Tech solves today’s urban challenges

Qognify helps make smart cities in India safer and more secure by transforming its video management technology to handle thousands of high-definition cameras.

Business needs

As part of many smart-city projects, authorities are adding thousands of security cameras to their existing networks. They are implementing video management systems from Qognify that provide significant video recording and storage capacity, scalability and security, as well as centralized control.

Solutions at a glance

- Design Solutions
- Servers
- Storage
- Networking

Business results

- Transforms safety and security capabilities for smart cities in India
- Enables better urban planning to improve the lives of residents
- Certifies Qognify’s position as a leader in smart-city solutions
- 25% faster deployment times for VMS solutions
- 15% lower cost—contributing to several hundred thousand dollars in savings
- Helping drive innovation through close support

25% reduction in deployment times for VMS solutions

15% lower cost—saving several hundred thousand dollars
India’s cities are growing rapidly, putting pressure on the authorities responsible for the safety and security of their residents. Of those cities, one of the biggest in the state of Gujarat — with a current population of 6.3 million — is significantly extending a network of security cameras across its confines as part of a broader smart city project. However, the goal of the extension is not only the safety and security of residents, but also to build up a database for city authorities to use when planning developments to city infrastructure such as roads and rail networks.

The challenge of a smart city
The city planned to extend its existing network of 300-plus web-enabled cameras to about 7,000. Many of them would capture footage in high definition. To manage the network, the city wanted a cutting-edge video management system (VMS) and sent out requests for proposals to leading providers in India, including Qognify. Headquartered in New York, with offices in the United Kingdom, Singapore, Israel, and India, Qognify needed to provide a solution that transformed traditional management systems and scaled to smart city projects.

Transforming technology
Qognify sought to deliver a VMS that could address the Indian city’s needs. Dilip Verma, regional vice president of Qognify, explains, “In the past, a VMS would need to support just few hundred cameras at most. But, nowadays, as cities become smarter, a VMS will need to support thousands, most of which will be capturing data in high definition. As a result, the technology underpinning a VMS needs to support much greater data throughputs and provide huge quantities of storage.”

The need for VMS expertise
Qognify looked for an original equipment manufacturer (OEM) that could transform its VMS solution for a smart city project. Says Verma, “We wanted to work with an OEM that really understood the VMS business and the challenges we are up against. For example, our VMS platform needs to be architected in such a way that ensures zero video loss. It also needs to be validated prior to deployment in order to keep down costs, save implementation time and give customers an extra level of assurance.”

Qognify had worked with Dell Technologies Design Solutions for 10 years to deliver turnkey VMS solutions; however, this was the first time Qognify had worked with Design Solutions on such a large-scale solution. “We had a good reputation with the city because of the reliability and performance of our existing infrastructure backed by Dell Technologies Design Solutions. Our new VMS would also integrate easily with the legacy solution, reducing the cost and deployment time,” comments Verma.

“The transformation of our VMS technology for the needs of smart cities is continuing with the support of Dell Technologies Design Solutions.”

Dilip Verma
Regional Vice President, Qognify
A collaborative solution

Qognify and Dell Technologies Design Solutions began work on the VMS for the city authority. The two parties designed a platform based on Dell EMC PowerEdge blade servers, with 10-gigabit Dell EMC Networking MXL switches inside the blade server chassis. Storage platforms included Dell EMC SC5020 for structured data and Dell EMC Isilon NL-Series for unstructured data. “The transformative part of our VMS for the city was that the city gained up to 15 petabytes of storage straightaway to enable thousands of cameras generating high-definition video,” comments Verma. “It could also scale out the solution to 40 petabytes without any need to change the underlying architecture — ensuring a low total cost of ownership.”

He adds, “With Dell Technologies Design Solutions, India’s rapidly growing urban areas have a solution to help ensure the safety of their citizens. What’s more, cities like this can analyze the captured video data in detail using our big-data analytics software to better understand the use of key infrastructure such as roads, rail and even communal areas such as parks. In turn, this will help them plan city development more effectively.”

25% reduction on deployment time

The VMS solution was also validated at the Dell Technologies Design Solutions Video Computer Vision Global Lab in Bangalore. “We thoroughly tested the design for our VMS solution at the lab,” says Verma. “We ensured it was sized correctly, delivering the throughput and capacity that the customer needed. Because Qognify validates its Dell Technologies Design Solutions — backed solutions in a lab environment prior to implementation, we can save customers up to 25 percent on deployment times.”

“It’s an exciting time for us working with Dell Technologies Design Solutions because we’ve built a VMS solution that can take cities to a new level in safety and security. With our technology, smart cities of the coming years will be safer places for people to live in with infrastructures that are aligned with their needs.”

Dilip Verma
Regional Vice President, Qognify
Driving the smart-city revolution

The authority has already started deploying its VMS from Qognify to drive its smart city project. Besides this city, Verma says Qognify is also supporting many other cities in India that are launching similar smart-city enterprises. “Of the 44 or so cities in India that have launched smart city projects, Qognify is supporting close to half. It’s an exciting time for us working with Dell Technologies Design Solutions because we’ve built a VMS solution that can take cities to a new level in safety and security. With our technology, smart cities of the coming years will be safer places for people to live in with infrastructures that are aligned with their needs.”

15% lower cost, saving several hundred thousand dollars

Those other cities will also find that Qognify can deliver a smart-city-grade VMS at a lower cost than rivals. That’s because the pre-deployment certification ultimately lowers customer cost. “Because our solution is pretested, we avoid the typical delays — such as poor sizing — that other VMS integrators face,” explains Verma. “What that means for our customers is a potential saving of 15 percent, which on a project involving millions of dollars — is a significant decrease.”

Focus on innovation

Over time, Qognify expects to deliver greater value to its customers as the company continues to develop its products. “The transformation of our VMS technology for the needs of smart cities is continuing with the support of Dell Technologies Design Solutions,” comments Verma. “Because Dell Technologies Design Solutions takes care of our hardware needs, we can focus on innovation and delivering solutions for the specific needs of our customers.”