## *Cisco helps turn Jaipur into a Smart and Safer City*

*Customer Name: Jaipur Development Authority (JDA)*

Industry: Government

Location: India

City, State/Province: Jaipur, Rajasthan

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*"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 Commissioner

Jaipur, the capital city of Rajasthan, has a rich and colorful past dating back to the time it was founded, in 1727. Its cultural heritage and unique sights have made it a popular destination for tourists domestic and international – the "Pink City" attracts over 40 million tourists each year. The city authorities were under pressure, facing an urgent need to improve the quality and efficiency of services provided to both visitors and the city's 3.5 million residents. The Jaipur Development Authority (JDA) came into being with the mandate of providing benefits and improving the life of the citizens of Jaipur.

### Challenge: Improve traveler safety & the tourist experience and the quality of life for residents

With the city emerging as a hub and drawing such large numbers of visitors, the JDA knew it had to up its game. The mandate was twofold – increase quality and level of services and 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.

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

*Simplifying the Tourist Experience:* Jaipur, a city almost 300 years old, is rich with Indian history and culture. As such, generations of infrastructure have built upon each other within the confines of this city. Jaipur's transition into a Digital City includes simplifying the tourist experience. The challenge was to help tourists spend more time learning and seeing the culture and sights, rather than searching for locations within the maze of a city.

*Digital Empowerment for Citizens:* Another aim was to provide quality infrastructure and services to meet the ever-growing population and earn Jaipur a place as a metropolitan digital city. Jaipur was struggling to offer the kind of services to its citizenry that would make it one of the most desirable places to live.

Complete surveillance to improve citizen and tourist safety



Smart surveillance enabling quick response



Easier access to government services and city information

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

So, as part of the journey towards making Jaipur a Digital City, JDA wanted to provide easy access to information, across multiple devices, to the residents and tourists of Jaipur. At the same time, the JDA needed to maintain an eye on cost-effectiveness and manageability.

The JDA wanted to develop Jaipur into a Smart and Secure WiFi City. To do this, they needed to partner with a strong technology-provider who could manage such a large undertaking and provide quality, reliable implementation and solutions.
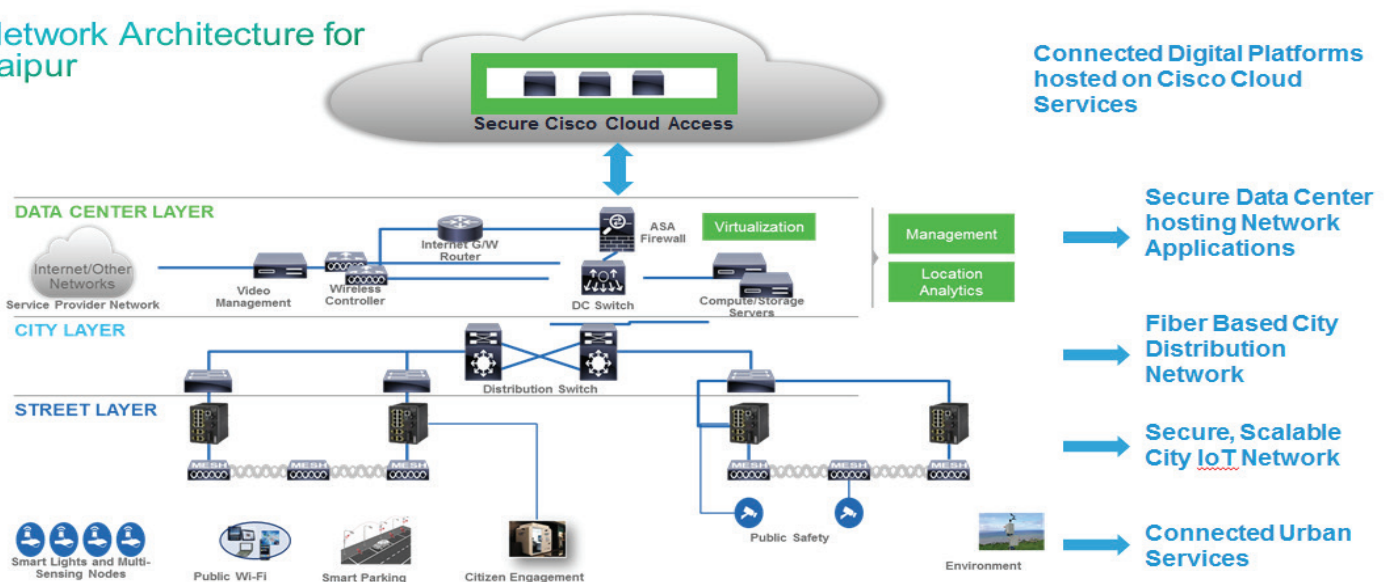
### Solution: Always connected means safe and informed

Cisco helped JDA with their vision to develop Jaipur city into a Smart & Secure Wi-Fi City by implementing the right-fit

solutions and technology. We empower the creation of new digital connections to make cities more desirable places to live with better services and safety, and thriving economies. The foundation for 'Digital Rajasthan' will be intelligent networks which will transform the delivery of citizen services.

Cisco has developed a framework for addressing the challenges that cities are facing and how those challenges are reflected in the milestones along their digital journey. This framework successfully addresses the shared challenges cities face and also preserves a city's uniqueness in how solutions are implemented and supported. Digital transformation when done well will enable government leaders, city administrators, local businesses, and citizens to realize outcomes needed to survive and thrive. Through this approach, we work with various sensor and application partners to provide solutions to cities to improve operations and optimize services delivery to engage citizens and improve quality of life.

## Network Architecture for Jaipur



Secure Cisco Cloud Access

**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**

In the case of Jaipur Development Authority's (JDA) Infrastructure Management Center, nearly all the solutions are integrated into a digital platform. The digital platform built by Cisco can aggregate data from various sensors and solutions conduct data analytics and support a number of urban services.

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

Interactive Information Kiosks were installed at designated locations with high traffic, to provide a quick and user friendly way for tourists to gain information. Having Information Kiosks at hand allows tourists, both domestic and international, to find their way around more easily and efficiently as well as learn about the myriad tourist attractions and activities that Jaipur has to offer.

Cisco also installed IP based Surveillance Solutions at key locations to implement the safety component of the JDA's plan for Jaipur. It was important from a citizen point of view, to have surveillance to help control crime and make the citizens feel safe and secure in their city. For tourists too, especially solo and female travelers, the sense of security could be enhanced, and such an audience could be catered to, by touting Jaipur as a safe city.

Furthermore, we set up Environmental Sensors at key locations to provide air quality status reports in real time. Given the pollution in India, and the specific desert conditions related issues that could arise, this feature means that Jaipur can market itself as a place where environmental and health conditions are important and taken into consideration.

To improve city infrastructure, especially with regard to facilities and parking, Cisco installed Parking Information and Remote Kiosks along with Facility Management Services at select locations of Jaipur city.

Now that JDA has the power of robust, fast and secure hot spot based services in the Pink city, the department has been able to reach out to and interact with both residents and tourists through smart mobile apps. All the major tourist spots like Amer Fort, Hawa Mahal and others have Interactive Kiosks which show the various smart apps and other portals so that tourists can access information and get exploring quickly and efficiently. This has led to happier visitors and a more organized tourism experience. Both in terms of providing information and services, as well as monitoring and crowd control, the initiative has been a great success.

As a result of the installation of Smart Pods for the provision of government services, citizens now have access to customized content and information, and can also be secure in the knowledge that their personal details and privacy are being maintained to a great extent.

The advanced IP cameras that have been installed closely monitor and record various incidents that occur throughout the city. The live feed has been extended to the Jaipur Police control room, helping the administration tackle crimes with a faster response time and improved success rate.
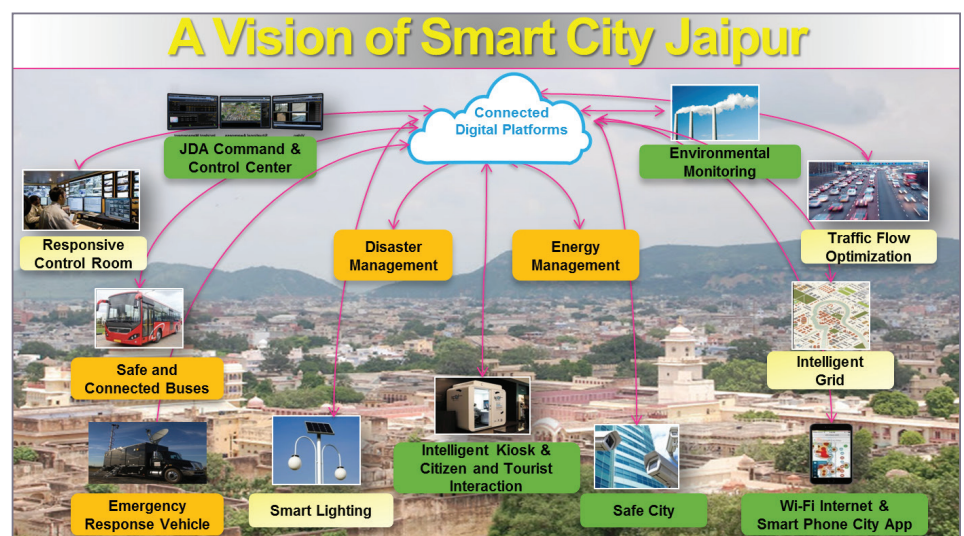
## Jaipur: A digital city

All these initiatives by JDA to make Jaipur a smart city have received accolades from residents and are also highly appreciated by the millions of tourists who flock to the city. Tourism, safety and security, and government services and information are all now better, faster and "smarter" in the city of Jaipur.

Cisco's technology solutions, strategic support, and trusted partner ecosystems deliver unmatched digital innovation opportunities for government and city organizations to create new revenue streams, improve access to public services and better community experiences, and create new operating models to drive both efficiency and cost value.

Cisco brings to Jaipur:
· Public Wi-Fi
· 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



A Vision of Smart City Jaipur

health monitoring, this data is displayed to citizens real-time and also data is being used to increase green belt coverage in areas where the levels are high
· Smart Parking to ease congestion, display information for citizens for available slots
· Smart Lighting on a 2 km stretch with all use cases including real time dimming, increased illuminance on movement
· Information Kiosks which are interactive which not just provide locational features, city information but also interfaces for mobile charging, train schedule, status of reservation, flight timings/delays etc.
· Traffic Nodes for traffic analytics so that cars traffic, pedestrian traffic congestion information can be used for better 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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