

State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation

SH-P

DPS0811

ADDRESS CORRESPONDENCE TO ATTENTION OF JOHN ABBOTT

304-558-2544

RFQ COPY TYPE NAME/ADDRESS HERE

Penta Corporation

WEST VIRGINIA STATE POLICE

4124 KANAWHA TURNPIKE SOUTH CHARLESTON, WV

25309

304-746-2141

DATE PRIN	TED	TER	MS OF SA	Œ	SHI) VIA		F.O.B.		FREIGHT TERMS	
BID OPENING DATE		 	/2007			BID	OPEN	NG TIM	E d	1:30PM	
LINE	QUA	viu.	UOP	CAT.	ITEM N	UMBER		UNIT PRICE		AMOUNT	
0001	RADIO	1 DISPAT	LS CH CO	NSOLE	725-16 EQUIPME	INT					
		ENT FO	R THE		ROVIDE R						
	QUESTI	ON PER		11/9/ ADDRE	TIONS WIL 2007; 4: SSED TO XED TO 3	00 PM; A JABBOTT©	ND SH WVADM	ALL BE			
	EXHIBI	Т4									
	IN THE AND CO. AND OT. TO POL VIRGIN PRICES POLITIC CLEARL	BID F NDITIO HER LO ITICAL IA. I , TERM CAL SU Y INDI	IS RE NS OF CAL G SUBD F THE S, AN BDIVI CATE	FUSAL THE OVERN IVISI VEND D CON SIONS SUCH	S: UNL TO EXTE BID TO C MENT BOD ONS OF T OR DOES DITIONS OF THE REFUSAL E AWARD	ND THE POUNTY, SIES, THE STATE NOT WISHOF THE BITATE, TIN HIS F	RICES CHOOL BID OF W TO E ID TO HE VE	, TERM, , MUNIO SHALL I EST XTEND I ALL NDOR MO SUCH RI	s, Cipal Exten THE JST EFUSAI		
	EXHIBI'	гз 🖠		A STATE OF THE PERSON ASSESSED.							
	LIFE O	F CONT	RACT:		IS CONTRA			FFECTI	Æ ON		the state of the s
SIGNATURE	-/bd	/		SEE REV	ERSE SIDE FOR	TITLE TRUCKE		3-170	DATE	12/3/07	
TITLE Dirah (DPS	FEII	122	080	3188			ADDRESS (HANGES	TO BE NOTED ABOVE	
WHE	N RESPO	NDING T	O RFQ,	INSERT	NAME AND	ADDRESS I	N SPAC	E ABOVE	LABELE	D 'VENDOR'	

GENERAL TERMS & CONDITIONS REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

- 1. Awards will be made in the best interest of the State of West Virginia.
- 2. The State may accept or reject in part, or in whole, any bid.
- 3. All quotations are governed by the West Virginia Code and the Legislative Rules of the Purchasing Division.
- Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125.00 registration fee.
- 5. All services performed or goods delivered under State Purchase Orders/Contracts are to be continued for the term of the Purchase Order/Contract, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.
- 6. Payment may only be made after the delivery and acceptance of goods or services.
- 7. Interest may be paid for late payment in accordance with the West Virginia Code.
- 8. Vendor preference will be granted upon written request in accordance with the West Virginia Code.
- 9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- 10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
- 11. The laws of the State of West Virginia and the Legislative Rules of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.
- 12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
- 13. BANKRUPTCY: In the event the vendor/contractor files for bankruptcy protection, this Contract may be deemed null and void, and terminated without further order.
- 14. HIPAA Business Associate Addendum The West Viginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (http://www.state.wv.us/admin/purchase/vrc/hipaa.htm) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Covered Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.

INSTRUCTIONS TO BIDDERS

- 1. Use the quotation forms provided by the Purchasing Division.
- 2. SPECIFICATIONS: Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as EQUAL to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
- 3. Complete all sections of the quotation form.
- 4. Unit prices shall prevail in cases of discrepancy.
- 5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
- 6. BID SUBMISSION: All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications.

SIGNED BID TO:

Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130



ADDOR

SIGNATURE

रामा ह

RFQ COPY

TYPE NAME/ADDRESS HERE

State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for REQNUMBER Quotation

DPS0811

2

ADDRESS CORRESPONDENCE TO ATTENTION OF: JOHN ABBOTT 304-558-2544

S H

WEST VIRGINIA STATE POLICE

4124 KANAWHA TURNPIKE SOUTH CHARLESTON, WV 25309

304-746-2141

FO.8. DATE PRINTED TERMS OF SALE SHIP VIA FREIGHT TERMS 10/31/2007 11/19/2007 OPENING TIME BID OPENING DATE: LINE QUANTITY. LIOP ITEM NUMBER UNITPRICE AMOUNT .. AND EXTENDS FOR A PERIOD OF ONE (1) YEAR OR UNTIL SUCH "REASONABLE TIME" THEREAFTER AS IS NECESSARY TO OBTAIN A NEW CONTRACT OR RENEW THE ORIGINAL CONTRACT. THE "REASONABLE TIME" PERIOD SHALL NOT EXCEED TWELVE (12) MONTHS. DURING THIS "REASONABLE TIME" THE VENDOR MAY TERMINATE THIS CONTRACT FOR ANY REASON UPON GIVING THE DIRECTOR OF PURCHASING 30 DAYS WRITTEN NOTICE. UNLESS SPECIFIC PROVISIONS ARE STIPULATED ELSEWHERE IN THIS CONTRACT DOCUMENT, THE TERMS, CONDITIONS AND PRICING SET HEREIN ARE FIRM FOR THE LIFE OF THE CONTRACT. RENEWAL: THIS CONTRACT MAY BE RENEWED UPON THE MUTUAL WRITTEN CONSENT OF THE SPENDING UNIT AND VENDOR, SUBMITTED TO THE DIRECTOR OF PURCHASING THIRTY (30) DAYS PRIOR TO THE EXPIRATION DATE. SUCH RENEWAL SHALL BE IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE ORIGINAL CONTRACT AND SHALL BE LIMITED TO TWO (2) ONE (1) YEAR PERIODS. CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICES supplied ark of An inverior quality or do not conform TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN. OPEN MARKET CLAUSE: THE DIRECTOR OF PURCHASING MAY AUTHORIZE A SPENDING UNIT TO PURCHASE ON THE OPEN MARKET, WITHOUT THE FILING OF A REQUISITION OR COST ESTIMATE, ITEMS SPECIFIED ON THIS CONTRACT FOR IMMEDIATE DELIVERY IN EMERGENCIES DUE TO UNFORESEEN causes (including but not limited to delays in trans-PORTATION OR AN UNANTICIPATED INCREASE IN THE VOLUME OF WORK.) SEE REVERSE SIDE FOR TERMS AND CONDITIONS:

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

FEIN

TELEPHONE

DATE

ADDRESS CHANGES TO BE NOTED ABOVE



MODEMA

State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation DPS0811

ADDRESS CORRESPONDENCE TO ATTENTION OF JOHN ABBOTT 304-558-2544

3

RFQ COPY TYPE NAME/ADDRESS HERE WEST VIRGINIA STATE POLICE

þ Ť O

DATE PRINTED 10/31/2007	TERMS OF SALE	SHIP VIA	FOE	FREIGHT TERMS
BID OPENING DATE:	1/19/2007	Bid	OPENING TIME	1:30PM
LINE QUANTIT	ry I ina CAT	ITEM NUMBER	UNIT PRICE	AMOUNT
33.41	NO.	raminowoca,	OHY TAOL	ANIOUN.
APPROXIN THE STAT THAT THE ORDERED	IES: QUANTITIES MATIONS ONLY, BA IE SPENDING UNIT E CONTRACT SHAIL FOR DELIVERY DU MORE OR LESS TH	SED ON ESTIMATES IT IS UNDERSICULATION OF THE QUANTERING THE TERM OF	S SUPPLIED BY TOOD AND AGREED SITIES ACTUALLY THE CONTRACT,	
WRITTEN THE VEND THE ORIG VENDOR A MAILED T	G PROCEDURE: SPEN STATE CONTRACT (DOR FOR COMMODIT: GINAL COPY OF THI AS AUTHORIZATION TO THE PURCHASING D BY THE SPENDING	ORDER (FORM NUMB IES COVERED BY T E WV-39 SHALL EE FOR SHIPMENT, A G DIVISION, AND	SER WV-39) TO THIS CONTRACT. MAILED TO THE SECOND COPY	
FOR BANK	CCY: IN THE EVEN RUPTCY PROTECTION JLL AND VOID, AND	ON, THIS CONTRAC	T IS AUTOMATI-	
SHALL SU CONDITIO DOCUMENT AGREEMEN	IS AND CONDITIONS UPERSEDE ANY AND ONS WHICH MAY APE ONS SUCH AS PRICE UTS OR MAINTENANCE HIC MEDIUM SUCH A	ALL SUBSEQUENT PEAR ON ANY ATTA LISTS, ORDER FO CE AGREEMENTS, II	TERMS AND CHED PRINTED RMS, SALES	
CURRENTL IS ISSUE MUST ACC CARD FOR	NG CARD ACCEPTAN Y UTILIZES A VIS D THROUGH A BANK EPT THE STATE OF PAYMENT OF ALL S A CONDITION OF	SA PURCHASING CAN K. THE SUCCESSFO F WEST VIRGINIA ORDERS PLACED BY	RD PROGRAM WHIC UL VENDOR VISA PURCHASING	
	VENDOR PREF	FERENCE CERTIFICA	ATE	
SIGNATURE	SEE REVER	SE SIDE FOR TERMS AND COND! ITELEPHONE	TIONS DATE	
		IEFELMOME	, DATE	
TITLE .	FEIN		ADDRESS CHANGES	TO BE NOTED ABOVE



*HZGOX

RFQ COPY

TYPE NAME/ADDRESS HERE

State of West Virginia
Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation DPS0811

4

ADDRESS CORRESPONDENCE TO ATTENTION OF JOHN ABBOTT 304-558-2544

WEST VIRGINIA STATE POLICE

SHIP

DATE PRIN		TERMS OF SALE	SHI	¹ V _I A	FO:8	FREIGHT TERMS
BID OPENING DATE	1	L9/2007		BID	PENING TIME C	1:30PM
LINE	QUANTITY	UOP CAT.	ITEMN	JMBER	UNITPRICE	AMOUNT
	PREFERENCE	: IN ACCORDA	MCE WITH	WEST VIR	BY MADE FOR HINIA CODE, I CONTRACTS).	
	A APPLIC	1 1	ADE FOR 2.	5% PREFER	RENCE FOR THE	
	HAS RESIDE	IMMEDIATELY	ISLY IN WE	ST VIRGIN	IIA FOR FOUR	
	TION RESID QUARTERS CONTROL WEST VIRGITHE DATE CONTROL	ENT VENDOR R PRINCIPAL NIA FOR FOU F THIS CERT F BIDDER IS P, ASSOCIAT INTAINED IT S CONTINUOU DIATELY PRE	AND HAS M PLACE OF (4) YEA FICATION HELD BY ION OR CO HEADQUA SLY IN WE	AINTAINED BUSINESS RS IMMEDI ; OR 80% ANOTHER I RPORATION RTERS OR ST VIRGIN	CONTINUOUSLY I ATELY PRECEDING OF THE OWNERSHI NDIVIDUAL, RESIDENT VENDO PRINCIPAL PLACE IA FOR FOUR (4)	
Topic de la constitución de la c	WHICH HAS A MINIMUM HAS MAINTA BUSINESS W	OF ONE HUND INED ITS HE ITHIN WEST EARS IMMEDI	e or subs red state aquarters virginia (IDIARY WH RESIDENT OR PRINC CONTINUOU	NT VENDOR ICH EMPLOYS S AND WHICH IPAL PLACE OF SLY FOR THE E DATE OF THIS	
	B. APPLIC REASON CHE	i i	DE FOR 2.	5% PREFERI	ENCE FOR THE	
- 1		SEE RE	VERSE SIDE FOR T	********************	TIONS	1
SIGNATURE				TELEPHONE	DATE	
TITLE		FEIN			ADDRESS CHANGES	TO BE NOTED ABOVE



MODZMA

RFQ COPY

TYPE NAME/ADDRESS HERE

State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation

DPS0811

5

ADDRESS CORRESPONDENCE TO ATTENTION OF

JOHN ABBOTT 304-558-2544

WEST VIRGINIA STATE POLICE

S H I P

	TERMS OF SALE	SHIP VIA		FOB.	FREIGHT TEAMS
10/31/2007	19/2007		ol ara	PENING TIME	
BID OPENING DATE: LL/					V = V O Z I I
LINE QUANTITY	UOP CAT.	ITEM NUMBE	a	UNITPRICE	AMOUNT
				ERTIFIES THAT	
				RAGE AT LEAST	
1		•		JECT BEING BI	D
	INTS OF WEST				
i l	, ,	I.		S IMMEDIATELY	
1	SUBMISSION (IF THIS BID;			Ì
OR OR	DER IS A NONE	HOGENOMU TON	IDOD TMI	ד ריינדוני א	
	ONE HUNDREI				
	T VENDOR WIT				
				NCIPAL PLACE	
				ING A MINIMUM	[]
	DRED STATE F				
1			3	RAGE AT LEAST	.]
	HMPLOYEES C				7
SUBSIDIARY	r's employees	ARE RESIDE	NTS OF	WEST VIRGINI	A
				SLY FOR THE T	WO
YEARS IMME	DIATELY PREC	EDING SUBMI	SSION (OF THIS BID.	
				· · · · · · · · · · · · · · · · · · ·	
				TAX & REVENUE	1
	THAT A BIDI				
i i			_	ENTS FOR SUCH	
				DIRECTOR OF F OR PURCHASE	
	ED; OR (B) A				
				THE BID AMOU	NIT
				HE CONTRACTIN	
	DEDUCTED FRO				
	R PURCHASE C				
				ER AGREES TO	
				MATION TO THE	
				DEPARTMENT OF	
	VENUE TO DIS				Posterior
	APPROPRIATE				
BIDDER HAS	HAID THE KE	MOTKED RAST	ness TA	AXES, PROVIDE	.
			S-100		
SIGNATURE	SEE REV	ERSE SIDE FOR TEAMS	FAND GONDLE PHONE		ATE
				ľ	
MLE	FEIN	· · · · · · · · · · · · · · · · · · ·		ADDRESS CHAN	GES TO BE NOTED ABOVE



RFQ COPY

TYPE NAME/ADDRESS HERE

State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation DPS0811

6

JOHN ABBOTT 304-558-2544

ADDRESS CORRESPONDENCE TO ATTENTION OF

WEST VIRGINIA STATE POLICE

S H -P

4124 KANAWHA TURNPIKE SOUTH CHARLESTON, WV 25309 304-746-2141

DATE PRIN		MS OF SALE	ŞHIP VIA	FOB.	FREIGHT TERMS
BID OPENING DATE	122/20	'2007	BID	OPENING TIME O	1:30PM
LINE	QUANTITY	UOP CAT	ITEM NUMBER	UNITPRICE	AMOUNT
LIME	GUANTILI	NO.	REWINGWIER	UNI FORE	Alligera
		OR ANY OT		THE AMOUNTS OF EEMED BY THE TAX	The state of the s
	CODE 61-5-3) CERTIFICATE THAT IF A CO CONTAINED WI TERM OF THE	, BIDDER I IS TRUE AI INTRACT IS THIN THIS CONTRACT,	EREBY CERTIFIES	L RESPECTS; AND AND IF ANYTHING GES DURING THE FY THE	
		BIDDE	,	sporation.	
		DATE:	11/1/1/10	elle	
		TITLE	Dic of	PS.	
	IN EITHER "A ARE ENTITLED	" OR "B", TO RECEIV REFERENCE	N OF PREFERENCE OR BOTH "A" AND E. YOU MAY REQU FOR BOTH "A" AND	EST UP TO THE	
	A SIGNED BID	MUST BE S	UBMITTED TO:		
		ING DIVISI G 15			
EIGNATURÉ / /	// /	SEE REV	VERSE SIDE FOR TERMS AND CON		7.7
facts 1	(helen_		TELEPHONE 37	4-733-1700 DAIE	12/3/67
The Direct (20 (FEII	72-080	13/88	ADDRESS CHANGES	TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



VENDOR

State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for REQNUMBER Quotation

DPS0811

7

JOHN ABBOTT 304-558-2544

ADDRESS CORRESPONDENCE TO ATTENTION OF

RFQ COPY TYPE NAME/ADDRESS HERE

WEST VIRGINIA STATE POLICE

þ 4124 KANAWHA TURNPIKE SOUTH CHARLESTON, WV 25309

304-746-2141

DATE PRINTED TERMS OF SALE SHIP VIA F.O.B. FREIGHT TERMS 10/31/2007 11/19/2007 OPENING TIME :30PM BID OPENING DATE: LINE QUANTITY: HOP ITEM NÚMBER UNIT PRICE AMOUNT 2019 WASHINGTON STREET, EAST 25305-0130 CHARLESTON, WV THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED: SEALED BID BUYER: JOHN ABBOTT----RFQ. NO.: DPS0811----BID OPENING DATE: 11/19/2007-----BID OPENING TIME: 1:30 PM--PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID: 04-134-3041 contact person (please print clearly):

Bobert Chardler Rae Macafore SEE REVERSE SIDE FOR TERMS AND CONDITION: ADDRESS CHANGES TO BE NOTED ABOVE

EN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



VENDOR

RFQ COPY

TYPE NAME/ADDRESS HERE

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130 Charleston, WV 25305-0130

Request for GEONUMBER Quotation DPS0811

8

ADDRESS CORRESPONDENCE TO ATTENTION OF JOHN ABBOTT 304-558-2544

WEST VIRGINIA STATE POLICE

Ť

DATE PRIN 10/31,		.0100000000000000	MS OF S	4LE		SHIP VIA			F.O.B.		FREIGHTTERMS
BID OPENING DATE		11/19/	000000000000				BID	'OPEI	VING TI	4E d	1:30PM
LINE	AND	ITITY	UOP	CAT NO:		ITEM NUMBER			UNIT PRIC	E	AMOUNT
	*****	THIS	IS	THE E	ND OF	RFQ	DPS	811	*****	TOTAL	214,487.40
:											
			-								
							-				
			•								-
		The section is a section of the sect									
						•					
											·
										-	·
							1 11 411 411 411 411 411 411 411 411 41			:	
							إرباء				
							.				
IGNATURE RO	4//	Rest	<u> </u>	SEE REV	ÆRSE SIDE	FOR TERMS TELEPI	AND CON	DITIONS	33-120	DATE	(2/2/-2
THE DIrok	OPS	FEIN	12-	0803	188		١٥	//-			TO BE NOTED ABOVE
WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'											

SPECIFICATIONS FOR RADIO DISPATCH CONSOLE EQUIPMENT

The West Virginia State Police (WVSP) is requesting competitive bids for radio dispatch console equipment as per the attached specifications. The contract shall be available for use by all other entities of state government, as well as counties and municipalities.

All vendors bidding on any equipment listed in these specifications are required to submit in writing, an indication as to if the product(s) they are bidding meets or exceeds the specifications set forth for those item(s) they are bidding. If a vendor bids a product which does not meet the specifications as outlined for that item, but they believe exceeds the specifications then the vendor is required to submit their exceptions in writing specifically listing the item and line-specification(s) they are taking exception to. Vendors shall submit within seven days upon request, a product sheet for each item bid, which is to include at a minimum: picture, manufacturer, model number, and general specifications for the item.

1. CONSOLE SPECIFICATIONS

1.1. A console shall consist of two operating positions which shall come with all hardware and/or software required for the consoles to function together or independently. (Installation of the two position console shall be priced separately from the hardware and software. Installation shall include all hardware and software, and at the point of completion, for the console will be totally programmed and functional.

Note: A price shall be provided to increase the number of console positions in single position increments, in which the cost will include all hardware and/or software required to expand by one full position. The quantities of this option will enable the console to be expanded to six or more positions. (For the additional positions, an installation price shall be provided for installation at time of initial purchase and a second price for installation of additional positions purchased after the time of the initial two position purchase.)

1.2. The console will be monitor based utilizing a mouse for pointing and PTT.

Meets Spec

No

Yes

1.3.	Monitor shall measure at least 19" diagonally, and will be a Flat Screen LCD type. (Touch Screen may be available as an option. Pricing for this option shall assume deletion of the standard non-touch screen monitor and show the additional cost to be incurred for each monitor change. Additional console positions beyond the initial two positions will be assumed to utilize non-touch screen monitors and will also be capable of upgrade in accordance with option 1.3.)	
1.4.	Channels will be accessed via an icon on a display screen. (A standard optical mouse should be used to interface with the display screen.)	
1.5.	Base console must provide tone or local (E&M) control for a minimum of 8 radios. (Appropriate devices to control the associated base stations must be included in the base console system price.)	
1.5.1.	Console will interface with: Local control lines (2 or 4 wire control) Telephone lines (2 or 4 wire control) Microwave interface	
	Any information related to these types of connection shall be provided, and notation made if pricing is dependant upon what type of connection is required, and quantities of each. Base stations cards should be capable of field configuration to allow the card to be setup for radio control or phone line access. Any line configuration (Tone, E&M and POTS phone lines) shall be made from the same interface card.	
1.6.	Console shall be expandable to add additional tone or local controls in groups not greater than 4 channels.	
1.7.	Expansion modules shall have a minimum capacity of one channel. (Specify quantity of channels contained in each expansion module).	<u> </u>

		/	
1.8.	A minimum of 4 (four) speakers shall be provided. Functionality for these speakers shall include Select, Unselect, and two auxiliary/monitor speakers assigned as desired.		
1.9.	All speakers shall function in conjunction with PTT, muting on PTT if desired.		
1.10.	Auxiliary speakers shall be driven by amplifiers capable of accepting 600 ohm audio from an external source, such as a Doug Hall Voting Comparator, and shall be capable of being muted by PTT. (Though separate from select and unselect, it is desired that they be "controlled" by the console.)		tan and pro-
1.11.	Each console position will be able to function		
	independently.	/	
1.12.	Any equipment interfaced from one console will be available at other console positions.	<u></u>	
1.13.	Each console position will include:	1	-
1.13.1.	A boom type high quality microphone.		
1.13.2.	Headset jack compatible with the hardware purchased for each position.	_1/_	
1.13.3.	A headset for each position compatible with the hardware purchased.		
1.13.4.	The capabilities to interface a foot pedal for transmit. One foot pedal will be included with each console. (Pricing for additional foot pedals shall be provided.)		
1.14.	Console shall be compatible with IDA based E.F. Johnson 5300 P-25 trunked series tone controlled radios.		

1.15.	Console shall be capable of generating paging tones. Specify capability. Two-Tone, 5/6 Tone, Knox, Plectron, user programmable and DTMF paging are mandatory requirements. Provide details on how your system is configured for paging operation. Single button and group stacking is required.		
1.16.	Each console shall include a keyboard if it enables the ability to perform programming and/or configuration functions. (The keyboard shall not be required to make the console operate in normal communications mode.)		
1.17.	Programming ability shall be password controlled. Screen setups and configurations shall automatically push to each position from the screen building software. It shall not be required to configure each position separately. Screen configurations shall be maintained at a common location and not on each operator pc. In the event of pc failure the system shall push the screen and user database to a newly installed computer.		
1.18.	It is desirable for the console(s) to utilize IP multicast IP packet transmissions. If the console is IP capable, then 1.18.1 & 1.18.2 should be addressed. Consoles capable of Internet Protocol but utilizing unicast IP packets will not be considered.	<u>/</u>	
1.18.1.	An option should be provided for a radio control endpoint controlled by the IP Protocol in 1.18. Pricing for this option shall be for one remote base station. A second option should be provided in the event a larger number of connections are possible from one endpoint unit.	<u>V</u>	
1.18.2.	Is IP radio control endpoint necessary for tone or E&M control? (Vendor shall provide documentation detailing interface between endpoint and base station at time of bid.)	No	
1.19.	The console shall be capable of interfacing with a Doug Hall Voter at each console position, and have the capability for at least one of the two auxiliary speakers to be assigned to that voter. (Any hardware or software necessary for this interface	<u> </u>	

	shall be provided.)	/
1.20.	Console should shall have the ability to interface with a conventional Digital Voice Recorder for purposes of logging. A minimum of a two wire audio path should be available from each channel position.	
GENERAL	SPECIFICATIONS	/
2.1.	A complete set of installation documentation, as built documentation, all programming software and hardware (cables, interfaces, etc) shall be provided.	
2.2.	All updates to software and firmware will be provided	_V
2.3.	Vendor shall provide access for purchaser to all manufacturers' field service bulletins, knowledge base support, and any other support available, preferably available via the Internet and/or FTP sites.	
2.4.	A complete set of service manuals will be provided to the West Virginia State Police.	
2.5.	A factory training class shall be made available to the customer if necessary at no additional charge other than travel and living costs. This training shall cover installation, configuration, maintenance and screen development. A cost shall be provided for a factory on-site training class for customer support personnel.	
	GENERAL 2.1. 2.2. 2.3.	 Console should shall have the ability to interface with a conventional Digital Voice Recorder for purposes of logging. A minimum of a two wire audio path should be available from each channel position. GENERAL SPECIFICATIONS A complete set of installation documentation, as built documentation, all programming software and hardware (cables, interfaces, etc) shall be provided. All updates to software and firmware will be provided at no charge for the length of the warranty. Vendor shall provide access for purchaser to all manufacturers' field service bulletins, knowledge base support, and any other support available, preferably available via the Internet and/or FTP sites. A complete set of service manuals will be provided to the West Virginia State Police. A factory training class shall be made available to the customer if necessary at no additional charge other than travel and living costs. This training shall cover installation, configuration, maintenance and screen development. A cost shall be provided for a factory

3. **WARRANTY**

3.1.	The system shall be warranted by the manufacturer to be free from defects of material and/or workmanship for a minimum period of two (2) years from date of installation.	
3.2.	All software will be warranted to be free of defects for the period of the hardware warranty.	
3.3.	All available updates to programming software, console software, and console firmware shall be provided at no cost during the warranty period.	
3.4.	A price shall be provided showing any software subscription and/or annual maintenance fees that are expected after the end of the warranty period.	<u> </u>

PRICE QUOTATION

Item Description:	Cost:	Qty:	Extended Cost:
Two position Console (with all associated hardware, software).	\$ 161,281.40	1	\$ 161,281.40
Installation option for above hardware and software.	\$ <u>20,700°°</u>	1	\$ <u>20,700°°</u>
Additional console positions (To include all associated hardware, software).	\$10,21200	1	\$ 10,212.00
Installation option for each additional position hardware and software at time of purchase.	\$ 69000	4	\$_690.00
Installation option for each additional position hardware and software after initial purchase.	\$_4080°°	1	\$ <u>4,080.0</u> °
Additional conventional channels. (Specify quantity in each module. The price listed under Cost shall reflect the cost per channel, and the extended cost shall be the total number of channels in a card multiplied by the cost.)	\$ 1,100.00	1	\$ 1,100, 00
IP Radio Control endpoint. (single point)	\$ 800.°°	1	\$ <u>800.00</u>
IP Radio Control endpoint. (greater than single point (specify)	\$ 800.00	1	\$ 80000
Console accessory options			
Additional Headset	\$ <u>330.°°</u>	1	\$ <u>330°°</u>
Additional Foot Pedal	\$ 190.00	1	\$ 190.00
Factory training course at customer's location	\$ <u>2,304.°</u>	1	\$ 2,364.00
Other			
Annual software subscription fees after warranty	\$ 12,000°°	1	\$ 12,000.00 \$ <u>214,481.40</u>
TOTAL:			\$ <u>214,481.40</u>

NOTE: Quantity of one (1) as specified in the Price Quotation form is for bid purposes only. Actual quantities to be purchased may vary with each order.

RFQ No. DI	2S0811
------------	--------

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

LICENSING: Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY: The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit **www.state.wv.us/admin/purchase/privacy** for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and are in compliance with the requirements as stated.

Vendor's Name:	Penta (orboration			
Authorized Signatu	ire: Polit	Chde	Date:	12/3/07	

Purchasing Affidavit (Revised 06/15/07)



State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation

8 H P

DPS0811

JOHN ABBOTT 304-558-2544

ADDRESS CORRESPONDENCE TO ATTENTION OF

RFQ COPY TYPE NAME/ADDRESS HERE Penta Corporation 325 Edwards Avenue New Orleans, La. 70123 WEST VIRGINIA STATE POLICE

4124 KANAWHA TURNPIKE SOUTH CHARLESTON, WV

25309 304-746-2141

DATEPRINTED			INS OF SAI		SHPVA	(10000000000	F.C.E.	FREIGHT TERMS
11/15/20 BID OPENING DATE:		12/06/	3007				DOCUTUO TIUD	
		12/04/		CAT		RID		1:30PM
LINE	QUAN	THY	UOP	NO.	ITEM NUMBER		UNIT PRICE	AMOUNT
PE SP FR	ERTAIN PECIFI ROM 11	NING T [CATIO L/19/2	O THE NS, T 007 T	ISSUE ORIG O EXT O 12/	DDEDNUM #01 D TO ANSWER INAL REQUEST END THE BID 04/2007; 1:3 CKNOWLEDGEME	FOR OPEN O PM	ING DATE	
NE	W BIE) OPEN	ING D	ATE:	12/04/2007;	1:30	PM	
0001		,	s	<u> </u>	725-16			
	DIO D		CH CO	NSOLE	EQUIPMENT	The state of the s	This is the second of the seco	
THE COI OR SUI MO' IS RAI SUI BAS ALI GOI	E STA NTAIN IGINA CH PR VEMEN BASE W MAT BSTAN SED UI L PRIMANNEI VERNMI	PROVILE EXPI	WEST SIONS RATIO IJUSTM HE "P ART O ART O USTME PTABL BENCH	VIRGI FOR IN OF IN OF IN OF OR LA OR LA OR LA OR LA OR LA OR STS	NIA WILL CON PRICE ADJUST THE CONTRACT OVERS BOTH LETY PRICE, AND HROUGH INCHES ADJUST. ADJUSTS MUST THE DIRECTORS, GENERAL METERS	TMENT T, PR IPWAR IPWAR ID TH REASE IUST NOT BE S PUR IAR IAR IAR INS	S PRIOR TO THE ROVIDED THAT DOWNWARD AND DOWNWARD AT ADJUSTMENT OR DECREASE OF UP ALL OR A PERCENTAGE. UBSTANTIATED IN CHASING, E.G. T INCREASE, OR AND INCREASE	
MEDir of Op	Clled s.	FEIN	12-00	803 /	1	30	9-755-7700	TO BE NOTED ABOVE



State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation DPS08

8 H P T O

DPS0811

ADDRESS CORRESPONDENCE TO ATTENTION OF JOHN ABBOTT 304-558-2544

RFQ COPY TYPE NAME/ADDRESS HERE

WEST VIRGINIA STATE POLICE

11/15/2007	TERMS OF SALE	SHIP VIA	FOB	FREIGHTTERMS
BID OPENING DATE:	12/04/2007	תוא	PENING TIME 01	:30PM
LINE QUA	NTITY LOO CAT		UNIT PRICE	700000000000000000000000000000000000000
SHOULD PURCHA DATE O PRICE ACCEPT ACCORD	BE RECEIVED IN SING AT LEAST 3 OF THE INCREASE. ADJUSTMENT, THE THE PRICE ADJU	WRITING BY THE DI DAYS IN ADVANCE ANY TIME THE VEN PURCHASING DIVISI STMENT AND AMEND T THE ADUSTMENT IN	RECTOR OF OF THE EFFECTIVE DOR REQUESTS A ON MAY EITHER HE CONTRACT	AMOUNT
IT IS FIRM F OF CON (1) YE IF THE LIFE OF PARAGR PREFER	OR LIFE OF THE OT TRACT CLAUSE COLAR. VENDOR CANNOT OF CONTRACT, HE PAPHS LISTED BELORED TERMS WILL I	THE PRICES ON THIS CONTRACT, AS INDIC NTAINED HEREIN, NO SUARANTEE A FIRM PROPERTY OF THE PROP	ATED IN THE LIF T TO EXCEED ONE RICE FOR THE OF THE ALIFY THE	
ALTERNA ()	.チペラ. DAYS AFT ONTRACT. PRICES	INTRACT. IS CONTRACT WILL FER THE EFFECTIVE IN MILL REMAIN FIRM A MINIMUM OF .365.	DATE OF THE AFTER EACH PRICE	
F0	OR THE LENGTH OF TERNATE PROPOSA		OFFERS AN	
IGNATURE		TELEPHONE	DATE	
TLE	FEIN		ADDRESS CHANGES T	O BE NOTED ABOVE



RFQ COPY

TYPE NAME/ADDRESS HERE

State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation

DPS0811

PAGE

ÿ		ं	7	ſ	Ţ	Я	E	S	C	Ö	H	Œ	8	P(۱	T	E	N	žΞ	Τ	Ö	Α	П	E	VI	TC	1	ł	76	23
																	_													

JOHN ABBOTT 304-558-2544

WEST VIRGINIA STATE POLICE

SH-PTO

4124 KANAWHA TURNPIKE SOUTH CHARLESTON, WV 25309 304-746-2141

ADDRESS CHANGES TO BE NOTED ABOVE

DATE PRINTED TERMS OF SALE SHIP VIA F.O.B. FREIGHTTERMS 11/15/2007 BID OPENING DATE: 12/04/2007 BID OPENING TIME 01:30PM UOP LINE **QUANTITY** ITEM NUMBER UNIT PRICE AMOUNT EXHIBIT 10 REQUISITION NO.: .. D.P. SOS \ ADDENDUM ACKNOWLEDGEMENT I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC. ADDENDUM NO. S: NO. I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS. VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM, IS BINDING. SEE REVERSE SIDE FOR TERMS AND CONDITIONS

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



HODERA

RFQ COPY

TYPE NAME/ADDRESS HERE

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Request for Quotation

DPS0811

PAGE

ADDRESS:CORRESPONDENCE TO ATTENTION

JOHN ABBOTT 304-558-2544

WEST VIRGINIA STATE POLICE

SH IP TO

4124 KANAWHA TURNPIKE SOUTH CHARLESTON, WV 25309 304-746-2141

DATE PRINTED TERMS OF SALE SHIP VIA FREIGHTTERMS FOB. 11/15/2007 BID OPENING DATE: 12/04/2007 **BID OPENING TIME** 01:30PM LINE QUANTITY UOP ITEM NUMBER UNIT PRICE AMOUNT SIGNATURE COMPANY THIS IS THE END OF RFQ DPS0811 ***** TOTAL: SEE REVERSE SIDE FOR TERMS AND CONDITIONS 19 - 0803 [88 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

Addendum #01 - DPS0811

Question:

Penta Corporation has the following questions for the above mentioned specifications:

1. Page 10 (1.5.1)

-How many telephone lines?

-How many radios?

-How many consoles?

2. Page 2 (RENEWAL) For the two (2) one (1) one year periods, are we allowed any increase in the value to cover CPI?

Answer:

- 1. Console must provide tone or local (E&M) control for a minimum of 8 radios. The console will interface with Local control lines (2 or 4 wire control), Telephone lines (2 or 4 wire control), or Microwave interface. Any line configuration (Tone, E&M and POTS phone lines) shall be made from the same interface card. The number of local control lines/telephone lines/ microwave interface will depend on the number of these connections each card in the console can handle.
- 2. See page 1 of this addendum price increase provisions have been added.

Modification: Page 9, 1.2, of the specifications state: "The console <u>will</u> be monitor based utilizing a mouse for pointing and PTT."

This requirement is being replaced and should state: "The console <u>should</u> be monitor based utilizing a mouse for pointing and PTT."



December 3, 2007

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

QUOTE NUMBER: P27168QT

Thank you for allowing Penta to provide the following quotation for an integrated communications system for the West Virginia State Police. Penta has been furnishing the public safety and transportation industry with quality products/services for over 30 years. We are pleased to offer state of the art solutions from our wide range of field proven products.

The PCx System will provide an economical, straight forward, and reliable solution for your communications system.

The PCx switch is furnished standard with the following features:

- Redundant power supplies;
- Redundant master processors operating in hot standby with automatic, bumpless switchover:
- Universal line interface cards (LIC) for interface to field circuits;
- Individual console interface cards:
- Option for IMT trunking cards to allow interconnection of several PCx switches;
- Rack mounted modular construction;

- Non blocking switch matrix with unlimited connection and conferencing;
- Straightforward design requiring no special training or test equipment for maintenance.
- Option for remote consoles using network connections;
- Field programmable software to customize operator screens and shift configurations;
- Built in limited expansion capabilities through the addition of LIC or consoles cards;

Excellence in Communications & Controls

- Windows 2003 server on the master computers
- Windows XP Professional on the Control Consoles
- Network based PCx utilizing 10/100 Base T Ethernet Communications



Compliance Section:

1.	Console Spe	ecifications
	1.1	Compliance
	1.2	Compliance
	1.3	Compliance: To upgrade LCD to touch screen is \$750 per
	4.4	console position
	1.4	Compliance Danta is an idea of the factor of
	1.5	Compliance: Penta is providing line interface that can be configured for all types specified
	1.5.1	Compliance: Penta is not offering cards or hardware to be co-located with base stations. All line interface cards are the same, only the configuration changes from type
		to type.
	1.6	Compliance: each card interfaces with one circuit
	1.7	Compliance: each card interfaces with one circuit
	1.8	Compliance
	1.9	Compliance
	1.10	Compliance: Each speaker is controlled by the console. The
	1.10	console software has control over muting and volume.
	1.11	Compliance
	1.12	Compliance
	1.13	
	1.13.1	Compliance: Penta is offering a Shure microphone and 13" gooseneck
	1.13.2	Compliance
	1.13.3	Compliance: Penta is offering Plantronics headsets
	1.13.4	·
	1.14	Compliance: The Penta line card will send El sequential tones
	4 45	to the IDA controller
	1.15	Compliance: The Penta console contain a complete paging
		database capable of single pages, multiple pages. To make a
		page, the user selects the paging radio, at that point a window
		with the names and paging number database with pop up. The
		user should select the person(s), unit(s), facility(s), or group to
		page and click 'send'. The Penta system will then send the
		page(s) over the selected site.
	1.16	Compliance: the keyboard is not required for operation of the
	–	console
	1.17	Compliance
	1.18	Penta is not proposing a VOIP console. While VOIP is a viable



2a unit at \$800 each.

less complication by offering its PCx system

alternative, Penta feels that this specification will be met with

1.18.1 Where an IP endpoint is required; Penta would use a JPS NXU-

- 1.18.2 IP radio control is absolutely NOT necessary. Penta will use standard tone or E&M for radio control.
- 1.19 Compliance: Penta has successfully interfaces and controlled the Doug Hall voter in previously projects.
- 1.20 Compliance: Penta is providing record output for each console and circuit

2. General Specifications

- 2.1 Compliance/Clarification: Penta is not proposing to transfer ownership of any software. We are providing licenses for the use of our software. Any source code will only be provided as an escrow under mutually agreeable NDA. Penta is not proposing the fee required for Escrow.
- 2.2 Compliance
- 2.3 Compliance
- 2.4 Compliance: Penta is proposing to provide all manual in electronic format.
- 2.5 Compliance: Cost is provided in provided in "Pricing" Section.

3. Warranty

- 3.1 Compliance
- 3.2 Compliance
- 3.3 Compliance
- 3.4 Compliance: Yearly support to include remote technical support via telephone and VPN. Pricing is included in Pricing section.

Services

Penta's facilities are located in New Orleans, Louisiana, USA. Penta provides telephone support M-F 8:00 AM to 5:00 PM CST. After hours 24x7 emergency support is via Skypager at 1-888-690-8663. A knowledgeable Penta representative will return your call promptly. If necessary, a Penta field engineer can be on site on an expedited basis.

Quality Assurance

Penta Corporation is ISO-9001:2000 certified as of April 1999. We currently have an ISO compliant program to insure product quality and consistency.

Validity

This quotation is valid for a period of 120 days and is subject to Penta's Standard Terms and Conditions.

We are pleased to have provided this quotation on the basis of the information supplied to us in the referenced specification. Other configurations are available to meet the performance specifications, however, the proposed equipment provides an optimum cost/performance yield.

We look forward to discussing this proposal with you in the near future and hope that, should you have questions or require clarification on any issue, you will feel free to call any of the professionals here at Penta.

Sincerely,

Bobby Chandler
Penta Corporation

PCx COMMUNICATIONS CONTROL SYSTEM

NOTE: This document lists all available options of the PCx System. The system proposed for your application may not incorporate all hardware and/or features referenced in this specification.

Equipment Specifications

SYSTEM CONFIGURATION- GENERAL

Penta's PCx Communications Control System is a non-blocking redundant switch matrix capable of integrating the control of as many as 256 circuits (in standard mode), 512 (in expanded mode). Further expansion of radio circuits (using Penta's Group Expansion Module) and system networking is also available. Circuit types include radios, telephones, PBX lines, intercoms, consoles, fiber optic lines, and microwave channels. A single interface card is assigned to each circuit terminated at the Main Distribution Frame (MDF).

The PCx is useful in both dispatch and public address applications.

Common Controls

The central control equipment is designed as a solid state, redundant, non-blocking switch matrix. The common control is connected to the external circuits by means of a protected distribution frame.

The common control equipment consists of the following:

- dual, redundant processors (MTUs with monitor and keyboard)
- switch matrices
- channel interfaces to radios, telephones, consoles, etc.
- dual power supplies

The aforementioned equipment is housed in enclosed cabinets of approximately $2' W \times 2' D \times 7' H$. (Other cabinet sizes are available.)

Consoles

Each console position consists of an OEM grade Pentium IV Computer running MS Windows XP Professional, a XGA Display (CRT or LCD), four loudspeakers, a microphone, a footswitch, and a headset jackbox. Operators interact with the console GUI using a keyboard, mouse and/or touchscreen (optional). A VU Meter is standard on the console GUI display.

A Penta EASy Interface Console Audio Controller provides the audio and data interface to the PCx system. The Penta Console application requires only a serial



connection with the EASy. The EASy interface unit is 8"x6"x2" and can be easily located under the console desk.

Features

 Redundancy: The PCx is based upon a redundant design using common microprocessors (Master Terminal Units - MTUs) operating in a hot standby configuration. Failure of the controlling MTU will result in an automatic transfer to the standby unit. MTUs are continuously monitored to preclude silent failures. Manual switchover between MTUs is available. These MTU computers are typically industrial grade rackmount Pentium IV or better computers running Windows2003 Server software.

Power supplies are redundant and configured in a hot standby fashion, as well.

Each line interface card has its own CPU tone encoder, tone decoder and compressor. Transmit and receive audio is between +7 db and -35 db, with 20 db of compression. A module slot accepts specialty signaling modules such as Penta's DSP module, Modem module, Delay module, etc.

- 2. **No Single point of failure**: The PCx's modular design permits a single interface card to be assigned to each circuit and console in the system. Therefore, a single console failure or single line interface failure will affect only that circuit. The system will be notified of the trouble, but no interruption of service will occur.
- 3. **Programmability**: Penta shall perform initial programming and data base entry before system shipment. The communications configuration of the system (line assignments to consoles, etc.) may be edited in the field using menu-driven software; no replacement or modification of hardware should be necessary.

Accessories

- Maintenance Test Console: Penta's MTC is, like the operator consoles, an OEM grade Computer. It will function as a dispatch position, but is designed to provide system diagnostic and testing capabilities for the user.
- Management Information System: Penta's MIS is linked via network connection
 to the Master Terminal Units. It receives all system activity information from this
 port, and stores that information in a Microsoft Access database. Connects,
 monitors, failures etc., may then be sorted based on a variety of parameters
 using Microsoft Access or SQL database queries. Hourly, daily, weekly, monthly,
 and yearly downloading of information is available.

Communications Facilities

The PCx is capable of controlling the following types of communications apparatus:

- two-wire and four-wire circuits to radios
- two-wire telephone type lines from PBX/PSTN
- · automatic ring-down intercom lines
- "hoot and holler" intercom lines
- telephone lines from the public telephone network
- microwave channels
- fiber optic lines (require special interface)
- public address lines
- intercom lines



Specifications

- Environment: The PCx central equipment shall operate without degradation of service from 0 degrees C to 50 degrees C.
- 2. Power: The system will operate at 120 volts (60 Hz) provided by the customers. Uninterruptible power supplies are available optionally. Incoming power supplies shall be short circuit and over-voltage protected.

The system draws between 300 and 900 Watts, depending on system size.

- 3. Technical: Total harmonic distortion of any audio path in the PCx does not exceed 2%. Frequency response is 300-3300 Hz <u>+</u> 3db. Crosstalk is below -70 db.
- 4. The maximum system connect time from initiation is 50 ms.
- 5. Maximum PTT time is < 50 ms.
- 6. DTMF Decode: Dynamic Range = 30 db, twist = ± 10 db, acceptable signal to noise ratio = 14 db.
- 7. Tone Encode: Resolution = \pm .75 Hz
- 8. Mic input range to 80 db.

COMMUNICATIONS CONSOLES

Configuration

Each communications console position shall consist of a Video Display, a keyboard, a push-to-talk footswitch, four loudspeakers, a VU meter, a microphone, a headset jackbox, a headset, and a Pentium IV (or better) computer control unit.

Video Display

a) Display Size:

19" LCD nominal (standard),

other CRT/LCD sizes are available

b) Resolution:

at least SVGA 1024x768 pixels

c) Scanning Frequency:

Dependent upon the monitor model,

size and resolution selected

d) Display colors:

VGA - 16,

SVGA - 16, 256

e) Mask Pitch:

0.13 mm dot

f) Faceplate Glass:

Non-glare

g) Input connectors:

BNC, DB9, DB25

Console Controller

As mentioned earlier, these are OEM grade PCs (Pentium IV). Penta's EASy Interface Console Audio Board is installed here for interface to the central equipment and for audio control.

Console Audio

Headset: Each headset shall conform to the following specifications:

Microphone: Noise canceling

Earpiece: Lightweight, over the ear

Connection: 6-wire cable and plug to jackbox

PTT button on grip

Loudspeaker: Each loudspeaker shall conform to the following specifications:

Size: Desktop

Power Handling Capability: 5-watts RMS
Total Harmonic Distortion: 2% maximum
Frequency Response: 300 to 5000 Hz ± 5 db
Mounting: Freestanding or Panel Mount

Microphone: Each microphone shall conform to the following specifications:

Frequency response: 100 to 7000 Hz + 3 db

Pattern: Cardiod with a 15-db front to back discrimination

Mounting: Gooseneck, or Desk stand

Headset/ Loudspeaker Operation: Unselected audio always emanates from the unselected loudspeaker. Selected audio emanates from the select speaker unless the headset is plugged in; in this case the selected audio move to the headset. (Note: This feature can be disabled.)

System Attributes

Accessible via mouse, touchscreen and keyboard, the following dedicated functions are available at each console:

Connect: Enables the selected radio, telephone, intercom or patch for transmit

and receive operation.

Monitor: Enables the selected radio for receive operation.

Hold: Places a connected telephone, intercom, console or PCx line on hold.

Add: Allows multiple circuits to be connected for a conference (includes

originating console).



Patch:

Allows multiple circuits to be connected for a conference (does not

include originating console).

Channel

Mute:

The default mode for all channels.

Dial:

Summons a Dial keypad for manual input of numbers to be sent over a

selected line.

Speed Dial: A feature of the Dial window, which lists, alphabetically, names of all people or locations for speed dial access. The operator can easily scroll up and down through this Rolodex to locate the desired speed

dial entries.

Hookflash: Performs a standard hookflash on the connected line.

Last Number

Redial:

Automatically redials the last connected or dialed circuit.

Transmit:

A dedication button, which operates in parallel with the PTT footswitch.

Instant

Transmit:

A dedicated function, which permits the operator to transmit a

channel without having previously selected the channel.

instant **Transmit**

Edit:

Permits the operator to dynamically enable a fixed number of stations

for instant transmit.

Transfer:

Allows the dispatcher to transfer a call to another console.

Alarms:

Summons a page of alarms received at the console. The operator has the option to clear selective alarms or all alarms, or allow the list of

alarms to remain on the alarm page for a later reference.

Incoming

Calls:

Incoming calls will appear on the screen on the CALLS list.

The operator can select the incoming calls for transmit and receivers on a first come basis. If multiple calls are received simultaneously, the operators may summon a call sub-menu, from which he can choose

an individual caller.

Directory

Select:

Allows the operator to change the active display on his screen. Since each "page" will allow 40 channel cells, systems with larger numbers of circuits will require multiple "pages" to permit operators to access all circuits in the system.

Page

(option):

Allows the operator to send out paging tones to field personnel. A list of field sites is available to which tones can be sent, as well.

Volume

Control:

Allows the operator to adjust the volume of the speaker, monitor speaker and the ring back level at his console.

Clean CRT

(for touchscreen

console):

Disables the touch ability of the screen for a set period of time (typically 15-30 seconds) in order to clean the face of the CRT without making selections.

Status:

Display a window which lists all stations currently in connect, monitor, hold, patch, as well as a list of incoming calls.

It also provides information regarding the console's recorder status.

Record:

Optionally, consoles can be furnished with Penta's Digital Recorder Board for *instant recall recording* capabilities. The status screen will notify the operator if his console is in record and the current size of the voice file. The operator may access the recorder window to review different points of recorded activity. The "call back" window works similarly to a solid-state recorder. Functions such as pause, play, recall, etc. are provided.

Screen Load:

Downloads the station assignments or zone assignments associated with a particular console shift.

Log on/

Log off:

Allows an operator to log on or log off of the console. Different access rights are assigned to different levels of authority. Generally, an operator will not be permitted to log off of his console until someone else has logged on first.

Voter



Options: Allows the operator to enable and disable voters.

Emergency: Allows an operator to type an emergency message using a

CRT-displayed keyboard for dissemination to designated locations.

Calibrate: Allows the operator to re-calibrate his touchscreen. Based on a series

of these touches, the calibration software will realign the angle from

which the operator approaches the screen.

Load

Database: Will reload the dial (rolodex) database entries from the

master, as well as the pager and site database entries.

Service

Penta offers a variety of product assistance services to its customers.

Quality Control

Penta Corporation is an ISO9001:2000 certified company.

Training

Approximately three days of training is required for each PCx installation. Training can be provided on-site or at Penta's New Orleans manufacturing facility.

Installation

Penta's technical staff will provide product installation, if requested.

Maintenance

A one-year return-to-factory warranty is provided with all Penta products. On-site maintenance is usually available in most locations.

Documentation

Each PCx system is supplied with four technical/operational manuals for the central equipment, as well as a single console operations manual for each console sold with a system.

Spare Parts

These items are available at the time of purchase or may be purchased separately at any time thereafter. Penta normally recommends 10% spares for the replaceable cards in the system.

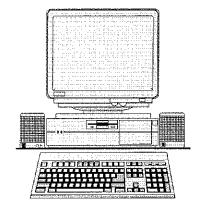


Penta's NT Console

Console Hardware

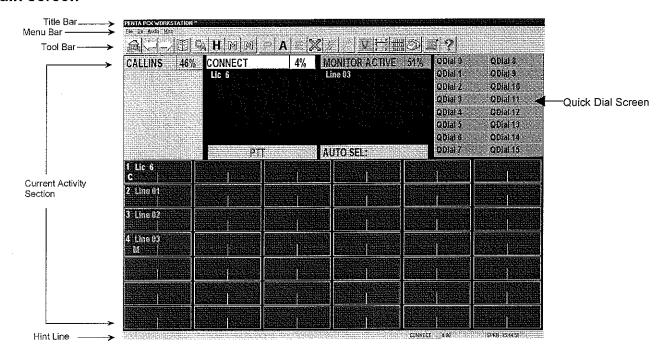
Penta's Operator Console is a PC-compatible computer providing a quick interface to the PCx communications switching equipment. The console and its software are designed to allow easy access to stations, circuits, field equipment, radios, lines, and other consoles connected to the PCx system.

Quick access to communication devices is possible by simply "clicking" the mouse pointer on the corresponding screen field.



The main screen enables most operations to be completed conveniently and efficiently. Pop-up windows for functions such as dial, status displays, and volume control also help quickly access features.

Main screen

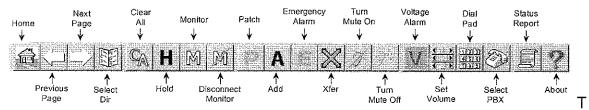


Assignment Directories

To make the difficult task of finding a station in all the directory pages easier, each directory page has a directory label. Stations can be assigned to any page and appear in any order. This is useful when organizing and grouping stations for easy access.

Directory labels are used to identify a particular grouping of stations, e.g., all PBX lines can be assigned to a directory page labeled "PHONES". Directory page and label editing is done at the MTU system terminal. These directories are assigned to a particular console according to the user login ID.

THE TOOL BAR



HE TOOL BAR PROVIDES EASY ACCESS TO COMMON AND CRITICAL FUNCTIONS, IMPORTANT TO SAFE DAILY OPERATION.

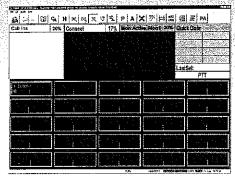
Quick Dials

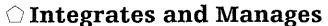
Quick Dial provides a fast, convenient method to establish a telephone call from the console. Ten quick dial group buttons are displayed on the main console screen. Each button is associated with a sub-directory of quick dial contacts.

Console Databases

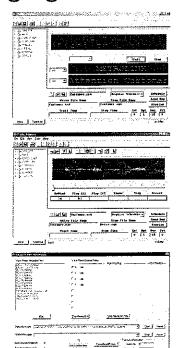
MS Access databases associated with the console program store data referenced by the quick and speed dial screens.

NTConsole Markstation





- Radios
- Telephones
- iDENTM Networks
- Intercoms
- Emergency Communications
- WavWriter[™] Passenger Information Messaging
- Decode/Encode Radio ANI formats including MDC1200[™]
- Seamlessly multi-task with other 32-bit
 Windows[™] applications
- Standard 10/100 BaseT TCP/IP Interface
- Open SQL Database for Speed Dial list, Paging list, Selective Call list, iDEN™ User list





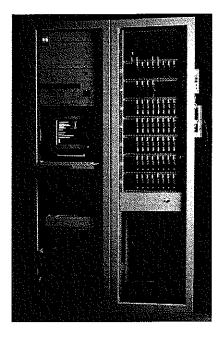
PCx Communications Control System

Designed for dispatching, public actives and outle communications management applications, Penal Corporations (2000) actives and control of actives relations and control of actives and considerable actives and control of actives and considerable actives and control of actives and considerable actives active a



The PCx Communications Control
System is based on Penta's proprietary network
switch, featuring user-programmability,
redundancy and no single point of failure.
The non-blocking switch can control up to 512
lines and consoles, and the modular units can
be networked to consolidate operations over
large areas, providing a central point of control for operations of any size.

Penta's Windows-based control consoles provide touch-screen, mouse, trackball or keyboard control over any or all circuits connected to the network switch. The password-protected consoles allow operators to access radios, telephones and other consoles and to conference an unlimited number of circuits.





Features

- Integrates the control of all types of electronic communication.
- Offers unlimited patching and conferencing capabilities.
- Employs a non-blocking audio switch matrix design.
- Redundant processors and dual power supplies assure uninterrupted system operation.
- Modular architecture provides for the integration of virtually any number of lines or consoles.
- Custom software can facilitate networking, multi-tasking, voter steering and other specific system requirements.
- Operator consoles are PC-based units available with touch-screen, mouse, trackball or keyboard control.
- Console software runs in both DOS and Windows environments.

Applications

Networking, multi-tasking and interfacing to other subsystems (such as ATS, CAD, CTC, GPS and SCADA systems) are possible with the PCx system. Penta has designed the system for maximum flexibility so customers receive the most efficiently integrated packages available. The company has networked multiple PCx systems together, written console software to run in tandem with other subsystem programs, and combined dispatching and public address control functions in the same system.

The PCx system is evolving continually to incorporate new and innovative technologies. Operators can now create forms and generate faxes from their consoles — without exiting the Penta software. They can transfer data to and from the consoles (via e-mail) and on-line communications services. Data also can be employed to control radios (using ANI and other selective call protocols).



PCx Communications Control System

	CAHM (A)	PAX	100 2 2	Der T	E V ?
CALLINS 32	CONNECT	14%	MONITOR ACTIVE	36% GOM 9	2018
				6000	400 C
				S D 131	CRESS
					COLORS
					60,647
		ivi			QRA 15
1 Red Line	8 32nd Stree	T. 28th Stree] Zāth Stree	J 22nd Stree	Y Indep. Sq
2 17tin Stree	9 STH_Will	Y NTH VOR	A Biyan Jan	K Lion Pass	B Red Rocks
3 Front St.	0 East End D	U West End D	S Texas	L PROV-VOTER	N Louisiana
4 CAM2-VOTER	Q	I TACT-VOTER	D		li i
5 CAM1-SMH	W CALIS-BUFF	O PAGING	F	Z.	< 0CH-8137-P
6 QCN-5138	E 653-2154	ē	G 553-2550	X 653-3601	> .VR2D
7 NT-FIRE	R DONT-USE	(CAM-FIRE	H GUE-FIRE	C KIT-911-1	? X:T-21:-2

markeemb

Micropiocessor based line interface cards provide the interface between the PCx system and most types of two and four-wire communications circuits. Only one type of line card is used in the system, no special interface boards or control modules are required to communicate with various types of lines. Additionally, user programmability and configurability have been designed into the card to permit field adjustment of signaling and line designations.

Other unique features of the line interface card include adjustable transmit and receive levels, DTMF in and out, transformer isolation, voice activity detection (VOX) and receive-line compression. The line card also is available with a modem, a logging recorder output, a digital front end and other optional modules.

Operator consoles communicate with the PCx system via console interface cards and console audio cards. The console interface card provides the mechanism by which the console communicates with the switch. The console audio

care supports the audio portion of the console's operation with isolation, filtration, amplification and compression capabilities.

Console Configurations

A variety of console configurations are available with the PCx system. Typical console hardware consists of a fully equipped Pentium PC, a color SVGA monitor, a Penta PCx interface and associated audio components. The operator interfaces with the console via touch-screen, mouse, trackball or keyboard provided with each console position. Screen presentations are well-organized to facilitate quick access to all functions.

Penta console software is Windows-compatible to provide a level of systems integration unattainable with any other communications control system on the market. Desktop, phone-type consoles are also available with the PCx system.

Specifications

Line Types

Two-Wire Four-Wire Six-Wire (E/M)

Systems

PBX/Key

Radio (VHF,UHF, Individual, Multi-Dropped, Voted)

Microwave

Fiber Optic

Private Line

Metallic Pair

Trunked Radio

iDEN™ Networks

Signaling

DTMF In/Out

Pulse/Tone Dial

E/M LEAD

Voltage In/Out

Current In/Out

2175 Hz Tone

EIA Tones

20 Hz Ringout

VOX (Voice Activated)

CDRC

TRC

FSK, PSK, MSK

*/#

Penta Code

Loop/Ground Start

User-Defined DTMF Codes

TTY/TDD

Environment

0 C to +50 C, 90% Humidity, Non-Condensing

Power

120 Volts (60 Hz)

Configuration Options

256 Devices (Lines and Consoles) in Standard Mode 512 Devices in Expanded Mode Virtually Unlimited Number of Devices in Network Mode

Technical

Total Harmonic Distortion of any Audio Path in the PCx: <2% Frequency Response: 300-3300 Hz +/- 1 db

Crosstalk: <-60 db

Maximum System Connection Time: 50 ms

Maximum PTT Time: <50ms

DTMF Decode: Dynamic Range = 30 db, Twist = +10 db,

Acceptable Signal to Noise Ratio = 14 db

Tone Encode Resolution =+.75 Hz, Mic Input Range to -80 db Compatible with FSK, PSK, MSK, ANI and ALI Protocols



325 Edwards Avenue New Orleans, LA 70123 504-733-1700 Fax 504-734-5041 www.penta-corp.com