

ADDENDUM NO. THREE  
September 30, 2014

This Addendum forms a part of the contract Documents and modifies the original plans and specifications dated September 16, 2014.

Acknowledge receipt of this Addendum on the Proposal Form. Failure to do so may subject Proposer to disqualification.

Reference made to Specifications and Drawings shall be used as a guide only. When Specification Sections or drawings are issued, changes made in Specifications or on Drawings will take precedence over narrative explanation below. Proposer shall determine for themselves the work affected by Addendum items. This Addendum consists of 6 pages with 1 referenced IPTV Specification PDF posted on MSFA Web Site.

**QUESTIONS AND ANSWERS**

**ADMINISTRATIVE AND GENERAL QUESTIONS AND ANSWERS:**

**QUESTION #1:** One clarification, it states in the RFP under RFP timeline proposals due October 7th. Then it states under proposal deadline October 2. I assume October 7th is the correct date?

**ANSWER #1:** October 7, 2014 is the correct submittal date.

**QUESTION #2:** Is it possible (or acceptable) to respond to this RFP for one portion (IP Telephone System) or is a complete response required (LAN & Telephone System)?

**ANSWER #2:** Yes a proposer may respond to one element of these RFPs as opposed to both. Ideally, MSFA desires a unified team but will review this approach as an alternative.

**QUESTION #3:** I had trouble hearing the name of the person on the conference bridge that was representing the Vikings. Can you confirm who that was & also his title?

**ANSWER #3:** Bob Jordan, Senior Vice President, Van Wagner Sports Group, is a consultant to the MN Vikings.

**QUESTION #4:** Could you please clarify if you require an onsite technician or if telephone response is sufficient for the stated SLA of 4-hour response for Emergency maintenance and 12-hour response for Routine Maintenance?

**ANSWER #4:** The ability to provide an on-site response is required.

**QUESTION #5:** Would you be willing to provide a two-week extension to the due date?

**ANSWER #5:** No.

**LAN QUESTIONS AND ANSWERS:**

**QUESTION #6:** Can you please provide the IPTV specs, including the number of multicast streams, unicast streams and associated Codec types and bandwidths?

**ANSWER #6:** See IPTV Specification PDF posted on MSFA Web Site.

**QUESTION #7:** What room will the core networking equipment physically reside in? Single room?

**ANSWER #7:** This is still being fine-tuned but the current decision is for the cores to be in dual rooms: one in the main data center and the second in the secondary data center or MPOP.

**QUESTION #8:** Supply of patch cords: RFP language is not consistent with regard to the supply of patch cords. Do we, under this RFP, provide all patch cords, or does the cable installer (LVC) provide them? We understand that we are to install and label the cords under this quote? Page 272100.4 specifically says that the contractor is NOT responsible to provide the patch cords (yes, install them, but not provide them). Page 272100.6 says that the Data Network contractor will provide all components except for patch cords, both copper and optical fiber. However, 272100.87 states “patch cords shall be provided and installed.”

**ANSWER #8:** Everything on the structured cabling drawings outside of the WLAN cabling has been awarded to Parson’s Electric. That includes the associated racks and patch panels, along with the plywood backboards, grounding busbar, and cable tray. In addition; the patch cords required by the structured cabling specification, and are included in the awarded Parson’s Electric contract. Quantities included will support connections up to 4600 LAN devices with copper (both ends), plus the stated fiber cords as listed. A table is provided below for all patch cords included in the awarded structured cable specification:

8. Patch cords for cross-connects and workstations are included in this proposal, as follows:
- a. (2,300) 3-foot category 6A
  - b. (2,300) 5-foot category 6A
  - c. (2,300) 7-foot category 6A
  - d. (2,300) 10-foot category 6A
  - e. (200) 1-meter single mode duplex
  - f. (200) 2-meter single mode duplex
  - g. (200) 3-meter single mode duplex
  - h. (50) 1-meter multimode duplex
  - i. (50) 2-meter multimode duplex
  - j. (50) 3-meter multimode duplex

However, it is mandatory that all patch cabling between components within the same system (VoIP to VoIP, LAN to LAN etc.) will be provided by the associated awarded contractor.

**QUESTION #9:** Question regarding PDUs and Surge Suppression; 272100.88 states that the Data Network Contractor shall interface Data Network equipment to electrical receptacles. Does this suggest that Data Network contractor will supply PDUs that will be placed in between the LAN equipment and UPS (which is supplied by others). See also 272100.95 “Install surge suppressors where AC power operated devices are not protected against transients by integral ...”

**ANSWER #9:** There are PDUs called out in the structured cable infrastructure cabinets and racks and this is awarded to Parson’s Electric. These current PDUs are not supervised so there might need to do some additional coordination if the decision is to stay with supervised PDUs but since the electronics are supervised then the PDUs probably will not need to be supervised so please assume no PDUs provided as part of this specification. Equipment within racks in IDF and MDF will be provided with power through PDUs plugged into rack-mounted UPS. The UPS will be the source of the surge protection.

**QUESTION #10:** A related question is on 272100.88, Electrical Power Overload Protection. “Overload protection shall be provided by fuses, circuit breakers... etc. Fusing. Devices shall be accessible and shall be designed to provide automatic alarm capabilities.” Does this suggest you want the Data Network Contractor to provide PDUs with surge suppression and SNMP monitoring?

**ANSWER #10:** The Data Network Contractor will be providing SNMP monitoring. The Structured Cable Infrastructure vendor (Parson’s Electric) will be providing the PDUs. The surge suppression will be provided by Parson’s Electric under the UPS scope.

**QUESTION #11:** A database needs to be created to track Jack IDs, location, application, switch port, and VLAN assignment. As this project progresses, the following steps must take place:

1. The Low Voltage Contractor will install all cable and jacks, and will create red line drawings showing the specific Jack ID assigned at each location.

2. The LVC will post those red line markups to CAD drawings. Thus, each outlet/jack appearing on a drawing will have a Jack ID assigned to it.
  3. Each Jack ID must be entered into a database indicating how each will be used: Phone type, or Ethernet along with the specific application (so proper VLANs can be assigned). Analog phones would need to be recorded in the same fashion.
  4. Each switch port must be assigned a specific VLAN in the LAN switch, depending on its application, using the information supplied above.
- Who will perform this database work (Step 3 above)?

**ANSWER #11:** The structured cable infrastructure vendor (Parson's Electric) will be loading the jack numbers on the Revit Drawing set. The successful Data Networking/LAN vendor will be loading the VLAN and LAN assignments into an excel spreadsheet along with loading the Jack IDs which will be available from the as-built plans created by Parson's Electric.

**QUESTION #12:** A related question is what database application will be employed to record/document this information? Who will provide that application?

**ANSWER #12:** Your database of information may be provided in excel spreadsheet format.

**QUESTION #13:** Should the number of Uplinks between the Core/Backbone Switches and Access/Edge Switches be based on the quantity provided in the IC Room tables or the guidance provided in the Network Uplinks section on page 22-23? (Both the IC Room tables and Network Uplinks section referenced are from SECTION 272100, IP DATA NETWORKING INFRASTRUCTURE LAN SWITCHING & ROUTING SYSTEM)

**ANSWER #13** The number of uplinks included between the Core/Backbone Switches and Access/Edge Switches should follow the IC Room Tables provided with the RFP document. The guidance provided on page 22-23 represents the uplink, aggregation guidelines that were followed to derive the uplink connections to each Access/Edge Switch.

**QUESTION #14:** What type of fiber will be used for the Uplinks? The RFP references both Single Mode and Multimode

**ANSWER #14:** Single Mode.

**QUESTION #15:** What is the requirement for server farm switches? The RFP states only a chassis in one section and fixed in another.

**ANSWER #15:** Either chassis-based and/or fixed-port based server farm switches may be proposed. Redundancy, resiliency, and maximum availability are key criteria.

**QUESTION #16:** What is the requirement for L3 routing at the IC Closets? Do all switches need to support L3?

**ANSWER #16:** Yes – even if L3 is not enabled.

**QUESTION #17:** Do all switches need to support MPLS?

**ANSWER #17:** No – unless the proposer is specifically including an optional MPLS overlay network over the L3 IP data-networking infrastructure. If so, please specify any benefits/advantages as it relates to the overall proposed solution.

**QUESTION #18:** Do all switches need to support OSPF?

**ANSWER #18:** Yes – even if L3/OSPF is not enabled everywhere.

**QUESTION #19:** Do all switches need to support all required features?

**ANSWER #19:** Yes – however, any alternate proposed solutions must describe in detail the benefits provided by the alternate design.

**QUESTION #20:** What will the distance be from the Core to the Server Farm switches?

**ANSWER #20:** On-site storage network will be within the co-located data center within 150 feet. Off-site storage will be handled by others.

**QUESTION #21:** Are redundant power supplies required for all Access/Edge LAN switches?

**ANSWER #21:** Yes.

#### **VOIP QUESTIONS AND ANSWERS:**

**QUESTIONS #22:** Please clarify who provide patch cords for the VOIP system. 273000.2 states that the patch cords inside the Comm rooms are provided with the base building. 273000.3 Section 5.i and 5.j indicates that the VOIP contractor will supply all patch cords for VOIP system specific equipment, and all patch cords at the work station connections to IP endpoint (outlet). Page 273000.4 Section 20 indicates that the contractor will supply all patch cords within VOIP system elements. Section 273000.7 #6 suggests that patch cords, including those for workstations and desktop computers, are to be provided by the VOIP contractor. 273000.37 says that “All VOIP Network cable and patch cords shall be provided as part of the structured cable infrastructure bid.” Please clarify.

**ANSWER #22:** The structured cable infrastructure specification vendor (awarded to Parson's Electric) is providing the patch cords as detailed in ANSWER #6. If you have specific requirements for the electronics in your assigned cabinets for the core of your system then you would be providing those patch cords (from your various electronic elements to each of your other equipment elements) to connect your equipment within your cabinet(s).

**QUESTIONS #23:** Drawing format; 273000.11 #3. We note that drawings will be provided in Revit. We don't utilize Revit software. Can the drawings be provided in a different format? (VISIO preferred).

**ANSWER #23:** The drawings are Revit.

**QUESTION #24:** Power; see page 273000.4 Section 21. Contractor provides "Connection from power supplies to electrical power receptacles located on walls, UPS PDUs and or vertical power strips." Who supplies the PDUs or vertical power strips?

**ANSWER #24:** Parson's Electric has been awarded the structured cable infrastructure bid and is providing vertical and horizontal PDUs for all cabinets and racks.

END OF ADDENDUM THREE