videonetics
Look Deeper

Making Smart Cities
Smarter with Videonetics
Solutions.

With the ever growing urban population, video analytics is crucial for safety and efficiency. Videonetics AI-powered surveillance solutions secure over 150 Smart cities.

Look Deeper

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Executive Summary

Smart cities stand as a beacon of hope, promising an improved quality of life and a sustainable urban future in an age marked by rapid urbanization and technological advancements. With the United Nations projecting that 70% of the world's population will reside in urban areas by 2050, the shift towards smarter and more efficient urbanisation is not just a vision but inevitable.

Smart cities employ several technologies to enhance government operations, urban services, and citizen well-being. Video analytics stands paramount in this transformation, helping cities become smart, safe, and more efficient. It enables city governments to monitor, analyse, and act upon the volumious data provided by CCTV cameras installed across the city.

Videonetics, a torchbearer in this domain, has successfully secured over 150 Safe and Smart cities, spearheading this change with innovative surveillance solutions. Our Artificial Intelligence (AI) and Deep Learning (DL)-powered unified video management platform revolutionizes urban surveillance, providing integrated, modular, and scalable solutions tailored to the multifaceted demands of city life.

Urban Population
"70% of the world's population to live in cities by 2050 - UN"

Urban Evolution
"Urban evolution requires tech-driven infrastructure"

Videonetics Smart City Solutions
"Secured 200+ smart cities, 20k+ lanes monitored."

Smart City Market Growth
"Smart Cities market expected CAGR 13.13% during 2023-28. - Statista"

Leveraging Video in Smart Cities

Through technological and urban planning developments, "smart cities" have been found to leverage information gathered electronically using video surveillance systems to allocate municipal resources judicially.

This idea has advanced from simple administrative automation to the inclusion of real-time monitoring, analysis, and informed decision-making, thanks to the development of the Internet of Things (IoT), artificial intelligence (AI), and large amounts of data.

Video-based solutions have played a crucial role in this shift, helping to make communities safer through more sophisticated monitoring techniques, improving the effectiveness of traffic management, and fostering a more open, responsible government. It's the spark that ignites the adaptability, resilience, and sustainability that help cities cater to their residents' ever-changing wants and needs while propelling the ever-forward march of urban landscapes.

Empowering Your Smart City: The Videonetics Advantage

Offering a spectrum of features catering to the specific requirements of smart cities, Videonetics stands out as a trailblazer in the continuously changing urban development scenarios. In addition to improving the efficiency and safety of urban environments, Videonetics equips city stakeholders with data-driven insights to make wise decisions.

Introduction to Unified Video Management Platform

Our unified video management platform is a harmonious integration of AI and DL, meticulously designed to be agnostic to hardware, operating systems, databases, cloud platforms, storage solutions, and graphic cards, ensuring seamless compatibility and integration across diverse technological environments. Its scalable and interoperable nature, combined with cloud readiness and compliance with OpenAPI v3.x.x, makes it a versatile and comprehensive solution in the video analytics domain.

Videonetics solutions are efficiently touching the lives of millions in over 150 safe & smart cities, where urban centres grapple with numerous and explicit challenges such as overcrowding, chaotic traffic, and complex civic management. With its proven track record of empowering these cities to address their issues effectively, Videonetics is well-poised to tackle similar challenges in cities across the globe.

Videonetics' full membership with ONVIF, makes it the only unified video management solutions provider among a diverse group of physical security companies. It is a testament to our commitment to the standardization of communication between IP-based physical security products, interoperability, and seamless integration.

Key Use Cases in Smart Cities

Safety & Security

Videonetics ensures the safety and protection of public spaces and communities by providing real-time threat detection and analysis. It's advanced video analytics can detect and analyze security threats, ensuring immediate response and resolution.

Monitoring crowd size and movement

Detecting unattended objects and potential theft

Face recognition for suspect identification

Ensuring perimeter security and detecting unauthorize entry

Managing crowds and ensuring the safety of citizens

Identifying and classifying objects for security purposes

Traffic Management

Videonetics provides decision-making assistance for traffic management. By analysing vehicular patterns and movements, it provides insights that help in optimizing traffic flow, mitigating congestion, and enhancing overall mobility.

Automated License Plate Recognition (ALPR) and non-standard/dilapidated plate detection

Traffic flow management, including congestion reduction and turning on red lights

Enforcement of traffic rules, parking, red light violations, speeding, and vehicle restrictions

Safety compliance monitoring for helmet, seat belt usage, and phone use while driving

Real-time vehicle tracking, classification, and counting for traffic analysis

Efficient ticket management system

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Urban & Municipal Management

Videonetics aids in the efficient management of urban services and resources. It helps monitor waste disposal, garbage spillage, parking violations, graffiti, vandalism, and other public concerns to ensure their optimal utilization of resources and sustainable practices.

Efficient garbage management through truck tracking and bin level monitoring

Vandalism control with graffiti monitoring for prompt action

Environmental protection by detecting polluting vehicles

Urban infrastructure maintenance with pothole detection for road upkeep

Animal welfare and city cleanliness with stray animal monitoring

Traffic and parking regulation enforcement in no-parking zones

Integration with Command-and-control Centers

While Videonetics doesn't offer an integrated command and control centre (ICCC), our solutions can integrate seamlessly with such third-party platforms. Our solutions ensure real-time data provision, suspect tracking, anomaly detection, and other essential functions, all of which contribute to quicker response times and enhanced city operations. Some of the functions that complement ICCCs are:

Energy-efficient urban lighting with control systems

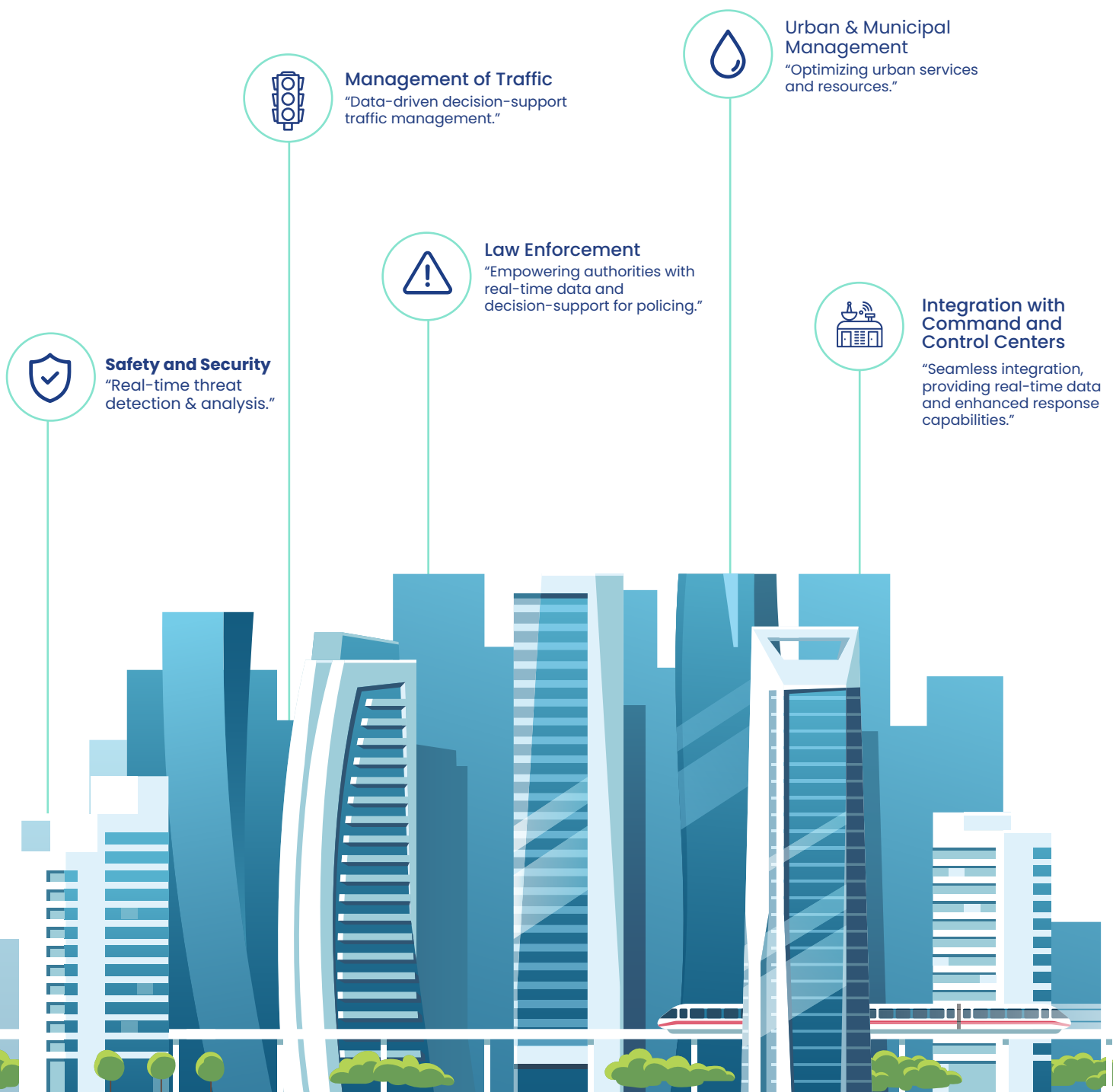**Centralized surveillance and traffic management for safer, congestion-free streets**

Enhanced urban planning and waste management through GIS mapping and efficient systems

Integrated SCADA systems for optimal water and electricity management

Comprehensive disaster management support with public address and display systems

Coordinated emergency services for timely response and support

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Exploring the Pinnacle of Innovation: Videonetics' Cutting-Edge Features

Management of Traffic
"Data-driven decision-support traffic management."

Urban & Municipal Management
"Optimizing urban services and resources."

Law Enforcement
"Empowering authorities with real-time data and decision-support for policing."

Integration with Command and Control Centers
"Seamless integration, providing real-time data and enhanced response capabilities."

Safety and Security
"Real-time threat detection & analysis."

Videonetics' Unique
Value Proposition

Our unified video management platform offers a comprehensive and one-stop umbrella solution for the surveillance needs of a city. The platform embodies our commitment to making a safer, smarter, and happier world.

The Videonetics platform offers an open, flexible, and integrated approach to managing various surveillance scenarios, from corporate offices and streets to airport and malls. With our platform, cities can ensure seamless management, data security & failover strategies, business continuity, and advanced video analysis, all from one reliable source.

Features and Benefits in Detail

Delivering unmatched value and enabling cities to utilize the full potential of video analytics, our platform is a beacon of technological innovation in the field, advancing urban sustainability, safety, and efficiency. Here are several undeniable advantages:

Open and Flexible:
The platform's open and modular architecture enables seamless integration with various systems and technologies.Ensures adaptability to diverse operational needs and evolving industry trends.

Customer-centric, Integrated and Modular:
Provides an end-to-end solution for a wide array of applications, including video management system (VMS), face recognition system (FRS), and traffic management system (TMS). The platform is designed with the flexibility to be tailored to customer requirements, ensuring that it caters to the unique needs and preferences of the users.
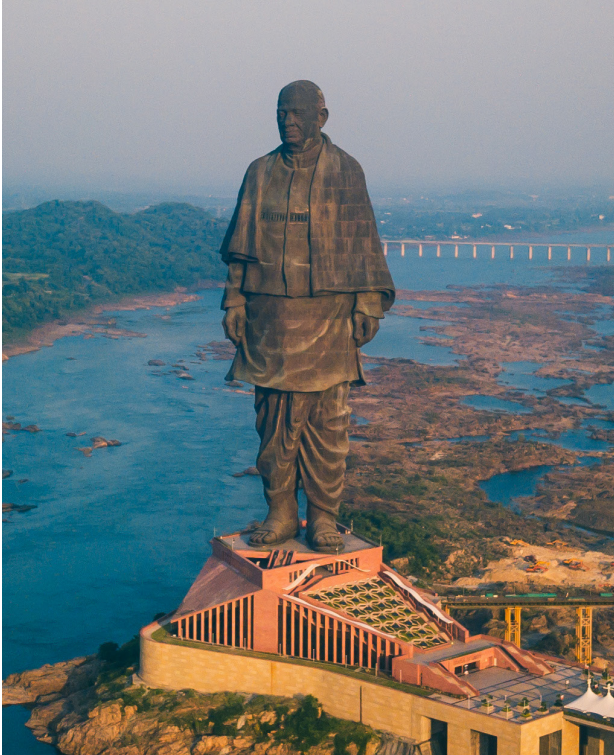
Scalability & Interoperability:
The flexible nature of our platform supports a range of scalable solutions, adapting to varying demands and operational scales. Its interoperable design ensures compatibility with all 3rd party systems, fostering innovation and maximizing return on investment.

Cloud-ready:
Ready for cloud deployment, enhancing its versatility and accessibility, and catering to the modern needs of smart cities.The platform is cloud ready & cloud agnostic.

Case studies: Triumphs in Technological Innovation

Gujarat State-wide Surveillance

Challenges: The need for a comprehensive surveillance system across 34 cities with an integrated e-ticket system and remote monitoring.

Solutions: Videonetics implemented an integrated Video Management System (VMS), ANPR, Red Light Violation Detection (RLVD), overspeed detection, and other AI-powered video analytics solutions. 34 city command centres and a state command centre were established.

Outcomes: Enhanced situational awareness and swift action facilitated by centralised monitoring and control.

Madhya Pradesh State-wide Surveillance

Challenges: The requirement for an advanced surveillance infrastructure across 51 districts with centralized command centres.

Solutions: Videonetics deployed VMS, ANPR, and other video analytics solutions and established 61 command centres and one state command centre.

Outcomes: Improved city management and response times, contributing to the overall safety and security of the city.

Andhra Pradesh Real-time Governance System (RTGS)

Challenges: Implementing a comprehensive governance system across 18 cities to improve real-time decision-making and public service delivery.

Solutions: Videonetics deployed its VMS, AI-powered video analytics, ANPR, RLVD, overspeed detection, and face recognition technologies. It led to the establishment of 24 city Command Centers and a state command centre.

Outcomes: Enhanced governance and public service delivery, improved security, and efficient real-time decision-making across the state.

Cochin - 1st Smart City Deployed on Cloud

Challenges: The need for a cloud-deployed smart surveillance system with remote monitoring capabilities.

Solutions: Videonetics deployed the project on AWS Cloud with VMS and AI-powered video analytics, ANPR, RLVD, overspeed detection, and wrong side vehicle movement detection.

Outcomes: Successful implementation of the first smart city project deployed on the cloud, enabling remote monitoring from the Police Commissionerate and integrated E-Ticket System.

Voices of Validation:

Testimonials from our esteemed partners and clients

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> Now people are more aware of traffic rules, leading to a reduction in the number of e-tickets.
>
> **-Nitin Dave, Bhopal Smart City**

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> Partnering with Videonetics to develop a unified solution for the city has been an enlightening and rich experience. With their dedication to continuous innovation and improvement, they have curated an Intelligent Video Management Solution, that, in combination with our powerful cameras, is primed to transform traffic management and surveillance in one of the wealthiest cities of UAE."
>
> **-Prateek Verma, Sales Director - MEA Region, Vantage Integrated Security Solutions**

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We are proud to partner with Videonetics for this project. Its innovative unified video computing platform is proving to be a game-changer for government entities and businesses alike. This comprehensive solution has the power to help them make the most of their visual data, ensure security and governance, as well as build scalability to become future-proof.

-MVS Subba Raju, Chairman,
MATRIX Security & Surveillance

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The integration between Videonetics unified solution, ICCC and C2RMS is integral to the success of the deployment. Securing Namchi was a very fulfilling project to be part of and we are gratified to partner with Videonetics for this project. The minute level of detail that Videonetics brings to the project is admirable and we look forward to collaborating with them soon.

-Dr Chinmay Hegde, CEO & MD,
Astrikos Consulting

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Cybersecurity and Privacy: A Priority at Videonetics

Cybersecurity and privacy are the pillars of trust and dependability for Videonetics solutions in the digital age, where data is crucial. Its operational philosophy and technological advancements are based on safeguarding sensitive data and systems from cyberattacks.

- **Robust Cybercrime Protection**

  Industry-leading encryption and authentication methods are employed to safeguard solutions from cyber vulnerabilities.

- **Adherence to data Protection Standards**

  Solutions are GDPR-compliant, reflecting Videonetics' commitment to international data protection standards.

- **Enhancing Trust with Privacy Preservation**

  GDPR-compliant solutions prioritise user privacy and data security, reinforcing Videonetics' reputation as a responsible industry leader.

Conclusion

By delivering real-time, actionable information, boosting public safety, streamlining traffic, and assuring effective resource management, video analytics plays a crucial role in creating smart cities and solving the difficulties of urbanization. Through its AI- & DL-driven unified video management platform, Videonetics, a leader in this field, offers creative, scalable solutions with an emphasis on openness, flexibility, and integration.

Videonetics stands out with its commitment to cybersecurity and privacy, ensuring the protection and integrity of user data, and is recognised for its excellence, holding accolades and the trust of satisfied customers and partners. The company's real-world implementations underscore its adaptability and effectiveness in contributing to the harmonious and sustainable evolution of the urban landscape.

In essence, Videonetics is driving the future of urban living, making cities smarter, secure, and more sustainable, and playing a crucial role in the realisation of smart city objectives, fostering a world conducive to human flourishing.

We look deeper to simplify the world. Making it

Safer, Smarter and Happier .

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