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Smart Cities – Embracing a Connected Future

Cities across the United States are embracing new connected technologies in their quest to become smart cities. Applying modern solutions to local challenges can result in an improved urban experience for all residents.

But deploying advanced technology isn't easy. Local officials must think big as they will play an important role in ensuring that the right infrastructure is in place to power smart cities.

Modern communications networks are needed to support the incredible consumer demand for data driven services. Applications and services from the Internet of Things, the influx of autonomous vehicles, industrial and agricultural applications, smart meters, and sensors on traffic lights, kiosks and trash cans will bring amazing benefits and efficiency – but will also place incredible demands on today's networks. That's why it's so important for city officials to encourage the deployment of next generation networks.

Over the past 30 years, generational advancements in network technology took us from basic voice calls to high-speed broadband and today's 4G (or fourth generation) wireless networks. Companies are already deploying next generation networks that will enable 5G (or fifth generation) wireless, which promises more capacity, incredible speed and almost instantaneous response times.

5G depends on the deployment of small cells, which are small mobile antennas with little visual impact that are installed on utility poles, buildings, lampposts and other street-level objects. Densifying wireless networks with small cells is important to offload existing network congestion and free up the ability to provide strong wireless coverage in every corner of the community.

Taking Action

So what can local officials and policymakers do to ensure that their communities become smart cities and benefit fully from the promise of next generation mobile activity?

Be proactive.

Modernize local rules and create a regulatory and legal environment that incents the deployment of new 5G network infrastructure and small cells.

Streamline the permitting process and provide timely and cost-efficient access to rights of way, public facilities and utility poles.

Digi.City created the ***Next Generation Networks Checklist*** with this challenge in mind. The checklist is a guide for state and local officials to evaluate their readiness and design policies to encourage deployment of next generation networks.

Visit www.Digi.City for more information on smart cities and the policies that enable innovation.

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The Next Generation Networks Checklist

☐ Provide access to public rights-of-way and other public property on reasonable terms.

☐ Authorize mobile providers to access public rights-of-way and other public property to install mobile equipment, such as small cells, antennas, and other network facilities under predictable, reasonable, and efficient terms. Many states do not expressly authorize wireless carriers to access the public rights of way. Doing so in the case of next generation mobile, where the equipment does not pose the same aesthetic concerns as traditional large cell towers, would help expedite deployment.

Simplify zoning and permitting processes.

☐ Classify small cell wireless facilities, including fiber, as "permitted uses" not requiring zoning approval. Requirements for zoning approval of wireless facilities are often based on large cell tower equipment, which poses aesthetic and other concerns. Since small cell equipment does not pose those same concerns, it should be outside of the zoning process.

☐ Issue construction permits on a geographic basis, rather than one per facility, to reflect the small-scale nature of the infrastructure and the need to build-out several antennas to cover one area.

☐ Issue construction permits for longer durations so that builders do not have to race the clock or re-apply for permits.

☐ To reduce uncertainty and delay, eliminate moratoriums on applications, which suspend applications for indeterminate periods of time.

☐ Process permit applications on a nondiscriminatory basis, and within 60 days, subject to permissible tolling for requests for information. Defined timelines will ensure that the permitting process keeps moving forward without unnecessary delay. To ensure that the threat of rejection does not stall applications, all applications not processed within 60 days are automatically deemed granted.

☐ Limit information requests to information related to the mobile infrastructure build to keep the application process moving at an efficient pace.

☐ Permit denial of an application only in the event that it does not meet applicable building, electric, or other similar standards. Require jurisdictions to provide an explanation of the denial, and give applicants a chance to repair the defect without starting the applications process over.

Charge reasonable and uniform rates for rights-of-way access and all attachments.

☐ End the practice of multiple charges to access the public space for the same equipment; e.g., right-of-way access fees in addition to pole attachment fees.

☐ Charge fair and reasonable rates for attachments to municipal poles, assessed on a competitively and nondiscriminatory basis that considers the small space that small cell equipment occupies on the pole.

☐ Calibrate utility-owned pole attachment fees to the FCC or state-regulated pole attachment rate.

☐ For attachment to public buildings outside of the public rights of way, fees should be reasonable and assessed on a competitive and non-discriminatory basis, or based on the costs to the authority resulting from hosting the equipment.

☐ Prohibit charges outside of the applications, permitting, or permitting process. This includes "in kind' payments.