COUNCIL COMMITTEE OF THE WHOLE
AGENDA

OCTOBER 23, 2018 - 6:00 P.M.

CITY HALL COUNCIL CHAMBERS
15 LOOCKERMAN PLAZA, DOVER, DELAWARE

PUBLIC COMMENTS ARE WELCOMED ON ANY ITEM AND WILL BE PERMITTED AT APPROPRIATE TIMES. WHEN POSSIBLE, PLEASE NOTIFY THE CITY CLERK (736-7008 OR E-MAIL AT CITYCLERK@DOVER.DE.US) SHOULD YOU WISH TO BE RECOGNIZED.

SAFETY ADVISORY AND TRANSPORTATION COMMITTEE

AGENDA ADDITIONS/DELETIONS

1. **AMBULANCE SERVICES - REQUESTED LEVEL OF SERVICE**
   (STAFF RECOMMENDS ESTABLISHING THE LEVEL OF EMERGENCY MEDICAL SERVICES (EMS) DESIRED BY THE COMMITTEE AND RECOMMENDING THE SAME TO CITY COUNCIL FOR INCLUSION IN AN ADDENDUM TO THE ORIGINAL RFP #19-0001CM)

2. **PROPOSED ORDINANCE #2018-12 AMENDING CHAPTER 70 - OFFENSES AND MISCELLANEOUS PROVISIONS, SECTION - 70-5 AGGRESSIVE PANHANDLING AND APPENDIX F - FEES AND FINES (SPONSORS: HARE AND POLCE)**

3. **ADJOURNMENT OF SAFETY ADVISORY AND TRANSPORTATION COMMITTEE MEETING**

UTILITY COMMITTEE

AGENDA ADDITIONS/DELETIONS

1. **SMALL CELL WIRELESS ACTION PLAN** (COMMITTEE ACTION NOT REQUIRED)

2. **ADJOURNMENT OF UTILITY COMMITTEE MEETING**

ADJOURNMENT OF COUNCIL COMMITTEE OF THE WHOLE MEETING

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THE AGENDA ITEMS AS LISTED MAY NOT BE CONSIDERED IN SEQUENCE. PURSUANT TO 29 DEL. C. §10004(E)(2), THIS AGENDA IS SUBJECT TO CHANGE TO INCLUDE THE ADDITION OR THE DELETION OF ITEMS, INCLUDING EXECUTIVE SESSIONS, WHICH ARISE AT THE TIME OF THE MEETING.

ACTION FORM

PROCEEDING: Council Committee of the Whole – Safety, Advisory, & Transportation	
DEPARTMENT OF ORIGIN: City Manager's Office	**DATE SUBMITTED**: 10-16-18
PREPARED BY: Donna Mitchell, City Manager	
SUBJECT: Ambulance Services – Requested Level of Service	
REFERENCE: RFP Number #19-0001CM	
EXPENDITURE REQUIRED:	**ANNUAL BUDGET:** FY19 $245,000
FUNDING SOURCE (Dept./Page in CIP & Budget): FY19 Budget	
TIME TABLE: Effective April 1, 2019	
RECOMMENDED ACTION: Establish level of EMS Service desired by the Committee and recommend the same to City Council for inclusion in an addendum to the original RFP #19-0001CM.	

BACKGROUND AND ANALYSIS

The Ambulance Service RFP #19-0001CM recommendation was presented to CCW – Safety Advisory and Transportation Committee on August 28, 2018. During its meeting of the Committee discussed the level of service for Ambulance Services since two of the proposals submitted included a higher level of service than was requested in the Request for Proposal (RFP). No action was taken by the Committee on this item.

At its meeting of September 10, 2018, City Council continued the ambulance level of service discussion. Council referred this matter back to the CCW- Safety Advisory and Transportation Committee with instructions to staff to determine how best to request revised responses from each of the respondents which address both the one (1) and two (2) EMT crew options and come back with revised responses from each of the respondents.

Staff recommends that an addendum be added to the Request for Proposal for an Alternate Service level as desired by the Committee and Council. The original proposals cannot be adjusted from their original form except for the Addendum response and pricing of both levels of service (A & B). The current level of service as budgeted is as follows –

RFP Requested Level of Service (A)	Desired Level of Service (B)
First unit 24 hours, 7 days per week	
Second unit 16 hours, 7 a.m. to 11 p.m.	
Staffing – 1 EMT 1 EMR with EVOC	

Since the time of the above discussion, the Dover Fire Department voted not to permit any use of their facilities for Ambulance Services. Staff is agreeable to accept a change in the Saint Francis proposal for a mutually agreed to location provision that was included in the Request for Proposal. The City will also be including a contract re-opener provision to partner with the vendor when bidding on other services in Dover's EMS territory. The contract start date will be April 1, 2019.

CITY OF DOVER PROPOSED ORDINANCE #2018-12

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF DOVER, IN COUNCIL MET:

That Chapter 70 - Offenses and Miscellaneous Provisions, Section 70-5 - Aggressive panhandling of the Dover Code be amended by deleting the text indicated in red strikeout and inserting the bold, blue text, as follows:

Sec. 70-5. - ~~**Aggressive panhandling**~~ **Panhandling and false or misleading solicitation**.

(a) *Definitions.* The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

Accosting means approaching or speaking to someone in such a manner as would cause a reasonable person to fear imminent bodily harm or the commission of a criminal act upon his person, or upon property in his immediate possession.

Alms **means money, food, or other donations given to the poor or needy; anything given as charity.**

Ask, beg, ***panhandle,*** *request* and *solicit* mean and include, without limitation, the spoken, written or printed word or such other acts as are conducted in furtherance of the purpose of obtaining alms.

Forcing oneself upon the company of another means continuing to request, beg or solicit alms from a person after that person has made a negative response, blocking the passage of the individual addressed or otherwise engaging in conduct that could reasonably be construed as intended to compel or force a person to accede to demands.

(b) ***Time of panhandling*****. Any person who panhandles after sunset or before sunrise is guilty of a violation of this section of the city Code.** ~~***Solicitation of money and other things of value.*** **It shall be unlawful for any person to solicit money or other things of value:**~~

~~**(1) On private property if the owner, tenant or lawful occupant has asked the person not to solicit on the property, or has posted a sign clearly indicating that solicitations are not welcome on the property;**~~

~~**(2) Within 15 feet of the entrance to or exit from any public toilet facility;**~~

~~**(3) Within 15 feet of an automated teller machine, provided that when an automated teller machine is located within an automated teller machine facility, such distance shall be measured from the entrance or exit of the automated teller machine facility;**~~

~~**(4) Within 15 feet of any pay telephone, provided that when a pay telephone is located within a telephone booth or other facility, such distance shall be measured from the entrance or exit of the telephone booth or facility;**~~

~~**(5) In any public transportation vehicle, or in any bus or subway station, or within 15 feet of**~~

~~any bus stop or taxistand;~~

~~(6) From any operator of a motor vehicle that is in traffic on a public street; provided, however, that this subsection shall not apply to services rendered in connection with emergency repairs requested by the owner or passengers of such vehicle;~~

~~(7) From any person who is waiting in line for entry to any building, public or private, including, but not limited to, any residence, business or athletic facility;~~

~~(8) Within 15 feet of the entrance to or exit from a building, public or private, including, but not limited to, any residence, business or athletic facility;~~

~~(9) By accosting another; or~~

~~(10) By forcing oneself upon the company of another.~~

(c) *Place of panhandling*. Any person who panhandles when the person solicited is in any of the following places is guilty of a violation of this article:

(1) At any bus stop or train stop;
(2) In any public transportation vehicle or facility;
(3) In any vehicle on any city street; or
(4) On private property, unless the panhandler has permission from the owner or the occupant.

(d) *Manner of panhandling*. Any person who panhandles in any of the following manners is guilty of a violation of this article:

(1) By coming within three feet of the person solicited until that person has indicated that he or she does wish to make a donation;
(2) By blocking the path of the person soliciting along a sidewalk or street;
(3) By following a person who walks away from the panhandler;
(4) By using profane or abusive language, either during the solicitation or following a refusal;
(5) By panhandling in a group of two or more persons; or
(6) By any statement, gesture, or other communication which a reasonable person in the situation of the person solicited would perceive to be a threat.

(e) *False or misleading solicitation*. Any person who knowingly makes any false or misleading representation in the course of soliciting a donation is guilty of a violation of this article. False or misleading representations include, but are not limited to, the following:

(1) Stating that the donation is needed to meet a specific need, when the solicitor already has sufficient funds to meet that need and does not disclose that fact;
(2) Stating that the donation is needed to meet a need which does not exist;
(3) Stating that the solicitor is from out of town and stranded, when that is not true;
(4) Wearing a military uniform or other indication of military service, when the solicitor is neither a present nor former member of the service indicated;
(5) Wearing or displaying an indication of physical disability, when the solicitor does not

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suffer the disability indicated;

(6) Use of any make-up or device to simulate any deformity; or

(7) Stating that the solicitor is homeless, when he is not.

(f) ***Permit requirement.***

(1) No person shall panhandle on five or more days in a single calendar year without a permit issued by the police department. A person who has been issued a permit shall keep it on his or her person at all times while panhandling and show it to any police officer upon request. No person whose permit has been revoked shall panhandle for a period of two years following the revocation. Any person who violates this subsection is guilty of a violation of this article.

(2) The police department shall issue the permit for a fee, as provided for in Appendix F - Fees and Fines, to any eligible person who presents himself at the police station, states his true name, presents a photo identification or signs a declaration under penalty of perjury that he has no such identification, and permits himself to be photographed and fingerprinted.

(3) A person is ineligible for a permit if and only if within the past five years he (1) has been convicted of two or more violations of this article, (2) has had a permit revoked pursuant to subsections (5) or (6) of this section, or (3) has been convicted of two or more offenses under the law of any jurisdiction which involve aggressive or intimidating behavior while panhandling or false or misleading representations while panhandling.

(4) If the police department is unable to determine eligibility within 24 hours of the application, the department shall issue a permit good for 30 days and determine eligibility for a regular permit before the temporary permit expires. The regular permit shall expire one year from the date of issuance. Along with the permit, the police department shall give the applicant a copy of this section.

(5) Any person who makes any false or misleading representation while apply for a period under this section is guilty of a violation of this article. Upon conviction of violation of this subsection, the police department shall revoke any permit issued to the subject defendant under this section.

(6) If a permit is issued to a person under this section and that person subsequently commits and is convicted of a violation of any provision of this article, the police department shall revoke the permit.

(g) Violations; penalties.

Each section of this article is distinct and any violation of any section is a separate violation of this article. A conviction of a violation of any section of this article shall be punishable by a fine in accordance with Appendix F - Fees and Fines.

(Code 1981, § 14-13; Ord. of 9-8-2003)

BE IT FURTHER ORDAINED:

That Appendix F - Fees and Fines of the Dover Code be amended by inserting the text indicated in bold, blue font, as follows:

Chapter 70. - Offenses and Miscellaneous Provisions

Chapter 70. Offenses and Miscellaneous Provisions	**Fees and Fines**
Sec. 70-1. Combative fighting	
Subsec. (d)(1) Violations; penalties, fines	Not to exceed $1,000.00. Separate fines may be issued to the promoter of such an event, participants in such an event, and the owner of the premises of such an event
Sec. 70-2. Weapons generally	
Subsec. (e)(1) Penalties; fines	Not less than $500.00, nor more than $1,000.00
Sec. 70-5. Panhandling and fraudulent solicitation	
Subsec. (f)(2) Permit; fee	$250.00
Subsec. (g) Violations; penalties	Not to exceed $500.00
Sec. 70-7. Registered sexual offenders	
Subsec. (f) Penalties	$500.00 for any offense; each day shall constitute a separate offense
S~~ubs~~ec. 70-8. Disorderly premises	Not to exceed $1,000.00 for any offense.

ADOPTED: *

S:\ORDINANCES\2018\DRAFT\ORDINANCE #2018-12 CH 70-OFFENSES, SEC 70-5 AGGRESSIVE PANHANDLING\ORDINANCE #2018-12 Ch 70-Offenses and Misc, Sec. 70-5 Panhandling.wpd

SYNOPSIS

The amendment expands upon the existing section to include "false or misleading solicitation", prohibits panhandling between sunset and sunrise under any circumstances, prohibits panhandling in certain places and situations, requires a permit, and adds a fine for violations.

(SPONSORS: HARE AND POLCE)

Actions History

10/23/2018 - Scheduled for Introduction - Council Committee of the Whole/Safety Advisory and Transportation Committee

City of Dover
Electric Department

Small Cell Wireless Action Plan

Presentation to the Utility Committee

October 23, 2018

Overview

- The wireless technology environment is evolving at an ever-increasing pace driven by the Internet of Things (IoT)

- The pending roll out of 5G internet service is forcing cities to address the deployment of more wireless facilities and infrastructure

- Cities must face a number of policy, public safety, land-use and right-of way considerations

- The Federal Communications Commission (FCC) and many states, including Delaware, have established rules designed to facilitate installation of “small cell wireless” devices a/k/a Wireless Communications Facilities (WCF)

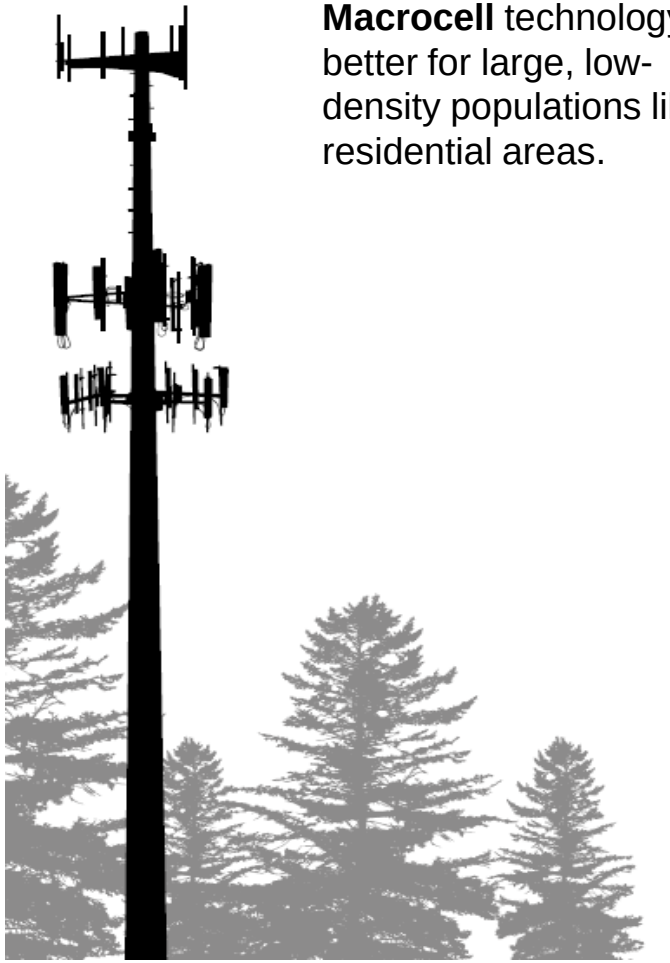
Why are we doing this now?

- The FCC and State of Delaware have set out rules and criteria that set tight application approval timelines and severely constrain local control

- It is in Dover's best interest to implement a process that meets Federal and State requirements and facilitates small cell wireless buildout that could enhance economic development objectives

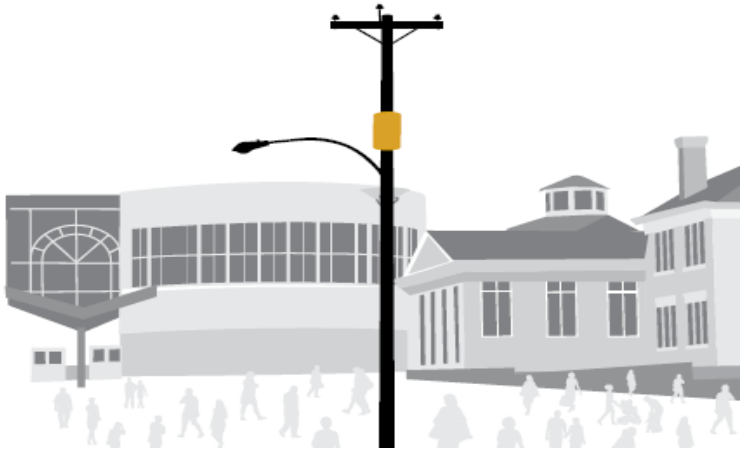
- An key objective is to have these devices installed on existing poles of the Electric Department

Macro vs Small Cell



Macrocell technology is better for large, low-density populations like residential areas.

Small cells are good for small, dense population areas with high capacity needs.



Examples of Small Cell Devices





Federal Rules

1. Creates two approval “shot clocks” for local governments:
   - 60 days to complete review of application for co-located small cells
   - 90 days for small cells on new structures

   Shot clock begins upon submission of an application, regardless of completion

2. Establishes definitions of two key terms:
   - Small wireless facilities
     - including an antenna of no more than 6 cubic feet;
     - equipment totaling no more than 28 cubic feet; and
     - placed on a structure that is either no more than 50 feet in height, no more than 10 percent taller than adjacent structures, or no more than 10 percent taller than the structure's preexisting height after the new antenna is placed.
   - Co-location: defined as placing an antenna on any existing structure, regardless of whether that structure already has wireless equipment on it, or whether it has been zoned for placing that equipment.

Federal Rules – cont.

3. Limits application fees for all small wireless facilities:
   - $500 for up to five sites, and
   - $100 per site for each site thereafter

4. Limits recurring fees
   - Sets “presumptively reasonable” fee of $270 per site per year ($22.50/month) unless higher actual costs can be justified
   - Electric usage will be added

5. Limits allowable local aesthetic requirements, including minimum spacing requirements, to those that are "(1) reasonable, (2) no more burdensome than those applied to other types of infrastructure deployments, and (3) published in advance."

State Rules

1. House Bill 189, enacted August 2017

2. Applies to small wireless facilities on the State's rights-of-way

3. Applications shall be deemed approved if the Department (DelDOT) fails to approve or deny it within 60 days

4. Application fee not to exceed $100

Relevance to Dover? The Electric Department has facilities (poles) in place in State ROW.

Action Plan

1. Adopt relevant changes to the City's Zoning Code
   - Legal guidance is that provisions should reside the zoning code per the authority established by the Telecommunications Act of 1996

2. Modify the Electric Department's Pole Attachment Fee Ordinance

3. Draft a Small Cell Master License Agreement

4. Draft a Right-of-Way Use Agreement

Next Steps

1. Prepare necessary changes / new provisions and agreements

2. Meet with key stakeholders:
   - DelDOT
   - Wireless providers (Verizon, AT&T, etc.)
   - Wireless contractors (e.g. Mobilitie, Crown Castle, ATC, NewPath)

3. Present to City Council, Utility Committee, Planning Commission for review and approval

- Strive to have in place early in the new year (January – February)

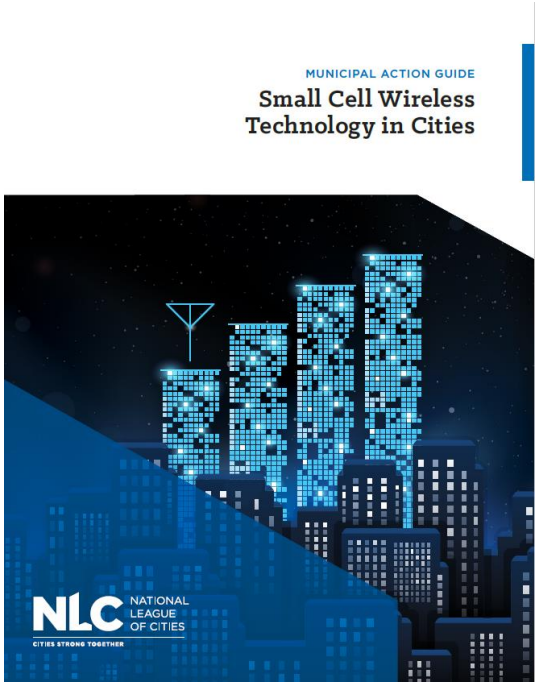
- An applicant is looking to have equipment operational by Memorial Day 2019

Other considerations

- Implementation by DelDOT
- Clarification of roles and authority of Electric Department outside City limits
- Interaction with other municipalities and Kent County served by the Electric Department
- Application “pancaking” concerns

Helpful resource

- National League of Cities – Municipal Action Guide



MUNICIPAL ACTION GUIDE

Small Cell Wireless Technology in Cities



NLC NATIONAL LEAGUE OF CITIES

CITIES STRONG TOGETHER

Introduction

From our connected homes, where everything is controlled by the internet, to our workplaces, where reliable broadband access is paramount for almost every type of job, technology is impacting every facet of our daily lives. Cities are inextricably linked to the internet, and the integration of new technologies promises better and more innovative ways to serve our residents.

With this seismic shift toward smart cities and the internet of things (IoT), reliance on wireless and wireline broadband infrastructure is becoming greater and greater. Mobile phones, IoT devices and other small wireless gadgets are becoming ubiquitous. Wireless data consumption has reached approximately 1.8 exabytes per month in North America alone, and that number is projected to grow six-fold by 2022.[2] As various wireless providers maintain that the roll out of 5G internet service is approaching, and the IoT proliferates with the connection of millions of new smart devices to the internet, cities must face the reality that to meet the increasing demands of residents, more wireless facilities and infrastructure must be deployed. With that reality, city officials must also face a number of policy, public safety, land-use and right-of-way considerations.

As cities navigate this rapidly-changing policy issue with both wireless and infrastructure providers and community residents, a number of considerations for the different stakeholders begin to emerge. This action guide from the National League of Cities (NLC) provides an overview of small cell technology, as well as guidance on how local governments can plan for, develop policy and processes around, and manage the deployment of, small cell wireless infrastructure. It will also provide city leaders with strategies for proactively engaging with wireless providers and residents to plan for small cell networks in their communities.

The Internet of Things in Connected Cities

Every consumer product and piece of infrastructure increasingly has the ability to sense surrounding stimuli, to communicate with other devices and people, and to draw on the computing and storage power of the cloud. This phenomenon has been dubbed the internet of things (IoT). The more smart devices and sharing platforms there are, the more data is generated about consumer preferences and habits. But what does this mean for cities? Smart cities are employing the same technology to connect their disparate utility, infrastructure and public service grids, generating real-time aggregate data. This, in turn, can help cities manage their programs and services more effectively and gauge their impact for residents, businesses and visitors immediately. The city of the future is an interconnected one, where devices communicate with one another in a constant stream of data that provides real-time information to the public and to the municipality.[3]





A small cell pole in the median of the Las Vegas Strip. (Photograph by SmartWorks Partners)

What is a 'Smart City'?

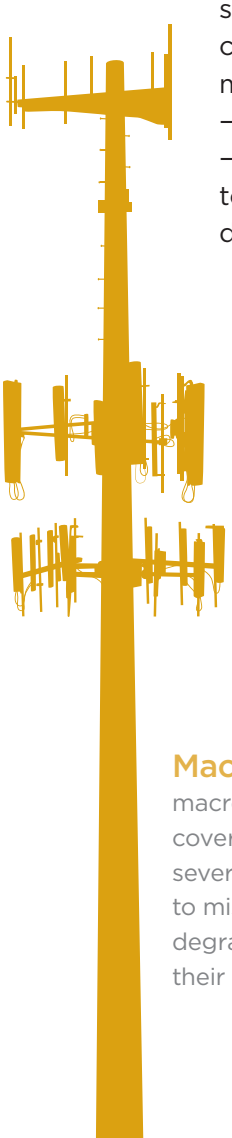
The term 'smart city' sometimes seems to mean everything and nothing all at once, and a common question about the phenomena is some variation on, "what is a smart city?". A smart city is a city that has developed technological infrastructure that enables it to collect, aggregate and analyze real-time data and has made a concerted effort to use that data to improve the lives of its residents and the economic viability of the community. Smart city initiatives often involve four components: the underlying communications infrastructure, information and communication technologies (ICTs) that generate and aggregate data; analytical tools which convert that data into usable information; and organizational structures that encourage collaboration, innovation and the application of that information to solve public problems.[1] Examples include water or utility monitoring devices that promote efficient or sustainable usage, smart streetlights that double as gunshot spotters and communicate with city administrators when they need maintenance, and traffic control and management systems that streamline traffic bottlenecks and report congestion and traffic data to city transportation planners.

Small Cell Technology

What is small cell technology?

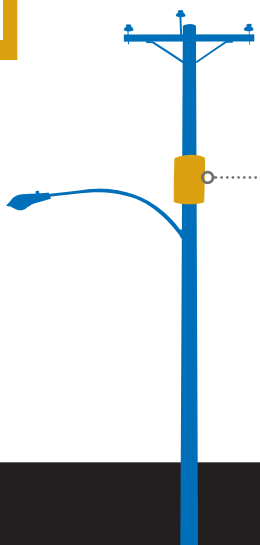
As wireless data usage continues to escalate, providers must find new and innovative ways to keep up with consumer demand for more speed and data capacity. One way to address the capacity crunch is by deploying "small cells," a type of wireless technology for broadband infrastructure. Various federal, state and local laws define small cell differently. Generally, "small cell" refers to both the smaller coverage area of the wireless signal, and the smaller size of the infrastructure. Small cell installations generally cover much smaller geographic areas — measured in hundreds of feet — than the traditional macrocell towers that can cover miles in each direction. The antennas are much smaller than those deployed at macrocell sites, and are often attached to buildings, rooftops and structures in public rights-of-way (ROW), including utility and light poles and other street furniture.[4] Pole- or ground-mounted equipment accompanying the antenna may also be needed and can be as big as a large refrigerator. This equipment may be in the ROW, or on other public or private property.

These facilities help to complement or stretch macrocell coverage and add capacity in high demand areas.[5] Small cell infrastructure is typically deployed to alleviate capacity constraints where crowds gather or to cover targeted areas, including public squares and spaces, downtown pedestrian areas, parks, office buildings, campuses, or stadiums and arenas.



Macrocell vs. Small Cell:
Although they serve different purposes, macrocell and small cell technologies complement each other.

Macrocell: Traditional macrocell towers have a coverage area that spans several miles. They're hard to miss, although their signal degrades towards the edge of their coverage areas.



Small Cell: Small cell technology is much more discreet, mounted on existing structures like rooftops and utility poles. Sometimes, they are accompanied by refrigerator-sized equipment. Because small cells only supply a few hundred feet of coverage, they are best suited for dense areas like downtowns.

What are some of the benefits to cities?

With the increasing usage of wireless devices and data, cities are facing increased demand for reliable wireless service. Small cell facilities can be used to increase the mobile broadband network capacity in cities. This improved service and capacity has many advantages, including economic competitiveness, a "tech friendly" reputation, and more opportunities to deploy smart city and IoT applications. Given that up to 80% of today's 911 calls are placed via wireless phones, robust wireless networks are also critical to public safety.[6]

What are some of the risks to cities?

Often, wireless providers will want small cells deployed in dense urban areas to provide adequate capacity in high demand spots, and each provider will want its own facility installed to cover the same dense area. Thus, there may be several requests to locate such facilities in the same general areas, such that four polls in a row will have small cells from four different wireless companies. This can result in clusters of small cells that are visually unappealing and detract from the aesthetic of the community. Deployment and installation of small cell facilities can potentially interfere with existing technology, such as wireless traffic signals and other municipal technology in close proximity. There is also the risk of ground mounted equipment associated with some small cell facilities obstructing a crowded city's rights-of-way. In addition, recent state and federal efforts to speed the deployment of small cell facilities have focused on preempting local authority to review and control small cell deployments, or to collect fair rents for the use of public property.

What federal and state policies apply to municipal siting processes?

The siting of wireless infrastructure is governed by local, state and federal law. Most wireless infrastructure siting is governed by the applicable government entity with control over the facility's property or location, and there may also be state and/or federal laws that apply to local determination. Local governments assess applications for permits to build new or alter existing wireless facilities for a variety of purposes, including public safety, overall management of public property or rights-of-way, accessibility requirements, environmental issues, land use and community aesthetics. Local governments may charge wireless service providers or wireless facility providers for application processing, access to the rights-of-way, and/or ongoing fees for access to public property — such as municipal street lights or traffic lights — either pursuant to local codes, as part of a large master lease or license agreements with a provider, or on an application-by-application basis.

Federal oversight of wireless siting is primarily based on three federal laws: The Communications Act of 1934, the Telecommunications Act of 1996 (Telecommunications Act) and a provision of the Middle-Class Tax Relief and Job Creation Act of 2012 (Spectrum Act).

These laws contain provisions intended to spur the development of wireless infrastructure and impose some limits on local authority over that infrastructure. The Telecommunications Act, for instance, makes it unlawful for local government to prohibit, or have the effect of prohibiting, the "provision of personal wireless service," prevents local government from "unreasonably discriminating among providers of functionally equivalent services," and requires that local government "act on any authorization to place, construct, or modify personal wireless service facilities within a reasonable period of time." It also stipulates that local governments denying siting applications do so "in writing and supported by substantial evidence contained in a written record."[7] The Federal Communications Commission (FCC) has interpreted that a "reasonable period of time" for local governments to grant or deny siting requests is 150 days for new facilities, and 90 days for collocations.[8] This presumed time limitation is commonly known as a "shot clock."

Meanwhile, the Spectrum Act also contains provisions that limit local control over collocated wireless facilities to ensure the swift deployment of wireless technologies. Section 6409(a) of the Act provided that "a State or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station."[9] The FCC created regulations in support of this law, specifying that these collocation requests must be approved within 60 days of application, and that this definition includes distributed antenna system (DAS) and small cell facilities.[10] If a city finds that it received an incomplete application, it has a limited period of time in which to pause, or "toll," the shot clock by notifying applicants in writing of the missing information and relevant local requirements.

The 1934 Communications Act has been cited in recent federal petitions and rulemaking activity[11] relating to the deployment of small cell facilities. Section 253 of the 1934 Act requires that local governments receive "fair and reasonable compensation from telecommunications providers, on a competitively neutral and nondiscriminatory basis," when determining costs to access the public rights-of-way. The FCC has solicited public comment on how and whether to clarify the meaning of this phrase in relation to small cell wireless facilities but has not yet issued a decision or guidance. Likewise, the FCC has recently issued orders prohibiting moratoria on wireless deployment applications and permitting in essentially all circumstances.[12]

State governments have also passed laws intended to speed the deployment of wireless infrastructure, particularly small cell infrastructure, in recent years. For example, Arizona's HB 2365, which was signed into law on March 31, 2017, imposes a series of new requirements on cities' regulation of wireless infrastructure. Arizona's law creates timelines for both cities and applicants to complete reviews of applications and buildout of the requested site. Additionally, it states that rates

The Telecommunications Act of 1996:

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or fees are limited to not more than the actual and direct costs incurred by cities to review those applications or manage the ROW, and places a fixed dollar cap on those application fees, as well as a fixed cap on annual rights-of-way access and pole collocation fees.[13] [14] [15]

Other states have enacted similar limits on local review times, factors which may be considered in a site review and fees local governments may assess. State laws may limit whether local governments can enter into agreements with providers for larger-scale deployments of infrastructure within a community.

What are some of the policy challenges cities face?

Cities adapting their ordinances or processes to enable efficient small cell deployment face a number of policy challenges. First, cities must consider any recent changes to state law that impact local ordinances. Nearly half of all states had already passed small cell legislation or were considering it by their 2018 legislative sessions. Many states that passed laws exempted municipal rights of way from the legislation. These laws may impact what fees or rates cities can assess, what factors they may consider when deciding whether to approve or deny a wireless facility application, and whether the city is subject to a stricter application review timeline than federal regulations establish.

Cities must also consider their own internal capacity when determining how much time should elapse before a new ordinance focused on small cell deployment goes into effect. For example, if the new process demands the establishment of new online application systems or forms, the city should allow ample time to create those new systems before applicants will expect access to them, to avoid unnecessary delays in the application process. Particularly in the case of small cell deployments, providers may wish to file many applications at once as part of a network build-out, and cities should be prepared to determine whether they can limit the number of applications any provider can file within a given time period under state law, or whether they are capable of accepting batches of similar applications simultaneously.

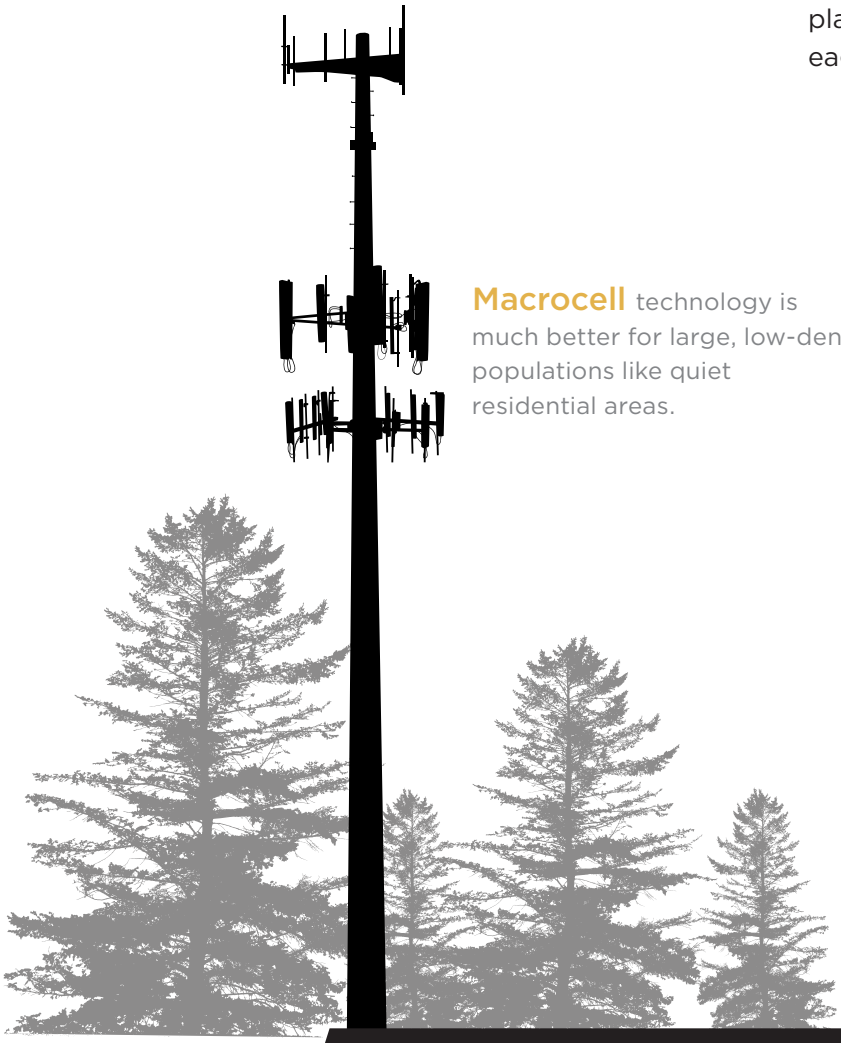
Cities should be cautious in passing moratoria on new wireless facility applications. While moratoria may provide the necessary time for policy makers to determine how best to approach this new technological and administrative challenge, they are not legal in some states, and have been prohibited by the FCC. Moratoria may invite legal challenges from wireless providers eager to start construction.

City Examples

Boston: Preserving History and Planning for a Technology-Driven Future

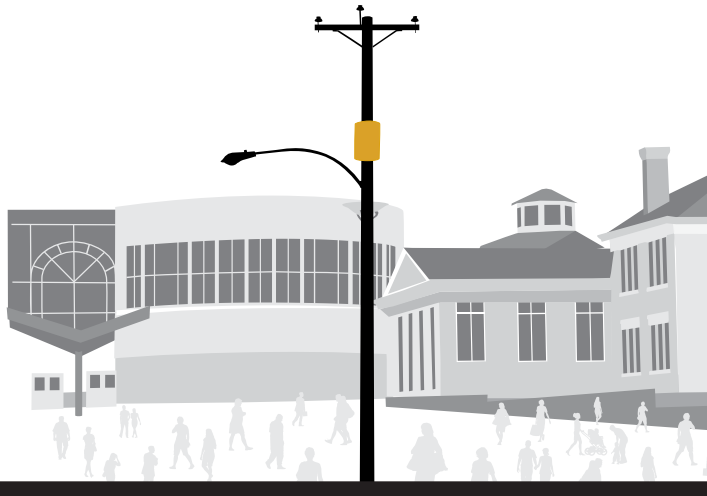
The city of Boston faced a unique challenge when it set out to upgrade the city's wireless networks: its history. The city contains narrow, twisting streets with little sidewalk space, carefully-maintained historic districts, and a wide variety of decorative poles and streetlights — including some gas lamps. This adds up to crowded rights-of-way with sensitive aesthetic needs. However, a city known for its universities and tech industries needed to be a competitive leader on broadband infrastructure to retain and attract residents and businesses.

To address the growing demand for small cell wireless infrastructure, the city used widely-available online tools to create an online application and review process that has reduced the average turnaround time for small cell site application reviews to roughly two weeks. The city has also managed to stem potential floods in applications by placing reasonable obligations on providers eager to file many applications at once.



Macrocell technology is much better for large, low-density populations like quiet residential areas.

Small cells are perfect for small, dense-population areas with high-capacity needs. Downtowns, stadiums and theme parks are ideal for this technology.



For instance, after a permit for a new wireless facility is approved, the provider must build its site within sixty days.

Because of its narrow, historic streets, Boston has had to work very closely with neighbors and wireless providers to create innovative pole designs that take up less sidewalk space, or to negotiate a different pole location on a nearby arterial street with fewer residences and more room to site equipment.

Lincoln: Creating Business Solutions to Technology Challenges

In the city of Lincoln, Nebraska, broadband infrastructure is an important development priority. As demand for service, and for permission to build infrastructure, rose in the community, the city decided to tackle business process challenges. The city began physically relocating staff and grouping them by process and function, rather than department, and created a new rights-of-way construction group of staff from multiple departments to manage broadband infrastructure, small cell wireless applications and other issues. This created a one-stop-shop for private utility construction in the public right-of-way.

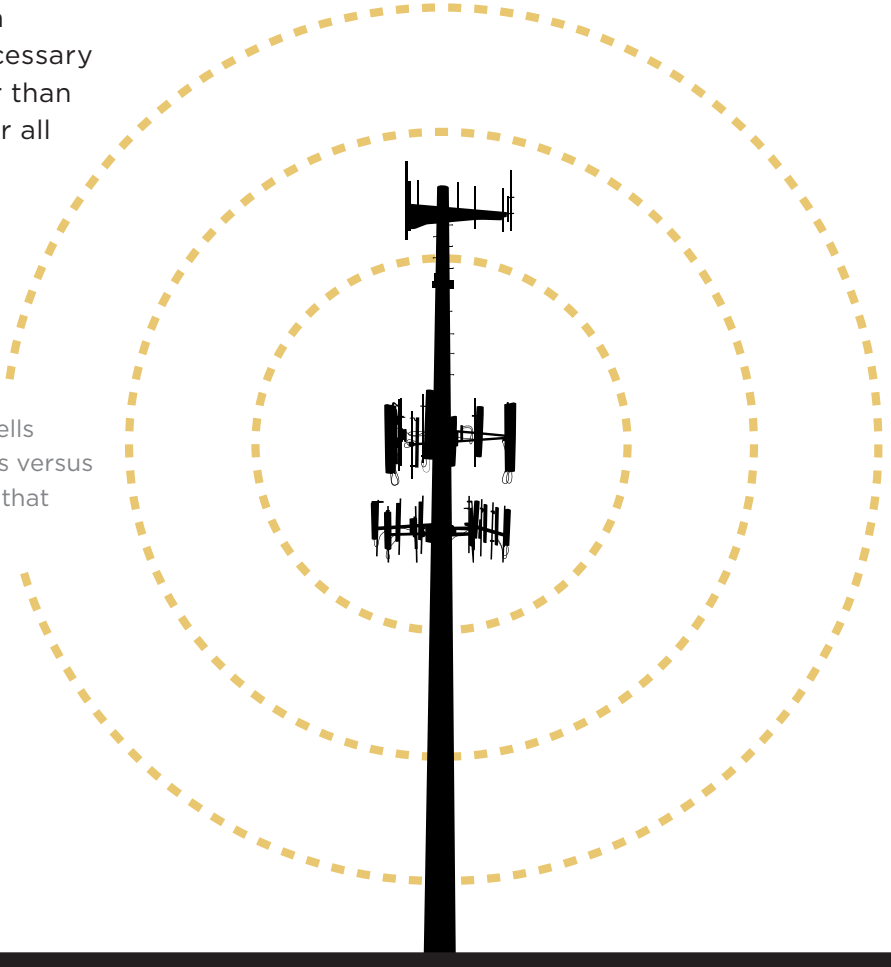
The city worked with carriers to create a standard pole design that met the needs of 95 percent of the city's pole locations and could accommodate most carriers' equipment. For the other five percent of locations, the city has worked with individual carriers to co-design poles to meet those locations' needs and added those new designs to a list of pre-approved poles. The city has also developed a database of existing right-of-way infrastructure assets, such as water, power and broadband lines in the city. This helps smooth the application process and cuts down on the time needed to communicate between city departments and with providers. Additionally, the city has created a master license agreement process based on existing public-private partnership agreements and adapted the master license agreements used for broadband to business and home to mobile infrastructure. Making the agreements consistent, and posting them publicly online, has helped reassure providers that they are getting the same deal as their competitors and smoothed the negotiating process.

Lincoln has faced some challenges in recent years with its efforts to deploy wireless infrastructure. Some providers have successfully received permits to build new poles, but have not deployed in those locations, resulting in wasted city resources and no improved service for residents. The city has also fought back against attempts by the state legislature to preempt local authority over small cells. In 2017, the city battled wireless providers who claimed that city-induced costs were inhibiting infrastructure deployment. When Lincoln offered a discount to local carriers who were willing to build out connectivity in rural parts of Nebraska, the providers backed down, and ultimately preemptive legislation did not pass that year.

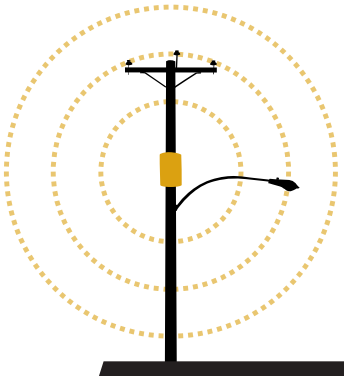
Raleigh: Finding Common Ground with Industry Through Partnerships

The city of Raleigh is focused on being the best — with hopes of being designated a 'best place' to live, work and play, as well as a forward-thinking leader in the technology space. The city recognized that in order to achieve those goals, it would need to be open to the prospect of small cell wireless infrastructure deployment. From the moment the city was approached about installing small cell infrastructure, the priority was to establish a good working relationship with wireless providers while protecting and upholding the values and interests of residents within our communities.

The city streamlined its application process by eliminating some unnecessary engineering time and costs. Rather than calling for engineering drawings for all installations, the city shifted its process to require basic geographic coordinates for proposed wireless sites, so that the city could quickly work with providers to find optimal locations. Wireless providers appreciated hearing back from city staff about site feasibility within a couple of days of submittal. The city has also taken several steps to hear the wishes of residents, most directly through its 20 Citizen Advisory Councils. City employees who manage small cell deployment have been meeting regularly with these advisory boards to gather feedback and answer questions about the process of small cell installation.



Quantity and Quality: Although macrocells cover much larger areas than small cells — miles versus feet — small cells have higher-quality coverage that works well in dense areas.



What is Broadband?

According to the Federal Communications Commission, broadband is connection speeds of at least 25 Mbps for downloads and three Mbps for uploads. About 20 percent of American households don't have access to broadband under this current definition.

One administrative challenge came about in the form of a piece of legislation passed by the state that preempts the city's ability to manage small cell applications. A 2017 law restricts local governments in the state of North Carolina from sending applications for collocated infrastructure — or infrastructure that wireless providers want to place on existing poles — to city council for review. Wireless providers that wish to collocate small cell infrastructure are allowed to seek administrative approval and place their equipment and infrastructure on those existing poles. This is intended to streamline the review process for small cell installations that do not require a new structure or pole to be constructed. While it shortens the administrative approval process, it removes the city's ability to govern on this issue.

San Jose: Welcoming New Technology While Closing the Digital Divide

Equity drives San Jose's approach to bringing new technologies to the city, and the deployment of municipal broadband and municipal fiber lines is no exception. Located in Silicon Valley, San Jose city officials are acutely aware of the technology boom happening on their doorstep and are eager to welcome these advances, provided they can do so in a way that speaks to the needs of all residents. With only three percent of the city connected to high quality fiber lines, the city needed to both improve overall access to high speed internet and address the digital divide for 95,000 residents without access. After commissioning a study of the city's broadband approach as well as conducting surveys of low-income populations, San Jose officials set about working with the private sector on an arrangement that facilitates deployment, speaks to the city's equity goals and meets provider expectations.

They settled on a tiered pricing structure where providers pay $750-$2500 depending on whether they will cover the entire city or smaller areas. Larger deployments essentially receive a bulk-discounted rate. This revenue then feeds into two important city goals: internal capacity building and digital equity. For the former, the revenue bolsters the public works department, enabling staff to streamline the permitting and governance processes. Providers are therefore amenable to the deal because it facilitates faster small cell deployment. Additionally, the remaining funds, $24 million so far, go into a "Digital Inclusion Fund" to close the digital divide for low income and vulnerable populations.

When San Jose officials stepped back to look at the whole picture, they noticed that different providers had an interest in deploying in different market segments and, therefore, different neighborhoods. By building relationships with these carriers, San Jose has been able to spread coverage across the city. Where gaps arise, the digital inclusion fund fills in. Some of the projects on deck include free device checkout at libraries and coding camps. The city will also pursue grants on top of these core funds to further build out program support in the long term.

Tempe: Bringing Transparency to the Process

The city of Tempe knows that small cell infrastructure will be integral to meeting the technological demands of the future. For city staff, determining the process for small cell infrastructure deployment and being transparent about it with wireless providers was very important. Once the city established a master license agreement with the first carrier in the market, that original agreement was used as a template to develop subsequent agreements with small cell infrastructure providers, who also wanted to deploy small cells and distributed antenna systems (DAS).

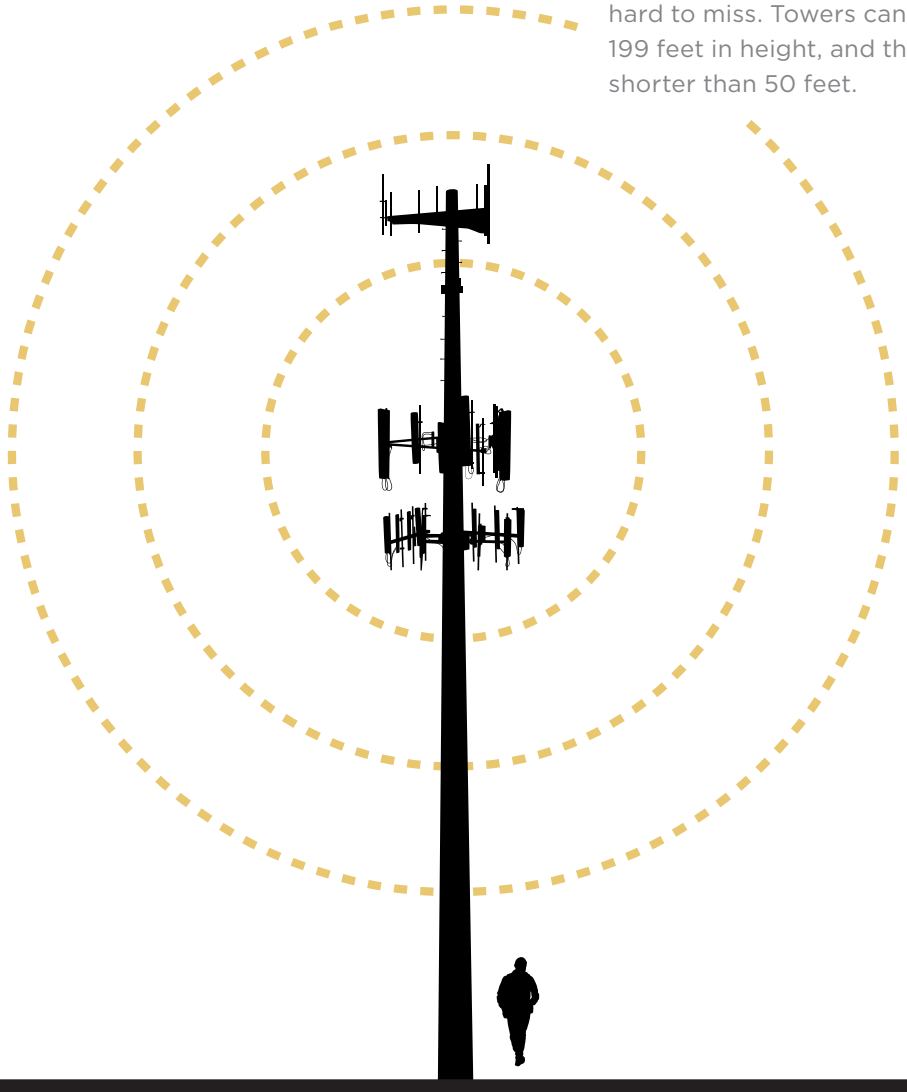
In 2017, however, preemptive legislation was passed by the Arizona state legislature that hindered the city's ability to completely control small cell infrastructure deployment. The new law imposed fee caps as well as shot clocks on the application process. It also forced cities to reduce their fees to a rate that was significantly lower than existing market rate agreements.[16] The rationalization for such legislation was that it was needed to speed up deployment in Arizona by limiting a city's capacity to interfere via local legislation and incentivize 5G by reducing the industry's costs of deployment. During the negotiation period preceding the passage of the bill, the city fought hard to maintain its ability to manage the right-of-way, mostly in order to retain control over the aesthetic elements of deployment and to minimize any visual blight caused by the size of the small cell allowed (the equivalent of 27 pizza boxes).[17]

The new law required Arizona cities to establish and make standard terms of agreements publicly available. Tempe viewed the legislation's six-month implementation period as an opportunity to foster collaboration between the public and private sectors. Before finalizing the standard terms and conditions, site license provisions, application processes for small cells and design criteria, the city sent draft copies of all proposed documents to the major carriers and infrastructure providers for feedback. Collaboration with the industry was important in avoiding conflict when documents advanced to the city council for deliberation and approval.

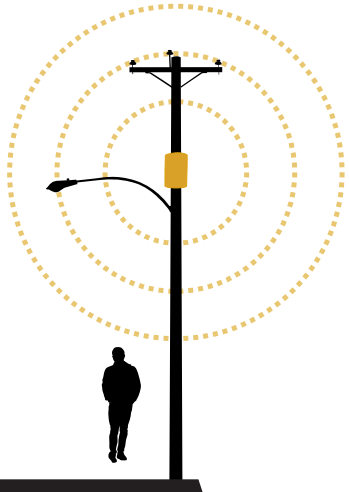
The city also carefully considered the desires and values of the public. For residents, aesthetics and the way the new

small cell infrastructure blended into the community were very important. Tempe was able to coordinate with other local cities and wireless providers to create design guidelines, ensuring that new infrastructure would mesh with the local aesthetic. The city worked to ensure that the guidelines were not too much of a hindrance to deployment. Tempe found that balancing the concerns of industry with the city's ability to manage its poles and right-of-way is critical. Local government can function as the connection between the community and industry, ensuring that both parties' interests are represented and accounted for.

Towers: Macrocell infrastructure is hard to miss. Towers can reach up to 199 feet in height, and they're rarely shorter than 50 feet.



Small cell: Small cell antennas are typically only a few feet tall, roughly the size of a pizza box. They are also often accompanied by an equipment cabinet the size of a utility box or refrigerator.



Strategies for City Leadership



1 Gain a full understanding of the technology and important safety considerations.

Local elected officials and decision-makers should ensure that they understand technical, political and legal implications of the technology, its deployment, and any existing policies related to small cell facility siting. This will ensure that the best interests of the community are upheld when new decisions around small cell siting are being made.



2 Articulate your priorities for accommodating this technology.

City officials should determine how they want to integrate this technology into their communities and be intentional about expressing those desires during the policy-making discussions and deployment process. Some questions and considerations might include:

a. **Whether the city wants to subsidize the build-out of the facilities to speed up wireless connections;**

b. **Whether the city needs extra time to conduct a thorough engineering review for public safety concerns; or**

c. W**hether the city will work to harmonize the facilities with the look and feel of different parts of town.**



3 Create clear policies for permit review that let both city staff and industry applicants know the expectations.

This includes establishing processes for how applications will be addressed or processed, timeframes, objective requirements for the decisions and possibly application checklists. Cities should communicate these policies broadly and transparently to potential applicants. They may also wish to collaborate with likely applicants to develop design standards compatible with technological needs.



4 Develop a template right-of-way access policy/agreement, as well as a city pole attachment agreement.

Cities should make sure these policies and agreements address multiple kinds of infrastructure, from macrocell towers to small-cell facilities. This might include the establishment of requirements for both types of structures — such as size, location, design, public safety, stealth, etc.



5 Think through in advance any beneficial items the city could negotiate with industry in exchange for use of the right-of-way — if allowed by state law.

Issues up for negotiation might include collocation; length of time for siting; terms of installation; terms for upgrade; free or discounted services for schools, libraries, or other public entities; or other provisions that benefit the community and its residents.



6 Give careful consideration to fee structures.

There are a variety of fees and charges that cities may want to address. Application fees to cover the cost of staff to review applications, permitting fees to cover costs of building permit reviews and inspections, regulatory access fees for use of public ROW (ongoing), rent based on market rates if using public property (ongoing), and ongoing maintenance fees. Cities should take care to ensure that costs for removal of abandoned equipment are not borne by taxpayers.

Definitions

Collocation:
When multiple wireless providers attach antennas and other equipment to a single shared support structure. This practice may lower barriers to entry for new providers and reduce pole proliferation. The federal government defines collocation as: the mounting or installation of transmission equipment on an eligible support structure for the purpose of transmitting and/or receiving radio frequency signals for communications purposes.[18]

Small cell facilities:
Small cell facilities are a type of wireless broadband infrastructure. They typically take the form of small antennas that are placed on existing infrastructure (both indoors and outdoors) and ground mounted equipment. These facilities help to compliment or stretch tower macrocell coverage and add capacity in high demand areas. In many states this term is defined by state law.

Ground mounted equipment:
This type of equipment sits at ground level, such as along sidewalks. It is distinct from equipment mounted on existing infrastructure such as telephone poles or buildings. This equipment is similar to traffic control or telephone equipment cabinets.

Macrocell:
A macrocell is a wireless facility used in cellular networks with the function of providing radio coverage to a large area of mobile network access. A macrocell differs from a microcell by offering the backbone of coverage area and high-efficiency output. It is placed on stations where the output power is higher, usually in a range of tens of watts.[19]

Smart city:
A “smart city” is one that has developed technological infrastructure that enables it to collect, aggregate and analyze real-time data to improve the lives of its residents.[20]

Internet of things (IoT):

The internet of things (IoT) is a computing concept that describes the idea of everyday physical objects being connected to the internet and able to identify themselves to other devices. The term is closely identified with RFID as the method of communication, although it also may include other sensor technologies, wireless technologies or QR codes.[21]

5G:

The term for emerging 5th generation wireless telecommunications standards usually associated with network speeds of 1 Gpbs or more.[22]

Exabytes:

An exabyte is a unit of measurement that describes 10^{18} bytes or 1 billion gigabytes. This unit refers to such a large amount of data that it is typically used to express quantities of information transmitted over the internet in absolute terms.

Internet Service Providers:

An internet service provider (ISP) is a company that provides customers with Internet access. Data may be transmitted using several technologies, including dial-up, DSL, cable modem, wireless or dedicated high-speed interconnects. Typically, ISPs also provide their customers with the ability to communicate with one another by providing Internet email accounts, usually with numerous email addresses at the customer's discretion. Other services, such as telephone and television services, may be provided as well. The services and service combinations may be unique to each ISP.[23] Throughout the paper we use this term synonymously with the term carrier.

Infrastructure Developer:

Company or entity that invests in or builds out the basic physical and virtual systems of a community, including roads, utilities, internet and wireless networks, water, sewage, etc. These systems are considered essential for enabling productivity in the economy and require significant fiscal investments. Developers and investors can be from the public or the private sector.[24]

Resources

National Association of Telecommunications Officers and Advisors: Wireless Facility Siting: Model Chapter Implementing Section 6409(a) and Wireless Facility Siting: Section 6409(a) Checklist — https://www.natoa.org/documents/6409ModelOrdinance.pdf

United States Department of Commerce Internet Policy Task Force and & Digital Economy Leadership Team: Fostering the Advancement of the Internet of Things

https://www.ntia.doc.gov/files/ntia/publications/iot_green_paper_01122017.pdf

BroadbandUSA: Broadband Glossary — https://www2.ntia.doc.gov/files/bbusa_broadband_glossary_161024.pdf

BroadbandUSA: Smart Communities Glossary — https://www2.ntia.doc.gov/files/bbusa_smartcommunitiesglossary_11212017.pdf

[1] **Trends in Smart City Development.** (2016). National League of Cities. Access at: http://www.nlc.org/sites/default/files/2017-01/Trends%20in%20Smart%20City%20Development.pdf

[2] **Ericsson, Ericsson Mobility Report at 13** (Nov. 2016), https://www.ericsson.com/assets/local/mobilityreport/documents/2016/ericsson-mobility-report-november-2016.pdf.

[3] **Trends in Smart City Development.** (2016). National League of Cities. Access at: http://www.nlc.org/sites/default/files/2017-01/Trends%20in%20Smart%20City%20Development.pdf

[4] **Federal Communications Commission.** (2016). Public Notice: Comment Sought on Streamlining Deployment of Small Cell Infrastructure by Improving Wireless Citing Policies. Access at: https://apps.fcc.gov/edocs_public/attachmatch/DA-16-1427A1.pdf

[5] **WIA** (2017). Enabling Wireless Networks Everywhere, Presentation.

[6] See https://www.nena.org/?page=911Statistics.

[7] **47 U.S.C. § 332(c)(7)(B)**

[8] **Petition to Clarify Provisions of Section 332(c)(7)(B) to Ensure Timely Siting,** WT-Docket No. 08-165 (11/18/09).

[9] 47 U.S.C. §1455(a)

[10] **Acceleration of Broadband Deployment by Improving Wireless Siting Policies,** WT Docket No. 13-238, 11-59, 13-32, (10/17/14)

[11] **Ibid.**

[12] **Federal Communications Commission. (2018):** Public Notice: FCC Speeds Access to Utility Poles to Promote Broadband, 5G Deployment. Access at https://www.fcc.gov/document/fcc-speeds-access-utility-poles-promote-broadband-5g-deployment-0

[13] $750.00 (A.R.S. § 9-593(I)) and $1000.00 (A.R.S. § 9-594(E)(3)).

[14] $50 per small cell (A.R.S. § 9-592(D)(4)

[15] $50 per pole (A.R.S. § 9-595).

[16] The average small cell fee charged by Arizona cities in 2017 was $3,530.00 per site, which included both the use of the pole and the use of the right-of-way for a small cell and associated ground equipment. (This amount was about 1/8 of the annual fees charged for macro sites). The legislation capped this fee at $100.00 per site ($50.00 for the use of the pole and $50.00 for the use of the right-of-way.)

[17] All antennas to be located inside an enclosure of up to 6 cubic feet in volume and the associated equipment to be up to 28 cubic feet in volume. A.R.S § 9-591(19).

[18] **47 C.F.R. § 1.40001(b)(2)**

[19] https://www.techopedia.com/definition/2950/macrocell

[20] **Trends in Smart City Development.** (2016). National League of Cities. Access at: http://www.nlc.org/sites/default/files/2017-01/Trends%20in%20Smart%20City%20Development.pdf

[21] https://www.techopedia.com/definition/28247/internet-of-things-iot

[22] https://www2.ntia.doc.gov/files/bbusa_broadband_glossary_161024.pdf

[23] https://www.techopedia.com/definition/2510/internet-service-provider-isp

[24] http://www.investorwords.com/2464/infrastructure.html#ixzz5COh9N3rU

About NLC

The National League of Cities (NLC) is the nation's oldest and largest organization devoted to strengthening and promoting cities as centers of opportunity, leadership, and governance. NLC is a resource and advocate for more than 1,600 member cities and the 49 state municipal leagues, representing 19,000 cities and towns and more than 218 million Americans.

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