



Interoffice Memo

Date	August 28, 2020
To	Debra Avila Chief, Vendor/Contract Administration
From	Paul Whang Senior Director, Engineering
Subject	Single Source Equipment List: AMC Station Project Rail and Bus Operations, Communications and Security Systems

Description of Equipment and Services Requested

The AMC Project requests the following single-source equipment and design:

- Rail Communications Equipment
 1. ADM Fiber WAN: Fujitsu FW9500
 2. Transit Passenger Information System (TPIS):
 - a. B&C Nucleus ROC headend software
 - b. SCU- HP DL380 Gen 10 Server
 - c. Application Servers - HP DL380 Gen 10
 - d. Workstations - Dell Optiplex 7060
 - e. VMS - AF-6700-32x144-8-A-DF
 - f. BSS Soundweb audio routing and processing hardware. This was one of the primary sole source request that triggered the re-design effort in November 2019.
 - g. Advantech PCIE-1730 Digital I/O card
 - h. Crown DCI 8|600DA Power amplifiers
 - i. RDL RM-MP12a Monitor Panel
 3. CCTV:
 - a. Video management software AKA ROC CCTV headend using Video Insight (VI) by Panasonic
 - b. Lenovo hardware
 - c. Axis Cameras
 4. Public Address System
 - a. BSS Soundweb (Harmon) audio routing and processing hardware
 - b. Bogen Zone Paging Controller PCM Series
 - c. Crown DCI 8|600 Amplifiers
 - d. JBL loudspeakers
 - e. Viking FXI-1 telephone interface

- f. RDL RM-MP12a Monitor Panel
 - g. HP DL380 Gen 10 Server for the SCU
 - 5. Telephone:
 - a. Cisco Unified Communications Manager to provide voice-over-IP network.
 - 6. Emergency Management Panel (EMP):
 - a. EMP consists of TPIS, CCTV, SCADA, Telephone and Fire Alarm system which rely on ARINC/ B&C Nucleus/ Video Insight proprietary systems as listed above.
 - 7. Seismic:
 - a. QMI-2600 provide station seismic alarms to SCADA server (ARINC AIM).
 - 8. Radio:
 - a. Icom's digital land mobile radio system that uses the NXDN™ common air interface.
 - Bus Communications Equipment
 - 1. Enterprise Layer 3 (Routers) and Layer 2 (Switches) Networking
 - a. Cisco Systems 9200 Series (IDF) Switches
 - b. Cisco Systems 9400 Series (Core) Switch
 - c. Cisco Systems 9500 Series Integrated Service Router
 - 2. Enterprise Telephone System
 - a. Cisco Systems IP VoIP 8800 Series Telephones
 - b. Cisco Systems VG320 Analog Gateway
 - c. Talkaphone VOIP 500 Series Hands-Free Telephones
 - d. Viking FXI-1 telephone interface
 - 3. Public Address System
 - a. Bogen Zone Paging Controller PCM Series
 - b. Bogen 70V Amplifiers
 - c. Bogen Outdoor Rated 70V Speakers
 - 4. Enterprise Wi-Fi 802.11 Networking
 - a. Hewlett Packard (HP) Aruba 320 Series Access Points
 - b. Hewlett Packard (HP) Aruba 370 Series Access Points
 - 5. Bus Transportation Passenger Information System
 - a. PCEnclosures LCD Guardian 42" Series NEMA Enclosure with AC Unit
 - b. Extron FOXBOX TX/RX Single Mode HDMI Extender
 - c. Transition Networks Single Mode Ethernet Media Converter
 - d. Azulle Access Plus Windows 10 Pro Fanless Mini PC Stick
 - 6. Campus Time and Date Clock
 - a. Primex ClassicSync 72MHz Transmitter 5Watt and 1Watt
 - b. Primex Digital Clock Levo Series
 - b. Security and SCADA Systems
 - 1. Access Control and Intrusion Detection System
 - a. Sielox Pinnacle Controller

- b. Sielox Pinnacle Aegis2 Software
- c. HID Badge Readers
- 2. Close Circuit Television Surveillance
 - a. Bosch Autodome IP Starlight 5000i Cameras
 - b. Bosch DIVAR IP 7000 3U 12TB Network Video Recorder
 - c. Bosch BVMS Viewer Software
 - d. Berk-Tek OneReach POE Extender System
- 3. Access Control and Intrusion Detection System
 - a. Sielox Pinnacle Controller
 - b. Sielox Pinnacle Aegis2 Software
 - c. HID Badge Readers
- 4. Land Mobile Radio
 - a. UHF Tait TB9400 Base Station
- 5. SCADA System:
 - a. GE PACSystems RX3i controller
 - b. GE IC695PSA140 power supply
 - c. GE IC695ACC302 auxiliary smart battery model
 - d. GE IC694MDL660 discrete input modules
 - e. GE IC694MDL754 discrete output modules
 - f. GE IC695ETM001 EtherNet/IP module
 - g. GE IC695CMM002/4 serial communication module
 - h. Antaira LNX-1002G-SFP-T Ethernet switch
 - i. Phoenix Contact 2900313 and 2900299 interposing relays
 - j. Phoenix Contact 2296692, 2296715, 2296744 pre-manufactured field interface cables

General Note: With the scheduled duration of the construction, it is likely that advances will be made to the components listed above by the time of submittals and eventually, installation. Contractor to proceed with the most advanced generation of the above units that will best integrate with the CLAX Systems at the time of installation.