oosto

Smart Cities

Discover how facial recognition empowers smart cities while preserving privacy.

Smart cities are created when a municipality deploys digital solutions to deliver real-time information to government and management services so that they can operate more efficiently.

Video Surveillance at Scale

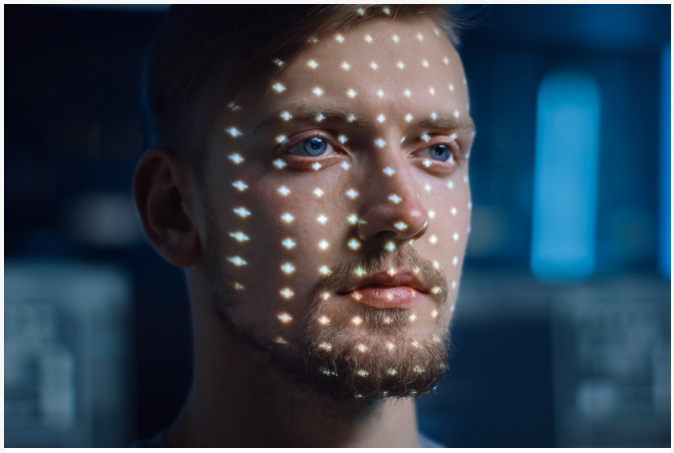
At the heart of many smart cities is a network of video surveillance cameras.

Public places need to be safe. Threats from dangerous drivers to terrorist attacks, petty crime on the streets to high profile bank robberies require innovative strategies and technology. Increasingly, smart cities rely on surveillance cameras with integrated facial recognition, IoT and cloud technologies to respond quickly to, and in some cases prevent, crime from occuring.

There are a number of compelling use cases for smart cities that leverage the power of ethical facial recognition, including:

Protecting the Vulnerable

If a child goes missing or a silver alert is activated (when an elderly, developmentally, or cognitively-impaired person has gone missing and is determined to be at-risk), video surveillance with embedded facial recognition can quickly find them and help return them safely.



Identifying Bad Actors in Real Time

Real-time facial recognition-based alerting solutions work with your existing CCTV camera infrastructure to accurately identify persons of interest. This type of watchlist alerting detects faces so security operators can quickly respond to threats and find at-large suspects sooner. The best solutions identify POIs in real-time,even in crowds, or when POI's are wearing masks or not looking directly at the camera.

Streamline Criminal Investigations

Often, video footage must be captured from disparate sources — CCTV cameras, mobile phones, and even an officer's bodycam to develop a more holistic understanding of a crime scene. With traditional video analytics solutions operators comb through hours of video footage to identify suspects and other persons of interest. Modern video forensics solutions enable you to search video archives quickly to find archived video matching your criteria within minutes.

Fortifying Access Control

When used for access control purposes, facial recognition compares an individual's face presented at the point of access to a database of authorized persons to determine whether there is a match. If a match is identified, access is automatically granted, and if there is no match, access is denied, and an alarm can be triggered.

Protecting the Privacy of Citizens

Artificial intelligence (AI) reliably and significantly improves public services; yet government organizations may be reluctant to embrace the technology, partly due to privacy and ethical concerns. AI-powered camera surveillance systems used in public settings may capture personal information from unintended targets and potentially violate the privacy rights of citizens. By taking an approach that builds privacy into the design of AI and facial recognition systems from the start, companies can more easily comply with privacy regulations and protect citizens' data while fostering innovation.

Oosto Privacy Statement

We understand the great value and potential of its technology and systems, as well as the significant benefits they can provide to society. At the same time, we recognize that such powerful technology has the potential to be misused if placed in the wrong hands, and we have an inherent responsibility to ensure that our technology and products are used properly.

Case Study: Mexico's C5 Smart City

Mexico City has a long, rich history and is known for being one of the largest financial centers on the continent, the largest Spanish-speaking city in the world, and the largest city in Latin America. In fact, the Mexico City metro area's current population is 21.8 million — about 2 million more than metropolitan New York. About a decade ago, the city first introduced its Safe City initiative, and ever since has been developing newer and smarter ways to keep its citizens safe by improving the effectiveness of police and other emergency services.

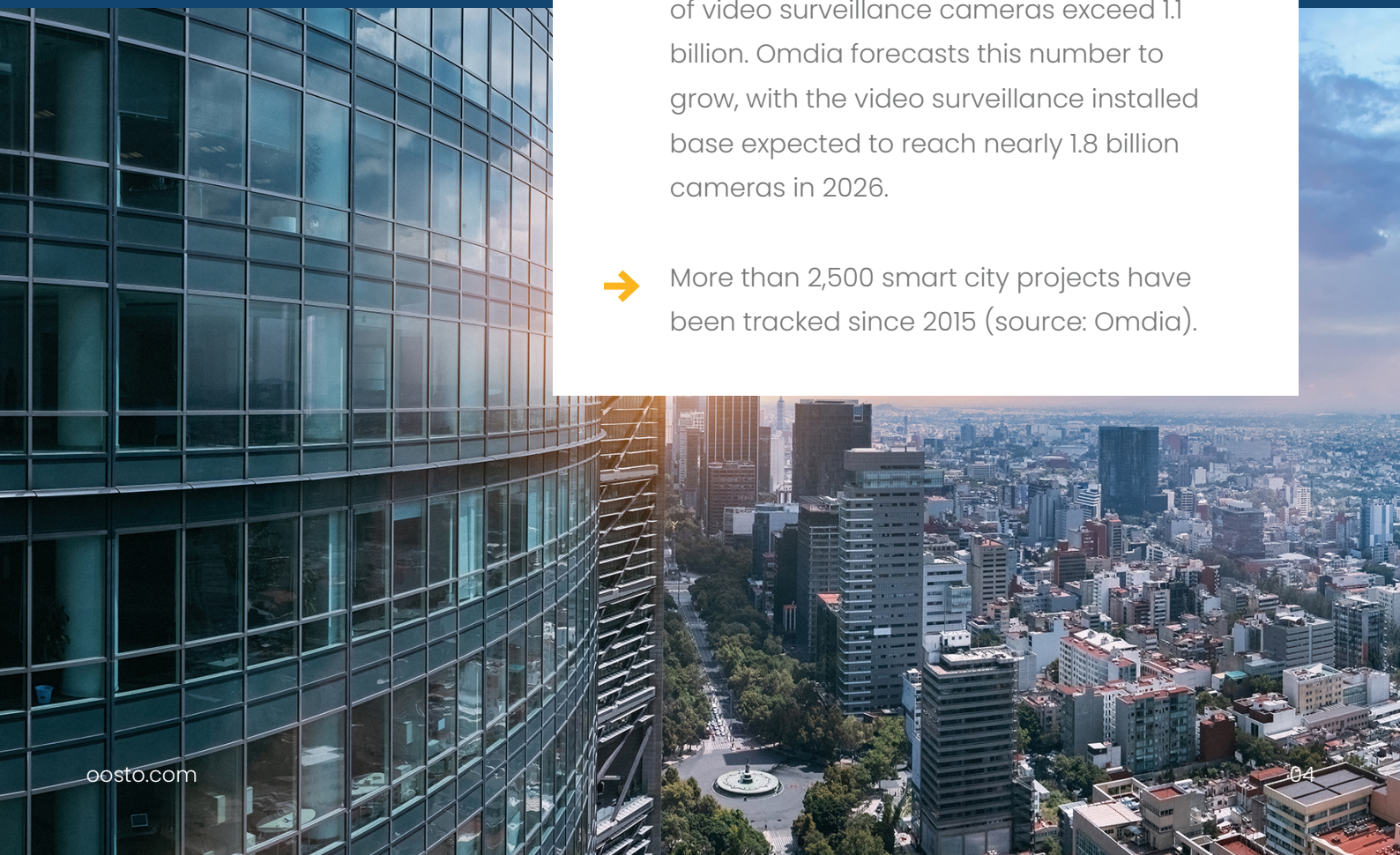
The official figures reflected the impact of the initiative — crime rates were down by 56%; car theft was down 58%; average response time was reduced from 12 to 2 minutes; and insurance premiums were down by 30%.

How did they do it?

Mexico's C5 smart city (Command, Control, Computers, Communications and Citizen Contact) included unprecedented security improvements and the installation of 58,000 new cameras and advanced video analytics over a three-year period in the 333 areas with the highest crime rate in the city and 16,000 in public passenger transport units.

Did you know?

- Smart cities are also developing around the globe. Its market value may grow to reach $873.7 billion by 2026.
- The number of global smart cities is expected to be at least 26 by 2025, nine of which can be found in the United States, according to Frost & Sullivan.
- As the global population surpassed 8 billion people in 2022, so did the number of video surveillance cameras exceed 1.1 billion. Omdia forecasts this number to grow, with the video surveillance installed base expected to reach nearly 1.8 billion cameras in 2026.
- More than 2,500 smart city projects have been tracked since 2015 (source: Omdia).



Oosto Capabilities

Both public and private sector organizations can enhance operational productivity and improve public safety by integrating facial recognition capabilities. Oosto's facial recognition-based solutions enable smart cities in a number of ways:

Find Missing Children

Since facial recognition can operate in even the most challenging environments (e.g., where the camera angles are severe or the lighting is dim), it can locate and track missing persons including, children, elderly, the cognitively-impaired, or kidnapped persons in real time.

Protecting Public Venues

By deploying live facial recognition cameras at entry points, smart cities ensure that previously banned customers (e.g., known hooligans, gang members, or security threats) are denied access to public venues such as stadiums or arenas.

Leverage Your Existing Cameras

Implementing facial recognition with your video surveillance system costs are relatively low since our solutions work with your existing cameras. Your cameras can be strategically located so that security personnel inside can be alerted before confronting a potential threat.

Help Prevent Crime

Track known criminals when they enter specific sensitive zones (e.g., banks, shopping areas). Law enforcement can leverage existing criminal databases to track known felons in real time. If a criminal enters a public space with camera coverage, law enforcement authorities will be automatically alerted, allowing them to appropriately intervene.

Safer Shopping Experiences

In retail environments, companies can use facial recognition technology to notify employees of protocol violations and deter crimes like pickpocketing and assault by alerting security personnel when known shoplifters and security threats enter a store.

Preserving Privacy

Oosto's technology was engineered to comply with privacy regulations while giving operators the tools to protect privacy and ensure compliance, including bystander blurring, dynamic data retention times and hard data deletes. We never furnish cities with predefined watchlists — smart cities must build their own database of known threats (e.g., known felons, security threats, etc.).

Touchless Access

Traditional access control solutions relying on card keys, fobs, and keypads leave organizations vulnerable since they can be lost, stolen or shared. Eliminate the need to touch any surface when entering a controlled space by using face recognition to verify authorization.

Search & Rescue

Face recognition technology can lend a helping hand during difficult times. In the case of natural calamities, people may get trapped in remote locations. Facial recognition cameras fixed at various parts of the city assist first responders in locating missing persons and planning rescue missions accordingly.

Forensic Investigations

Expedite investigations by searching through hours of offline video footage for persons of interest in a matter of minutes. Incorporate video from multiple sources (e.g., CCTV cameras, iPhone videos, body-worn cameras, etc.) for a more holistic investigation.

Seamless Access

Building sites, hospital wards, and critical national infrastructure benefit from the seamless flow of patients, medical staff and visitors — and can facilitate the protection of sensitive locations by restricting access to approved individuals only.

Lower Total Cost of Ownership

Utilize edge and near edge capabilities for an efficient low bandwidth, centrally managed, non-homogenous safe city architecture. Oosto's neural networks can now be integrated inside smart-cameras, near-edge devices and access control systems to automatically identify authorized personnel and bad actors without sacrificing detection quality.

Oosto's Solutions for Smart Cities

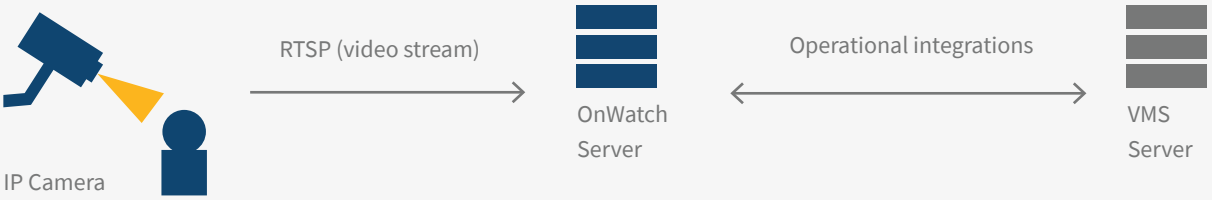
Oosto's solutions can be deployed in days, not weeks or months, because they leverage your existing cameras, access control, and VMS systems, exploiting the power and security of edge computing.

OnWatch

Real-time watchlist alerting

Identify persons of interest in real-time with live facial recognition, enabling your security team to rapidly respond to threats as they occur.

How it Works



OnAccess

Touchless biometric-based access control

A frictionless access control solution that leverages the power of facial recognition to open guarded points of entry for authorized people.

Automate Secure Entry

1. Person approaches OnPoint Reader or CCTV camera

2. Face compared to individuals synched to the OnPoint device or central server

3. Face match identified and individual's card ID transmitted to Wiegand

4. Wiegand connects to door controller to grant or deny access according to predefined rules

About Oosto

Top performing organizations use Oosto's AI-driven computer vision to improve customer experience while enhancing safety. Our recognition technology is built into industry leading touchless access control and automated watchlist alerting capabilities that perform with unrivaled accuracy, speed and efficiency in the most challenging conditions.

Oosto's mission is to make the world a safer, more intuitive, and more connected place.

For more information, please contact us at: **info@oosto.com**

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