

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Wireless Telecommunications Bureau Seeks	)	WT Docket No. 15-180
Comment on Revising the Historic Preservation	)	
Review Process for Small Facility Deployments	)	
	)	

**COMMENTS OF 4G AMERICAS**

**I. INTRODUCTION**

4G Americas<sup>1</sup> appreciates the opportunity to comment in response to the Federal Communications Commission (“FCC” or “Commission”) Wireless Telecommunications Bureau’s request for public comments on the proposed Program Alternative, which would be established by amending the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas (“the Collocation Agreement”).<sup>2</sup> 4G Americas agrees that the Bureau’s proposals would improve and facilitate the review process for deployments of small wireless communications facilities in or near historic areas.

4G Americas, the leading voice for 5G in the Americas, is an industry trade organization comprised of our region’s national operators and vendors. The organization’s mission is to foster—throughout the ecosystem—the advancement of LTE mobile broadband technology and its evolution beyond into 5G network functionality. As the leading forum for 5G development in

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<sup>1</sup> 4G Americas’ Board of Governors includes representatives from such telecommunications pioneers as Alcatel-Lucent, América Móvil, AT&T, Cable & Wireless, Cisco, CommScope, Entel, Ericsson, HP, Intel, Mitel, Nokia, Qualcomm, Sprint, T-Mobile US, Inc., and Telefónica.

<sup>2</sup> *Wireless Telecommunications Bureau Seeks Comment on Revising the Historic Preservation Review Process for Small Facility Deployments*, Public Notice, DA 15-865, WT Docket No. 15-180 (rel. July 28, 2015) (“*Scoping Document*”).

the Americas, we are helping the region maintain its current global innovation lead in LTE. Small cell and distributed antenna systems (“DAS”) siting is a critical issue for 4G Americas and its members, given its central role in deploying 5G technologies.

4G Americas regularly works with government agencies, regulatory bodies, technical standards organizations, and other global wireless organizations in its efforts to promote seamless interoperability and convergence. This includes 4G Americas’ role as a Market Representation Partner in the Third Generation Partnership Project (3GPP), its membership in the International Telecommunication Union (ITU) and the Inter-American Telecommunication Commission (CITEL) of the Organization of American States, and its collaborative working agreements with other agencies throughout the Western Hemisphere. Given the role small cells will play in the deployment of enhanced 4G and 5G networks, 4G Americas has teamed with the Small Cell Forum to collaborate on work programs, in order to communicate both 5G carrier requirements to standards bodies and informed technology advocacy to the broader industry.<sup>3</sup>

## **II. THE COMMISSION SHOULD SUPPORT THE EXCLUSION OF SMALL CELLS AND DAS NETWORKS FROM INSTALLATION REVIEW**

The United States has long been a leader in the development and deployment of mobile broadband technologies, particularly in 4G. If it is to continue that role, and ensure that 4G is allowed in this country to successfully evolve into 5G—*i.e.*, the fifth generation of mobile broadband—the U.S. government will have to expedite siting for small cells and DAS networks. To ensure that we achieve the network densification necessary to achieve 5G functionality in the

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<sup>3</sup> See “Small Cell Forum and 4G Americas to collaborate on future networks,” 4G AMERICAS (Aug. 3, 2015), <http://www.4gamericas.org/en/newsroom/press-releases/small-cell-forum-and-4g-americas-collaborate-future-networks/>.

United States, the country must expedite the siting of wireless infrastructure.<sup>4</sup> 5G will entail an array of applications, including faster mobile broadband over consumer handheld devices and the IoT.<sup>5</sup> As the U.S. Administration recently noted, “Technological advancements and the diminishing cost of IT infrastructure have created the potential for an ‘Internet of Things.’”<sup>6</sup> But for that potential to be realized, that infrastructure must be deployed in much greater density than traditional macrocell base stations allow.

Network densification through increased small cell and DAS deployment is instrumental in achieving the U.S. President’s goal of keeping the United States at the forefront of the global drive towards 5G—as well as delivering wireless access to a broader swath of the American public without requiring the construction of new towers. Network densification can also enhance consumers’ 4G experience by improving wireless coverage, speed, and capacity, as well as consistency and reliability. Fortunately, small cells and DAS are small enough that network densification does not threaten the understandable goals of local authorities to maintain the character of their historic landmarks and neighborhoods.

Small cell and DAS technologies provide an unobtrusive means of increasing overall network capability. Given their diminutive size, these wireless stations are easily disguisable, and have no appreciable aesthetic effects on historical areas. They not only expand network

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<sup>4</sup> Small-cell network densification will require both heterogeneous networks (“HetNet,” *i.e.*, technology capable of accommodating conversation between various operating systems, *e.g.*, Linux and Microsoft Windows) and Internet of Things (“IoT”) devices.

<sup>5</sup> See *4G Americas’ Recommendations on 5G Requirements and Solutions*, 4G AMERICAS (Oct. 2014), available at [http://www.4GAmericas.org/files/2714/1471/2645/4G\\_Americas\\_Recommendations\\_on\\_5G\\_Requirements\\_and\\_Solutions\\_10\\_14\\_2014-FINALx.pdf](http://www.4GAmericas.org/files/2714/1471/2645/4G_Americas_Recommendations_on_5G_Requirements_and_Solutions_10_14_2014-FINALx.pdf).

<sup>6</sup> *Fact Sheet: Administration Announces New “Smart Cities” Initiative to Help Communities Tackle Local Challenges and Improve City Services*, THE WHITE HOUSE (Sept. 14, 2015), <https://www.whitehouse.gov/the-press-office/2015/09/14/fact-sheet-administration-announces-new-smart-cities-initiative-help>.

capacity for tourists in historic areas, benefitting businesses and historic societies in those areas, but they also allow operators to increase their wireless coverage without having to erect additional large macrocell installations. And, as the Commission itself recognized in its recent 2014 *Wireless Infrastructure Report and Order*, small cell and DAS technologies do not “harm the environment or historic properties”<sup>7</sup>—*i.e.*, telecommunications providers can install them with little to no impact on historic buildings or historic locations.<sup>8</sup>

The ability to expand and densify networks using small cells and DAS networks is critical to ensuring that 4G Americas’ members can continue to thrive in a competitive global environment. For instance, wireless carriers and providers face much more favorable siting requirements and regulations in other countries leading 5G deployment than they do in the United States. In Japan, by comparison, network operators have general blanket authority to install additional cells, so long as they comply with pre-existing operating parameters and form requirements. The relatively burdensome process the United States presently imposes on small cell and DAS network installations (due to the authority of local zoning regulators) has considerable implications for U.S. competitiveness in 5G. By removing overly obstructive or cumbersome review, the FCC can facilitate U.S. leadership in the global transition to 5G.

The Bureau proposes to develop a Program Alternative by negotiating an amendment to the 2001 Collocation Agreement. The Collocation Agreement provides that most antenna collocations installed on existing structures are excluded from historic preservation review, with a few defined exceptions to address potentially problematic situations. The Bureau proposes to

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<sup>7</sup> See *Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies*, Report and Order, FCC 14-153, 29 FCC Rcd. 12,865, 12,866 (2014) (*Wireless Infrastructure Report and Order*).

<sup>8</sup> See, *e.g.*, attached Figures 1 and 2.

amend the Collocation Agreement to better account for the limited potential of small wireless communications facility collocations that meet specified criteria—including DAS and small cell deployments—to affect historic properties. 4G Americas joins the Bureau in seeking such an amendment.

In particular, the Bureau is considering revisions that would augment the two targeted exclusions from Section 106 review that the Commission adopted in its *Wireless Infrastructure Report and Order*, as well as the exclusions set forth in the Collocation Agreement.

The Bureau seeks comment on the following potential additional exclusions for small wireless communications facility collocations:

- An exclusion for small facility deployments on structures more than 45 years of age where the deployments meet specified volume limits, involve no new ground disturbance, and are not on historic properties or in or near a historic district.
- An exclusion for small facility deployments located on historic properties or in or near a historic district if they: (i) meet specified size or volume limits; (ii) cause no new ground disturbance; (iii) meet visibility restrictions; (iv) comply in their installation with the Secretary of the Interior’s standards and guidelines for historic preservation; and (v) comply with all conditions on any existing deployment, located within the same vicinity on the same property, that were imposed pursuant to any regulatory or Section 106 review in order to directly mitigate or prevent the facility’s effects.
- Additional exclusions for small facility deployments on historic properties or deployments in or near historic districts, regardless of visibility limitations, in certain limited circumstances such as: (i) deployments of small facilities on utility poles, light

posts, and traffic lights; (ii) deployments of small facilities in certain locations, such as utility or communications rights-of-way; and (iii) replacements or modifications of existing small facilities where the replacements meet specified volume/size limits.

As a general matter, 4G Americas supports each of those proposed exclusions as a balanced approach both to preserve the historic character of historic areas and enhance in them the broadband experience of businesses and tourists alike.

In its Scoping Document, the Bureau sought input on the criteria that should apply relative to specific size or volumetric limits.<sup>9</sup> In the Commission order last year, the volumetric limits were no more than three cubic feet for each antenna enclosure and six cubic feet for all antennas on the structure, and all other wireless equipment associated with the structure were required to not exceed 17 cubic feet. 4G Americas agrees that the limits regarding antenna volumes are reasonable and should be pursued in negotiations to amend the Collocation Agreement, given members' planned deployments of small cells. However, with respect to the proposed limit of 17 cubic feet for all other associated equipment, that limit is only reasonable if it applies to poles and other utility structures with no back-up power. Any Program Alternative for other associated wireless equipment should be consistent with the standards of the *Wireless Infrastructure Report and Order*. Associated equipment that exceeds 17 cubic feet but is screened to meet visibility restrictions should still be eligible for the categorical exclusions. 4G Americas encourages the Bureau to seek a Program Alternative that includes associated wireless on non-utility structures that may be found in or nearby historic areas, including those that exceed 17 cubic feet, to accommodate back-up power, while still requiring concealing restrictions to minimize visual impact.

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<sup>9</sup> *Scoping Document* at 11.

4G Americas applauds the Commission's actions so far to accommodate more efficient siting of small cells and DAS networks.<sup>10</sup> The Commission's continued openness to negotiating such exclusions is a helpful step for American competitiveness and network expansion; 4G Americas encourages the Bureau to negotiate these exclusions, which are consistent with small cell planned deployments.

In particular, program exclusions will help 4G and 5G network providers accommodate the tremendous growth in mobile broadband devices the Commission expects to be operative in the United States by the end of 2015.<sup>11</sup> AT&T alone has installed in the past few years approximately 20,000 additional small cell networks in the United States.<sup>12</sup> Sprint has announced plans for tens of thousands of small cells in the coming years. Relieving U.S. national, regional, and rural carriers of unduly burdensome regulatory oversight of the placement of such technologies will streamline continued deployments, greatly increasing 4G Americas members' abilities to meet coverage burdens efficiently and effectively.

4G Americas supports the Bureau's proposals for additional categorical exclusions from the Collocation Agreement, and encourages the Commission and its agency partners to add these exclusions to the Agreement. These proposals represent a reasonable limit that will not unduly hamper 4G and 5G providers' efforts to expand wireless capacity in the United States by

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<sup>10</sup> *Id.* at 10.

<sup>11</sup> *Wireless Infrastructure Report and Order* at 12,868.

<sup>12</sup> *AT&T drops goal of deploying 40,000 small cells by end of 2015, citing benefits of Leap deal*, FIERCEWIRELESS (Mar. 5, 2015), <http://www.fiercewireless.com/story/att-drops-goal-deploying-40000-small-cells-end-2015-citing-benefits-leap-de/2015-03-0>.

collocating small cell placements within macrocell coverage while simultaneously preserving the character of historic areas.

Finally, 4G Americas has attached photographs and diagrams of small cells and DAS networks to provide practical help to the Commission in explaining the less obtrusive nature of small cells to the Advisory Council on Historic Properties (“ACHP”) and the National Conference of State Historic Preservation Officers (“NCSHPO”), whose regulations the FCC requires applicants to follow in order to protect historic properties. These Figures may be helpful in FCC discussions with ACHP and NCSHPO in revising the Collocation Agreement in historic areas.

### **III. CONCLUSION**

4G Americas thanks the Commission for its efforts to expedite small cell siting, consistent with its jurisdiction. The FCC’s proposal should facilitate expanded coverage using stations that entail no adverse or tangible effects on historic locations and areas. 4G Americas also encourages the Commission to participate as much as possible in meetings of local officials like the National League of Cities, the National Association of Counties, and other local government organizations; to educate such groups on the importance of expediting siting of small cells and DAS; and to support economic growth not just in their respective city or county, but also with respect to the economic growth and productivity of the United States generally. As the Administration recently noted, “The United States has the opportunity to be a global leader in this field, and cities represent strong potential test beds for development and deployment of Internet of Things applications.”<sup>13</sup> Densification of networks is necessary to add sufficient capacity and coverage to support such 4G and 5G applications as enhanced mobile broadband

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<sup>13</sup> See *supra* note 6.

and IoT in Smart Cities. The Commission's role renders it uniquely situated to inform local leaders and government bodies of the importance of expedited siting for the small cell and DAS networks that will facilitate the IoT.

4G Americas likewise continues to urge the Commission to make spectrum available for 5G. Additional spectrum is absolutely crucial as the U.S. telecommunications industry moves forward to 5G capability, since such additional spectrum is the only means by which providers, like those represented by 4G Americas, can successfully and efficiently accommodate the tremendous surge in mobile wireless data demands that 5G in part seeks to address.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'P. A. Paoletta', with a long horizontal flourish extending to the right.

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*Figure 1.1: An Illustration of Alcatel-Lucent Small Cells*



*Figure 1.2: An Illustration of Alcatel-Lucent Small Cells*



Figure 1.3

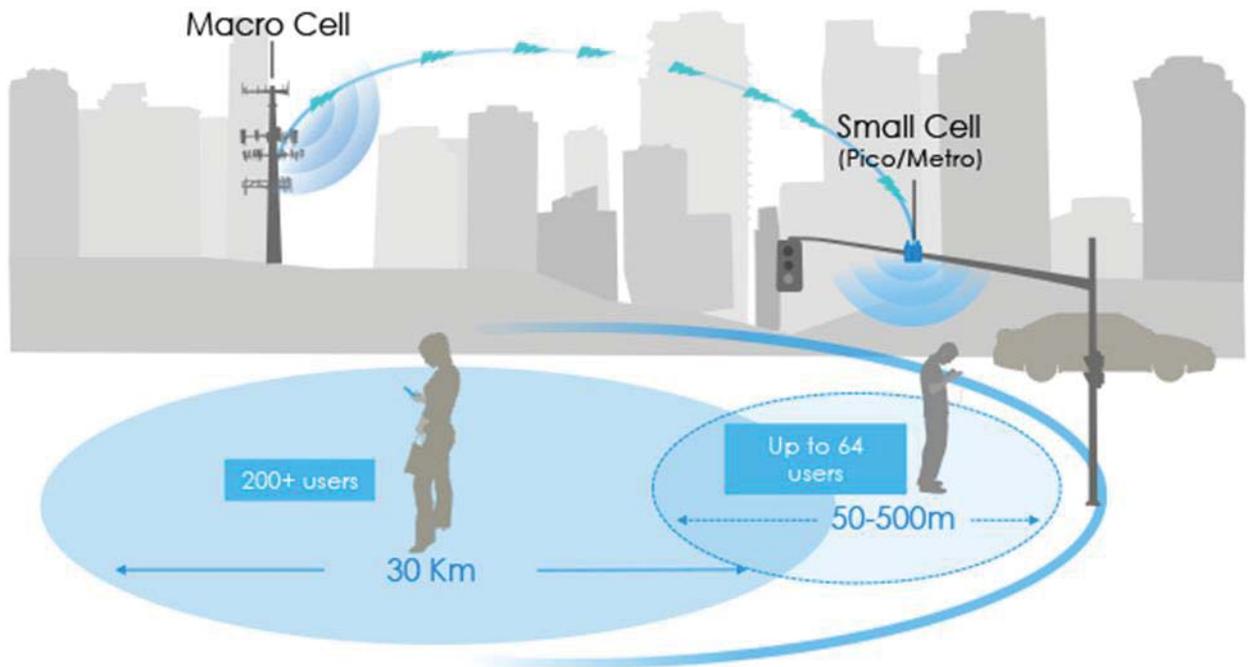


Figure 1.4



Figure 1.5

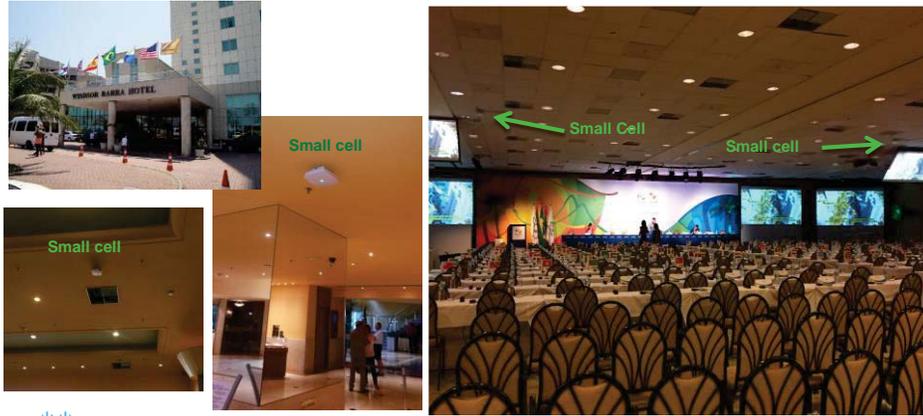


Figure 1.6



Figure 1.7

### Cisco Indoor Small Cells 3G/4G – Hotel example



 CISCO

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Figure 2.1

## In-Building Distributed Antenna System

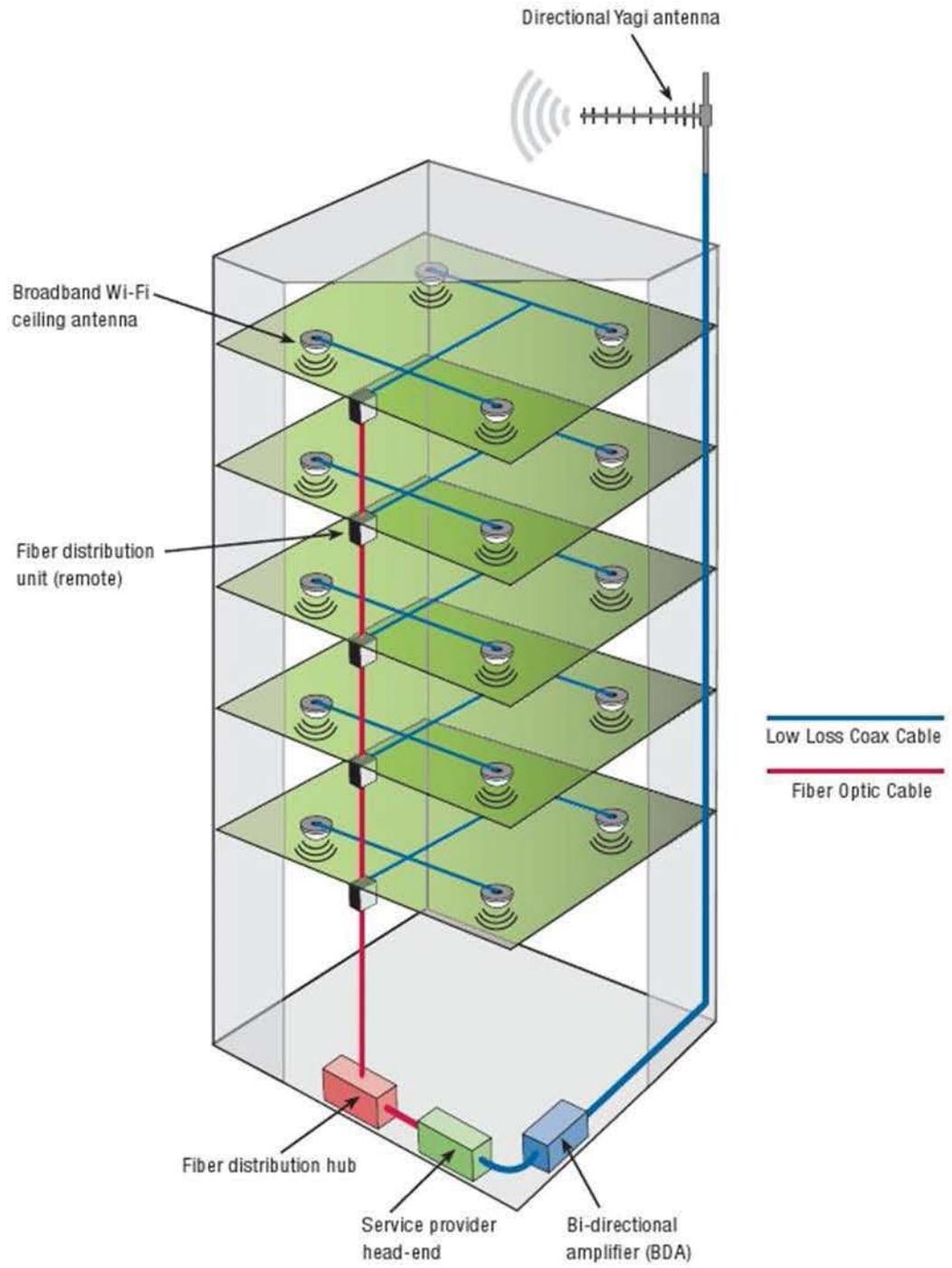


Figure 2.2

