

2017-09-15

**STATEMENT  
OF  
TECHNICAL REQUIREMENTS  
FOR THE PURCHASE OF  
PERIMETER INTRUSION DETECTION SYSTEM (PIDS)  
PUBLIC ADDRESS (PA) SWITCHERS  
FOR DEPLOYMENT  
AT  
MAXIMUM, MEDIUM AND MULTI LEVEL INSTITUTIONS**

This Statement of Technical Requirements is approved by the Correctional Service of Canada for the bulk purchase of PIDS PA switchers for future replacements.

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## TABLE OF REVISIONS

<b>Revision</b>	<b>Date</b>	<b>Comment</b>
1	2017-05-16	This document has been created to ensure that CSC can purchase a PIDS PA Switcher to replace the legacy units currently installed.
2		

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## ABBREVIATIONS

<b>Abbreviation</b>	<b>Expansion</b>
ACL	Access Control List
API	Application Programming Interface
ATP	Acceptance Test Procedure
BIFMA	Business & Industrial Furniture Manufacturers Association
CA	Contract Authority
CCDA	Command Control and Data Acquisition
CCTV	Closed Circuit Television
CD	Commissioner's Directive
CER	Common Equipment Room
COS	Class of Service
COTS	Commercial-Off-The- Shelf
CSA	Canadian Standards Association
CSC	Correctional Service Canada
DCMS	Door Control and Monitoring System
DES	Director Engineering Services
DCS	Door Control System
DSCP	Differentiated Services Code Point
EIA	Electronic Industries Association
ESS	Electronic Security Systems
FAAS	Facility Alarm Annunciation System
FAR	False Alarm Rate
FDS	Fence Disturbance Detection System
FIU	FAAS Interface Unit
GFE	Government Furnished Equipment
GUI	Graphical User Interface
IP	Internet Protocol
IEEE	Institute of Electronic and Electrical Engineers
MCCP	Main Communications and Control Post
IVRMS	Inmate Voice Recording and Management System
MDS	Motion Detection System
MTBF	Mean Time Between Failure
MTTR	Mean Time to Repair
NAR	Nuisance Alarm Rate
NTP	Network Time Protocol
PA	Public Address
PC	Personal Computer
Pd	Probability of Detection
PIDS	Perimeter Intrusion Detection System
PIU	Perimeter Intrusion Detection System Integration Unit
PLC	Programmable Logic Controller
RFP	Request for Proposal
RTEO	Regional Technical and Engineering Officer
PPA	Portable Personal Alarm

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<b>Abbreviation</b>	<b>Expansion</b>
PPAL	Portable Personal Alarm Locatable
QoS	Quality of Service
RTE	Request to Exit
SCC	Security Control Centre
SIO	Security Intelligence Officer
SOW	Statement of Work
SPB	Shortest Path Bridging
STR	Statement of Technical Requirements
TOS	Type of Service
TCP/IP	Transport Control Protocol/Internet Protocol
TCP-UDP	Transport Control Protocol – Small For-Factor
TER	Telecommunications Equipment Room
UPS	Uninterruptible Power Supply
V&C	Visits and Correspondence
VDU	Video Display Unit
VID	VLAN Identification
VIRS	Visits Intercept and Recording System
VMS	Video Management System

## DEFINITIONS

#	Term	Example(s)	Description	Function
1	Administrative User Interface		Monitor and Software that supports task specific User Interaction for System Administrators, located in a secure area	Provides Administrative Personnel with the ability to map enrolled users to the functional domains that they are allowed to access and change
2	Application	Cell Call Management, PA Management	Software that is used to deliver Application Support functionality for a sub-system	Software that provides the Operator Interface and supporting logic that allows a sub-system (Control Domain) to be managed
3	CCTV Monitor	PIDS or Range CCTV Monitor	Computer Monitor Hardware	Displays CCTV images for Operator viewing
4	Client		Rack mounted computer located in a secure area away from a Control Post or Control Desk.	Runs software and supports one or more Application
5	Configuration Data	Site floor plans showing quantity of cameras, doors, cells etc. Camera locations. Number of User Interfaces required in a Post.	Site and System specific information typically supplied by CSC that defines how a sub-system Application is to be set-up for a site, location within a site, or post.	The configuration data provides the information that a sub-system application requires to tailor it to meet site, location within a site, or post user requirements.
6	Configuration User Interface		Monitor and Software that supports task specific User Interaction, located in a secure area	Allows suppliers or qualified personnel to add, delete and modify Application Configuration
7	Contract Authority		Public Works and Government Services Canada (PW&GSC) is responsible for all contractual matters associated with the system design and implementation.	
8	Contractor		The company selected as the successful bidder.	
9	Control Console	MCCP Console, Living Unit Control Post Console	Console, typically located in a Control Post. Serves as the physical support infrastructure for Operator User Interfaces	Contains User Interfaces or Control Panels used by staff to execute their management responsibilities and interact with the Domains over which they have Control

#	Term	Example(s)	Description	Function
10	Control Desk	Living Unit Control Desk	Desk, typically located in a Control Post or Office. Serves as the physical support infrastructure for Operator User Interfaces	Equipped with User interfaces used by staff to execute their management responsibilities and interact with the Domains over which they have Control
11	Control Domain	Cell Call, Guard Tour, Public Address	A group of Physical and Virtual devices or objects, often supported by specialized hardware and software, that performs a set of related functions	Collect information, or activate capabilities in their operational domain
12	Control Panel	PACP, Fire Alarm	Hardware and Software device that provides an Operator Interface (I/O device), located in a Control Post	Allows Operators to manage one or more Domain
13	Control Post	Living Unit Control Post/MCCP	Room or area, typically located in a secure area in an institution	Room used by staff to execute their management responsibilities and interact with the Domains over which they have Control
14	Custom Equipment		Equipment designed and/or manufactured specifically for a specific contract.	
15	Design Authority		Director, Electronic Security Systems (DES) Correctional Service of Canada (CSC) is responsible for all technical aspects of the system design and implementation.	
16	Device	CCTV Camera, Managed Door, Call Origination Device	A specialized device, typically consisting of hardware and software	Provides data collection or activate functions associated with a specific system or sub-system
17	Enrolment User Interface		Monitor and Software that supports task specific User Interaction, located in a secure area	Allows Designated Personnel to enroll and delete Users from the Command, Control and Data Acquisition System.
18	Maintenance User Interface		Monitor and Software that supports task specific User Interaction, located in the CER or Maintenance Service Provider Office	Provides Maintenance Personnel with the ability to interact with one or more Systems to carry out their day to day tasks to troubleshoot and maintain Systems and Subsystems

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#	Term	Example(s)	Description	Function
19	Notification	Notification that a door is opened, or a door is closed, or a sensor is in alarm	A notification is a message that can be shown on a User Interface and/or logged in a database that represents a change in state or a command initiated by an operator.	
20	Off-the Shelf		Equipment currently on the market with available field reliability data, manuals, engineering drawings and parts price list.	
21	Operator User Interface	PIDS Display, Door Control and Monitoring System Display	Computer Monitor and Software that supports User Interaction (I/O device)	Provides an Operator with the ability to interact with one or more Systems to carry out their day to day tasks at a Control Console or Control Desk
22	Project Officer		A CSC employee or a contracted person designated by DES to be responsible for the implementation of the project.	
23	Reporting User Interface		Monitor and Software that supports task specific User Interaction, located in a secure area	Provides Management Personnel with the ability to access preconfigured reports and to create custom reports
24	Server	Network Video Recorder	Rack mounted computer that runs software and is located in an equipment room such as a CER or TER	Runs software that is used to deliver services that support Command and Control Applications to connect to sub-systems
25	State		The state of a device as reported to a sub-system or system	This is a logical representation of the state of a device that is being monitored or managed
26	Sub-system	Cell Call, Guard Tour	A group of Physical and Virtual devices or objects, often supported by specialized hardware and software, that perform a specific set of related functions	Collects information, or activates capabilities in their operational domain
27	System	PIDS	A group of Physical and Virtual devices or objects, often supported by specialized hardware and software, including devices from sub-systems that perform a more	Collects information, or activates capabilities in their operational domain



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#	Term	Example(s)	Description	Function
			general set of related functions	
28	Touch Screen User Interface	Door Control and Monitoring System User Interface	Typically an LCD Monitor with touch screen technology	Allows an Operator to view and interact with the Systems presented on the Monitor
29	Workstation		Rack mounted computer located in a secure area away from a Control Post or Control Desk	Runs software that is used to deliver Command and Control Capabilities

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## 1.0 INTRODUCTION

### 1.1 General

CSC has a requirement in the near term to replace the Head End switching equipment associated with the Perimeter Intrusion Detection System (PIDS) Public Address (PA) Systems at all Institutions.

The PIDS PA System provides the Main Communication and Control Post (MCCP) operator with a means of rapidly and promptly communicating verbally to potential escapees at each zone of the PIDS protected perimeter. The operator uses the PA system to communicate to intruders detected and observed by the PIDS system on a sector by sector basis.

The PIDS PA switcher is a functional element of the PIDS PA System and it is applicable to both new installations and upgrades of obsolete equipment.

The majority of PIDS PA Switchers currently deployed within CSC are 35 year old custom designed devices manufactured by either Senstar or MSGI that are well past their "End of Life". Maintenance spares are no longer available and repairs are costly, time consuming and also risky as component availability is an issue, presenting a significant operational risk.

### 1.2 Scope

The contractor must design, supply, test, and provide documentation for a PIDS PA Switcher in accordance with the Standards, Specifications and Statements of Work specified in SP0406 Draft R2, and as described in this STR. The contractor must provide acceptable documentation and schematics for the maintenance and installation of this equipment.

### 1.3 Requirement

The purpose of this STR is to define the technical aspects for the PIDS PA Switcher replacement. The new PA Switchers are to be functionally equivalent to the existing hardware, permitting a Drop and Insert deployment at a future date to be determined, but will support IP connectivity to the PIDS Perimeter Intrusion Detection System Integration System (PIU). This STR will indicate the extent to which both general and particular CSC specifications are applicable to the implementation of this requirement.

### 1.4 Quantities

This STR provides for the Design and Supply forty (40) PIDS PA Switchers for future deployment as follows:

- 35 new or replacement installations; and
- 5 maintenance spares (1 per Region)

The PA Switchers are to be acquired in bulk to take advantage of economies of scale.

The new PIDS PA Switchers will be installed / replaced as part of future separate ESS Projects to minimize travel costs.

## 1.5 Delivery Instructions

### 1.5.1. Atlantic - Qty 5 (4 + 1 spare)

Shipp all to:

Dorchester Institution  
4902 Main Street  
Dorchester, NB, E4K 2Y9  
Attn: ADGA Group  
Normand LeBlanc

### 1.5.2. Quebec – Qty 10 (9 + 1 spare)

One to each Institution as follows:  
Attn: ADGA Group

Archambault Institution	242 Montée Gagnon, Sainte-Anne-des-Plaines, QC, J0N 1H0
Cowansville Institution	400 Fordyce Avenue, Cowansville, QC, J2K 3G6
Donnacona Institution	1537 Highway 138, Donnacona, QC, G3M 1C9
Drummond Institution	2025 Jean-de-Brebeuf Boulevard, Drummondville, QC, J2B 7Z6
Joliette Institution	400 Marsolais Street, Joliette, QC, J6E 8V4
La Macaza Institution	321 Chemin de L'Aéroport, La Macaza, QC, J0T 1R0
Regional Reception Centre	246 Montée Gagnon, Sainte-Anne-des-Plaines, QC, J0N 1H0
Federal Training Centre	600 Montée Saint-Francois, Laval, QC, H7C 1S5
Port-Cartier Institution	Chemin de L'Aéroport, PO Box 7070, Port-Cartier, QC, G5B 2W2

Spare to be shipped to:

ADGA Région Québec  
F12- 250 Montée St-François  
Laval, Québec, H7C 1S5

**1.5.3.Ontario – Qty 8 (7 + 1 spare)**

Shipp all to:

ADGA Group  
Collin’s Bay Institution  
1455 Bath Rd.  
Kingston, ON, K7L 4V9

**1.5.4.Prairies – Qty 10 (9 + 1)**

One to each institution as follows:  
Attn: ADGA Group

Bowden Institution	Highway 2, PO Box 6000, Innisfail, AB, T4G 1V1
Drumheller Institution	Highway 9, PO Box 3000, Drumheller, AB, T0J 0Y0
Edmonton Institution	21611 Meridian Street, PO Box 2290, Edmonton, AB, T5J 3H7
Edmonton Institution for Women	11151, 178th Street, Edmonton, AB, T5S 2H9
Grand Cache Institution	Hoppe Avenue, PO Box 4000, Grande Cache, AB, T0E 0Y0
Okimaw Ohci Healing Lodge	PO Box 1929, Maple Creek, SK, S0N 1N0
Regional Psychiatric Centre	2520 Central Avenue North, PO Box 9243, Saskatoon, SK, S7K 3X5
Saskatchewan Penitentiary	15th Street West, PO Box 1600, Prince Albert, SK, S6V 5R6
Stony Mountain Institution	Highway 7, PO Box 4500, Stony Mountain, MB, R3C 3W8

Spare to be shipped to Drumheller as above

**1.5.5.Pacific – Qty 7 (6 + 1)**

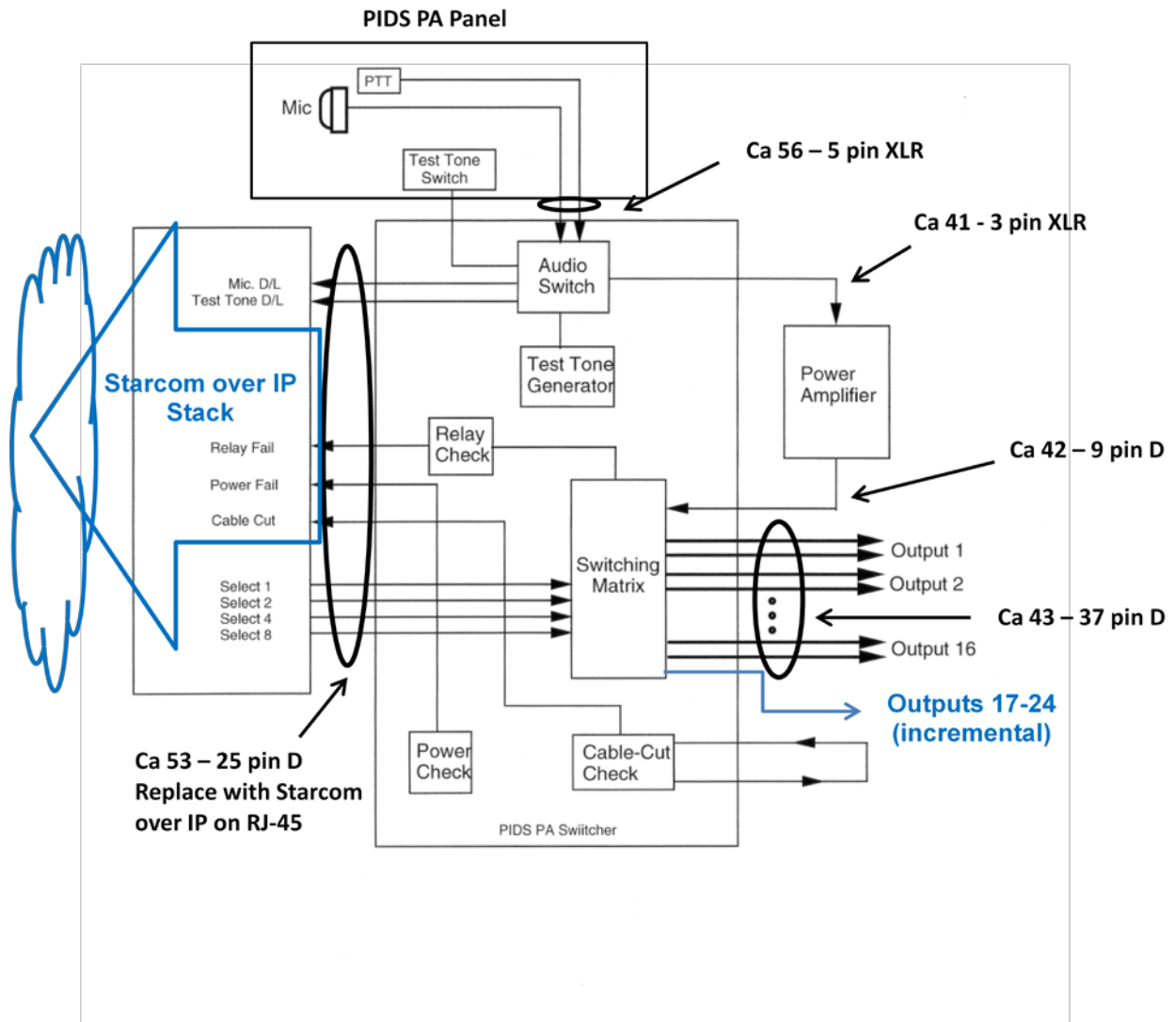
One to each institution as follows:  
Attn: ADGA Group

Fraser Valley Institution	33344 King Road, Abbotsford, BC, V2S 6J5
Kent Institution	4732 Cemetery Road, PO Box 1500, Agassiz, BC, V0M 1A0
Matsqui Institution	33344 King Road, PO Box 2500, Abbotsford, BC, V2S 4P3
Mission Institution	8751 Stave Lake Street, PO Box 60, Mission, BC, V2V 4L8
Mountain Institution	4732 Cemetery Road, PO Box 1600, Agassiz, BC, V0M 1A0
Pacific Institution	33344 King Road, PO Box 3000, Abbotsford, BC, V2S 4P4

Spare to be shipped to Matsqui as above

1.6 Block Diagram – PIDS PA Switcher

### PIDS PA Switcher Replacement Interconnection



See Annex A for additional details

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## 2.0 APPLICABLE DOCUMENTS

### 2.1 Applicability

The provisions contained in the documents listed in the following paragraphs apply to all aspects of this requirement, unless these provisions have been exempted or modified by this STR.

### 2.2 Applicable Standards and Specifications

- a. ES/SOW-0101 Electronics Engineering Statement of Work - Procurement and Installation of Electronic Security Systems
- b. ES/SOW-0102 Electronics Engineering Statement of Work - Quality Control for Procurement and Installation of Electronic Security Systems
- c. ES/SPEC-0402 Electronics Engineering Specifications – PIDS Public Address Systems for use in Federal Correctional Institutions
- d. ES/SPEC-0406 PIDS Public Address Switcher For use in Federal Correctional Institutions
- e. ES/STD-0102 Data Logger for use in Federal Correctional Institutions
- f. ES/SPEC-0005 Electronic Systems Integration Into The Main Communications and Control Post (MCCP) In Federal Correctional Institutions
- g. J2DA0609-001 Starcom IP Implementation

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### **2.3 Drawings & Schematics**

See Annex A

### **2.4 Language**

All as built schematics, installation, and maintenance manuals must be provided in English. Quantities and formats must be in accordance with ES/SOW-0101 Electronics Engineering Statement of Work - Procurement and Installation of Electronic Security Systems – Section 11.0.

## **3.0 OPERATIONAL CRITERIA**

### **3.1 General**

The operational parameters of the PIDS PA Switcher equipment must meet the performance and operational requirements in accordance with the Specifications and Standards listed in paragraph 2.2 unless these provisions have been exempted or modified by this STR.

To the maximum practical extent, commercial off-the-shelf equipment (COTS) should be selected for use in the system. New designs should be restricted to common interface areas, control panels and consoles, or unique devices for which an off-the-shelf item does not exist.

A design objective is to minimize the amount of serial connectivity associate with the PIDS PA switcher integration into the PIDS Integration Unit (PIU) and Facility Alarm Annunciation System (FAAS) Integration Unit (FIU).The replacement PIDS PA Switcher must be implemented using Starcom over IP connectivity.

### **3.2 Functional**

The PIDS PA speakers are grouped into sectors that correspond to the Perimeter Intrusion detection and alarm sectors. Each sector is individually addressable and the sector selection is controlled by the PIDS PIU. The PA sector that is activated when the microphone push to talk button is pressed corresponds to the active sector being viewed on the PIDS CCTV monitors. Only one sector at a time may be selected.

The PA Switcher must consist of a:

- a. 19" rack mounted chassis, no more than 1 RU in height
- b. A switch matrix, controlled by outputs from the PIDS PIU using the Starcom over IP protocol, that allows the output of a PA amplifier to be directed to one of up to 24 speaker zones (in 2 blocks of 16 (existing) and 8 (incremental) over copper pairs running around the perimeter of an institution.
- c. An internal speaker and volume control connected to output Zone 1. Unless the switcher has been commanded to an alarmed sector, the output will default to Zone 1.
- d. A visual indication of the active output Zone.
- e. An input that monitors the state of a Press-To-Talk switch on a microphone that manages the PA Switcher to enable the transmission of the audio output from the PA Amplifier and

- direct it the output selected by the PIDS PIU.
- f. A current loop sensor that monitors the continuity of a copper pair running around the perimeter of an institution to be monitored for continuity, shorts, and intermittent transients (indicative of tampering), providing a notification to the PIDS PIU using the Starcom over IP Protocol.
  - g. A test tone generator (1000 Hz) that can be selected by a switch on the existing PIDS PA Control Panel located in the MCCP.
  - h. Ethernet connectivity to the PIDS PIU over CAT6 cable using the Starcom over IP Protocol.
  - i. With the exception of the existing connection to the PIDS PIU which will be replaced with Starcom over IP connectivity, all inputs and outputs are to be plug and pin compatible with the existing Senstar PA Amplifiers, except for the incremental block of 9 speaker zones, for which a new output may be required
  - j. Provide system alarm outputs for power supply failure, loop continuity failure, and switching relay failure using the Starcom over IP protocol.

### **3.3 Integration**

- a. The replacement PA switcher must be form, fit, and function compatible, except as specified above, with the current PIDS PA switcher.
- b. A wiring diagram must be supplied in the Installation section of the Maintenance Manual to detail where the new PIDS PA Switcher module connections terminate and how wires are routed and terminated.
- c. Detailed guidelines for the replacement of the existing PIDS PA Switcher with the unit described in this document must be provided; including the instructions for updating the PIDS and FAAS configuration to replace the existing four output connectivity with connectivity provided using Starcom over IP.

### **3.4 Data Logging**

The PIDS PA switcher must communicate with the PIU Data Logger described in ES/SPEC-0005, using Starcom over IP protocol.

It must specifically provide for:

- a. The provision of a notification to the PIDS PIU, when the PTT switch is selected or released.
- b. The provision of a notification to the PIDS PIU when the Test-Tone Generator is selected or unselected.
- c. The provision of a notification to the PIDS PIU when there are alarm outputs for loop continuity failure and switching relay failure.

## **4.0 TECHNICAL REQUIREMENTS**

See ES/SPEC-0406 PIDS Public Address Switcher for use in Federal Correctional Institutions

## **5.0 ADDITIONAL REQUIREMENTS**

### **5.1 Operator Training**



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No operator training is required for this project.

## **5.2 Maintenance Training**

No maintenance training is required for this project.

## **5.3 Manuals**

The contractor must provide the operator and technical manuals in accordance with the specification ES/SOW-0101 Statement of Work. The contractor must provide ten paper copies of the operator manual in English to the site.

## **5.4 As-Built Drawings**

The contractor must provide electronic and paper copies of as-built schematics of the PIDS PA Switcher in AutoCAD 2014 format and in accordance with specification ES/SOW-0101 Statement of Work.

## **5.5 Factory Testing**

Each PA Switcher must be factory tested and approved prior to delivery.

Details of factory tests are contained in the ES/SOW-0102, Statement of Work. Factory tests must be performed according to the Design Authority approved procedures.

### **5.5.1 Factory Test Plans**

Factory Test Plans must detail as a minimum:

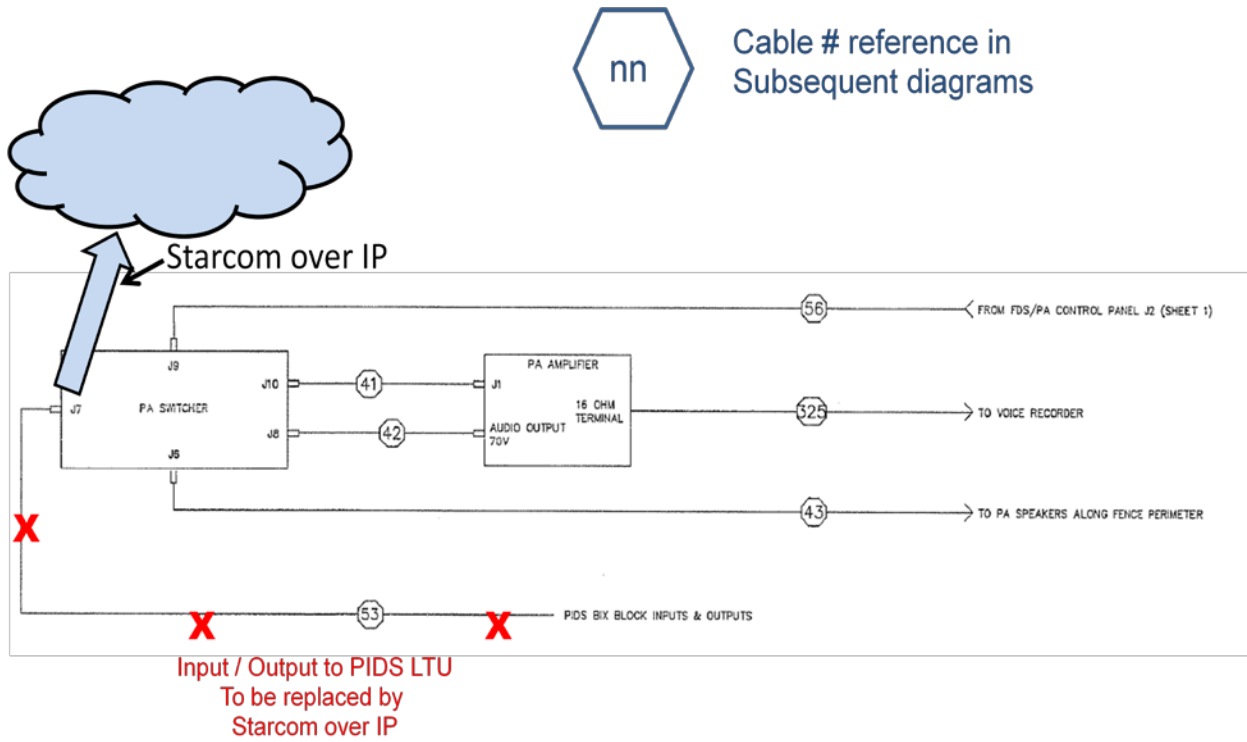
- a. Description of the component or function being tested
- b. Description of the test environment (physical, electrical, operational, etc.)
- c. Test procedure(s)
- d. Pass / Fail criteria

Equipment with deficiencies as the result of the factory tests must be subject to retest. The Design Authority reserves the right to add or modify tests.

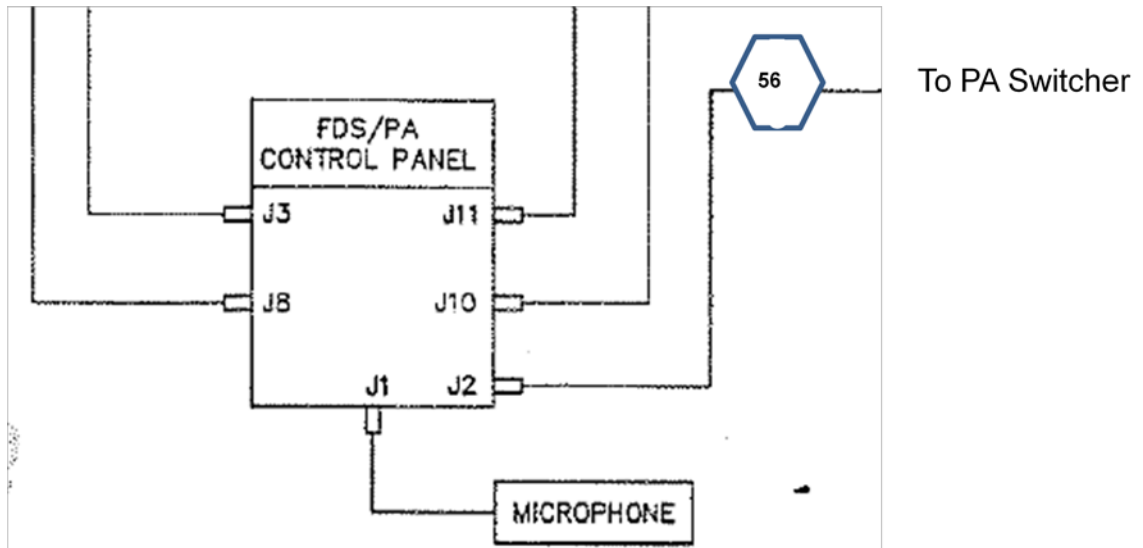
### **5.5.2 Factory Test Acceptance Reports**

The Contractor must provide the Design Authority or his designated representative, fully completed and signed copy of the Factory Test Acceptance Reports.

**Annex A - Current and Proposed PIDS PA Switcher Connectivity**



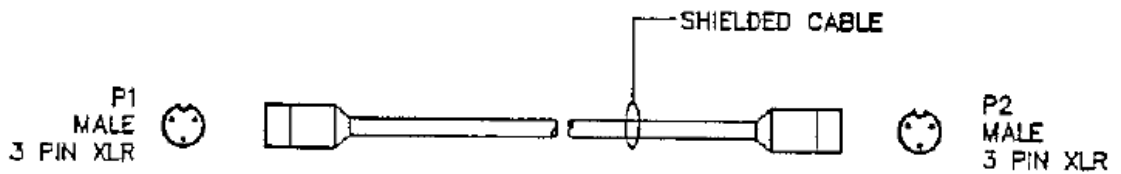
**PIDS PA Panel to PA Switcher Connectivity**



## Cabling Details

### Cable 41

CABLE RUNNING LIST		
WIRE No.	FROM TERMINATION	TO TERMINATION
1	P1-1	P2-1
2	P1-2	P2-2
3	P1-3	P2-3

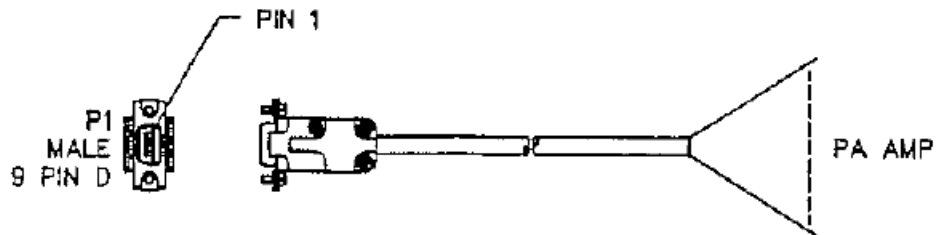


### DETAIL '28'

CABLE No. 41  
(EXISTING)

**Cable 42**

CABLE RUNNING LIST		
WIRE No.	FROM TERMINATION	TO TERMINATION
1	P1-1	PA AMP GND TERM
2	P1-2	PA AMP 70V TERM



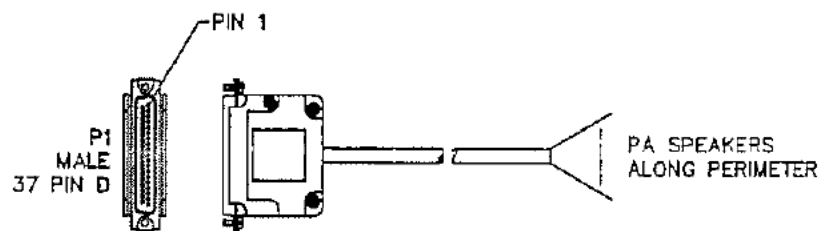
DETAIL '29'

CABLE No. 42

**Cable 43**

CABLE RUNNING LIST		
WIRE No.	FROM TERMINATION	TO TERMINATION
1	P1-1	ZONE 1 HI
2	P1-2	ZONE 2 HI
3	P1-3	ZONE 3 HI
4	P1-4	ZONE 4 HI
5	P1-5	ZONE 5 HI
6	P1-6	ZONE 6 HI
7	P1-7	ZONE 7 HI
8	P1-8	ZONE 8 HI
9	P1-9	ZONE 9 HI
10	P1-10	ZONE 10 HI
11	P1-11	ZONE 11 HI
12	P1-12	ZONE 12 HI
13	P1-13	ZONE 13 HI
14	P1-14	ZONE 14 HI
15	P1-15	ZONE 15 HI

CABLE RUNNING LIST(CONT'D)		
WIRE No.	FROM TERMINATION	TO TERMINATION
16	P1-20	ZONE 1 LOW
17	P1-21	ZONE 2 LOW
18	P1-22	ZONE 3 LOW
19	P1-23	ZONE 4 LOW
20	P1-24	ZONE 5 LOW
21	P1-25	ZONE 6 LOW
22	P1-26	ZONE 7 LOW
23	P1-27	ZONE 8 LOW
24	P1-28	ZONE 9 LOW
25	P1-29	ZONE 10 LOW
26	P1-30	ZONE 11 LOW
27	P1-31	ZONE 12 LOW
28	P1-32	ZONE 13 LOW
29	P1-33	ZONE 14 LOW
30	P1-34	ZONE 15 LOW

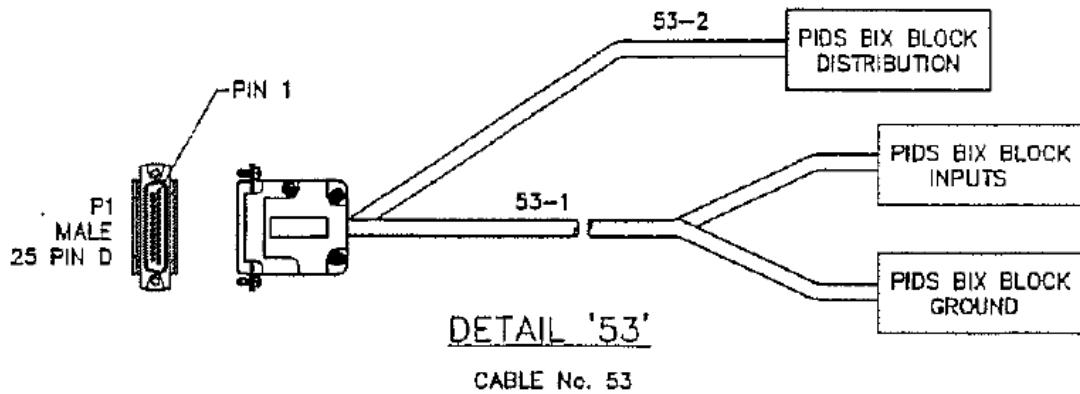


DETAIL '31'

CABLE No. 43

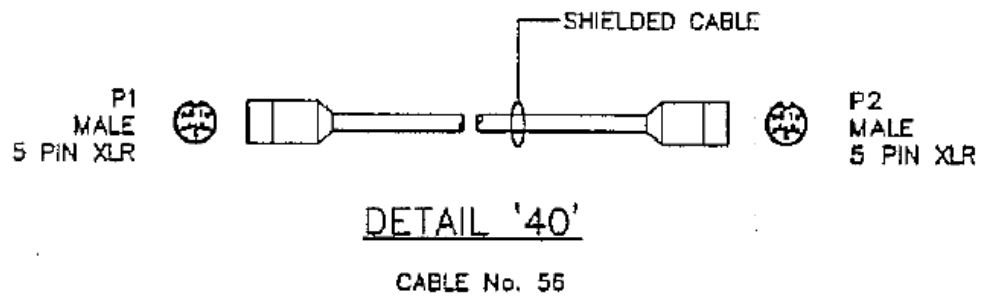
**Cable 53**

CABLE RUNNING LIST				
WIRE No.	FROM TERMINATION	WIRE COLOUR	TO TERMINATION	STATE
(53-1) 1	P1-1	RED	PIDS BIX BLOCK INPUT #86	FAIL
(53-1) 2	P1-3	BLACK	PIDS BIX BLOCK INPUT #87	C. CUT
(53-1) 3	P1-11	GREEN	PIDS BIX BLOCK INPUT #88	RELAY F.
(53-1) 4	P1-12	BLACK	PIDS BIX BLOCK INPUT #83	PA MIC.
(53-1) 5	P1-13	WHITE	PIDS BIX BLOCK INPUT #82	TEST
(53-1) 6	P1-10	BLACK	PIDS BIX BLOCK	GND.
(53-2) 7	P1-6	RED	PIDS BIX BLOCK OUTPUT #42	C0
(53-2) 8	P1-7	GREEN	PIDS BIX BLOCK OUTPUT #43	C1
(53-2) 9	P1-8	BLACK/RED	PIDS BIX BLOCK OUTPUT #44	C2
(53-2) 10	P1-9	WHITE	PIDS BIX BLOCK OUTPUT #45	C3
(53-2) 11	P1-10		PIDS BIX BLOCK OUTPUT #41	GND.
(53-2) 12			PIDS BIX BLOCK #10 PINS 35-37, 39, 41	LOOPED FOR PA ENABLE



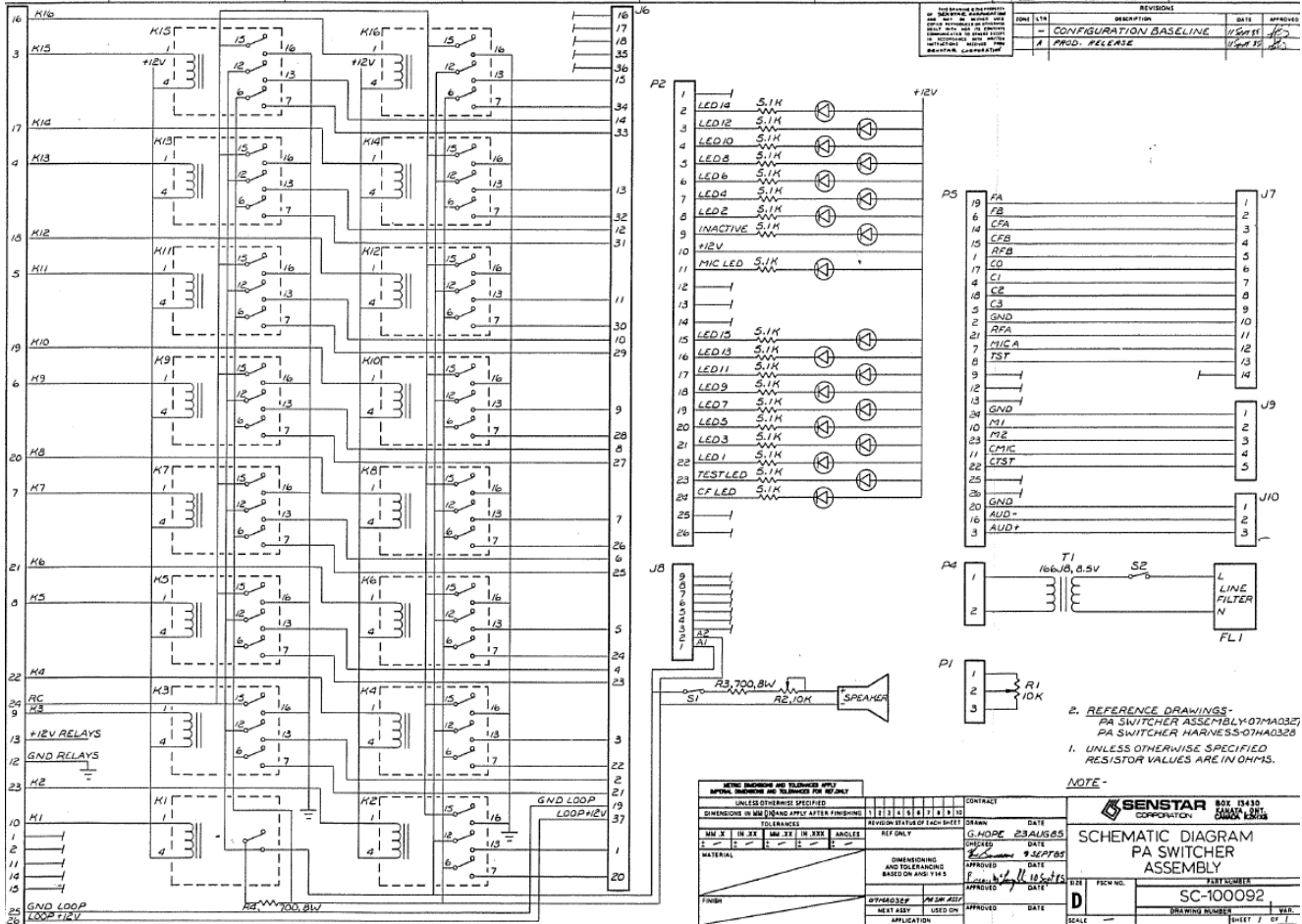
**Cable 56**

CABLE RUNNING LIST			
WIRE No.	FROM TERMINATION	TO TERMINATION	
1	P1-1	P2-1	RED
2	P1-2	P2-2	BLACK/RED
3	P1-3	P2-3	WHITE
4	P1-4	P2-4	BLACK/WHITE
5	P1-5	P2-5	BLUE



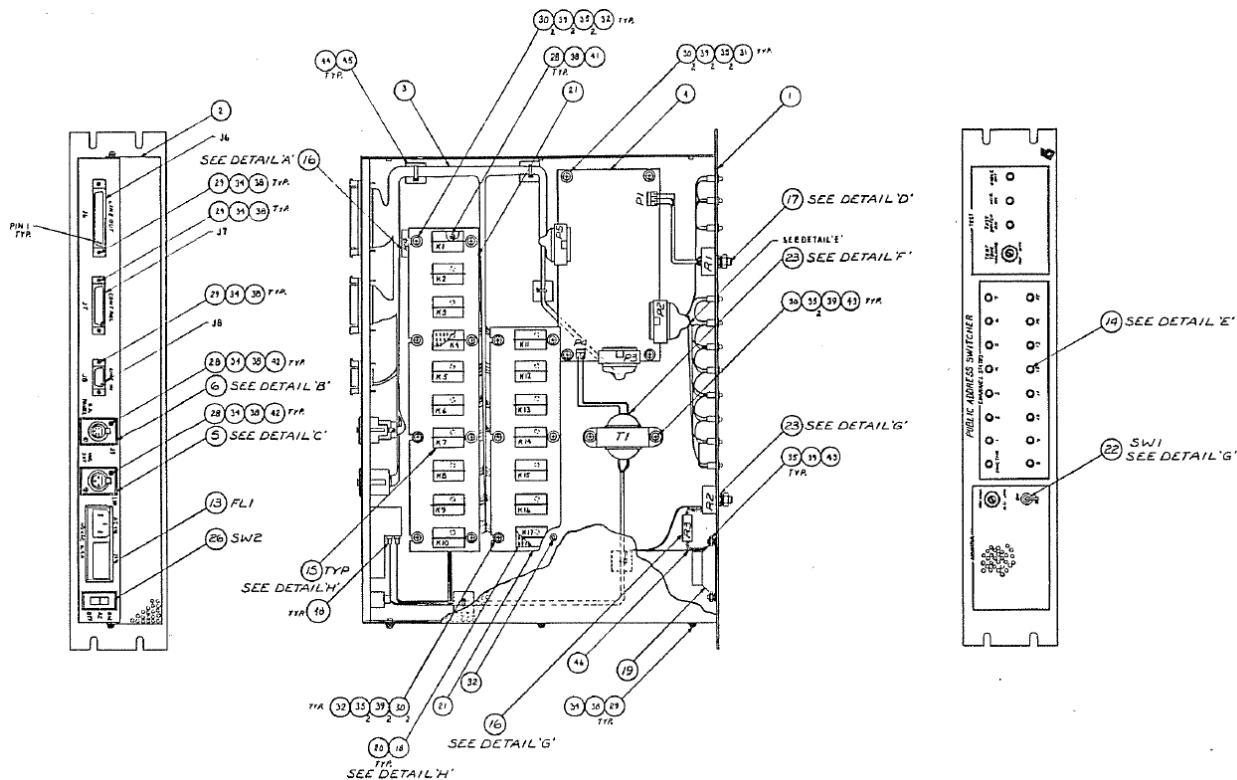


Senstar PA Switcher Schematic



Schematic of Existing PIDS PA Switcher  
For reference purposes only

### Senstar PA Switcher Physical Layout



For reference purposes only

**Annex B - List of CSC Institutions and Addresses**

Region	Institution / Site	Address
<b>Atlantic</b>	Atlantic Institution	13175 Route 8, PO Box 102, Renous, NB, E9E 2E1
	Dorchester Institution	4902 Main Street, Dorchester, NB, E4K 2Y9
	Nova Institution for Women	180 James Street, Truro, NS, B2N 6R8
	Springhill Institution	330 McGee Street, PO Box 2140, Springhill, NS, B0M 1X0
<b>Ontario</b>	Bath Institution	5775 Bath Road, PO Box 1500, Bath, ON, K0H 1G0
	Collins Bay Institution	1455 Bath Road, PO Box 190, Kingston, ON, K7L 4V9
	Beaver Creek Institution	2000 Beaver Creek Drive, PO Box 5000, Gravenhurst, ON, P1P 1Y2
	Grand Valley Institution for Women	1575 Homer Watson Boulevard, Kitchener, ON, N2P 2C5
	Joyceville Institution	Highway 15, PO Box 880, Kingston, ON, K7L 4X9
	Millhaven Institution	Highway 33, PO Box 280, Bath, ON, K0H 1G0
	Warkworth Institution	County Road 29, PO Box 760, Campbellford, ON, K0L 1L0
<b>Pacific</b>	Fraser Valley Institution	33344 King Road, Abbotsford, BC, V2S 6J5
	Kent Institution	4732 Cemetery Road, PO Box 1500, Agassiz, BC, V0M 1A0
	Matsqui Institution	33344 King Road, PO Box 2500, Abbotsford, BC, V2S 4P3
	Mission Institution	8751 Stave Lake Street, PO Box 60, Mission, BC, V2V 4L8
	Mountain Institution	4732 Cemetery Road, PO Box 1600, Agassiz, BC, V0M 1A0
	Pacific Institution	33344 King Road, PO Box 3000, Abbotsford, BC, V2S 4P4
<b>Prairie</b>	Bowden Institution	Highway 2, PO Box 6000, Innisfail, AB, T4G 1V1
	Drumheller Institution	Highway 9, PO Box 3000, Drumheller, AB, T0J 0Y0
	Edmonton Institution	21611 Meridian Street, PO Box 2290, Edmonton, AB, T5J 3H7
	Edmonton Institution for Women	11151, 178th Street, Edmonton, AB, T5S 2H9
	Grand Cache Institution	Hoppe Avenue, PO Box 4000, Grande Cache, AB, T0E 0Y0
	Okimaw Ohci Healing Lodge	PO Box 1929, Maple Creek, SK, S0N 1N0
	Regional Psychiatric Centre	2520 Central Avenue North, PO Box 9243, Saskatoon, SK, S7K 3X5
	Saskatchewan Penitentiary	15th Street West, PO Box 1600, Prince Albert, SK, S6V 5R6
	Stony Mountain Institution	Highway 7, PO Box 4500, Stony Mountain, MB, R3C 3W8
<b>Québec</b>	Archambault Institution	242 Montée Gagnon, Sainte-Anne-des-Plaines, QC, J0N 1H0

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Region	Institution / Site	Address
	Cowansville Institution	400 Fordyce Avenue, Cowansville, QC, J2K 3G6
	Donnacona Institution	1537 Highway 138, Donnacona, QC, G3M 1C9
	Drummond Institution	2025 Jean-de-Brebeuf Boulevard, Drummondville, QC, J2B 7Z6
	Joliette Institution	400 Marsolais Street, Joliette, QC, J6E 8V4
	La Macaza Institution	321 Chemin de L'Aeroport, La Macaza, QC, J0T 1R0
	Regional Reception Centre	246 Montée Gagnon, Sainte-Anne-des-Plaines, QC, J0N 1H0
	Federal Training Centre	600 Montée Saint-Francois, Laval, QC, H7C 1S5
	Port-Cartier Institution	Chemin de L'Aeroport, PO Box 7070, Port-Cartier, QC, G5B 2W2

## Annex C - Evaluation Criteria

### 1. Technical Evaluation:

The following elements of the proposal will be evaluated and scored in accordance with the Mandatory Technical Criteria

It is **imperative** that the proposal **address each of these criteria** to demonstrate that the requirements are met.

#### 1.1. Response Format

In order to facilitate evaluation of proposals, it is recommended that bidders' proposals address the mandatory criteria in the order in which they appear in the Evaluation Criteria and using the numbering outlined.

### MANDATORY TECHNICAL CRITERIA

#	Mandatory Criteria	Bidder Response Description (include location in bid)	Y/N
M1	<p><b>Previous Design / Manufacturing Experience</b></p> <p>1. Demonstrated experience in the design and fabrication of mission specific hardware, employing commercially available off the shelf components</p>		
M2	<p><b>Previous Experience in High Security Environments</b></p> <p>1. Demonstrated experience delivering similar products to Agencies operating in high security environments</p>		
M3	<p><b>Previous Experience Integrating IP Stacks</b></p> <p>1. Demonstrated experience with the integration of IP communications stack into similar products</p> <p>Provide examples where appropriate</p>		
M4	<p><b>Quality Assurance</b></p> <p>1. Corporate certification (ISO or other)</p>		
M5	<p><b>Test and Certification Capability</b></p> <p>1. Test and calibration capability and certification</p> <p>a. In house</p> <p>b. External</p>		

M6	<p><b>Functional Requirements;</b></p> <ol style="list-style-type: none"> <li>1. Switch matrix with 24 selectable outputs as defined by PIDS PIU</li> <li>2. Test Tone Generator (1000 Hz)</li> <li>3. Internal speaker and volume control set to Zone 1</li> <li>4. Visual indication of active output Zone</li> <li>5. Input monitor for:             <ol style="list-style-type: none"> <li>a. Test Tone Generator Select</li> <li>b. Microphone PTT activation</li> </ol> </li> <li>6. Supervision:             <ol style="list-style-type: none"> <li>a. Relay Fail</li> <li>b. Loop Continuity for speaker pairs</li> </ol> </li> <li>7. Plug and Pin compatible with existing Senstar PA Switchers except:             <ol style="list-style-type: none"> <li>a. PIU LTU input – Cable 53 on drawings</li> <li>b. Additional connections for incremental Zones 17-24</li> </ol> </li> <li>8. Rated and capable of 24/7 - 365 operation</li> </ol>		
M7	<p><b>Integration Requirements</b></p> <ol style="list-style-type: none"> <li>1. Starcom over IP connectivity</li> <li>2. Data logging – connectivity with PIU Data Logger for:             <ol style="list-style-type: none"> <li>a. Microphone PTT activation / deactivation</li> <li>b. Test Tone activation / deactivation</li> <li>c. Alarm notification for:                 <ol style="list-style-type: none"> <li>i. Relay Fail</li> <li>ii. Loop continuity Fail</li> </ol> </li> </ol> </li> </ol>		
M8	<p><b>Mechanical &amp; Electrical</b></p> <ol style="list-style-type: none"> <li>1. 19" EIA rack mount, maximum 1 RU in height</li> <li>2. Input power:             <ol style="list-style-type: none"> <li>a. 120 VAC <math>\pm</math>10%</li> <li>b. 60 Hz <math>\pm</math>1.5%</li> <li>c. Transients:                 <ol style="list-style-type: none"> <li>i. up to 5 times nominal voltage for up to 100 msec durations. Changes in the input power or any fluctuations within the above limits must not cause damage to the unit</li> </ol> </li> </ol> </li> <li>3. CSA approved</li> </ol>		
M9	<p><b>Environmental</b></p> <p>The PIDS PA Switcher must comply with all requirements of this specification over the following environmental ranges:</p> <ol style="list-style-type: none"> <li>1. temperature 0°C to 50°C; and</li> <li>2. humidity 20% to 95% Non Condensing.</li> </ol>		

M10	<b>Electromagnetic Interference</b>  Supplied equipment must be certified compliant with:  IEC EN55022 or IEC EN 55032 <ul style="list-style-type: none"><li>• (IEC EN55022 – International Electrotechnical Commission Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement)</li><li>• (IEC EN55032 – International Electrotechnical Commission Electromagnetic compatibility of multimedia equipment – Emission requirements (Replacing IEC EN55022));</li></ul> IEC EN 55024 <ul style="list-style-type: none"><li>• (IEC EN55024 – International Electrotechnical Commission Information technology equipment – Immunity characteristics – Limits and methods of measurement);</li></ul>		
M11	<b>Documentation</b>  The PA Switcher must be supplied with documentation which will be a Copyright Released item for the documentation delivered in support of the system. Technical documentation is to include maintenance and diagnostic routines.  The documentation must be in accordance with the ES/SOW-0101, Statement of Work		