Cisco helps turn Jaipur into a Smart and Safer City

Jaipur Development Authority (JDA)

Industry
Government

Location
India

City, State/Province
Jaipur, Rajasthan

Population
3.5 million residents

Tourist
40 million tourists each year

"Jaipur is a historical city that attracts tens of millions of tourists from all over the world annually. Jaipur is focusing on technology innovation as a Digital City to showcase greater connectivity and information access for our citizens and tourist visitors. Working with Cisco has made this vision a reality, and our city is benefitting in every aspect – from safety and security, to easy access to information, to overall improvement of our image and our stepping into the "Smart City" arena."

Shikhar Agrawal
Commissioner, Jaipur Development Authority

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Jaipur, the capital city of Rajasthan, has a colorful past dating back to the time it was founded, in 1727. Widely known as India's "Pink City", its rich cultural rich cultural heritage and unique sights have made it a popular tourist destination both domestic and international, attracting over 40 million visitors each year.

However, due to the huge number of visitors, city authorities were under pressure. They were faced with an urgent need to vastly improve the quality of services provided to the city's visitors and 3.5 million residents. Their solution? To create the Jaipur Development Authority (JDA), with the mandate of improving the lives of the people of Jaipur and the experience of the city's visitors.

Challenge: Improve quality of life for residents and tourists

With the city emerging as a tourism hub and drawing large numbers of visitors, the JDA recognised the need to hasten their efforts. Their mandate was two-pronged. They needed to increase the quality of public services and increase information access available to residents, as well as offer a stellar tourism experience to visitors. A further need was to focus on safety for visitors and residents alike.

Uncompromised safety for all

Having safety and security solutions in place would enable the JDA to monitor activity and movement in high traffic areas. This was a key factor towards improving the safety of specific profiles, such as female or solo travelers. It would also improve conditions for local residents and reduce crime rates in the city.

Simplified tourist experience

Jaipur, a city almost 300 years old, has generations of complex public infrastructure built upon each other—resulting in a challenging transition towards becoming a Digital City. However, this transition is critical towards helping tourists spend more time on the cultural experience and sightseeing, instead of navigating this maze of a city.

Digital empowerment for citizens

The ultimate goal of the JDA was to provide the city's people with a top-tier public service infrastructure, and earn Jaipur a reputation as a modern metropolis—one that would enable Jaipur to claim that it is one of the most desirable places to live in.

In keeping with the government's Digital India program, there is a strong focus on the digital empowerment of citizens, where a well-connected infrastructure is offered as a utility to every citizen and public services are available on-demand.

As part of the journey towards making Jaipur a Smart and Secure Wi-Fi City, the JDA wanted to provide easy access to information, across multiple devices and platforms, to the residents and tourists of Jaipur.

Like most other digital transformation projects, they also had the responsibility to keep at eye on cost-effectiveness and manageability. To do this, they needed a partner with a strong background in technology, and one that can manage this mammoth task, by efficiently implementing reliable solutions.

Solution: Always connected means safe and informed

Cisco worked with the JDA to realise their vision of developing Jaipur city into a Smart & Secure Wi-Fi City through a variety of customised solutions and technology. Cisco empowered the creation of new digital connections to make cities in the region more desirable places to live in— with quality services and safety—and able to support their thriving economies. The foundation of 'Digital Rajasthan' will be intelligent networks that will transform the delivery of public services.

At the start of the city's digital journey, a framework was developed by Cisco to address the shared challenges the cities face, and reflect how solutions are implemented and supported
In pre-set milestones.

Digital transformation when done well, will enable government leaders, city administrators, local businesses, and citizens to fulfill outcomes the cities need to prosper. Through this approach, Cisco worked with various sensor and application partners to provide solutions that improve operations, optimize service delivery engagement and improve overall quality of life.

Common dashboard for better decision-making

The solutions provided by Cisco was built into a single, easy-to-understand digital platform. It works by aggregating data from various sensors and data analytics to support a wide range of urban services.

Hotspots that provide easy access to services

Cisco created smart Wi-Fi hotspots at selected locations, so that tourists and residents alike could take advantage of this smart city feature and have access to the internet.

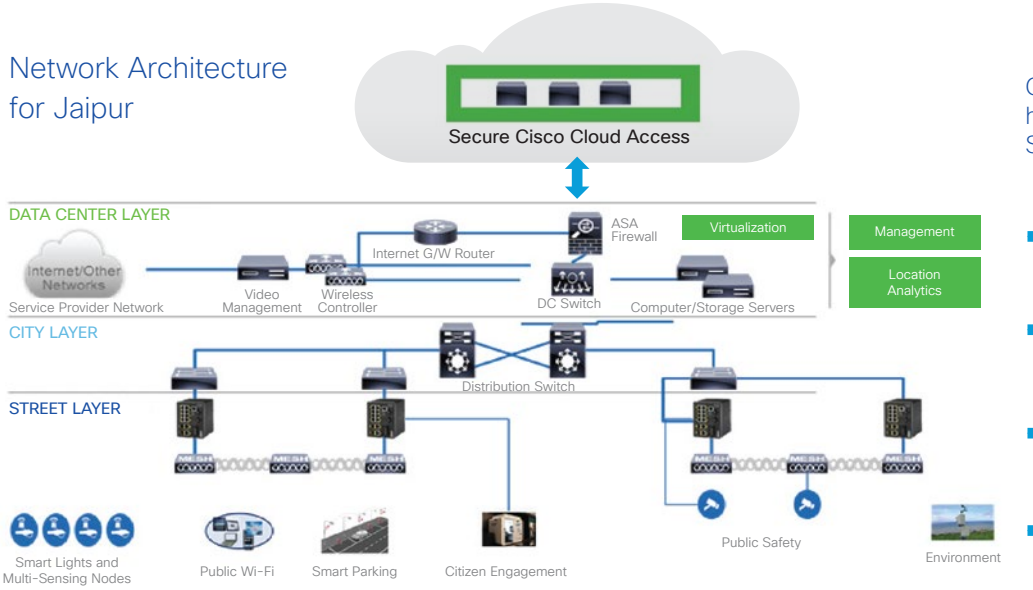
Improved and interactive tourist experience

A robust, fast and secure connectivity infrastructure—newly installed by Cisco—enabled new and more efficient ways of reaching out and interacting with both tourists and visitors alike.

This allowed the use of user-friendly and interactive Information Kiosks—that were supported by mobile apps—installed in major tourist spots like Amer Fort, Hawa Mahal and other high-traffic locations.

These new ways of communication helped visitors navigate the myriad of attractions and activities that Jaipur has to offer efficiently, leading to happier visitors and a more organized tourism experience. This initiative was considered a great success, thanks to the quality of services that were enabled.

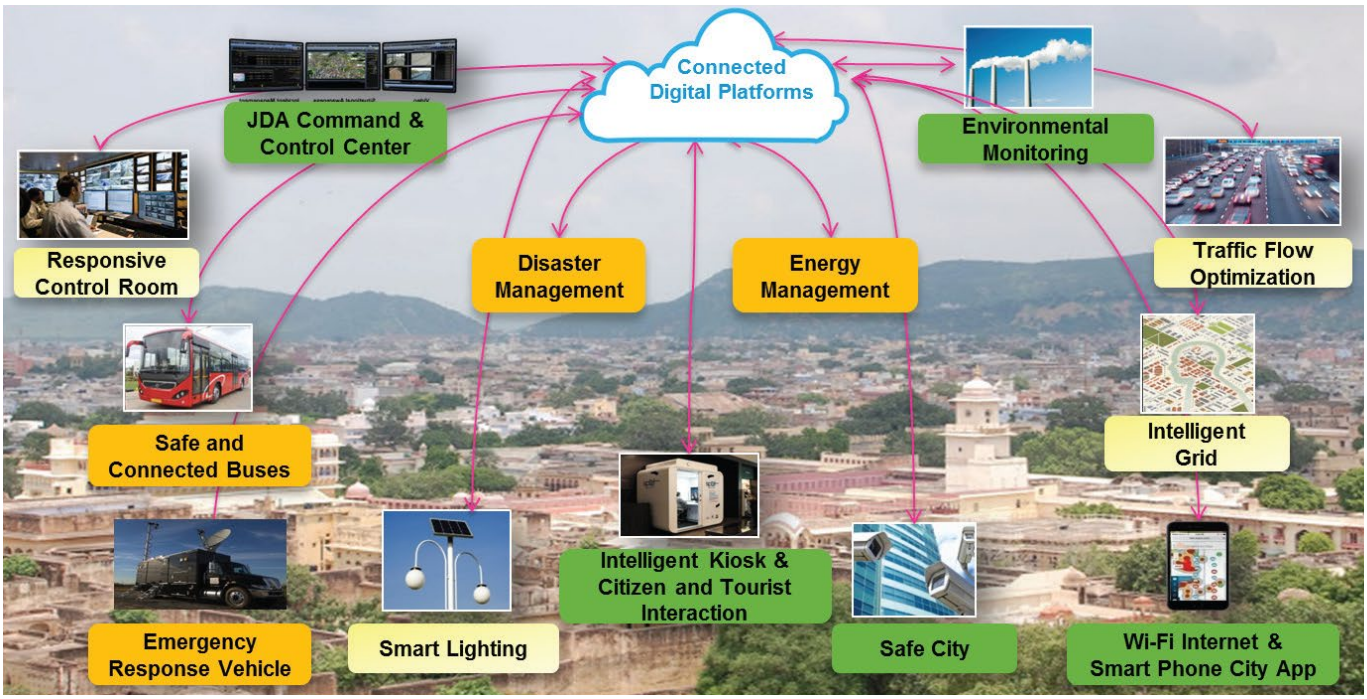
Network Architecture for Jaipur



Connected Digital Platforms hosted on Cisco Cloud Services

- Secure Data Center hosting Network Applications
- Fiber Based City Distribution Network
- Secure, Scalable City IoT Network
- Connected Urban Services

A Vision of Smart City Jaipur



Surveillance for better safety and security

Advanced IP-based Surveillance Solutions installed at key locations closely monitor their respective areas and record incidents that occur throughout the city. It also delivers live video feed to the Jaipur Police control room, leading to faster response times and improved success rates, allowing citizens and tourist alike to feel safer in Jaipur.

Actionable data through smart sensors

Environmental Sensors at key locations that provide air quality status reports in real-time, give Jaipur authorities the necessary data to handle pollution and problems caused by desert conditions when they arise. In the case of city infrastructure, Cisco installed Parking Information, Remote Kiosks and Facility Management Services at select locations helped improve on facilities and parking.

Improved public services and user experience

As a result of Smart Pods installed for the provision of government services, citizens now have highly secured access to customized content and information that doesn't compromise on the personal privacy of its users.

Jaipur: A digital city

The initiatives by the JDA to make Jaipur a smart city received accolades from residents, and are highly appreciated by the millions of tourists who flock to the city. Tourism, security, government services and information are now more faster and "smarter" in the city of Jaipur.

Cisco's technological solutions, strategic support, and trusted partner ecosystems deliver unmatched digital innovation opportunities for government and city organizations. This allows for new revenue streams, improved access to public services, better community experiences, and new operating models that drive efficiency and lower cost.

Cisco brings to Jaipur

- Public Wi-Fi facilities
- Incident management and monitoring use cases
- REGS for application processing , status, submitting proofs for land using the JDA Call center at the back-end
- Environment Sensors for environment health monitoring, this data is displayed to citizens in real-time and used to increase green belt coverage in specific areas
- Smart Lighting on a 2 km stretch with all use cases including automated dimming and illuminance (upon movement)
- Interactive Information Kiosks provide location features, city information and other services like device charging, train schedules, status of reservations, and flight information
- Traffic Nodes for traffic analytics that monitors car and pedestrian traffic conditions that can be used for better traffic planning
- Cisco Project Management Services for Smart City Project Management

Products and Services

Wireless

- Outdoor 1500 Series Access Points
- Indoor 1700 Series Access Points
- WLC 5508 with Wireless IPS & Location Based Services Licenses

Cameras

- HD Bullet IP camera 6400E
- HD PTZ IP camera 6930

Switches and Routers

- Catalyst 3850 core switches
- IE 2000U switches
- 3560CX PoE switches
- ASR 1001-X core internet routers

Data Centre

- UCS C series Rack servers to install Prime NMS & Mobility Service Engine (MSE) applications
- Interactive Experience Manager (IEP) platform
- Software Defined Storage C series for IP Surveillance at JDA's Network Operations Center

Security

- ASA 5555 with Sourcefire IPS capacity

Collaboration

- Business Edition (BE) 6K as
- Centralized IP EPABX servers

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