

WHY **CLOUD** IS NOW **MISSION CRITICAL** FOR THE PHYSICAL SECURITY INDUSTRY



MORPHEAN



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GETTING INTO CLOUD

A complete guide to cloud physical security and the reseller benefits for partners, system integrators and security installers.



CLOUD PHYSICAL SECURITY: A NEW **DIGITAL DAWN** FOR CCTV

Digital Transformation and Physical Security

Digitalisation is changing everything. We now live in a world where cloud infrastructure and the exchange of information through data centres underpins the very fabric of modern society. This is further enhanced by the Internet of things (IoT), a vast network of devices and sensors that connect and communicate with other devices and systems over the Internet and/or private networks. And then there is Artificial Intelligence (AI) that uses the data to augment human decision-making processes.

So what, you might ask, has all this to do with me?

When it comes to physical security, digital transformation has ushered in a new era of hosted security platforms that eclipse the limited capabilities of legacy, analogue systems to disrupt the industry as you know it. With the cloud providing the critical infrastructure, exciting new technologies and systems are emerging that enable the sharing of powerful insights from surveillance data. These benefits relate not only to improved security, but also to operational insights to drive efficiencies and profitability.



The worlds of physical security and IT security are now converging as cameras and devices rely on the network connectivity that cloud provides. As a result, it will increasingly be those security professionals who can combine a physical security skillset with knowledge of the cloud, networks and systems, that will reap the rewards both in terms of their own business opportunities and the benefits they pass on to their customers.

Getting to grips with cloud physical security means understanding the benefits of software-as-a-service (SaaS), the revenue model of cloud, and the advantages for customers of solutions such as video surveillance as-a-service (VSaaS) and access control as-a-service (ACaaS) over more traditional methods of securing premises, assets and people.



At Morphean, we see cloud-enabled tools as having a critical role to play in the digital transformation agenda. Weaved into modern business strategies, these tools can assist in gaining a competitive edge and achieving long-term success. And when critical functions such as banking, client management (CRM) and email systems are all delivered through the cloud, it's only natural for firms to migrate their video surveillance and access control to more efficient and compliant platforms.

This guide is intended to provide the necessary background information to help you gain a better understanding of this exciting world, together with some useful practical tips and advice. Our hope is that by reading this information you can broaden the scope of products and services offered, improve the calibre of future projects, and, ultimately, change the way you do business for the better.



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It will increasingly be those security professionals who can combine a physical security skillset with knowledge of the cloud, networks and systems, that will be most likely to reap the rewards in this digital age.

MARTYN RYDER
VP SALES AND MARKETING @ MORPHEAN

THE **BUSINESS** CASE: REDUCING COSTS AND STREAMLINING OPERATIONS

We are living in turbulent times. The opening up of the global economy following Covid has led to huge pressure on supply chains, competition for raw materials and a cost-of-living crisis with inflation and energy prices running at their highest rates in decades. And with skills shortages and recruitment challenges adding pressure to already stretched business models, companies across Europe have many hurdles to face.

This all amounts to an urgent need to rethink how we do things, to enable us to live and work smarter. And more and more businesses are turning to the power of technology, and insights unlocked from data to help drive greater efficiencies across a wide range of business operations. For security companies this means embracing the cloud to not only deliver better security but also to help make better use of resources, mitigate rising salary costs, and multiply revenue streams.



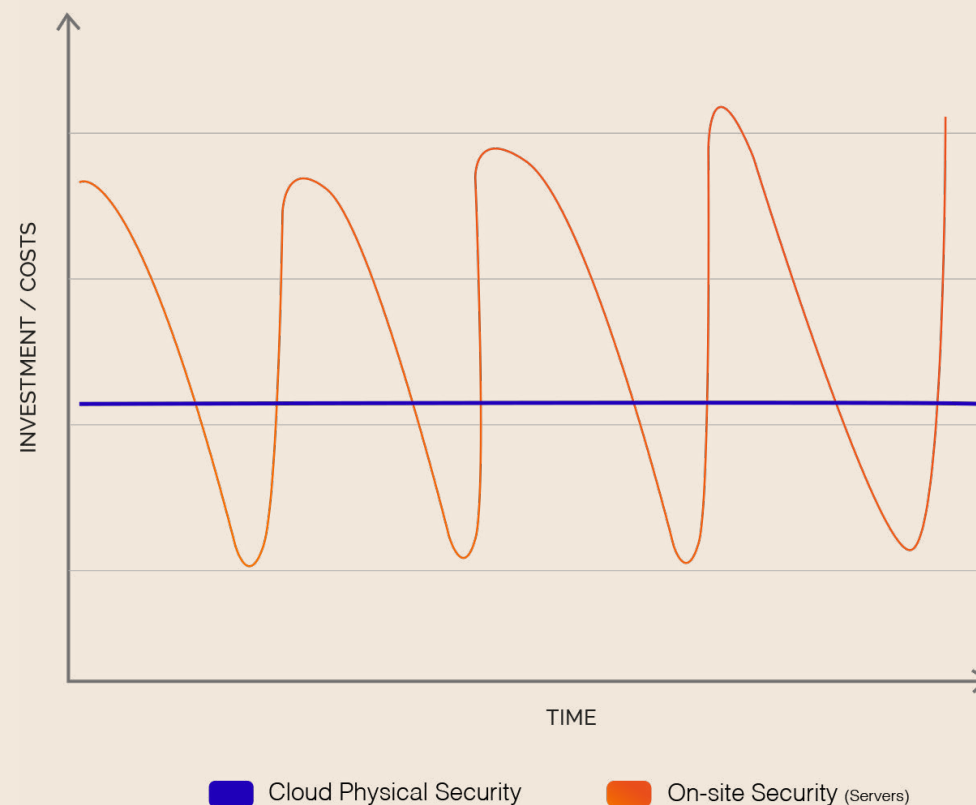
Cloud technology can offer the security installer a route to more sustainable revenue growth. Cloud physical security, based on the SaaS revenue model, means that customers are charged per device per month, allowing contracts to be leveraged as a sustainable revenue source. The ongoing relationship with the end-user opens up an avenue to upselling more features, with applications such as people counting, AI intrusion detection and virtual concierge providing a continuous revenue stream and meeting evolving customer needs. In addition, the ability to carry out remote maintenance simplifies delivery and ultimately saves money.

In contrast, beyond the large upfront investment for a traditional security system, there are the recurring costs that customers need to budget for including video backups, system updates, manual server maintenance and the energy use associated with running and cooling servers. In addition, the value of the technology continues to depreciate, becoming redundant after a lifespan of as little as 5-8 years, and requiring a whole new system to remain sufficiently protected.

A cloud solution, by comparison, is maintained by hardware upgrades and software updates, while plug-and-play capabilities mean that components can be easily upgraded or scaled to meet the fluid, dynamic requirements of the modern business. Customers only pay for what they need, when they need it, making cloud more affordable and representing real value for money. For the security business, switching to the cloud represents more predictable budgeting and recurring revenue.

SECURITY INVESTMENT THROUGH TIME

(Example: on-site vs. cloud)



Security investment through time:

Cloud offers more even budgeting with no surprise costs when compared to on-premises

Migrating to cloud also leads to significant savings and better use of people and resources. Often, the shortage of workers results in highly paid, highly skilled engineers being employed to carry out simple tasks. With cloud, a skilled professional can set up systems remotely from their own premises for a number of customers, not only saving money on fuel but also completing several customer jobs in the time that it would take to set up just one system at a client's site. More business is sold and deployed faster, representing a better return on the salary investment of the individual.

The challenges facing businesses are not going to dissipate any time soon, and continuing to do the same is not going to alter the outcome for the security business. Limiting the impact requires creative thinking. Cloud offers an alternative approach to offer new products and services to make better use of resources, mitigate rising salary costs, and multiply revenue streams. It's clear that cloud physical security will become the default setting for video surveillance in the professional security industry.

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Cloud physical security, based on the SaaS revenue model, allows customer contracts to be leveraged as a sustainable revenue source.



TOP TIPS



1. Appoint a 'cloud' business champion – When reviewing your digital transformation strategy, identify an advocate for cloud who can help do the research groundwork and build the 'business case' for offering new products and services and multiplying revenue streams.

2. Survey your customers – Use a simple and free email tool, such as Mailchimp, to ask your customers what physical security services they might need in one, two and three years. Ask if cloud is part of their digital transformation agenda.

3. Understand who you are up against – Analyse and benchmark (new) competitors to better understand what they are offering. Can you create a point of differentiation through cloud?



ANALYTICS THAT CREATE **DATA-DRIVEN** DECISION MAKING TO IMPROVE SECURITY AND BUSINESS PERFORMANCE

Edge processing, analytics, faster streaming, and the Internet of things (IoT) are just some of the exciting technologies that have helped to revolutionise the physical security industry. Advances made in machine learning and artificial intelligence (AI) are pushing the capabilities of network cameras and sensors to a new level. And cloud connectivity makes access to, and the processing of, data more scalable, with data analysis generating powerful insights to aid smarter data-driven decision-making.

The latest AI enhancements and powerful analytics capabilities can lead to greater accuracy. At a site perimeter, for example, analytics on board network cameras can be used to detect the presence of people and vehicles, with AI-driven behaviour recognition identifying a specific action and automating a pre-recorded alarm. Used to identify and react to a range of human behaviours in real time, behaviour recognition provides actionable insights to help businesses understand how people interact with each other and their environment.

Such systems can also result in safer environments for staff and customers. Smoke detection, for instance, using video analytics and AI is revolutionising the fire safety industry, not as a replacement to current equipment, but to complement it. Where smoke detection devices have traditionally had to make contact with smoke or dust before the alarm sounds, cameras can now detect the very first outbreak of smoke or fire, enabling faster and smarter responses from security and emergency services teams.



As physical security continues to evolve, businesses will increasingly seek solutions that fit their industry-specific requirements which will often include the streamlining and automation of security and optimisation of business processes. Cloud allows businesses to effectively unlock insights from visual data that would otherwise be invisible to the human eye. With a dedicated platform that can be accessed from any computer or mobile device, decision makers, armed with meaningful metrics based on real-time data about their company operations, can make better, more informed decisions.

To reap these benefits, businesses will need to enlist the services of security practitioners who understand the converging world of physical security, cloud platforms and the capabilities of networks, systems and software. Innovative technology, partnership and collaboration can help companies operate much smarter and more securely. For security businesses, developing knowledge and understanding of the cloud and how it functions opens up a world of wide-ranging possibilities based around the very latest innovations.



TOP TIPS



- 1. Know your customer base** – Map your customers and do your marketing research – who do you serve and with what? Segment them by industry, size of business and/or solution.
- 2. Identify your customers' business levers and drivers** – What are the macro levers that will drive change in their business? Does AI have a role to play? Are there niches to exploit using existing network camera systems?
- 3. Align your business to the opportunity ahead** - Help customers identify the insights beyond security that could assist operational outcomes, such as video analytics and behavioural recognition applications, to improve overall business performance.



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EMPLOYING **SUSTAINABLE PRACTICES** TO HELP ACHIEVE TARGETS

While much attention is given to what should be done at country or government level as a result of recent climate change agreements, many businesses will be wondering what can be done now on a smaller scale to ease the energy price pinch and act more sustainably.

Cloud can steer us towards more sustainable, environmentally conscious ways of working, and provide insights and intelligence to help people live better and work more efficiently. For example, insights about the number of people at a site and their movements within the premises, derived from access control and video data, can be used to make decisions about heating and lighting requirements, tailored to meet real demand and saving on energy costs.

As all businesses strive to find new ways to demonstrate their net-zero carbon credentials, might cloud now hold the key to smarter, greener operations, unlocking a sustainable competitive advantage for your business?



Newer energy-efficient technologies: The use of innovations such as edge processing can lead to greater efficiencies; the extra bandwidth and related energy required to send data back and forth across a network is avoided when processing takes place at the edge of the network, often onboard a device itself, such as a network camera.

Cleaner and greener data storage: Rather than managing separate systems in server rooms on-premises, the shift to cloud centralises data storage into a data centre, with all the economies of scale that this entails. Customers can take advantage of a greener, more cost-effective solution in the cloud instead of investing time, money and energy in the upkeep of on-premise systems.

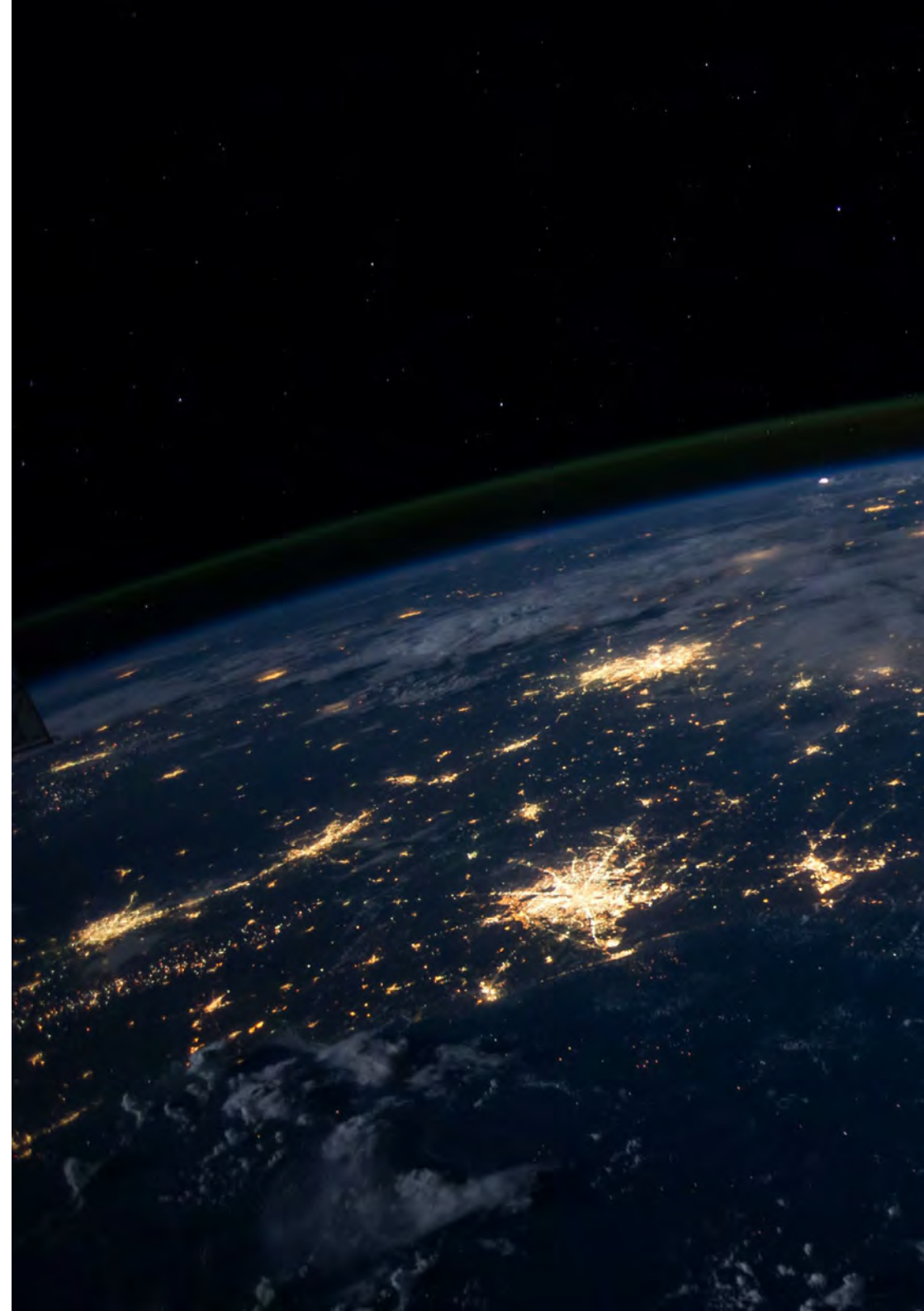
Energy recycling: The datacentres themselves are also constantly striving to find their own efficiencies, including the re-use of heat energy given off by servers to heat office space, and site location having a bearing on the ability to cool and regulate systems using natural elements such as locating facilities in cold regions to enable free air cooling or natural cold-flowing water.

Move away from legacy technologies: Cloud-enabled devices and systems can be simply upgraded and updated. Moving away from the 'rip and replace' approach, common when removing and fitting legacy architecture, is a huge step in the right direction.

As the UNs Race to Zero campaign¹ encourages businesses to commit to achieving net-zero carbon emissions by 2050, taking steps now to demonstrate carbon reduction and a greener agenda will be increasingly viewed favourably by customers and by other businesses in your supply chain.

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IMPROVING CYBERSECURITY KNOWLEDGE TO PROTECT NETWORKS AND SYSTEMS

A cloud platform for video surveillance is designed from the ground up with cybersecurity considerations front and centre, providing a critical layer of defence against cyber-attack. Yet, as with all technology, there are inherent risks when improperly secured IoT devices are installed on an IT network.

Network surveillance cameras, for example, which are not cyber secure can be used as a backdoor to gain access to the network from an insider threat or remotely triggered assault. Security professionals should therefore work with their customers to ensure that the most appropriate security protocols are in place for maximum protection of networks and systems. A number of vulnerable endpoints create plenty of opportunity for malicious threat actors who are lying in wait to take advantage.

In May 2019 vulnerabilities were discovered in network physical access control systems that allowed hackers to hijack credentials, take control of doors, install malware and launch distributed denial of service (DDoS) attacks, all while circumventing the security measures in place. In this scenario, it was the physical security system that was compromised leaving the business wide open to attack.

A perimeter firewall is simply no longer enough to ensure network integrity, and unauthorised access to data and services must be made as granular as possible. It is therefore critical for security businesses to operate according to the highest cybersecurity principles and to ensure similar commitment to maintaining cybersecurity throughout their supply chains. Security businesses should therefore look to prove their adherence to cybersecurity best practice.



One such example is Zero Trust, based on a framework from the National Institute of Standards and Technology (NIST) in the US. The premise is a simple one; give no implicit trust. This means ensuring access is only granted to areas of the network as and when they are needed. Multi-Factor Authentication methods can help establish trust, verifying user activity to help protect the network from malicious intent. Familiarity with such principles will ensure delivery of highly secure systems.

Regulations such as the GDPR and the NIS Directive are placing onus on industry to demonstrate security understanding and compliance and to ensure the integrity of their systems. Across the EU, ISO 27001, a specification for information security management systems, has been established to set out conditions on the general organisation of processes relevant to cybersecurity. Companies involved in information and communications technology (ICT) can also have their products certified, under the Cybersecurity Act, to prove their security credentials.



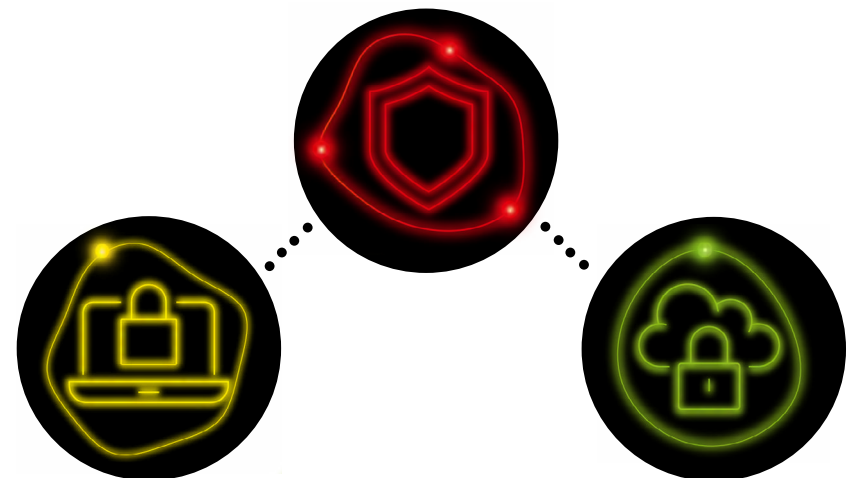
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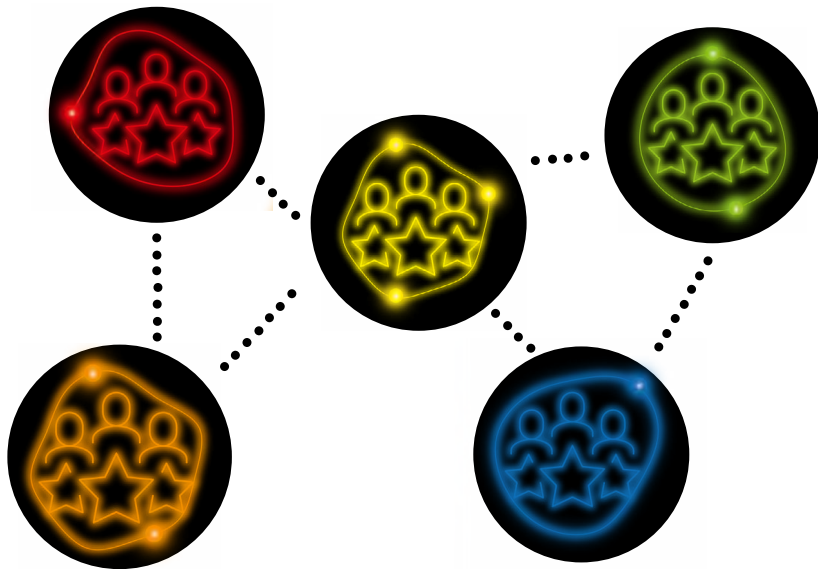
Recognising the risks will help security professionals, and their customers, ensure the most appropriate security protocols are in place for maximum protection of networks and systems.

TRUSTED PARTNERSHIPS FOR LONG-TERM SUCCESS

Such is the nature and complexity of the modern threat landscape that companies are increasingly externalising their security provision for a better end-to-end security posture. For the security business that is well-versed in cloud, this presents a perfect opportunity to get involved in exciting, innovative projects using the latest tools and techniques to increase resilience, enhance preparedness and mitigate threat.

Yet often, higher level projects cannot be carried out in isolation and require close collaboration with third parties to find the optimal customer solution. This shifts the relationship from a one-time sale to a longer lasting partnership. Through closer alignment with suppliers and vendors based on shared values and accreditations etc. trusted partnerships emerge and the security business gains a more holistic view of an organisation's security posture, increasing their influence and creating more value.

A trusted partnership between likeminded companies across the supply chain can create joint business growth through the reselling of a wider range of security products based on the SaaS model. And as customers increasingly carry out due diligence to determine the integrity of vendor, technology and supply chain, so security professionals who seek partnerships built upon high levels of trust are much more likely to achieve long-term success.



As we have seen, to remain competitive physical security specialists must begin arming themselves with knowledge of network connectivity, data collection and the power of analytics. This will help them position physical security technology as more than just business security, but rather a business opportunity.

By partnering with Morphean, security companies can expand their capabilities and market influence while creating more value for customers. Our program is specially designed for collaboration to bring the best and most innovative products to market.

TOP TIPS

- 1. Evaluate your supply chain** – Conduct a thorough analysis of your extended supply chain to really understand who you are doing business with, and the technologies being offered.
- 2. Evidence supplier credentials** - Look for proof of suppliers working in accordance with international frameworks and standards, conduct thorough product evaluation, ask the right questions.
- 3. Create a greener, bolder cloud strategy with security partnerships** - Build a business plan that incorporates a greener, cloud strategy and how to implement it through partners in the next 12-36 months.



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Working with a provider who can help them understand the benefits of cloud physical security and the importance of working collaboratively, will enable the physical security professional to expand their capabilities and market influence while creating more value for customers.

About Morphean SA

Morphean is a Swiss technology company with a strong presence in more than 12 countries worldwide. Founded in 2009 and with over 60 partners across Europe, the secure Morphean platform informs decision making and drives efficiencies for all organisations by generating unique and actionable insights from a multitude of data sources. With expertise across retail, transport & facilities management, among others, the company is recognised as a leader in secure service platform delivery through the use of cloud and AI technologies. The platform helps firms prepare for the future by keeping their 'Eyes Wide Open' to the intelligence gathered from a variety of network connected devices.

Discover more: <https://www.morphean.com/>



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