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| Missouri Western State University |
| Request for Proposal to Replace Phone and Voice Messaging Systems |
| BID SPECIFICATIONS FOR RFP17-071 |
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**MWSU seeks competitive bids for the replacement of the existing telephone and voice messaging systems.**

**12/14/2016 -Mandatory Pre-bid meeting at MWSU, Spratt Hall, Room 109 at 10:00 a.m. Central Time. The bid specifications document will be discussed. Following the meeting, vendors will be provided a walk-thru of wiring closets in each building and the computer room**

**1/18/2017 -Bid responses due in the Purchasing Department, Popplewell Hall, Room 221, at 2:00 p.m. Central Time.**

Table of Contents

[**1.** **Purpose** 3](#_Toc468372999)

[**2.** **Objectives** 4](#_Toc468373000)

[**3.** **IP Telephony (Required)** 5](#_Toc468373001)

[**4.** **Proposed Phone Sets (Required)** 8](#_Toc468373002)

[**5.** **Soft Phone (Optional Enhancement)** 10](#_Toc468373003)

[**6.** **Attendant Console (Required), Directory Services Enhancements (Optional), Interactive Voice Response (IVR) (Optional)** 11](#_Toc468373004)

[**7.** **Voice Messaging Solution (Required)** 12](#_Toc468373005)

[**8.** **Mobile/Wireless Solutions – (Optional Enhancement)** 14](#_Toc468373006)

[**9.** **Music on Hold (Optional)** 14](#_Toc468373007)

[**10.** **Call Accounting (Required)** 14](#_Toc468373008)

[**11.** **Facility Requirements** 15](#_Toc468373009)

[**12.** **System Management** 15](#_Toc468373010)

[**13.** **Vendor Support** 15](#_Toc468373011)

[**14.** **Implementation Process (Required)** 16](#_Toc468373012)

[**15.** **Training Requirements (Required)** 17](#_Toc468373013)

[**16.** **Current Equipment Usage** 18](#_Toc468373014)

[**17.** **Pricing for Telephone and Voice Messaging Systems** 18](#_Toc468373015)

[**18.** **Pricing for Optional Enhancements** 19](#_Toc468373016)

[**19.** **Site Visits, Hands-on Evaluation, Demonstrations, etc.** 19](#_Toc468373017)

[**20.** **Customer References** 20](#_Toc468373018)

[**21.** **Evaluation Criteria** 20](#_Toc468373019)

[**22.** **Bid Response Instructions** 20](#_Toc468373020)

[**23.** **Bid Response** 21](#_Toc468373021)

[**24.** **REFERENCES FORM** 23](#_Toc468373022)

[**25.** **PREVAILING WAGE PROJECT INFORMATION** 24](#_Toc468373023)

[**26.** **WORK AUTHORIZATION AFFIDAVIT** 25](#_Toc468373024)

[**EXHIBIT A Analog & Digital Sets by Building by Floor** 26](#_Toc468373025)

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# **1. Purpose**

Missouri Western State University (MWSU) wants to effectively replace the entire telephone and voicemail systems using a cloud-based, multi-location, multi-data center hosted VoIP solution. The new system should be of high quality, hosted by the provider, and should be able to scale to our needs for years to come to ensure the investment is flexible in adapting to future changes in technology. A comprehensive disaster avoidance/survivable configuration should be part of the system. Security for the system should be part of the environment. We plan to use the existing data network infrastructure throughout campus. This solution will also include our segregated location at West Campus located on the west side of I-29.

The project will include administrative training for three staff members for ongoing moves/adds/changes/system monitoring. On-site end-user training with distribution of user guides should also be provided for both the new telephone features and voice messaging.

Existing equipment includes PLEXAR Centrex service provided by AT&T, analog and PLEXAR Meridian proprietary digital phone sets, one proprietary PLEXAR console, two T-Metrics soft consoles, and a separate MITEL NuPoint Messenger 8.5 voice mail messaging system. The PLEXAR centralized wiring vault is located in a ground pit on the north side of Popplewell Hall. The voice mail system is located in the Computer Room in the Information Technology Services department within the Hearnes building. The West Campus has PLEXAR telephone service and has an 802.11an (100Mbps throughput) wireless bridge to the main campus for data connectivity.

Preference will be given to the bidder providing a cost effective, comprehensive, single-vendor solution for current specifications, future technology, capacity requirements, and ongoing service and support. The bidder of the proposed solution must be financially viable, capable of sustained ongoing support and development of the products proposed.

As a first priority the University expects to see a significant cost savings. Secondarily, the bid award decision will be based on the required and preferred feature sets as well as the warranty/maintenance/repair support and training services.

**Abbreviation and Terminology**

**Mobility** is a reference to the access of information or applications from occasionally-connected, portable, networked computing devices and smart phones.

**PLEXAR** is a PBX-like service providing switching at the central office instead of at the customer’s premises. AT&T owns and manages all the communications equipment and software necessary to implement the PLEXAR service and then sells various services and phone sets to MWSU.

**Presence** is a status indicator that conveys ability and willingness of a potential communication partner.

**Unified Communications (UC)** is the integration of real-time communication services such as instant messaging (chat), presence information, telephony (including IP telephony), video conferencing, call control, and speech recognition with non-real-time communication services such as unified messaging (integrated voicemail, e-mail, SMS, and fax. UC is not a single product, but a set of products that provides a consistent unified user interface and user experience across multiple devices and media types.

**Unified Messaging (UM)** is the integration of different electronic messaging and communications media, (e-mail, SMS, fax, voicemail, video messaging, etc.) technologies into a single interface, accessible from a variety of different devices.

**Preferred Timeframe**

This is the proposed timeframe for the Invitation for Bid and an implementation project.

12/5/2016 - Invitation for Bid released to vendors

12/14/2016 - Mandatory pre-bid meeting on-site at MWSU – Spratt Hall room 109 10:00am

1/9/2017 - Last date for Invitation for Bid questions to be submitted to MWSU by noon

1/11/2017 - Answers to Invitation for Bid questions sent as addendum

1/18/2017 – Invitation for sealed Bid responses due 2:00pm Popplewell Hall, room 221

2/13/2017 - Contract award recommendation delivered for Board Report

2/23/2017- Board Meeting – Approve contract award recommendation

3/1/2017 – Contract awarded to vendor

3/2/2017 – Full campus deployment begins

6/1/2017 - Full campus deployment complete

# **2. Objectives**

**2.1** Adhere to telephony industry standards.

**2.2** Support integration with existing IP infrastructures.

**2.3** Support common applications, providing the same functionality across all communication platforms. These applications should include individual and multi-phone speaker broadcasts; time of day routing; unified messaging to interface with Google Mail services; wireless devices; and other standard functions.

**2.4** Support robust, full feature set across IP endpoint clients and PC endpoint clients.

**2.5** Support Caller ID for both incoming calls and outbound calls.

**2.6** Support analog, digital, IP phone, and soft phone devices.

**2.7** Support modular growth in capacity and feature functionality.

**2.8** Design to include redundancy/survivability to reduce down time as well as provide al solution for business continuity and disaster recovery.

**2.9** Provide a GUI and/or Web based common interface for managing all systems and endpoint configurations. Management tool should be capable of providing maximum flexibility for rapid, efficient, and cost-effective configuration changes affecting personnel and associated equipment and supporting centralized management control. The solution must support changes on the real-time IP system for IP from a common application interface. Management tool should have the capability of being installed on multiple work stations on-site and be securely accessed remotely from off-campus.

**2.10** Provide technical support for the entire proposed solution, including applications. Bidder’s resource infrastructure must provide a single point of contact. Services available from the bidder must include:

2.10.a Quality assurance process for delivery of services;

2.10.b Installation and integration of services including project management and training;

2.10.c Availability of support 24 hours a day, seven days a week through a help desk infrastructure and on line support;

2.10.d On-site maintenance services;

2.10.e Professional services.

**2.11** Design to include security for the system and any devices needed which would allow for both on-site and remote management.

**2.12** Design to include a solution for time of day routing of calls.

**2.13** CALEA compliance must be included as part of the initial solution and thereafter covered under maintenance.

**2.14** On-site training and user guides for end-users.

**2.15** Training for three system administrators.

**2.16** Obtain optional solutions and pricing for an Interactive Voice Response system.

**2.17** Obtain solutions and pricing for E911.

**2.18** Obtain solutions and pricing for a call accounting application.

**2.19** Obtain solutions and pricing for domestic long distance.

**2.20** Obtain solutions and pricing for international long distance.

**2.21** Obtain solutions and pricing for toll free 800 numbers.

**TECHNICAL BID SPECIFICATIONS**

# **3. IP Telephony (Required)**

The proposed real-time IP system must be provided as a cloud-based, multi-location, multi-data center hosted service.

**3.1 Required Feature Set**

The solution must provide, at a minimum, the following features:

a. Hold

b. Transfer

c. Conference (3-way)

d. Call Park

e. Speed Dial – personal and system

f. Last Number Redial

g. Call Forward – busy

h. Call Forward – no answer

i. Support for a high quality, full duplex speakerphone (example: Polycom conference phone)

j. Call forwarding to external local phone only (local cell phone, local home phone etc.) with the capability to restrict the forward number to local numbers only

k. Intercom

l. Message waiting indicator

m. Name and Number on incoming Caller ID

n. SMDR output (Station Message Detail Recording)

o. The ability to allow, or restrict, access to 411 (directory assistance) on a per station basis.

p. Ring again

q. Call Pickup

r. Hands free two way speakerphone

s. Conference call

t. Class of Service (COS) including on-campus dialing, local St. Joseph dialing, long distance, direct dial, international direct dial, operator assist, directory assistance (555-1212 & 411), toll free, and 911.

u. Mute

v. Volume adjustment for speakerphone, ringer, and handset

w. Direct Inward Dial (DID)

x. Day, Night, Weekend configurations

y. Multiple ring patterns to distinguish one phone from another (inside vs. outside vs. emergency)

z. Toll restriction of specified phones

aa. Remote system administration for software changes and troubleshooting

bb. Appearances of other phones (BLF)

cc. E911 service

dd. Ability to program outgoing Caller ID on a station by station basis

Describe proposed features that satisfy the Required Feature Set.

**3.1A Preferred Feature Set (Optional)**

The University would also like these additional features which are not currently part of the PLEXAR service. Please indicate if your system will provide the following features:

1. Wireless handset that works over 802.11a/b/g/n wireless system.
2. Automatic date/time updates via NTP (Network Time Protocol) or similar network based time protocol for all servers
3. LDAP integration
4. Integration with Google Mail
5. Support for soft phones

Describe proposed features that satisfy the Preferred Feature Set.

**3.1B Additional Optional Features Offered by Vendor**

List other features which may benefit MWSU that are not listed in either section above.

**3.2. End-user Functionality**

End-users must have access to the following features:

3.2.a Password controlled access for voicemail.

3.2.b Calling party information.

3.2.c PBX-style dial plan and class of service that can be assigned by system administrator to each user based on their need.

3.2.d Basic call completion, forwarding, transfer, DND, ring again (callback request), last number redial, intercom/paging features, one-way and two-way speaker calls, speaker broadcast to individual/multi phones, and user-controlled conferencing services.

3.2.e Visual and auditory features to alert end-users of different functions.

Describe proposed features provided to end-users, including how users make and/or receive calls and access telephony features.

**3.3 Redundancy**

The proposed solution must offer multiple speech paths ensuring there is no single point of failure between MWSU and the cloud-based telephone service provider. The real-time IP system must offer redundant CPUs, redundant central switching unit, and redundant power supplies, ensuring there is no single point of failure in the central switching and power system. Describe the level of redundancy available and proposed.

**3.4 LAN/WAN Infrastructure, Quality of Service (QoS), and Power Over Ethernet** **(POE)**

The VoIP solution must support 802.1p/q and DiffServ (RFC 2474) QoS protocols. Provide minimum LAN/WAN requirements for MWSU provided network. MWSU uses Brocade equipment.

**3.5 Real-time Port Monitoring of All Sites**

The system must monitor in real time the signaling connections, delay of VoIP payload connections, and lost packets. Describe real-time monitoring and fallback processes.

**3.6 Optional QoS Management of Network Infrastructure**

Bidder should identify QoS tools that provide bandwidth management, application services and policy control. Describe ability to provide detection of all seven layers of the OSI model, policy management, transparent caching at network level and TCP rate shaping.

**3.7 Wireless Access Points on the LAN**

The solution must be able to support any 802.11a/b/g/n compliant wireless access points on the LAN. Describe wireless LAN support.

**3.8 Scalability**

The cloud-based VoIP service must be scalable. Describe how your system may be scaled up and specify the increments of increase that are available.

**3.9 Fault Management**

Describe alarm capabilities, including notification to remote locations, mobility devices, and third-party applications.

**3.10 Business Continuity and Disaster Recovery**

The University has become accustomed to exceptional reliability with the current PLEXAR system. Describe measures taken in your proposal that account for increased reliability, disaster fail-over, and recovery.

 **3.11 Day, Night, Weekend and Special Event Configurations**

The University’s telephone services operate 24 hours per day. Throughout the course of the day greetings and some call routing change depending on time of day and whether the school is open or not.

Additionally, during the summer months the school plays host to special events. These events have their own unique requirements for phone sets and voice mail. Currently the University hosts the Kansas City Chiefs’ summer training camp and other conferences. Describe how your proposed solution will easily accommodate these special, temporary events.

**3.12 E911**

The University must be able to make E911 calls that will send the correct administrator defined information (address, building, floor, room number, phone number) for the site to the nearest E911 PSAP facility. Because of the safety issues involved there can be no blocking of E911 calls. Describe the capabilities of your E911 service offerings.

**3.13 Elevators (24) and Fire Alarms (16)**

The University currently has 24 elevators (serviced by Express Elevator, Dennis Smith, 816-387-1612) with analog, one-touch auto-dial telephones. The University also has 16 fire alarm circuits (serviced by Simplex/Grinnel, Lisa Peyton, 816-916-0496) that are connected with analog phone lines. The vendor must provide solutions to maintain the connectivity of each of these circuits.

**3.14 Domestic and International Long Distance Services**

The vendor must provide options for both domestic and international long distance services.

**3.15 Toll Free Phones**

The University currently uses 3 Toll Free telephone numbers. Vendor must provide options for accommodating the Toll Free services.

# **4. Proposed Phone Sets (Required)**

**NOTE:** MWSU anticipates replacing the existing telephones. Vendors must replace existing analog and TDM phones with comparable IP telephone sets to provide a same or better functional experience. Replacements for analog phone sets must accommodate cordless units where applicable.

**4.1 IP Phone Sets to replace the following:**

4.1.1 **DIGITAL PHONES CURRENTLY IN USE = Qty. 307 (Features Mirror M5316)**

4.1.1.a Full set of telephony features including multi-line capabilities:

* Full set of telephony features including multi-line capabilities.
* Integrated alphanumeric display model (2-Line X 24 character LCD).
* Name and number caller ID
* Speakerphone.
* At least 13 programmable line/feature keys.
* Navigation Keys.
* Message waiting indicator
* Transfer capabilities
* Conference calling capabilities
* Intercom programming capabilities
* On-hook dialing.
* Adjustable volume control (off / high / low).
* Visual Ringer.
* Class / CMS Compatible Features.
* Handset support.
* Headset compatible.
* Program, Hold, Release and Mute Keys.
* Simultaneous voice and data using single-pair wiring.
* TAPI (Telephone Application Programming Interface) support via USB for PC call control on models with USB connectivity.
* User-installable adapters.
* The ability to add key modules (e.g.side cars)
* Remote System administration for software changes and troubleshooting
* Appearance of other phones
* E911 Service Ability to program outgoing Caller ID on a station by station basis

4.1.1.b Inventory of telephones currently in use:

 Aastra Meridians

 M5316 = 107 (24 with add key modules (e.g. side cars)

 M5008 = 101

 M5009 = 38 (5 with add key modules (e.g. side cars)

 M5112 = 7 (2 with add key modules (e.g. side cars)

 M5208 = 36

 M5209 = 1

 M5216 = 9 (4 with add key modules (e.g. side cars)

 M5312 = 1

**4.1.2 STANDARD ANALOG DESK PHONES CURRENTLY IN USE = Qty. 386**

4.1.2.a Programmable Features include but not limited to:

* Call transfer
* Call Hold and or 3-way calling
* Call forward features (CFB – CFD – CFV) [presently use \*72 and \*73]
* Hold and Call feature (\*82)
* Ring again (\*80)
* Call pickup (\*76) call pickup groups
* Conference (3+ way party)
* Speed call list (optional short or long list)
* Support for high quality, full duplex speakerphones
* Call forwarding to external local phones only (cells or home)
* Name and Number Caller ID
* Intercom
* Message waiting indicator
* SMDR output (Station Message Detail Recording)
* Ability to allow or restrict access to 411 on a per station basis.
* Hands free two way speaker phones
* COS (class of services including on-campus dialing, local St. Joseph dialing, long distance, direct dial, international direct dial, operator assist, directory assistance (555-1212 & 411) toll free and 911
* Mute
* Volume adjustment for speaker phone, ringer and handset
* Handset support or headset capability
* Direct Inward Dial (DID)
* Multiple ring patterns to distinguish from on or off campus
* Remote System administration for software changes and troubleshooting
* Appearance of other phones
* E911 Service
* Ability to program outgoing Caller ID on a station by station basis

**4.1.3 OTHER ANALOG PHONES AND CIRCUITS CURRENTLY IN USE = Qty. 126**

4.1.3.a Circuits that may be considered for a VoIP service solution:

* Analog Fire Alarm Control Panels = 16
* Analog Elevators Phones= 24
* Analog Fax Machines = 56
* Analog Courtesy Phones = 4, restricted to make local calls and on-campus 4- or 7-digit dialing.
* Analog Credit Card (dedicated) = 5
* Analog Modems = 10
* Analog emergency outside call boxes = 10
* Analog TDD hearing impaired = 2

**4.2 VoIP Phone Set Installation**

VoIP phone sets should include deployment on campus. Testing and resolution of any problems should occur at deployment. Phone sets must include labeling that indicates correct extension and button table configuration. For all proposed VoIP phone sets, vendor will submit for assessment actual units along with usage handbooks or instructions.

**4.3 IP Phone Sets**

IP Phone sets must support the following:

4.3.a Feature update via software download.

For all proposed IP Phone sets, vendor will submit for assessment actual units along with usage handbooks or instructions.

**4.4 Context-Sensitive Help**

Help function must be available on all display phone sets and provide user friendly prompts with full word descriptions (i.e., limited abbreviation usage). Only those features that are available through the end-user’s Class of Service should be visible. Describe help features.

# **5. Soft Phone (Optional Enhancement)**

**5.1 Soft Phone Features**

Besides being able to perform the full range of standard telephony features, soft phone capabilities must include a graphical user interface (GUI); QoS; LDAP integration; call lists (missed calls, received calls, attempted calls); message waiting indicator; post-connect DTMF dialing; task oriented on-line help and automatic software update mechanism; and the capability to add key modules, similar to the physical desktop devices.

**5.2 PC Requirements**

The soft phone should work in a Windows environment using standard PC hardware configurations for a desktop or laptop using the computer’s audio/sound card and come with a headset (wireless preferred) or hand-held device. Vendor to provide minimum specifications for any MWSU provided PCs supporting soft phone client. Vendor must provide information regarding Macintosh compatibility and minimum requirements.

**5.3 Capabilities**

Describe soft phone capabilities, including mobility, wireless LAN support and VPN (virtual private network) support. Also describe any accessories available such as USB handsets and headsets.

**5.4 Interface**

Provide screenshots of soft phone interface.

# **6. Attendant Console (Required), Directory Services Enhancements (Optional), Interactive Voice Response (IVR) (Optional)**

**6.1 Attendant Console (Required)**

The attendant console should function as a communications hub by managing calls and performing a variety of special functions such as placing calls, transferring calls, and putting callers on hold. The proposed solution should support:

6.1.a An attendant console: Indicate if console is PC-based or not. If PC-based, indicate minimum PC configuration required for PC-based solution.

6.1.b Operator services and enhanced functions such as call routing and prioritization including multiple queuing capabilities.

6.1.c Verify long distance authorization codes from the attendant console.

6.1.d An integrated centralized directory that provides a fast and convenient way of looking up subscribers in a local database and then sending calls to the selected subscriber.

6.1.e Programmable for day, night, and holiday situations.

6.1.f Forward calls from the attendant console.

Describe attendant consoles available and proposed. For all proposed attendant consoles if possible, vendor will submit for assessment actual units along with usage handbooks or instructions. MWSU requests **3 console units** for the Telephone Services Department.

**6.2 Comprehensive Directory Solution**

Provide solution and pricing for a comprehensive solution that functions as a centralized knowledge database, reducing the time and effort needed to maintain accurate information and ensuring this information is easily accessible to all Telephone Services employees. The directory should include, but not be limited to: detailed directory information for all employees with customizable fields; calling name display; multiple search criteria; department listings; and a place for operator notes.

**6.3 Auto Attendant/Interactive Voice Response (IVR) – Optional Enhancement**

6.3.a Describe the hardware technology and architecture of the system proposed and integration with the cloud based VoIP service, including but not limited to, the type of connections between the two systems, methodology for supervision and traffic measurement capabilities. Also describe its interface or integration to an ACD module. Provide details on database storage, backup and system administration. Describe the modular growth and maximum port capacity of the proposed system.

6.3.b Describe all types of connectivity the system can support, including but not limited to trunking, stations and system integration to the ACD, tie-lines, T1’s, and other dedicated services as may be required in the future.

6.3.c The system should be able to provide a different script to handle incoming calls differently (including playing different announcements and offering different choices) based on DNIS (Dialed Number Identification Service), DID, and trunk port used. Describe how the proposed system will accomplish this function.

6.3.d System should include capabilities on preventive measures to protect the system from any type of fraudulent access to outgoing facilities. Describe fraud prevention methods of the proposed system.

6.3.e The system should monitor all transfers to insure that they are not being transferred to a busy or out-of-service number. If the system detects either of these conditions then the system will reconnect to the caller, provide a prompt explaining the reason the attempt has failed, and then return the caller to the menu they came from. Describe call monitoring/supervision for the proposed system.

6.3.f In the event of an auto attendant failure, all calls should be passed directly to the Attendant Console. Specify what method of fall back the system will use to insure that calls are passed to the Attendant Console during any auto-attendant failure. Specify any capabilities that are lost during this failure and provide options to remedy while the system is down.

6.3.g The system should provide comprehensive and accurate reporting detailing all activities conducted by the auto attendant. Through reports or other types of monitoring, the auto attendant should provide information listed below, but not limited to:

6.3.g.1 Briefly describe the reporting capabilities of the proposed auto-attendant.

# **7. Voice Messaging Solution (Required)**

**7.1 Messaging Application Requirements**

The messaging solution must provide voice messaging at a minimum, but we prefer the system also provide for unified voice, email, and fax messaging capabilities.

**7.2 Voice Messaging Features**

Describe basic and optional features. Capabilities should include:

7.2.a TUI (telephone user interface) and GUI (graphical user interface in a web browser) available to all users as a standard feature.

7.2.b TDD (telecommunications device for the deaf) support.

7.2.c Multi-purpose group mailbox support.

7.2.d Name dialing by all users.

7.2.e Unified mailbox.

7.2.f Integrated or unified email or fax mail capabilities.

7.2.g Secure remote System Administrator.

7.2.h Password protected mailboxes.

7.2.i Greeting only mailbox.

7.2.j Create mailbox trees.

7.2.k Access voice messaging from off campus.

Describe other capabilities your system provides.

**7.3 System Architecture**

The University requires a messaging solution that can support voice only or voice, fax and/or e-mail messages. The proposed solution must:

7.3.a Be modular and scalable, protecting investment in technologies.

7.3.b Allow MWSU system administrators to select voice only and multi-media (voice messages that go to e-mail) features by individual subscriber.

7.3.c Provide local time stamps for message header information.

Describe how the proposed solution meets or exceeds these requirements, including maximum capacities and connectivity to the communication platform. Indicate if the system is part of the hosted cloud VoIP solution or a separate, segregated system that is integrated or not integrated with the VoIP solution.

**7.4 Scalability**

The system must be modular and scalable and allow MWSU system administrators to select voice only and multi-media features. Describe how additional features and functionality are added, including maximum capacities.

**7.5 User Interface**

Describe user interfaces. The unified messaging system must provide users with the ability to administer their personal mailbox and handle messages via a standard browser. Describe email support for Google Mail.

**7.6 Multiple Greetings**

Users must be able to record multiple personal greetings. The system must recognize and play different personal greetings for call forward greeting and busy vs. no answer. Describe the ability of the system to provide these capabilities.

**7.7 Receiving Messages**

Describe how the user receives messages. Users must be able to access messages from any location, while filtering messages by name, phone number, urgency indicator, etc. to streamline the process of finding vital messages. Describe how this is accomplished.

**7.8 Sending Messages**

Describe how the user sends messages. Unified mailbox subscribers must be able to create compound messages where multiple messages are created and then combined prior to sending or the ability to append onto an existing message with an additional voice message. Also, the system should have the ability to create a single message and then send that message to multiple recipients with a single send command. Describe how this is accomplished.

**7.9 Outcalling and Notification**

Describe the ability of the system to notify users of messages via message waiting indication lights and dialing of TDM or POTS phones and mobile phones, pagers, and email per subscriber preferences.

**7.10 Multiple Language Support**

Describe languages supported in the TUI, GUI and TTS (text to speech) engine. Describe how individual users activate the use of a foreign language.

**7.11 Subscriber Call Processing – Transfers**

Describe the ability of the system to enable callers to select designated keys to transfer to subscriber-defined locations.

**7.12 Fax Integration Options**

Fax capability must support internal fax module or integration to a third party server. Describe, including support, for fax on demand.

**7.13 Preview Messaging Solution**

Vendor will provide access to a hosted platform so that MWSU representatives can preview and test the features and functionality of the proposed messaging system.

# **8. Mobile/Wireless Solutions – (Optional Enhancement)**

**8.1** The system must be capable of supporting mobility for various on-campus departments such as campus police and maintenance personnel. Mobility system should:

8.1.a Integrate with the proposed VoIP service with full feature transparency.

8.1.b Provide a description of the interface to other applications such as Google Mail.

8.1.c Describe wireless system hardware and software architecture. Include description of technology employed, security features, and wireless telephone and optional accessories.

8.1.d The wireless solution must be scalable and modular. Describe capacity limitations and impact on hardware/software in the associated VoIP service cloud.

8.1.e Provide management control features such as CDR (Call Detail Record) and class of service for extensions supported by mobile devices.

8.1.f Users should be able to communicate via a single number for all calls, both incoming and outgoing, and receive messages from voice mail, email or a unified messaging solution regardless of location, network or device.

# **9. Music on Hold (Optional)**

The system must interface with a CD player and/or radio to play music while callers are on hold, in queue, or being transferred. Describe how your system accommodates this requirement.

# **10. Call Accounting (Required)**

**10.1 Accounting Management**

Provide a solution for a GUI desktop application that tracks incoming and outgoing call activity via end-user extensions and cost center codes. The applications should be able to process standard and customizable usage detail reports that can be emailed to employees. The same application must track all call data across the solution and save to the same CDR (Call Detail Record). Describe CDR provided by the system and any optional features associated with this application.

**10.2 Storage and Email Options**

Describe detailed call record storage options and limitations and its ability to share information via email.

**10.3 Hardware and Software Components and Application Interfaces**

Describe the call accounting system and any associated equipment requirements. Can the call accounting application interface directly with the Ellucian Banner ERP system? If not, how do you propose that data be exported from your application and imported into Banner for billing purposes.

# **11. Facility Requirements**

Specify any MWSU facility requirements including power requirements, physical space needs, grounding requirements, and any other needs.

# **12. System Management**

The proposed system should support a centralized management tool(s) across all communications platforms and control for all telephony hardware/software to provide maximum flexibility for rapid, efficient, and cost-effective configuration changes affecting personnel and associated equipment. The solution must support changes in real-time for analog, IP, TDM, messaging, and mixed deployment environments from a common application interface. Management tool should have the capability of being accessed from multiple workstations on-site, and be securely accessed remotely from off-campus by MWSU system administrators (from home).

**12.1 Description**

Describe management tools, security, reporting and backup processes. Provide screenshots of all management tools.

**12.2 Diagnostics**

The system should have diagnostic capabilities for resolving issues. The system must provide integrated diagnostic capabilities and automatic alarms for routine system monitoring, remote monitoring access from off-campus including MWSU system administrators’ homes; and diagnostics and remote repair capabilities. Describe standard and optional diagnostics including any associated additional costs.

# **13. Vendor Support**

All maintenance during the warranty period and under any maintenance agreements thereafter shall be performed by the successful bidding organization using personnel approved by the bidder and at no additional cost to the University other than those charges identified in the applicable warranty and maintenance agreement.

**13.1 References**

Bidders should list 3 institutions/organizations that are of similar size and complexity to MWSU and who have purchased similarly configured VoIP cloud services from your organization. Please use the References document found in Section 24.

**13.2 Company Structure**

Describe the management and technical support structure of your company relative to the St. Joseph, Missouri area.

**13.3 Distribution Channels/Warranty Services**

If you recently changed or plan to change your distribution channels or marketing/servicing channels, state your commitment for the new distribution channel to undertake warranty services for all hardware, software, and services to be purchased from your company.

**13.4 Installation and Support**

The successful bidder’s installation and support team shall be fully trained and certified by the original equipment manufacturer and be capable of providing on-site technical support to MWSU technical staff. Describe assistance/support options available to MWSU during installation and post-installation time periods.

**13.5 Support Resources**

During and after warranty, the bidder must support the University through a 24-hour a day, 7-day a week support center through a help desk infrastructure and on-line support. The bidder should also be capable of providing local on-site support. Describe your support process, defining:

13.5.a Support center capabilities.

13.5.b Quality assurance process for delivery of services.

13.5.c Availability of support 24 hours a day, 7 days a week, with a response time by certified technicians through a help desk infrastructure and on-line support. Describe incident levels and associated response times that are available.

13.5.d On-site service and maintenance support using a primary, dedicated technician assigned to the University with knowledge of all our communication platforms and facilities.

13.5.e Remote service and moves/adds/changes capabilities from your support center.

13.5.f Describe your proactive (remote) monitoring services.

**13.6 Customer Participation Service**

After the warranty period is over, the vendor should provide a customer participation service plan in the overall maintenance contract. This service would permit the return of nonworking devices, such as desk sets, gateways, and/or their modular parts. The returned devices would be exchanged for working equipment at no additional cost to MWSU.

**13.7 Post-Installation Support**

Please state the standard and any optional or extended warranty coverage available. Briefly describe the various maintenance programs and options available following the warranty period and identify which programs and/or options have been proposed. Bidder should include a copy of its warranty and maintenance terms as specified in Section 23.

**13.8 Added Value**

What additional value-added functionality can you offer to encourage MWSU to contract with your company?

# **14. Implementation Process (Required)**

**14.1 Process**

MWSU anticipates installation of the proposed system will occur between January 1, 2017 and July 1, 2017. The bidder must have a defined implementation process for quality assurance. The process should have defined steps with milestones documented that address all critical elements of the implementation. Bidder will:

14.1.a Work with University personnel to identify all circuits and to identify all circuit changes.

14.1.b Assist with circuit provisioning and coordinate turn up.

14.1.c Coordinate test and cut-over with appropriate telecom vendor at a time specified by the University.

14.1.d Work with the University to design, develop, and optimize phone databases and tables.

14.1.e Build agreed upon phone databases and tables.

14.1.f Provide both technical and end-user support to resolve all issues associated with installation and cut-over of all systems and deployment of all desk sets.

Describe the implementation process.

**14.2 Implementation Team and Master Project Schedule**

Describe the key team members responsible for the implementation of the proposed solution, including the roles of the team members. Upon award of the contract, bidder will provide a master project schedule, identifying the tasks the bidder and MWSU technicians will perform and the migration path.

**14.3 Bidder Implementation Responsibilities**

Charges for necessary implementation services should be included in the total implementation price of the proposed solution. Briefly describe bidder implementation services including any optional services available.

**14.4 Customer Implementation Responsibilities**

Describe in general terms the MWSU implementation responsibilities for equipment, cables, network access, space, power, etc.

# **15. Training Requirements (Required)**

**15.1 End-Users**

The successful bidder will conduct end-user training on campus premises. The training will be tailored specifically to the proposed components (e.g. telephone user, soft client user, unified messaging user, etc.) as appropriate. Describe end-user training included in the proposed solution. User guides for appropriate components must be distributed with the deployment of the new desk sets at the time of cutover or with training.

**15.2 System Administrators**

For the University’s three system administrators the bidder should support online training, on-site classroom training, and off-site classroom training. Describe online, on- and off-site training available. Briefly describe any recommended administrator classes. When the training is completed, all three administrators should be able to perform moves, adds, changes, and system monitoring for all phone and voicemail system components.

**15.3 Console Operators**

The successful bidder will conduct training for our part-time console operators on the Attendant Console, directory, and any optional features. Discuss how the part-time operators will be trained effectively to operate the new equipment upon installation.

# **16. Current Equipment Usage**

*Description of current configuration by building is provided in Exhibit A.*

Main Campus at 4525 Downs Drive, St. Joseph, Missouri

• 257 digital devices

• 661 analog devices

• 918 unique extensions

West Campus located on the west side of I-29, St Joseph, Missouri

• 7 digital devices

• 9 analog devices

• 16 unique extensions

Voicemail

• 900 voice mail boxes

• 25 ports

# **17. Pricing for Telephone and Voice Messaging Systems**

**17.1 Unified Communications System Equipment Costs**

17.1.a Bidders shall provide a total monthly price for all equipment, software, and licensing to provide VoIP Cloud Services.

17.1.b Bidder shall provide breakout pricing for all items included to provide telephone service. The response should include a detailed equipment list and pricing that should identify specific equipment, software, interconnections, and licensing related to theVoIP Cloud Service deployment.

17.1.c Bidders shall provide a total monthly price for all equipment, software, and licensing to provide voice messaging service.

17.1.d Bidder shall provide breakout pricing for all items included to provide voice messaging service. The response should include a detailed equipment list and pricing that should identify specific equipment and software related to the voice messaging service deployment.

17.1.e Domestic and International call rates.

17.1.f Toll free service number rates.

**17.2 Service Costs**

17.2.a Bidder shall provide pricing for comprehensive installation services of the VoIP Cloud Service system and the voice messaging system.

17.2.b Bidder shall provide pricing for post installation support options (system monitoring, help desk, etc.) for the telephone and voice messaging systems. Pricing should be presented on an annual basis for each of 5 years.

17.2.c Bidder shall provide pricing for maintenance/equipment replacement options for the telephone system and the voice messaging system. Pricing should be presented on an annual basis for each of 5 years.

17.2.d Bidder shall provide pricing for training options including on-site, off-site, and web-based training for the telephone system and the voice messaging system.

**17.3 Total Costs**

17.3.a Lump Sum Price – Provide labor, supervision, training, materials, software, equipment and all other costs to install a complete, comprehensive, functional, “turn-key” upgrade of the entire telephone and voice messaging system. Present total cost on an annual basis over a 5-year term.

17.3.b Bidder shall provide available options for a 5-year OPEX and CAPEX plan by which MWSU would own the telephone instruments at the end of term.

 **17.4 Warranty**

17.4.a Describe the warranty coverage for the telephone and voice messaging systems. Include the components covered and the time frames of coverage by component. Identify any components that are not covered by a warranty.

**17.5 Payment Terms & Multi-Year Payment Options**

17.5.a Bidders shall indicate payment terms.

# **18. Pricing for Optional Enhancements**

Bidder shall provide pricing for the following optional equipment and services:

**18.1** **Soft Phones**

 Bidder will provide a solution and price for soft phones as outlined in Section 5.1.

**18.2** **Auto Attendant/Interactive Voice Response**

Describe and price an Auto Attendant solution and an Interactive Voice Response system as described in Section 6.3.

**18.3** **Mobile/Wireless**

Describe and price a solution for a Mobile/Wireless system described in Section 8.

**18.4** **Music on Hold**

 Describe and price a solution for Music On Hold described in Section 9.

# **19. Site Visits, Hands-on Evaluation, Demonstrations, etc.**

Missouri Western State University reserves the right to request of the bidding vendor any of the following:

**19.1** Schedule site visits where the proposed solution is successfully installed.

**19.2** Provide working demonstrations of hardware and software.

# **20. Customer References**

**20.1** Bidders must include a minimum of 3 references with contact information. Bidders are encouraged to include references that are similar in scope to MWSU specifications. References from institutions of higher education are most preferred.

# **21. Evaluation Criteria**

**21.1** Feature capabilities of the system.

**21.2** System architecture, overall engineering technology, and expansion capabilities for future growth.

**21.3** Integrity of the vendor’s service and maintenance resources available to support the system after installation as based on existing installed customer base.

**21.4** Vendor’s demonstrated competence and experience in previous installations

 of similar scope.

**21.5** Total cost of the system.

# **22. Bid Response Instructions**

Please note that **responses to this RFP must be received on January 18, 2017 2:00 Central Time** at the address below to be considered. One (1) original and a flash drive (non-returnable) of the response must be sealed and delivered to:

Kelly Sloan

Purchasing Manager

Missouri Western State University

Popplewell Room 221

4525 Downs Dr.

St. Joseph, MO 64507

Phone: 816-271-4465

Missouri Western State University, reserves the right to reject any and all responses resulting from this RFQ. Qualifications received after the deadline will not be accepted or considered. Missouri Western State University is not liable for any cost incurred by any person or firm responding to this RFP.Submission by fax, email or other electronic transmission is unacceptable and packages submitted by these means shall not be considered. Missouri Western assumes no responsibility for delays in the US mail or courier systems, or because of weather.

Missouri Western State University reserves the right to reject as non‑responsive any proposals that do not contain the information requested.

Any and all questions and /or clarifications regarding this RFP must be submitted in writing to the Purchasing Department via email. Questions and clarifications are to be sent via email to Kelly Sloan, Purchasing Manager atpurchase@missouriwestern.edu. **All questions and clarifications must be submitted by noon on January 9, 2017.**

Any and all communication with respect to this solicitation shall be made to Kelly Sloan, Missouri Western State University Contact Person, in writing via email at purchase@missouriwestern.edu**.** No applicant shall attempt to communicate with the Missouri Western State University Board of Governors, Administration, staff or other university employees. Any applicant found to be in violation of the communication expectations of MWSU will be subject to disqualification.

# **23. Bid Response**

To be considered responsive, each proposal submitted must, at a minimum, include the following documents:

**23.1**  Responses to the Technical Bid Specifications (Sections 3 – 15)

**23.2** Vendor should indicate willingness to waive all charges during installation in order to prevent MWSU from paying 2 simultaneous telephone bills for the same month for the same phone services during installation. MWSU does not want to pay an AT&T PLEXAR bill for the same telephone services for the same billing period in addition to paying for the new VoIP service for the same telephones. Please describe your plans:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**23.3** Please indicate yes or no. Is this solution 100% cloud based VoIP Solution? \_\_\_\_\_ Yes \_\_\_\_\_\_\_\_\_No

**23.4**  Total and breakout pricing for the telephone system

 (Section 17.1a & b)

 Section 17.1a $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Section 17.1b $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**23.5** Total and breakout pricing for the voice messaging system

 (Section 17.1c & d)

 Section 17.1c $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Section 17.1d $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**23.6** Pricing for domestic/international long distance and toll free numbers.

 (Section 17.1e & f)

 Section 17.1e $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Section 17.1f $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**23.7**  Pricing for support services (Section 17.2)

 Section 17.2a $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Section 17.2b $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Section 17.2c $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Section 17.2d $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**23.8** Lump sum equipment, software, training, and installation pricing for a turn-key solution for telephone and voice messaging systems and 5-year OPEX and CAPEX pricing.

(Sections 17.3a & b.)

 Section 17.3a $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Section 17.3b OPEX Plan payment schedule. CAPEX Plan payment schedule.

**23.9**  Description of warranties (Section 17.4.a)

**23.10** Payment terms & multi-year payment plan (Section 17.5.a)

**23.11** Pricing for optional enhancements (Section 18)

 Section 18.1 $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Section 18.2 $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Section 18.3 $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Section 18.4 $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**23.12** References, on the form provided. (Section 24)

**23.13** Last three pages of E-verify Memorandum of Understanding electronically signed by vendor and Homeland Security (Section 25)

**23.14** Signed and notarized Work Affidavit of Work Authorization (Section 26)

**23.15** Bond Requirements

 23.15.a A bid bond is required in the amount of 5% of the total amount bid by the vendor at the time of submittal of vendor’s response to the Invitation for Bid.

23.15.b A Performance, Material and Labor bond will be required from the vendor awarded the contract for the entire bid amount.

**This will be a prevailing wage project.**

* + Bidders must submit a notarized Affidavit of Work Authorization and completed MOU signature pages, per attached memorandum dated January 2014, with their bids.
	+ Annual Wage Order Number 23 is currently in effect. A copy of this order will be attached separately once bid is awarded.
	+ A Certificate of Liability Insurance will also be required with MWSU listed as an additional insured and a performance bond in the amount of 5%.
	+ Missouri Revised Statute Chapter 292.675 went into effect on August 28, 2008, all on-site employees are required to complete the ten-hour safety training program.

# **24. REFERENCES FORM**

**MWSU – Upgrade Phone and Voice Messaging Systems**

Each firm must furnish 3 references of recent (within three years) prior service comparable in nature and scope to the requirements of the captioned solicitation. References from other public agencies or educational institutions are preferred.

1. Firm Name\_

 Address

Telephone: Fax

Contact

2. Firm Name\_

Address

Telephone: Fax

Contact

3. Firm Name\_

Address

Telephone: Fax

Contact

AUTHORIZED VENDOR SIGNATURE: \_\_\_\_\_\_\_\_\_

FIRM NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# **25. PREVAILING WAGE PROJECT INFORMATION**

**PREVAILING WAGE PROJECT INFORMATION**

TO: ALL BIDDERS

FROM: MISSOURI WESTERN STATE UNIVERSITY

DATE: January 2014

RE: ADDITIONAL BID SUBMISSION REQUIREMENTS

Please review Missouri statute, 285.530 RSMo, regarding employment of unauthorized aliens. Pursuant to RSMo 285.530 (1), No business entity or employer shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the State of Missouri, and (2), the bidder must affirm its enrollment and participation in a federal work authorization program with respect to the employees proposed to work in connection with the services requested herein by:

Submitting a completed, notarized copy of AFFIDAVIT OF WORK AUTHORIZATION (following page) and,

Providing documentation affirming the bidder’s enrollment and participation in a federal work authorization program (see below) with respect to the employees proposed to work in connection with the services requested herein.

A copy of RSMo 285.530 can be viewed in its entirety at:

<http://www.moga.mo.gov/statutes/C200-299/2850000530.HTM>

E-Verify is an example of a federal work authorization program. Acceptable enrollment and participation documentation consists of completed copy of the E-Verify Memorandum of Understanding (MOU). A sample of the MOU is included. For vendors that are not already enrolled and participating in a federal work authorization program, E-Verify is available at:

<http://www.dhs.gov/files/programs/gc_1185221678150.shtm>

*The successful bidder will be required to submit a notarized Affidavit of Work Authorization and the completed MOU signature pages (the last three pages) with their bid. A bid that does not include these items will be deemed Non-responsive.*

# **26. WORK AUTHORIZATION AFFIDAVIT**

WORK AUTHORIZATION AFFIDAVIT

PURSUANT TO R.S.Mo. §285.530

(For all bids in excess of $5,000.00)

Effective 1/1/09

State of Missouri )

 )ss

County of Buchanan )

Comes now \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Name of Business Entity Authorized Representative) as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Position/Title) first being duly sworn on my oath, affirm \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Business Entity Name) is enrolled and will continue to participate in the E-Verify federal work authorization program with respect to employees hired after enrollment in the program who are proposed to work in connection with the services related to contract(s) with the State of Missouri for the duration of the contract(s), if awarded in accordance with subsection 2 of section 285.530, RSMo. I also affirm that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Business Entity Name)does not and will not knowingly employ a person who is an unauthorized alien in connection with the contracted services provided under the contract(s) for the duration of the contract(s), if awarded.

***In Affirmation thereof, the facts stated above are true and correct. (The undersigned understands that false statements made in this filing are subject to the penalties provided under section 575.040, RSMo.)***

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Authorized Representative’s Signature |  | Printed Name |
|  |  |  |
|  |  |  |
| Title |  | Date |
| E-Mail Address |  | E-Verify Company ID Number |

Subscribed and sworn to before me this \_\_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. I am

 (DAY) (MONTH, YEAR)

commissioned as a notary public within the County of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, State of

 (NAME OF COUNTY)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and my commission expires on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

(NAME OF STATE) (DATE)

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Signature of Notary |  | Date |

|  |
| --- |
| **EXHIBIT A Analog & Digital Sets by Building by Floor** |
|  |  |  |  |  |  |  |  |
| Agenstein |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr  | 22 | 1 | 1 |  |  |  |
|  | 2nd flr | 13 | 1 |  |  |  |  |
|  | 3rd flr | 17 | 1 |  |  |  |  |
|  | 4th flr |  |  |  | 1 |  |  |
|  | TOTAL | 52 | 3 | 1 | 1 | 57 |  |
|  |  |  |  |  |  |  |  |
| Baker |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 5 | 0 |  |  |  |  |
|  | TOTAL | 5 | 0 |  |  | 5 |  |
|  |  |  |  |  |  |  |  |
| Beshears |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 0 | 0 |  |  |  |  |
|  | 2nd flr | 5 | 0 |  |  |  |  |
|  | 3rd flr | 0 | 0 |  |  |  |  |
|  |  |  |  |  | 2 |  |  |
|  | TOTAL | 5 | 0 |  | 2 | 7 |  |
|  |  |  |  |  |  |  |  |
| Blum |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 15 | 9 |  |  |  |  |
|  | 2nd flr | 14 | 22 |  |  |  |  |
|  |  |  |  | 2 |  |  |  |
|  | TOTAL | 29 | 31 | 2 |  | 62 |  |
|  |  |  |  |  |  |  |  |
| Bond |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 0 | 0 |  |  |  |  |
|  |  |  |  | 1 |  |  |  |
|  | TOTAL |  |  | 1 |  | 1 |  |
|  |  |  |  |  |  |  |  |
| Commons |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 8 | 5 |  |  |  |  |
|  | TOTAL | 8 | 5 |  |  | 13 |  |
| Eder |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 25 | 37 |  |  |  |  |
|  | 2nd flr | 42 | 26 |  |  |  |  |
|  |  |  |  | 1 |  |  |  |
|  | TOTAL | 67 | 63 | 1 |  | 131 |  |
|  |  |  |  |  |  |  |  |
| GISC |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 17 | 1 |  |  |  |  |
|  | TOTAL | 17 | 1 |  |  | 18 |  |
|  |  |  |  |  |  |  |  |
| Hearnes |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 79 | 12 |  |  |  |  |
|  | 2nd flr | 22 | 3 |  |  |  |  |
|  | 3rd flr | 4 | 1 |  |  |  |  |
|  |  |  |  | 4 | 1 |  |  |
|  | TOTAL | 105 | 14 | 4 | 1 | 124 |  |
|  |  |  |  |  |  |  |  |
| Juda |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 0 | 0 |  |  |  |  |
|  | 2nd flr | 0 | 0 |  |  |  |  |
|  | 3rd flr | 0 | 0 |  |  |  |  |
|  | 4th flr | 5 | 0 |  |  |  |  |
|  |  |  |  |  | 2 |  |  |
|  | TOTAL | 5 | 0 |  | 2 | 7 |  |
|  |  |  |  |  |  |  |  |
| Leaverton |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 12 | 1 |  |  |  |  |
|  | 2nd flr | 2 | 0 |  |  |  |  |
|  | 3rd flr | 2 | 0 |  |  |  |  |
|  |  |  |  | 1 | 2 |  |  |
|  | TOTAL | 16 | 1 | 1 | 2 | 20 |  |
|  |  |  |  |  |  |  |  |
| Logan |  | Analog | Digital | Elevator | Alarm  | TOTAL |  |
|  | 1st flr | 6 | 0 |  |  |  |  |
|  | 2nd flr | 0 | 0 |  |  |  |  |
|  | 3rd flr | 0 | 0 |  |  |  |  |
|  |  |  |  |  | 2 |  |  |
|  | TOTAL | 6 | 0 |  | 2 | 8 |  |
|  |  |  |  |  |  |  |  |
| Looney |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 11 | 0 |  |  |  |  |
|  | 2nd flr | 27 | 6 |  |  |  |  |
|  |  |  |  | 1 |  |  |  |
|  | TOTAL | 38 | 6 | 1 |  | 45 |  |
|  |  |  |  |  |  |  |  |
| Maintenance |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
| Shed |  | 1 |  |  |  |  |  |
|  | TOTAL | 1 |  |  |  | 1 |  |
|  |  |  |  |  |  |  |  |
| Murphy |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 19 | 7 |  |  |  |  |
|  | 2nd flr | 22 | 2 |  |  |  |  |
|  | 3rd flr | 24 | 5 |  |  |  |  |
|  |  |  |  | 1 |  |  |  |
|  | TOTAL | 65 | 14 | 1 |  | 80 |  |
|  |  |  |  |  |  |  |  |
| Scanlon |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 9 | 1 |  |  |  |  |
|  | 2nd flr | 6 |  |  |  |  |  |
|  | 3rd flr | 6 |  |  |  |  |  |
|  | 4th | 6 |  |  |  |  |  |
|  | basement | 2 |  |  |  |  |  |
|  |  |  |  | 2 | 2 |  |  |
|  |  | 29 | 1 | 2 | 2 | 34 |  |
|  |  |  |  |  |  |  |  |
| Outside |  | Analog |  |  |  | TOTAL |  |
| Security |  | 10 |  |  |  |  |  |
| Phones |  |  |  |  |  |  |  |
|  |  | 10 |  |  |  | 10 |  |
|  |  |  |  |  |  |  |  |
| Popplewell |  | Analog | Digital | Elevator |  | TOTAL |  |
|  | 1st flr | 17 | 17 |  |  |  |  |
|  | 2nd flr | 28 | 24 |  |  |  |  |
|  | 3rd flr | 26 | 5 |  |  |  |  |
|  |  |  |  | 1 |  |  |  |
|  | TOTAL | 71 | 46 | 1 |  | 118 |  |
|  |  |  |  |  |  |  |  |
| Potter |  | Analog | Digital | Elevator |  | TOTAL |  |
|  | 1st flr | 16 | 3 | 1 |  |  |  |
|  | 2nd flr | 12 | 0 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | TOTAL | 28 | 3 | 1 |  | 32 |  |
|  |  |  |  |  |  |  |  |
| Remington |  | Analog | Digital | Elevator |  | TOTAL |  |
|  | 1st flr | 3 | 0 | 2 |  |  |  |
|  | 2nd flr | 1 | 0 |  |  |  |  |
|  | 3rd flr | 1 |  |  |  |  |  |
|  | TOTAL | 5 |  | 2 |  | 7 |  |
|  |  |  |  |  |  |  |  |
| Spratt |  | Analog | Digital | Elevator | Alarm | TOTAL |  |
|  | 1st flr | 24 | 39 | 2 |  |  |  |
|  | 2nd flr | 6 | 3 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | TOTAL | 30 | 42 | 2 | 1 | 75 |  |
|  |  |  |  |  |  |  |  |
| Stadium |  | Analog |  |  |  |  |  |
| opx |  | 8 | These lines also are in Looney |  |  | TOTAL |  |
|  | TOTAL | 8 |  |  |  | 8 |  |
|  |  |  |  |  |  |  |  |
| Vaselakos |  | Analog | Digital | Alarm | Elevator | TOTAL |  |
|  | 1st flr | 11 | 1 |  |  |  |  |
|  | 2nd flr | 4 |  |  |  |  |  |
|  |  |  |  | 2 | 1 |  |  |
|  | TOTAL | 15 | 1 | 2 | 1 | 19 |  |
|  |  |  |  |  |  |  |  |
| West Campus |  | Analog | Digital |  |  | TOTAL |  |
|  |  | 9 | 7 |  |  |  |  |
|  | TOTAL | 9 | 7 |  |  | 16 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Wilson |  | Analog | Digital | Elevator |  | TOTAL |  |
|  | 1st flr | 18 | 13 |  |  |  |  |
|  | 2nd flr | 5 | 14 |  |  |  |  |
|  |  |  |  | 1 |  |  |  |
|  | TOTAL | 23 | 27 | 1 |  | 51 |  |

END OF BUILDING LIST