AAA - 02-28-2017

[redacted] **RFI STATUS: SUBMITTED TO COUNTY** **PREPARED BY:** [redacted] **DATE: 2/28/2017**

HIGH DENSITY WIRELESS NETWORK

RFI Line Items

ECPU: ESTIMATED COST P/UNIT **PMP:** POTENTIAL MINIMUM PURCHASE **PAP:** POTENTIAL ANNUAL PURCHASE **PF:** PURCHASE FREQUENCY **ETD:** ESTIMATED DELIVERY TIME

ITEM	MFR	MFR PART # /SKU	ECPU	MIN QTY	PMP	PAP	PF	ETD	DETAILS
End-of-Life replacement of existing Wi-Fi system with new high density wireless network. Vendor will provide design, engineering, installation, commissioning, testing, and acceptance of the systems.			[redacted]	1	[redacted]		1	84	PLEASE REFER TO ATTACHED PROJECT SCOPE.
Totals						[redacted]			

PROJECT DESCRIPTION: End-of-Life replacement of existing Wi-Fi system with new high density wireless network that will provide throughput of 11 Mbps per user with anticipated throughput capacity of 22,000 associated, authenticated, and active fan based users throughout the facility and surrounding area in addition to back of house operations. Vendor will provide design, engineering, installation, commissioning, testing, and acceptance of the systems.

APPROXIMATE PROJECT COST: $890,000 inclusive of design, engineering, professional services, hardware procurement and installation, commissioning, testing, training, acceptance of the systems, and post-installation support

SCOPE OF WORK:

- Following is a listing of suggested part numbers of networking components and services for use in this installation, or their equivalent. Vendor recommended substitutions will be approved solely at the discretion of BPL:
    - Mobility Controllers
        - Quantity (2): Aruba JW752A – 7220 series Mobility Controller: High Availability
        - Quantity (1): Aruba Airwave
        - Quantity (1) Aruba ClearPass Policy Manager
        - Quantity (4): Aruba JW092A – 1310nm SFP for Mobility Controller
        - Quantity (1): Aruba JW657A – Redundant Power Supply for Mobility Controller
        - Quantity (466): Aruba ALE – Analytics and Location Engine
        - Quantity (2): HPE H3EW1E - 3 Years NBD Exchange Service for 7200 Controller
    - Access Points and Antennas
        - Quantity (140): Aruba AP-334 – Dual radio 802.11n/ac 4x4 MU-MIMO AP, NBASE-T ETHERNET, antenna connectors
        - Quantity (100): Aruba - ANT-2X2-5314 Dual: linear vertical and linear horizontal with 30° horizontal x 30° vertical beamwidths
        - Quantity (40): Aruba - ANT-3X3-D608 Multipolarized 3x3 antenna with 60° horizontal x 60° vertical beamwidths Directional Antennas
        - Quantity (100): Custom – Integrator Supplied Catwalk Mounting Affixation
        - Quantity (326): ARUBA - AP-335 Dual radio 802.11n/ac 4x4 MU-MIMO AP, NBASE-T ETHERNET, integrated antennas, Includes T-Rail Mounting Clip
        - BLE (Bluetooth low energy) ready
    - DHCP / DNS Services Appliance
        - Quantity (2): Trinzic TE-1420-NS1MSGRID-AC Trinzic 1420 w/ 1 HDD, 1 PSU-AC, Network Services One, MS Management and Grid
    - Enclosures and Power
        - Quantity (2): MIDDLE ATLANTIC DWR-18-22 Equipment Racks, Side Panels, Lace Rails, Power Strips & Vented Back
        - Quantity (2): ORION DC-1000-RTX 1000VA Uninterruptable Power Supply
        - Quantity (2): ORION OPS-RAILKIT Rack Rail Kit for UPS

        - Quantity (2): OPS-SNMP3-WEBCARD Communications Card for UPS
- The wireless system will be capable of supporting 2.4, 5.8 GHz, and required emergency frequencies inclusive of 802.11 bands a, g, n, and ac.
- The Vendor shall provide a captive portal gateway for user access, to be used at the users' discretion.
- Wireless system hardware deployment (access point, repeaters, etc.) is to be of minimal visual impact, providing both an aesthetically pleasing (BPL's discretion) and robust deployment.
- Seamless roaming - Users able to move through the identified areas, inclusive of, but not limited to elevator cabs, ramps, and stairwells, without dropping any TCP/UDP connections.
- System shall support Various Authentication options to be implemented based on the user experience(s), defined by the BPL. These include, but are not limited to, Ads for access (both still and video), Social media login (Facebook, Twitter, Google+) Apps for access, pay for access, and roaming authentication through radius integration.
- Tier offerings to be supported based on data rates and data volume.
- Captive Portal User Experience shall be customizable based on location, and authentication method.
- System shall support integration with industry standard programmatic Ad serving platforms to be defined by BPL. Solution to include VAST 3.0 player.
- System shall support next generation hot spot technologies including, but not limited to, Hot Spot 2.0 EAP-SIM.
- System shall support Wi-Fi presence based technology.
- System shall provide API's and web services to access back office syslogs and databases, including but not limited to, DHCP logs, DNS logs, Web Server logs and Proxy server logs. System shall automatically provide raw user data to BPL within 12 hours after an event.
- Service Provider shall have 90 day data retention policy.
- System to include management portal with extensive reporting and filtering including but not limited to:
    - Unique users
    - Session times
    - Revenue
    - Google analytics
    - Presence
    - Domains visited
    - Trouble tickets
    - Help desk logs
    - Device service history
    - User bandwidth
    - Device type
    - User identity
    - Heat maps
    - Tools from the following Vendors should be considered but not limited to:
        - Purple
        - Euclid
        - Aruba ALE

- System shall support indoor mapping.
- Systems Security:
    - Rogue AP detection and mitigation;
    - MITM detection and mitigation; and
    - Captive portal security and the mechanisms in place to prevent credential hijacking.
- Vendor is required to provide any mounting and or custom enclosures as part of their proposed solution.
- Vendor is required to determine quantities of SSIDs broadcasted and non-broadcasted, based upon their proposed solution and forthcoming operational needs of BPL.
- Vendor is required to determine quantities of VLANs based upon their proposed solution and forthcoming operational needs of BPL.
- Training:
    - The Vendor, at its own expense, will provide designated BPL representatives operator and maintenance training.
    - Training will be performed at the site by a qualified network engineer and shall occur either during installation of the equipment or immediately thereafter.
    - The training shall cover the operation, routine maintenance and troubleshooting of systems equipment, and shall be sufficient in duration and detail to provide proficiency in the same to the designated BPL representatives.
- Provide Remote Monitoring and Event Support for 170 events annually.
- All parts, labor, and all other associated apparatus necessary to completely install, test, and turn-over for acceptance to the BPL turnkey, fully operational systems.

TIMELINE:

- Anticipated twelve (12) weeks from Award Date for design, engineering, professional services, hardware procurement and installation, commissioning, testing, and training with a substantial completion date of September 5, 2017.
- Vendor must submit a schedule of anticipated work days to BPL or BPL's Agent for approval and must account for events as follows:
    - Event Days – crews allowed onsite from 7am – 3pm when the event occurs in the evening;
        - Crews will not be allowed onsite when an event occurs in the morning and/or afternoon (e.g., Disney on Ice matinees and school shows); and
    - Non-Event Days – crews allowed onsite for extended hours as needed.

WARRANTY:

- An inclusive itemized package encompassing all warranties, licenses, and maintenance contracts on all hardware and software as part of the proposal for 5 years from the day of system acceptance and sign-off.
- Warranty period will commence on the day of system acceptance and final sign-off. Sign-off will not be awarded until the conclusion of (5) five successful, issue free, consecutive events.

RESTRICTIONS AND QUALIFICATIONS:

- The proposed Vendor must have the following experience and certifications:
  - Vendor shall provide a list of a minimum of three (3) facilities (facility, contact name, title, address and current phone number) where the Vendor has provided equipment and services of equivalent size and scope within the last five (5) years.
  - Vendor shall have a minimum of 5 years in the communications, networking, and structured cabling business.
  - Vendor shall be required to provide a Letter of Surety from its bonding agent, stating its ability to provide a 100% payment and performance bond if they are the successful bidder.
  - Vendor must have a Registered Communications Distribution Designer (RCDD) on staff.
  - Vendor must be a member of BICSI.
  - Vendor shall be required to provide submittals and shop drawings (print and electronic) to BPL within twenty (20) calendar days of date shown on award notice, acknowledged with a binding letter of intent.
  - Upon substantial completion, but prior to onsite training with the BPL, Vendor shall provide print and electronic final Operation & Maintenance Manuals (O&M Manuals).

INSURANCE:

- Vendor shall purchase and maintain during the entire project and for two years after project completion insurance with the minimum limits and coverage shown below from insurance companies acceptable to Basketball Properties, Ltd. ("BPL"). BPL has the right to reject unacceptable insurance carriers.

STANDARD INSURANCE REQUIREMENTS	
Coverage Type	**Limits**
General Liability	$1,000,000 Per Occurrence; $2,000,000 General Aggregate; $2,000,000 Completed Operations Aggregate
Auto Liability (All Hired Non-Owned)	$1,000,000 for all jobs
Worker's Compensation	Statutory Limits; $1,000,000 Employers Liability

- Vendor shall carry standard ISO General Liability coverage, written on an occurrence basis including Completed Operations. Coverages on an occurrence basis shall be maintained without interruption from date of commencement of the Vendor's Work until date of final payment or date coverage is required to be maintained after final payment to the Vendor, whichever is later. The coverage must be endorsed to name Basketball Properties, Ltd., City of Miami, and Miami-Dade County as additional insureds on a primary and non-contributory basis.