



IMPLEMENTING TECHNOLOGY TRENDS

INTO THE

INTEGRATED PHYSICAL SECURITY SOLUTION

Guide Note



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UK, Europe, Middle East & Asia

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## 1. INTRODUCTION

In this short guide note, I will outline 2021 trends and define how to evaluate the project life cycle. The holistic approach will lead to better outcomes when developing integrated solutions with the latest technologies. It is never easy to predict what to expect from the industry in the next decade; however, we can make guided conclusions based on the most recent developments.

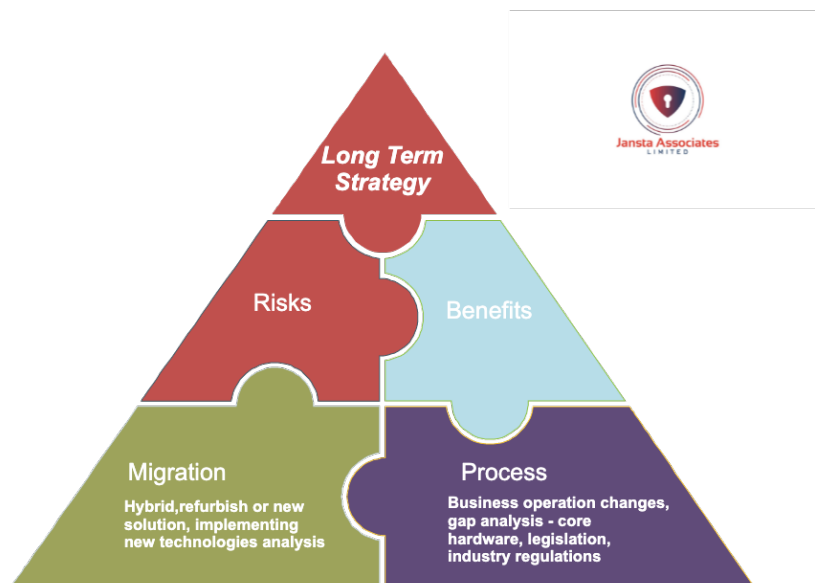
Many manufacturers have offered AI-based analytics over the past two years, and operators are becoming aware of the solution. Cloud-based access control and cloud-managed VMS is getting more and more traction.

Applications such as AI live video surveillance monitoring, deep learning implemented into the camera chips, the increase in VSaaS (Video Surveillance as a Service) adding pressure on VSM providers to supply their cloud solution, often with limited features.

Understanding current industry developments will help us to deliver practical solutions. The boundaries between physical security and cyber security are becoming ever so thin. There is not enough push in the industry to emphasize importance during the design, development, and implementation stages.

This document intends to establish an innovative approach through managing and controlling the project around key themes.

1. Process
2. Migration
3. Benefits.
4. Issues and risks
5. Long term view and strategy



## 2. 2020-2021 Technology Trends

The 2020 pandemic only accelerated the growth of intelligent security technologies, often embedded in governance and politics. Particularly interests around contract tracing systems, people counting, touchless access control. While giving the operators and customer confidence, some of those technologies are ineffective or practical, increased government surveillance powers, and the ethical question raised concerns about the deployment.

For example, Ineffective fever cameras. In 2020 UK Medicine and Healthcare product Regulatory Agency (MHRA) stated <sup>1</sup>that most products were initially designed for a non-medical purpose. Furthermore, there is no evidence to support an accurate medical diagnosis.

The agency also advised that anyone selling the hardware and claiming a direct link to the virus diagnosis will be prosecuted. There is no scientific evidence to support temperature screening as a reliable method. Further studies were conducted to validate this statement and confirm correction algorithms confirming fever temperature manipulation. <sup>2</sup>

Hikvision and Dahua face a challenging environment outside of China, with US Government imposing ban – blocklisting and concerns across the EU.

The positive side of facial recognition is that the technology has significantly improved. The negative side is rapidly increasing ethical criticism of using the technology, leading to growing legal bans.

### 2.1 AI Video Analytics

AI-based analytics was the hot topic in 2021. Such as increased availability in cameras: processing power, neural networks, deep learning capabilities. Facial recognition founding has grown.

### 2.2 Cloud Based Solution

Moves toward cloud-based and fee-based services for cameras, intrusion, and access control, storage.

### 2.3 5G Wireless

5G's high bandwidth wireless coverage could simplify outdoor wireless camera communications and support significantly better video quality for mobile monitoring.

However, 5G is expensive to install, and the range is relatively low for gigabit bandwidth. This means the immediate impact will be high population areas.

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<sup>1</sup> <https://www.gov.uk/government/news/dont-rely-on-temperature-screening-products-for-detection-of-coronavirus-covid-19-says-mhra>

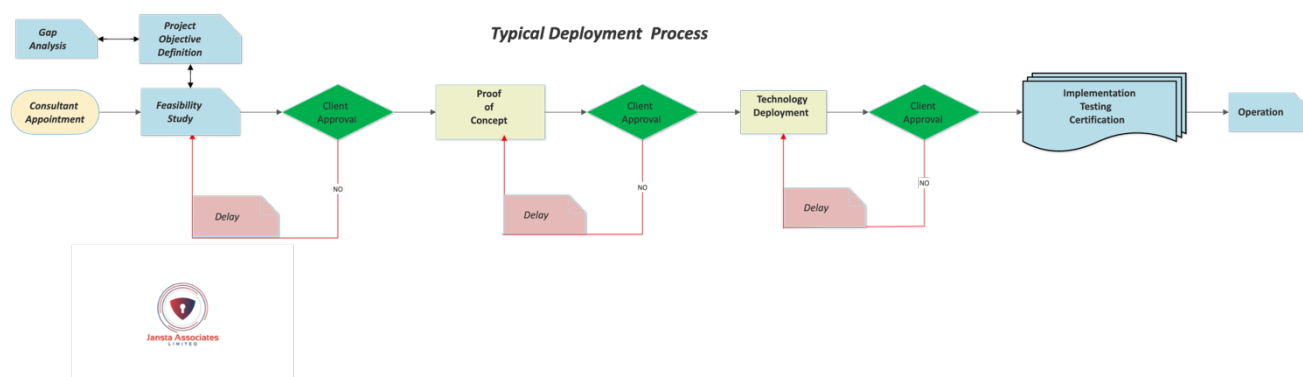
<sup>2</sup> <https://pubmed.ncbi.nlm.nih.gov/33715317/>



### 3. DEPLOYMENTS PROCESS

The full benefits are achieved with any technology based on the deployment process. The bellow flowchart chart shows the typical approach when deploying technology into integrated security solutions. The key themes are around;

- Project Objective Definition
- Feasibility Study
- proof of concept
- technology implementation



Changes in how the business operates and risks are associated with the security solution. Review of the suitability assessment/ gap analysis, including but not limited to the core hardware, legislation, and regulations.

#### 3.1 Migration

A complete refurbishment is not always the most feasible option for an outdated security solution. In many cases, migration should be able to bridge the gap.

#### 3.2 Benefits

Return on Investment and meeting the business case.

#### 3.3 Issue and risks

Cyber Risks, vulnerabilities, integration, legislation, and regulation issues based on the project location

#### 3.4 Long term strategy

Innovative solution with robust cyber security, regularly reviewing the business case, systems audit and security risks assessment.



## 4. Conclusion

The key to successful transformation is managing the stages and simplifying complex solutions.

To achieve the desired output, a clear objective and planning are essential.



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