

November, 2018

CITY OF MYRTLE BEACH
NEUTRAL HOST DAS FOR CITY VENUES
REQUEST FOR INFORMATION



Prepared By:





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1 Purpose of This Document

The City of Myrtle Beach (the City) is developing a Request For Proposals (RFP) for a Neutral Host (NH) wireless network integrator/operator. In the near future, proposals will be sought to equip and operate Distributed Antenna Systems (DAS) or equivalent networks within selected City-owned indoor and outdoor venues, for the purpose of enabling transparent high-capacity broadband wireless access to Personal Wireless Service (PWS) provider (Provider) networks from within those venues for the City's citizens and visitors – particularly when there are large concentrations of them occupying those venues. The City's RFP would require all of the City's selected venues to be served, not just some without the others. A listing of the tentatively targeted venues appears in Section 2.

Your responses to this Request For Information (RFI) will assist the City in developing realistic requirements for its RFP, and are highly appreciated. The City intends to add proposal scoring weight to the RFP responses of those that have responded to this RFI.

1.1 Response Information

Please email your RFI responses to warren.vandestadt@vantagepnt.com (the Project Manager), on or before Friday, December 21st, 2018. Should materials be too large to email, please send an email to the Project Manager so that a file transfer site can be set up for you.

1.2 Confidentiality

Please note: Responses to this RFI may be subject to public disclosure under the South Carolina Freedom of Information Act (FOIA) 2007. If certain portions of responses must be made confidential, respondents can and should mark those portions as confidential. The City will protect the confidentiality of information so marked as permitted under South Carolina law.

1.3 No Direct Contact With City

The City has directed that they do not wish to be contacted directly concerning this project at this time, and that all correspondence concerning this project is to be through Vantage Point.





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2 City-Owned Venues Tentatively Targeted for NH-DAS

The planned City of Myrtle Beach-owned venues to be targeted for NH-DAS are as follows:

INDOOR VENUES:

1. Myrtle Beach Convention Center
2. Myrtle Beach Sports Center
3. Charlie's Place
4. Crabtree Recreation Center
5. Emergency Operations Center / Fire Station #4 / Police Substation
6. General Robert H. Reed Recreation Center
7. Mary C. Canty Recreation Center
8. Pepper Geddings Recreation Center
9. Ted C. Collins Law Enforcement Center / Municipal Court

OUTDOOR VENUES:

1. Boardwalk & Promenade
2. Doug Shaw/Ned Donkle/Ashley Booth Memorial Stadium
3. Grand Park Athletic Complex
4. Pelican Stadium
5. Savannah's Playground

General information on these venues can be found in Attachment A. As this is not an RFP and currently only abstract subject matter input is being sought with these RFI questions, the City is not providing detailed physical information for the venues at this time. However, should you feel that more detailed information for a particular venue is required in order to sufficiently answer an RFI question, please email the Project Manager.





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3 Request For Information Questions

Please provide whatever information you are willing and able to share for the questions below. Thank you!

1. Respondent Information:
 - a. Please provide us your company name & address, and the name, title and email address of the person responding to this RFI.
 - b. If a subsequent RFP should be directed to anyone besides or in lieu of the person responding to this RFI, please provide that RFP addressee information.
 - c. Please provide a brief overview of your company.
 - d. Please provide one or more brief case studies of a representative NH-DAS-integrator or equivalent operation you have provided in the recent past, preferably for a municipal client.
2. If not your own, what vendor's DAS platform do you typically utilize?
3. Could/should both indoor and outdoor venues be handled within a single RFP for a single integrator/operator, perhaps with separate RFP requirements for each? Or should the City consider separate RFPs for each type of venue? If the latter, please briefly explain why.
4. Would you characterize your solution as Active DAS? Passive DAS? Hybrid DAS (*i.e.*, tethered to a small cell or other donor cell)? Other?
5. Please describe your possible solution and its general operation, including a brief description of how the following are handled:
 - a. Provisioning / partitioning / allocation of NH radio resources among tenant Providers;
 - b. How or if tenant Providers can remotely control the use of their licensed spectrum within the NH-DAS network to meet FCC requirements;
 - c. How you work with or around signal infiltration of the venue from surrounding macro cells or mobiles.





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6. Are there important differentiators, pros & cons, etc. for your solution type compared to other DAS types, which you feel the City should be aware of?
7. Do tenant Providers typically require NH-DAS operators to support MIMO? If so, at what levels?
8. What tools are used to design a DAS network for a venue?
 - a. What inputs and characteristics of each venue would be required from the City for proper RF design? (*e.g.*, Building materials? Floorplans? Full Construction Drawings? Targeted coverage (and non-coverage) areas? etc.)
 - b. How are RF model predictions aligned to actual coverage, so that RF optimization can be planned and corroborated?
9. How is performance monitoring for each of the tenant Providers accomplished?
 - a. What metrics are used for Key Performance Indicators (KPIs)? (*e.g.*, RSRP? RSRQ? PCI? SINR? Throughput? Other?)
 - b. What in your experience are appropriate targets for these KPIs?
 - c. If any of these metrics must be obtained from the Providers, please describe at a high level how this is accomplished, the metrics typically utilized, and how sufficient confidentiality protection for the tenant Providers is accomplished.
10. Please describe if RF optimization can be done independently or equivalently for each tenant Provider, and if so, how this is accomplished.
11. Can the DAS network be self-organizing or self-optimizing in any way?
12. What in your opinion are reasonable Performance Guarantees that the City should expect to be able to require of the NH-DAS integrator/operator?
13. It is expected that the system should be capable of accommodating all of the major Providers. Is this a realistic requirement? Please explain if not.
14. It is anticipated that the RFP will have to contain a "Most Favored Nation" ("MFN") type of requirement, such that the best technical capability made available to any one tenant Provider, or its technical equivalent, would have to be made available to all Providers hosted. Would such an "MFN" requirement be realistic? Please explain if not.





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15. Please discuss typical physical attributes of the wireless Access Points (APs) – what we will define as the nodes where the access antennas are located (which may or may not include active RF equipment), and if in your experience they typically have been required to be partially or even fully concealed. What should the City expect to be technically reasonable (or unreasonable) in this regard?
16. Would antennas typically be contemplated for the outside of the venue for your type of solution, such as perhaps for GPS, donor antennas for rebroadcast/translation from macros, or other? If so, please describe.
17. It is anticipated that common equipment space will be required within or near each venue. What are the dimensions, characteristics, etc. that the City should expect for this requirement?
18. Can any assumptions be made for what density of Access Points (APs) per sq. ft. or cu. ft. may be required? Please provide if so.
 - a. Is there any limitation on how far APs can be placed from the common equipment space? If so, please comment on how closely spaced such spaces typically would need to be.
19. It is anticipated that fiber will be required to each AP. Please describe typical fiber requirements and topology.
 - a. It is expected that construction of fiber, duct, etc. within the venue would be the responsibility of the NH-DAS integrator/operator. Is this a realistic expectation?
 - b. Please describe any backhaul/fronthaul alternatives to fiber you may utilize in your solutions.
20. How are APs typically powered in your solution?
21. Do you foresee the need to provide Wi-Fi within the venue for LAA / carrier concatenation, and would your solution support this? (This is not to be confused with provision of any separate “City” Wi-Fi network, which the City does not intend to solicit at this time.)
 - a. If so, would this require a Wi-Fi network for each tenant Provider, or just one that the NH-DAS integrator/provider would provide for shared use by the tenant Providers?





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22. Would you envision the NH-DAS integrator/provider being a licensee of any FCC-licensed spectrum such as 3.5 GHz CBRS or other bands, and in-turn making it available to its tenant Providers? How would such an arrangement work?
23. How will the NH-DAS system accommodate forthcoming 5G and millimeter Wave (mmW) technologies?
 - a. Can tenant Providers expect to be able to avail Massive-MIMO/beamforming on Mid-band or future 5G/mmW frequencies within the venue with your solution?
 - i. Do they need to? Or are/will there be other technologies for dense iDAS or oDAS applications that accomplish a similar result?
 - b. Please discuss mmW APs compared to Mid-band / Low-band, and what increase in density of APs is likely to be required per sq. ft. or cu. ft.
 - c. Are there any issues with concealment of mmW APs, where this may be required?
24. Could the City's integrator/operator's NH-DAS be utilized to support IoT and/or Smart City applications for the venues, directly for the City and independently of the tenant Providers? If so, how?
25. Is it possible for the DAS also to support traditional Public Safety UHF and VHF LMR frequencies? If so, please describe briefly how.
26. Technical or otherwise, what in your view are the leading hurdles to successful NH-DAS deployments for an integrator/operator for:
 - a. Indoor venues?
 - b. Outdoor venues such as stadiums?
27. Can you share an abstract description of any successful existing municipal contract arrangements you may have for the provision of the type of NH-DAS integrator/provider service contemplated?
28. Are there other key requirements not discussed here that the City should anticipate being expected of it by its NH-DAS integrator/operator?





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29. Is it reasonable to expect that the City can remain completely isolated from the technical and business operation of the NH-DAS system?
30. Are there any additional topics that the City should cover in its RFP?

Please also feel free to provide any additional information you would like to share.

Your efforts here will assist the City in generating a far more relevant and focused RFP requiring far less of your time in clarification follow-up and subsequent RFP Addenda than would be required without it. Thank you sincerely for your time and effort in responding to this RFI!





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Attachment A – Myrtle Beach NH-DAS Targeted Venues – General Information

The of Myrtle Beach-owned venues currently targeted for NH-DAS are as follows. Locations are marked and may be viewed in the attached Google Earth file, *Myrtle Beach DAS-NH Locations.kmz*.

INDOOR VENUES:

1. Myrtle Beach Convention Center. 2101 N. Oak St. Includes all Exhibit Halls, Ballrooms, Meeting Rooms and the South Carolina Hall of Fame. Does not include adjoining Sheraton Hotel.
https://myrtlebeachconventioncenter.com/uniflip_publication/html5.html#page/1
2. Myrtle Beach Sports Center. 2115 Sports Center Way.
<http://www.myrtlebeachsportscenter.com/about-us/floor-plans-and-facts>
3. Charlie's Place. 1420 Carver St.
https://www.myhorrynews.com/news/local/myrtle_beach/charlie-s-place-beginning-taking-shape/article_4bc93f5e-bb3a-11e7-89f2-8361b58d4abc.html
4. Crabtree Memorial Gymnasium 1004 Crabtree Lane. (Outdoor venue Savannah's Playground is adjacent.)
http://www.cityofmyrtlebeach.com/departments/recreation_services/crabtree_memorial_gymnasium.php
5. Emergency Operations Center / Fire Station #4 / Police Substation. 1220, 1298 Howard Ave.
6. General Robert H. Reed Recreation Center. 800 Gabreski Lane.
http://www.cityofmyrtlebeach.com/departments/recreation_services/base_recreation_center.php
7. Mary C. Canty Recreation Center. 971 Canal St.
http://www.cityofmyrtlebeach.com/departments/recreation_services/canal_street_recreation_center.php
8. Pepper Geddings Recreation Center. 3205 N. Oak St.
http://www.cityofmyrtlebeach.com/departments/recreation_services/pepper_geddings_recreation_center.php





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9. Ted C. Collins Law Enforcement Center / Municipal Court. 1101 North Oak Street.
<https://www.facebook.com/pages/Ted-C-Collins-Law-Enforcement-Center/215797671806031>

OUTDOOR VENUES:

1. Boardwalk & Promenade. Extends between the oceanfront and street ends, from 1st Ave. N. to 15th Ave. N. Includes the oceanfront end of former Pavilion Amusement Park (between 8th & 9th Ave. N., site of Carolina Country Music Festival), and Plyler Park (site of Hot Summer Nights). Includes all (12) Beach Pylons. <https://www.visitmyrtlebeach.com/things-to-do/attractions/boardwalk/>
2. Doug Shaw/Ned Donkle/Ashley Booth Memorial Stadium. 705 33rd Ave. N.
http://www.cityofmyrtlebeach.com/departments/recreation_services/doug_shaw_memorial_stadium.php
3. Grand Park Athletic Complex. 1011 Crabtree Lane.
http://www.cityofmyrtlebeach.com/departments/recreation_services/grand_park_athletic_complex.php
4. Pelican Stadium. 1251 21st Ave. N.
http://cityofmyrtlebeach.com/departments/recreation_services/baseball_stadium.php
5. Savannah's Playground. 1004 Crabtree Lane. (Indoor venue Crabtree Recreation Center is adjacent.) <http://savannahsplayground.org/>

