



Is Your City Ready for the Next Generation of Mobile?



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Mobile carriers and technology companies have begun testing next-generation wireless networks – and deploying the infrastructure to support them – that will revolutionize the wireless industry and transform communities. But deploying new networks isn't easy, and cities and towns have an important role to play in determining how quickly their residents receive all the benefits that next generation wireless networks have to offer.



I. The Evolution of Wireless Telephone Technology

Nearly 30 years ago, the first wireless network was introduced in the U.S., enabling voice communication by cellular telephone. A decade later, the commercial launch of second-generation (2G) wireless networks occurred, allowing for both digitally encrypted voice calls and text messages. In subsequent years, as wireless network technologies advanced, internet access became available (3G) followed by high-speed broadband that enabled faster downloads and today's video capabilities (4G).

Today, the stage is set for the most significant advancement to date in wireless mobile communications.

II. What is the Next Generation of Mobile?

Next generation wireless networks improve on today's wireless broadband networks in three key ways: more capacity, higher speeds, and almost instantaneous response times. Higher capacity will not only ensure that networks can handle increased amounts of data like highly popular streaming video, but also enable networks to handle exponentially more devices. That's important in order to accommodate the explosion of devices that will be collecting and exchanging data as the Internet of Things develops – cars, traffic lights, kiosks, watches, packages, trash cans, smart meters, medical components, home appliances, industrial machines, and other remote sensors installed in various devices, vehicles and buildings.

Next generation networks offer tremendous potential for cities and communities, and their residents. Building the technology will create jobs, as the new network technology is locally deployed by skilled technicians. Beyond that, next generation networks will enable technology that enhances the lives of residents, such as connected mobile healthcare applications, the Internet of Things, energy solutions like connected grid, and smart city technology. These advancements will create healthier, safer, and cleaner cities, reduce traffic congestion, and attract business that require ultra-fast and reliable network connections.

What does it take to bring all of those benefits to consumers? Three core elements: more spectrum, a network of new small cell antennas, and access to fiber broadband connections.



III. The Next Generation Starts Now

Because of how critical mobile networks are to the future economic and social success of your city, it's important that the foundation be laid now for tomorrow's cutting edge technology. It's time to think differently and make it easier for providers to bring new technologies to your community. By modernizing existing permitting processes to reflect the petite profile and unobtrusive nature of small cells, state and local officials can create innovation hubs that will draw new talent into their communities.

So what can elected officials do to help elevate their communities to the next generation of mobile connectivity? It starts with modernizing rules and creating a policy framework that allows for timely and cost-efficient access to rights-of-way, public facilities, and utility poles that will help facilitate the deployment of modern network infrastructure in your city. Further, small cell wireless facilities, which do not pose the aesthetic and space concerns of large cell towers, should be subject to different, streamlined evaluation processes. Cities can help manage deployment costs by ensuring that fees charged to providers for things such as right-of-way access, pole attachments, and permitting are reasonable, uniform regardless of the provider, and in line with fees charged for other, comparable facilities. A collaborative approach with providers, rather than an adversarial relationship, will be mutually beneficial to your city and the mobile provider, and most importantly, will best position your city for an exciting mobile future.

Permitting requirements vary in every jurisdiction. State and local policymakers can use the following "Next Generation Checklist" to help guide an evaluation of their siting policies and direct their thinking on ways than can improve it to make their cities more attractive candidates for investment in next generation infrastructure.

The Next Generation Check List

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 sometimes 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 and is not pinned down by unnecessary delay. In order to ensure that applications are not otherwise stalled by threat of rejections, all applications not processed within 60 days are automatically deemed granted.
- Limit information requests to information that is related to the mobile infrastructure build so as 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 kept reasonable and assessed on a competitive and non-discriminatory basis, or based on the costs to the authority resulting from hosting the equipment.
- Charges outside of the applications, permitting, or permitting process should be disallowed. This includes “in kind” payments.

The Next Generation Of Mobile Is Coming.