallmeier has received the well-deserved recognition of his life's work in so many personal conversations and messages.

You have taken on the role of head of the company at this difficult time, but you have been in charge for a long time, and part of the executive board since 2015. Had you already prepared for your succession internally?

Thomas Dallmeier: We are a family business with more than 400 employees worldwide and a large, growing number of customers and partners. A company of this size has to be organized in a way that business can



Continuity in leadership and management: Thomas Dallmeier had already been a member of the executive board for many years prior to his appointment as CEO

continue smoothly even when such a tragic event happens. My father, Dieter Dallmeier, and I had therefore been preparing for him to hand over the company for several years. I have gradually taken on more and more responsibility, and have now been a

◀ Premium partners can also use it for their own events: the state-of-the-art Dallmeier Experience Center in Regensburg

partner and member of the executive board for almost eight years, so there were no big operational surprises for me.

In an earlier interview your father once said that “at Dallmeier everything will remain different”. Where do you see continuity in the future, and where do you see significant innovations or changes?

Thomas Dallmeier: A key feature of the general economy in recent decades has been almost limitless globalization. We now know about the risks and negative effects, the multiple dependencies, the highly sensitive supply chains, the cyber security threats or the quality losses. We have never resigned ourselves to these, and have often been ridiculed for it. Insisting on regional suppliers wherever possible, 100 % in-house development, especially of software components, high quality and cost savings through innovation and looking at total costs rather than individual components – this was and is absolutely the right strategy, especially in such a sensitive area as video security technology. Also, we invested in a completely new production facility just four years ago at our Regensburg site, from the German manufacturer Bott, by the way.

We are very well positioned in all key areas and, as I said, I have been involved in strategic corporate decisions for a long time, so it would be inconsistent for me

Panomera is a central element of Dallmeier's new channel strategy and will be made available to a wide range of installers



to make significant changes now. We will certainly continue to integrate our Domera and Panomera cameras into third-party video management (VMS) and PSIM systems, and we will continue to expand our technology partnerships in analytics and other applications.

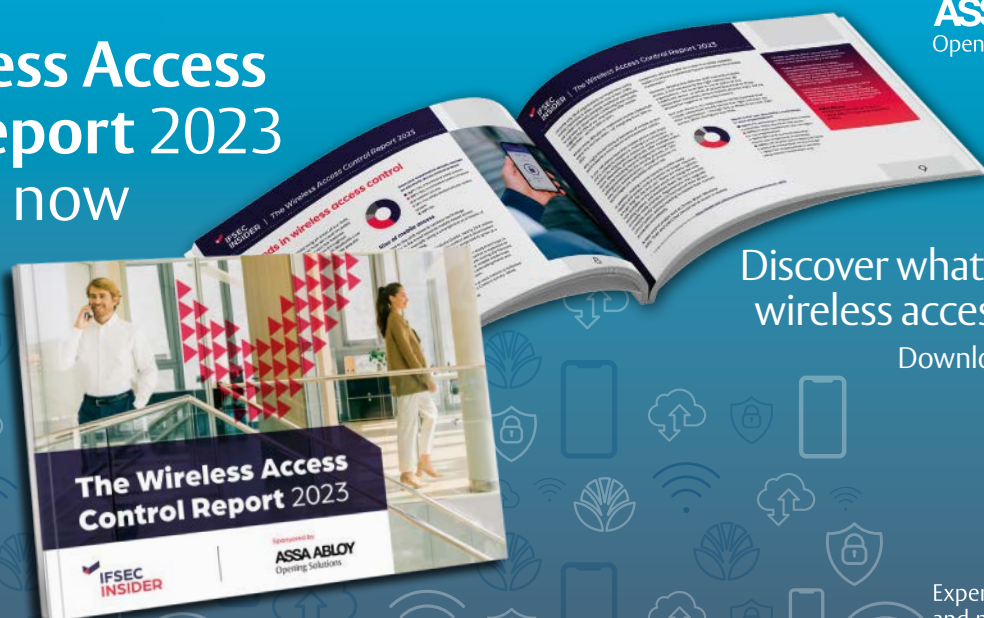
Strategically, where do you want to focus the management of the company in the near future?

Thomas Dallmeier: There will be one or two exciting innovations this year. However, in terms of the product portfolio, we are very well positioned for 2023, both in terms of cameras and software. So in addition to the cooperation with technology partners I mentioned before, we are focusing on further developing our indirect sales channel.

Dallmeier partners receive solutions that are characterized by the highest quality and durability, a multitude of cost-saving features during installation and in operation, as well as the highest level of security and trustworthiness 'Made in Germany'. We are focusing on strategic partnerships and growth beyond the DACH region, on the UK and US markets, the casino business in Asia, and the further development of our business in France.

It is also very important to me to raise awareness of how many different market segments Dallmeier actually covers. It is not unusual for Dallmeier products to be equated with the absolute premium or enterprise segment. This is of course where we are active and where we stand with our quality and patented technologies. However, against the background of our

The Wireless Access Control Report 2023 is available now



ASSA ABLOY
Opening Solutions

Discover what's next for
wireless access control.

Download your copy



Experience a safer
and more open world



The Domera modular housing and mounting system covers over 90 % of all applications

large international projects, the market sometimes overlooks the fact that we also have high-quality cameras in our portfolio in the lower and medium price segments. Many installers serving smaller industrial companies, bank branches, or retailers also use Dallmeier video systems with great success and at competitive prices. And it is not uncommon for a single Panomera to replace a large number of conventional cameras, for example in car parks or large company premises, providing a more cost-effective solution for the customer than many individual cameras.

You mentioned the development and expansion of the indirect distribution channel, which is obviously a very exciting topic for many of our readers. Can you give our installers any more information?

Thomas Dallmeier: Installers can clearly differentiate themselves from the competition with Dallmeier solutions in terms of quality, total cost of ownership, and objective security for the end customer, and achieve attractive margins and service revenues. Interested partners benefit from comprehensive project support and a significantly simplified onboarding process. Partners can be certified on Dallmeier solutions in just two hybrid training sessions. The special thing about Dallmeier for installers and channel partners, in addition to the products, is above all the personal support. The focus is always on maximum project success for the channel partner: from support during project initiation and planning to after-sales support and joint

visits to the Dallmeier headquarters before or after a project. And we are a family business with values that we also maintain with our sales and technology partners. These include a long-term approach, trust and fairness in our dealings with each other. This is why we have a dealer registration program to protect Dallmeier installers and integrators and their relationships with end customers.

You said that strategic partnerships, especially with video management system providers, are an important component for Dallmeier's Go-To-Market strategy. For example, you work very closely with Advancis, Genetec and Milestone. Could you tell us what the status is and what you are planning here?

Thomas Dallmeier: Yes, with pleasure. For a long time Dallmeier had the reputation in the market of being quite proprietary. This no longer reflects today's reality, nor our future direction which is aimed at embedding our camera solutions in as many customer scenarios as possible. There is a great deal of added value for our joint end customers by partnering with leading VMS and PSIM providers: if they are already using a VMS or PSIM system from one of these vendors or have a specific solution in mind, they can benefit from the great advantages of our cameras by integrating them. For example, when it comes to cost-effective coverage of large areas or long distances, or when the priority is simple commissioning and adjustment.

This makes Dallmeier interesting for a large number of installers who have already

specialized on these software providers. By integrating Dallmeier cameras, these partners can improve their competitive position, reduce the effort of planning, installing and operating their customer systems, and also benefit from attractive margins.

Integrating your flagship Panomera and Domera products with such systems is a challenging task – but one that is largely complete?

Thomas Dallmeier: The Domera and Panomera systems can be fully integrated via ONVIF and, depending on the partner system, there is even deeper integration at various levels. The integration of the Panomera systems really has been a particular challenge, but here too we are already so far along with our partners that the systems can already be used extensively by end customers, with the corresponding functional added value of multifocal sensor technology. The Panomera camera systems are officially supported by these software providers. We continue to invest heavily to ensure that the integration is as complete as possible, right down to the last functional detail. Any missing functionality will of course be added to existing installations.

'Made in Germany' is an important message for Dallmeier – it conveys values that are particularly well received not only in the German market, but also worldwide: data protection and cyber security, for example. Do certifications for sustainability and energy efficiency also belong here?

Thomas Dallmeier: As I mentioned earlier, the issues of data protection and cyber security, the co-responsibility for the security of our critical infrastructure in investment decisions are very important issues that are, of course, to a certain extent in our DNA as a manufacturer from a region of the world with a long tradition of the rule of law. However, there are many other aspects that are becoming increasingly important for both us and our customers. Having all the relevant environmental and energy management certifications, for example, is just as important to us as the aspect of social sustainability.

The Cloud has always been a topic at Dallmeier – but it is set to become even more important...

Thomas Dallmeier: The topic of ‘the cloud’ is as multifaceted as what customers and professionals understand by it. For us, the cloud is primarily about making technical services available in a location-independent and user-friendly way, but we see that many customers are concerned about data security and costs. Customer requirements vary widely, as they do everywhere: from companies and organizations where the surveillance environment may never be connected to the Internet to modern start-ups where everything, including video surveillance, is virtual and cloud-based. There is still a lot of education to be done about the cloud in general. In our view, there will not be a significant amount of video recording in the cloud in the B2B sector in the future. The technology is rather moving more and more towards ‘recording at the edge’ with management or services via the cloud. We try to look at the cloud from the customer’s

perspective as much as possible. Our large management systems have long been able to run in the public cloud – the Danish State Railways, for example, use our software in an Azure environment alongside several hundred Domera cameras and numerous Panomera systems. In 2023 there will also be a very exciting solution for an extremely lean, mobile-oriented and, if desired, recorder-less Dallmeier video security solution.

Could you give us one or two current important customer examples where Dallmeier systems are prominently used?

Thomas Dallmeier: I can think of a number of exciting projects of course. In city surveillance, for example, we can justifiably call ourselves the market leader with projects in more than 35 major German cities. There is also a large number of end customers who appreciate the new Domera concept and use these systems. These include large customers with many small branches, such as the Landesbank Linz in Austria, or McDonalds in the UK, the National Portrait Gallery in London and of course many small and medium-sized trading and manufacturing companies in all sectors. But what makes me particularly happy is that we are winning more and more small and medium-sized industrial customers who are convinced of the special cost-benefit ratio of Panomera for their outdoor areas. A good example of this is Flottweg, a manufacturer of high-performance separation technology based in Vilsbiburg, Bavaria, built by a typical medium-sized installer, Franz Sicherheitstechnik of Mengkofen. At an international level, we are

particularly pleased with the great success of Dallmeier Türkiye, which was founded this year. Here too, it is not just a matter of major projects such as Istanbul Airport: our colleagues there recently put the Alsancak Stadium system in Izmir into operation, a medium-sized stadium in which Panomera is also being used with great success.

What other important projects do you have on the agenda for the medium term?

Thomas Dallmeier: We have many interesting projects in the pipeline in all our core sectors, which I cannot talk about openly of course. The topic of regional airports is certainly exciting, but also increasingly car parks, solar parks and many other ‘large areas and long distances’. Of course, AI is being used more and more to reduce false alarms, but also to reliably detect intruders, count people and to deliver other analytic functions – be it with ‘onboard’ technology from Dallmeier or from one of our analytics partners.

One last question: of course every market has its own rumours ... have there been or are there plans to sell the company?

Thomas Dallmeier: No.

Mr Dallmeier, thank you very much for this interview.

CONTACT

Dallmeier electronic GmbH & Co. KG
www.dallmeier.com



ASSA ABLOY
Opening Solutions

Access control in the Cloud

Incedo™ Cloud is the flexible solution
for your business

Download the Solution Guide:



Experience a safer
and more open world

INTERVIEW

AI and AIoT Will Reshape the Industry

A Look Back at the Past Two Decades and into the Future

Based on an extensive R&D workforce, Hikvision manufactures a full suite of comprehensive products and solutions for the security industry and a broad range of vertical markets. The company extends its reach to smart home tech, industrial automation, and automotive electronics industries to achieve its long-term vision. GIT SECURITY spoke with Tony Yang, Vice President of International Business Center at Hikvision, about trends in the industry, AI and how Hikvision helps customers to overcome their challenges.

GIT SECURITY: We celebrate our 20-Year Anniversary this year. What do you think was the greatest game-changing technology for the security industry in the last 20 years if you had to choose one?

Tony Yang: I'd say it's Artificial Intelligence AI, which is one of the most transformative and game-changing technologies we've seen in the last few decades. It has the potential to revolutionize numerous industries and aspects of our lives. What we have seen in recent years is how diversified AI products and applications have helped solve intricate problems daily and meet customers' fragmented needs much better than was possible earlier. On one hand, AI has assisted security personnel by automating routine, repetitive, and time-consuming security tasks, so that they no longer have to locate incidents from thousands of hours of video clips. This frees them up to focus on more critical tasks and helps improve response times in emergency situations.

On the other hand, AI has enabled security systems to learn from data patterns, detect anomalies, and predict potential security threats, aiding security professionals in making better decisions and being proactive in addressing potential risks and vulnerabilities. But if we look back even further, the transition from analog to IP-based security systems changed the way security is implemented and managed, and created a foundation that enabled the emergence and adoption of AI.

In your opinion, what are the most pressing challenges your customers currently face – and what special demands do they in turn place on you as their partner?



Tony Yang, VP of International Business Center

Tony Yang: The economic slowdown has placed increasing pressure on companies to revisit their operational strategies to maximize profits. Likewise, our customers have become more focused on risk mitigation, cost reduction, and operational efficiency. In such challenging times, an effective and reliable security system or solution can help them level up safety, streamline operation, reduce cost and increase productivity.

We can list some examples how Hikvision can help customers to overcome challenges. A convenience store chain can rely on our smart retail solution to connect all their branches through a centralized management platform and perform remote store audits, reducing labor costs and improve operational standardization. A logistics company can use our dock management solution to visualize loading and unloading records, improve vehicle allocation,

and achieve maximum efficiency. An SMB owner can benefit from our end-to-end one-stop security system that combines smart video security, alarm systems, and access control solutions to manage all security activities on the move via a mobile app, which reduces time spent on manual security checks, and maximizes efficiency in daily operations.

The next ten years will be dominated by AI applications. Do you agree and what will be the biggest benefit for our industry?

Tony Yang: Yes, of course. We believe the combination of AI and IoT will continue to be a major trend for the next 10 years, reshaping the scope of the security industry. AI adds substantial value to IoT, which in turn converges into AIoT. These AIoT solutions will not only provide intelligent protections but also help advance the efficiency of operations across a multitude of industries and organizations. It will create an important path for boosting the digital evolution across industries.

Looking in to the future, what do you think will be the impact your company will have on the industry?

Tony Yang: We'll continue to serve the evolving needs of customers and propel the industry forward through our cutting-edge technologies. With more 'senses' added to the security industry, we're helping to expand people's capabilities of perceiving the physical world in new ways. By developing advanced machine perception technologies, we're enabling the collection of multi-dimensional information. This, coupled with the development of artificial

intelligence, paves the way for a wider and more innovative application of AIoT, and takes the security industry to the next level.

Looking beyond technology innovation, we are also fostering an open ecosystem that help to unleash the power of collaboration among stakeholders within the industry. By providing partners and developers with easier access to our products and technologies, together, we can facilitate co-creation of value for customers. To make this happen, we have built an open ecosystem that incorporates open devices, platforms, and cooperation resources, where we and our partners can accelerate the exchange of ideas and solution innovation. As a result, our customers can benefit from an easier and more cost-effective path to AI adoption and success with the digital transformation of their operations.

New products, solutions, services: What are you working on most intensively at the moment? And what news can we expect from you in the near future?

Tony Yang: We are working intensively on enriching our product portfolio, through which we deliver multi-dimensional perception and customized intelligence at the customer's fingertips. In the first place, we are enhancing our multi-dimensional perception capabilities, going far beyond visible light, extending out along the electromagnetic spectrum, so that they can be used in wider scenarios and applications. Moreover, we are continuously strengthening our imaging technology to enable crystal clear security imaging in any weather, under any conditions, any time of day or night.

Apart from these, we're also enriching our product mix to adapt to end-users' complex demands across multiple scenarios and designing more customized solutions to provide comprehensive, end-to-end capabilities for diverse industries, from traffic to shipping, from retail to healthcare and beyond. Furthermore, we are focusing on increasing the sustainability of our operations, and delivering greener, more sustainable products and solutions. We will keep rolling out products featuring longer life expectancies, recyclable materials and packaging, as well as renewable energy usage. Each of these initiatives aims to reduce waste and emissions and contribute towards creating a greener footprint.

CONTACT

Hikvision
www.hikvision.com



GIT SECURITY is relevant for us, because it stands out as one of the premier portals in the field of Security and Safety at the international level. Our visibility in this esteemed journal has played a key role in seizing new business opportunities, facilitating our international expansion process.



Raffaele di Crosta | CEO Ksenia

SICUREZZA

INTERNATIONAL SECURITY & FIRE EXHIBITION

15-17 NOVEMBER 2023 fieramilano



IN A WORD,
MANY SOLUTIONS.

MIBA

MILAN INTERNATIONAL BUILDING ALLIANCE



ONE PLACE. FOUR EXHIBITIONS

PARTNER



INTERNATIONAL NETWORK



IN COLLABORATION WITH



FIERA MILANO

STANDARDS

Evolution of Metadata

How to Standardize the Handling of Analytics Metadata

Metadata is driving the future of video and with it, the future of the security industry and the value that it can offer to businesses within and beyond the function of security and safety. Today, our industry and the greater technology sector are only at the beginnings of understanding how to truly harness the possibilities of metadata. To do this, we are simultaneously pushing the boundaries at different directions – upwards to explore and innovate new ways of mining intelligence from metadata, and outwards to make metadata collection and analysis easier and more accessible at a mainstream, mid-market level.



Gunnar Erlandsson,
Global Product Manager Analytics,
Axis Communications



Rudolf Spielberger,
Solution Business Partner Program,
Bosch Security and Safety Systems



Barry Norton,
VP of Research,
Milestone Systems



Todd Dunning,
Director, Product Management,
Video Security & Analytics, Pelco

Standardization is key to making these technologies accessible, creating common pathways, definitions and approaches that are available to all.

Onvif has already made significant strides in this area with ProfileM, created to standardize the handling of analytics metadata between cameras, VMS and other software platforms. This addresses metadata at a foundational level, while at the same time opening access to IoT environments and enabling cloud-based solutions and services for manufacturers, systems integrators and end users and other organizations looking to add value using metadata. Standards such as ProfileM help to enable greater innovation in this area and the ability to scale the solutions that are developed to the larger market.

Onvif membership boasts some of the leading IP video companies involved in this research and development. Here are some of their thoughts on the evolution of metadata and its future impacts.

The Evolution of Metadata and Future Impact

Gunnar Erlandsson, Rudolf Spielberger, Barry Norton and Todd Dunning answer GIT SECURITY's questions on metadata and the future market.

GIT SECURITY: How is the security industry using (video) metadata today?

Gunnar Erlandsson, Global Product Manager, Analytics, Axis Communications: Metadata is becoming increasingly important. Automatically generated metadata with information about what's happening in a scene makes it easier to build tools to help operators handle large amounts of video data. Metadata can be used in the video management software context, to enable automated or human responses to alerts, and to dramatically decrease the time needed for video searching. Another integration possibility is to collect the metadata as statistics in dashboards, for

example visualizing summaries and trends, that can give actionable insights.

Rudolf Spielberger, Solution Business Partner Program, Bosch Security and Safety Systems: Video analytics, a form of Artificial Intelligence, has long produced metadata to add sense and structure to recorded video footage, which helps users to understand scenes and situations. Metadata makes it possible to retrieve the correct footage from hours of stored video. It also analyzes scenes to identify potential undesirable events and provides various statistics so users can act faster and more efficiently or make smarter business decisions. It's the main reason Bosch video security cameras have had built-in video analytics as standard since 2016.

Barry Norton, VP of Research, Milestone Systems: The security industry and Milestone see a significant increase in the use of structured data, including video metadata and events. At Milestone, we are continu-

ously building capabilities of the ingestion and utilization of such data.

Todd Dunning, Director, Product Management, Video Security & Analytics, Pelco: Pelco by Motorola Solutions used metadata in analog video solutions 20 years ago with Pelco D protocol sending date and time metadata from the camera to the VMS. As the industry migrated to digital video, the ability to expand metadata and standardize methods for metadata has increased. Today, Onvif Profile M provides a standardized method to provide metadata for geolocation, vehicles, license plates, and human faces and bodies.

How do you see the use of metadata changing in 2025 and beyond?

Todd Dunning: Metadata will continue to expand into operational areas of camera technology. Temperature ranges (thermography) in thermal technology, crowd behavior reports, camera health metrics, and helmet and safety vest metrics are a few items that customers are asking for and are seeking simple ways to report on through metadata.

Barry Norton: Over the next 3–7 years, the data on which security solutions are built will become both richer and more domain specific. This will be driven by increased focus on verticalization, the growing sophistication of cameras and analytics producing metadata, and by the

cross-fertilization with other devices and data sources.

Rudolf Spielberger: More powerful hardware and significant metadata growth will drive increased adoption of deep learning-based video analytics. Deep learning offers more in-depth scene understanding and enables informed decision-making for quick and automated responses. For example, our Bosch traffic monitoring solution, founded on deep learning, produces comprehensive and reliable metadata. It achieves accuracy levels beyond 95 percent for real-time event detection and data aggregation. The technology will only improve, allowing us to create more value for our customers.

Gunnar Erlandsson: We expect metadata to become more important and widely deployed. With the advances in AI technology, it will become possible to generate even richer metadata, including more information about what's in the scene.

How important are standards to the evolution of metadata?

Rudolf Spielberger: Adhering to common standards – such as Onvif Profile M for metadata and events for analytics applications – is vital to making metadata reusable and ensuring system interoperability. Combining different metadata sources for verification purposes or building solutions that work with metadata from other sources will help our customers create even

more thoughtful and tailored solutions, far beyond security and safety alone.

Gunnar Erlandsson: Standards are very important. Onvif Profile M has been instrumental in the security industry's adoption of metadata to ensure effective interoperability between system components. Further, customers can trust that they do not rely solely on one vendor and do not risk being stuck with legacy systems that cannot be expanded.

Todd Dunning: Standards make integration easier, whether it is across companies or within a company. Documented ways to communicate often accelerate end solutions for customers. Although standards are not always the fastest path forward, in the end, it helps manufacturers anticipate technical requirements, and can reduce costs and time for integrators granting them brand flexibility in finding solutions for end users.

Barry Norton: Standards are essential in moving beyond basic and generic video analytics to more complex domain-specific solutions. Standards lower the cost barriers and therefore accelerate the adoption process because they scale beyond a single vendor and allow a common interpretation of interconnected data, including video metadata, across the value chain.

CONTACT

Onvif
www.onvif.org

 **Dallmeier**

**YOUR CUSTOMERS
DEMAND THE BEST**
SO SHOULD YOU!

Partner with Dallmeier and deliver
best-in-class video solutions.

With camera technology “Made in Germany”.

ONVIF | M S T

Integrated in   

 **MADE IN GERMANY**



BECOME A
DALLMEIER
PARTNER
NOW!



20 Years of Security

GIT SECURITY has asked leaders in the industry to give a reflect on 20 years back and on future developments.

Jan Meiswinkel, CEO and Co-Founder of Advancis

What do you think was the greatest game-changing technology for the security industry in the last 20 years if you had to choose one?

In the year 2003, security technology developed in the direction of IT and IP, e.g. IP video started to evolve. That opened new possibilities regarding our core competence of integrating different technical systems into one superordinated software platform. At that time, Advancis existed for around 10 years already and I believe this technology breakthrough has been essential for the further development of our open integration platform WinGuard.

“The next ten years will be dominated by AI applications.” Why would you agree or disagree?

Generally, I agree, however I think AI always has to be based on solid data. AI can be very helpful when it comes to prevent structural awareness, but its big potential

lies in the prevention of critical events, e.g. predictive maintenance and early warning systems. It is important that it must always be possible to understand how the AI arrives at its decision. To ensure that, the data with which the AI is fed must be correct and this is exactly what we consider our role: Integration, harmonization and utilization of data.

Your company will have a great impact on the industry in the next ten years because...?

Advancis will continue to be active in the processing of AI as well as highly complex sensor technology. Our software collects, distributes and merges data which is our core competence. In the past, the proceeding was rather to record a signal, display it and to set up the processing and evaluation procedure of an event. With the support of AI, further information will be available within seconds so that decisions can pos-



sibly be made even better or before the event appears in order to prevent it.

However, our focus will not only be on AI, but also on our Advancis Open Platform, i.e. to provide a very flexible and customizable security and building management system which third parties can easily complement by additional functions and interface modules.

Thomas Dallmeier, CEO Dallmeier electronic

What do you think was the greatest game-changing technology for the security industry in the last 20 years if you had to choose one?

Of course, the Dallmeier Panomera Multifocal-Sensor Technology: It allows customers to solve the physical problem of image resolution decreasing towards the back in the object space. But since one should not praise oneself: Surely the biggest “game changer” has been AI – with ever improving assistance systems making security tasks easier, better and safer. And it means one thing above all: video technology has once again moved one step further from “cost factor” to business enabler, saving businesses money instead of being something like a technology-based insurance without a clear Return-on-Investment.

“The next ten years will be dominated by AI applications.” Why would you agree or disagree?

I agree with this statement for the most part. AI is already transforming the security industry as few developments before. But that makes it all the more important not to lose sight of other factors. These include the legal and juridical framework, but also important technical factors such as image quality, which has a major influence on the quality of analyses. In my opinion, however, the most important issues in this context are trustworthiness, ethical responsibility in dealing with AI and, above all, security and privacy issues.

Your company will have a great impact on the industry in the next ten years because...?

...because we combine technological excellence with the three most important non-technical issues of our industry: Cybersecurity, privacy and ethical responsibility in dealing with technology. We can do this because we handle the entire value chain –



first and foremost the development of our software – in-house, under “rule-of-law” conditions in Regensburg, Germany. And we combine these increasingly important factors with technology that solves customer problems with the know-how gained from almost 40 years of experience and with maximum cost efficiency.

Uri Guterman, Head of Product & Marketing, Hanwha Vision Europe

What do you think was the greatest game-changing technology for the security industry in the last 20 years if you had to choose one?

While the advent of the IP camera was certainly game-changing and allowed so much more to be done with video, it emerged a little outside that twenty-year period. Certainly, the development of new lens technology alongside faster and more powerful chips since then has increased the quality of the images captured by video cameras, but the more recent introduction of AI – and its implementation ‘at the edge’, in particular – has opened up a world where the visual information captured on video can be extracted, examined and leveraged. The transformation of video from supplying only images to delivering valuable data has the potential to transform our industry beyond all recognition.

“The next ten years will be dominated by AI applications.” Why would you agree or disagree?

It is no exaggeration to say that over the next decade, AI will transform the world around us, the way we interact with technology, and what we can achieve using it. And while some uncertainty currently exists about how AI will fit into our lives,

nowhere is its potential more immediately apparent than in video surveillance. Our industry is at the forefront of the practical implementation of AI. Already, cameras use built-in AI to alert users only to the incidents that genuinely require their attention, effectively eradicating false alarms and freeing them up to do more valuable work.

Hanwha Vision’s Road AI solution, meanwhile, identifies vehicle type, make and colour ‘out of the box’, giving town and city planners the ability to understand how and when roads are used and shift resources around accordingly or alert emergency services to broken down vehicles or spilt loads in the road.

AI makes all this, and much more, possible, and these types of applications, built on insights gleaned from visual information, will become commonplace in the next two years, let alone ten.

Your company will have a great impact on the industry in the next ten years because...?

If AI is set to transform video technology, then Hanwha Vision’s impact on the industry in the next ten years is assured because, more than any manufacturer, it is leading the way in deploying AI ‘at the edge.’



Hanwha Vision is leading the drive towards AI in video by making it easier to deploy AI at scale without needing specialist implementation or lots of bandwidth. AI ‘at the edge’ offers the benefit of deep learning-based object detection and classification with ease of use, low cost of ownership and fewer false alarms.

The industry is undergoing massive change, with conventional physical security solutions like video surveillance being expanded thanks to the Internet of Things (IoT), delivering new insights into the efficiency of business processes. What’s more, over the next ten years, data collected by IoT sensors will combine with video and be analysed by edge AI to predict future events and proactively prevent security incidents. It has never been a more exciting time to be in the security industry!

Dr. Volker Brink, Head of Product Management Access Organisation, Winkhaus

What do you think was the greatest game-changing technology for the security industry in the last 20 years if you had to choose one?

From our point of view, as one of the pioneers of electronic access management, there is no doubt that the compact, energy-efficient microcontrollers that came onto the market in the late 1990s played a key role. These microcontrollers enabled us to develop the breakthrough technology (blue chip) of small battery-powered cylinders that could be operated by a key without its own battery supply. Subsequent generations have long since become established: blueSmart – another breakthrough that gave the industry a new impetus – combines offline and online access management through so-called virtual networking. blueCompact is our locking system with full smartphone control, designed for smaller installations.

“The next ten years will be dominated by AI applications.” Why would you agree or disagree?

Everyone is talking about it. It is still an emerging area in access management, at least in the strict sense. We suspect that a lot of what is being marketed as AI is actually based on analysing user data or movement profiles within the facility, or statistics related to usage times, for example. Our view is that AI will not be a game changer in access management. Instead, it is likely that efficient algorithms will make the management of the locking system more intuitive and effective. This could include processes such as maintenance or reusing similar access rights for another person within the facility, someone working in the same department.

Your company will have a great impact on the industry in the next ten years because...?

With almost 170 years of experience in the development, manufacture, and distribu-



tion of security technology, Winkhaus has a wealth of experience, expertise, and innovation. We are constantly working on new technologies and tailoring them to the individual needs of users. As a result, we offer practical solutions for a wide range of applications that are convincing down to the last detail. You can be sure that we will continue to excite the industry with ground-breaking innovations. Some of these innovations will be on show at Light+Building 2024.

Clement Menviel, Group Communications Director, STid

What do you think was the greatest game-changing technology for the security industry in the last 20 years if you had to choose one?

Digital access badges have revolutionized security over the past two decades. They democratize access, streamline management, and offer robust protection comparable to Mifare Desfire technology. Smartphone-based solutions, like Stid Mobile ID, enhance user experience, reduce costs, and maintain data privacy while maximizing security. A proactive approach ensures that organizations effectively protect assets and personnel.

“The next ten years will be dominated by AI applications.” Why would you agree or disagree?

Yes, AI will dominate the next decade. Stid recognizes its significant impact on the security industry. AI-driven technology is revolutionizing security with facial recognition and behavioral analysis, improving

access control and surveillance. Real-time data analysis optimizes resource allocation and enables effective response to security breaches. Predictive analysis facilitates proactive risk management. However, there are still challenges ahead, such as the overall system that must enable its use (the current installed base is too obsolete for this), secure AI communication and ethical implementation. Stid remains vigilant and will work towards a responsible and controlled deployment.

Your company will have a great impact on the industry in the next ten years because...?

Stid's impact on the security industry over the next decade will be immense, thanks to our commitment to open and intelligent access control technologies. We prioritize the creation of a unified security ecosystem that integrates access control, surveillance, and cybersecurity measures for a



proactive, real-time response to threats. By leveraging the interoperability, openness, and interconnectivity of our solutions, we improve access control systems through agile, global situation analysis. Our commitment to open technologies enables seamless integration and customization. Effective communication fosters collaboration to meet emerging challenges.

Leading the Way in Next-Generation Security Solutions

In the dynamic landscape of security solutions, STid has established itself as a trailblazer, driven by an unwavering commitment to innovation and a distinct vision of the future. Breaking free from the norm, STid's independence has allowed it to challenge the status quo and set a new pace in the industry with its cutting-edge offerings.

The key to their success lies in embracing open technologies, empowering users with the freedom to customize solutions to their specific needs while retaining full control over their sensitive data. STid's interoperable solutions seamlessly integrate into existing systems, providing a robust security framework that effortlessly adapts to evolving requirements.

The relentless pursuit of innovation lies at the heart of STid's success. By rewriting the security paradigm, they have garnered accolades and awards, solidifying their position as the industry's most celebrated brand. From the groundbreaking Architect range, seamlessly combining top-notch security with user convenience, to the Spectre range, including the latest addition, Spectre Nano, revolutionizing access security by identifying both the driver

and the vehicle. Their solutions adapt to various needs, from visitor access management (driver identification only) to strong authentication with biometric capabilities when paired with STid Mobile ID.

Cybersecurity Focus

But it's not just about meeting the needs of critical players; STid believes that cybersecurity is everyone's responsibility. With the exponential increase in cyberattacks and a forecast of \$10 trillion in damages by 2025, the world is waking up to the urgency of the matter. STid recognizes the threat posed by hybrid attacks, where physical intrusions lead to cyber penetrations, underscoring the need for comprehensive security solutions. This vision is now further supported by recent regulations.

In tune with market trends, STid advocates for unified security, building intelligent systems that dynamically respond to emerging threats. By interconnecting all system peripherals, STid creates a cohesive security ecosystem that enables real-time communication and proactive threat detection. Its hardware solutions (Architect or Spectre reader range) and digital badges, as well as the SSCP protocol promoted by this

leading company, are specifically designed to construct agile security systems.

Flexible and Intuitive Solutions

If there's another value that defines STid's DNA alongside security, it's intuitiveness. They firmly believe that optimal user adoption is only possible when constraints disappear or even transform into value creation. From this premise, STid works on systems that adjust their security level based on identified risks. When no risk is detected, peripherals can be configured to facilitate traffic and streamline access with intuitive badge modes based on simple identification. And when intrusion or threat is identified, they automatically switch to strong authentication.

STid's journey goes beyond mere security; it represents a commitment to transform the industry landscape. Its vision, openness, and emphasis on the human experience set it apart from other companies, inspiring a safer future for organizations worldwide.

CONTACT

STid

www.stid-security.com/en

Matteo Capelli, Commercial Director, Cias

What do you think was the greatest game-changing technology for the security industry in the last 20 years if you had to choose one?

In my opinion, video analysis represents the game-changing technology of the last twenty years. The reasons for this lie in the evolution of CCTV, increasing its fields of application, such as traffic control, license plate recognition, industrial automation, indoor and outdoor applications or for intelligence on a large scale as in China. Video analysis boosted the expansion of CCTV and will also represent its future as long as it integrates more technologies. In fact, I believe that it has objective limitations of reliability in external perimeter detection, for example, in bad weather conditions such as heavy rain, fog, snow, sandstorm, etc. Only the synergy between different technologies enables the most efficient intrusion detection performance.

“The next ten years will be dominated by AI applications.” Why would you agree or disagree?

AI will dominate the coming years. In our sector, it will represent the element of active integration of multiple technologies, as well

as a self-improvement driver for each sensor or process. The situation is like the IT revolution of the 80s, the only difference is the speed factor, since AI will have a much faster impact and will affect many more areas, including cultural and social ones. Of course, as history teaches, every invention or innovation can incorporate threats. It's good that a strong debate on possible risks and limitations in application is already underway. As security experts, we took this chance to innovate our technology and in 2022 we developed Synapses, a new “super-sensor” system with embedded AI. This self-adaptive system with video analytics and deep learning criteria enables the real time communication between CCTV and PIDS: intrusion analysis is dynamically adapted to the real site conditions, distinguishing different targets in the video flow. It maximizes detection performance outdoor.

Your company will have a great impact on the industry in the next ten years because...?

Our company will play its role in the security industry in the coming years thanks to its long-term expertise and constant drive for R&D. The risk in our sector is that new



players advance in the software field forgetting or presuming that they can bypass the laws of physics. One example is video analytics: if applied in indoor environments it can achieve a great performance, but in outdoor environments the camera is like an eye that can be easily blinded by natural or artificial events. In that moment of need, we will play a fundamental role knowing how to reconcile the laws of physics with the most modern and advanced analysis software. We can integrate sensors with AI solving the challenge to provide a very high security degree.

Gerard Figols, President of i-PRO EMEA

What do you think was the greatest game-changing technology for the security industry in the last 20 years if you had to choose one?

The last 20 years, from my point of view, are split into two major technology changes: the shift from analogue to IP, which was more an evolutionary process, bringing significant advancements to the industry. However, it was the arrival of AI that truly changed the game: AI showcased the immense power hidden within the data CCTV can generate, and hence the insights that could be extracted from video footage. AI is bringing limitless possibilities for making security smarter and operations more efficient, and the future will bring so much more AI-based innovation potential that we cannot foresee yet. It is in the responsibility and good faith of the companies to treat it in a transparent, ethic and compliant way.

“The next ten years will be dominated by AI applications.” Why would you agree or disagree?

The dominance of AI over the next 10 years is inevitable. However, it's important to recognize that this supremacy won't rest solely

on the applications itself. It's the combination of the AI hardware, complemented by innovative applications, that will generate the most accurate analytics and therefore insights. At i-PRO, we believe in changing the game by providing strong, powerful and reliable edge-AI hardware in an open platform. It will bring AI to the forefront and allow flexibility in applications to be developed individually depending on the required case.

However, what is important is that the data generated can also be handled and is trustworthy. An efficient and reliable management of this information will make the difference. For this reason, we have developed our Active Guard plug-in, offering an easy, intuitive and quick way to segment and handle all the meta data generated, and use it to support your security and business operations with peace of mind.

Your company will have a great impact on the industry in the next ten years because...?

i-PRO is ready to act at the forefront of the security industry: As the only Japanese manufacturer in the global market, we are



proud to provide the best camera technology on the market to run AI, using the latest Ambarella chipsets to make sure our customers experience stable and unmatched performance in an open platform. But we don't stop at the hardware and our open flexible approach for applications to run on the cameras: Alongside our Active Guard plug-in, we present an entire AI ecosystem that seamlessly integrates into industry-leading VMS providers like Milestone and Genetec to make sure users can access the full power of AI in their existing or new installations. Acting at the forefront of innovation and as pioneers in AI, i-PRO is set to shape the future.

Leo Levit, Chairman, Onvif Steering Committee

What do you think was the greatest game-changing technology for the security industry in the last 20 years if you had to choose one?

Without a doubt, artificial intelligence and machine learning will end up having the greatest technological impact on security. Not only is it truly beginning to transform the depth, power and accuracy of today's video analytics but AI will continue to extend the influence and impact of our video technologies to uses far beyond traditional security and safety. As developers continue to innovate with AI and manufacturers continue to improve digital imaging technology, end users will reap the benefits of additional intelligence, usability and cost-effectiveness in video technology. Of course, we can't forget that without the introduction of IP video – another notable milestone that came of age in the last 20 years – we would not have the rise in video analytics capabilities that we have today.

“The next ten years will be dominated by AI applications.” Why would you agree or disagree?

The pace of innovation within AI seems unprecedented so it would seem unlikely that AI will not be the dominant force for at least the next decade! We often associate AI with video analytics to interpret behavioural patterns within a scene, but I think we will see the real utility of AI heavily impact other operational areas – for example, the status of a camera view, device and system recording capacities, overall device health, remote systems diagnostics, etc. Expanding this intelligence into other systems where video is integrated will also be huge in terms of correlating data from different systems and enabling the systems to diagnose anomalies and proactively adjust settings to correct or compensate.

Your company will have a great impact on the industry in the next ten years because...?

Onvif creates interoperability standards that support the activities and interests of the security industry, providing stability and openness in product interoperability. I foresee that standards such as Onvif will only continue to grow in relevance as video



analytics becomes more ubiquitous and the industry continues to migrate toward cloud storage, processing and management. Standardized approaches in this area are crucial. A common interface helps eliminate the development of numerous proprietary approaches for communicating and handling metadata and for interfacing with the cloud.

Towards a fluorine-free future

Per- and polyfluoroalkyl substances (PFAS) in fire-fighting foams are on the brink of extinction.

GLORIA®

For more information please look at www.gloria.de or scan the following QR Code:



Raffaele di Crosta, CEO Ksenia Security

What do you think was the greatest game-changing technology for the security industry in the last 20 years if you had to choose one?

If I had to choose one game-changing technology in the last 20 years in the field of security and home/building automation, I would say it is the Internet of Things (IoT). IoT refers to the network of interconnected physical devices embedded with sensors, software, and connectivity that enables them to collect and exchange data, thereby merging the physical and virtual worlds. The proliferation of IoT devices has opened the doors to an entirely new way of approaching security since they provide incredible added value, such as enhanced coverage and effectiveness in detecting unusual behaviors, remote monitoring and management, and real-time data analysis. Moreover, they can communicate with each other and with centralized control systems, enabling intelligent automation and proactive security measures. A clear example of IoT efficient security system is our lares 4.0 control panel: it can send alerts to homeowners' smartphones when a security intrusion is detected, they can automatically adjust lighting and temperature based on occupancy patterns to enhance security and energy efficiency, and that's not all.

“The next ten years will be dominated by AI applications.”

Why would you agree or disagree?

I agree. AI has the great potential to analyze large volumes of data collected from IoT devices, identify patterns, and detect anomalies or potential security threats. By leveraging machine learning techniques, AI can continuously improve its threat detection capabilities and adapt to evolving attack vectors to make homes and buildings smarter and efficient. In the context of home/building automation, AI algorithms can enable predictive maintenance, energy optimization, and intelligent automation, thus adjust lighting, heating, and cooling systems accordingly to optimize energy consumption. Artificial Intelligence (AI) has undoubtedly made remarkable advancements in various fields, but the importance of humans cannot be understated. Human involvement is essential for providing context, ethical decision-making, creativity, emotional intel-



ligence, adaptability, and overall responsibility. The synergy between them has the potential to drive innovation, enhance productivity, and solve complex challenges in a responsible and beneficial manner.

Your company will have a great impact on the industry in the next ten years because...?

Ksenia Security will undoubtedly make a difference in the industry because we have a clear vision regarding the company's direction, future objectives, and the most effective way to achieve them.

We are deeply immersed in the context of Industry 4.0: a real industrial revolution that embraces cutting-edge digital technologies, artificial intelligence, the Internet of Things (IoT), cloud computing, and other innovations, allowing us to collect and analyze a vast amount of data to prevent failures and optimize production. Our strategy is fully focused on this new smart phase, extending this concept to Security, Home Automation, Access Control, and Video Verification, and making our system the optimal choice for various sectors, including residential, commercial, and industrial.

In this context, we aim to offer our customers highly professional security solutions, integrated with the latest smart technologies, oriented towards both Smart Home and Smart Building. Looking ahead, we will continue to seize emerging opportunities and innovations, with the goal of providing a 360-degree vision of security to meet the growing needs of end-users. All of this is driven by our attitude towards Innovation, Reliability, Sustainability, and Design Made in Italy, which are values that guide every company's decision.

blueSmart ETB-IM

Reliable protection, easy to install.

The electronic door handle for internal doors from Winkhaus fits seamlessly into the blueSmart product world and is compatible with all common internal doors made of wood, steel or PVC-U, as well as different door sash thicknesses. The ETB-IM can also be used on approved fire and smoke doors. This gives you flexible options for your building management and reliable protection against unauthorised access in sensitive areas of your buildings.



Exquisite metal housing¹⁾ in stainless steel look, with scratch-resistant plastic pane in black or white.



More about electronic systems by Winkhaus

bluesmart.winkhaus.com

The Kettler Alu-Rad high-bay warehouse can store up to 50,000 e-bikes fitted with lithium-ion batteries

COVER STORY

There Is No Standard Solution for That

Fire Protection: The Challenge of Lithium-Ion Batteries

COVER STORY

The Wagner Group has developed a customized fire protection solution for Kettler Alu-Rad for their automated high-bay warehouse. The rechargeable lithium-ion batteries that are installed in e-bikes and stored prior to shipping present a big challenge because of the fire risk of their composition, a challenge met by Wagner Group with the help of extensive fire testing – and a combination of fire detection and fire prevention by oxygen reduction.

Under the pressure of global competition, no company can afford to lose any stock or be put out of operation for any length of time. Fires, and their consequences, must be avoided at all costs, which makes a reliable fire protection system essential, and especially where there are high-risk goods stored.

Storing lithium-ion batteries presents a particular problem for warehouse fire protection because they are at risk of spontaneously catching fire on their own, which can have fatal commercial consequences as well as endangering the environment:

Once into thermal runaway, they cannot be extinguished with water; dangerous substances are released, and if the fire spreads to adjacent goods, a chain reaction leads to a rapid spread of fire in the warehouse. The search was on for a fire protection system for the fully automatic high-bay warehouse of Kettler Alu-Rad in which up to 50,000 e-bikes with built-in rechargeable batteries are packed and ready for dispatch, so that any spread of a thermal runaway fire would be suppressed.

The Solution

There is currently no ‘standard fire protection solution’ when storing lithium-ion batteries. The inherent potential of this form of energy storage to self-ignite cannot really be countered and, if there is a fire, conventional types of extinguishant are not sufficiently effective. At their new and modern production facility, the bicycle manufacturer, together with the specialists from Wagner Group and the client’s insurance company, set about defining specific



The OxyReduce system and the Titanus aspirating smoke detector system provide complete fire protection throughout the warehouse



Systems for active fire prevention, early fire detection, fire extinguishing and hazard management

Turn the page and read the interview with Dirk Band, Director Sales at Wagner Group ▶▶▶

fire protection goals for the high-bay warehouse.

The lithium-ion batteries in the e-bikes are of varying sizes and capacities. They are charged to around 30% and are thereby a particular fire risk – a real challenge with special requirements for the fire protection system. The compact storage in the high-ceiling warehouse, the packaging material of the goods as well as the potential risk of the electrically-driven automatic storage system all influence and extend the potential amount of damage. The most important goal was therefore to confine any thermal runaway to the one bike and prevent the spread of fire.

Extensive Fire Testing

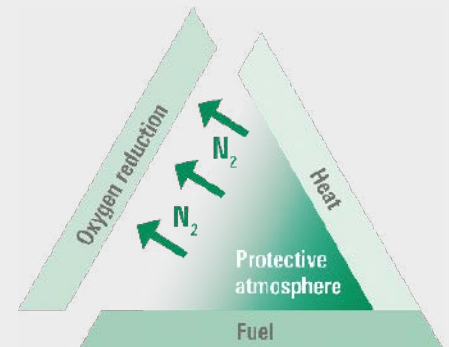
The ideal method of storage of e-bikes was established through extensive fire tests. They were carried out at the DMT Test Laboratory for Fire Protection, a fire testing center complying with DIN EN ISO 9001 and accredited to DIN EN ISO/IEC 17025:2005. The significant difference of the solution conceived for Kettler is that storage is possible in a normal warehouse environment, without the batteries having to be kept in special containers as with other dangerous goods and materials. This greatly minimizes the space requirements as well as

the number of staff required and also simplifies the logistics. To achieve this, the OxyReduct oxygen reducing system is used. It lowers the oxygen content to a pre-defined level within the protected area of the high-bay warehouse and maintains it at this level. This stops the spread of fire if a battery catches alight; a chain reaction can be prevented by the ideal spacing of the boxes in storage that was determined in the tests. Business continuity is ensured and deliveries can also continue to be made. The automatic warehouse can be entered under the conditions given by DGUV recommendations.

In order to detect smouldering and cable fires in good time, which are still possible even in the oxygen-reduced atmosphere, Wagner supplements the solution with the highly sensitive, deception-proof Titanus early fire detection system. Aspirating smoke detectors react up to 2,000 times more sensitive than conventional point detectors and detect fires during the early pyrolysis phase. They continually take samples of the air in the surroundings and check them for smoke particles. An appropriate response can be made in good time by detecting a fire at this early stage. ▶

Active Fire Prevention for Maximum Safety

The statistics show that a fire breaks out every two minutes somewhere in Germany, and often causes significant damage. No matter whether it is a warehouse, a computer center or storage facility, all commercial operations are dependent upon absolutely reliable fire protection. No company can afford business interruptions and so, besides protecting people and high-value (or even irreplaceable) goods, business continuity has the highest priority in the case of a fire.



The OxyReduct system uses this principle: By reducing the proportion of oxygen, it literally 'takes a fire's breath away'

Wagner Group has the appropriate fire protection solutions in its portfolio to meet this requirement: the VdS-recognized OxyReduct fire prevention system. Traditional fire protection systems are passive, which means that they only react when a fire has already started. The preventive OxyReduct oxygen reduction system however gets into action before a fire starts and thereby actively provides a high level of safety. Consequential damage, such as that caused by water, foam or other extinguishants, is prevented – and dangerous substances that can be released during a fire are also avoided.

The Wagner Group's certified OxyReduct fire prevention system preventively ensures that under specific conditions a potential fire cannot even start or spread. By introducing nitrogen into the protected area, the oxygen concentration is reduced to such a level that the specific inflammation level of the material present is not reached. OxyReduct thereby creates an atmosphere in which under defined conditions the eruption of flames is impossible. The remaining oxygen is not sufficient to maintain a fire or to let it spread.

The required nitrogen is supplied by the system directly from the surrounding atmosphere. Nitrogen is a fundamental element of our natural atmosphere and this saves the cost of transport, and a lot of space too, while conventional firefighting systems require large areas to store the extinguishant, large water tanks for a sprinkler system for example, OxyReduct only requires a space of only a few square meters.

QUESTIONS

3

Dirk Band, Director Sales at Wagner Group

GIT SECURITY: Mr. Band, lithium-ion batteries are already very widely used – and present a very specific fire risk. What relevant figures do you have on the number of fires they have caused and the cost of the consequences?

Dirk Band: To the best of my knowledge, there are no accurate statistics on this. However, according to the Institut für Schadenverhütung und Schadenforschung der öffentlichen Versicherer (German Insurance Companies Accident Prevention and Research Institute), fires caused by lithium-ion batteries have become 'typical' incidents. The Institut für Sachverständigenwesen (Assessors' Institute) refers to a 'new everyday risk' and justifies this view with the increasing number of devices equipped with these energy sources. And this number is continually increasing too: Statistics predict the production of lithium-ion batteries in 2025 will have a combined

power of 1,402 gigawatt hours – in 2018 it was only 326 gigawatt hours.

Kuno Neumeier, the CEO of Logivest and the spokesman of the Logistics Properties group of the German National Association of Logistics (BVL e.V.), is expecting that just in the logistics industry alone the need for warehouse areas for lithium-ion batteries in Germany will increase by the year 2030 to around 7 million square meters. The main driver of this development is the increasing number of e-cars and e-bikes as well as all the tools and household electrical items that are driven by these accumulators. Considering these figures, it has become necessary to take some appropriate fire protection measures now in order to prevent major damage later.

Numerous cases of enormous destruction have already been documented. Take, for example, the freighter Felicity Ace with around 4,000 VW cars on board that sank after a fire in February 2022, or the recent fire on board the Freemantle Highway in Dutch waters. Although it hasn't yet been finally proven that the cause of the fire was a so-called 'thermal runaway' in an electric car, experts assume that this might be the case. Enormously high value goods were destroyed here within a short time period: most of the load and presumably the entire ship; one person lost their life; and there was potential for an ecological disaster. Fires of this type can bring a company to financial bankruptcy, leaving the consequences for people and the environment aside that can hardly be quantified. It becomes obvious: Every individual fire – just because of the consequential damage – is one fire too many.

As a company that provides holistic fire protection solutions, we try to prevent fires caused by these batteries from even starting. Of course, even we cannot prevent the self-ignition of a battery, but we can strictly limit the damage. We have developed the fire protection solution for Kettler Alu-Rad on the basis of a comprehensive risk analysis, defining the protection goals, doing numerous fire tests and acerbic project management. Our solution minimizes the effects of any thermal runaway and protects up to 50,000 e-bikes that are stored in the high-bay warehouse from any spread of fire.

What is the special fire risk of this type of battery?

Dirk Band: The spectrum of energy storage types using lithium-ion technology is relatively broad, and they present very different risk scenarios. But a common factor for all the lithium-ion batteries that are being used today in many electronic devices, because of their compact energy storage and long life, is their high potential fire risk and the great damage that they can cause.

A thermal runaway can have mechanical, electrical or thermal reasons. Mechanical damage or manufacturing defects, overcharging, deep discharging, or overheating can all easily cause a short circuit or set a chemical reaction going that leads to the self-ignition of the battery. This suddenly releases the stored energy, with subsequent escape of gases, sparks, flames or even fireballs or explosions. Gases including CO, CO₂, H₂ and O₂ can be released – an uncontrollable fire can result that cannot be extinguished. Chain reactions in the vicinity, whether within the battery pack or with adjacent goods, can lead from what would normally be a simple battery fire to damage of enormous scale.

What fire protection methods are effective in the case of lithium-ion batteries?

Dirk Band: When you are considering fire protection, it is first important to define the protection goals. In most cases, business continuity is the prime aspect. So although a battery fire cannot be completely avoided, the first priority becomes keeping its effects to a minimum.

It is vital to recognize the start of a fire at an early stage and find out exactly where it is. Early detection, by using Titanus aspirating smoke detectors for example, makes it possible to quickly take appropriate action and to protect people and goods. Physically removing the burning battery can sometimes be sufficient. Reducing the oxygen content in the air, as we do with the OxyReduct system, can prevent a fire from developing under defined conditions.

The oxygen reduction technique is ideal in closed, automated environments, such as the high-bay warehouses found in the logistics industry, although there is a large number of factors to take into account. The specialists at Wagner are always available to give their advice on this very topical and complex matter.

CONTACT

Wagner Group GmbH
www.wagnergroup.com



Fire Safety System with Cloud Capability

Chain Bridge Honey Farm, a renowned honey production and visitor attraction, has upgraded its fire safety systems with the installation of Comelit-PAC's LogiFire solution with cloud capability. The farm has three honey houses and a visitor center together with over 2,000 hives. To enhance safety, local specialists SPARC Fire and Security designed and installed a compliant fire safety system. Based on previous experience, Comelit-PAC's LogiFire system was recommended as a self-addressing solution that could enable monitoring and management through cloud technology. It was designed to seamlessly blend with its surroundings and ensure comprehensive coverage across its expansive facility. The LogiFire addressable system has been designed as a simple-to-install, fire safety solution that is compliant with EN Approvals. It is complemented by a range of detectors in award-winning designs.



www.comelitgroup.com



Over-Coax AI

Dahua Technology has launched its HDCVI 2023 as a continuation of the ten-year milestone of leading analog technology into the high-definition era, providing global customers with AI-powered over-coax technology. The High Definition Composite Video Interface, or simply HDCVI, is an over-coaxial-cable video standard that enables HD transmission up to 1,200m of four signals, audio, video, data, and power, with just one coaxial cable connecting the camera and XVR. This year's HDCVI 2023 offers an artillery of intelligent functions that allows installers and users to achieve one-step HD monitoring without additional configuration. Real 5MP is a unique technology that supports the 16:9 aspect ratio, more vivid colors and better image sharpness. This year, Dahua is launching the Real 5MP 2.0 mode (available on XVR5000-I3 series), allowing users to achieve real 5MP resolution at a reasonable price. www.dahuasecurity.com

Edge-Based VMS Recording Solution

Hanwha Vision has launched the SolidEDGE camera, the first real Solid State Drive-based camera on the market with an embedded Wisenet WAVE VMS server. There are two models in the range: the PNV-A6081R-E1T and PNV-A6081R-E2T. Both eliminate the need for an external server and the requirement for a cloud subscription to store video footage, or high-speed connectivity to upload video onto the cloud. The camera runs the Wisenet WAVE VMS on the edge, which means it is a true server-less solution that ensures security and safety without the need for a costly and space-consuming server. No OS and security updates are required, making the SolidEDGE camera particularly attractive for remote installations where there is no room for a server or NVR, such as around ATMs, solar farms, electricity substations, level crossings, bus stations, or small independent shops. www.hanwhavision.eu



Cameras Pass U.S. NEMA 4X Tests

The Mobotix 7 cameras have passed U.S. NEMA 4X tests, which certifies that the series is rated for use in harsh environments. The U.S. National Electrical Manufacturers Association (NEMA) 4X is one of the highest ratings for outdoor equipment designed to withstand dust, water spray, snow, ice, and extreme temperatures without compromising performance or reliability. The Mobotix cameras have been tested extensively for shock resistance and resistance against vibration and corrosion. All tests are conducted according to strict industry standards to ensure the product meets the highest quality requirements for indoor and outdoor applications. In addition to the physical quality tests, the cameras are regularly tested for cyber security. In penetration tests conducted by renowned testing institutes, the cameras repeatedly prove their resistance to cyber attacks. www.mobotix.com



SYNAPS outdoor junction interface for Smart City applications.

Includes HiPoE/PoE+ switch and Li-Ion micro UPS.



www.slat.com



The latest member of the Avenar 4000 family from Bosch is a smoke detector with an integrated CO gas sensor according to the new EN 54 regulations



SPECIAL FOCUS FIRE DETECTORS

Fire Detector Compilation 2023

Everything You Need to Know on Fire Detectors

SPECIAL
FOCUS

A fire detector, is a fire detector, is a fire detector... or is it? GIT SECURITY has sampled different kinds of fire detectors and explains the differences of each type. This market research looks at products, at development and asks experts like Johnson Controls, Bosch and Siemens how their systems work and what their take on fire detection is.

It could be so easy to see, choose and install a fire detection system or even just a fire detector. But detectors are as different as the scenarios that they need to protect. For example, if you have high ceilings, smoke must first get to that point where the detector is mounted – it costs valuable detection time. So, let's start with explaining which detector is suitable for which scenario.

What Different Kinds of Fire Detectors Are There?

There are smoke detectors, heat detectors, flame detectors, linear infrared detectors/thermal imaging, video fire detectors, and gas detectors. These subcategories of detectors cover the most regularly used detectors. As one can tell only by their



Video fire detection
from Bosch: Aviotec

names, the way they detect fires functions differently. Some detect the difference in smoke particles, others use temperature or deviation in infrared light.

Smoke Detectors: What Is the Difference Between an Optical, an Ionization and a Dual Sensor Detector?

The most classical detectors are smoke detectors. They are widely used and are easiest to install. Oftentimes, many will call them "point type smoke detectors" or "point detectors" which refers to the most standard ceiling-mounted detectors.

Smoke detectors detect smoke particles in the air. As soon as the quality of air changes, they give out an alarm. That being said in an easy way, there are four kinds of smoke detectors:

1. Optical smoke detector or photoelectric detector: These kinds of detectors contain a light beam to detect smoke particles in the air (photoelectric technology). When the light is intermitted by floating particles, it triggers the alarm. They are very sensitive to smoke from a slow, smoldering fire, as they detect rather medium and large smoke particles. Therefore, it takes a bit for them to get triggered.

2. Ionization detector: The function of this detector is a bit harder to imagine. It produces ionized air. That means they create an electrical charge and a current to flow inside the detector. When smoke particles get inside, they detect a deviation in electrical charge and the alarm sounds. These kinds of detectors are very sensitive and easily triggered by changes in air (pressure, temperature, etc.) Hence, they are sensitive to fast, flaming fires and analyse smaller and medium size particles.

3. Dual sensor detector: This detector uses both ionization and photoelectric technologies in one alarm. This is why it is best for earliest possible warnings, regardless of the type of fire.

It is a tough choice to decide what kind of fire detectors are useful for each individual scenario. Sebastian Wehr, Product Manager for Fire Detectors at Bosch Building Technologies says: "One trend in the industry is certainly to use multi-sensor technology to further improve detection capabilities. We recommend the multi-sensor approach for demanding environments. Two or more sensors combined in one device can increase the false-alarm

stability and, at the same time, make a system more robust.”

The Avenar detector 4000 series from Bosch is a flexible series of nine detectors for both manual and automatic addressing systems. They are available in single, dual and multi-sensor versions for specific applications and are equipped with intelligent signal processing based on more than 4,000 fire patterns to deliver highly reliable detection performance.

As you can see now, many providers today combine different functions of detectors already, because it makes the system more secure.

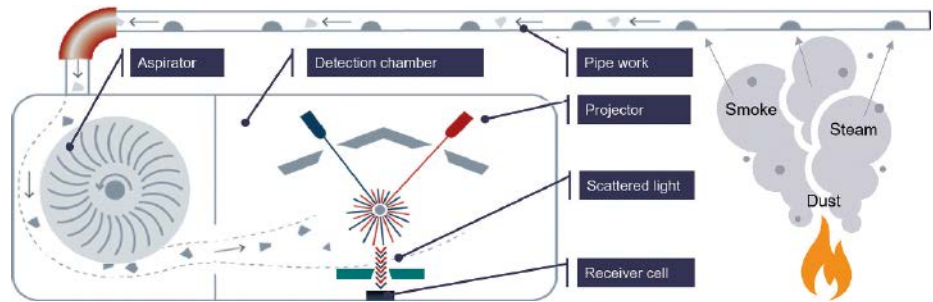
Another fire detection system, the Zettler Profile, a brand by Johnson Controls, comes with associated 3oTec detectors and offers very stable technology with rapid response time and less frequent nuisance disruptions, e.g. by false alarms. Flexibility and scalability of the panel and the parameterization of the addressable detectors allow quick adaptation to all customer needs.

Optical smoke detectors using the light-scattering principle are a very good compromise between cost and efficiency. Using a detector which combines smoke detection with heat detection and even CO detection reduces false alarms significantly.

4. Aspiration smoke detector (ASD): This detector per se is the same as the others. It also uses either optical or ionic detection. The difference is: It leads the air to the detector through suction pumping and through pipes. Therefore, it can cover larger areas and volumes of air, as well as areas with higher ceilings. Siemens explains it like this: Their ASDs continually sample air from the monitored room using a connected pipe system with aspirating holes distributed along the length of the pipes. The air is drawn through these holes and into a detection chamber by an aspirator fan. It is then analyzed optically for the presence of smoke, using red and blue light (see Figure below).

A current example of the aspiration smoke detector comes from Siemens. In 2023 they have launched their new ASD+ that has two independent detection chambers in only one device and enables monitoring of rooms up to 6,700 m². According to Siemens, it is the largest area of coverage of any product currently on the market.

ASD+ is used in data centers, warehouses, road and rail tunnels, cable channels and other applications requiring very early detection, and where point detectors are hard to reach for service and maintenance. The ASD+ operates across a broad temperature range of -20 to +60 degrees Celsius, effectively functioning in both clean and harsh environmental conditions. Its versatility and robustness make



The air is drawn through holes in pipes and into a detection chamber by an aspirator fan. It is then analyzed optically for the presence of smoke, using red and blue light

it an ideal choice for diverse industries and demanding environments.

What Are Heat Detectors?

Simply said, this detector detects heat by having a way to measure temperature through voltage on a wire. There are two kinds of detectors that monitor changes in heat:

1. Thermal detector: This detector produces a temperature-dependent voltage through a wire. It detects changes in the temperature of that metal. Sensors can be platinum resistance or thermoelectrical thermometers. It is used in areas with sudden peaks of temperature.



With a passive fiber optic cable used as a distributed temperature sensor, the system from AP sensing measures thousands of temperature points in real time, monitoring photovoltaic system temperatures

2. Thermovelocimetric detector: It uses a thermistor to detect heat by connecting the deviation in temperature to the deviation in voltage. It is often used where no sudden changes in temperature are expected, such as car parks.

According to SP-Sensing, Fiber Optic Linear Heat Detection (FO LHD) technology offers fire and hotspot detection and monitoring in a wide variety of applications: protection of data centers, traffic and utility tunnels, car parks, conveyor belts, metro stations, refineries, warehouse facilities, and solar farms. With a passive fiber optic cable used as a distributed temperature sensor, the system measures thousands of temperature points in real time, monitoring photovoltaic system temperatures and detecting and locating hotspots within one meter.

What Are Flame Detectors?

Flame detectors are used to detect the presence of flames – as opposed to heat detectors that only detect temperature. There needs to be some sort of sensor that translates light. There are three kinds of flame detectors:

1. IR detector (Infrared): It detects infrared radiation emitted by flames through a photo diode and converts IR radiation into an electrical output signal through an emissive sensor element. This kind of detector is used in areas with a natural high temperature, such as highly combustible material or unattended machinery. So, there needs to be an instant response. The disadvantage is that it only works in case of a flame fire.

2. UV detector (Ultraviolet): This detector uses a combination of light sensors, filters and photodetectors to detect ultraviolet light from flames. It is inevitable for areas with a high risk of explosion, such as chemical plants.

An application example for conveyor belts with highly combustible materials comes from Patol. Its 5000 series feature an infra-red transit heat sensor and the high temperature transit flame sensor. The sensor triggers at temperatures below the point of flaming, including both embers and buried hot spots, thereby providing the potential for intervention before flaming occurs.

What Is Thermal Imaging?

Thermal imaging functions similarly to the flame detector – except that the sensor translates heat and temperature into a thermal image by detecting infrared from fire. It even works on IR particles in the air or by absorbing sub-red light. The image that is created gives a visual expression of heat.

The fixed-mount thermal imaging cameras from Flir for condition monitoring and early fire detection are one product example. Flir A500f and A700f advanced smart sensor thermal cameras are ideal for users who want built-in, on-camera analytics and alarm capabilities for outdoor condition monitoring and early fire detection applications.



Flir A500f and A700f advanced smart sensor thermal cameras are ideal for users who want built-in, on-camera analytics and alarm capabilities

What Is Video Fire Detection?

A video fire detection system is basically an advanced video analytics software on a camera that can identify all sorts of ignition and fire indications as well as smoke patterns. The camera can detect the fire at its source in a matter of seconds. It is used in storage areas or areas with expensive and high-value machinery.

An example for a really advanced video fire detection system is another Bosch product: Aviotec currently uses more than 20 algorithms to analyze and detect the different ways that flames and smoke can present.

What Is a Gas Detector?

Gas detectors are used to detect gases that often come from combustible substances. They can detect toxic gases to give an alarm in the presence of explosive gas-air potential. It is most commonly used in industrial applications.

An example for an integrated gas detector is the latest member of the earlier mentioned Avenar 4000 family from Bosch. It is a smoke detector with an integrated CO gas sensor according to the new EN 54 regulations. As with the rest of the Avenar detector 4000 Series, FAP-425-Docto-R includes combined optical and thermal sensors but also an additional specialized sensor for rapid detection of carbon monoxide being a combustion gas that develops at an early stage of fire.

How High Can I Mount a Smoke Detector?

There is a reason why smoke detectors should be mounted within a certain ceiling level. It is simple thermodynamics: Warm air rises and so does smoke. The higher the smoke gets, the more it mixes with the surrounding air and it becomes diluted, colder and slower. When it cools down to room temperature it stops rising completely. At that point it doesn't even get to the smoke detector early, although a fire may be in full swing.

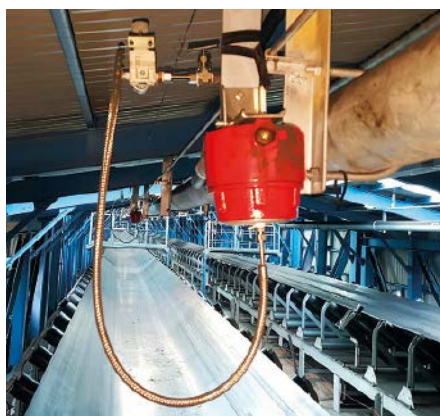
The opposite is the case for regular air. Normally, warm air collects under the ceiling and forms a layer that is almost

impenetrable for the smoke. For the smoke to rise even higher, it needs more energy, which must come from a larger, more established fire. This kind of air barrier is a problem for smoke detection. Of course, aspiration smoke detection can counteract the problem of higher ceilings a little bit but not completely.

As expected, Germany, the country of regulations, does state in section 6.1.5.3 of VDE 0833-2 a standard that regulates everything around fire detection and alarm systems. For example, there is a maximum ceiling height for smoke detectors that must not be exceeded. Optical smoke detectors should only be used up to a distance of 12 meters and a maximum of 16 meters if – and only if – their effectiveness can be proven.

What Is the Best Kind of Fire Detector and Intelligent Addressable Fire Alarm System at the Moment?

According to Jens Aperdannier, Team Leader Fire, Continental Europe, at Johnson Controls, this is not easy to answer – there is no one best solution as every system must be tailored to the customer's facility and integrated with fire suppression



5000 series feature an infra-red transit heat sensor and the high temperature transit flame sensor

systems where needed. Therefore, there is no “one-fits-all” detector.

He says: “Thanks to strict standards for fire detection systems, certified systems and components offer a very high level of reliability and functionality. The prerequisite is regular service and maintenance of the system by a certified installation company.

“In order for fire detection systems to function correctly, the design and commissioning phases are crucial. The design and commissioning of a fire detection system and its detectors depend very much on the customer's building, the use of the rooms and the fire loads and materials in them.”

Aperdannier continues: “The most universal detector solution that is suitable for most applications is a combined detector

which is able to detect smoke, heat and carbon monoxide. It measures all three fire characteristics independently and evaluates all three fire parameters by means of an algorithm to detect a possible alarm condition. In combination with a state-of-the-art fire panel, it allows a quick, reliable and highly parameterizable detection.”

How Can I Prevent Fires from Lithium-Ion Batteries?

With all the electrical cars and e-bikes on the market, people think about their batteries more. Detection is one thing, but in this case, it is even more important to prevent.



Zettler Profile, a Johnson Controls brand, comes with associated 3oTec detectors and offers very stable technology with rapid response time and less frequent nuisance

So let's take a look at this minor digression. According to Wagner Group, there is currently no ‘standard fire protection solution’ when storing lithium-ion batteries. The inherent potential of this form of energy storage to self-ignite cannot really be countered and, if there is a fire, conventional types of extinguishant are not sufficiently effective.

As you can read in this issue's cover story in full length, Wagner Group has the appropriate fire protection solutions in its portfolio to meet this requirement: Their OxyReduct fire prevention system. It gets into action before a fire has got a hold and thereby actively provides a high level of safety. Consequential damage, such as that caused by water, foam or other extinguishants, is prevented – and dangerous substances that can be released during a fire are also avoided.

**Author:
Lisa Holland**

Suppliers

- AP Sensing
- Bosch Building Technologies
- Flir Teledyne
- Johnson Controls
- Patol
- Siemens Smart Infrastructure
- Wagner Group



Everything You Need to Know on Fire Detectors



unum-X

two features in one sensor

unum-X ST-DT

The unum-X ST-DT series are
GRADE 2 certified

WIDE

detection area:
12m depth and 85° width.

NARROW

detection area:
18m depth and 5° width.



unum-X DT/AM

The unum-X DT/AM series are
GRADE 3 certified

WIDE

detection area:
15m depth and 85° width.

NARROW

detection area:
24m depth and 5° width.

The new range of **indoor motion detectors**
compatible with all the **lares 4.0** control panels!



Intelligent Fire Detection

The Bosch Approach to Protecting Life and Assets



Sebastian Wehr,
Product Manager for Fire Detectors

Bosch Building Technologies has developed an impressive range of fire protection solutions over the years and does not stop there. They run regular updates in their product portfolio, also introducing innovative technology like video-based fire detection to the established solutions to extend the scope of applications.

GIT SECURITY talked to two Product Managers at Bosch in the area of Fire Safety: Sören Wittmann, Product Manager for Aviotec and Sebastian Wehr, Product Manager for Fire Detectors, about the latest developments in their fire detection portfolio and the next generation of the video-based fire detection, Aviotec.



Sören Wittmann,
Product Manager for Aviotec

GIT SECURITY: Can you give us an overview about the Bosch portfolio of fire detectors and can you explain what you place particular emphasis on when developing new fire detectors?

Sebastian Wehr: When it comes to fire detection, reliability should be the first focus. A detector must work when it has to work. If there is a real fire, a fast reliable detection is key to protect people and assets while avoiding annoying and costly false alarms. To ensure the highest reliability, we rely on a series of technology. We use dual ray technology, and Intelligent Signal Processing (ISP) for the distinction of visible disturbance values such as vapor, steam and cigarette smoke, as well as specific features like eSmog. This feature provides robustness against invisible interference such as mobile phones and WiFi. One trend in the industry is certainly to use multi-sensor technology to further improve detection capabilities. We recommend the multi-sensor approach for demanding environments. Two or more sensors combined in one device can increase the

false-alarm stability and, at the same time, make a system more robust.

In addition to reliability, when we are developing and defining our fire detection portfolio, we give particular importance to ease of installation and handling as well as flexible application options. The users should benefit from easy installation, maintenance, and durability.

In the core of our offering are the Avenar detector 4000 series, a flexible series of nine detectors for both manual and automatic addressing systems. They are available in single, dual and multi-sensor versions for specific applications and are equipped with intelligent signal processing based on more than 4.000 fire patterns to deliver highly reliable detection performance.

Speaking of multi-sensor technology, carbon monoxide (CO) fire detectors can be better suited to applications where other fire detection techniques are prone to false alarms, i.e. due to dust, steam, and cooking vapors. Does Bosch offer this option as part of your portfolio?

Sebastian Wehr: The latest member of the Avenar 4000 family is a detector with an integrated CO gas sensor according to the new EN 54 regulations. This new detector offers a new carbon monoxide sensor, increasing its fire and smoke detection and alarm capabilities in accordance with the forthcoming EN54 standards.



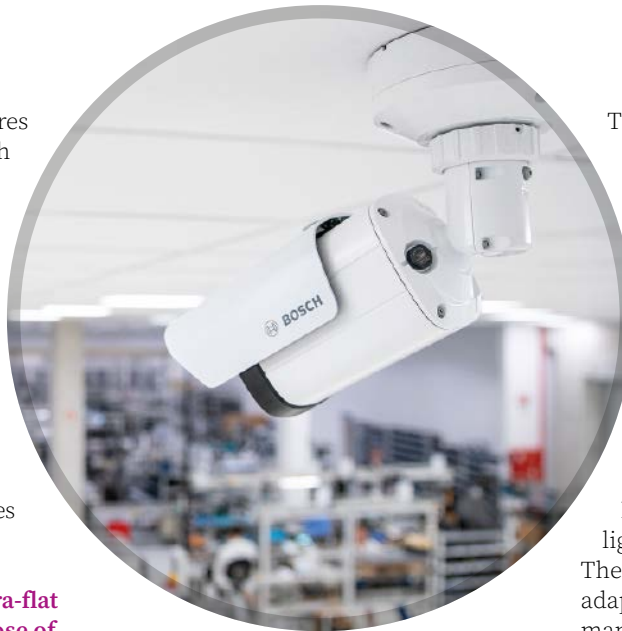
The new FAP-425-DOTCO-R features integrated multi-sensors. As with the rest of the Avenar detector 4000 Series, FAP-425-DOTCO-R includes combined optical and thermal sensors but also an additional specialized sensor for rapid detection of carbon monoxide being a combustion gas that develops at an early stage of fire. This means it adheres to the upcoming EN 54 standards requiring the monitoring of CO concentrations for premises in healthcare, manufacturing industries and in parking lots.

You have introduced a series of ultra-flat design detectors. What is the purpose of these products?

Sebastian Wehr: These almost invisible detectors have a virtual optical chamber inside the device and as a result, the Smoke Detector 500 Series does not stick out of the ceiling. The smooth surface does not gather the usual visible dirt in rooms with high dust build-up. So, it offers high reliability, and it is easy to clean. On top of that, it saves service time and costs. The level of dirt build-up is continuously measured. A trouble signal indicates when a unit needs to be cleaned. The ultra-modern, flat design is also advantageous for interiors with high aesthetic requirements. According to the customer's requirements, the detector can be ordered with different colored rings, so that it almost blends into the space.

On top of traditional methods for smoke and fire detection, you have introduced Aviotec, the system for video smoke and fire detection. For those who do not know Aviotec yet, how does it work and for what kind of applications is the system best fitted?

Sören Wittmann: When you are trying to keep large areas safe, as is the case in industry and in warehouses, it does not take long for individual, point-type smoke detectors to reach the limits of what they can do. The reason is that smoke rises due to thermal lift, and the higher it rises, the more it mixes with the ambient air and becomes diluted, colder, and slower. At some point, the temperature of the smoke will equalize with the ambient temperature, and it will stop moving through the air. Things are very different when you are using video-based fire detection like with our Aviotec system. Smoke or flames that occur within the visual range of the fire detection camera become visible in the image almost instantaneously. The



camera can detect the fire at its source in a matter of seconds. That saves valuable time in the response chain and this early detection can help minimize damage. This is an incalculable advantage when you are talking about the fire safety of storage areas or expensive machinery that is essential for an organization's very survival.

Can you explain to us how the system works?

Sören Wittmann: Flames and smoke have certain characteristics. For instance, flames have a typical color, brightness, and flicker in specific frequencies. By contrast, smoke is a semi-transparent substance. It rises within an image and obscures the background, albeit not completely. It is very turbulent, varies in density, and is white during the early stages of a fire but becomes increasingly darker as the seat of the fire gets hotter. Our Aviotec cameras detect and evaluate all these characteristics. Aviotec currently uses more than 20 algorithms to analyze and detect the different ways that flames and smoke can present. When a display device is being used, for example in a company's security office, then the alarms can be quickly and reliably verified by an authorized individual looking at a live video. That person can very quickly establish whether it's a false alarm or a genuine incident.

Aviotec is a proven solution and we have covered several application stories in GIT SECURITY. Can you tell us a little bit more about the latest version of Aviotec that will be introduced to the market in September?

Sören Wittmann: The biggest step forward is that for the first time the Aviotec system is completely AI-driven with deep learning.

The new AI-based algorithms will lead to a higher robustness and will enable new future use cases.

What are the most significant improvements of the Aviotec 8000i IR system?

Sören Wittmann: This new Aviotec system comes in a one product solution. The software and the camera, with an improved picture quality and a resolution of over 4 Megapixel, is included, as is the IR lighting, the lens and the IP67 housing. The camera update enables a motorized adaption of the focal length without manual adjustments and the sensor is more sensitive with a better image quality. The user does not need to buy accessories anymore and the camera system can be connected to a control panel like a standard fire detector. Two output relays for 'alarm' and 'trouble' are included and potentially enable UL/FM approval in the future.

How future-proof is the new camera concept?

Sören Wittmann: Already now, we see a strong demand for reliable solutions in industrial applications in all kinds of vertical markets like e.g in transportation, where solutions for airports or hangars and railways are needed. There is a strong demand for applications in warehouses, for parking lots and with the strong growth in eMobility, video-based fire detection will become more and more important. In all of these areas the system needs to be very flexible and ready for changes in the environment. With our Ai-driven approach and the deep learning capabilities, our system is ready for the future. Another aspect is the increasing occurrence of international regulations for video-based fire detection. The regulations and the future interpretation of the regulations demand a system like our new Aviotec 8000i IR system. For regular updates we offer the free-of-charge download of the latest firmware versions to keep your system at the best possible level.

CONTACT

Bosch Building Technologies
www.boschbuildingtechnologies.com



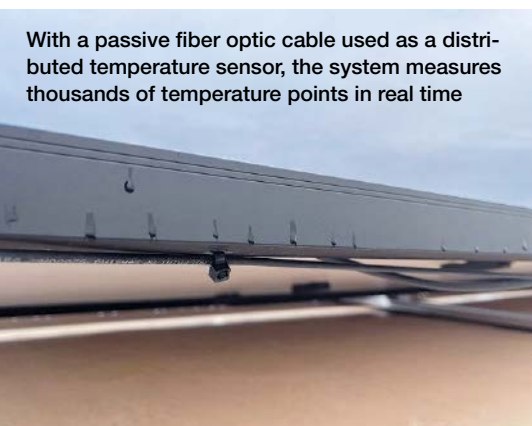
This project in Badajoz, Spain, highlights the effectiveness of AP Sensing's FO LHD system in PV panel monitoring

Fiber Optic Linear Heat Detection (FO LHD) technology offers an innovative solution for fire and hotspot detection and monitoring in a wide variety of applications, including for the protection of data centers, traffic and utility tunnels, car parks, conveyor belts, metro stations, refineries, warehouse facilities, and solar farms. With a passive fiber optic cable used as a distributed temperature sensor, the system measures thousands of temperature points in real time, monitoring PV system temperatures and detecting and locating hotspots within 1 meter. The fiber optic cable can cover individual assets as needed or the entire solar farm, including panels, cables, junction boxes, and switches, providing a comprehensive temperature profile within seconds, even along difficult-to-access areas on rooftops or remote greenfield installations.

Advantages of FO LHD

FO LHD offers several advantages over traditional fire detection methods and other non-fiber optic LHD systems. One advantage of FO LHD is that it provides extended coverage capabilities and continu-

With a passive fiber optic cable used as a distributed temperature sensor, the system measures thousands of temperature points in real time



FIRE PROTECTION

Solar Power

Leveraging Fiber Optic Linear Heat Detection for Reliable Solar Photovoltaic Monitoring

The rapid growth of solar energy worldwide has led to an increased need for reliable monitoring and fire detection in photovoltaic (PV) installations. PV systems, under high electrical loads, can generate substantial heat due to factors such as aging components, insufficient connection points, or environmental influences. Elevated temperatures can lead to electrical fires, resulting in severe damage to the PV facility and its surroundings, interruptions in power supply, and potential safety hazards.

ous monitoring, eliminating the need for multiple sensors or manual inspection and offering a cost-effective solution for monitoring large areas. FO LHD systems are not limited by cable length, ensuring reliable monitoring across extended distances.

FO LHD provides high sensitivity and temperature resolution, enabling accurate and responsive monitoring of subtle temperature variations. Additionally, it offers precise event localization, allowing for the exact pinpointing of temperature changes, hotspots, or fire events. This information facilitates rapid responses and early intervention measures, leading to effective fire prevention. The system is adaptable – multiple fire zones can be mapped to the control instrument with various alarm parameters programmed for each zone. This customization minimizes false alarms while ensuring early detection.

FO LHD systems are also versatile and effective in harsh environments. They are immune to electromagnetic interference (EMI) and environmental influences, certified for explosive environments, and can withstand dirt, dust, corrosion, extreme temperature changes, and other challenging conditions. Furthermore, these systems integrate seamlessly with existing alarm systems, enabling immediate trigger activation or notifications to relevant personnel. Pre- and main alarms can be programmed to trigger automatic countermeasures, and information on fire location, size, and spread is available through dry contacts and high-level communication protocols like Modbus.

Finally, one major advantage of FO LHD systems is that they require minimal maintenance and are lightweight, flexible, and easy to install. Certified fiber optic cables boast a lifespan of up to 30 years, which ensures long-term reliable performance.

N45-Series LHD

AP Sensing's N45-Series LHD system includes the above features. In addition, it has a very long range and includes four channels for all distance ranges. The system has an intuitive, fully integrated web server, allowing for simple configuration via a browser and one-click validation of compliance settings.

Safety and system reliability are paramount in the N45-Series. It features a ruggedized housing design, the system adheres to state-of-the-art IT security standards and has received extensive type tests and certifications, such as EN54-22 (VdS), UL 521 (UL), CAN/ULC-S530, SIL-2, FM, and ATEX and IECEx for critical areas.

Solar Panel Monitoring in Spain

A recent, case study in Badajoz, Spain, highlights the effectiveness of AP Sensing's FO LHD system in PV panel monitoring. One LHD device with four channels as well as AP Sensing's certified safety sensor cable was installed for gapless coverage of all solar panels and cable routing along trays. The fiber optic cable was installed in a zigzag pattern between each row of solar panels in order to continuously measure the temperature of both the solar panels and the roof in case a fire was to develop below the roof or in a cable tray. With early detection and precise localization capabilities, the system improved the safety and performance of the PV system, reducing the risk of fires and potential damage.

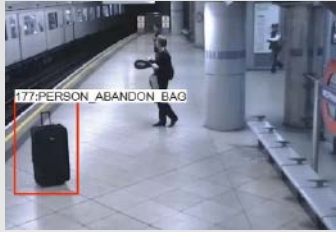
CONTACT

AP Sensing

www.apsensing.com

Viisights: Wise 3.0 Next Generation of Behavioral Recognition Video Analytics

Viisights announces the release of Wise 3.0, ushering in the next generation of advanced proactive and preemptive analytics for professional security, safety and business intelligence applications. Wise 3.0 provides significant improvements in processing throughput and speed impacting overall performance, specifically in high recall and low false positive rates. The new release also provides higher levels of cyber-security supporting the HTTPS encryption protocol. "Viisights Wise 3.0 sets new benchmarks in video analytics performance with more powerful processing capabilities that virtually help eliminate costly false alarms, and further improve security and operations with new and enhanced detection capabilities," said Asaf Birenzvieg, CEO, viisights. "Wise 3.0 provides organizations with a powerful preemptive and proactive solution to best meet their security, safety and business operations objectives."



www.viisights.com

Teledyne Flir: Point-and-Shoot Thermography Inspection

Teledyne Flir announced the Flir E8 Pro, providing a larger 3.5-inch touchscreen with Flir Ignite Cloud connectivity within the same pistol-grip form factor as legacy E8 series thermal cameras. The Flir E8 Pro offers crisp thermal and visual detail at an affordable price by pairing a 5 MP digital camera with a powerful thermal camera via the Flir patented Multi-Spectral Dynamic Imaging (MSX) capability.



Through the touchscreen, users can share captured images with colleagues, partners, and clients over Wi-Fi, including on-screen annotations to highlight findings. Images can then be loaded straight to the Flir Ignite Cloud.

www.flir.co.uk

Video Management Tools, Advanced Seismic Detection, and AI-Powered Video Analytics

A new generation of AI-enhanced perimeter threat detection solutions is available to systems integrators and end-users, thanks to the integration between Idis Solution Suite video management software functions, such as object detection and classification, and line-cross detection and SensoGuard advanced seismic and magnetic sensors. This adds a formidable new layer of security to any perimeter, while streamlining security control room operations and reducing the workload for operators. Idis' camera range gives users an extensive choice of HD and ultra HD models, ensuring crisp, clear footage in all lighting conditions, even in the harshest environments. Video pop-up alerts are triggered immediately when an event-of-interest is detected, with the added option of sending notifications to managers working remotely or on the move, using the Idis Mobile Plus app.

www.idisglobal.com

TDSi Lowers Price on a Selection of Gardis Access Control Units and Readers

TDSi announces a price reduction on a selection of its best-selling Gardis Access Control Units and Readers. Driven by recent improvements in TDSi's supply chain, the price reductions are designed to help and support installers and end users in a challenging economic climate. John Davies, Managing Director at TDSi commented: "When we launched our Price List for 2023 at the tail end of last year, it reflected the effect that the global financial pressures of high inflation, energy costs and supply side constraints were having on our business. Regrettably we were forced at the time to raise some of our prices but were fully aware this would put extra pressure on our customers and were determined to lower these essential increases as soon as possible. With these market forces having now improved significantly, we are very pleased to be able to do that."

www.tdsi.co.uk

Innovation meets Design

Cableless powering: The lock is available in two variants - Battery and Inductive. Both variants are suitable for both new constructions and retrofitting without requiring changes to existing doors

Enhanced Security: The electronics of the lock and RFID reader are securely housed within the lock case, preventing any external manipulation or tampering, enhancing the overall security of the lock

Convenient Access Control: The lock offers multiple ways to release the door. Users can use an RFID card or transponder for access, providing a contactless and secure method. Alternatively, the door can be unlocked via BLE with a smartphone, offering added convenience

Customizable Design: The lever handle models come with the freedom to select various designs and colors. Additionally, there is no need for any modifications to the door during installation

Sustainable Solution: The Inductive variant of the lock offers sustainability benefits by eliminating the need to change batteries. The rosette is also suitable in fire doors (certified according to EN 1634)



ULOCK
NOVUS



Suedmetall®

www.suedmetall.com | info@suedmetall.com

If critical incidents
or other events
occur, Mobotix video
technology enables
immediate intervention

SOLUTIONS

An Eye on E-Charging

The Mobotix E-Mobility Solution Pack Comprehensively Covers the Application Areas of this Growth Industry

More security, better processes, and higher revenue – that is the promise of the latest Mobotix Solution Pack with effective total solutions for companies in e-mobility – one of the world's most rapidly expanding growth markets. This market will continue to accelerate in the coming years as the number of charging stations grows along with the rapidly increasing number of motor vehicles powered by electricity.

One in nine passenger cars sold globally now has an electric powertrain. In Europe, the electric share of total sales (EU, EFTA and UK) was already 19.2% in 2021, with more than 300,000 e-charging stations for slow charging. This represents a 30% increase year-on-year. In the United States, charging stations increased by 12% to 92,000 in 2021. The global electric mobility (e-mobility) market was approximately \$152 billion in 2020 and is expected to reach roughly \$718 billion by 2030, growing at a compound annual growth rate (CAGR) of 22% from 2021 to 2030.

New Requirements of a New Industry

Beyond general security and fire safety, intelligent video technology can support processes and operations around electric charging to ensure the charging station's safe, effective, and profitable operation. Many stations are in remote locations, and the terrain can be confusing. A recogniz-

able video system deters potential offenders, gives the user a sense of security, and effectively protects against vandalism, robbery, and theft. Accidents or damage can also be traced and resolved.

E-charging stations must also be cost-efficient and have a high utilization rate and low downtime. The operator, of course, also wants to achieve the highest possible customer satisfaction. Mobotix video technology can help to detect operating errors and intervene via signals while maintaining a customer-friendly ambience. It uses statistics and market research tools to ensure permanent process optimization of the station in the customer's interests. Unauthorized visitors can also be detected, and the charging system can be blocked to protect against misuse. In addition, the Mobotix systems can indicate upcoming maintenance in good time, which can be carried out before a breakdown occurs.

Real-Time License Plate Recognition

Controlled access via Mobotix license plate recognition increases security at charging stations on the one hand. On the other hand, it also improves service through automated access or prioritization of regular customers. You can optimize the service and customer satisfaction using the vehicle documentation and marketing data that is generated. End customers need to know that Mobotix systems are 'Made in Germany', promise the highest cyber security, and are 100 percent DSGVO and NDAA compliant.

Typically, e-charging stations are operated with a small staff or entirely autonomously. However, they can still be monitored remotely around the clock via Mobotix Cloud and Mobotix Hub. When critical incidents or other events occur, Mobotix video technology enables immediate intervention, for example via a microphone and audio function – even

without personnel on site and for several stations simultaneously.

Anticipatory Fire Protection

Anticipatory fire protection is essential for e-mobility, e-charging stations, and batteries for e-cars. Mobotix systems are not only predestined for this but they also have multiple international certifications for qualified early fire detection. This means that Mobotix systems can not only ensure optimum fire protection during the charging process but can also be used to safeguard stationary energy storage systems – 24 hours a day, seven days a week, 365 days a year.

The focus of the solution at Citywatt, a full-service provider of conceptual charging infrastructure, is on image recording to optimize utilization and detect any operating errors. Damage or vandalism must also be noticed, documented, and resolved. Mobotix video technology provides important information about the charging behavior of customers and the vehicles used. This data is used to optimize the stations to

increase customer satisfaction. Since there are usually no staff on site, any maintenance work of the recorders must be avoided and the image data is therefore stored cyber-securely and decentrally in the cloud via the Mobotix Bridge.

“Based on fundamental industry and expert knowledge, the E-Mobility Solution Packs from Mobotix are specifically tailored to certain, mostly young industries or even niches, and offer companies enormous simplifications, optimization potential, or help to increase revenues. In addition to general security and protection measures and optimal fire and vandalism protection, it is always a matter of generating added value for Mobotix users from specific challenges,” explains Christian Cabriol, CTO of Mobotix AG.

CONTACT

Mobotix AG

www.mobotix.com

GIT SECURITY 20 Years

GIT SECURITY is relevant

for us, because of its high quality, respected coverage of the dynamics and players of the EMEA security market. ONVIF has valued its relationship with GIT over the last 15 years to bring ONVIF news and perspective to this important audience.

Leo Levit,
Chairman, ONVIF Steering Committee



OPTEX
Sensing Innovation



**PROTECTION FROM
EVERY SIDE**

Long range detection with REDSCAN PRO

The award-winning OPTEX REDSCAN LiDAR series just went one better, with a new detector featuring its longest range yet. The REDSCAN PRO can accurately detect intruders and moving objects up to 50 x 100m away – making it particularly well suited for those responsible for protecting the highest security sites. And by creating rectangular, high resolution detection patterns, there are no ‘gaps’, so everything from facades to fences, ceilings to roofs can be covered. For the installer, the sensor’s intelligent multiple zones logic means each detection zone can be independently configured, while its camera module brings visual assistance for configuration and post-alarm analysis. The alarms and video stream can all be configured via ONVIF.



www.optex-europe.com

ONVIF | S
ONVIF is a trademark of Onvif, Inc.

INTRUSION DETECTION | VISUAL VERIFICATION
TAILGATING DETECTION | VEHICLE DETECTION
PEOPLE COUNTING

The Power of Solar

Hikvision Expands Solar-Powered Solutions for Reliable Off-Grid Security Protection

Isolated areas and temporary, standalone applications often do not have electricity and internet connectivity. To help keep these places safe in a simple, practical, and cost-effective way, Hikvision is offering a portfolio of solar solutions – the 4G solar-powered camera kit, a wireless bridge, and mobile solar security tower solutions.



The 4G Solar-Powered Camera Kit Solution for Rural Areas

This system consists of a solar panel, a mounting bracket, a battery module, and the camera itself, currently available in two storage options, 256GB and 1TB. It is ideal for anywhere 4G service is available but where cable internet is lacking, such as farmlands, fish ponds, highways, city waterways, and others.

The Wireless Bridge Solution for Isolated Environments

This is ideally suited for use in remote locations where the 4G signal is weak, and data transmission prices are excessive, such as natural reserves and mountainous areas. The combination of a solar-powered camera kit with a wireless bridge can provide just the right kind of wireless internet connection in these geographically challenging environments.

Mobile Solar Security Tower Solution for Temporary Sites

Comprised of a mobile tower, wireless bridges, network cameras, an NVR, and a network speaker (optional), the mobile solar security tower can be mounted on a trailer for added mobility. It is ideal for temporary security scenarios, where mobile trailers can be towed into place quickly without the need for a separate power source, for example outdoor parking lots, incident command facilities, construction sites, and oil & gas plants.

These Solar-Powered Products and Solutions Feature Advantages Such As:

- Quick and hassle-free installation – Designed to be easy to install, Hikvision's solar-powered camera kits don't require technical knowledge or professional help to set up. With its own power source and internet connection, cameras can be deployed anywhere without having to route cables, making the deployment process fast, easy, and cost-effective.
- Flexibility in deployment scenarios – The Solar Power Kit can power a variety of products to satisfy all kinds of scenarios. Installed at parking lots, solar-powered ANPR cameras can recognize license plate characters and cross-reference the information with access "rules" at the back end. For wide open outdoor areas, solar-powered PT cameras can capture the entire field of view, while in scenarios where close-ups are regularly needed for post-event investigation, solar-powered PTZ cameras can be used to maintain situational awareness and zoom in to see specific and essential details.
- 24/7 security protection, in any weather – Isolated areas are often without light at night. Empowered by Hikvision ColorVu technology, the solar-powered cameras offer clear

video in these extremely dark environments, with color imaging at up to 8MP resolution. And with waterproof and dust resistant housings, these cameras can withstand adverse weather conditions, such as extremely low temperatures, strong winds, and heavy rains.

- A cost-saving and eco-friendly solution – Requiring only a single solar panel, the self-contained setup operates for up to 7 days on a single battery charge, which delivers significant cost savings for customers. In addition, powered by clean and renewable energy, the solar cameras not only help to reduce operational costs, they also reduce the carbon footprint, making a positive impact on sustainability.



Find Out More

To discover more about Hikvision's solar-powered solutions, please visit the website

Kontakt

Hikvision Europe
Hoofddorp, The Netherlands
Tel.: +31 23 554 277 0
marketing.eu@hikvision.com
www.hikvision.com



Stadium Security

- 1. What challenges are specific for stadium security projects and what benefits can a user derive from a good system?**
- 2. How do you handle the conflict between privacy protection and security needs in stadiums using your technology?**
- 3. Please describe a success case where your products and solutions are used for a stadium project.**

1. Staying on budget is a major challenge, especially when it comes to video security technology. Surprisingly, it's not so much the cost of the cameras that is crucial but the number of installation points, often leading to high infrastructure expenses like cabling. In addition, video systems must effectively monitor large areas, allowing retrospective zoom-ins for incident investigations and identifying individuals involved – as recommended by the FIFA Stadium Guidelines. Multifocal sensor cameras, for example, require only minimum infrastructure and offer various user benefits, such as proactive operation and efficient crowd control – possibly reducing fines due to less fan misbehavior and providing a safer stadium experience.

2. We believe that video technology and privacy go hand in hand without conflict. For example, only authorized personnel operate video systems and features, such as automatic deletion of recordings, ensure compliance with the law. In addition, we think that transparency is critical, as stadium operators can use signage or tickets to communicate that they use video surveillance to provide a safe and secure stadium experience. What some people might

not know: If video technology cannot deter illegal behavior, facilitate intervention, and investigate incidents because the resolution of the cameras is too low, then the measure is not compliant. Video technology helps clubs and operators provide a safe stadium experience – and they do not sell data of the systems to third parties or the like.

3. Well, for the 2022/2023 Premier League season, 80% of all Premier League clubs have installed Dallmeier video security systems, including our patented Panomera multifocal sensor cameras. This includes Brentford FC's new Community Stadium and Everton FC's new stadium being built at Bramley Moore Dock. Both clubs were already using Dallmeier technology and specified us for the new developments – a great testament to our solutions. Other clubs, such as Liverpool FC, Aston Villa FC and West Ham United, continue to invest and expand their systems. We have heard from many clubs and stadiums that they have been able to reduce fines and improve fan behavior after installing our video systems, helping them to provide fans with an overall better and safer stadium experience.



Steve Hodges

Stadium Expert and
UK Operations Manager,
Dallmeier UK

www.dallmeier.com

1. Stadiums are used by many people for all kinds of events – whether in the stands, in front of the stadium or behind the scenes. If a locking system is to reliably secure the constant coming and going, it must be flexible. This is easy to achieve with the right electronic access organisation. Our Winkhaus blueSmart solution is easy to use and manage. The well-designed system helps to create a secure environment, while at the same time offering a high degree of flexibility with a minimum of administrative effort. Flush-mounted door cylinders, which prevent vandalism, are also among the benefits that sports facilities in particular can benefit from.

2. BlueSmart can protect personal data in a number of ways: For example, if it is desired that an identification medium, such as a key, does not log its own locking events, this logging can be deactivated on an identification medium-specific basis. Locking

event logging can also be deactivated for each door component – for example, for staff or works council rooms or break rooms. Locking event readout can be protected in the software by a four-eye or even six-eye principle. This means that locking events can only be viewed, when necessary, for example in the presence of the works or staff council.

3. One example of the benefits is the Heinz von Heiden Arena, where Hannover 96 plays. The arena regularly hosts major events. Thanks to blueSmart, it now only takes about an hour to change locking authorisations, e.g., for the cloakrooms. In the days of the mechanical locking system, locking cylinders had to be changed. This took one employee two working days per event. Now, each authorised person simply receives an electronic blueSmart key. Their access rights automatically expire at the end of the event.



Dr. Volker Brink

Head of Product
Management Access
Management at Winkhaus

www.winkhaus.com



Emmanuel Berthelot

i-PRO Area Sales
Manager France

<https://i-pro.com/eu/en/surveillance>

1. Stadium projects are a flagship for camera vendors who aim to prove that they provide high-end systems, and here's why: Activity is closely linked to event management, meaning that during matches, for example, the system will have to provide the highest level of performance, quality and reliability – it needs to best support the staff on-site in their job to manage huge crowds and the pressure of potential risks in real time. Nevertheless, most of the time the security system won't be used at its full capacity. Later on, the system must make sure to keep the stadium an area with restricted access, and easily help provide all digital evidence needed for police forces in case of an investigation. In light of those challenges stadium security managers make no compromise when choosing the hard- and software used to guarantee a safe environment, and customer experience.

2. To find someone faster in the crowd or to prevent individuals from entering a specific area, stadiums are inclined of using face recognition technologies capable to process large amount of biometric data detected by an Artificial Intelligence algorithm. Despite proven effective, these technologies are bringing conflict and debate between privacy protection and security needs. i-PRO balances this by developing best-in-class edge-AI cameras capable of generating metadata based on peoples' attributes, like their outfits or walking direction. Thanks to this

approach, i-PRO's cameras in combination with the free of charge software Active Guard can classify people and enable real time search – also post-event. The plug-in also enables proactively working watch lists, which can streamline operations through alerts based on non-biometrical data. For ease of use, Active Guard is fully integrated with market leading Video Management Systems to guarantee accessibility.

3. With the 2024 Paris Olympic games being around the corner, users started evaluating our Active Guard plug-in since 2022 to integrate it into their security systems and processes. AI technologies can rapidly improve the efficiency of stadium security officers: After each event, a user spends on average 2 hours compiling data for a potential investigation. This is mainly due to the amount of data to process manually. During the first tests that i-PRO did with a major stadium in France, this statistic has been lowered by more than 75 %, reaching an impressive result of below 30 min thanks to Active Guard's ability to gather metadata from AI cameras and compiling them automatically. The software allows the user to search more efficiently through stored data, and get results and qualified evidence for any investigation faster. This success led i-PRO to deploy hundreds of AI cameras in several stadiums, slowly replacing traditional models, and establishing a new proactive standard for stadium security.



Charlie Zhou

Solution Manager
at Hikvision

www.hikvision.com

1. Stadiums often face unique challenges due to the presence of large crowds during events. It is essential for them to ensure orderly entry, exit, and movement, and prevent overcrowding. In the meantime, there is always a chance that accidents could occur, e. g., overcrowding, fan violence, fire and medical emergencies – potentially putting visitors to the complex at risk. Therefore, to keep them safe, it is critical for the security team to identify and respond to potential threats in a timely manner. To address these challenges, a good stadium security system can provide technologies such as real-time monitoring, intelligent analysis and emergency response. Real-time security management enables the security team to act in real time to prevent accidents and respond to incidents. Intelligent analysis provides them with the ability to keep track of the flow of people, and generate automated alerts in the event of overcrowding. The emergency response system helps to ensure rapid response to incidents, and when necessary, evacuate the audience in time. In the meantime, the smart access control and ticketing systems can help to prevent fare evasion, speed up admissions, and ensure effective line flow control, which in turn, enhances the overall security of the stadium.

2. The Hikvision access control solution ensures restricted access to sensitive areas by using differentiated permissions. This means that only authorized personnel with smart membership cards can enter

these areas, effectively balancing security needs with personal privacy. Aside from this, data encryption is encouraged for stadiums, as it keeps data privacy safe from unauthorized hands. Stadiums can implement an encryption strategy to classify and assess risks of their data, ensuring the right encryption tools are employed for handling sensitive, non-public, and confidential data.

3. Zayed Sport City is the largest sports complex in the UAE and faced challenges of handling security simultaneously at multiple facilities, including their stadium, ice rink, bowling center, and tennis center during sports events. Visited by more than 1.7 million sports fans each year, the stadium was in need of a high-resolution and automatic video security solution to keep track of all areas of the complex during sports events, and to respond quickly if anything goes wrong. They deployed a site-wide security system from Hikvision, including more than 600 cameras with different functions and types, which are integrated into the stadium's Video Management System. The cameras' AI capabilities, and the system's ability to search through video footage quickly and easily to investigate accidents and incidents, have helped the security team achieve major time savings. With the Hikvision solution, many routine security tasks can be handled automatically, reducing the risk of missed incidents, speeding up responses, and reducing staff workloads and costs.

1. Stadium security is often rendered inefficient by its reliance on a series of disparate systems. Each one does its 'job' – for example video management, access control, threat management. But operating these individual solutions often means that teams cannot respond quickly enough, as the operator must cross-reference information from multiple data sources. This delay in decision-making puts the safety of people in the venue at risk. Adopting a truly 'unified' approach, where these multiple elements are managed in a single, connected software interface, empowers teams to make critical decisions quickly and easily with a response guided by standard operating procedures that have pre-planned the best, safest course of action.

2. Attendees need to be informed with signage at the venue. Facial recognition, for example, needs to be backed up by explanations on how metadata is stored, encrypted and processed. The same goes for CCTV footage that must be stored in case of an investigation. In the case that a person makes

a 'subject access request' where the venue is obligated to hand over footage of the person, Genetec Clearance, a digital evidence management system that simplifies sharing footage using the Cloud, is essential for a quick resolution. Clearance will also anonymise faces in shared footage and on public display monitors in the control room to protect bystander's privacy.

3. Twickenham Stadium's use of the Genetec unified platform includes Threat Level Management to enable quick and consistent operations on match days. Threat Levels are used to pre-configure the security system's behaviour depending on whether visitors are entering or exiting the venue. For incident response, it identifies the cameras closest to the event and automatically displays the relevant streams in the control room. These behaviour changes, in conjunction with Synergis access control, can also lock or unlock certain doors at the press of a button, ensuring that match-day visitors don't stray into areas they shouldn't be in.



Steve Green

Business Development
Manager at Genetec

www.genetec.com

**BUILDING
THE
POSITIVE**

Can buildings be environmentally conscious?

YES.

When they combine intelligence
with responsibility.



BOSCH

For more information
about our initiatives
around sustainability
in buildings, please
scan the QR code.



SPECIAL FOCUS SMART CITY

Utopia or Dystopia?

The Complete Smart City Is Possible Now, Everywhere

SPECIAL
FOCUS

The last time you read Aldous Huxley's 'Brave New World' was probably quite a while ago. Thought-provoking, frightening, visionary ... whichever you think apply, the substance of this classic science-fiction work is about a society under total surveillance, with every move foreseen, catered for, and controlled. The general public do not even have to think for themselves anymore, and safety and security are of course taken for granted. Smart cities in 2023 are not so intrusive and all-inclusive ... yet. What they can do is the subject of this GIT SECURITY special focus article.

A typical city in the USA in fact has a lot in common with one of a similar size in Brazil, in France, in Sweden, in Malaysia, or in Australia. People are on the move almost every day, lots of people. They pack into buses, trains, trams and cars and move in during the morning rush-hour, and out again during the evening rush-hour. Notice the terminology: "rush-hour": everyone is in a rush to get from here to there. The transport systems that have evolved over a couple of centuries of commuting cope – more or less – with the influx every working day by employing refined procedures, complex timetables and a lot of clever engineering. All the dozens of systems that are needed to cope with this mass movement are continually being enhanced and their efficiency increased by ever more data gathered from sensors built into roads, office and residential buildings, the utilities and security systems, even in schools and hospitals. The Covid pandemic has caused many city administrations to sharpen their investment focus onto cost-saving and efficiency-increasing technology, so every new initiative must have a clear, relevant purpose and be as cost-effective as possible. In other words, smart cities are a dynamic and fast-growing technology market.

If there is one bold message in the book, 'Brave New World' warns of the dangers of giving the state control over new and powerful technology. There can be long and passionate discussions about how much 'control' a state, or a city, should have over our movements and actions, but for the sake of everyone's safety and efficiency, a certain level of control must be granted. Control, for example, over which routes are used getting from A to B; over where we park our car, gyrocopter, or other future method of personal transport; overheating and lighting, both inside and outside; over investment in facilities and infrastructure.

Win-Win

Politics and philosophy aside, the aim of implementing this 'information and communication technology' (ICT) is ultimately to make life more pleasant for the residents of a city: less transport system breakdowns, fewer roads with clogged-up traffic, efficient infrastructure and resource management, lower energy consumption and harmful emissions, easier and more punctual public transport that is also safe to use, and better inner-city security are among just some of the benefits. In the background, gathering and making intelligent use of the data helps to increase the efficiency of

road repair teams, building maintenance engineers, water supply, drainage and electricity companies, town planners and the transport authorities, amongst many other city stakeholders. Meeting both their own as well as nationally imposed ecological and sustainability targets is of course a significant motivator not to postpone decisions on smart city investment.

The data about how a city ticks is already there for the taking, every day – it just needs to be collected and assimilated. Providing the overarching systems that makes sense of all the 'big data' flowing in from these diverse sources 24/7 are a small number of companies who work closely with many departments of a city's administration, the police and other security authorities to provide enlightening information that is clearly presented, accurate and up-to-date. This data is then used in the first instance to control transport, utility and environmental systems, to influence movement trends, and to provide information to residents and commuters, also via online portals. It is then also used in the mid and long-term to support strategic decisions on investment, (re)development, restyling, and city planning.

Getting all the stakeholders to work together and implement a smart city can

be a challenge, with many, sometimes conflicting, opinions from residents, city authorities, sub-contractors and security authorities on the details of where what should be done and when. The lead project coordinator should arguably be the city administration itself, although there are often political and available resource reasons why the task is sometimes grudgingly outsourced to a large commercial organization after complying with national and supranational tender regulations. Experience of implementing such a comprehensive and complex solution though is invaluable, and the track record of successfully handed-over projects must be a convincing reason to choose a particular partner.

The implementation of smart cities began a long time ago, probably without you even noticing it. Each electronically-controlled system that has been installed in and around many cities in recent years has had its interfaces connected up to (tele) communications routes back to one or more reception hubs. Various wired and wireless technologies provide the local link to multifarious IoT devices, to mobile phones, to connected vehicles – private or public – and indeed to intelligent buildings and the systems therein. This fast connectivity is crucial to the correct and secure operation of a smart city and must, unfortunately, be viewed as a potential target for misuse, hacking and data theft, or even blackmail, so we're talking cybersecurity and strong, complete encryption here. Planning and implementing a parallel and totally independent backup transmission method is therefore essential right from the start.

Shop Here

City administrations obviously do not have all the skills necessary to implement their own particular vision of what their city needs. So the contributors to the final result include external system designers, data analysts, electricians at all levels, HVAC specialists, software developers, infrastructure and network providers, as well as an almost invisible group of coordinators who ensure the right people and things are where they should be, and on time.

There are some heavyweight international players in the smart city market who are broadly positioned and able to provide, or at least to project manage, a sort-of 'one-stop shopping' for city administrations. Siemens and Cisco, IBM and Microsoft,

Hitachi and Huawei, GE and Ericsson are already heavily involved. NEC and Bosch are both increasing their market presence, while a plethora of other companies are nibbling away at obtaining a share of this already large and rapidly growing market. Of course, Aristotle's observation that "the whole is more than the sum of its parts" applies perfectly to smart city projects where dozens of sub-contractors provide and commission the sensors and other peripheral equipment 'at the edge'. Each project is highly individual and specifically tailored to the requirements of that particular city with more or less emphasis on certain aspects, so there is a slice of this large cake for every sub-contractor somewhere.

Where Are They?

On all five continents, the number of cities that can rightfully call themselves 'smart' is growing annually and will continue to grow for many years yet. Singapore, perhaps unexpectedly, is considered by many to be the furthest forward in smart city implementation. It is based on a data platform known as 'E3A', which stands for "Everyone, Everything, Everywhere, All the Time." It is primarily used to solve the headache of public transport in a city of over 6 million inhabitants where individual car transport is frowned upon. A public-private partnership in Vienna started in 2014 is applying smart building technology to minimize energy usage generally, and has an initiative to capture 'spare' electricity for heating. Stockholm revised its environmental program in 2016 to prioritize sustainability, environmentally-friendly transportation, responsible land use, recycling and improve in air quality. The aims is to not use any more fossil fuels by 2040. San Leandro in California is strong on IoT networking, with intelligent street lights, parking, and waste management all benefiting from a very high speed 10-gigabit city network. Melbourne in Australia has long been activating smart city sub-projects that nowadays extend to waste management, pedestrian movement analysis and assistance for the deaf and blind. With a population soon reaching 5 million people, the benefits of this early implementation are already clear. Bhubaneswar in India has focused on improving city administration efficiency by using e-governance. Waste disposal, water and energy management, and traffic management through connected signals and parking spaces are also showing benefits and cost-savings.

Dig into the publications of hundreds of towns and cities worldwide and you will find aspects of 'smart' digitalization and data-gathering that, in time, constitute a beneficial overlay for all who live and work there. Look around – there is a smart city near you.

Finding Funding

The European Commission website (link below) provides a very good starting point for more research into the broad subject of smart cities. The EU's IRIS project that started in 2016 involved seven cities who have now implemented measures for the benefit of both the residents and environment that fell under the headings of renewables and energy positive districts, flexible energy management and storage, intelligent mobility solutions, digital transformation and services, and citizen engagement and co-creation. There are currently 231 smart city project sites in the EU and just beyond, from Trondheim to Türkiye, and with more cities in the pipeline to obtain EU funding.

Essential Reading

Siemens offer a white paper to be downloaded within the digital city solutions special focus area on their website. Johnson Controls offer a white paper on cybersmart-buildings, while the Danish view on the subject is wonderfully presented by State of Green with examples of implemented projects that could well serve as inspiration elsewhere. If your grasp of the Italian language goes beyond just being able to order a cappuccino, the A2A group explain their strategy on city infrastructure with informative graphics on their website. And to get up close and personal, an early November trip to the Smart City Expo World Congress in Barcelona would certainly increase your knowledge on the subject significantly.

Author:
David Jayne

Sources

A2A Group

www.gruppoa2a.qit/en/what-we-do/smart-city

Alibaba

www.alibabacloud.com/knowledge/hot/intelligent-data-hubs-for-smart-cities

Cisco

www.cisco.com/c/en/us/solutions/industries/smart-connected-communities.html

Johnson Controls

www.johnsoncontrols.com/smart-cities

The European Commission

<https://smart-cities-marketplace.ec.europa.eu>

Microsoft

www.microsoft.com/en-us/industry/government/resources/smart-cities

Siemens

www.siemens.com/global/en/company/topic-areas/smart-infrastructure/smart-cities/digital-city-solutions.html

Smart City Expo

www.smartcityexpo.com

State of Green

<https://stateofgreen.com/en/news/10-examples-of-smart-city-solutions>



Simonas Mikuzis,
Security Segment Leader at Navtech

INTERVIEW

“Our Radars See Outside, On and Within the Perimeter”

Navtech Radar Celebrates Production of Its 5000th Radar

Just like GIT SECURITY EMEA, Navtech Radar is celebrating a milestone achievement this year. The company recently produced its 5000th radar, so we spoke with Navtech’s Product Manager for Security, Simonas Mikuzis, to find out how Navtech’s work has evolved since it was founded in 1999, and how he sees the important issues in radar security today.

GIT SECURITY: Mr. Mikuzis, what has changed in the 20 or so years since Navtech produced its first radar?

Simonas Mikuzis: A great deal has changed, both in terms of product development and the way Navtech operates as a business. We are currently on the third generation of our radar, and Navtech is well established as a market leader for radar security product performance. But it’s important to note that this stems from work we have carried out over many years; for example, we began to develop our new-generation radar based on our own patented technology back in 2013. Moreover, we are continually honing and developing our products to provide the functionality our customers need.

For example, we work with many airports; these often purchased our AdvanceGuard radar-based perimeter monitoring solution simply to protect their boundaries, but as their needs have evolved so have our radars and software, to the point that now, airports can and do use them for both security and operational purposes. The same applies for critical infrastructure and industrial sites.

In terms of product content, the appearance of our radar hasn’t changed significantly, but the internal elements have and continue to do so. However,

the software element of our products has changed even more! Navtech’s proprietary software reads the data from our radars and transforms this into visible information; it also directs third-party cameras and other security elements to provide an integrated system. All of this puts reliable information and a range of capabilities at the user’s fingertips. So, we might say that Navtech’s security radar section has evolved from being primarily a radar provider to becoming a producer and provider not only of market-leading radar, but also of complete radar-based security solutions. And we are continuing to develop in this way: we have a large team of in-house engineers that constantly work to enhance our products and technologies.

Since 1999, much has changed within the wider business, too, where we have a strong commitment to the highest standards. For example, in 2010 Navtech was awarded ISO 9001 accreditation, which verifies the quality management of our business, and we won the Queen’s Award for enterprise innovation.

What was Navtech Radar’s first application?

Simonas Mikuzis: The first ever application of Navtech radars was as part of a

navigation system for driverless vehicles at the port of Brisbane, Australia, in 2000; however, their first security application was in 2004, when they were installed at a military airport in Italy.

Do you think radar technology is the best way to secure perimeters and if so, why?

Simonas Mikuzis: Absolutely! Only radar provides reliable detection in all weather and light conditions and in extreme conditions. Our perimeter security system, AdvanceGuard, uses both radar and our software to give the user advance warning of incursion and time to respond appropriately. This is only possible because our radars see outside, on and within the perimeter. What is more, they need very little infrastructure. Each one scans 360° over distances up to 5km, so users need very few, and we often put them on existing structures.

Does the integration of radar with video security and other perimeter security sensors provide benefits for users?

Simonas Mikuzis: Yes, that’s why we designed AdvanceGuard to be integrated easily with third-party video and other

security systems, and to automatically direct cameras and other third-party elements to work together. For example, our system automatically directs cameras to visualise and track multiple targets simultaneously and provide video data for forensic use. Integration greatly enhances the information available to the user, which lets them respond most effectively. It lets the user build a bigger security system, with greater capability.

What kind of installations are the most challenging, and why?

Simonas Mikuzis: Physically installing our system is almost always straightforward because it needs very little infrastructure, and most sites need very few radars. So, from that perspective there are no challenging installations! However, if we consider installations to run from the point of initial scoping, through product design, installation and training, then we can say that no installations are identical, each one comes with its own challenges and special considerations. At Navtech we genuinely enjoy these challenges and take pride in solving even the trickiest problems, to give each client a customised and integrated



Navtech's security radar section has evolved from being primarily a radar provider to becoming a producer and provider of complete radar-based security solutions

security solution that will last them for many years. That has been our commitment since the company was founded in 1999, and it will remain our commitment going forward, regardless of how much technology changes in the meantime.

CONTACT

Navtech Radar

www.navtechradar.com

GIT SECURITY 20 Years

GIT SECURITY is relevant for us, because it is a well-established platform to bring installers, customers and manufacturers together to find solutions to the current and future challenges in physical security.

Thomas Dallmeier
CEO, Dallmeier



INSPIRE THE FUTURE
CREATE CONNECTIONS
EMPOWER AIRPORTS

**inter
airport
europe**

The world's leading airport exhibition

24th International
Exhibition for Airport
Equipment, Technology,
Design & Services

JOIN THE
ONE-STOP-SHOP
UNITING THE
AIRPORT COMMUNITY

10 - 13 OCTOBER 2023
Munich Trade Fair, Germany

Learn more: www.interairporteurope.com

ACCESS CONTROL

Italian Reboot

Ksenia Security Renews Its Strategy

The vision and mission of a company are much more than just slogans used for marketing purposes: They represent the essence of the corporate identity, the basis on which the entire strategy is built, and the set of values that distinguish it from its competitors. Ksenia Security has made significant progress in recent years: It has built new headquarters; it has expanded its global presence; it has introduced new products and features. These significant achievements have prompted the company to redefine its strategy to effectively communicate the reasons for its existence, how it achieves its new objectives and the principles that guide every decision.

It is a crucial step that marks the beginning of a new phase, with the aim of providing a completely innovative security experience that ensures not only physical protection but also peacefulness and emotional well-being. The reason that drives the employees to work with great dedication and determination is contained in an extremely profound concept: They wish to help people to achieve the 'new peace of mind' using their solutions. The dreadful idea of a stranger invading one's property, violating personal privacy, and taking away personal objects is shocking. Nobody deserves to experience it.

The company firmly believes that its systems can guarantee people a state of serenity that allows them to live without worries about the security of their home and their property. All of this is thanks to innovative and reliable technology that offers complete home control with just a few simple clicks, ensuring maximum protection and comfort. People can finally feel safe in their own living environment and enjoy moments away from home without any concerns, knowing they can control everything remotely in real time and in an extremely intuitive way. This is the idea that inspires the staff every day to ensure the highest level of protection to enhance people's lives.

The Great Mission – the Vision is 'The New Peace of Mind'

The company has defined a clear and concrete mission statement that guides them in achieving their goals:

- "We take care of your protection and comfort by designing and manufacturing professional products and services. All of this is thanks to enthusiastic people, focused on customer satisfaction through innovation, sustainability, reliability and design made in Italy."

- "The security of homes and the well-being of people can be ensured through our

wide range of professional solutions, certified according to national and international standards. The reliability of our products is at the center of our attention, as your peace of mind is our top priority. The installation of a professional security system requires high-level expertise. Therefore, we want to emphasize that the job of installation of our devices is exclusively reserved for true experts who can create a customized system that fully meets every single need. Furthermore, we are committed to actively supporting them by offering services that greatly simplify their work and enable them to provide the highest level of assistance to their customers."

To make a dream come true and turn it into reality, the action of partners who share the same vision is fundamental. Ksenia Security is a united, competent, and determined team that enthusiastically embraces all the challenges of the market, guided by four core values that influence every company decision: Innovation, Sustainability, Reliability and Design made in Italy. Innovation is the driving force behind all its activities. There is constant investment in research and development to carry out cutting-edge projects aimed at creating original and user-friendly products, designed to improve and simplify people's lives. The company has also always been committed to adopting sustainable practices at every stage of its activities. The responsible choice of product materials and packaging is a testament to this commitment, as well as collaboration with local suppliers to reduce CO₂ emissions.

Nature-Compliant

The headquarters, immersed in the green of the Marche region in Ripatransone, is a structure capable of producing renewable energy independently thanks to the rooftop photovoltaic system. For its realization, they chose to adopt sustainable solutions, such as hydraulic invariance, high

insulation, and photocatalytic cement to ensure high energy efficiency. The company firmly believes that its success lies in the well-being of its employees. Ksenia Security values its talented staff and creates a healthy working environment that promotes growth, synergy, and mutual respect.

The solutions stand out in the market not only for their innovation, but also for their exceptional reliability. They have been developed to ensure high-performance over time and have obtained quality certifications at both national and international levels, attesting to their effectiveness. Another distinctive element is the deep bond with Italian tradition: The company gives Latin names to all its products to considerably enhance the strong sense of belonging to the country.

Italian Style

The entire range of Ksenia products is designed and manufactured within its headquarters, ensuring 100% 'Made in Italy' quality and aesthetics. Its solutions stand out by their unique and unmistakable appearance that reflects the Italian style in all its forms, preferring a minimal design that brings elegance to any environment.

"We are thrilled to continue this journey that will lead the security industry to new horizons, introducing a phase where security takes on a deeper meaning, offering much more than just protection. With passion and determination, we renew our commitment to innovation to create solutions where technology and design merge to preserve what truly matters: your peace of mind and your emotional well-being, as well as that of your loved ones."

CONTACT

Ksenia Security

www.kseniasecurity.com



ACCESS CONTROL

One Headache Less

How Openings Studio Software Simplifies Complex Specifications

Østre Landsret, the High Court for Denmark's Eastern region, handles both civil and criminal cases. At large new premises, specifiers equipped more than 650 doors and coordinated multiple project stakeholders, including Swedoor, a major Swedish supplier of doors and related technologies.

The process required the delivery of accurate door specifications directly to building project models in Revit and other design software. Errors in the delivery of doors and security components can be costly in both time and money, while minimizing mistakes speeds up the build. Transparency is also critical. Multiple project stakeholders always need to see and use the design model – and trust completely that its specification details are current.

Assa Abloy's Openings Studio achieved this and more. This intuitive door specification software simplifies the flow of specification information between all stakeholders over the timeline of any project. In Denmark and elsewhere, Openings Studio has also become the focal point of collaboration between Assa Abloy, Swedoor, locksmiths, building contractors and architects – saving time and streamlining project operations.

Coordination Meeting

Openings Studio software connects architectural design software with databases that hold specification data for door solutions. When approved by project managers, it can

deliver detailed specifications directly to popular design packages such as Revit and Archicad. For complex design-and-build projects, it has become essential: "Our cooperation consists of a total review of the entire door project, door by door, so that our mutual customer feels safe and secure that the doors and the entire package fit together," explains Per Løvstad, Sales manager at Swedoor JW Denmark. Openings Studio is the tool that underpins the door meeting, ensuring efficient decision-making and component delivery.

"We go through all doors in the project, one door at a time," adds Ole Madsen at Assa Abloy Opening Solutions Denmark. "We determine the colour, size, door thickness, and how the sill should be. The hardware specification in Openings Studio is aligned with the function of the doors. We show a 3D visualization of the building in the Openings Studio on a large screen and go through the hardware schedule together."

On the Same Page

Assa Abloy's ability to supply a comprehensive range of mechanical and electronic door solutions was another time-saver

at Østre Landsret. The court has been equipped with Assa Abloy DC700 Cam-Motion door closers, Triton mechanical locking cylinders, panic devices, EL480/EL580/PE590 electric and electromagnetic locks and more. Openings Studio software streamlined all the relevant information flows: "The contractor and the hardware store can see the same as the rest of us, even without having Revit on their PC," adds Ole Madsen. "I can only recommend this collaboration to anyone who has to go through larger projects with doors and fittings," adds Per Løvstad.

To learn how partnering with Assa Abloy BIM and Specification experts has helped architects, property developers, facilities managers and many others, download a free reference bundle at https://campaigns.assaabloyopeningsolutions.eu/hubfs/AA_BIM%20CS%20references_final.pdf

CONTACT

Assa Abloy Opening Solutions EMEA
www.assaabloy.com

RISK CONTROL

Dealing with the Risks Associated with Arc Faults in Electrical Installations

The “Hierarchy of Risk Control” is intended to help to jointly define concrete measures to prevent arc faults



Lutz Graumann, Global Account Manager for Arc Fault Protection at Dehn SE

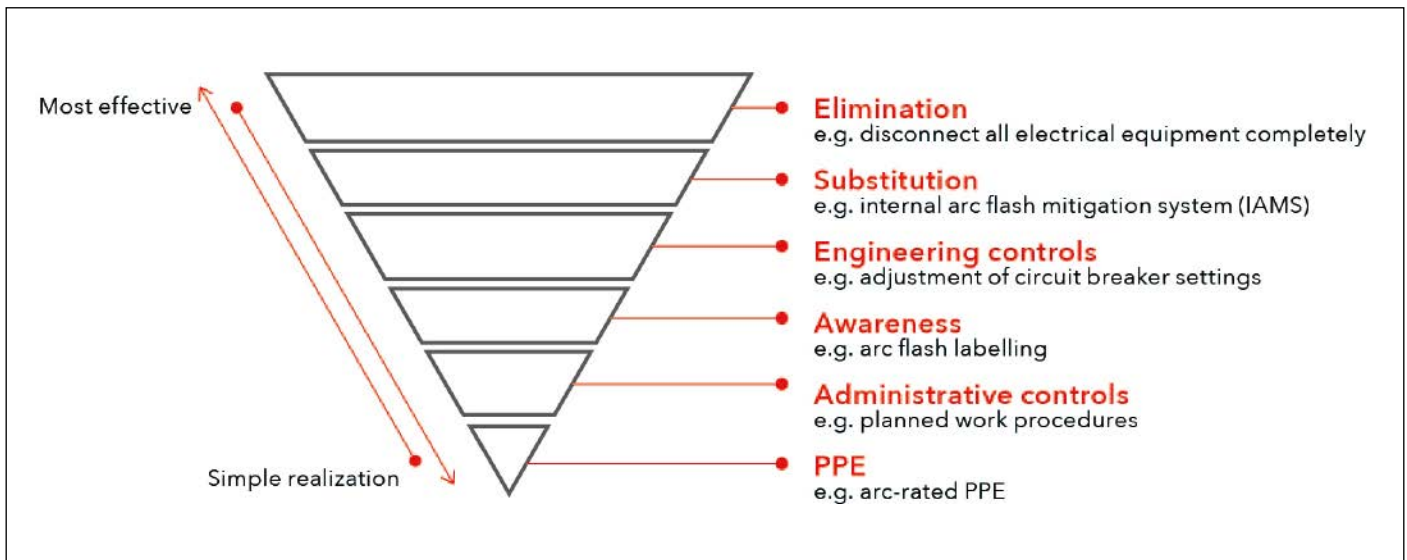
“A gas discharge between two electrodes!” This is the definition of an electric arc. If an arc like this occurs in an environment involving high energies, an enormously hot plasma with extremely strong luminosity is created through which current flows continuously. The arc also creates a massive pressure wave that results in a loud bang. This undesirable occurrence in electrical installations is correspondingly dangerous. It is referred to in this context as an arc fault. In addition to the significant damage that such arc faults can cause in the affected installations themselves, they also pose a direct threat to the life and limb of everyone who carries out their work in environments of this nature. As a specialist for electrical occupational safety, Dehn is pleased to assist you in creating your own comprehensive arc fault protection concept to ensure better protection for people and installations. GIT SECURITY asked Lutz Graumann, Global Account Manager for Arc Fault Protection at Dehn SE, for an interview.

GIT SECURITY: Mr. Graumann, what leads to the formation of an arc fault, for example, in a switchgear installation? And what can the consequences be?

Lutz Graumann: Accidents frequently occur due to human error, such as when employees work on switchgear installations that are still energised. The danger involved here is often underestimated, especially in the low-voltage range. If, for example, an uninsulated tool is dropped during work in this context, or other metallic parts get into live areas of the switchgear installation, a short-circuit with subsequent arcing can occur.

People who are in the immediate vicinity of this hazard zone are then put at great risk. An arc fault behaves much like an explosion. The effects cause burns and can lead to irreversible harm and even death.





As a general rule, hazards are always eliminated at their source. If this does not suffice, further preventive measures can be taken as per the hierarchy of risk control in accordance with NFPA 70E

What are the application areas in which protection against arc faults must be taken into account and what are the requirements?

Lutz Graumann: In most countries, directives and requirements are defined to minimise health and occupational risks in the workplace. In the United States, for example, this is done by the Occupational Safety and Health Administration, OSHA for short. The standard NFPA 70E lists classes of personal protective equipment against arc faults. Selection can be based on the calculation method found in IEEE 1584. It is important to assess the hazard involved in performing electrical work before selecting the personal protective equipment against the thermal effects of an electric arc fault. This means that a risk assessment must be carried out in advance for all types of work. Every qualified specialist responsible for occupational safety in a company should be familiar with these requirements for the protection of staff. If something happens, you are liable if adequate protection measures were not defined in advance.

In what order should protection measures be taken in light of the Hierarchy of Risk Control?

Lutz Graumann: The “Hierarchy of Risk Control” is a general procedure that is used for the protection of persons in the event of arc-flash hazards. When it comes to the protection of employees, the company must always assess the possible hazards for the individual that are associated with all work on electrical installations and take suitable protection measures. The highest priority here is always the complete avoidance of

hazards. Complete disconnection of an electrical installation is one possible measure. If a disconnection is not possible, the danger must be reduced – i. e. through substitution. The final step for avoiding the residual risk is to define the personal protection measures, such as appropriate PPE against the thermal effects of an electric arc fault.

What about specific protection measures, for example for substitution, and what solutions does Dehn offer for this in concrete terms?

Lutz Graumann: For substitution in the low-voltage range, Dehn offers the active arc fault mitigation system, Dehnshort. It protects both people and the switchgear installation itself from the effects of the arc. The arc fault is detected by sensors in the protective system the moment it occurs and is quenched within milliseconds. The great danger an arc fault entails is reduced to a minimum when it is quickly quenched – i. e. substituted.

Can we go into a bit more detail here? How does Dehnshort recognise that an arc fault is occurring and how is it quenched?

Lutz Graumann: Explaining the detection is quite easy – explaining the quenching is more difficult. An arc fault emits a very bright light, which the Dehnshort arc fault mitigation system detects using special light sensors. In addition to the light, it also monitors the current. When both information sources (current and light) provide a trigger simultaneously, the system reacts to the electric arc within milliseconds.

This quenching doesn't take place with an extinguishing agent as with a fire

extinguisher. A special type of switchgear device is used for quenching that creates a short-circuit at the point where the arc fault is burning. The system transforms this dangerous, almost uncontrollable event known as an “electric arc” into a controllable short-circuit. The “electric arc” is quenched within 2-4 milliseconds.

You also offer training, but what exactly do you teach?

Lutz Graumann: Dehn offers comprehensive protection against arc faults with Dehnarx. This includes training courses. It is important to constantly sensitise electrically skilled persons to the hazards that can arise during electrical accidents: specifically, electric shock or arc faults.

The most important measure that must be implemented on switchgear installations is that of the five safety rules. These five rules constitute basic knowledge for every electrically trained specialist. Training courses, which can be described as Administrative Controls, address not only the procedure for the safety rules but also the use and regular inspection of the protective and auxiliary equipment.

Another measure is to display the results of an arc-flash hazard assessment directly on the installation. With electrical installations, the danger is not always apparent from the outside. In addition to calculating arc flash energies, the Dehnarx service also offers the provision of arc flash labels. This is referred to as Awareness. Labels show the electrically skilled person simply and clearly where the hazards of the respective installation lie and indicate the necessary protection measures.



Protection from head to toe in the various protection classes for PPE against the thermal effects of an electric arc fault

Personal protection measures, i. e. PPE against the thermal effects of an electric arc fault, are the last step. What matters most about PPE against the thermal effects of an electric arc fault and what should be considered when selecting it?

Lutz Graumann: The right personal protective equipment against the thermal effects of an electric arc fault with protective functions and a protection class suitable for the respective workplace should always be available. The previously mentioned NFPA 70E and IEEE 1584 documents provide assistance with this. The IEEE 1584 standard describes the procedure for a hazard assessment with respect to the thermal effects of an arc flash. The IEEE 1584 document is useful for determining the energy values involved so that the appropriate protection class can be selected for the PPE against arc faults. A clarification should take place with the responsible electrically skilled person as to how up-to-date the risk assessment is and whether there is a need for action. A check list can assist with this.

Nowadays, when selecting protective clothing, companies not only have the protective function of the PPE in mind, but also its visual effect. A modern, sporty design for a protective garment increases the wearing comfort and improves the willingness of employees to wear the personal protective equipment.

What does Dehn offer its customers when it comes specifically to equipping people with PPE against the thermal effects of an electric arc fault?

Lutz Graumann: Dehn offers a portfolio of PPE against arc faults that includes different protection classes. Special attention is also given to the wearing comfort of the protective clothing. Lightweight materials and an anatomical cut are essential. In addition to standard sizes, there are also long and short sizes and a women's collection. Our PPE against electric arc faults can be tested without obligation to facilitate finding the right size for each employee.

Dehn at the A+A 2023: Hall 14, Booth C46



You can find more information, checklists and brochures here

CONTACT

Dehn SE

www.dehn-international.com



Denios congratulates GIT SECURITY

On behalf of Denios SE, I would like to congratulate "GIT SECURITY" on its 20th anniversary.

During this time, you have developed into an outstanding medium in the market, with which we have been working successfully for many years. Both in our advertising business and with our reports, articles, and press releases, we feel that we are in good hands at "GIT SECURITY" and thus reach a large target group to whom we can present ourselves professionally both as a company and with our products. We wish you continued success for the future, look forward to exciting content from the industry and are happy to continue to be a part of your success story.

Helmut Dennig, Founder and CEO at Denios SE

SECURITY MANAGEMENT

Security Management



Funkwerk Security Solutions GmbH
Thomas-Mann-Str. 50 · D-90471 Nürnberg
Tel.: +49(0)911/75884-518
security@funkwerk.com
<https://funkwerk.com/security-solutions/>

Integrated security solutions, video surveillance, CCTV, video management, risk management, VMS, PSIM, intruder alarm system, intrusion alarm panel, fire alarm system, fire alarm center, access control, IT networks, system integration, system solution

Security Management



Ksenia Security S.p.A.
Strada Provinciale Valtesino, 49
63065 Ripatransone (AP), Italy
Tel. +39 0735 751646 · Fax +39 0735 652281
info@kseniasecurity.com · www.kseniasecurity.com
Security and Home & Building Automation

Security Management



NSC Sicherheitstechnik GmbH
Lange Wand 3 · D-33719 Bielefeld
Tel. +49(0)521/13629-0 · Fax +49(0)521/13629-29
info@nsc-sicherheit.de · www.nsc-sicherheit.de
Fire Alarms, CCTV, Voice Alarm Systems

FACILITY SECURITY

Facility Security



Dictator Technik GmbH
Gutenbergstr. 9 · D-86356 Neusäß
Tel. +49(0)821/24673-0 · Fax +49(0)821/24673-90
info@dictator.de · www.dictator.de
Drive units, hold open systems and smoke detectors, door control solutions

Facility Security



SimonsVoss Technologies GmbH
Feringastr. 4 · D-85774 Unterföhring
Tel. +49(0)89/99228-180 · Fax +49(0)89/99228-222
marketing-simonsvoss@allegion.com
www.simons-voss.de

Digital locking and access control, intelligent locking components with the latest software. System 3060 plants fulfill highly complex requirements in large buildings. They are simply and quickly expandable and work consistently wireless.

Facility Security



Walter Wurster GmbH
Heckenrosenstr. 38-40
D-70771 Leinfelden-Echterdingen
Tel. +49 (0) 711/949 62-0
kontakt@wurster-online.de · www.wurster-online.de

Money handover systems fire resistant up to F90 and bullet resistant up to FB7, cash trays, cash-drawers and facade counters to pass through money, valuables, documents and for installation in high-security areas, banks, petrol-stations, pharmacies, sports – and cultural sites indoors and outdoors.

Video Technology



EIZO Europe GmbH
Belgrader Straße 2 · 41069 Mönchengladbach
Tel.: +49 2161 8210 0
info@eizo.de · www.eizo.de

Professional monitors for video surveillance with visibility enhancement technology and 24/7 use, IP decoding solutions to connect IP cameras without any computer.

Video Technology



i-PRO EMEA B.V.
Laarderhoogtweg 25 · 1101 EB Amsterdam
Netherlands
<https://i-pro.com/eu/en>

High-quality CCTV solutions (IP & analogue), Video Automation and IA, Sophisticated technologies (FacePro, people masking), Cyber Security Protection for GDPR compliance, VMS: Video Insight

Video Technology

www.luna-hd.de



Video surveillance • Video door intercom

Video Technology



BURG-GUARD GmbH
Wormgermühle 1 · 58540 Meinerzhagen
Tel. +49 2358/905 490 · Fax +49 2358/905 499
Burg-Guard@burg.biz · www.burg-guard.com
Video security · analogue & IP cameras
AI video analysis · network recorder · BURGcam APP
project planning · Service & Support



Video Technology



Abetechs GmbH (Grundig Security)
Steinhof 39 · D-40699 Erkrath/Germany
Tel: +49 211 5380 6832
info@grundig-security.com · www.grundig-security.com
The impressive new GRUNDIG Security IP range covers everything required in modern, professional video surveillance applications.

Time + Access



AceProx Identifikationssysteme GmbH
Bahnhofstr. 73 · 31691 Helpsen
Tel.: +49(0)5724-98360
info@aceprox.de · www.aceprox.de
RFID readers for access control, T&A and identification

Facility Security

Video Technology



Dallmeier electronic GmbH & Co. KG
Bahnhofstrasse 16 · 93047 Regensburg
Tel. +49(0)941/8700-0 · Fax +49(0)941/8700-180
info@dallmeier.com · www.dallmeier.com
Video security technology made in Germany: multifocal sensor technology Panomera®, IP cameras, recording servers, intelligent video analysis, video management software

Time + Access



Bird Home Automation GmbH
Umlandstr. 165 · 10719 Berlin
Tel. +49 30 12084892 · Fax: +49 30 120858695
hello@doorbird.com · www.doorbird.com
Access Control; Building Automation; Biometric Verification; IP Video Door Station; IP Intercom; RFID; Customized Intercom Systems; Made in Germany

Time + Access



Cichon+Stolberg GmbH
Wankelstraße 47-49, 50996 Köln
Tel. +49(0)2236/397-200 · Fax +49(0)2236/61144
info@cryptin.de · www.cryptin.de
Operational data collection, time recording, access control

Time + Access



phg
Peter Hengstler GmbH + Co. KG
D-78652 Deißlingen · Tel. +49(0)7420/89-0
datentechnik@phg.de · www.phg.de
RFID components for access control, timekeeping, factory data collection, canteen data, leisure applications, surface-mounted devices, flush-mounting components, biometrics, identification media and accessories

Be Part of the Section



Just send a mail to
miryam.reubold@wiley.com
We will be glad to advise you!

Time + Access



ELATEC GmbH
Zeppelinstrasse 1 · 82178 Puchheim, Germany
Tel.: +49 89 552 9961 0
info-rfid@elatec.com · www.elatec.com
Provider of user authentication and identification solutions. Driving the digital transformation of customers and partners with the combination of universal multifrequency readers and advanced authentication software, service, and support.

Time + Access



primion Technology GmbH
Steinbeisstraße 2-4 · D-72510 Stetten a.K.M.
Tel. +49(0)7573/952-0 · Fax +49(0)7573/92034
info@primion.de · www.primion.de
Time management, access control and management, staff deployment planning, graphic alarm management, SAP communications solutions, pass and ID card production, Biometrics

FIRE PROTECTION

Time + Access



FEIG ELECTRONIC GMBH
Industriestrasse 1a · 35781 Weilburg
Tel. +49(0)6471/3109-375 · Fax +49(0)6471/3109-99
sales@feig.de · www.feig.de
RFID Readers (LF, HF, UHF) for access control, vehicle identification, perimeter protection, payment systems and much more

Time + Access



sesamsec GmbH
Finsternbachstrasse 1 · 86504 Merching, Germany
Tel.: +49 8233 79445-0 · Fax: +49 8233 79445-20
info@sesamsec.com · www.sesamsec.com
Provider of access control systems, from single-door solutions to smart campus systems. Hardware and innovative software solutions such as Physical Access Control-as-a-Service (PACaaS).

Fire Protection



Labor Strauss Group
Headquarters: Wiegelestraße 36, 1230 Vienna, AUSTRIA
Tel.: +43 1 521 14-0
office@lst.at · www.laborstrauss.com
The specialists for fire detection systems and extinguishing control systems

Time + Access



GANTNER Electronic GmbH
Bundesstraße 12 · 6714 Nüziders · Austria
Tel. +43 5552 33944
info@gantner.com · www.gantner.com
access control solutions/biometrics, time management, data capture, locking systems

Time + Access



STid EMEA Headquarter
20, Parc d'activités des Pradeaux
13850 Greasque · France
Tel: +33 (0)4 42 12 60 60 · Fax: +33 (0)4 42 12 60 61
stid-security.com
access control, mobile access, electronic identification, mobile ID readers, vehicle access

PLANT SAFETY

Time + Access



PCS Systemtechnik GmbH
Pfälzer-Wald-Straße 36 · 81539 München
Tel. +49(0)89/68004-0 · Fax +49(0)89/68004-555
intus@pcs.com · www.pcs.com
Time recording, building security, access control, Biometrics, Video, Visitor Management, SAP, Hand Vein Recognition

Time + Access



Suprema Europe
Tel.: +33 1 84 73 29 43
Sales_eu@supremainc.com · www.supremainc.com
World-leading GDPR-designed biometric technologies, ID solutions, RFID physical access control and time management for your organization. Increase security and experience peace of mind with Suprema's trusted solutions.

Plant Safety



Pepperl+Fuchs SE
Lilienthalstraße 200 · 68307 Mannheim
Tel. 0621/776-1111 · Fax 0621/776-27-1111
fa-info@de.pepperl-fuchs.com
www.pepperl-fuchs.com
Security sensors, inductive, capacitive, opto-electronic and ultrasonic sensors, vision sensors, identification systems, interface modules

Company Index

A2A Group 48	Dallmeier 16, 23, 24, 45, 51	ICT. 9	Patol 34
Advancis 9, 24	Dehn 54	Idis 41	Pelco 22
Alibaba Cloud 48	Denios 56	Iloq 8	Siemens. 34, 48
Altronix 7	Eizo 13	Inter Airport Europe 51	Slat. 33
Amthal 9, 10	Euchner. 14	iPRO 27, 46	Smart City Expo 48
AP Sensing 34, 40	Euralarm. 6	Johnson Controls 34, 48	State of Green 48
Assa Abloy. 17, 19, 53	European Commission 48	Ksenia 15, 29, 37, 52	STid 26, Outside Back Cover
Axis 22	Fiera Milano 8, 21	Microsoft. 48	Südmetall 41
Bosch Building Technologies 22, 34, 38, 47	Flir. 34, 41	Milestone 22	TDSi. 6, 41
BSIA. 6	Genetec 11, 47	Mobotix. 33, 42	Traka 10
Cias 27	Gloria 28	Navtech Radar. 50	Vicon 6, 10
Cisco 48	Gunnebo 9	Nineteen Events 8	Viisights 41
Comelit 33	Hanwha Vision 6, 10, 25, 33	Onvif 22, 28, 43	Wagner Group Front Cover, 30, 32, 34
Dahua 33	Hikvision. 20, 44, 46	Optex 43	Winkhaus 25, 29, 45

Imprint

Published by

Wiley-VCH GmbH
A Company of John Wiley & Sons, Inc
Boschstrasse 12 · 69469 Weinheim
GERMANY
Tel.: +49 (0) 6201 606-0 · Fax: -791
www.GIT-SECURITY.com
GIT-GS@wiley.com

Managing Directors

- Sabine Haag
- Dr. Guido F. Herrmann

Publishing Directors

- Dr. Heiko Baumgartner
Tel.: +49 (0) 6201/606-703
heiko.baumgartner@wiley.com
- Steffen Ebert
Tel.: +49 (0) 6201/606-709
steffen.ebert@wiley.com

Sales Managers

- Miryam Reubold
Tel.: +49 (0) 6201/606-127
mirreubold@wiley.com
- Dr. Michael Leising
Tel.: +49 (0) 36 03/8942800
leising@leising-marketing.de

Wiley GIT Reader Service

65341 Eltville / Germany
Tel.: +49 6123 9238 246
Fax: +49 6123 9238 244
E-Mail: WileyGIT@vuservice.de
Our service is available for you from
Monday to Friday 8 am – 5 pm CET

Editorial

- Lisa Holland M.A.
Tel.: +49 (0) 6201/606-738
lisa.holland@wiley.com
- Matthias Erler
+49 (0) 6129 5025300
matthias.erler@wiley.com
- Eva Kukatzki
Tel.: +49 (0) 6201/606-761
eva.kukatzki@wiley.com

Editorial Assistant

- Stormy Haust
Tel.: +49 (0) 6201/606-125
stormy.haust@wiley.com

Production

- Jörg Stenger
- Andi Kettenbach (Layout)
- Elli Palzer (Lithography)
- Claudia Vogel (Sales Administrator)

Bank Account

J.P. Morgan AG, Frankfurt
Account No.: 6161517443
Routing No.: 501 108 00
BIC: CHAS DE FX
IBAN: DE55501108006161517443

GIT SECURITY is published
4 times per year.

Subscription 2023

4 issues 55.00 €, single copy 16.30 € plus postage. Pupils and Students receive a discount of 50 % at sight of a valid certificate. Subscription orders valid until cancelled, notices 6 weeks before end of the year. Subscription orders can be revoked within 1 week in writing. Dispatch complaints are possible only within 4 weeks after publishing date.

The publishing house is granted the exclusive right, with regard to space, time and content to use the works/ editorial contributions in unchanged or edited form for any and all purposes any number of times itself, or to transfer the rights for the use of other organizations in which it holds partnership interests, as well as to third parties. This right of use relates to print as well as electronic media, including the Internet, as well as databases/data carriers of any kind.

All names, symbols etc. mentioned and/or printed in this issue may be registered trademarks of their respective owners.

Print run: 20,000



Printed by

westermann DRUCK | pva

Printed in Germany | ISSN 2190-4367

WILEY

ARCHITECT®

**ALWAYS
INNOVATIVE,
NEVER
OBSOLETE.**

ARCHITECT®



**The Largest Readers
range OSDP® Verified
& SSCP® Certified.**

Invest in an access control Reader that meets the needs of today and tomorrow.

Architect® High Security Readers are modular and offer real alternatives to updating your access control system.

Architect® Readers can evolve by simply adding Biometric, QR-Code and Multi-technology Prox Modules to meet your everyday demand for functionality and safety.

Architect® Readers are the most efficient and reliable readers in the security marketplace, making them the most awarded range worldwide.

SMARTER SECURITY ANSWERS



www.stid-security.com

STid