

Minnesota Sports Facilities Authority
Addendum 1: Request for Information Responses - 03.20.24
US Bank Stadium Wi-Fi

Project: US Bank Stadium Wi-Fi	Discipline: Wi-Fi
Questions	Responses
Are all temporary field APs cabled back to the same IDF?	No
Will you accept proposals using manufacturers other than what is listed – i.e. Everest Networks?	Everest will be acceptable.
Is there currently a preferred house electrician/datacom vendor?	No
Are ISP services provided by the venue or do they need to be quoted?	Venue
Can you please clarify if you are looking for a two-year warranty as opposed to a two-year maintenance plan?	2 year service and warranty.
No current APs were observed to be painted - is neutral/unpainted gray acceptable for new APs?	Neutral is acceptable in areas like the concourse. There are premium areas with dark ceilings that will need to be painted to match.
Is it mandatory to re-use the Plaza Pole AP enclosures?	No
Is it mandatory to conceal the Plaza Pole APs?	Yes
Are elevation/profile drawings available of the retractable seating area and nearby overhang/overhead area?	All drawings available have been provided.
Who was awarded the referenced recent IPTV project?	Tripleplay
Is the Owner responsible/capable for DHCP and DNS configuration to accommodate the new Wi-Fi system?	No
Is a current fiber-to-IDF inventory available?	No - however there are sufficient open strands to support this project.
Is a current list /drawing / diagram of IDFs available?	The IDFs are indicated in the Wi-Fi as-built PDFs. They should also be identifiable in the Navisworks model
Are existing IDF UPS to be re-used or replaced? If re-used, is an inventory available?	New UPSs should be installed to support your solution.
What are the existing available power sources/types at the IDFs? (120v NEMA 5-15, 220V twist lock, etc.)?	15-20R
Under Technical Approach line 8. "Proposer must provide proposed" ... "Predictive Heat Maps, Renderings" - is a full stadium predictive model required or are representative sections sufficient? Please clarify what type renderings are required?	representative will be sufficient for proposals. Full required for submittals by awarded.
Is Verizon offload required for the new Wi-Fi system?	Yes
Are overview/combined drawings for each level available? (vs. The provided sectorized drawings)	No - sectors were all that was provided.
What is the required edge-port speed of new switches to support Wi-Fi APs?	That is for you to determine based on your solution and adherence to specifications
What is the required uplink edge-to-core speed of new switches to support Wi-Fi APs?	That is for you to determine based on your solution and adherence to specifications
What type of fiber is currently run between the MDF and IDFs?	Single mode
Beyond basic internet access, are there specific services or experiences (e.g., mobile apps for in-seat ordering, augmented reality experiences) you wish to provide to guests through the Wi-Fi network?	All of those you listed may come into play in the near future if not already.
How many wired ports for POS (point of sale) will be required in the building and are they anticipated to be a part of our switch port count?	None - your port count needs to support your wireless service not all wired LAN.
Pre-installation site survey is required to determine exactly how many APs required and optimal AP mounting locations, will accommodations be made for the walk when awarded?	When awarded - yes
Is stealthing required? What kind (i.e. color match skin wraps / wraps with logos) and where?	Yes. Premium spaces
Is Wi-Fi location (RTLS) or BLE location for wayfinding requested?	Solution should support it.
What is the expectation on existing Wi-Fi network running concurrently with the new network, given that target completion date is after the start of the NFL season?	Yes
Would MSFA be open to a phased approach, turning up the new network across sections of the stadium?	Yes
Can you provide an architecture diagram depicting the core network elements (ISE, Firewall) and how they integrate with the new Wi-Fi network?	No
Will Minnesota Vikings / MSFA be responsible for configuration and testing of any required integration to the non-Wi-Fi core network elements?	No
Please confirm that Minnesota Vikings IT will continue to be responsible for temporary AP setup/deployment on an event-by-event basis.	Yes - ASM IT, not Viking IT.
Please define any areas within or outside of the stadium that are currently experiencing poor Wi-Fi performance (and thus likely need re-design and/or increased AP density).	All - but some due to device failure.
If new IDF locations are required, confirm that scope includes running fiber to that new location.	Vendor scope includes running fiber, and buildout of any remote TR enclosures.
Can you confirm that request for 6 GHz is a requirement in the design or solution?	Yes
Are there any issues or problems with re-using or replacing existing handrails in the lower level?	Reusing those locations is acceptable, but will not support required performance alone. Consider them part of or supplemental placements to your overall design.
Is there a preference for underneath seat design for lower bowl section?	under seat is anticipated to fulfill requirements.
Are there any aesthetic restrictions that need to be considered?	Cabling in conduit, painting or stealthing in premium areas.
Section 1.03 of the Performance Specifications section states that the Authority will have the option to obtain a long-term service contract and support for the equipment supplied by the selected contractor. Are managed services provided by the contractor not required as part of this RFP?	Note there are two proposal options in the proposal form. One is CAPx and the other WaaS. WaaS would be assumed to be full managed service.
Section 1.08 of the Performance Specification section states that the selected contractor will provide pricing for additional support and maintenance for years 3 through 7 as an annual rate. Does this mean that the Authority is expecting a maximum seven-year term for managed services?	Yes.
The RFP states that the Authority is open to alternative financing arrangements for the system's deployment. Will the Authority consider a model whereby the selected contractor would own the system and operate it pursuant to a long-term lease/license agreement?	Potentially.
There is no mention of exclusivity in the RFP. Will the Authority ensure that it will not grant rights to third parties that will prevent the selected contractor from delivering on the requirements of the RFP?	You'd have to be more specific with this question. However, the awarded vendor would be the only vendor responsible for completion.
Can the Winner Store 1 or 2 weeks worth of New WLAN gear and ancillary equipment, in some designated secure location at US Bank, such that the Winner can reduce the overall number of Equipment deliveries to the Venue during Construction of the new system?	Yes
Can we confirm these are the names for the (7) gates around the venue: 1. Legacy Gate: Located on the west side of the stadium. 2. Polaris Gate: Also on the west side, adjacent to the Legacy Gate. 3. Medtronic Plaza Gate: Found on the east side of the stadium. 4. Hyundai Club Entrance: Accessible from the Polaris Gate. 5. Delta Sky360 Club Entrance: Located near the Polaris Gate. 6. Vikings Locker Room Entrance: Situated near the Polaris Gate.	Yes
Given there Will Be Wi-Fi signals measurable on the field from > 1000 Wi-Fi AP's around the Venue: What is the RSSI Signal Level, below which, All Wi-Fi Bands of RF must be measured on the Field?	-67
Can we have access to the current design with AP and IDF locations?	As built have been provided
How old is the current network?	8 years
Is all the current cable plant CAT6A?	Yes
What's the expected lifespan for the new network?	7 years
What is the current WAN link capacity?	SMF - depends on your proposed optics and core.
How many IDFs are currently in use for the existing Wi-Fi Network?	All
Can a similar cable brand be proposed?	Yes
Please clarify if MSA desires responses to include: a) areas of the bowl seating area with Access Points placed currently in an Overhead or Handrail approach to be redesigned to an Under seat approach. b) Increased Access Point density in the bowl seating areas currently in an Overhead / Handrail approach utilizing current LPV HD W-Fi 6/6E standards rather than a one-fixture-replace approach.	Yes to all.
Is MSA planning to reuse any of the Wi-Fi Network Core and Edge switching, Firewall, and DNS/DHCP appliances? Or are all of these appliances expected to be new in our proposed solution?	Appliances to be reused are listed in the specifications.
On the site walk it was said that pictures of the Core Network rack would be provided. Can you please provide photos of the existing core and peripherals racks?	Yes - they have been added to the drawings folder on Dropbox.
For a CAPEX option, how many years of manufacturer support should be included in the proposal?	2
What is the requirement for removal and disposal/storage of existing Wi-Fi access points?	reference the specifications - it details the requirement.
Does the stadium have AC capacity for additional 220V drops to be located in potential new IDF locations?	Yes
Does the customer have a target budget they would like us to try to stay within? This would help determine our design methodology (Best Possible Coverage vs- Value Engineering in Areas)	Best coverage to meet the requirements - value engineering is not encouraged.
Can the customer provide their current number of Switches/Ports needed/in use per IDF Closet? (we will factor in additional ports for added AP Density)	You should be supplying all switches needed to support the entire Wi-Fi solution.
Is the broadcast network in scope for this project?	No.
Has a wireless site-survey / coverage heat-map been done for the existing wireless environment? Will that information be shared with respondents so as to ensure the best designs possible?	One has not been conducted.
What are the internal dimensions of the Plaza Pole AP enclosures?	We do not have data on the enclosures.
Is there a detail drawing / schematic of the retractable seating, particularly the individual seat and rows of seats and how they mount, fold, and dimensions of the voids and spaces.? Preferably PDF format – the provided file "CG_IRW - Telescopic SEATING.rvt" was not viewable in Autodesk Viewer.	We were able to open the retractable file with the following viewer: https://www.autodesk.com/products/navisworks/3d-viewers?cdata=MXxOf0B8Wxww&AID=10282382&PID=100357191&SID=tuid%3A3F772D71E3C66E23AD239492F5C67BC&mkvar002=afc_us_deeplink&cjevent=de038246dcd211ee82ca54590a82b824&affname=100357191_10282382

What level of maintenance are you seeking? Are you looking for advanced hardware replacement maintenance on the APs or would the quoting of spare sparts be preferred?	Vendor to diagnose and replace any failed components. Assume 20 cold spare Aps left at site.
In the RFP, there is a requirement for (3) "Problem Free" events at US Bank, Post the System being on Commercial operations, before the Owner will consider Accepting the system as meeting all criteria for invoicing and payment. How is "Problem Free" defined with respect to the new Wireless System?	Critical system errors, failed APs, failed controllers, failed switches, etc. Individual user issues will not count against the vendor unless they are systemic.
What are your expectations for ongoing support and maintenance of the Wi-Fi network? Are you looking for a managed service, or do you have in-house capabilities for network management?	In house day to day.
Is any onsite event support needed, if so how many events per year?	Minimum of first home game of the season for on-site support.
Do you have a current AP count/type/qty? Can you pull a controller report?	There are roughly 1200 APs. However you should not be designing a 1 for 1 replacement. Design for your product to satisfy the specifications which the current system cannot.
Would it be possible to coordinate a separate site walk with our low voltage contractor in order to help us refine our hardware and construction budget?	They should have joined you on the site walk. There is little time to provide an additional walk of the venue.
Are there any secure WLANs required, what authentication mechanisms are used?	Yes - We are using Cisco ISE for authentication
Are there existing systems (e.g., ticketing, point of sale, security cameras) that the new Wi-Fi network needs to integrate with? If so, can you provide details on these systems?	Yes - Yes, (Ticketing Ticketmaster/AXS/SKIDATA, F&B POS, Apparel POS, Security- no cameras). These are all just using either a secure SSID via Cisco ISE or a dedicated SSID.
Is the ISP connection provided by the Venue? a. What is the available bandwidth? b. Is there a single MPOE (within the MDFlor dual / diverse entries?	Provided by venue. Dual. Available bandwidth is 60GB. Providers are - WIN Technology & LUMEN. These are diverse paths outside the building. Internally they are all part of HSRP/RGP.
Field coverage was discussed during the site walk. Can you recap how many tripods/APs you have?	There are roughly 25 tripods with 3 APs per tripod. Equal to roughly 75 APs
Please define the 'back of house' services that will run over Wi-Fi (point of sale, ticketing, IPTV, etc.) along with estimated number of connected devices per service.	Ticketing (NFL Games) ~250 total devices between ticketing scanners, ticket resolution iPads, and Ticketmaster handhelds. Credentialing (NFL Games) ~85 total devices. Aramark hawkker POS ~125. Security ~10 (iPads & iPhones). Guest Experience ~300 (iPhones to report issues during events). ASM Ticketing ~10 (iPads). ASM Broadcast & Production ~15 (iPads). Suites ~125 (iPads for TV controls). Misc. ~100 (iPads)
Please define what elements of the scope require union labor (e.g., low voltage cabling, conduit installation, physical mounting of hardware, etc.).	The stadium is a union facility. Any work performed on site must be union contractors. If there is proprietary work (such as programming of equipment), then the awarded vendor would be allowed to perform such work without a union contractor.
What are the target utilization percentages for MBE/WBE subcontractors for this RFP?	The authority does not have specific stated goals for this project. The MSFA expects that each vendor maximize their participation of both MBE & WBE subcontractors.
For those AP locations where New AP's are proposed to be installed in locations like Under-Seating in the Bowl or installed in the Ceiling of the Gate/Ticket Portal Doorway interior spaces around the perimeter of the venue: Are New Building Permits required to be In Hand, prior to the Winner beginning construction on any/all of these types of AP installations under this project? It is assumed that ALL legacy AP locations now installed, can be Swapped Out for New Gear installed in the same location without approval for a New Building Permit.	A 1 for 1 swap of equipment would not require a building permit. Any new AP's added would be subject to local building codes and permits. The expectation is that any applicable permits are in hand before new work would begin.
The Trade Contract Agreement states that the selected contractor must agree to be bound by the Project Labor Agreement attached thereto. The Project Labor Agreement references Collective Bargaining Agreements that the selected contractor must adhere to. Will the Authority provide copies of said Collective Bargaining Agreements for contractor's review?	The winning contractor would be responsible for reaching out to the trade unions affected by the project. The stadium will host a kickoff meeting with the Union Trade Council and the awarded vendor in order to review any unions who would claim jurisdiction over this project.
The Trade Contract Agreement states that a Certificate of Final Completion shall be submitted to the Authority for the written acceptance of responsibilities assigned to each party in such Certificate. Can the Authority clarify if they have a standard form for this certification? If so, will the Authority provide a copy for contractor's review?	The Authority does not have a template for this certificate.
The Trade Contract Agreement states that the Authority can make changes to the scope of work after contract award through a Construction Change Directive. Can the Authority clarify if this will be mutually agreed to by the Authority and the selected contractor?	Yes, the Authority would only issue a change order when both parties agrees to said change.
Given the Maintenance Window, generally from 2300 HOURS to 0500 HOURS, won't have any events or customers in the venue: Can we consider this time window for our labor to be essentially guaranteed as "access to the entire venue indoors and outdoors" with almost 0 risk to our planned labor timetable being impacted during installation and commissioning the new Wi-Fi Systems?	There is always a chance the stadium could host events at any time during any given day. However, the stadium will provide an event schedule for the vendor to coordinate around. Furthermore, any additional changes to the schedule would be communicated to the vendor as soon as possible.
Which partners have been afforded detailed walkthroughs in the last 6 months beyond the RFP walkthrough on 3/5? Meaning, which respondents are familiar enough with the building enough to ensure a successful and accurate proposal and project outside of just the drawings?	No one has had additional walkthroughs of the facility in the last six months of the building.
What are the sustainability requirements/metrics that are being evaluated (i.e. LEED) when it comes to the power consumption of the desired future wireless environment? Are any of these requirements mandated by the MSFA or the State of Minnesota? If yes, how will that be measured?	There are not specific power requirements for this project. The expectation would be that the system is installed and designed to run as efficiently as possible.
Will the Vikings Fan Experience app be leveraged at USBank Stadium, and does that application have any technical dependencies/requirements for the future state wireless environment that need to be accounted for? If yes, please explain?	Yes, the Vikings App will feature mobile wallet and the option to activate on mobile ordering. Connectivity will be key for fans to utilize this function, especially in concourses, retail clubs (SUKUP, Little Six, and Polaris) and seating bowl. No Bluetooth/BLE/Beacon integration is needed.
Where can we find the cybersecurity requirements that need to be addressed as part of this project?	the specific cybersecurity requirements are that any public Wi-Fi or corporate Wi-Fi have a splash page on general use policy and the Vikings/ASM Global/MSFA are choosing not to follow this guideline. All other requirements of the Wi-Fi system have been highlighted in the RFP.
Cisco would like to provide the MSFA and USBank Stadium with an update on our technology platforms and tools being used at other large venue NFL stadiums, especially around Wi-Fi and unique IP that Cisco has developed specific to large sports stadiums. How do we go about scheduling that?	Potentially after shortlisted proposers have been selected.
Can you please provide a seating manifest by section?	YES, please see attached maps for seating numbers in each section of the building.
Please provide the typical indoor temperature range maintained in U S Bank stadium.	Typical, non event day temperatures can range between 60 degrees to 80 degrees, depending on the time of the year.
Can an electrical power diagram for the facility be provided?	This will be shared via link.