



TENDER #3939

20 PUBLIC ADDRESS SYSTEMS

**RETURN COMPLETED BID FORM BY FAX TO 902-464-0161 OR
EMAIL TO dwalpola@hrsb.ca
BY THURSDAY, FEBRUARY 8th, 2018, 2:00:00 P.M.**

The purpose of this tender is to identify the best price for supply and shipping of 20 complete Public Address Systems further to the required specifications. All materials must be delivered to HRSB, Shannon Park, 75 Iroquois Drive, Dartmouth, NS B3A 4M5.

Expected Delivery Date: 15th March 2018

Questions regarding this tender can be directed to Don Walpola, Buyer by email to dwalpola@hrsb.ca or by phone (902) 464-2000 #2223 no later than the 1st of February 2018.

To obtain the tender documents in .pdf format, please visit the School Board's Website: <http://www.hrsb.ca/about-hrsb/financial-services/purchasing/tenders/tender-listing>

HRSB PUBLIC ADDRESS SYSTEMS SPECS

1 GENERAL

Provide pricing for supply and shipping of materials as listed in this specification

2 BID REQUIREMENTS

- 2.1 HRSB require pricing on the supply and delivery of twenty (20) complete PA systems (materials only) meeting the specifications listed below. All materials must be delivered to HRSB, Shannon Park, 75 Iroquois Dr, Dartmouth, NS. no later than 16 March 2018.
- 2.2 Bids must include product data for complete public address system. Include description of system operation, and parts list, using component identification numbers standard to electronics industry. Warranty information must be included.
- 2.3 Pricing to be broken down into individual items, quantities and prices and a final bid amount for providing the full twenty (20) systems.

3 SYSTEM ARCHITECTURE

3.1 MAIN SYSTEM

- 3.1.1 multi-channel, microprocessor-controlled communication system
- 3.1.2 The system shall have the capability for two independent intercom channels and shall provide one independent intercom channels between any console and loudspeakers. One additional simultaneously operating channel shall be provided for distribution of audio program material
- 3.1.3 The system shall have a minimum of 32 user-assignable groups for zoned audio paging, class change signals, or program distribution, with any station belonging to all zones, some zones, or no zone
- 3.1.4 The system shall have a digital amplifier with a minimum 300 Watt RMS output. Distortion shall not exceed 0.2% at 90% load. Amplifiers below 300 Watts RMS or amplifiers not capable of 0.2% maximum distortion will not be accepted.
- 3.1.5 The system shall use the industry-standard 25-volt methods of transmission and function properly over various wire types including Cat-5, 18/2 and shielded cabling. As these systems will be used as retrofit upgrades in existing buildings, it is imperative that they operate on many wiring types.
- 3.1.6 The system must have the capability to connect a minimum of 128 separate audio output points and the system shall come configured with all devices and cables to initially connect at least 48 audio zones.
- 3.1.7 Audio distribution modules shall be no larger than 16 outputs per device.

- 3.1.8** The system must be capable and ready to connect an external PSTN phone line and allow dial-in operation for paging, intercom and bell functions.
- 3.1.9** The system must be capable and ready to connect to the users IP network and configure using both static and DHCP methods
- 3.1.10** The system must be capable of synchronizing its internal clock with an external time source using standard NTP protocol over the IP network.
- 3.1.11** Provide momentary contact closures for external device operation. Provide a minimum of six inputs and six outputs from the central cabinet.
- 3.1.12** The system must come designed to be wall mounted in a lockable metal cabinet and not protrude off the wall more than 30cm. All connections, including BIX terminations must be enclosed in a lockable metal cabinet. Cabinets must be supplied by provider.
- 3.1.13** All terminations between the main system or distribution unit must be on standard BIX blocks

3.2 ADMIN CONSOLE

- 3.2.1** The Admin Console shall be desk-mounted or wall-mounted, and contains a matching telephone handset with retractable coiled cord and plastic button switches, with clearly designated touch points. The housing shall be constructed of high impact, flame retardant, plastic. Wall terminations shall be a RJ-45 modular telephone type jack.
- 3.2.2** Power to operate the admin console must be supplied from the main system and not plugged into an outlet locally to the console.
- 3.2.3** A quantity of two (2) admin consoles must be supplied
- 3.2.4** Admin console features shall include :
 - Large, easy-to-read, adjustable, alphanumeric backlit LCD display
 - Menu-driven display for ease-of-operation
 - Handset and speakerphone
 - Numeric 3, 4, or 5 digit dialing
 - Programmable function keys
 - Call queuing
 - Telephone-style handset
 - Off hook LED
 - A minimum of 32 Speed dial stored numbers / functions

3.3 ADDITIONAL EQUIPMENT

- 3.3.1** The system shall be supplied with a portable CD/Radio/USB input device that can be remotely located by the admin console and wired back to the head end for program distribution. The player must have a 3.5mm female audio output jack to facilitate this connection.

- 3.3.2** The system shall be supplied with a desk mounted, flexible gooseneck microphone with an activation button on the base. This microphone must be able to be remotely located by the admin console and wired back to the head end for pages to specific zones.
- 3.3.3** The system shall be supplied with a floor mounted uninterruptable power supply (UPS) with a minimum capacity of 1500VA. The battery capacity must be adequate to support the running of the entire PA system for a minimum of 30 minutes at 75% load.
- 3.3.4** All licensing and software included to allow two (2) user workstations to manage and operate the PA system over the IP network

4 SYSTEM OPERATION

4.1 SYSTEM MANAGEMENT & CONFIGURATION

The system shall provide the ability to do the following :

- 4.1.1** The system shall be provided with PC based software for all system programming and diagnostics.
- 4.1.2** The system shall support remote (off-site) system programming, management & diagnostics through the internet and VPN.
- 4.1.3** The system shall be provided with the ability for the user to operate the PA system from their PC based desktop. This includes paging, intercom, tones and music distribution.

4.2 INTERCOM & PAGING FUNCTIONS

The system shall provide the ability to do the following intercom/paging functions:

- 4.2.1** The system shall provide 3, 4, or 5-digit numeric format for architectural room numbering and an alpha-numeric caller ID description associated with each room in the event of a call in.
- 4.2.2** The admin console shall allow the user to view the numeric room address and the alpha-numeric caller ID information of the calling station and the call priority (e.g., emergency, normal). The admin console shall use distinctive ringing patterns to announce the type of call..
- 4.2.3** The system shall distinguish between an emergency call and a normal call from any station, and automatically route each type of call-in to an admin console
- 4.2.4** Emergency call ins routed to one admin console must have the ability to automatically re-route to other, or all, admin consoles if the emergency call goes unanswered for a configured period of time.
- 4.2.5** The system shall contain a minimum of 48 zones or groups that can be assigned and programmed as desired between paging, program, or time zones.

- 4.2.6** The system shall include page or intercom priority over class change tones and preprogrammed events. Class change tones occurring simultaneously with an all page or zone page shall have priority
- 4.2.7** All audio functions in the system shall operate within the following priority scheme: A lower priority function shall not interrupt a higher priority event. A lower priority event shall be interrupted by a higher priority event. Interrupted lower priority functions (automatic) shall be restored after conclusion of the higher priority function. If an event is initiated while a page is occurring, the event shall be delayed until the page is complete. This functionality may be configurable.

4.3 EVENT TONES

The system shall provide the ability to do the following tone functions:

- 4.3.1** Event tones shall be user programmable with a minimum of 48 stored tones available for use in calendar and event activation.
- 4.3.2** The system shall have the ability for the user to upload personalized tones to the system via the IP network. Tone files in either .WAV or .MP3 files must be acceptable for playing on the system.
- 4.3.3** The system shall have the ability for the user to remotely listen to and select default tones for the system including, but not limited to bell, pre-announce and emergency tones.

4.4 CALENDAR FUNCTIONS

The system shall contain an integral master clock and programmable calendar capable of performing the following functions:

- 4.4.1** Provide unlimited discrete time event entries for programming
- 4.4.2** Selectable schedules that can be applied to individual days
- 4.4.3** Ability to select recurring events
- 4.4.4** Ability to program holidays and include them in the calendar/schedule to trigger or exclude events from occurring.
- 4.4.5** Ability to manage the calendar from the users desktop via a web browser and the IP network.
- 4.4.6** The calendar must be able to schedule activation of tones, relays and audio distribution

5 MATERIALS DESCRIPTION

5.1 The system shall consist of, but not be limited to, the following:

Qty	Part #	Description
1	CH1000-1I-2A-1PG	Central Controller with Amplifier, 1 Intercom Path, 2 AC1, 1 Program Ch
2	AP1	Administrative Phone - Requires AC1
3	SS16	Switching Security Card 16 Port
2	Assistant	PC based Admin Console with GUI Interface
1	TC2-KIT	Telephone Communication Card (CH1000)
1	BOG-DDU250	Bogen - Gooseneck Microphone
1	MC1000	Main Cabinet with Lock Set CH1000
1	CFDS70BLK	SONY - CD/MP3/Radio Source Player
4	NK5EPC10BUY	Category 5e Patch Cable, 10 FT, Blue
1	SMART1500LCDT	1500VA/900W UPS Backup Power (Tower)
1	RAD-1A	Viking Electronics RAD-1A Line Powered Remote Access Device
4	CBBIX	Cable BIX to RJ45 X 12
1	A0270164	Cable Termination - Bix 10A Mount

5.2 ACCEPTABLE MANUFACTURERS

Standard of Acceptance.

CareHawk CH1000

Acceptable alternative manufacturers to the requirements above:

TOA

Telecor