

# EMERGING TECHNOLOGIES AND BIOMETRIC CAPABILITIES IN DATA CENTRES



Data centers are the backbone of modern society, housing invaluable information and supporting critical operations. As the importance of data security continues to rise, the need for robust security is paramount.

In this article, we explore the evolving landscape of emerging technologies and biometric capacities employed in data centers to ensure the physical protection of these vital facilities.

## **Biometric Materials for Access Control**

One of the most significant advancements in data center security is the integration of biometric materials for access control. Traditional methods, like keycards and PIN codes, have their limitations. They can be lost, stolen, or shared, compromising security. Biometrics, on the other hand, offer a highly secure and convenient alternative.

- *Facial Recognition:* Facial recognition technology has become more reliable and efficient. Data centers are increasingly utilizing it for access control. It scans unique facial features and matches them with authorized personnel, ensuring a higher level of security.



- *Fingerprint Scanners:* Fingerprint recognition is a well-established biometric method, and its accuracy and speed continue to improve. Data centers employ fingerprint scanners to grant access to restricted areas.
- *Iris Scanning:* Iris scanning is another biometric technology gaining traction. It captures intricate details of the iris and is nearly impossible to replicate, making it a highly secure method for access control.
- *Palm Vein Recognition:* Palm vein recognition measures the vein patterns in an individual's palm. This method offers an exceptionally high level of security and is being adopted in some high-security data centers.

The ICTS Europe Group has been a trusted security partner to numerous data centres for over a decade. Our security teams operate in over 80 data centre sites across 7 countries. Our emerging technologies and strategy shape the global security landscape and make a difference in the environments in which we operate.

Contact us to find out more about our ever-expanding solutions and to find out how we can redefine your security.

 [mail@ictseurope.com](mailto:mail@ictseurope.com)

 [www.ictseurope.com](http://www.ictseurope.com)  
[www.ictseurope-viridian.com](http://www.ictseurope-viridian.com)



## Future developments

The world of data center security is ever-evolving. In the future, we can expect to see even more advanced biometric capacities and technologies, most likely in a single platform that would combine operations management and the below.

- *Behavioral Biometrics:* Future data centers may incorporate behavioral biometrics, which analyze an individual's unique behavior patterns.
- *Artificial Intelligence:* AI-driven security systems will play a more significant role in detecting anomalies and potential security threats, enabling faster response times.
- *Drone Surveillance:* Drones equipped with advanced cameras and AI capabilities may be employed to monitor the perimeter of data centers, providing real-time security updates.

Emerging technologies in Data Centre security will take the form of a single platform to manage operations and security activities while incorporating biometric capabilities. The continued expansion of AI will result in increasingly AI-based solutions that comprehensively address all the operational needs of a data center. Read all about this in our previous article - [here](#).

