Sterlite Tech

Sterlite Tech Transforms Jaipur for Citizens & Tourists

"In addition to being a famous tourist destination, Jaipur is also a **Smart City** now. The **enhancements,** in terms of technology, have led to exceedingly **smarter ways of life**. Integrated with Smart technologies, the **city transport management** and **parking systems** now are much more convenient for citizens to use. Multiple cameras, which have strategically been placed across the city, ensure **prevention of crimes.** The Interaction Kisosks make it easier for citizens to address utility purposes, such as **bill payments** and accessing **general information. Smart Lighting** is a key feature, which has enabled JDA to **conserve energy** and make significant **cost savings**. Enhanced **environmental sensors** keep updating the people on **weather forecasts** and **pollution levels** contributing to a more healthy and **sustainable environment.** With digital developments taking place in leaps and bounds, **Jaipur has actively been championing the Smart City initiative of the nation."**

Devesh Gupta
Nodal Officer
Jaipur Smart City Project

Scope: Livable, Sustainable, and Efficient for Citizens and Tourists Jaipur, the capital of the state of Rajasthan, is one of the largest metropolises in the northern India. A popular tourist destination, Jaipur is world famous for its unique architecture, forts, monuments, and palaces.

As one vertex of the Golden Triangle of New Delhi, Agra and Jaipur, the city witnesses a high influx of both foreign and domestic tourists every year. Though the population of Jaipur is around 3.6 million, the city attracts nearly 2 million visitors annually.

Going beyond its well-established profile as a prominent tourist destination, the city of Jaipur wanted to reinvent itself as a leader in the smart city initiative of the central government. The city envisioned a digital infrastructure that not only enhances the quality of life of its citizens, and also creates a user-friendly administration for visiting tourists. It was with this aim that Jaipur Smart City Limited, a special purpose vehicle, was set up as a nodal agency to oversee the efficient execution of the Jaipur smart city project.

The city administration adopted a holistic approach to using relevant and latest technologies to create a more interactive and collaborative relationship between the government and citizens. Jaipur took a phased approach to make the city more livable, sustainable, and efficient for its residents and visitors. The phase I of the project saw the establishment of a Network Operation Centre for real-time management of the ICT infrastructure. A leading city infrastructure-management platform was deployed as a smart city platform, and a few WiFi hotspots and kiosks were also launched.

For the execution of the second phase, Jaipur was looking for a partner to not only implement robust and reliable ICT infrastructure, but to also enable them to integrate the new future-ready network with the existing systems and processes.

The city administration wanted to move beyond the technology and department silos to provide a truly holistic and a world-class infrastructure to its citizens. The government was looking to improve transparency and to enforce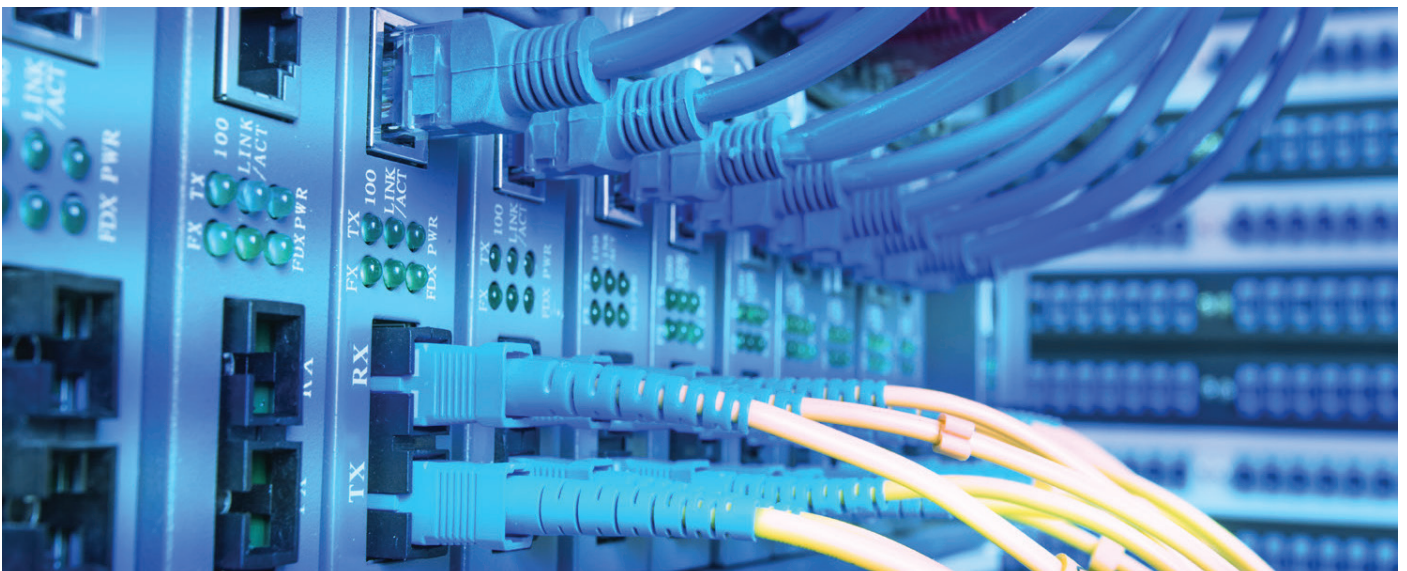 a people-first perspective, which is critical to the success of any smart city initiative. Technology deployment was then just one part of the equation.

With its approach of designing, building and managing smart networks, Sterlite Tech was geared to face this challenge. The company was selected to implement Phase-II of the Jaipur smart city project, which included setting up citizen services kiosk with environmental sensors and citizen portals(interactive information kiosks), WiFi network extension with respect to Phase-I at 11 additional locations, video surveillance for public safety and security at 15 key locations, enabling remote expert government services, and provisioning of bandwidth.

Solution: WiFi and App Access, Citizen Safety, Information Dissemination, Access to Administrative Services

Solution
Smart Infrastructure
Establishment of smart ICT infrastructure by Sterlite Tech is

enabling Jaipur city administration to efficiently deliver high-quality services to its citizens.

High-Speed Public WiFi

High-speed internet access is the foundation of any smart city initiative. Jaipur city administration believed in an inclusive approach and providing WiFi access was a key goal of the project. Sterlite Tech used its proven expertise to establish 11 WiFi hotspots in the city at strategic locations, such as Sylvan Park, BRTS Corridor, DCM Chauraha, and Rajasthan University, amongst others. These WiFi hotspots allows tourists to have a more connected experience while exploring the city. The hotspots seamlessly connect people, data, and processes, not only helping in bridging the digital divide but also ensuring the availability of city administrative services anytime, anywhere.

Number of WiFi hotspots installed in Phase-II

11

Wi-fi hotspots connecting

22,000

unique devices on average

~50 Mbps

average peak bandwidth speeds realised

Service Kiosks and Portals

Citizen services kiosks and citizen portal were deployed at six prominent locations across Jaipur to assist the city's residents in accessing the city administration services as and when required. At Rajasthan University, for instance, students can get information about college admission, syllabus, and

related details from the kiosks. Some generic information, such as news, location-related information is available at all kiosks. Besides, environmental sensors continuously provide real-time data in case of any urgent action. The platform is also used by the government to make important announcements and to promote initiatives to the citizens.

Kiosks at popular tourist destinations, such as at Amer Fort, Albert Hall, and Hawa Mahal, make it easier for tourists to navigate through city maps and to access various services, such as bus ticketing and train ticketing at a click. The kiosk at Albert H all alone experiences about 30—35% of the overall interaction sessions.

Smarter Lighting Systems

The deployment of Sterlite Tech's smart lighting solutions is helping the city of Jaipur not just to save energy but also to lower costs and reduce maintenance expenditure. Nearly 320 old and conventional streetlights have been replaced with new and more energy-efficient LED street lights at a distance of 2 kms. These are enabled with motion-based and intensity-based sensors, with smart controllers allowing the city administration to provide a safer environment to its citizens.

It also helps the city administration keep track of the amount of energy consumed and keep up with the sustainable development goals of the government. The Smart Lighting solution makes it possible to remotely

Highlights

regulate light by dimming or switching off lights when no one is around, thus bringing down maintenance and operational costs.

Remote Access to Government Services

Remote expert government-services solution enables the Jaipur administration to offer critical services in a user-friendly manner. This system was installed at two locations, at Mansarovar and Chitrakoot. The system allows speedy and efficient access to government services, such as leasing property and other property-related issues, without the citizens having to travel long distances. Facilities such as video-conferencing and booking auditoriums are also available at these locations. It is especially helpful for differently-abled Jaipur citizens. The deployment has led to much-desired reduction in carbon footprint and better traffic flow management.

The win-win solution ensures greater citizen satisfaction and optimum utilisation of available resources at a reduced cost for the administration.

Smart IP Surveillance

It is impossible to have a smart city, which does not ensure safety and security of its citizens. Sterlite Tech has deployed more than 170 cameras as part of IP-based surveillance system at 15 strategically determined locations, including Sitapura flyover, Gandhinagar Railway Station and Malpura Gate, to monitor and prevent crime in these areas. These cameras send the feed to the Jaipur

Number of lights	Distance	Monthly Energy Savings
320	**2**Km	**30-40**MWh

Development Authority Command and Control Centre so the concerned authorities can keep a close watch on the happenings in the city. The real-time monitoring acts as a preventive measure to reduce crime in the city.

Integrated Central Command and Control Centre:

An integrated command and control centre is the nerve centre of the entire project. Sterlite Tech has installed a video wall (comprising six cubes of 70-inch each) at this command and control centre. Various services are integrated under a single control centre, which enables the city administration to centralise the monitoring and evaluation of operations. Regular supervision of data and operations means that Jaipur city administration is able to make informed and timely decisions to respond in case of untoward incidents. It also help the law-enforcing agencies to reduce crime in the area by stringent and

remote monitoring of the happenings in the area.

Turning Roadblocks into Opportunities

Integration with Legacy Systems: A key challenge faced by Sterlite Tech's team was integrating the new systems with the legacy systems being used by the city administration. This integration was crucial to ensure efficient delivery of the services even as the administration geared to offer new and innovative services on the back of new infrastructure.

Sterlite Tech demonstrated its technical expertise and learnings from other deployments by innovatively combining the existing old systems with the new modern systems to allow delivery of worldclass services to the citizens.

Ensuring 'Right of Way':
Sterlite Tech had to coordinate with

multiple government agencies at each point of the project to get approvals and alignments. The team increased engagement with the various government departments for easy execution of the entire project. The company's extensive experience in creating smarter optical fibre cable networks helped in ensuring smooth and timely deployment of the project. What was empowering about the Jaipur smart city project was that a nodal officer was appointed by Jaipur Development Authority, who helped in procuring the relevant approvals.

Working with Different Partners: In addition to working with different administrative departments, Sterlite Tech led collaboration with various partners and OEMs to ensure quality and timeliness. A case in point was a delay in handling bandwidth, which threatened to delay the entire project. In the end, a private Internet Service Provider (ISP) was brought in

to ensure the timely delivery of the project.

Impact and Post Deployment

The digital transformation of Jaipur is helping the city administration to improve access to public services, enhance community experiences, and to create new operating models. Smart cities stimulate social and economic growth and lead to a more sustainable living for the citizens. For Jaipur, it is an important opportunity to demonstrate its commitment to offer world-class services and infrastructure to its citizens and tourists. With its proven technical expertise, Sterlite Tech has ensured that Jaipur has emerged as a front-runner in the smart city initiative of the government.

Conclusion

The successful deployment of Jaipur in a short span of time proves that Smart Cities are no longer just Buzzwords. A smart city plays a significant role in the way we live and manage day-to-day activities. In addition to Jaipur, the development of Gandhinagar as India's 1st Smart City and Kakinada's road to becoming a Smart City, have also rightly placed Sterlite Tech at the forefront of the Smart Cities revolution in the country. The company's comprehensive Design-Build-Manage suite, enabled by its multi-partner approach, allows it to offer best-in-class end-to-end solutions. Accomplished expertise at delivering large and challenging system integration projects has ensured flawless creation of these smart cities. Extensive network planning, design and deployment experience further position Sterlite Tech as a front-runner in Smart City Solutions and Deployment