



المؤتمر السعودي الأول للمدن الذكية Saudi Smart Cities Conference 2017

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Smart Infrastructure & Networks

What is the role of infrastructure networks in smart cities?

Communications infrastructure in smart cities plays a crucial role. Without communications, there cannot be a smart city. Communications drives every aspect of a smart city, from relaying the position of traffic, to transferring data on air quality, to providing citizens with remote services through apps or their computers. Cities need to view the decision on choice of communications infrastructure as importantly as they do other infrastructure decisions. Mobile networks offer a good choice for cities looking to deploy smart cities services. Mobile networks offer good coverage, excellent performance and local support. Cities using mobile networks do not have to make capital investments into new communications network hardware, they can rely on the data security built into

the network, and devices are available from a huge range of manufacturers across the smart city. New Mobile IoT (LPWA) networks from mobile operators are designed specifically to connect IoT enabled smart city devices such as streetlights, utility meters and street side sensors. They offer a low cost route to deployment of smart cities. These networks are designed to be secure, have advanced power management features and operate in licensed spectrum, meaning that security and bandwidth is assured, whilst risk of interference is removed. Communications infrastructure networks allow the city to create the city of the future. By ensuring that networks are able to meet future demands placed on them, mobile networks offer a flexible, secure and proven route to building out smart cities infrastructure and services.

What are the key parameters to be considered before selecting/deploying infrastructure networks for smart city projects?

A city should look at several key parameters before deciding which communications network is best for enabling smart city services.

- Bandwidth: Does the network support the anticipated amount of data to be generated by the smart city services. Can the data be delivered in a timely manner?
- Security: Is the smart city data transmitted and stored securely?
- Scalability: Can the communications infrastructure support the volume of connections needed in a smart city without issue?
- Coverage: How much of the city does the communications infrastructure already cover? What areas does it need to cover? Is connectivity indoors as important as connectivity outdoors?
- Affordability: Does the communications infrastructure require up-front investment, or does it already cover the city? What is the cost and range of devices that will work on the network?
- Quality of Service: How reliable is the communications network? Does the network provider offer local support services?
- Ecosystem partners.
- What partners support the communications infrastructure in terms of providing hardware, devices and associated services? What reach do these partners have?

Dr. Ammar will be speaking at the Saudi Smart Cities Conference on Smart Infrastructure & Networks. To know more visit www.saudismartcities.net

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