

## CASE STUDY

# Helping Gujarat's cultural capital become a new-age Smart City

**Organisation:** Vadodara Smart City Development Ltd

**System Integrator:** (n)Code Solutions

**Project Location:** Vadodara, Gujarat, India

**Industry Segment:** Smart City

**Solution:** • Videonetics VMS & Video Analytics  
• Automatic Number Plate Recognition  
• Command Control Centre

## The Background

The Smart Cities Mission is an innovative initiative by the Government of India to drive economic growth & improve the quality of life of people. It aims to achieve this by enabling local development and harnessing technology as a means to create smart outcomes for citizens. A hundred cities across the country were shortlisted by the government, which were to be promoted as 'Smart Cities'. Vadodara was selected among those 100 cities to be developed as a smart city in India, to enhance economic growth & improve the quality of life of people by enabling local area development, deploying smart solutions & harnessing technology.



## The Challenge

With a population of approximately 2.39 million, Vadodara is the third largest city of Gujarat, and a major industrial, cultural and educational hub of western India. The city is compact and crowded, with a vibrant cultural life that draws a lot of traffic. It is vulnerable to situations of overcrowding, road accidents, criminal activity, and natural disasters.

Vadodara Smart City Limited wanted to heighten safety for its citizens and visitors, along with optimising traffic management, without disrupting daily lives. To this end, they sought a state-of-the-art, open platform that could expand in phases, in sync with the city's growth.



### The key elements of this solution included the following:

1. State-of-the-art AI-powered **Videonetics VMS** and **Video Analytics** to provide continuous viewing and recording, enabling security operators and law enforcement to proactively identify, and effectively respond to, events to mitigate their impact. Specifically, now the law enforcement authorities can automatically detect overcrowding, unattended baggage, and perimeter intrusions, even under the cover of darkness.
2. **Automatic Number Plate Recognition (ANPR) system** across 15 traffic junctions in Vadodara, to identify suspected / unwanted vehicles and non-standardised number plates, as well as to generate detailed reports on vehicle movements, and much more.
3. **Command Control Centre**, to provide a bird's eye view to operators, about what is happening across the city. From traffic control to citizen security, operators remain alert and ready. With greater situational awareness, municipality officials are proactively responding to incidents such as garbage overfill, incidents of water-logging, traffic congestions, hazardous debris on roadways, illegal parking, and more.

## The Impact

Under this project, video surveillance was deployed along public ways, in urban passenger transport stations, municipal buildings, traffic junctions, entry and exit connecting roads to city, and more. To date, Videonetics' solution not only manages over 550 IP cameras throughout the city, but also proactively identifies and effectively responds to events, to mitigate their impact. Eventually, helping in maintenance of peace in the city, in upholding law and order, and providing better policing services. The key results are:

1. Increased safety and security with 24x7 monitoring of city area
2. Faster crime investigations
3. Traffic police having in-depth knowledge on vehicle count and movement
4. Swift action by on-site traffic police, as they get alerts on traffic congestion, unwanted/ hot-listed vehicles, and so on

Moreover, Videonetics's solution has also been able to help the police in monitoring celebration of festivals and VIP movement in the city, and building a security net for its citizens. Overall, it has been successful in ensuring the safety and security in the city of Vadodara, and has played an important role in becoming a smart and connected city.



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#### Headquarters

Plot No. AI/154/1, Action Area-1A 4th Floor, Utility Building New Town  
Kolkata 700156, India

Write to us at  
marcom@videonetics.com  
W: www.videonetics.com

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