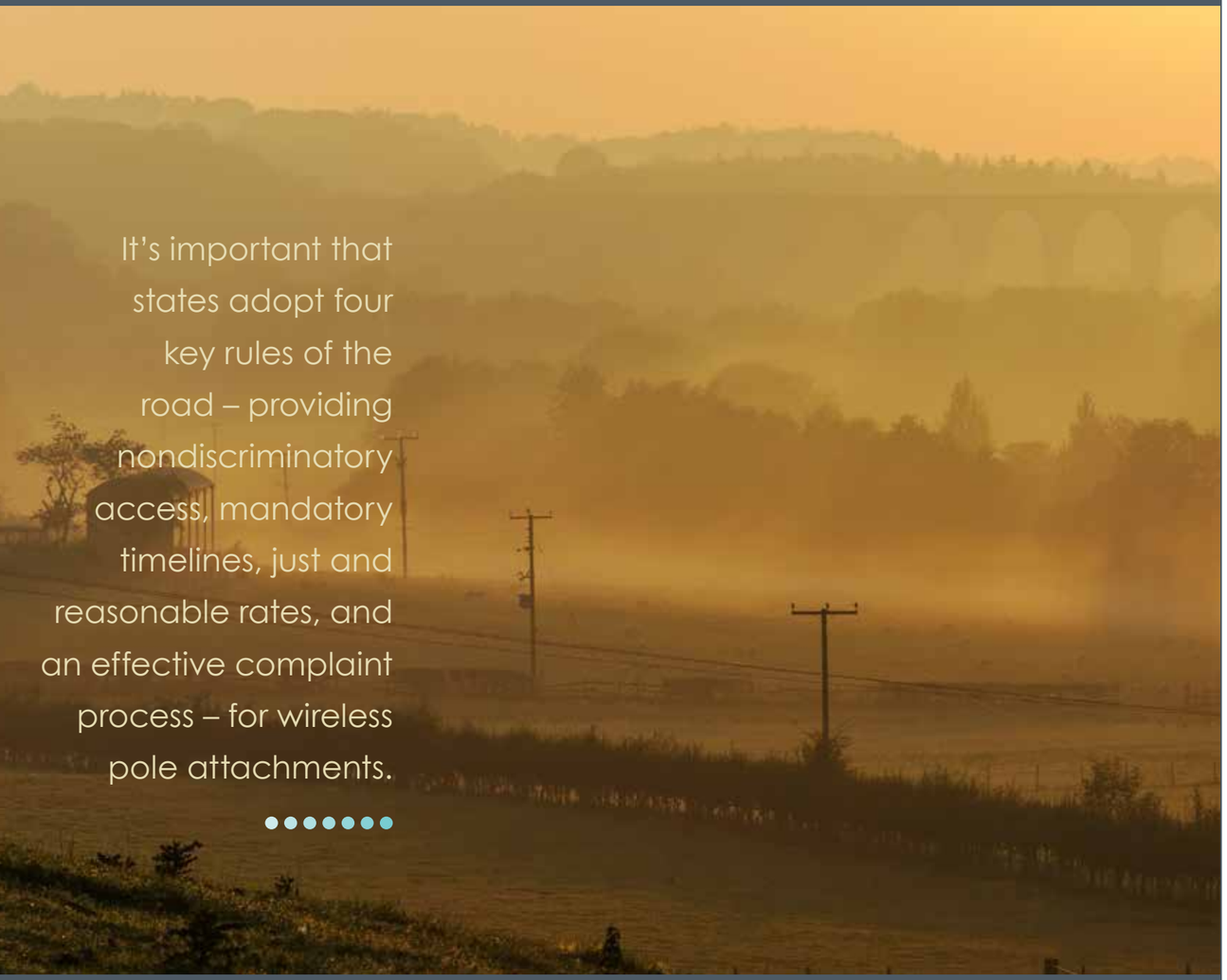
ctia Everything™ Wireless

Enabling the Wireless Networks of Tomorrow:

Rules of the Road for Pole Attachments in States Across America

April 2016



Executive Summary

Wireless services depend on two key inputs: spectrum and infrastructure. Spectrum fuels wireless communications, and infrastructure – towers, poles, and other structures that support wireless antennas – expands coverage and increases capacity. Increasing demand for mobile broadband requires finding more spectrum and building more wireless infrastructure.

Policymakers, from the federal government to local communities, have helped remove regulatory barriers to wireless deployment. By taking action, these government leaders set the stage for significant investment and helped bring high-speed mobile broadband to nearly all Americans – 99% as of 2015.[1]

But more work remains to unlock our wireless future. Wireless networks increasingly require new approaches to infrastructure development. Carriers are deploying smaller antennas – DAS (Distributed Antenna Systems) and small cells – to densify their networks and boost capacity. These new technologies do not require tall cell towers. In fact, wireless infrastructure such as small cells and DAS can be deployed anywhere – from rooftops to the inside of an office space.

An ideal location for small cells and DAS is on utility poles. Wireless providers' access to utility poles has become increasingly more important, and states have a vital role to play in solving this challenge. Congress and the FCC have mandated that utilities give wireless providers nondiscriminatory access to poles, but state rules on utility pole attachments remain a complex checkerboard of different requirements.

That's why it's important that states adopt four key rules of the road – providing nondiscriminatory access, mandatory timelines, just and reasonable rates, and an effective complaint process – for wireless pole attachments. We all want more wireless deployments, better wireless service and coverage, and all the benefits of 5G service, smart cities, and the connected life. A crucial step states should take to unlock those benefits for consumers is to establish pole attachment and siting rules that ensure fair and reasonable access to utility poles.

Wireless providers and other technology companies are partnering with "smart cities" like Savannah, GA to provide platforms and solutions that enable consumer benefits, greater efficiency, and energy savings

Key Rules of the Road for Wireless Pole Attachments

- Providing Nondiscriminatory Access
- Mandatory Timelines
- Just and Reasonable Rates
- Effective Complaint Process

Utility poles are ideal sites for new approaches to densifying networks, including as DAS and small cells, which boost network capacity and improve spectral efficiency.

Unlocking Our Connected Life

Americans' Growing Demand for Mobile Data Prompts New Approaches to Wireless Infrastructure Technologies

Explosive Growth in Mobile Data Means More Demand for Wireless Infrastructure Deployment

Americans' appetite for wireless connectivity continues to grow, driving demand for wireless networks with greater coverage and capacity. A number of factors are propelling this spike in demand:

- **Skyrocketing Mobile Data Usage**
  Americans increasingly depend on mobile data to live, work, and play. Wireless data use has grown 35-fold since 2009, and is projected to increase another six-fold by the end of the decade.[2] By 2019, the average smartphone will generate 4.0 gigabytes of traffic per month, a nearly five-fold increase from 2014.[3]
- **More Connected Devices**
  From health care to connected homes and cars to industrial monitoring, the Internet of Things is driving massive growth in connected devices. Growing 30 percent last year to 6.4 billion, the number of connected devices is projected to total nearly 28 billion by 2021. [4]
- **Critical Public Safety Needs**
  Public safety relies on mobile more than ever before. For consumers, over 70 percent of 911 calls are now made via mobile phones.[5] For first responders, wireless networks facilitate improved communications, better response times, and improved safety – and soon will serve as the foundation of FirstNet, America's first nationwide broadband public safety wireless network.
- **Move to Smart Cities**
  Cities are increasingly using mobile to become "smart" – employing information and communications technology to improve the efficiency of urban services, including traffic management and infrastructure, public transportation, and public safety.[6] Wireless networks provide the broad coverage, capacity, and device density that will help make the smart city of the future work.
- **Evolution to 5G Networks**
  While today's 4G networks continue to evolve, the 5G networks of tomorrow will provide blazingly fast speeds with lower latency to more users simultaneously.[7] Entire industries, from agriculture to transportation, will be transformed to be more capable, efficient, and intelligent.

This boundless demand is "driving an urgent and growing need for additional infrastructure deployment and new infrastructure technologies," as the FCC has recognized.[8] Today's wireless networks must become more dense – supporting larger numbers of smaller cells located closer together – to handle future consumer needs and the needs of communities across the country for coverage and capacity.

Increasing Demand Requires Dense, Heterogeneous Networks

Wireless networks require the deployment of wireless facilities – antennas and other equipment that convey signals between wireless devices and the network. These facilities are placed on towers, buildings, and other increasingly diverse locations.

Antenna installations on towers and collocations on tall structures like rooftops are often referred to as "macro" sites. These traditional cell sites form the core of a wireless network and are effective for covering large geographic areas and delivering signals miles away. Today, thanks to billions of dollars in investment, the wireless industry has built nearly 300,000 cell sites across the country.[9]

But the demand for wireless services is driving innovation and deployment of heterogeneous networks that rely on an array of wireless infrastructure technologies. These networks increasingly integrate various smaller antenna technologies to densify their network architecture and add even more capacity. However, a dense network creates siting complications. Because deployments must be wide-spread and close to the consumer, additional sites can be difficult to find, which is why utility pole access is crucial to further deployment.

Utility poles are ideal sites for technologies such as DAS and small cells, which boost network capacity and improve spectral efficiency. With less traditional, low-band spectrum available, wireless providers are turning to higher band spectrum that covers much smaller areas and requires more tightly packed cells. This means DAS and small cells, which fit neatly onto poles, are increasingly important tools for wireless networks.

Deployments may be event-driven or intended for the longer term. For example, DAS can be found:

- **At the Super Bowl**
  Carriers recently used DAS networks to increase network capacity at Super Bowl 50 in Levi's Stadium in Santa Clara, CA.[10] Verizon already has invested more than $40 million to construct and activate a DAS network for the 2017 Super Bowl at the NRG Stadium in Houston. That system consists of 783 antennas placed strategically throughout the facility, designed to increase capacity four-fold.[11]
- **In the NYC Subway**
  Transit Wireless is constructing "one of the world's largest DAS networks" for the New York City subway system.[12]
- **Helping Public Safety Personnel**
  The public safety community has also embraced DAS deployments, as police, fire, and EMS personnel seek reliable communication services inside of facilities during emergencies. Public safety agencies will double their "spend" on DAS networks to $1.7 billion by 2021, according to one estimate.[13]

120 million utility poles were in service in the United States in 2005, the overwhelming majority of which have a service life of 75 years or more.

The anticipated volume of DAS and small cell deployments requires new ways of thinking about streamlining the process of deploying wireless infrastructure. For both DAS and small cells, timely and reasonable access to utility poles is critical.

DAS and Small Cells

DAS (Distributed Antenna System)

A Distributed Antenna System is a wireless network, located indoors or outdoors, made up of interconnected small antenna nodes that complement a traditional macro cell network.[14] DAS nodes are a fraction of the size of traditional macrocells – typically, the size of a fire alarm or smoke detector – and a DAS network will often serve as a "neutral" host for multiple wireless providers simultaneously.

A typical DAS installation consists of a number of low-powered antennas typically installed on infrastructure like utility poles close to the wireless customer. Each antenna covers an area much smaller than a traditional macrocell, with a normal range of less than a half a mile.[15] However, a DAS network can boost coverage and capacity across larger areas, as DAS antennas are collectively linked, often by fiber, to a central communications hub site.

The wireless industry has already begun deploying DAS. Sixteen million DAS nodes will be deployed by 2018, with the number of nodes doubling between 2013 and 2016.[16]

Source: Nokia

The minimal size of small cells (left) make them ideal for broad urban deployment.

Small Cells

Small cells are low-powered wireless base stations that function like traditional cells in a mobile wireless network, but are a fraction of the size of macrocells (often, the size of a ream of paper or smaller) and do not require high-location installation. Unlike DAS networks, small cell solutions are usually deployed to address coverage and/or capacity shortfalls in smaller footprints.[17]

Small cells serve indoor or outdoor areas ranging in size from homes and offices to stadiums, shopping malls, hospitals, and other urban spaces that cannot be served by macrocells alone.[18]

Small cell growth is expected to be significant. Carriers are deploying tens of thousands of small cells. In fact, two carriers alone plan to deploy 100,000 small cells in 2016,[19] and Sprint has announced plans for tens of thousands of small cells in the near future.[20] To put this in context, the deployment of 100,000 small cells in only one year represents approximately one third of the total number of traditional cell cites deployed over the previous two decades.[21]

The Challenge

Encouraging DAS and Small Cell Deployment Through Reasonable Access to Key Building Blocks like Utility Poles

Widespread Deployment of DAS and Small Cells Requires Ubiquitous Structures, and Utility Poles Play an Instrumental Role

For emerging wireless network technologies like DAS and small cells, utility poles are just the sort of "non-tower and non-building structures [that] are vitally important," as noted by the FCC."[22]

Utility poles are important because they...

- **Relieve Congestion**
  Access to poles enables DAS and small cells to relieve frequency congestion in lower spectrum bands and, given utility poles' proximity to end users, to use higher frequencies that travel shorter distances.
- **Enhance Coverage and Capacity**
  Utility poles allow denser deployments with lower elevation installations that are optimal for DAS and small cells covering high-demand, localized areas where macrocells cannot efficiently operate.[23]
- **Provide Availability and Stability**
  Utility poles are a widely installed, readily available, and highly stable platform for wireless installations. Indeed, 120 million utility poles were in service in the United States in 2005, the overwhelming majority of which have a service life of 75 years or more.[24]
- **Enable Collocation**
  Access to utility poles enables a significant percentage of DAS and small cells to be collocated along with other pole attachments on existing structures, obviating the need to build new infrastructure. Combined with the unobtrusive size of DAS and small cell equipment, this collocation minimizes the physical and visual impact of DAS and small cell deployments on communities.
- **Increase Speed and Ease of Deployment**
  Because millions of utility poles are already up and running, providers can install DAS and small cell networks quickly and with little disruption to communities.
- **Offer a Track Record of Safety**
  The installation and use of DAS and small cells on utility poles is safe. In seeking to install new antennas and related equipment[25] on utility poles, wireless providers abide by both state rules and by regulations under the National Electric Safety Code, the Occupational Safety and Health Administration, the U.S. Environmental Protection Agency, and the FCC.[26]

For these reasons, utility poles represent a key part of DAS and small cell deployment – so long as states help lower regulatory and commercial barriers to accessing them.

The FCC has also acted to streamline its pole attachment regulatory framework. For instance, in 2011, the FCC revised its pole attachment rules to accelerate broadband buildout.[27]

The revised rules include the following:

- *Mandatory deadlines by which utilities must process and prepare to facilitate pole attachment requests.*
- *A requirement that utilities specifically explain their reasons for rejecting pole attachment requests.*
- *A revision of the rate for telecommunications pole attachments to bring it closer to the lower rate for cable operators.*
- *Rules that encourage negotiated resolution of pole attachment disputes.*
- *A clarification that a wireless carrier's right of nondiscriminatory access extends to pole tops.*[28]

Federal Law Proscribes Nondiscriminatory Access to Poles, but States Can Assert Jurisdiction through "Reverse Preemption"

Over the past decade, policymakers have worked to streamline deployments of all types of infrastructure – from towers and macro collocations to DAS and small cells.[29] Access to poles owned by utilities, however, is governed by a bifurcated process that has prompted many states to adopt their own pole attachment rules. Absent a pro-deployment framework, this process often impedes DAS and small cell deployments.

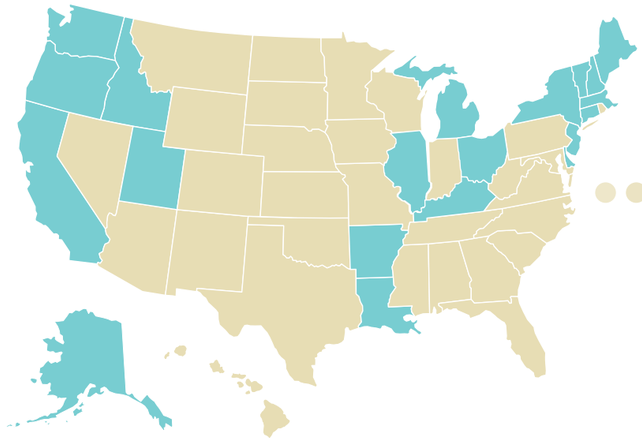
Under Federal law (Section 224 of the Communications Act), utilities must afford telecommunications carriers and cable operators nondiscriminatory access to poles under "just and reasonable" rates, terms and conditions.[30]

The FCC has made it clear that a wireless carrier that provides telecommunications service is entitled to all rights available under the statute. [31]

And just last year, the FCC took further steps to "keep pole attachment rates unified and low."[32] As a result, wireless carriers have made some progress towards securing timely and fair access to utility poles in many states.[33]

Certain states have elected to pursue their own path, however. Under Section 224, states can certify that they regulate pole attachments ("reverse preemption" states).[34] In reverse preemption states, attachers have the same rights under the law as they do in non-reverse preemption states, but it is that particular state – rather than the FCC – that is responsible for ensuring attachers are able to exercise their rights.

Such states are also responsible for promulgating rules implementing Section 224 and resolving disputes over attachments. To date, 20 states plus the District of Columbia have so certified.[35] This means that these states, which cover roughly half the U.S. population, have jurisdiction over public utility pole attachments instead of the FCC.



Reverse Preemption States

Along with the District of Columbia, states that have certified jurisdiction over pole attachments are Alaska, Arkansas, California, Connecticut, Delaware, Idaho, Illinois, Kentucky, Louisiana, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Oregon, Utah, Vermont, and Washington.

Reasonable and fair pole attachment policies – "rules of the road" – would help ensure that state-level policies advance the deployment of infrastructure such as small cells and DAS that are critical to wireless networks.

Pole Attachment Challenges, Particularly in Reverse Preemption States

In many states, wireless providers face a range of obstacles when seeking access to utility poles. Some utilities attempt to delay access by, for example:

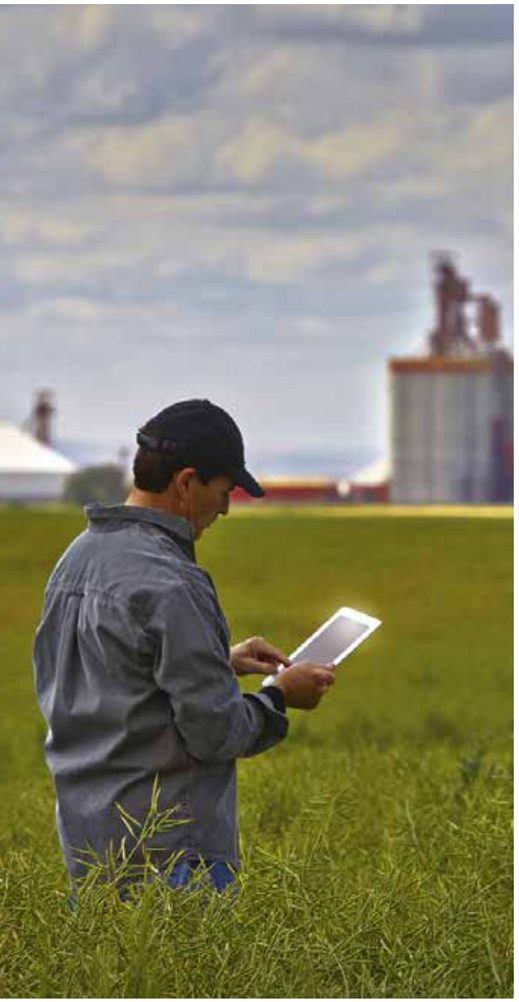
1. not providing wireless carriers with their standard pole attachment agreement in a timely manner;
2. charging "administrative fees" ranging from $2,500 to $10,000 before agreeing to commence negotiations;
3. charging attachment fees well in excess of what would otherwise be permitted under the FCC's rules;
4. charging excessive application fees; and
5. charging uncapped rates for pole top access far greater than those charged to other attachers.[36]

In addition, some utilities claim – against logic and evidence – that wireless attachments violate safety codes as a rationale to delay or deny access to poles.[37] Such claims are unsupported by facts and ignore the importance of ensuring continuity of wireless service – service that would be disrupted by unsafe practices – and the high cost of remediation that carriers would face for violating the range of safety codes that govern in this area.

In light of these challenges, reasonable and fair pole attachment policies – "rules of the road" – would help ensure that state-level policies advance the deployment of infrastructure such as small cells and DAS that are critical to wireless networks.

Rules of the Road For Fair and Reasonable Access to Utility Poles

Reverse preemption states can facilitate DAS and small cell access to utility poles by consistently applying core principles of fair and reasonable access.



This can be achieved by amending state laws and/or by adopting "best practices" to give wireless carriers and utilities guidance as to their respective rights and obligations in the pole attachment process.

The essential elements of any new state laws or best practices include:

- **Nondiscriminatory access**
  States must ensure that wireless carriers are afforded nondiscriminatory access to utility poles (including pole tops) on just and reasonable rates, terms and conditions that are equivalent to those available to other classes of attachers.[38]

- **Mandatory timelines**
  States should mandate timelines for action, requiring utilities that receive a wireless attachment request to take the following steps by certain dates:

  1. conduct an engineering survey;
  2. provide the wireless carrier with an estimate of make-ready costs;
  3. provide existing attachers with prior notice of the new attachment and prepare the pole as necessary to accommodate it; and
  4. afford the wireless attacher access to the pole so that the attachment can be completed as soon as possible. The FCC's timeline for this process, for instance, is a maximum of 148 days, plus 30 additional days for wireless attachments on pole tops.[39]

- **Just and reasonable rates**
  A rate for a wireless pole attachment should be presumed reasonable if it is calculated in accordance with the rate formulae specified for telecommunications attachments in the FCC's rules.

- **Effective complaint process**
  Laws and best practices are only as good as the enforcement mechanism behind them. State rules should include an effective pole attachment complaint process with specific deadlines for resolution of cases. The process should be available to the wireless attacher when it is unable to reach an attachment agreement with a utility, or where the utility fails to comply with the state's rules.[40] States should also require that the parties make a good faith effort to resolve their differences with thorough executive-level discussions before a complaint is filed.[41] Complaint processes must have defined, reasonable deadlines that ensure issues are resolved promptly.

States that have not pre-empted FCC jurisdiction over pole attachments also have an important role to play in removing barriers to infrastructure deployment. In non-preemption states, states can exert jurisdiction over pole attachment rates and policies with municipal and co-operative utilities to help reduce potential barriers to broadband deployment.[42] To create a level playing field for attachers, it may be worth investigating these issues, insofar as a non-preemption state commission has jurisdiction to do so.

In addition, many of the delays in siting wireless infrastructure occur at the municipal, rather than state, level. Coordination with municipalities is key to reducing infrastructure barriers, and state commissions are well-positioned to communicate the importance of broadband deployment state-wide.

State Case Studies

California

In early 2016, the California PUC gave wireless carriers nondiscriminatory access to public utility infrastructure in order to "facilitate investment in wireless infrastructure, encourage widespread deployment of broadband wireless services, foster the provision of wireless service in previously unserved areas, and improve access to 911." Rulemaking 14-05-001 (2016).

Ohio

In 2014, the PUC of Ohio adopted comprehensive regulations that require public utilities to give attaching entities, including wireless carriers, nondiscriminatory access to their poles under just and reasonable rates, terms and conditions. Drawing extensively from the FCC's rules, the Ohio PUC also clarified that wireless rights of access extend to pole tops. Case No. 13-579-AU-ORD (2014).

Utah

Section R746-345-1 of the Utah Administrative Code mandates that a public utility allow any attaching entity nondiscriminatory access to its poles at rates, terms and conditions that are just and reasonable. The Code specifies that Utah's pole attachment rules apply to "any wireless provider." Utah Administrative Code, § R746-345-1.B.1-2.

Utility poles are an increasingly important building block for new technological approaches, like DAS and small cells, that will expand mobile capacity and coverage.

Conclusion

Growing demand for wireless services is driving innovation and a greater need for spectrum and new wireless infrastructure. Utility poles are an increasingly important building block for new technological approaches, like DAS and small cells, that will expand mobile capacity and coverage. States that regulate pole attachments play an important role, and the proposed rules of the road will go far towards ensuring that wireless providers have the fair and reasonable access needed to provide Americans with the wireless service they want.

Wireless infrastructure deployment will enable smart cities across the United States, from San Francisco to Chicago, and New York to San Jose.

Endnotes

1. FCC, Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Eighteenth Report, DA 15-1487, at Chart III.A.3 (Dec. 23, 2015).

2. Brad Gillen, CTIA Blog, "Policymakers Across the Board Agree: It's Time to Refuel the Spectrum Pipeline (July 31, 2015), available at http://www.ctialatest.org/2015/07/31/policymakers-agree-time-to-refuel-the-spectrum-pipeline/.

3. Cisco, Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update 2014 – 2019 White Paper (Feb. 2015), http://www.cisco.com/c/en/us/solutions/collateral/serviceprovider/visual-networking-index-vni/white_paper_c11-520862.html.

4. See Julia Boorstin, An Internet of Things that will number ten billions, CNBC (Feb. 1, 2016), http://www.cnbc.com/2016/02/01/an-internet-of-things-that-will-number-ten-billions.html; Ericsson, Ericsson Mobility Report, at 3 (Nov. 2015) ("Ericsson Mobility Report"), http://www.ericsson.com/res/docs/2015/mobility-report/ericsson-mobility-report-nov-2015.pdf

5. FCC, 911 Wireless Services, available at https://www.fcc.gov/consumers/guides/911-wireless-services.

6. Tomas, "In depth: Big data, smart cities," RCR Wireless News (Feb 10, 2016), available at http://www.rcrwireless.com/20160210/internet-of-things/in-depth-big-data-smart-cities-tag23-tag99; Tom Sawanobori, CTIA, The Next Generation of Wireless: 5G Leadership in the U.S. (Feb. 9, 2016), http://www.ctia.org/docs/default-source/default-document-library/5g_white-paper-web.pdf.

7. Tom Sawanobori, CTIA, The Next Generation of Wireless: 5G Leadership in the U.S. (Feb. 9, 2016), http://www.ctia.org/docs/default-source/default-document-library/5g_white-paper-web.pdf. While 4G networks can currently support roughly 100,000 devices per square kilometer, 5G networks will be capable of handling 1,000,000 devices – a 100-fold increase. Lauren J. Young, "Telecom Experts Plot a Path to 5G," IEEE Spectrum (Oct. 6, 2015), available at http://spectrum.ieee.org/telecom/wireless/telecom-experts-plot-a-path-to-5g.

8. Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies, Report and Order, 29 FCC Rcd 12865, 12878 (2014) ("FCC Wireless Infrastructure Order") (footnote omitted), aff'd sub nom., Montgomery County v. FCC, 2015 U.S. App. LEXIS 22070 (4th Cir. 2015).

9. CTIA Year-End 2014 Survey.

10. Weise, "Millions spent to beef up wireless for Super Bowl 50," USA Today (Feb. 6, 2016), available at http://www.usatoday.com/story/tech/news/2016/02/03/super-bowl-50-wireless-cell-phone-att-sprint-verizon-t-mobile-capacity-san-francisco-santa-clara/79537640/#.

11. "Network engineers in Houston already preparing for 2017," PR Newswire (Feb. 16, 2016), available at http://www.nasdaq.com/press-release/network-engineers-in-houston-already-preparing-for-2017-20160210-00676#ixzz40N-qEfax8.

12. Alleven, "Transit Wireless wraps latest phase of huge DAS system for NYC subway stations," FierceWirelessTech (November 16, 2015), available at http://www.fiercewireless.com/tech/story/transit-wireless-wraps-latest-phase-huge-das-system-nyc-subway-stations/2015-11-16.

13. "ABI Research Forecasts Public Safety DAS Spend to Double to $1.7 Billion Over Next Five Years," PR Newswire (Feb. 16, 2016), available at http://www.prnewswire.com/news-releases/abi-research-forecasts-public-safety-das-spend-to-double-to-17-billion-over-next-five-years-300220619.html.

14. Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services, Fourteenth Report, 25 FCC Rcd 11407, 11578 n. 757 (2010)

15. "Distributed Antenna Systems (DAS) and Small Cell Technologies Distinguished," HetNet Forum White Paper, at 7 (2013) ("HetNet Forum White Paper").

16. FCC Wireless Infrastructure Order, 29 FCC Rcd 12881 (footnote omitted).

17. HetNet Forum White Paper at 4.

18. FCC Wireless Infrastructure Order, 29 FCC Rcd at 12878-9 (footnote omitted).

19. DeGrasse, "Can Verizon and AT&T deploy 100,000 new small cells?", RCR Wireless News (October 29, 2015), available at http://www.rcrwireless.com/20151029/carriers/can-verizon-and-att-deploy-100000-new-small-cells-tag.

20. "Sprint pleased with network densification, mainly focused on small cells for now, but mum on many details", FierceWireless (November 3, 2015), available at http://www.fiercewireless.com/story/sprint-pleased-network-densification-mainly-focused-small-cells-now-mum-man/2015-11-03.

21. See CTIA Year-End 2014 Survey. In addition, as many as 54.5 million "microcells" (small cells with a range of up to several hundred meters) are projected to be deployed domestically by 2018. Pearce et al., "Wireless Broadband Infrastructure: A Catalyst for GDP and Job Growth 2013-2017," PCIA White Paper, at 7 (September 2013). See also Above Ground Level Media Group, Massive Growth Projected for DAS Deployments, http://www.aglmediagroup.com/massive-growth-in-u-s-das-deployments-projected-by-igr-research.

22. See, e.g., FCC Wireless Infrastructure Order, 29 FCC Rcd at 12893 ("Small facility deployments are increasing dramatically, and they are typically located on utility poles or similar structures rather than on towers.") (footnote omitted).

23. According to statistics published by the Florida Public Service Commission, the standard utility pole is 35 feet tall, though poles can range from 20 to 100 feet tall. See Florida Public Service Commission, "What's on a Utility Pole?" available at http://www.psc.state.fl.us/consumers/utilitypole/en/AllUtilityPoleInfo.aspx. By contrast, tall towers usually range from 50 to 200 feet in height.

24. Id.

25. Apart from the antenna portion, most of a wireless services provider's attachments for poles are the same as those already safely installed by other joint pole users, including cable companies. These attachments include cabinets, pole-to-pole cables, cable risers, grounds and other hardware.

26. See, e.g., IEEE/ANSI Standards C2 ("National Electrical Safety Code") and C95.1-2005; 29 C.F.R. §§1910 and 1926; 47 C.F.R. §1.1301 et seq., 47 C.F.R. §1.1422.

27. Implementation of Section 224 of the Act, Report and Order and Order on Reconsideration, 26 FCC Rcd 5240, 5241 (2011) (subsequent history omitted) ("2011 FCC Order").

28. Id. at 5244-45, 5276.

29. These actions include: (1) "shot clocks" requiring action by localities on siting applications within reasonable timeframes, see Petition for Declaratory Ruling To Clarify Provisions of Section 332(c)(7)(B) to Ensure Timely Siting Review, Declaratory Ruling, 24 FCC Rcd 13994 (2009), recon. denied, 25 FCC Rcd 11157 (2010), aff'd sub nom. City of Arlington, Texas v. FCC, 668 F.3d 229 (5th Cir. 2012), aff'd, 133 S.Ct. 1863 (2013); 47 U.S.C. § 332(c)(7); (2) "deemed granted" provisions for collocation applications if localities fail to act, see FCC Wireless Infrastructure Order, supra; Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6409(a), 126 Stat. 156 (2012) (codified at 47 U.S.C. § 1455(a)); and (3) streamlined environmental review procedures for small facility installations like DAS and small cells, see FCC Wireless Infrastructure Order, supra. Recognizing consumer and business demand for wireless connectivity, towns and cities have also partnered with industry to minimize siting burdens. See CTIA Statement on Joint Release of Model Ordinance and Checklist to Streamline Wireless Infrastructure Deployment, Press Release (Mar. 5, 2015), http://www.ctia.org/resource-library/press-releases/archive/model-ordinance-checklist-wireless-infrastructure-deployment.

30. 47 U.S.C. § 224(b)(1), (e)-(f); 47 C.F.R. §§ 1.1403(a), 1.1409(d)-(e). A utility pole owner may deny a pole attachment request where there is insufficient capacity and for reasons of safety, reliability and generally applicable engineering purposes. 47 U.S.C. § 224(f)(2); 47 C.F.R. § 1.1403(a).

31. Implementation of Section 703(e) of the Telecommunications Act of 1996, Report and Order, 13 FCC Rcd 6777, 6798-9 (1998), aff'd Nat'l Cable & Telecomms Ass'n v. Gulf Power Co., 534 U.S. 327 (2002).

32. Implementation of Section 224 of the Act, Order on Reconsideration, 30 FCC Rcd 13731, 13733 (2015).

33. In Michigan, T-Mobile has successfully collaborated with Detroit Edison in attaching T-Mobile's wireless facilities to Detroit Edison's pole tops. The parties executed a pole attachment agreement in 2008, and since then have executed dozens of T-Mobile attachments on poles throughout Michigan. T-Mobile and Detroit Edison have also collaborated on the necessary pole attachment construction standards to accommodate different types of attachments (e.g., attachments on pole tops vs. elsewhere on the pole). See CTIA-The Wireless Association Opposition to Petition for Reconsideration, WC Docket No. 07-245, at 3-4 and Attachment 1 (filed August 10, 2011).

34. 47 U.S.C. § 224(c).

35. See States That Have Certified That They Regulate Pole Attachments, Public Notice, 25 FCC Rcd 5541 (WCB 2010), Along with the District of Columbia, states that have certified are Alaska, Arkansas, California, Connecticut, Delaware, Idaho, Illinois, Kentucky, Louisiana, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Oregon, Utah, Vermont, and Washington.

36. See, e.g., Ex Parte Communication of PCIA – The Wireless Infrastructure Association, WC Docket No. 07-245; GN Docket No. 09-51 (March 26, 2012).

37. Federal law contains a limited carve-out that allows a pole owner to deny access "where there is insufficient capacity and for reasons of safety, reliability and generally applicable engineering purposes." 47 U.S.C. § 224(f)(2).

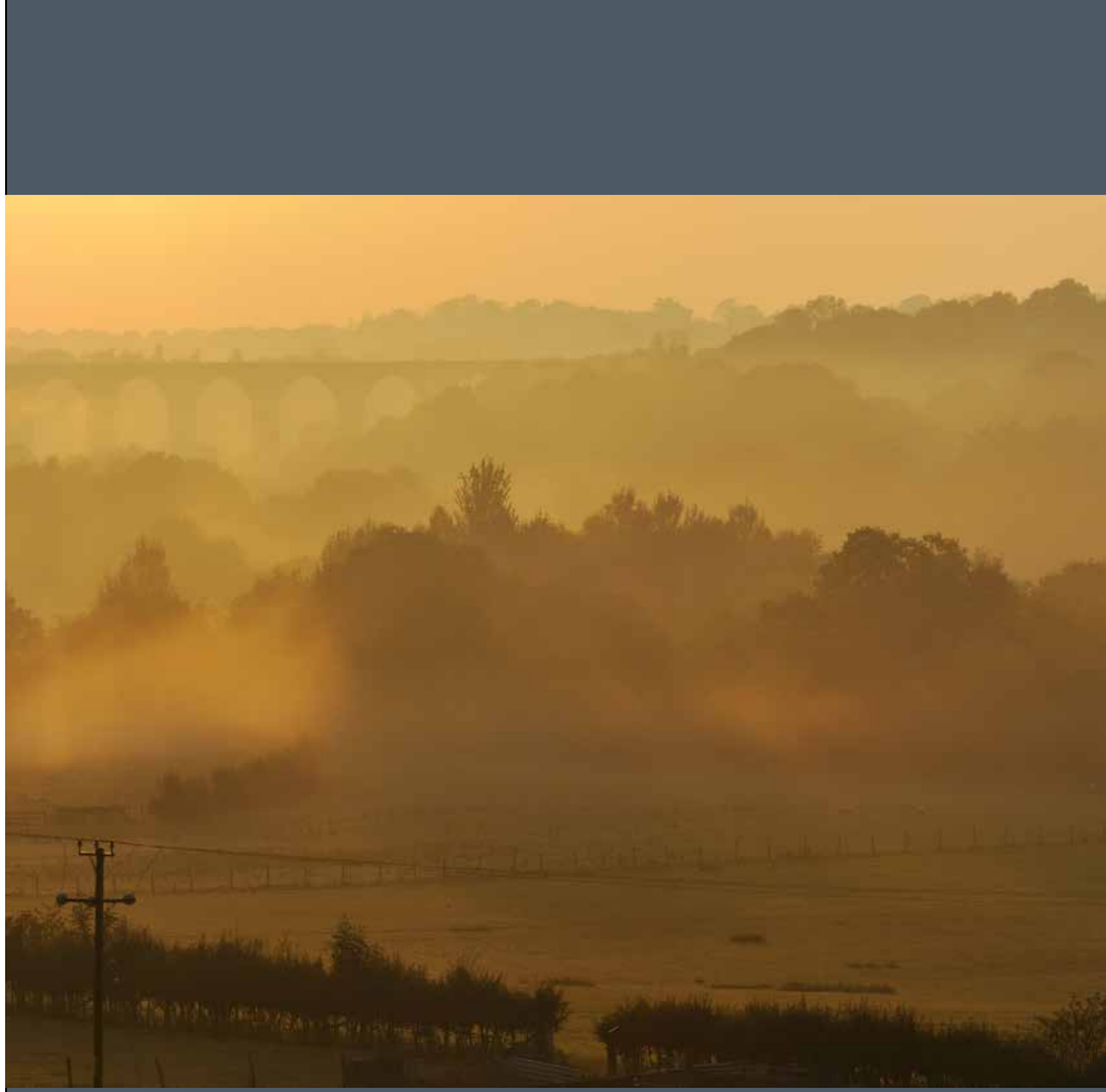
38. 47 U.S.C. § 224(f).

39. 2011 FCC Order, 26 FCC Rcd 5253-4. See also In the Matter of the Adoption of Chapter 4901:1-3, Ohio Administrative Code, Concerning Access to Poles, Ducts, Conduits, and Rights-of-Way by Public Utilities, Finding and Order, Case No. 13-579-AU-ORD, at 10-12, 14-19 (July 30, 2014) (Ohio PUC adopts timeline for pole attachment process; timeline incorporates, with some variation, the key elements of the FCC's timeline).

40. 47 C.F.R. § 1.1409(e). See also UAC § R746-345-5.A (Under Utah Administrative Code, "[a] pole attachment rental rate shall be based on publicly filed data and must conform to the Federal Communications Commission's rules and regulations governing pole attachments, except as modified by this Section.").

41. Id. § 1.1404(k).

42. Section 224 of the Communications Act does not apply to municipal and co-operative utilities, which means that those companies are free to negotiate rates with attachers.



ctia™

Everything Wireless

CTIA.ORG