COUNCIL MEETING AGENDA REQUEST FORM

****

COUNCIL MEETING DATE: November 12, 2024

SUBJECT/REASON FOR AGENDA ITEM: _____

Temporarily Alcohol Permit Waiver ☐ | Open Container Law Waiver ☐

Other: _____

Please be specific about the reason to be on the agenda.

A resolution to purchase a Three Operator Position Dispatch Console in the amount of $135,803.92 RFP 25-05

Requested By: Police Dept

NAME: Charles Borchers

ADDRESS _____

PHONE # _____ CELL PHONE: _____

EMAIL: _____ FAX: _____

Please note that the Hammond City Council meets the Second and Fourth Tuesday of the Month at 5:30pm, 312 East Charles Street, Hammond, LA 70401,All requests have to be submitted to the City Council Clerk by the Wednesday prior of the meeting no later than 4:30pm, All requests can be submitted electronically to banks_tm@hammond.org or fax (985) 277-5611. If you have any questions please call (985) 277-5610

BELOW TO BE FILLED OUT BY COUNCIL CLERK

****

DATE RECEIVED: _____ TIME RECEIVED: _____

Council Clerk: Lisa Cockerham Agenda Item Number _____

Approved: _____(Yes) _____(No)

Remarks: _____

Kip Andrews
Council President

_____

_____
Date

CITY OF HAMMOND

RFP 25-05
THREE OPERATOR POSITION DISPATCH CONSOLES

Proposals where due in November 7, 2024 at 10:00 a.m.

Company	Total Annual Cost
Service Communications	$135,803.92
InterTalk Critical Information Systems	$172,888.00
Communications International, Inc	$214,522.39

Present during the opening of RFP 25-05

Jana Soileau –Purchasing Director
Krystle Noto-Assistant Purchasing Agent

City Of Hammond
Purchasing Department

RFP 25-05
for
3 Operator Position Dispatch Console

Proposals Shall Be Received by the Purchasing Department,
City of Hammond
310 East Charles Street
Hammond, Louisiana 70404-2788

Until

10:00 A.M. November 7, 2024

Any technical questions on Specifications should be addressed in writing to Stephanie Rogers at rogers_sm@hammond.org

Site visit can be scheduled by calling Stephanie Rogers at 985-277-5748

PURCHASING DEPARTMENT

P.O. BOX 2788 | HAMMOND, LOUISIANA | 70404| PURCHASING@HAMMOND.ORG

985-277-5633| WWW.HAMMOND.ORG

This is the Proposal of:

Date: October 29, 2024

Company: Service Communications

Section 3 Business/WBE/SBE/MBE/DBE: WBE

Address: 100 Henderson Road

City: Lafayette **State:** LA **ZIP Code:** 70508

Person to Contact: Bryan Geoffroy

Phone: 337-352-1240 **Fax:** N/A

Email: bryan@servicecommla.com

Your Proposal is important to us.
However, should you choose NOT to submit a Proposal for this project, the City would still ask you to complete this sheet and indicate "No Proposal". This shall NOT affect your participation in future RFPs, but only serve as a means of verifying you received notification of this RFP.

Section 3 Business/WBE/SBE/MBE/DBE
The City encourages Proposals from Section 3 businesses, Woman Business Enterprises, Minority Business Enterprises, Small Business Enterprises, and other potentially Disadvantaged Business Enterprises. If your company is one of these types of businesses, please indicate "Section 3," "WBE," "SBE," "MBE," or "DBE" in the space provided above.

Nondiscrimination Requirements
By submitting and signing this Proposal, the Proposer agrees to comply with Title VI and VII of the Civil Rights Act of 1964 as amended; the Vietnam Era Veterans Readjustment Assistance Act of 1974; Section 503 of the Rehabilitation Act of 1973; Section 202 of Executive Order 11246 as amended; and the Americans with Disabilities Act of 1990.
The Proposer also agrees to keep informed of and comply with all federal, State, and local laws, ordinances, and regulations which affect the Proposer's employees or prospective employees.

SCOPE

The Hammond Police Department is seeking proposals from qualified contractors with proven industry experience to furnish and install total of three (3) new dispatch console workstations.

SITE INSPECTION

Prospective proposer may schedule an appointment to inspect the current dispatch center if needed. Current floorplans will not be mailed, emailed, or otherwise sent to any prospective proposers for inspection.

1.0 GENERAL

- The following RFP specifications are to be used as minimum standards.
- No proposal may be withdrawn for at least thirty (30) days after the scheduled closing time for the receipt of proposals. Quoted prices shall remain firm until product(s) have been accepted by the City of Hammond as delivered.
- Only the manufacturer's factory installers or their trained and authorized designees experienced with the working environment of a public safety dispatch center shall assemble and install the console.
- The manufacturer must provide a plan for a post-installation walkthrough intended to confirm full compliance to the floor plan, console design, and materials specified
- The manufacturer must provide a detailed plan for training all users and support staff in the proper use of all adjustment controls, ergonomic functions, and technical access.
- Each proposer is requested to furnish, attached to the proposal, complete descriptive literature on product being proposed. Any item(s) appearing in the manufacturer's regularly published specifications as "standard" equipment are assumed to be included in the proposer's proposal.
- Each respective proposer shall be responsible for insuring that his/her product meets or exceeds specifications as described herein.
- Successful proposer should furnish complete warranty information for product(s) being proposed, to include all sub-contracted components installed by vendor as well as vendor warranted components.

2.0 SPECIFICATIONS

3 Operator Position Dispatch Console

The dispatch console must be a complete workstation, providing interfaces to all common audio accessories such as headset jacks, foot switches, speakers, desk microphones, a NENA telephone interface. It must provide the user interface and do all the VoIP communications, utilizing the audio system via an internal USB connection. No position PC is required. Each Console will receive information from (9) New P25 radios.

Complete Distributed VoIP Design
Complete P25 Interface
No PC or Server requirement / LINX Based design
No proprietary Wiring
No limit to the number of positions to be added at a later date
SIP based VoIP Telephone Functionality
Direct IP Steaming of console position audio to VoIP capable recorders
Supports AES, DES and FIPS 140-2 compliant options
NENA Telephone Interface
Supports ALL Page and Selective Paging
Console Instant Recorder re-call (last 50 transmissions)
Multiple Screen Tabs
Administrative Log-in and/or individual user log-in
Fully Customizable GUI for screen layout design
Cross Patching
Two tone sequential paging stacked with capability to tone out multiple fire departments

3 - Operator Positions, each including:
2 Speakers per Position (Select/Unselect) w/capability of up to 8
1 Headset Jack per Position
1 Footswitch per Position
1 Desk Microphone per Position
1 22" Monitor (Optional Touch Screen Upgrade Available)
1 Operator Software License

Each Position is provided with:
NENA Protocol Telco Headset Interface
Crosspatch
Simul-Select Transmit
Multi-functional RAPID recall recorder (Telephone/Radio)
Mouse/Trackball control
1 - Pre-Wired 36" Rack Assembly including Dual Card Cage Assembly, Power Supply, Backplane Daughterboard, Punch-block, Cable Assembly and Cisco Ethernet Switch
20 - Radio Line Interface Cards
Delivery, Installation, and On-site Labor

DELIVERY

Delivery of the System will occur within a 90 – 180 days schedule after receipt and acknowledged acceptance of the order by vendor, training on the system to be included with proposal.

Instructions to proposers

PROPOSERS ARE URGED TO PROMPTLY REVIEW THE REQUIREMENTS OF ALL SPECIFICATIONS AND SUBMIT QUESTIONS FOR RESOLUTION AS EARLY AS POSSIBLE DURING THE SUBMITTAL PERIOD. QUESTIONS OR CONCERNS MUST BE SUBMITTED TO THE PURCHASING DIRECTOR DURING THE PROPOSAL PERIOD AND SHALL BECOME PART OF YOUR PROPOSAL PACKAGE. OTHERWISE, THIS WILL BE CONSTRUED AS ACCEPTANCE BY THE PROPOSERS THAT THE INTENT OF THE SPECIFICATIONS IS CLEAR AND THAT COMPETITIVE PROPOSALS MAY BE OBTAINED AS SPECIFIED HEREIN. PROTESTS WITH REGARD TO THE SPECIFICATION DOCUMENTS SHALL NOT BE CONSIDERED AFTER PROPOSALS ARE OPENED.

RFP Packages are mailed only as a courtesy. The City of Hammond does not assume responsibility for proposers to receive RFP packages. Proposers should rely on advertisements in the local newspaper, City Website www.hammond.org, online at www.bidexpress.com or personally pick up RFP packages with specifications. Full information may be obtained, or questions answered, by contacting the Purchasing Department, Hammond City Hall Complex, 310 East Charles Street.

These specifications are written in a manner to invite open competition. Any manufacturer's names, trade names, brand names, or catalog numbers used in the specifications are for the purpose of describing and establishing general quality levels. Such references are not intended to be restrictive unless the RFP states that only the brand name will be considered for reasons of compatibility, etc.
The RFP number, Proposers name, address and RFP opening date shall be clearly printed or typed on the outside of the Proposal envelope, if mailed. Only one (1) proposal shall be accepted from each proposer. Alternates shall not be accepted unless specifically requested in the RFP specifications. Proposals can be delivered or mailed. The method of delivery of proposals is the responsibility of the proposer. All proposals shall be received by the Purchasing Department, Hammond City Hall Complex, 310 East Charles Street Hammond, Louisiana on or before the specified RFP opening date and time. Normally, bid bonds will not be required on bids for materials, supplies, annual contracts or small labor contracts. If a bid bond is required, it will be specifically requested on the RFP form and included in the specifications.

Proposals shall be accepted only on the RFP forms furnished by the City of Hammond Purchasing Department. The City of Hammond shall only accept proposals from those proposers in whose name the RFP forms and or specifications were issued. Altered or incomplete proposals forms, or use of substitute forms or documents, shall render the proposal non-responsive and subject to rejection. **The RFP package and copies of any addenda issued shall be submitted to the Purchasing Department as THE RFP.** All proposals must be typed or written in

BLUE/BLACK INK. Any erasures, strikeover and/or changes to prices shall be initialed by the proposer. Failure to initial shall be cause for rejection of the proposal as non-responsive. All proposals shall be signed. Failure to do so shall cause the proposal to be rejected as non-responsive. Where one (1) or more vendor's exact products or typical workmanship is designated as the level of quality desired or equivalent, the Purchasing Agent/Fire Chief, after study and review, reserves the right to determine the acceptability of any equivalent offered. The decision, after study and review, shall be final and binding. If proposing "equivalent" products, specifications, illustrative literature and any deviations shall be submitted with proposal. Representative samples shall be submitted upon request, if appropriate.

Liability:

The Contractor at all times during the term of the contract shall maintain and pay for property damage and public liability insurance with limits of at least ($1,000,000.00) one million dollars inclusive of bodily injury and property damage for any one occurrence. Prior to commencing work under this contract the Contractor must file with the City a "certificate of insurance" meeting aforementioned requirements with the City of Hammond named insured by added endorsement. All premiums and expense incurred with this insurance shall be paid for by the Contractor. The Contractor shall assume the defense of and indemnify and save harmless the City and its Officers and Agents from all claims relating to work.

The Contractor shall be responsible for any and all damages or claims for damages or injuries or accidents done or caused by him or his employees, or resulting from the execution of the work, or any operations, or caused by reason of existence or location or condition of facilities or of any materials, supplies, or machinery used thereon or therein, or neglect or omission on his part, or all of the several acts or things required to be done by them, under and by these conditions, and covenants, and agrees to hold the City harmless and indemnified for all such damages and claims for damages.

The Contractor shall indemnify and save harmless the City from and against all losses and all claims, demands, payments, suits, actions, recoveries, all attorney fees, and judgments of every nature and description made, brought or recovered against the City by reason of any act or omission of the Contractor, his agents or employees, in the execution of his work.

Worker's Compensation:

The Contractor shall, at all times, pay or cause to be paid, any assessment or compensation required to be paid pursuant to the Worker's Compensation Act.

The Contractor shall, at the time of entering into a Contract with the City, provide satisfactory proof that all assessments or compensation payable to the Worker's Compensation Board have been paid and the City may, at any time during the performance or upon the completion of such Contract require a further declaration such Contract require a further declaration that such assessments or compensations have been paid.

As a qualified proposer for the project, I have carefully examined all of the RFP Documents and have examined the conditions and specifications of the work to be done, and I hereby propose to furnish all labor, materials, equipment, tools, etc., as called for by the RFP specifications.

I hereby acknowledge that I have received the following Addenda and they are reflected as part of this quote.

List by date and Addendum number if applicable
October 30, 2024 - Addendum #1

Proposal Amount

To furnish and install three (3) new dispatch console workstations. Lump sum shall include all labor, tools, training, material and equipment, including, but not limited to delivery and installation.

(Amounts shall be shown in words and digits. In case of discrepancy, words shall govern.)

Total Price One Hundred Thirty-Five Thousand Eight Hundred Three **DOLLARS** & Ninety-Two Cents
($ 135,803.92)

Signature of Proposer Bryan Geoffroy

Name of Company Service Communications **Date** October 29, 2024

The above signature on this Proposal certifies that proposer has carefully examined the instructions to proposers, terms and specifications applicable to and made a part of this quote. Proposer further certifies that the prices shown are in full compliance with the conditions, terms and specifications of this RFP.

City of Hammond
Purchasing Department
RFP 25-05
3 Operator Position Dispatch Console.
Addendum #1

October 30, 2024

PUBLIC NOTICE IS HEREBY GIVEN that the City of Hammond, Parish of Tangipahoa, State of Louisiana, has issued ADDENDUM # 1, for RFP 25-05, 3 Operator Position Dispatch Console. The following additions, clarifications, deletions, and/or corrections to the original Specifications and Contract Documents for 3 operator position dispatch console, are specifically made a part of the Specifications and Contract Documents with the same force and effect as though listed in the original Specifications and Contract Documents. Any contradictions shall be immediately made known to the Purchasing Department so that a decision and/or clarification can be made.

CORRECTION TO RFP PAGE 1 SUBMISSION INSTRUCTIONS

1. **Page 1, Middle of Cover Sheet**

   Proposals Shall Be Received by the Purchasing Department, City of Hammond 310 East Charles Street Hammond, Louisiana 70404-2788, Until 10:00 A.M. November 7, 2024.

   Correction

   Sealed Proposals Shall Be Received by the Purchasing Department, City of Hammond 310 East Charles Street Hammond, Louisiana 70404-2788, Until 10:00 A.M. November 7, 2024. Proposals can be hand delivered, mailed in or electronically submit through Bid Express.

Any information or questions to complete the proposal may be obtained between the hours of 7:30 a.m. and 4:00 p. m. Monday through Friday at the City of Hammond Purchasing Department, 310 East Charles Street, Hammond, La.

RIGHT IS RESERVED TO ACCEPT OR REJECT ANY OR ALL PROPOSALS.

SERVICE COMMUNICATIONS
100 Henderson Rd. | Lafayette, LA 70508
www.servicecommla.com
(337) 504-4673

October 30, 2024
City of Hammond
Hammond Polie Department
310 East Charles Street
Hammond, LA. 70404-2788
Attn: Stephanie Rogers

Subject: RFP 25-05 – Three Operator Position Dispatch Console

Stephanie,

Service Communications is pleased to have the opportunity to provide the attached Mindshare Dispatch Communication System with Kenwood Mobile Radio proposal for the requirements laid out in the RFP Proposal 25-05.

This proposal is based on the in person visit and Zoom meeting where requirements and needs were given. We have prepared this offer based on the Mindshare Maxplus Series System and the Kenwood VM5930BF mobile radio. The Mindshare system consists of the following primary components which are outlined.

MAXplus Series
Three (3) Operator Positions- Each Including
1 MAXplus Audio Processor
2 Speakers (Select/Unselect) w/capability of up to 8
1 Desk Microphone
1 Footswitch
1 Headset Jack
1 High Resolution 22" Monitor
1 Mindshare Operator Seat License

Each Position is provided with:

NENA Headset Interface
Crosspatch
Simul-Select Transmit
Multi-functional RAPID recall recorder (Telephone/Radio)
Mouse/Trackball Control

Included in this System:

1 – Mindshare 36" Pre-Wired Rack Assembly including: (2) 16 Slot Card Cage Assy

20 – Radio Line Interface Cards (Identification of Radio to be Interfaced is required)

Installation

Installation and On-site labor will be provided by Service Communication's Mindshare Trained Technicians.

Post Installation

Service Communication's Factory Train Technicians will complete a thorough walkthrough to ensure the installation is in full compliance. We will make sure the console design, all the materials used to complete this installation, and the floor plan are completed professionally.

Training

Training will encompass each shift and every dispatcher. It will be hands-on training covering all aspects of the capabilities of the Mindshare console. Our trainer will answer all questions and help each dispatcher become comfortable with the console. Our trainer will be at your facility for 2 days and a 3rd if necessary. Once initial training has concluded, phone consultation will be available. This console is very user friendly and should not be difficult to use. Our trainer will have the dispatchers stand over him as he goes through the basic functions (how to select channels, TX on select and unselected channels, adjust volume levels, page fire departments etc.) then let them get hands on experience of the functionality of the system and to answer all their questions. We believe they will find the procedures are very similar to what they currently have. We can even help dispatch during the transition if needed.

Notes

The City of Hammond must agree to allow remote access (Internet or dial-in) to the system by Mindshare to provide ability to diagnose, upgrade, and support the system. The first year Factory Warranty is included: Subsequent Extended Warranty options are offered. These include annual software upgrades to the system.

Extended Warranty Hardware & Software
2 Year - $2,791
3 Year - $6,381
4 Year - $10,767

Kenwood Radio

Kenwood Radio VM5430BF comes with a 3-year Manufacturer Warranty. This does not cover physical damage.

Canceled Orders are subject to the following restocking charges after order acceptance:

- Cancelled two weeks (10 business days) or more prior to shipment: 15% of hardware and all expanded services.
- Canceled less than two weeks prior to shipment: 20% of hardware and all expanded services.
- Cancelled following shipment: 25% of hardware and all expanded services.

Delivery

Delivery of the System will occur within a 90–180 day schedule after receipt and acknowledged awarding of the RFP. Service Communications will submit progressive billing based on this schedule. Typically, 50% is due at the time of order and 50% is due upon and payable upon invoice after all work is completed.

If you have any questions or need clarification on our part, please forward them to us.

We greatly appreciate this opportunity to be of service and invite your careful evaluation of our offer. We are confident you will recognize the superiority in technical and professional content that we offer for this Mission-Critical Communications System, providing the level of excellence our customers require and deserve.

Sincerely,

Bryan Geoffroy
Accounts Manager
337-352-1240
bryan@servicecommla.com

SERVICE COMMUNICATIONS
100 Henderson Rd. | Lafayette, LA 70508
www.servicecommla.com
(337) 504-4673

QUOTATION

102000225

Bill To:
Hammond Police Department
120 S Oak St,
Hammond, LA 70401

Ship To:
Hammond Police Department
120 S Oak St,
Hammond, LA 70401

Date: 10/18/2024 | Customer Rep: Bryan Geoffroy | Terms: Net 30

Qty	Item	Description	Unit Price	Extended
9	VM5930BF	VM5000, 7/800, Mobile	2,040.00	18,360.00
9	KCH-19 Dash	KCH-19 Dash	174.96	1,574.64
9	KMC-65M	KMC-65M Standard Mic	68.50	616.50
9	KCT-23M	DC Cable - 10 ft	38.16	343.44
9	KMB-33M	Standard Deck Mounting Bracket	13.76	123.84
9	8322000002	P25 Conventional	0.00	0.00
9	8322000005	P25 Phase 1 Trunking	0.00	0.00
9	8326000006	1024 Ch	0.00	0.00
9	8323000005	ARC4 (ADP Compatible)	0.00	0.00
3	750M-MAXplus	Midshare 100500MAXplus dispatch processor display work station, provides interfaces to all common audio accessories.	6,683.00	20,049.00
3	MS-LOGGER	Master Logger Recorder Interface - Easy logging recorder interface to IP recorders	0.00	0.00
3	MS-CALLHIST	Instant Recall Line & Global History Interface - Mindshare provides a virtual fullfunctioned..Call Logging capability at each Po	0.00	0.00
3	750M-FTSW-000	Console Position Footswitch, Single	336.00	1,008.00
3	750M-500-002	MS Position Speaker	372.00	1,116.00
3	750M-400-000	Operator headset jack, single line, for the MAXplus audio and accessory interface that allows the use of standard dual prong 4 a	372.00	1,116.00
3	NTSM-100-22	Non-Touch screen monitor 22" wide screen	520.00	1,560.00
3	750M-DM-019	Console desk microphone, 19" extended boom goose neck electret	681.00	2,043.00
3	750M-100SL-000	Mindshare console application seat license	6,891.00	20,673.00
1	MS-RACK-AD	Mindshare 36" pre-wired rack assembly includes: 16 slot card cage assy- with power supply, 12 channel backplane daughterboard, p	6,799.00	6,799.00
20	750M-100-000	Mindshare's VoIP Single Line Radio Interface Card	1,041.00	20,820.00

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Ship To:
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Date: 10/18/2024 | Customer Rep: Bryan Geoffroy | Terms: Net 30

Qty	Item	Description	Unit Price	Extended
1	750-300-000	100016MC- Mindshare Card Cage. 16 Slot, Dual Ethernet Connections, 3 Power supply inputs, no cards included	3,457.00	3,457.00
1	SHIPPING	Shipping / Freight	820.00	820.00
1	MS-MISCSRV-1	Mindshare Factory Staging	4,100.00	4,100.00
5	NRSB-BR-19FP-KNX5	Dual Radio Cabinet Mount	135.00	675.00
18	MISC-PROD	MISC. PRODUCT DB25 Connector from Radio	25.00	450.00
1	584933	Duracomm HE1U-10012 12vdc 100 Amp Power Supply Tessco	1,925.00	1,925.00
1	341991	Duracomm DB-RM-20-75 DC Power Distribution Panel-Tessco	398.00	398.00
1	328006	Bud Industries BRP-12216 70inch cabinet w/ cutouts, locking door, removable side panesl, casters, and cooling fan- Tessco	2,250.00	2,250.00
1	450600	Tripplite 1200 watt Rack Mount UPS Battery Backup System- Tessco	1,631.00	1,631.00
9	RG142PNMNM-6	6' DAS jumper using RG-142 plenum cable N M;N M	30.00	270.00
300	MISC-PROD	MISC. PRODUCT CAT5e Cable with Connectors	1.50	450.00
3	CA12CD-S	Plantronics 217100-01 Ca22cd-sc Cordless Ptt Dect 6. 0 Pj-7 Na	650.00	1,950.00
3	HW251 PLUS	Plantronics Supraplus HW251 PLUS MONAURAL/VT HEADSET	95.00	285.00
9	952375	75 ft. Wilson-400 Ultra Low Loss Coax N MALE/ N MALE	110.00	990.00
9	RFN-1006-3I	Connector, N-M LMR400, BR400	15.00	135.00
9	IS-50NX-C2 (20573)	Arrestor 125-1000 MHz FLANGE	110.00	990.00
1	532031	Wall Mounted Ground Bus Bar	150.00	150.00
30	WSGW-2-7STG (497351)	#2 7-Str Green Insul Wire	5.85	175.50

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QUOTATION

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Hammond, LA 70401

Date: 10/18/2024 | Customer Rep: Bryan Geoffroy | Terms: Net 30

Qty	Item	Description	Unit Price	Extended
9	351824	Laird FG7463 3dB Gain, Omni 700MHz Base antenna-Tessco	195.00	1,755.00
1	204673-2A (517419)	4" Two Port Aluminum Entrance Panel	80.00	80.00
2	C20100023	Boot Assembly (4"), (3) 1/2" holes	25.00	50.00
2	WM12D	12 Double Extended Wall Mount Assembly"	130.00	260.00
2	CM1810	10'-Super Mast 18 Gauge Pole	75.00	150.00
1	Labor	Installation of Antennas, Grounding, Building Entry, and Cat5 Cable	4,200.00	4,200.00
1	Labor	Labor to Build Lines. Install Radios in Cabinet, Program Console, Install Punch Block, Run Console Lines, Test System, and Train Operators	12,005.00	12,005.00

Subtotal :	$135,803.92
Tax :	$0.00
Total Quote :	$135,803.92

KENWOOD | VIKING

P25 Mission Critical

Viking **VM5000**

VHF · UHF (High & Low) · 700/800 MHz
SN/SZ · P25 PHASE 1 & 2

Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.

Features

Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, SN/SZ, FM Analog)

1024 channels

Mixed protocol zones

P25 Authentication (Link Layer Authentication)

P25 IP packet data

GPS AVL data (built in GPS)[1]

MDC-1200 & GE-Star signaling

Analog & P25 Conventional vote scan

Dash mount (KCH-19 control head only)

Remote mount

Dual control heads

Internal or external speaker

Fixed control station

WiFi (remote mount configuration only)

Bluetooth (Future)

Encryption
- ARC4™ software encryption; compatible w/Motorola ADP™
- DES-OFB
- AES-256 (FIPS 140-2) Single and Multi-Key
- Over-the-Air-Rekeying (OTAR)
- VK5000 or Motorola KVL3000/KVL4000 Keyloader

[1]Refer to the Viking VM5000 operating manual for detailed requirements & conditions for proper GPS operation.

Basic Control Head

Resolution of 422 x 154 pixel

Viewing angle of 140°

User selectable themes (8 themes available)

Day & night display options

Day - High Contrast

Night - High Contrast

Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accesory catalog at **www.efjohnson.com/products/accessories.**

Compatible With P25 Systems

ATLAS® P25 Phase 1 and Phase 2 System

Motorola® Systems
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Motorola Astro® SmartNet®/SmartZone®

Harris VIDA® - P25 Phase 1 & Phase 2

Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.

Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool – Vault™.

Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP) or Over-the-Internet Programming (OTIP).

TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

VM5730/5830/5930 Mobile Specifications

General		VM5730	VM5830	VM5930
Frequency Range		136-174 MHz	Type 1: 450-520 MHz Type 2: 380-470 MHz	RX:763-776,851-870 MHz TX:763-776,793-806,806-825,851-870 MHz
Max. Channels Per Radio		1024		
Number of Zones		255		
Max. Channels Per Zone		255		
Channel Spacing	Analog	12.5/15/20/25*/30* kHz	12.5/25* kHz	12.5/25 kHz
	Digital	12.5 kHz	12.5 kHz	12.5 kHz
Power Supply		13.6 V DC ±15 %		
Current Drain	Standby	0.45 A		
	RX	2.3 A		
	TX	13 A		
Operating Temperature		-22 °F to +140 °F (-30 °C to +60 °C)		
Frequency Stability		±1.5 ppm		
Dimensions (W x H x D) Radio w/Control Head, Projections not Included		6.73 x 1.89 x 6.93 in. (171 x 48 x 176 mm)		6.73x1.89x7.72 in. (171.0 x 48.0 x 196 mm)
Weight (Radio w/Control Head)		**3.53 lbs (1.6 kg)**		**3.75 lbs (1.7kg)**

Receiver		VM5730	VM5830	VM5930
Sensitivity	P25 Digital (5% BER)	0.25 µV		
	Analog (12 dB SINAD)	0.25 µV		
Selectivity	P25 Digital	60 dB		
	Analog @ 12.5 kHz	60 dB		60 dB
	Analog @ 25 kHz	75 dB		75 dB
Intermodulation		80 dB		
Spurious Rejection		87 dB	85 dB	
Audio Distortion		2%		
Audio Output Power		4 W/4 Ω (Remote Control Head: 3 W/4 Ω)		

Transmitter		VM5730	VM5830	VM5930
RF Output Power		5W/50W	5W/45W – (Type 1: 450-485 MHz) 5W/40W – (Type 1: 485-520 MHz) 5W/40W – (Type 2: 380-470 MHz)	2W/30W (700 MHz) 2W/35W (800 MHz)
Spurious Emission		-73 dB	-75 dB	-80 dB
FM Hum & Noise	Analog @ 12.5 kHz	45 dB		40 dB
	Analog @ 25 kHz	50 dB		45 dB
Audio Distortion		2%		
Emission Designator		VM5730/5830: 16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W VM5930: 16K0F3E, 14K0F3E,11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W		

Mil Standard	810C	810D	810E	810F	810G
Low Pressure	500.1/ I	500.2/ I, II	500.3/ I, II	500.4/ I, II	500.5/ I, II
High Temperature	501.1/ I, II	501.2/ I, II	501.3/ I, II	501.4/ I, II	501.5/ I, II
Low Temperature	502.1/ I	502.2/ I, II	502.3/ I, II	502.4/ I, II	502.5/ I, II
Temp. Shock	503.1/ I	503.2/ I	503.3/ I	503.4/ I, II	503.5/ I
Solar Radiation	505.1/ I	505.2/ I	505.3/ I	505.4/ I	505.5/ I
Rain	506.1/ I, II	506.2/ I, II	506.3/ I, II	506.4/ I, III	506.5/ I, III

Mil Standard	810C	810D	810E	810F	810G
Humidity	507.1/ I, II	507.2/ II, III	507.3/ II, III	507.4	507.5/ II
Salt Fog	509.1/ I	509.2/ I	509.3/ I	509.4	509.5
Dust	510.1/ I	510.2/ I	510.3/ I	510.4/ I, III	510.5/ I
Vibration	514.2/ VIII, X	514.3/ I	514.4/ I	514.5/ I	514.6/ I
Shock	516.2/ I, V	516.3/ I, V	516.4/ I, V	516.5/ I, V	516.6/ I, V

INTERNATIONAL PROTECTION STANDARD	
Dust & Water	IP54, IP55[1]

[1] IP54 RF Head or Remote Head, IP55 Remote Control Head for Detachable Radio

Encryption Options	
Supported Encryption	AES, DES-OFB, ARC4
Encryption Key/ Radio	126 Common Key Reference (CKR), 126 Physical Identifier, (PID), Compatible w/ Motorola Key Variable Loader
Encryption Frame Re-sync Interval	P25 CAI 360 MSEC
Encryption Keying	External Key Loader, OTAR
Mode	OFB-Output Feedback
Encryption Type	Digital
Key Erasure	Keyboard Command
Standards	FIPS 46-3, FIPS 81, FIPS 140-2, FIPS 197

*25/30 kHz in VHF/UHF Bands (except T-Band) are not included in the models sold in the USA or US territories.
Analog measurements made per TIA 603 and specifications shown are typical. Digital measurements made per TIA 102CAAA and specifications shown are typical. All specifications are subject to change without notice. Please check the website for the latest version.

EF Johnson Technologies, Inc.
a JVCKENWOOD Company
1440 Corporate Drive Irving, TX 75038-2401
Phone 800.328.3911 • efjohnson.com

mindshare by CSS

MINDSHARE RADIO INTERFACE

DATA SHEET

The Mindshare Radio Interface (MRI) is a Voice over IP (VoIP) endpoint device which acts as a console system gateway to control station radios and legacy analog interfaces. It is specifically engineered for radio control application and is designed to operate in the same environment as the radio equipment it interfaces with.

MRIs maybe deployed in two form factors, a single stand alone enclosure or a multi-unit rack mountable card cage.

SPECIFICATIONS

Weight	3.2 lbs. (Single Enclosure)
Dimensions	6" W x 10⅛" D x 1¾" H
Operating Temperature Range	0 to +50 °C
Power Requirements	13.8 VDC, 1 A
Network I/O	1 x RJ45 10/100 Mbps Ethernet
Interfaces	2-wire and 4-wire Tone Remote Control (600 Ohm Balanced) E&M RS232 Serial
Digital Inputs	1 x Carrier Operated Relay (COR), 1 x Trunked Channel Access (TCA) Diode blocked open collector
Digital Outputs	4 x 3.3VDC or 12VDC Binary Coded Digital
Relay Outputs	1 x PTT Relay, 1 x Monitor Relay, 1x Spare Relay 125 VDC, 150 VAC Maximum Voltage 1 A Maximum Switched Current 1 A Maximum Carrying Current 30 W (DC), 60 VA (AC) Maximum Switch Power
Frequency Response	+ 1/-3 dB, 300 to 3000 Hz except at the transmit tone notch frequency
Noise Floor	45 dB below operating levels
Codec Gains	0 to 42 dB in 1.5 dB Steps (Inputs), -42 to 0 dB in 1.5 dB Steps (Outputs)

Specifications subject to change without notice. Check **css-mindshare.com** for downloads/updates.

MADE in the USA

CSS Mindshare, LLC. | 665 Research Dr. | Lincoln NE 68521
Main: 402.261.8688 | Sales: 563.387.7475 | css-mindshare.com

mindshare by CSS

MINDSHARE RADIO INTERFACE

DATA SHEET

FEATURES

- Web configuration interface
- Multicast IP RoIP links
- CTCSS tone generation with separate summed output
- FleetSync® encode and decode
- MDC-1200 encode and decode
- 2-wire and 4-wire (600 Ohm Balance) and 4-wire single ended modes
- Tone Remote Control (16 Functions, fully customizable Guard/Function/Hold/Monitor parameters)
- Binary Coded Digital Outputs (Channel Change)
- RX Automatic Gain Control
- Transmit Monitor (Tone Control Mode)
- VOX, COR, Voter Status Tone and Serial RX call detection
- PTT, Monitor and Spare Relay Outputs
- Native crosspatch

SERIAL CONTROL

JPS Interoperability Solutions

Models
SNV-12

Functions
Site Voted/Failed Status, Site UnSquelched Status, Site Transmit, Selected Status, Site Signal Quality Status, Site Force Vote Control, Site Force Fail Control, Site Transmit Steering and Repeat On/Off

MOTOTRBO™

Models
XPR-x550

Functions
Caller ID, Channel Change, Scan On/Off, Emergency, Individual Call, Group Call, Stun, Revive and Call Alert

ICOM

Models
IC-Fx061

Functions
Caller ID, Channel Change and Emergency

EFJohnson

Models
VMx00, VMx000

Functions
Caller ID, Channel Change, Scan On/Off and Emergency

KENWOOD

Models
TK-x360, TK-x180, TK-5x10, TK-5x20, Tk-5x30, NX-x00, NX-3x20 NX-5x00

Functions
Caller ID, Channel Change, Scan On/Off, SelCall/Individual Call*, Group Call*, Stun*, Revive*, Status Message*, Status Query*, Remote Listen*, Emergency, Call Alert/Paging Call*, Enryption On/Off* and Over-The-Air-Alias*
*Functions dependent on model mode and capabilities

Hytera

Models
MD782i

Functions
Caller ID, Channel Change, Scan On/Off, Emergency, Individual Call, Group Call, Stun, Revive and Call Alert and Remote Listen

tait communications

Models
TM9x00

Functions
Caller ID, Channel Change, Scan On/Off, Emergency, Individual Call, Group Call, Stun, Revice, Call Alert, Status Message, Radio Check and Remote Listen

MADE in the USA

CSS Mindshare, LLC. | 665 Research Dr. | Lincoln NE 68521
Main: 402.261.8688 | Sales: 563.387.7475 | css-mindshare.com

mindshare by CSS

VOIP DISPATCH | CONSOLE SYSTEMS

THE TOTAL PUBLIC-SAFETY DISPATCH SOLUTION

COMPLETE VOIP P25 DISPATCH CONSOLE TECHNOLOGY

- The Mindshare System is completely distributed VoIP P25 Technology with proven dependability and efficiency.
- **We say YES** to No size limitations, No backroom Central Electronics, **No need for Position PC's.**
- Standard features include remote set-up, maintenance & diagnostics, ease of operation through fully customizable graphics layout / design and user-friendly operator screens.
- Multiple additional feature-rich items including full SIP-based PBX Telephony compatibility complete the Total System Solution.

GSA Contract Holder

MADE in the USA

CSS-Mindshare LLC 6030 S. 58TH ST. - Ste C Lincoln NE 68516
402.261.8688 x216 - Sales@CSS-Mindshare.com - www.CSS-Mindshare.com

mindshare by CSS

PUBLIC SAFETY SYSTEM SOLUTION

MINDSHARE OPERATOR GUI

- Fully Customizable
- Windows & Linux Environments
- Multi-Channel Audio
- Multi-Function Instant Recall
- Cross-Patch
- Simulcast
- Paging
- Aux Control
- Alarms
- Alert Tones
- ANI
- Multiple Screen Tabs

MAX*PLUS* G2 DISPATCH PROCESSOR

- Complete Dispatch Workstation
- No Separate PC Required
- Up to 8 Speaker Configuration
- Headset/Footswitch Operation
- Full Accessory Connectivity
- NENA Telephone Interface
- Multi-featured Instant Recall
- USB Interfaced Audio System
- Integrated Dual Core Processor

MINDSHARE LT RADIO INTERFACE

- Full VoIP Radio Interface
- Complete P25 Interfaces
- MDC1200 & Fleetsync ANI Decoding
- Voter Compatible Data Stream
- SIP Telephony Stack
- Iden PTT - Passport Interface
- T1 Direct Interface
- Kenwood/NXDN, ICOM, MOTOTRBO
- Hytera, Tait, EFJ & more
- Network I/O Relay Control

CSS-Mindshare LLC 6030 S. 58TH ST. - Ste C Lincoln NE 68516
402.261.8688 x216 - Sales@CSS-Mindshare.com - www.CSS-Mindshare.com

General Info

Total:

$172,888.00

Number

RFP 25-05 for 3 Operator Position Dispatch Console

Deadline

11/07/2024 10:00 AM CST

Vendor

InterTalk Critical Information Systems, Inc.

Submitted

11/07/2024 09:50 AM CST

Signed by

Jeff Kelly
Account Holder Jeff Kelly

Opened

11/07/2024 10:04 AM CST **By** noto_kk@hammond.org

Description

3 Operator Position Dispatch Console
The dispatch console must be a complete workstation, providing interfaces to all common audio accessories such as headset jacks, foot switches, speakers, desk microphones, a NENA telephone interface. It must provide the user interface and do all the VoIP communications, utilizing the audio system via an internal USB connection. No position PC is required. Each Console will receive information from (9) New P25 radios.

Allows zero unit prices and labor

No

Allows negative unit prices and labor

No

General Information:

Name of Firm: *

InterTalk Critical Information Systems, Inc.

Address: *

371 Cutler Avenue, Dartmouth, Nova Scotia, B3B 0J5, Canada

Contact Person: *

Mishkin Cyr

Phone Number: * **Fax:**

(902) 333-7513

E-mail: *

mcyr@intertalksystems.com

PROPOSAL AMOUNT

$172,888.00

Proposer agrees to Furnish All Material, Supplies and Services in complete accordance with all RFP 25-05 Specifications for the sum indicated:

(Amounts shall be shown in words and digits. In case of discrepancy, words shall govern.)

TOTAL PRICE IN WORDS *

One hundred and seventy-two thousand, eight hundred and eighty-eight dollars

TOTAL PRICE IN DOLLARS *

$172,888.00

Attachment List

RFP 25-05 3 Operator Position Dispatch Console.pdf (251 KB)

Addendum 1.pdf (177 KB)

Required Document List

Name	Omission Terms	Submitted File
RFP Package Upload proposer's RFP Package.		RFP Package Document for Hammond - InterTalk - RFP 25-05.pdf
Additional Attachment Upload additional attachment.	I do not have additional documents to attach.	Attachments A-D - InterTalk for RFP 25-05.pdf
2 Required Documents		

City Of Hammond
Purchasing Department

RFP 25-05
for
3 Operator Position Dispatch Console

Proposals Shall Be Received by the Purchasing Department,
City of Hammond
310 East Charles Street
Hammond, Louisiana 70404-2788

Until

10:00 A.M. November 7, 2024

Any technical questions on Specifications should be addressed in writing to Stephanie Rogers at rogers_sm@hammond.org

Site visit can be scheduled by calling Stephanie Rogers at 985-277-5748

PURCHASING DEPARTMENT

P.O. BOX 2788 | HAMMOND, LOUISIANA | 70404| PURCHASING@HAMMOND.ORG

985-277-5633| WWW.HAMMOND.ORG

This is the Proposal of:

Date: November 7, 2024

Company: InterTalk Critical Information Systems, Inc.

Section 3 Business/WBE/SBE/MBE/DBE: N/A

Address: 371 Cutler Avenue (Canada)

City: Dartmouth **State:** Nova Scotia **ZIP Code:** B3B 0J5

Person to Contact: Mishkin Cyr, Director of Market Engagement

Phone: 1-902-333-7513 **Fax:** N/A

Email: mcyr@intertalksystems.com

Your Proposal is important to us.
However, should you choose NOT to submit a Proposal for this project, the City would still ask you to complete this sheet and indicate "No Proposal". This shall NOT affect your participation in future RFPs, but only serve as a means of verifying you received notification of this RFP.

Section 3 Business/WBE/SBE/MBE/DBE
The City encourages Proposals from Section 3 businesses, Woman Business Enterprises, Minority Business Enterprises, Small Business Enterprises, and other potentially Disadvantaged Business Enterprises. If your company is one of these types of businesses, please indicate "Section 3," "WBE," "SBE," "MBE," or "DBE" in the space provided above.

Nondiscrimination Requirements
By submitting and signing this Proposal, the Proposer agrees to comply with Title VI and VII of the Civil Rights Act of 1964 as amended; the Vietnam Era Veterans Readjustment Assistance Act of 1974; Section 503 of the Rehabilitation Act of 1973; Section 202 of Executive Order 11246 as amended; and the Americans with Disabilities Act of 1990.
The Proposer also agrees to keep informed of and comply with all federal, State, and local laws, ordinances, and regulations which affect the Proposer's employees or prospective employees.

SCOPE

The Hammond Police Department is seeking proposals from qualified contractors with proven industry experience to furnish and install total of three (3) new dispatch console workstations.

SITE INSPECTION

Prospective proposer may schedule an appointment to inspect the current dispatch center if needed. Current floorplans will not be mailed, emailed, or otherwise sent to any prospective proposers for inspection.

1.0 GENERAL

▪The following RFP specifications are to be used as minimum standards.

▪ No proposal may be withdrawn for at least thirty (30) days after the scheduled closing time for the receipt of proposals. Quoted prices shall remain firm until product(s) have been accepted by the City of Hammond as delivered.

▪Only the manufacturer's factory installers or their trained and authorized designees experienced with the working environment of a public safety dispatch center shall assemble and install the console.

▪The manufacturer must provide a plan for a post-installation walkthrough intended to confirm full compliance to the floor plan, console design, and materials specified

▪ The manufacturer must provide a detailed plan for training all users and support staff in the proper use of all adjustment controls, ergonomic functions, and technical access.

▪ Each proposer is requested to furnish, attached to the proposal, complete descriptive literature on product being proposed. Any item(s) appearing in the manufacturer's regularly published specifications as "standard" equipment are assumed to be included in the proposer's proposal.

▪ Each respective proposer shall be responsible for insuring that his/her product meets or exceeds specifications as described herein.

▪Successful proposer should furnish complete warranty information for product(s) being proposed, to include all sub-contracted components installed by vendor as well as vendor warranted components.

2.0 **SPECIFICATIONS**

3 Operator Position Dispatch Console

The dispatch console must be a complete workstation, providing interfaces to all common audio accessories such as headset jacks, foot switches, speakers, desk microphones, a NENA telephone interface. It must provide the user interface and do all the VoIP communications, utilizing the audio system via an internal USB connection. No position PC is required. Each Console will receive information from (9) New P25 radios.

Complete Distributed VoIP Design
Complete P25 Interface
No PC or Server requirement / LINX Based design
No proprietary Wiring
No limit to the number of positions to be added at a later date
SIP based VoIP Telephone Functionality
Direct IP Steaming of console position audio to VoIP capable recorders
Supports AES, DES and FIPS 140-2 compliant options
NENA Telephone Interface
Supports ALL Page and Selective Paging
Console Instant Recorder re-call (last 50 transmissions)
Multiple Screen Tabs
Administrative Log-in and/or individual user log-in
Fully Customizable GUI for screen layout design
Cross Patching
Two tone sequential paging stacked with capability to tone out multiple fire departments

3 - Operator Positions, each including:
2 Speakers per Position (Select/Unselect) w/capability of up to 8
1 Headset Jack per Position
1 Footswitch per Position
1 Desk Microphone per Position
1 22” Monitor (Optional Touch Screen Upgrade Available)
1 Operator Software License

Each Position is provided with:
NENA Protocol Telco Headset Interface
Crosspatch
Simul-Select Transmit
Multi-functional RAPID recall recorder (Telephone/Radio)
Mouse/Trackball control
1 - Pre-Wired 36” Rack Assembly including Dual Card Cage Assembly, Power Supply, Backplane Daughterboard, Punch-block, Cable Assembly and Cisco Ethernet Switch
20 - Radio Line Interface Cards
Delivery, Installation, and On-site Labor

DELIVERY

Delivery of the System will occur within a 90 – 180 days schedule after receipt and acknowledged acceptance of the order by vendor, training on the system to be included with proposal.

Instructions to proposers

PROPOSERS ARE URGED TO PROMPTLY REVIEW THE REQUIREMENTS OF ALL SPECIFICATIONS AND SUBMIT QUESTIONS FOR RESOLUTION AS EARLY AS POSSIBLE DURING THE SUBMITTAL PERIOD. QUESTIONS OR CONCERNS MUST BE SUBMITTED TO THE PURCHASING DIRECTOR DURING THE PROPOSAL PERIOD AND SHALL BECOME PART OF YOUR PROPOSAL PACKAGE. OTHERWISE, THIS WILL BE CONSTRUED AS ACCEPTANCE BY THE PROPOSERS THAT THE INTENT OF THE SPECIFICATIONS IS CLEAR AND THAT COMPETITIVE PROPOSALS MAY BE OBTAINED AS SPECIFIED HEREIN. PROTESTS WITH REGARD TO THE SPECIFICATION DOCUMENTS SHALL NOT BE CONSIDERED AFTER PROPOSALS ARE OPENED.

RFP Packages are mailed only as a courtesy. The City of Hammond does not assume responsibility for proposers to receive RFP packages. Proposers should rely on advertisements in the local newspaper, City Website www.hammond.org, online at www.bidexpress.com or personally pick up RFP packages with specifications. Full information may be obtained, or questions answered, by contacting the Purchasing Department, Hammond City Hall Complex, 310 East Charles Street.

These specifications are written in a manner to invite open competition. Any manufacturer's names, trade names, brand names, or catalog numbers used in the specifications are for the purpose of describing and establishing general quality levels. Such references are not intended to be restrictive unless the RFP states that only the brand name will be considered for reasons of compatibility, etc.
The RFP number, Proposers name, address and RFP opening date shall be clearly printed or typed on the outside of the Proposal envelope, if mailed. Only one (1) proposal shall be accepted from each proposer. Alternates shall not be accepted unless specifically requested in the RFP specifications. Proposals can be delivered or mailed. The method of delivery of proposals is the responsibility of the proposer. All proposals shall be received by the Purchasing Department, Hammond City Hall Complex, 310 East Charles Street Hammond, Louisiana on or before the specified RFP opening date and time. Normally, bid bonds will not be required on bids for materials, supplies, annual contracts or small labor contracts. If a bid bond is required, it will be specifically requested on the RFP form and included in the specifications.

Proposals shall be accepted only on the RFP forms furnished by the City of Hammond Purchasing Department. The City of Hammond shall only accept proposals from those proposers in whose name the RFP forms and or specifications were issued. Altered or incomplete proposals forms, or use of substitute forms or documents, shall render the proposal non-responsive and subject to rejection. **The RFP package and copies of any addenda issued shall be submitted to the Purchasing Department as THE RFP.** All proposals must be typed or written in

BLUE/BLACK INK. Any erasures, strikeover and/or changes to prices shall be initialed by the proposer. Failure to initial shall be cause for rejection of the proposal as non-responsive. All proposals shall be signed. Failure to do so shall cause the proposal to be rejected as non-responsive. Where one (1) or more vendor's exact products or typical workmanship is designated as the level of quality desired or equivalent, the Purchasing Agent/Fire Chief, after study and review, reserves the right to determine the acceptability of any equivalent offered. The decision, after study and review, shall be final and binding. If proposing "equivalent" products, specifications, illustrative literature and any deviations shall be submitted with proposal. Representative samples shall be submitted upon request, if appropriate.

Liability:

The Contractor at all times during the term of the contract shall maintain and pay for property damage and public liability insurance with limits of at least ($1,000,000.00) one million dollars inclusive of bodily injury and property damage for any one occurrence. Prior to commencing work under this contract the Contractor must file with the City a "certificate of insurance" meeting aforementioned requirements with the City of Hammond named insured by added endorsement. All premiums and expense incurred with this insurance shall be paid for by the Contractor. The Contractor shall assume the defense of and indemnify and save harmless the City and its Officers and Agents from all claims relating to work.

The Contractor shall be responsible for any and all damages or claims for damages or injuries or accidents done or caused by him or his employees, or resulting from the execution of the work, or any operations, or caused by reason of existence or location or condition of facilities or of any materials, supplies, or machinery used thereon or therein, or neglect or omission on his part, or all of the several acts or things required to be done by them, under and by these conditions, and covenants, and agrees to hold the City harmless and indemnified for all such damages and claims for damages.

The Contractor shall indemnify and save harmless the City from and against all losses and all claims, demands, payments, suits, actions, recoveries, all attorney fees, and judgments of every nature and description made, brought or recovered against the City by reason of any act or omission of the Contractor, his agents or employees, in the execution of his work.

Worker's Compensation:

The Contractor shall, at all times, pay or cause to be paid, any assessment or compensation required to be paid pursuant to the Worker's Compensation Act.

The Contractor shall, at the time of entering into a Contract with the City, provide satisfactory proof that all assessments or compensation payable to the Worker's Compensation Board have been paid and the City may, at any time during the performance or upon the completion of such Contract require a further declaration such Contract require a further declaration that such assessments or compensations have been paid.

As a qualified proposer for the project, I have carefully examined all of the RFP Documents and have examined the conditions and specifications of the work to be done, and I hereby propose to furnish all labor, materials, equipment, tools, etc., as called for by the RFP specifications.

I hereby acknowledge that I have received the following Addenda and they are reflected as part of this quote.

List by date and Addendum number if applicable

_____

Proposal Amount

To furnish and install three (3) new dispatch console workstations. Lump sum shall include all labor, tools, training, material and equipment, including, but not limited to delivery and installation.

(Amounts shall be shown in words and digits. In case of discrepancy, words shall govern.)

Total Price One hundred and seventy-two thousand, eight hundred and eighty-eight dollars DOLLARS

($ 172,888.00)

Signature of Proposer _____ **Jeff Kelly** _____

Name of Company InterTalk Critical Information Systems, Inc. Date November 7, 2024

The above signature on this Proposal certifies that proposer has carefully examined the instructions to proposers, terms and specifications applicable to and made a part of this quote. Proposer further certifies that the prices shown are in full compliance with the conditions, terms and specifications of this RFP.

INTERTALK™

RFP 25-05, City of Hammond
3 Operator Position Dispatch Console
MPI P2420098

WE ENERGIES COMPANY
RFP 2023-1001
Dispatch Communication
Console and Voice Recorder System
Replacement

InterTalk Critical Information Systems
MPI: 2381590

CONFIDENTIALITY NOTICE

The information contained herein provided by InterTalk™ Critical Information Systems, Inc. (“InterTalk”) is proprietary and confidential to InterTalk and its affiliated entities. Such information shall not be used, reproduced or disclosed to others except for any one or more of the following:

- To those who have a need to know as necessary for the express purpose of evaluation of such information for purposes of this proposal,
- As may be required by law or a judicial or administrative order upon providing to InterTalk written notice of such requirement for disclosure in order that InterTalk may take such proceedings as InterTalk deems necessary,
- As may be specifically permitted in writing by InterTalk. The recipient of this document, by its retention and use, agrees to the above provisions as well as to protect the information from loss, theft, and compromise.

Disclosure of such proprietary information, which may contain trade secrets, commercial, financial, or technical information of InterTalk, may result in commercial harm to InterTalk, or may otherwise have a negative effect on InterTalk’s competitive position and commercial interests and therefore should be protected from disclosure under Freedom of Information and Protection of Privacy Act of Nova Scotia.

3 Operator Position Dispatch Console

Department:	Business Development	**Category:**	PROPOSAL

Document Number

MASTER PROJECT NUMBER (MPI)	TYPE *ANN*	CREATION/REVISION DATE *YYYYMMDD-N*	AUTHOR'S INITIALS	CONFIDENTIAL CLASSIFICATION
P2420098	B01	20241023-01	JK	CONFIDENTIAL

Document Status

Version	Date Reviewed	Prepared by	Reviewed by	Endorsed	Approved
01	20241030	JK	JK, JB, NM	JB, NM	

Amendment Record

Version	Clause(s)	Description
A01	ALL	Initial draft
B01	N/A	Release to customer

TABLE OF CONTENTS

EXECUTIVE SUMMARY

InterTalk is pleased to propose our solution to address the technical, operational, and commercial requirements posed by the City of Hammond in your RFP.

Our Enlite Dispatch Console System amalgamates traditional radio management operations with modern technologies and design approaches to provide a system that will afford Hammond a long lifespan requiring little in the way of “forklift upgrades” and ongoing maintenance down the road.

Key highlights of our solution include:

Reliable and Scalable Architecture

Enlite’s Core is designed to be run as a high-availability cluster using a RAFT consensus algorithm to decide which data source is primary at any given point in time. This infrastructure requires an odd number of servers and can operate seamlessly after losing almost half of the cluster members. In contrast to a simple redundancy, this approach is resilient against “split-brain” network partition failure conditions which can result in data corruption as both parts of the network partition think they’re in charge and receive traffic.

The proposed system is designed for full redundancy on all fronts, including network, radio endpoints & SIPREC interfaces, and backend control equipment to ensure continuous operation and availability.

Customizable and Intuitive User Interface

The Enlite UX (user experience) is second to none in the industry.

Enlite incorporates “lessons learned” from all previous projects in its latest UX design and in the overall system architectural approach and software. Enlite provides its users with an advanced, intuitive communications tool that will greatly enhance their productivity, reduce errors and decrease dispatcher fatigue. It does this through a feature-rich graphical user interface that is easy to use, customizable and, frankly, beautiful to behold. The Enlite UX offers a rich set of configurable permissions to allow users, supervisors and administrators to receive only the functionality that they need without being exposed to additional functionality that they do not.

Enlite provides a fully configurable UX. The System Administrator can set all aspects of the display including available resource ‘widgets’, functionality available to a dispatcher, and general layout attributes, icon size and placement, telephone dial-out numbers tied to one-button speed-dials, etc. In addition, the administrator can permit or disallow individual dispatchers to change their own screen if desired.

Individual screen/tab configurations (termed “Missions”) can be pre-configured using the built-in What You See Is What You Get (WYSIWYG) editor and then made available to other dispatchers according to a granular permissions system. Dispatchers can have a locked-down strategic mission for monitoring an area and then can launch new tactical missions that are focused on more complicated operations when the need arises. Each Mission created can be

tailored exactly to the desired workflow, feature set or use case.

The built-in UX editor allows full control over what tools and functions are available on each mission including their position, size, and in many cases, color options. Each mission can further be customized using permissions. For example, if an element or feature is present on a dispatcher's mission but the dispatcher does not have permission for the feature, it would be hidden from them but all the features they have permission for would be visible. Role permissions can be customized and new roles can be created as needed for further flexibility.

Enhanced System Maintenance

The Enlite core regularly checks the health of all connected analog and digital radio gateways and switches to a redundant gateway.

We are also proposing a redundant on-premises monitoring system, capable of monitoring all IP-connected system components, providing telemetry, and generating configurable alarms on desired events. The monitoring system screen will be configured with a system-wide dashboard, displaying all events in descending order of priority and severity. The monitoring system can also be configured to monitor application logs and trigger alarms on specific events (e.g. ILS failover).

Seamless Integration and Interoperability

We have a proven track record of successful system integrations, ensuring smooth compatibility with your existing infrastructure, communication networks, and legacy systems. Our solution supports open standards and protocols, allowing seamless data exchange and interoperability with other public safety systems.

Implementation and Support

We propose a comprehensive implementation plan, encompassing system design, configuration, installation, and testing. Our experienced team will work closely with your organization to ensure a smooth transition from your current system to our dispatch console solution. We offer comprehensive training programs for dispatchers and administrators, enabling your team to quickly adapt and maximize the system's potential.

The elements discussed above represent the high-level contents of our proposed solution - this response document contains much greater detail about how Enlite represents the best alternative to address Hammond’s needs now and in the future. We welcome the opportunity to discuss in detail any aspect of our proposal where you may need more information or clarification.

Best regards,

Jeff Kelly
jkelly@intertalksystems.com
1-902-489-8441 (mobile)

SECTION 1: GENERAL

The following RFP specifications are to be used as minimum standards.

InterTalk Response: Understood.

No proposal may be withdrawn for at least thirty (30) days after the scheduled closing time for the receipt of proposals. Quoted prices shall remain firm until product(s) have been accepted by the City of Hammond as delivered.

InterTalk Response: Understood.

Only the manufacturer's factory installers or their trained and authorized designees experienced with the working environment of a public safety dispatch center shall assemble and install the console.

InterTalk Response: Understood and comply.

InterTalk utilizes only factory-trained personnel / technicians to install our console systems, or, in certain instances, Authorized Integrators who have been factory trained. InterTalk is well-versed in public safety console deployments, and has been in this business for over 27 years providing full professional services, from development, engineering, install, training and support to its valued customers. For this particular project, InterTalk intends to utilize its own factory-trained personnel for the system's installation.

The manufacturer must provide a plan for a post-installation walkthrough intended to confirm full compliance to the floor plan, console design, and materials specified.

InterTalk Response: Understood and comply.

InterTalk provides full project management services with every factory-installed system deployment. Our Project Management Methodology is included with this proposal as **ATTACHMENT A - Project Management Methodology**.

The manufacturer must provide a detailed plan for training all users and support staff in the proper use of all adjustment controls, ergonomic functions, and technical access.

InterTalk Response: Understood and comply.

InterTalk provides full training to our end-users. This training includes Operator Training and System Administration Training. Our Training Syllabi are included with this proposal as **ATTACHMENT B - Training.**

Each proposer is requested to furnish, attached to the proposal, complete descriptive literature on product being proposed. Any item(s) appearing in the manufacturer's regularly published specifications as "standard" equipment are assumed to be included in the proposer's proposal.

InterTalk Response: Understood and comply.

Please see **ATTACHMENT C - Product Literature**

Each respective proposer shall be responsible for insuring that his/her product meets or exceeds specifications as described herein.

InterTalk Response: Understood.

Successful proposer should furnish complete warranty information for product(s) being proposed, to include all sub-contracted components installed by vendor as well as vendor warranted components.

InterTalk Response: Understood and comply.

Please see **ATTACHMENT D - InterTalk Limited Warranty Agreement - City of Hammond LA**

SECTION 2:
SPECIFICATIONS

3 Operator Position Dispatch Console

The dispatch console must be a complete workstation, providing interfaces to all common audio accessories such as headset jacks, foot switches, speakers, desk microphones, a NENA telephone interface. It must provide the user interface and do all the VoIP communications, utilizing the audio system via an internal USB connection. No position PC is required. Each Console will receive information from (9) New P25 radios.

Complete Distributed VoIP Design

InterTalk Response: Comply.

Our system employs a fully distributed VoIP architecture designed for high availability, scalability, and efficient communication across diverse environments. The key features of our distributed VoIP design include:

Centralized Management with Distributed Processing: The system operates on a distributed model where central management and configuration are supported via the InterTalk Enlite Core, but individual processing nodes (dispatch consoles) handle voice processing. This ensures minimal latency and efficient handling of calls, even across multiple geographic locations. The core manages configuration, monitoring, and overall coordination, while each node processes calls independently.

High Availability and Redundancy: The design is centered around a robust 3-node high-availability architecture. This involves clustering multiple servers across different availability zones, ensuring that there is no single point of failure. Each node in the cluster can independently handle call processing, and in the event of a failure, other nodes seamlessly take over to maintain continuous service. Failover mechanisms allow the system to reconnect to a standby node within seconds, ensuring minimal disruption.

Scalability: The VoIP architecture is designed to scale horizontally, allowing for the addition of more nodes as needed without affecting the system's performance. This is facilitated through a microservices-based design, enabling seamless expansion by simply adding more resources to the cluster.

Integration with SIP and WebRTC Protocols: The system integrates multiple industry-standard protocols, including SIP (Session Initiation Protocol) for VoIP and WebRTC for web-based communications. These protocols enable seamless communication across various devices, including phones, computers, and mobile devices. The system also supports multiple audio codecs, including Opus, G.711, and G.729, to provide high-quality audio over different network conditions.

Secure Communication: Security is a priority, with all communications between nodes encrypted using TLS (Transport Layer Security). Additionally, the system supports secure tunneling for remote connections, ensuring data integrity and confidentiality. Calls are encrypted end-to-end, and user authentication is managed through optional LDAP integration for secure access control.

Advanced Call Routing and Load Balancing: The system includes intelligent call routing capabilities, enabling calls to be directed based on various parameters such as user location, department, or availability. Load balancing ensures that no single node is overloaded, distributing calls evenly across all available resources to maintain optimal performance.

Customizable and Modular Design: The VoIP system is modular, allowing for easy integration with third-party systems, such as CAD or Logger software, databases, and communication tools. This flexibility ensures that the system can adapt to various organizational needs, with customization options available to meet specific business requirements.

Monitoring and Analytics: Real-time monitoring and reporting tools provide administrators with insights into call performance, system health, and user activity. This data is visualized through customizable dashboards, helping organizations make informed decisions based on accurate communication metrics.

This design ensures a resilient, scalable, and secure VoIP system that can adapt to various operational requirements, offering a robust solution for critical communication needs.

Complete P25 Interface

InterTalk Response: Comply.

Integration with LMR (land mobile radio) is one of InterTalk's core competencies/strengths, with well over 25 years of experience in deploying mission-critical dispatch console systems to public safety and critical infrastructure agencies that utilize analog and/or digital radio and telephony systems concurrently within their operations.

Our proposed Enlite dispatch console system can serve as a public safety grade radio dispatch console system. InterTalk can seamlessly integrate the radio/P25 system into the proposed Enlite console system, with additional licensing and hardware costs incurred. InterTalk is well-versed in P25 radio technology, and can interface into the existing P25 radio system -- we have done this with several high-profile customers on a large scale with our radio dispatch console system.

InterTalk is a member in good standing with the Project 25 Technology Interest Group (PTIG) and the TIA, and is among industry leaders in P25 standards suite compliance. InterTalk's dispatch console system supports the TIA-102.BAHA Fixed Station Interface (FSI) in both its digital (DFSI) and analog (AFSI) variants.

InterTalk actively supports many aspects of the standards-making process as well as many activities related to P25 advocacy throughout the public safety community. For example, as a member of PTIG, we have participated in many exhibits/trade shows showing multi-vendor interoperability through the CSSI/ISSI interface. We have also manned the PTIG booth at industry trade shows on many occasions and have answered technical and operational

questions from interested parties.

We participate with the TIA TR-8 group which has fifteen (15) subgroups. We attend all meetings and participate in the standards making proceedings. We also attend APIC APCO P25 Interface Committee.

InterTalk is actively involved with the ISSI/CSSI standards process including being represented at a number of groups by our Director of Technology, James Birchall, who is supported by several Engineers and Developers in-house at InterTalk. Our involvement includes providing input to new and existing standards as well as reviewing and commenting on updates to other's contributions.

It is crucial to note that InterTalk supports all efforts to move toward open and non-proprietary solutions through the development and ratification of technical standards such as those put forth by the TIA. Such standards open the marketplace to true competition that will help drive down the prices that agencies pay and will foster innovation and design excellence.

WIRELINE CONNECTIVITY (proposed): Wireline connectivity to the P25 radio system provides the most robust feature set and system capabilities. Wireline connectivity refers to a direct, "wireline" ethernet connection between the RFSS in place and our console system core. Each P25 connection is handled by the InterTalk P25 Supervisor (IPS) server, and in the case of a CSSI setup, an InterTalk CSSI Gateway (ICG) is also required. Each IPS server can handle up to 24 simultaneous talkpaths. AES and DES encryption is provided by USB dongles which are connected to each of the IPS servers in the primary (and secondary, if desired for geo-redundancy/diversity) locations. The dongle supports up to 24 simultaneous/concurrent 2-way talkpaths.

Additional P25 talkgroups can be added through the addition of talkpath licenses (one-time fee). Each InterTalk P25 Server (IPS) can handle up to 24 simultaneous talkpaths; if additional talkpaths are required beyond 24, an additional IPS application license, talkpaths, and encryption dongle would need to be purchased on a one-time basis for capacity expansion.

The standard P25 features the console provides include the following:

FEATURE		P25 TRUNKED (CSSI)	P25 CONVENTIONAL (DFSI)
VOICE	Unaddressed Voice Call	✔	N/A
	Voice Group Call	✔	✔
	Announcement Group Call	N/A	✔
	Broadcast Voice Call	N/A	✔
	System Voice Call	N/A	✔
	Individual (Unit-to-Unit) Call	✔	✔

	Emergency Group Call	✔	✔
	Emergency Unit Call	✔	✔
	Unit ID	✔	✔
	Call Prioritization	✔	✔
	Call Pre-emption	✔	✔
SUPPLEMENTARY	Call Interrupt	✔	✔
	Emergency Alarm	✔	✔
	Emergency Alarm Cancel	✔	✔
	Group Emergency Cancel	✔	✔
	Talking Party Identification	✔	✔
	Discreet Listening	✔	✔
	Radio Unit Monitoring	N/A	✔
	Audible Signaling	N/A	✔
	Radio Inhibit/Uninhibit	N/A	✔
	Radio Check	N/A	✔
	Status Request	N/A	✔
	Status Update	N/A	✔
	Call Alert	N/A	✔
	Short Messaging	N/A	✔
	Radio Detach	N/A	✔
	AES/DES Encryption	✔	✔
CONSOLE	Console Priority	✔	✔
	Registration	✔	✔
	Cross-Patching	✔	✔

(Optional, not proposed/priced) CONTROL STATION INTERFACE CONNECTIVITY: Also

known as a “donor radio interface” or “control head interface”, our Enlite dispatch console systems can connect to a given P25 radio system wirelessly through donor radios. For P25 systems, InterTalk currently supports the following donor radio models:

- Tait TM9400
- Kenwood NX5700/5800/5900

InterTalk uses a wireless console interface with a connection to the Sentinel IP Radio Gateway (aka, “endpoint”, which serves as InterTalk’s analog-to-IP conversation hardware). The console communicates with TM9400 or NX5800 control station radios through the InterTalk-manufactured Sentinel IP Radio Gateway. In addition to standard console features such as Select, Unselect, Multi-Select, Patch, and Mute, InterTalk supports the following for TM9400 control station endpoints:

- Channel/Frequency Change
- Zone Select
- PTT ID / Alias
- Emergency Calls/State

The TM9400 and/or NX5800 mobile radio are interfaced with the InterTalk Sentinel IP Radio Gateway via USB and 4-wire connection for remote base/control station fixed installations. InterTalk systems communicate with these radios in analog and P25 modes. A DB-15 serial to USB cable between Sentinel and the radio is used to pass control signals.

No PC or Server requirement / LINX Based design

InterTalk Response: Comply.

InterTalk’s analog integrations (analog radio and FXO telephone) must be terminated physically on-premises but provide network interfaces to convey that data to/from InterTalk’s Logistics Server (ILS) via standard IP networking.

InterTalk’s Core uses containers on modern Linux. Those containers may be hosted on customer infrastructure or on infrastructure as part of your system hardware (note that we can also host them on your behalf in Amazon’s Data Centers (AWS, cloud) if desired in the future, should Hammond desire a cloud-connected console system allowing for full remote/mobile capabilties).

InterTalk’s Enlite frontend is delivered via a Chromium-derived browser (Google Chrome, Microsoft Edge among other Chromium-based browsers) to any device that can run the browser. Some advanced functionality related to peripherals or to audio routing may not be available on all platforms (eg, MacOS).

No proprietary Wiring

InterTalk Response: Comply.

Our system is designed to avoid the use of proprietary wiring wherever possible. We prioritize the use of Commercial Off-The-Shelf (COTS) components and standardized technologies to ensure flexibility, scalability, and ease of maintenance.

InterTalk's solutions are built on an open architecture, allowing them to integrate seamlessly with existing infrastructure without requiring specialized or proprietary cables. For example:

- **Ethernet Connections:** All communication between the dispatch console, radio gateways, and other system components is done via standard Ethernet connections. This allows for easy integration with existing IP networks and minimizes the need for unique or custom cabling.
- **4-Wire and Control Station Connectivity:** The system supports 4-wire analog connections for simpler setups and uses standard interfaces for PTT, transmit, and receive functionality. Similarly, the use of control stations (donor radios) leverages existing radio connections without the need for specialized wiring.
- **Modular and Upgradable Design:** The modular nature of the system ensures that components can be easily replaced or upgraded without needing to reconfigure wiring, making future enhancements straightforward.

By avoiding proprietary wiring, we ensure that the system can be deployed and maintained with minimal disruption, reducing overall costs and allowing for seamless upgrades and integrations with other third party systems.

No limit to the number of positions to be added at a later date

InterTalk Response: Comply.

Our system architecture is designed to be highly scalable, allowing for an unlimited number of dispatch positions to be added as needed. This flexibility ensures that the system can grow alongside your organization's needs without requiring major infrastructure changes or additional proprietary hardware. Key features supporting this scalability include:

- **Modular Design:** The system employs a modular design, where each dispatch console operates independently within a networked environment. This means new positions can be easily added by connecting additional consoles to the existing network, without interrupting current operations. Each new position integrates seamlessly with the system, leveraging the same communication protocols and interfaces.
- **Distributed and Scalable Architecture:** Our platform uses a distributed architecture that supports horizontal scaling. This means additional dispatch positions can be deployed at any time, across multiple locations if necessary, without performance

degradation. The system can accommodate growth organically, whether you need to add a few positions or expand significantly over time.

- **Centralized Configuration and Management:** Adding new positions is straightforward, thanks to centralized management tools. System administrators can quickly configure new consoles, assign user roles, and integrate them into existing workflows. This reduces the complexity of deployment and ensures that each new position is ready for use with minimal setup time. Adding an additional operator license is simply a matter of purchasing another Enlite License as a 1-time fee.

- **Integration with Existing Infrastructure:** The system's compatibility with standard IP networks means that adding new dispatch positions does not require extensive changes to your existing IT infrastructure. New consoles can be set up using standard Ethernet connections, making expansion cost-effective and efficient.

By designing the system to scale without limitations, we ensure that the City of Hammond can grow and adapt its communication capabilities as needed, providing long-term value and flexibility.

SIP based VoIP Telephone Functionality

InterTalk Response: Comply.

Our system's SIP-based VoIP telephone functionality is designed to provide robust, flexible, and secure communication capabilities. It includes the following key features:

- **SIP Trunk Integration:** The Enlite console system is fully compatible with industry-standard SIP (Session Initiation Protocol) trunks, allowing for seamless integration with existing VoIP infrastructures. The system can connect to various external phone lines, including physical (POTS, copper), virtual (SIP, CUCM), and proprietary interconnections like ASTRO25 and P25. This flexibility ensures compatibility across different telephony environments, enabling both inbound and outbound call handling.

- **Call Handling and Control:** The Enlite system enables a wide range of call controls, including placing calls via digital pads, speed dials, and pre-configured buttons. It supports both attended (warm) and unattended (cold) call transfers, call queuing, and on-hold functionality. Operators can manage calls directly from their consoles, with capabilities to patch, forward, and transfer calls to various destinations, including external contacts and other dispatch positions. The system supports both conference calling and individual line management, making it versatile for multiple communication scenarios. The SIP telephony infrastructure is designed to be scalable and resilient. Using a high-availability configuration, the system can connect to multiple SIP proxies and trunking services, ensuring continuity even in case of server failure. The system supports load balancing, distributing calls across available resources to maintain performance during peak usage periods .

- **Cisco Unified Call Manager (CUCM):** The Enlite console system is capable of seamless communication with CUCM via SIP trunks. This integration allows users to manage calls efficiently, with access to all necessary metadata, such as caller ID, call status, and priority indicators. The system can interact with existing dial plans, enabling users to make local, long-distance, and international calls as required .
- **Contact Management and Caller ID:** The system includes a comprehensive contact database with support for up to 10,000 entries. Contacts can be organized into groups and tagged for quick access, with the ability to store multiple phone numbers per entry. During incoming calls, the system uses caller ID to reference this database and display relevant contact information on the console. Outbound calls can also be configured to show or hide caller ID details as per business requirements
- **Conference Call Management:** Enlite offers setup and management of conference calls, with options to add participants on the fly, monitor call members, and control call settings like muting and hold.
- **Emergency Call Handling:** Enhanced handling of emergency calls with priority queuing, customizable call routing, and integration with emergency service systems.
- **Remote Access Support:** The system can be accessed remotely through secure SIP connections, enabling operators to manage calls from different locations, including home offices or mobile setups .

Direct IP Steaming of console position audio to VoIP capable recorders

InterTalk Response: Comply.

The InterTalk ILS core provides a SIPREC integration for analog and digital radio recordings. This integration provides access to audio and associated metadata. The InterTalk Enlite API provides a Secure File Transfer Protocol (SFTP) from the Enlite Core to each console recorder endpoint which transfers the recorded audio and associated metadata when those are sent from the console position to the server.

Supports AES, DES and FIPS 140-2 compliant options

InterTalk Response: Partial Comply.

The Enlite dispatch console system supports FIPS 140-2 HSM (dongles), and our P25 core uses AES-256 encryption for all Conventional and Trunked P25 communications used by Hammond.

NENA Telephone Interface

InterTalk Response: Comply.

InterTalk provides a custom USB to Telephone Headset Adapter interface powered entirely from the USB which physically connects to a desktop telephone connected to NENA compliant telephone infrastructure at a console position.

This interface can transmit and receive 600Ω audio and includes line echo cancellation specifically for interacting with pre-existing telephone audio through the headset adapter port (often RJ11).

The off-hook sensor generates USB HID reports based on a contact closure which may be configured in Enlite to execute customised behaviour (indicate a call, operate auxiliary IO devices like lights, route audio from one place to another, etc.) when the telephone indicates that the phone has been taken off-hook.

Supports ALL Page and Selective Paging

InterTalk Response: Comply.

Enlite provides extensive tone paging capabilities. All tone formats are supported. Stacked paging (including stacked simultaneous paging) is supported across multiple simultaneous transmit resources. All paging tones are generated at the radio endpoints, not in the core equipment, so tone quality is not affected by network performance. Tone and voice paging makes use of an operator-recorded message so the user does not have to repeat themselves when sending multiple pages or when repeating the last page.

All paging activity is logged in the system's message log allowing administrators to check for paging times, completeness and accuracy.

Paging formats supported include QC-I and II, 5/6 Tone, EIA, 2-tone/4-tone, Selcal, DTMF.

Console Instant Recorder re-call (last 50 transmissions)

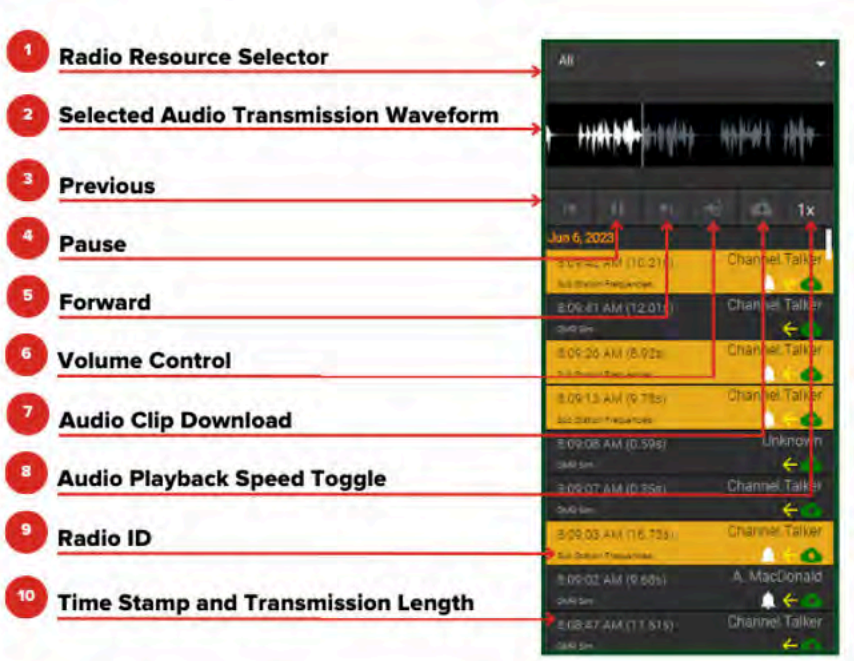
InterTalk Response: Comply.

All audio flowing through the Enlite console is recorded in the Instant Recall Recorder ("IRR"). This provides a unique recording of radio/phone audio as received by the operator workstation. Enlite IRR is recorded in the same durable datastore and is fault redundant.

Enlite has been designed to retain at least 90 days of IRR audio recording, but can be provisioned to retain more and for longer if needed. All audio files can be downloaded directly through the console position in a WEBA file format capable of playback using freely-available, open-source software such as VLC Media Player, or Windows Media Player if the appropriate codecs are installed.

The IRR can be configured to capture incoming audio only or both outgoing and incoming. A dispatcher can display all channels or select a specific channel's IRR records.

A breakdown of IRR layout/buttons is below:



Multiple Screen Tabs

InterTalk Response: Comply.

The Enlite console system employs a feature called "Missions" to enhance operational efficiency and user experience. Missions are customizable, tab-based workspaces within the console interface, designed to organize communication resources, tasks, and tools according to specific operational needs. Each Mission can be configured to handle different aspects of an operator's duties, allowing for seamless multitasking and quick access to essential controls. Key features include:

- **Customizable Workspaces:** Missions are essentially customizable tabs that can be tailored to different communication scenarios or tasks. Operators can set up multiple Missions for different purposes, such as managing emergency calls, handling routine dispatch, or monitoring specific radio channels. This flexibility allows users to switch between tasks without losing track of their primary operations.

- **Multi-Resource Management:** Each Mission can be configured to display and manage various communication resources, such as telephony lines, radio channels, speed dials, paging resources, and auxiliary inputs/outputs. This means that operators

can handle multiple resources from a single, organized interface. For example, an operator might have one Mission dedicated to VoIP calls and another to P25 radio communications, allowing them to seamlessly manage both without switching systems.

- **Quick Access and Efficiency:** The tab-based layout ensures that operators can quickly switch between different Missions, reducing the time spent navigating the interface. This design is particularly useful in high-pressure environments, where speed and accuracy are critical. Operators can configure hotkeys or quick-access buttons to move between Missions, further enhancing their efficiency.

- **Role-Based Configuration:** Administrators can pre-configure Missions based on specific roles or operational needs. For example, a supervisor might have a Mission with oversight tools and call logs, while a field operator might have Missions set up for direct communication with field units. This role-based approach ensures that each user has access to the tools and resources most relevant to their job, without cluttering the interface with unnecessary options.

- **Real-Time Updates and Monitoring:** Missions are designed to update in real-time, providing operators with up-to-date information on call status, active channels, and other vital data. This dynamic functionality helps ensure that operators can respond promptly to changing situations, enhancing overall situational awareness.

Administrative Log-in and/or individual user log-in

InterTalk Response: Comply.

The Enlite system is designed to provide very granular user management and administrative controls, ensuring secure and efficient operation of the system. The key aspects include:

- **User Authentication and Access Control:** The system employs secure user authentication protocols to manage login credentials and associated capabilities with that login. Enlite can also optionally integrate with enterprise-level identity management systems, such as Lightweight Directory Access Protocol (LDAP).

- **Role-Based Access Control (RBAC):** Enlite supports role-based access control, where each user is assigned a role that dictates their permissions within the system. Administrators can define roles and assign them specific rights, such as access to certain features, communication resources, and configuration tools. This ensures that users can only access the functions necessary for their roles, enhancing security and operational efficiency.

- **Granular Permission Settings:** The system allows for detailed permission settings, enabling administrators to customize access at a granular level. This includes the ability to configure which features, channels, or systems a user can interact with, and what actions they are permitted to perform (eg, initiate calls, patch lines, manage

talkgroups). This flexibility ensures that different teams, such as operators, supervisors, and IT personnel, have appropriate levels of access based on their responsibilities.

- **Centralized Administration:** Enlite provides a centralized administrative interface for managing all user accounts and system configurations. This interface enables administrators to add, modify, or remove users; set up role permissions, and manage system resources. The centralized control simplifies user management across multiple consoles and locations, ensuring consistent and secure operations.

- **Audit Trails and Logging:** To maintain security and accountability, the system maintains detailed logs of user activities. This includes login attempts, configuration changes, and resource usage. Administrators can review these logs to monitor system use, identify potential security issues, and ensure compliance with operational protocols.

Fully Customizable GUI for screen layout design

InterTalk Response: Comply. InterTalk considers the Enlite UX (user experience, aka the GUI) to be one of the most, if not the most, flexible UX available in the marketplace today.

The InterTalk Enlite Dispatch Console System provides its users with an advanced, intuitive communications tool that will greatly enhance their productivity, reduce errors and decrease dispatcher fatigue. It does this through a feature-rich graphical user interface that is easy to use, customizable and, frankly, beautiful to behold. The Enlite UX offers a rich set of configurable permissions to allow users, supervisors and administrators to receive only the functionality that they need without being exposed to additional functionality that they do not.

InterTalk Enlite provides a fully configurable UX. The System Administrator can set all aspects of the display including available resource ‘widgets’, functionality available to a dispatcher, and general layout attributes, icon size and placement, functionality tied to AUX I/O buttons, telephone dial-out numbers tied to one-button speed-dials, etc. In addition, the administrator can permit or disallow individual dispatchers to change their own screen.

Enlite has incorporated “lessons learned” from all previous projects in its latest UX design and in the overall system architectural approach and software. For example, while color coding is an efficient way to indicate system status to the console users, InterTalk recognizes that color blindness can be a contributing factor to dispatch errors. The UX therefore includes icon representations along with color cues. Experience has found that dispatchers work with fewer errors when the on-screen buttons, icons and indicators are placed on screen in a consistent manner, therefore, while InterTalk allows the SysAdmin to make these changes, we recommend that the dispatchers and supervisors not be permitted to change their screen layouts.

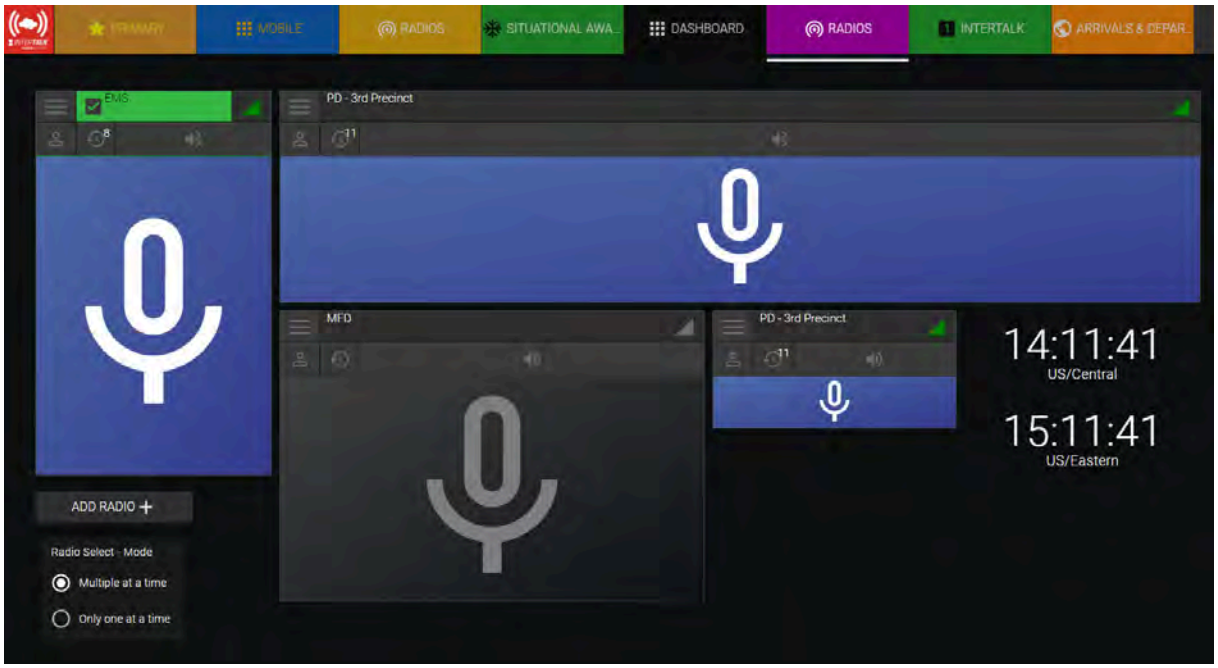
Other UX design features that are designed to reduce and/or mitigate user errors include:

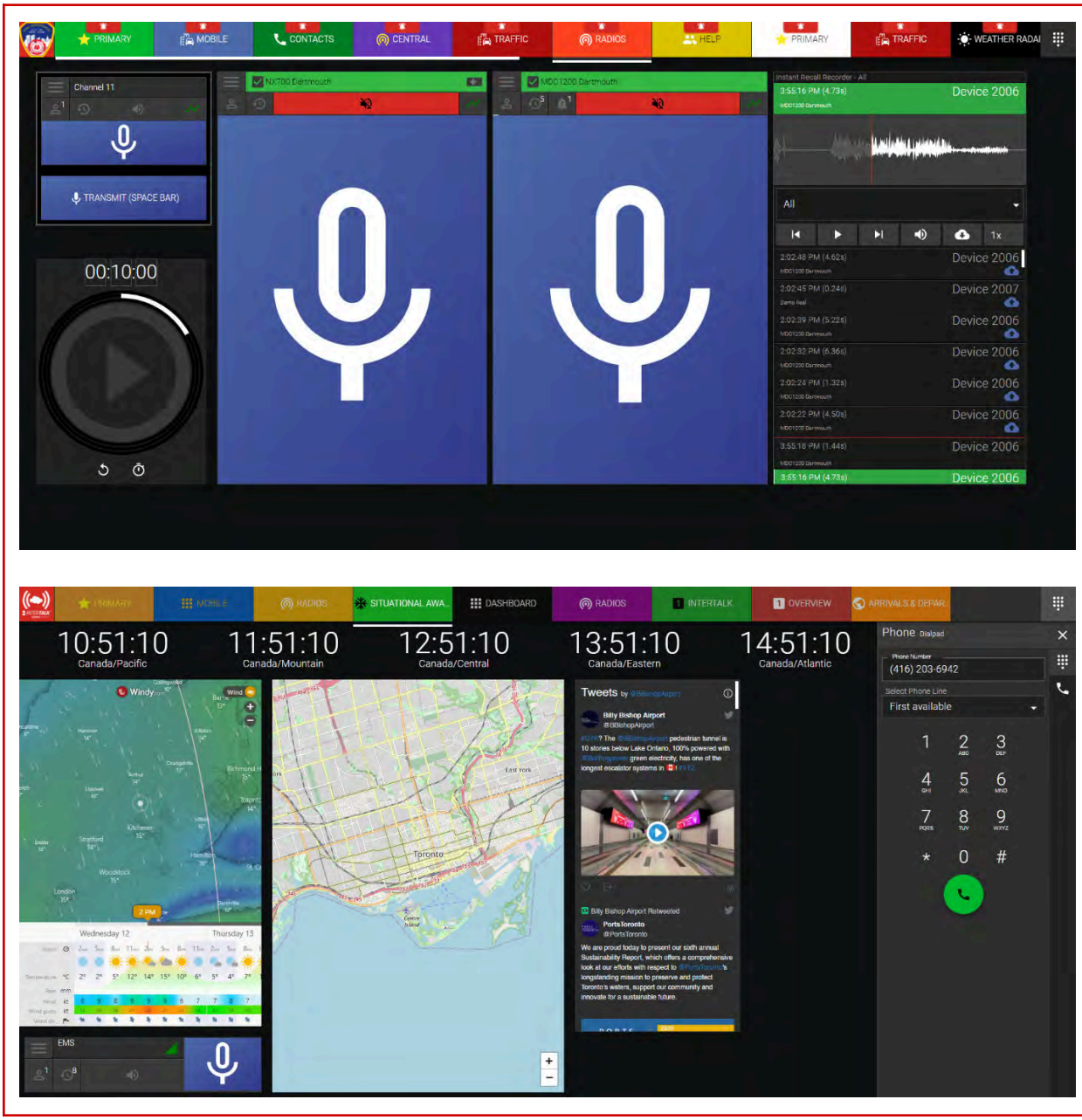
- Color coding of buttons and icons
- Widget sizing and positioning by rate of usage/importance
- No keystrokes that perform a different function in different windows
- Common layout functionality between sites/agencies, login roles and screens for widget contents as well as other on-screen controls and indicators
- Sensible warnings and alerts to guard against misinterpretation

The Enlite UX is responsive to the screen size of the devices it runs on – be that a small smartphone screen in portrait mode or a giant 8K Television and everything in between. Individual screen/tab configurations (termed “Missions”) can be pre-configured using the built-in What You See Is What You Get (WYSIWYG) editor and then made available to other dispatchers according to a granular permissions system. Dispatchers can have a locked-down strategic mission for monitoring an area and then can launch new tactical missions that are focused on more complicated operations when the need arises. Each Mission created can be tailored exactly to the desired workflow, feature set or use case.

The built-in UX editor allows full control over what tools and functions are available on each mission including their position, size, and in many cases, color options. Each mission can further be customized using permissions. For example, if an element or feature is present on a dispatcher's mission but the dispatcher does not have permission for the feature, it would be hidden from them but all the features they have permission for would be visible. Role permissions can be customized and new roles can be created as needed for further flexibility.

A sample screenshot displaying the various sizes, buttons, locations, etc. of a radio resource widget is displayed below -- note again, everything below can be customized to preference, right to the particular buttons and exact layout of the radio/voice resource desired.





Cross Patching

InterTalk Response: Comply.

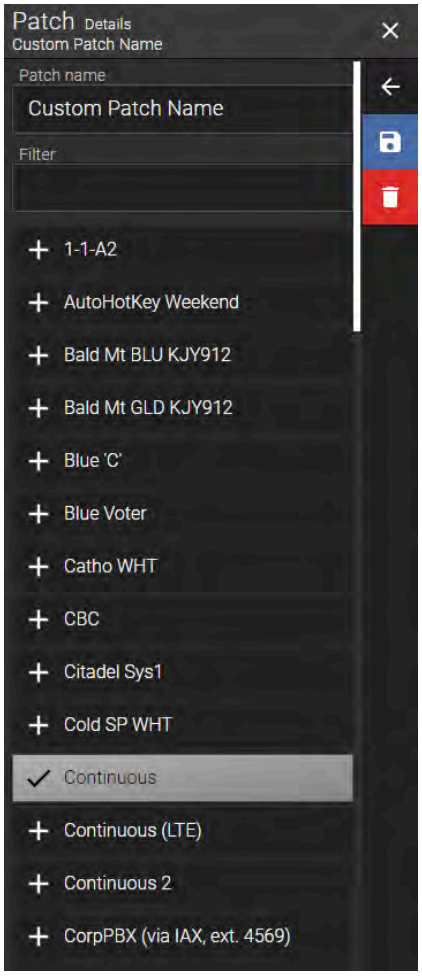
Patching in Enlite is configured via the Quick Access Menu. A custom name can be entered for every new patch being created. A list of all available resources is displayed to be added to the patch. There is no upper limit to the number of resources that can be added to a single patch, however, any resource can only be in one (1) active patch at a time.

Removing a resource from a patch is either done by editing the patch and removing the resource or by deactivating the patch and creating a new patch with different resources (with the right permissions).

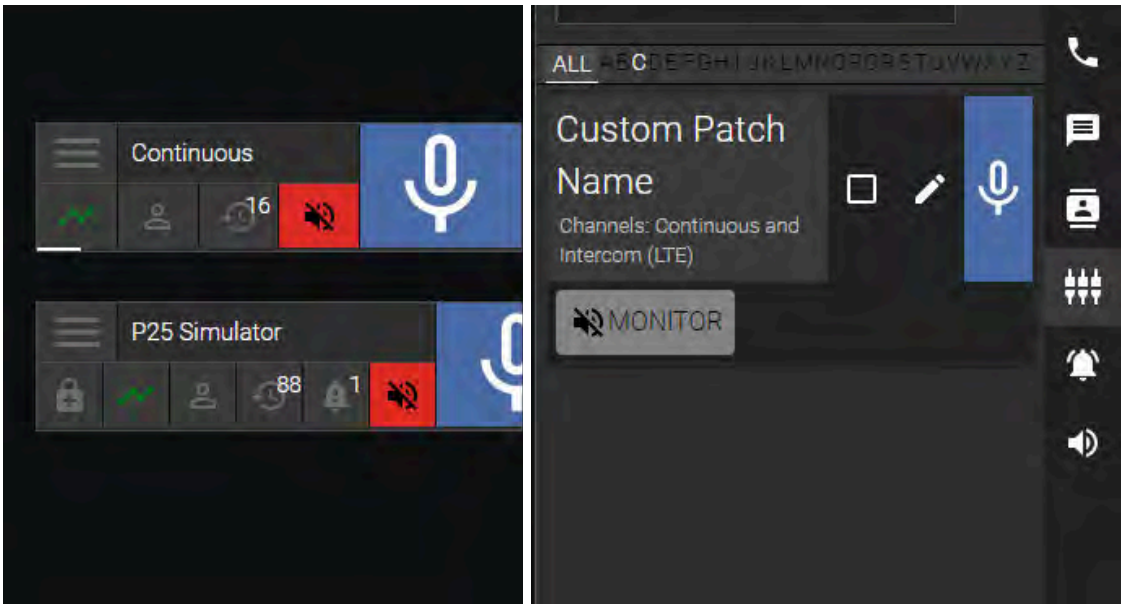
A patch is created in the INACTIVE state by default. The console operator can enable the patch by checking the checkbox associated with the patch.

A Transmit button is associated with every patch to allow the console operator to PTT on the patch and all of its members. A patch Monitor button is also available to allow the console operator to listen to the patch audio without having to add the patch members to the active Mission. This can be very beneficial when screen real estate is limited.

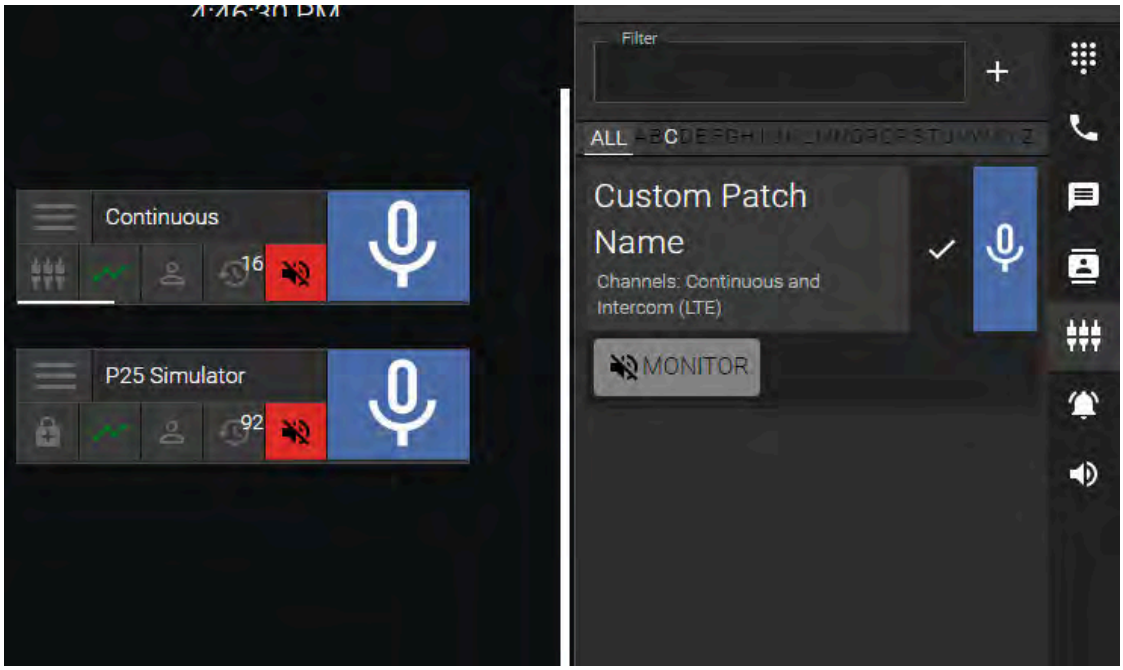
Using patches does not push the console into a busy state, and the console operator can perform all other duties within the console while a patch is active.



(Patch setup)



(Patch menu with INACTIVE patch)



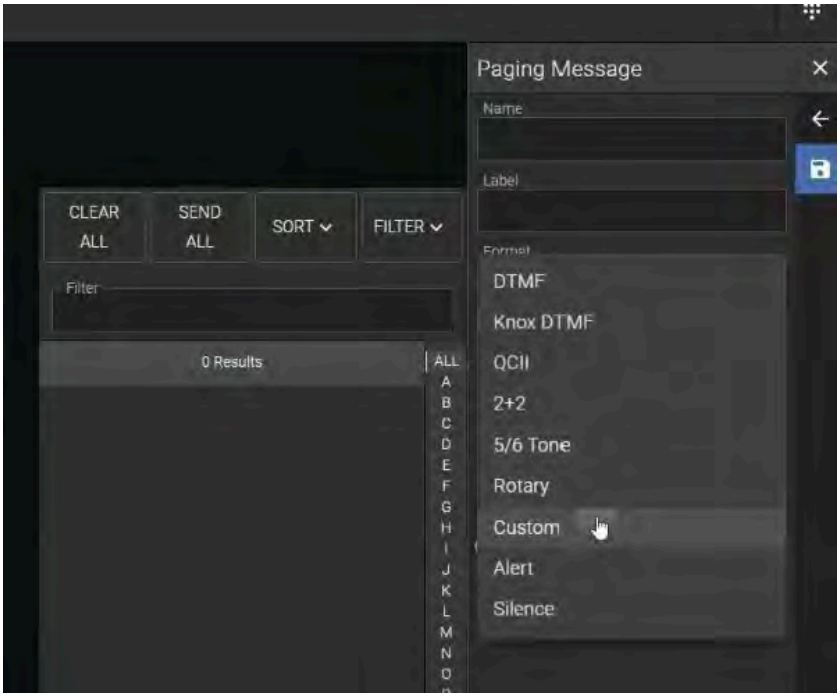
(Patch menu with ACTIVE patch)

Two tone sequential paging stacked with capability to tone out multiple fire departments

InterTalk Response: Comply.

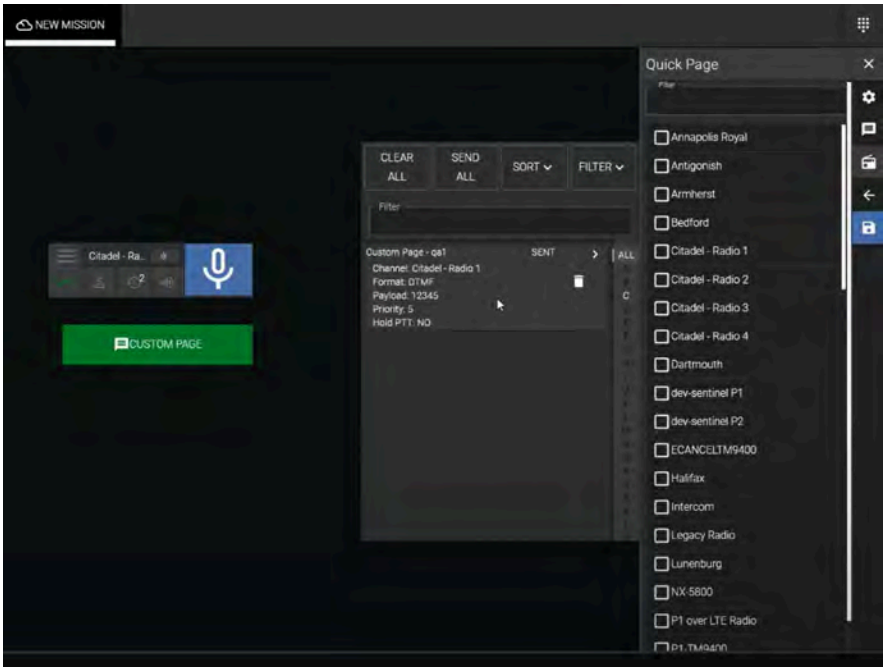
Enlite supports 2-tone sequential paging stacks to send out to multiple entities. There are two primary locations within Enlite to configure paging, both of which are located in the upper-lefthand options menu. Paging configuration, stacks, etc. are defined here:

Paging Messages: This is where the required pages are set. Operator enters the Name of the page, any associated Labels with the page (eg, District X, Firehall Y, and so forth), Format (DTMF, Knox DTMF, Quick-Call II, 2+2, 5/6 Tone, Rotary, Custom, Alert, Silence), and for Custom Pages, the user enters the Payload code and Priority number associated with the custom page.



Note that on the backend (core) of the Enlite console system within the InterTalk Logistics Supervisor (ILS) web-based configuration page, Custom Pages can be created provided the user has the appropriate system credentials to create such pages. The user simply navigates to the “Tone Encoder” submenu > Custom Paging > and enters the required detail, including Tone Type (eg, Single Tone, Tone Pair, Silence, etc. built up as needed), Frequency, Level, Duration in ms, and Gap in ms. From there, save the Custom Pages created and they are then available for use within the Enlite frontend environment. A sample screenshot of this follows:

Quick Pages: After setting up the Paging Message(s), the user can add a Quick Page. This selects a page(s) that have been previously configured in the Paging Messages block, choosing which radio(s) the page will transmit to. Once the desired pages to be used are selected from the Quick Pages list, associated “Speed DIal” buttons are created for placement and use on the Operator’s screen. In the screenshot presented below, the Quick Page list is shown on the handhand ‘flyout’ menu, and the resulting “Quick Page Speed Dial” button is shown on the left in green. These buttons can be placed anywhere on a screen, and can be placed across multiple Mission tabs as needed. Also note that multiple pages can be stacked and transmission status is shown in the middle ‘box’ on the screenshot below.



3 - Operator Positions, each including:

1. 2 Speakers per Position (Select/Unselect) w/capability of up to 8
2. 1 Headset Jack per Position
3. 1 Footswitch per Position
4. 1 Desk Microphone per Position
5. 1 22” Monitor (Optional Touch Screen Upgrade Available)
6. 1 Operator Software License

InterTalk Response: Comply.

The Enlite console system is designed with a core emphasis on flexibility, scalability, and ease of integration, and it primarily uses Commercial Off-The-Shelf (COTS) hardware and peripherals. By leveraging industry-standard components, the Enlite system ensures interoperability, greatly simplifies maintenance, and provides long-term flexibility.

Each InterTalk Enlite Dispatch Console uses commercial off-the-shelf components and can be configured in a multitude of ways. Below are the options available with respect to peripherals for the Enlite system; we advise of all options merely to demonstrate the flexibility the console offers. Our proposed peripherals are indicated in italics:

Display Sources:

- PC connected touch monitors
- *PC connected non-touch monitors (proposed, optional touchscreen version available, not quoted)*

Desktop Speakers, with support for up to 9.1 ‘Surround Sound’ (nine speakers) speaker setups:

- *USB speakers (A/C powered) (proposed)*
- USB Bus Powered speakers
- 3.5mm speakers (optionally A/C Powered)
- Bluetooth speakers
- DECT speakers with USB base station
- RCA speakers and associated sound card
- USB DAC and associated AC powered balanced speakers

Desktop Microphones:

- *USB Microphones (proposed)*
- 3.5mm Microphones
- Bluetooth Microphones
- DECT Microphones with base station
- RCA balanced microphones and associated sound cards
- USB DAC with microphone pre-amp

Foot pedal/Handswitch:

- *USB connected (HID compliant) (proposed)*

- Jackbox connected TRS ¼”
- Jackbox connected inline PJ7

Keyboard:
- USB Wireless Keyboard
- Bluetooth Wireless Keyboard
- *USB connected keyboard (proposed)*
- PS2 connected keyboard

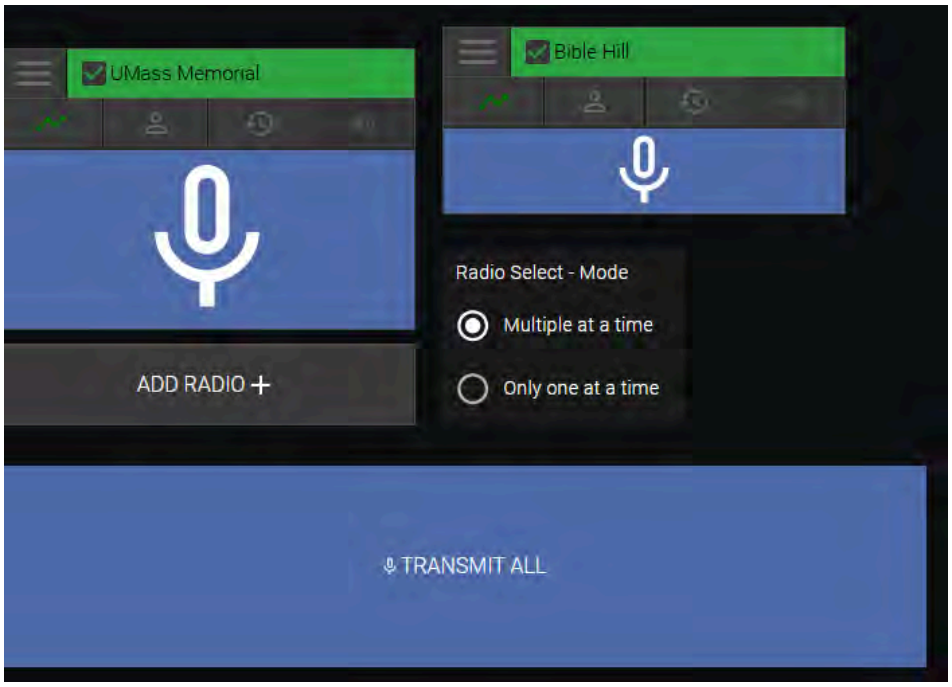
Mouse:
- *USB Wired mouse/trackball (supported, not priced)*
- USB Wireless mouse
- Bluetooth mouse
- PS2 mouse

Each Position is provided with:

1. NENA Protocol Telco Headset Interface
2. Crosspatch
3. Simul-Select Transmit
4. Multi-functional RAPID recall recorder (Telephone/Radio)
5. Mouse/Trackball control
6. 1 - Pre-Wired 36” Rack Assembly including Dual Card Cage Assembly, Power Supply, Backplane Daughterboard, Punch-block, Cable Assembly and Cisco Ethernet Switch
7. 20 - Radio Line Interface Cards
8. Delivery, Installation, and On-site Labor

InterTalk Response: Comply.

- NENA Protocol Telco Headset Interface
  - Comply, previously described.
- Crosspatch
  - Comply, previously described
- Simul-Select Transmit
  - Comply, the Enlite console supports Simul-Select Transmit. Radio resources can be toggled via on-screen widget if desired, to allow for multi-select of radio resources very easily by simply clicking in the “header” area of the radio resource, which turns the radio resource green, as depicted below. From there, all selected radio resources can be PTT’d using the on-screen TRANSMIT ALL button.



- Multi-functional RAPID recall recorder (Telephone/Radio)
  - Comply, previously described
- Mouse/Trackball control
  - Comply, the Enlite console position can be controlled via mouse/trackball control. Enlite also supports touchscreen operation in parallel with the mouse/trackball, and also supports keyboard functionality as well, such as mapping shortcuts and buttons to keys.
- 1 - Pre-Wired 36” Rack Assembly including Dual Card Cage Assembly, Power Supply, Backplane Daughterboard, Punch-block, Cable Assembly and Cisco Ethernet Switch
  - Comply.
- 20 - Radio Line Interface Cards
  - Comply, InterTalk is proposing our Sentinel IP Radio Gateways as a means of interfacing to Hammond’s analog radios via 4-wire connection. The Sentinel IP Radio Gateway is a versatile device designed to interface analog radio systems with IP networks, facilitating seamless communication across diverse platforms. Sentinel’s key capabilities include:
    - Analog-to-IP Conversion: The Sentinel connects 2/4/6-wire radios to IP networks, enabling the transmission of audio over IP. This integration allows for the extension of radio communications over broader networks, enhancing coverage and flexibility. Each Sentinel provides two (2) radio ports.

- Remote Control of Base Stations: Sentinel supports local PTT/COR connections and Tone Remote Control (TRC), providing operators with the ability to manage base stations remotely. This feature streamlines operations and reduces the need for physical presence at radio sites.

- Support for Multiple Base Stations: The gateway can control up to two (2) base stations per controller using a single IP connection, utilizing TCP/IP for control and RTP/UDP/IP for voice streaming. This capability ensures efficient management of multiple radio channels through a unified interface.

- Parallel Operation with Existing Equipment: The Sentinel is designed to integrate seamlessly with existing dispatch systems, operating in parallel with other equipment. This design minimizes downtime during installation and ensures continuity of operations.

- Compact Form Factor: Sentinel's smaller size conserves valuable space in server racks, making it suitable for environments where space is at a premium.

Three (3) Sentinels (supporting up to six radios) across 1U

13 front, 13 rear (52 radios/3U rack space). All Sentinels on the same side of the rack would be mounted to a single 3U panel.

- Advanced Features: The gateway supports optional peer-to-peer receiver voting, transmitter steering, and unit identification when connected via IP. These features enhance the functionality and efficiency of radio networks.

- Flexible Deployment: The Sentinel operates on an embedded open-source Linux operating system, providing flexibility for customization to meet specific operational requirements. Its modern technology includes a quad-core, 64-bit ARM-based processor operating at 1.2GHz, with 1GB SDRAM and expandable eMMC flash memory up to 32GB, ensuring robust performance.

- Delivery, Installation, and On-site Labor
  - Comply, InterTalk is a full-service dispatch console manufacturer that provides all delivery, install, and on-site labor services with all direct partners we work with. Our Project Methodology is included as **ATTACHMENT A**.


INTERTALK™

ATTACHMENT A

Project Management Methodology

InterTalk Project Delivery Methodology

Document Version	003
Document Reviewer	Angela Kerr, Mike Barnett, Kevin Brown, Jeff Kelly
Document Approver	Mishkin Cyr

Delivery of an Enlite Project

Introduction

InterTalk's Enlite product can be deployed either as a cloud-hosted solution or an **on-premises** solution. InterTalk uses Amazon Web Services (AWS) Elastic Compute Cloud (EC2) to run the Enlite Enterprise solution. InterTalk also offers an **on-prem** (proposed) solution whereby the hardware and software are provided by InterTalk and the system is configured to address customer use cases.

The Enlite product follows a quarterly product roadmap with new features developed and rolled out to InterTalk customers on a quarterly basis.

The InterTalk Logistic Supervisor (ILS) product follows its own roadmap with intersections to the Enlite roadmap when needed, the project schedule will include the product roadmap placement for Enlite features vs. ILS features with a focus on delivering and demonstrating a holistic feature to the end customer regardless of where the logic/code of this feature resides. InterTalk Enlite product offers an API for customers to develop their own add-on where the ILS product doesn't offer this functionality.

Project Flow

Project Kickoff

The project starts with the InterTalk team working with the Hammond team to initiate a kickoff meeting. This meeting focuses on:

- Introducing the teams,
- Agreeing on roles and responsibilities (based on the Roles & Responsibility matrix),
- Aligning on the high-level scope
- Aligning on assumptions and expectations

- Discussing change management and change management processes,
- Highlighting early identified risks and agreeing on responses,
- Agreeing on communication frequency and medium
- Reviewing financial obligations
- and finally, highlighting the initial project schedule.

For RFP Responses: At this point, the InterTalk project manager will use the agreement and decisions from the meeting to generate a project management plan to govern the delivery of the project, this plan will have multiple components and will be updated as needed. It will be shared with the Hammond team to ensure alignment.

Deliverable: Project Management Plan (if medium to large project)

Based on the Initial Project Schedule and the Project Management Plan, the following activities will start **simultaneously** or in **partial sequence**:

- Elaborate Use Case Identification & Documentation
- System Architecture Confirmation
- System Environment Preparation and Setup

Elaborate Use Case Identification & Documentation

Enlite provides a plethora of features and functions that can be adjusted and configured to serve particular use cases for different customers. Based on the proposal from InterTalk to the City of Hammond (RFP), InterTalk's team will work with system users and technical staff to better understand and detail their use cases. Each use case will have its own ID that will be used as a reference to link the acceptance of the use case and the test results that were highlighted as "Comply" in the response. A demo will be provided using InterTalk's demo environment or the City of Hammond's demo environment to show the Hammond team the exact implementation of their use cases using the unique identifiers of the use cases, once a use case is declared fully compliant with the Hammond requirement, it will be highlighted as accepted in this document. All the use cases will be documented as a section in a customer-specific document called Detailed Design, which will be reviewed and approved by the Hammond team. Both the InterTalk and Hammond teams are responsible for all use cases mentioned in the RFP and are transferred 100% to this document, any missing use cases will require a change request to be added to the Detailed Design once this document is approved. A Detailed Design Document which will include documented use cases will lay the foundation for acceptance testing.

Deliverable: Customer Use Cases (Detailed Design Document)

During this process, if the Hammond team requests a feature or a flow that is not currently supported in Enlite and obtained through configuration, this request will follow

InterTalk's Roadmap Feature Placement Request. The mentioned process also covers custom features development and delivery if purchased by Hammond. Delivery of all custom features will follow the **Custom Features Delivery.**

Security & Regulatory Requirements

All project/system Security and Regulatory requirements need to be collected and documented as part of the Detailed Design Document. (It would be good to get a blurb from MJ on the security of Enlite)

Feature Internal Design (InterTalk)

After the use cases are completed and signed off, InterTalk development team will decide on and complete a software design for any new features that differ from the standard Enlite product, the configuration steps and the description of these features will be added to the Enlite Help documentation available with Enlite for reference.

System Architecture Confirmation

The initial System Architecture will be provided to Hammond upon successful award of the project. The architecture identifies integration points with radio systems (Analog and Digital), logging recorders (if applicable), and other third-party systems. Upon the start of the project, the InterTalk team and Hammond's team will review the architecture and its implementation approach (on-premises for the purposes of this project) and agree if any changes are necessary. The final agreed-upon architecture will be documented in a section in a customer-specific document called Detailed Design, which will be reviewed and approved by the Hammond team. Any changes to this architecture after the agreement will follow the **Change Request**.

Deliverable: System Architecture (Detailed Design Document)

System Environment Preparation & Setup

The console system is composed of several hardware components and InterTalk software.

- The hardware can be InterTalk's proprietary hardware running InterTalk proprietary software (eg, gateways integrating the system with Radio systems) that will be installed at the customer site and serve as the demarcation point between the console system and other systems.
- Commercial-off-the-Shelf (COTS) servers running InterTalk software that will be later installed at the customer site and integrated into its network, or

- AWS Elastic Compute Cloud (EC2) instance *(not proposed)* provisioned to run InterTalk software and connect to the customer site via a secure connection. The hardware also includes the console positions and peripherals.

The following will constitute this step:

InterTalk Proprietary Hardware

The InterTalk team will provide proprietary hardware according to the proposed project schedule, items that are in stock will be ordered directly, and items that require manufacturing will be ordered to be manufactured once the system architecture is confirmed and quantities are finalized. Any changes to the quantities in Hammond's purchase order will be handled through the **Project Change Request**. Once all hardware is ready, it will be staged at InterTalk lab for **Acceptance Testing.** Testing in this case would be multi-level (component, embedded, positional, and an internal FAT if we are delivering hardware as part of a complete console system) then it will be ready for shipping. Shipping will follow the proposed project schedule.

Commercial Off-The-Shelf (COTS) Hardware

The InterTalk team will work on purchasing COTS hardware to be used to host the InterTalk system based on hardware specs specific to the system size. The purchasing time will be accounted for in the schedule. All hardware will be purchased and staged at the InterTalk lab. InterTalk applications will be installed on servers to adhere to the agreed-upon architecture, the applications will be configured according to the agreed-upon use cases and test cases in preparation for **Acceptance Testing**

AWS EC2 Instances *(not proposed)*

For the Hosted implementation of Enlite, the Elastic Compute Cloud (EC2) instances will be provisioned and configured according to the agreed-upon architecture. InterTalk Enterprise Solution will be configured to match Hammond's use cases. Integrating InterTalk Enterprise Solution with other systems in preparation for **Acceptance Testing** will follow the schedule as the true use of the system is dependent on the remaining equipment readiness at Hammond's site.

Project Quality

All InterTalk's project processes and documents are governed by InterTalk Quality Management System (QMS). To ensure Alignment between Hammond and InterTalk regarding requirements and delivery, the design of the system will be officially reviewed once the components of the Detailed Design are complete. This is composed of internal and external processes, the external process requires signatures from both Hammond and InterTalk.

Acceptance Testing

During the sessions conducted with customers to elaborate on use cases, the InterTalk team will start the work on the Acceptance Testing Documents (Test Cases) that will be used every time the Hammond system is tested, whether it's Factory Acceptance Testing (FAT) or Site (on-prem/cloud) Acceptance Testing (SAT). InterTalk uses Zephyr for internal testing, the Hammond team will receive a version of the cases with an official document built along documenting use cases.

In case a test case fails due to bugs in the code, InterTalk will fix the bugs following internal development processes and test again using a new software release. In case the Hammond team identifies a new use case during system testing, the use case will be vetted if it can be delivered by configuration and the related documentation for the use case/test case will be updated. If the use case will require new development and the Hammond team wishes to proceed with this development and procure it, **InterTalk's Roadmap Feature Placement Request** will be followed.

All tests conducted with the Hammond team are mutually signed and added to project records.

Deliverables: Hammond's Acceptance Testing Document are delivered along with the Use Cases Documentation and Hammond's Acceptance Testing Signed Documents are delivered after the completion of testing.

Project Change Request

InterTalk and the Hammond team will use change requests/orders to make changes related to **hardware components and configuration.** All changes related to the software customization will follow **InterTalk's Roadmap Feature Placement Request** and will be documented in a Change order referencing the SOW completed to control the scope of this work.

Changes will be documented Internally using InterTalk change templates. If the Hammond team supplies its own internal template, they will be able to translate the change to their template. Change impact on scope, schedule, and budget will be evaluated when the change is initiated and will be documented and kept within project records.

Deliverables: Change Order.

InterTalk's Roadmap Feature Placement Request

Enlite provides many of the functionality requested by the dispatchers in public safety agencies, this product is continuously maintained and updated to reflect new features and capabilities based on market demand. A customer might elect to request a feature that is not currently present in the Enlite product during the Sales negotiations or **Elaborate Use Case Identification and Documentation** or at any stage of the project or after the project is done to satisfy a specific need or situation. These requests are handled separately and integrated into project delivery to ensure customer alignment. A custom feature request will be documented in a Statement of Work (SOW) specific to this feature that both InterTalk and the Hammond team agree to. Then, the request will be vetted with the InterTalk Product Management and Sales Teams. A quote will be provided to the Hammond team for delivering the needed features within the scope of the SOW with placement on the InterTalk roadmap to specify the quarter/year the feature ought to be delivered. Upon procuring the feature, the change will be reflected in project delivery (scope, timeline, budget), and the InterTalk team will follow the **Elaborate Use Case Identification and Documentation**.

We should discuss the difference between the PMP and SOW, when needed and who does them. Good for clarification.

Custom Features Delivery

InterTalk uses agile methodologies to manage development activities. Feature requests are captured as User Stories or Use Cases and decomposed by the Technology team into smaller components that can be delivered incrementally. The development team uses sprints to timebox their work. At the end of each sprint, an increment towards the feature is present. Once a demonstratable increment is available, the InterTalk team will demo the work to the customer through the InterTalk demo environment to gather feedback, all feedback within the scope of the SOW is provided back to the development team for pivoting, all feedback outside the scope of the SOW is treated as a new custom feature request that must go through a Project Change Process before being mutually recognized as part of the scope of the project. The project team will manage and coordinate the demos and feedback gathering until the Hammond team agrees that the feature satisfies the requirement, the feature will have its own test cases and will follow **Acceptance Testing** for final acceptance and sign-off.

Project Records

All project records are maintained following InterTalk QMS guidelines. Once the project is fully delivered, InterTalk will deliver the system As-Built and Project Management records if Hammond requires them.

Project As-Built

1. System Detailed Design: This document is comprised of the following:

Customer Use Cases:

- An ID'd list of Use Cases differentiating between out-of-the-box features obtained through the configuration of the Enlite product, with reference to Enlite Help on how to configure them and any specific configuration to Hammond, eg, channel ID, pages, etc., and Custom Features specific to Hammond requests obtained through further detailing the SOW resulting from **InterTalk's Roadmap Feature Placement Request** and a **Project Change Request**.
- For each feature, the demo is completed for the customer and the document outlines the date of the demo and the compliance of this feature to requirement (All configuration features are expected to be compliant with customer requirements without any further development, in case development is needed and customer wishes to proceed with custom development the **InterTalk's Roadmap Feature Placement Request** will be followed)
- The customer use cases documented by the InterTalk team and reviewed and approved by the Hammond team will govern the scope that will be delivered.

Acceptance Status/Criteria

As mentioned above the acceptance status of a feature or a workflow is highlighted as part of the documentation on how to configure the feature in the **Customer Use Cases**.

For Custom Features requested through an SOW, the Detailed Design is expected to have documentation of acceptance criteria per feature as a result of the effort spent during the **Elaborate Use Case Identification and Documentation** specific to this SOW and related Change Request.

System Architecture

The system architecture includes a diagram of how the different components of the system are deployed on different hardware. The requirement for redundancy on different component levels will be documented under this part. The applications and tools used to ensure this redundancy will be highlighted as well. In the event the Hammond team is responsible for managing the infrastructure that will be used to deploy the solution, both InterTalk and the Hammond team are responsible for completing the architecture of the solution. Typically, InterTalk manages how the solution is deployed and it will be captured by the InterTalk team under System Architecture.

Project Security and Regulatory Requirements

This will cover:

- Project documentation confidentiality and documentation distribution
- Highlight the customer governance structure (Authority: Council, City, Board, etc.)
- Highlight of any regulation related to working in a specific area of the world
- Highlight any standards used in the products offered (eg, https://www.apcointl.org/technology/interoperability/project-25/)

System Security and Regulatory Requirement

This will cover:

- System Drawings
- Mutually Signed Acceptance Tests
- Warranty Statement / Service Agreement(s)

Project Management Records

The following is a list of project management records that might be gathered at the end of a project and shared as a deliverable with the Hammond team if requested.

- Project Management Plan
- Project Schedule
- Project Change requests
- Risk Matrix

End of document.

ATTACHMENT B

Training

TRAINING COURSE

INTERTALK ENLITE DISPATCH CONSOLE SYSTEM OPERATOR COURSE

Overview

The InterTalk Enlite Dispatch Console System (InterTalk EDCS) Operator Training course covers core system operation and communication. Using a combination of classroom-style instruction, demonstrations, and hands-on learning, the Console Operator will be able to use and configure the InterTalk dispatch console according to their permitted level of control. In addition, the Operator will be able to perform standard dispatch functions and manage communications resources through the console interface.

InterTalk's trainers are taken from the pool of engineers and technologists that designed and developed the InterTalk system, and are highly experienced in the design, deployment, commissioning and maintenance of InterTalk systems.

Products Covered

- InterTalk Enlite Dispatch Console System (EDCS)

Duration

Four (4) hours

Training Environment

Training is conducted on-site at customer's location of choice. On-site training will be provided during start-up of the new InterTalk System, and InterTalk will work closely with customer to select appropriate training days and times with operators, supervisors, and administrators. Class size is typically restricted to **ten (10) students** to ensure everyone receives ample instructor attention and hands-on learning opportunities.

InterTalk instructors bring a laptop and projector (if necessary, dependant on facility equipment). The customer must provide power, internet access, and a writing surface (eg, flipchart, whiteboard).

Training Materials

- InterTalk EDCS Operator Manual
- InterTalk EDCS training materials

Course Topics

InterTalk EDCS Overview

Intended for System Administrators, Supervisors, Operators

- High-level introduction to the InterTalk EDCS, including system equipment and functionality

InterTalk Enlite Dispatch Console System

Intended for System Administrators, Supervisors, Operators

- Console layout
  - Tabbed workspaces (Missions)
  - Sidebar configurations (Quick Access Menu & UX Config sidebars)
  - Notification areas
- Voice Resources
  - Options and settings
  - Talkgroups
  - Patches
  - Instant Recall Recorder (IRR)
  - Channel audio
- Telephony
  - Options and settings
  - Patches
  - Contact Database
  - In/outbound calling
  - Barge-In
  - Privacy
  - Voicemail access
  - Other general telephony features
- AUX I/O
- Console Features
  - Operation status
  - Patch Control
  - Intercom
  - Audio interface
  - PTT transmission
  - Alerting status
  - System resources
  - General configuration

Terms and Conditions

InterTalk is not responsible for students' travel and/or accommodation costs and arrangements.

The remainder of this page is intentionally left blank.

TRAINING COURSE

INTERTALK ENLITE DISPATCH CONSOLE SYSTEM TECHNICIAN COURSE

Overview

The InterTalk Enlite Dispatch Console System (InterTalk EDCS) Technician Training course covers advanced topics in the deployment and administration of InterTalk Enlite Dispatch Console Systems. Using a combination of classroom-style instruction, demonstrations, and hand-on learning, students that have completed the advanced Technical Training will be able to plan and coordinate InterTalk console deployments and provide advanced administration and troubleshooting of the equipment. In addition, they will be well-equipped to supervise and mentor junior administrators in the operation of the system. InterTalk's trainers are taken from the pool of engineers and technologists that designed and developed the InterTalk system, and are highly experienced in the design, deployment, commissioning and maintenance of InterTalk systems.

Products Covered

- InterTalk Enlite Dispatch Console System
- Enlite UX Design/Layout Configuration
- ILS Web Configurator
- InterTalk Radio Endpoints and Gateways (ie, Citadel IP Radio Gateway, QRLI cards, DMR gateway, AUX I/O board)
- Central Logging and Monitoring Systems (InterStat, Zabbix)

Duration

Eight (8) hours

Prerequisite Course(s)

- InterTalk Enlite Dispatch Console System Administrator Training
- This training assumes a basic technical ability, and familiarity with networking, radio systems, protocols, and equipment

Training Environment

Training is conducted on-site at customer's location of choice. On-site training will be provided during start-up of the new InterTalk System, and InterTalk will work closely with customer to select appropriate training days and times with operators, supervisors,

and administrators. Class size is typically restricted to **ten (10) students** to ensure everyone receives ample instructor attention and hands-on learning opportunities.

InterTalk instructors bring a laptop and projector (if necessary, dependant on facility equipment). The customer must provide power, internet access, and a writing surface (eg, flipchart, whiteboard).

Training Materials

- InterTalk EDCS Operator Manual
- InterTalk EDCS training materials

Course Topics

InterTalk EDCS Overview

Intended for System Administrators and Technicians

- Operational flow overview
- Network concepts
- Power distribution

InterTalk EDCS

- Console operations
- Console design
- Console hardware and configuration

InterTalk Logistics Supervisor (ILS) core

- ILS overview
- ILS Web Configurator

InterTalk Radio Endpoints and Gateways

- Physical installation
- Software configuration

Troubleshooting and Maintenance

- Technical support installation tips
- System level troubleshooting
- Position level troubleshooting
- System maintenance

Terms and Conditions

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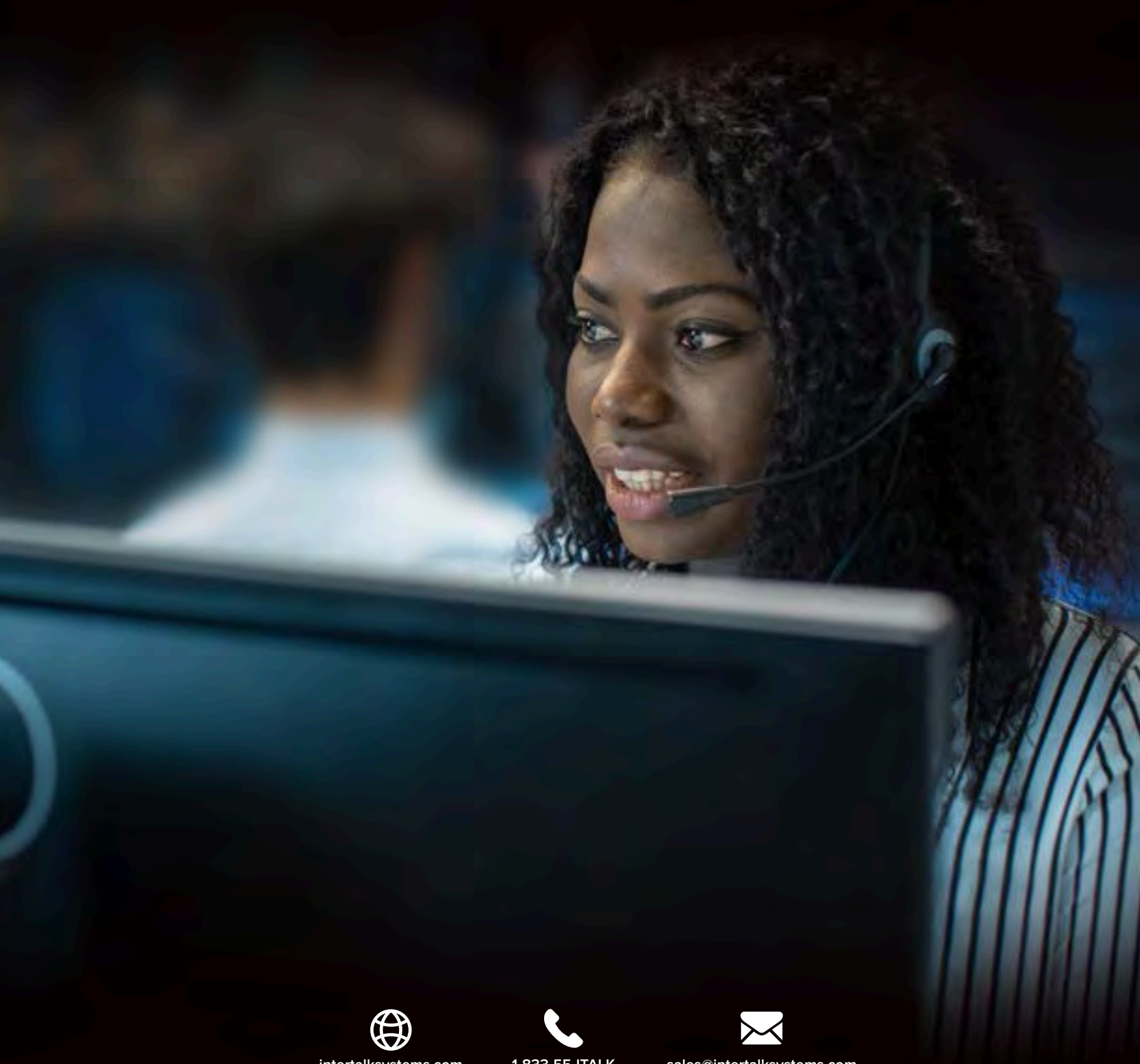
ATTACHMENT C

Product Literature

INTERTALK™ | ENLITE™



intertalksystems.com

1-833-55-ITALK

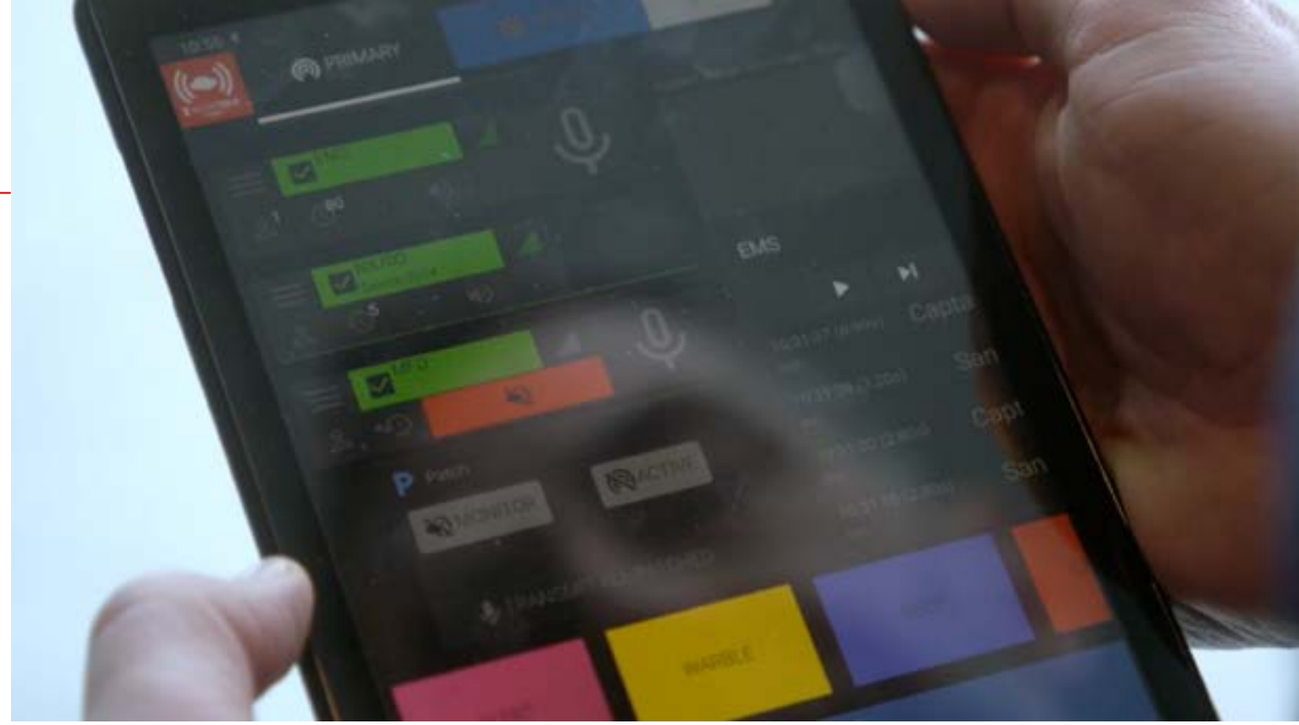
sales@intertalksystems.com

INTERTALK™

ENLITE™

InterTalk™ Enlite™ is a hosted dispatch for today — and tomorrow. This public-safety grade radio and telephone dispatch console system empowers dispatchers by bringing traditional radio (LMR), digital radio protocols (DMR, P25) and telephone call-taking capabilities to their fingertips.

With a growing wealth of available data integrations such as social media, mapping, weather, and video, the right information is always available. Enlite™ enables you to coordinate radio and telephony communication and enhance situational awareness from wherever the action takes you – from your desk to the field, ensuring operational continuity.



USER-FOCUSED MISSIONS

Dispatchers need access to timely, reliable situational information. Yet they can be overwhelmed with too much information from too many sources. Within InterTalk Enlite™ the layout is fully configurable, even in real-time, based on situational requirements. Dispatchers can use Mission screens to display the combination of information sources in the layout most advantageous to help them with the specific areas and activities they are focused on. While using radio and telephony core tools, users can utilize Enlite™ Web Frames, displaying web presented interfaces within the Enlite™ screen such as meteorology platforms, weather maps, IP-based cameras, and more. Dispatchers can have a locked-down strategic mission for monitoring an area and then can launch new tactical missions that are focused on more complicated operations when the need arises.

INTELLIGENT

Dispatchers' ability to develop and communicate situational awareness through a growing wealth of available and configurable data integrations such as social media, over-the-top service feeds, weather, and video changes the nature of dispatch. Sensors and inputs make information available on a real-time basis which previously was unavailable and left to estimation. InterTalk Enlite™ brings together disparate systems, sources and inputs into a common platform with configurable layout and flexible usability. With enhanced information, dispatchers are better equipped to make decisions and enabled to utilize the full spectrum of resources available to them. By integrating the data sources, the information becomes available for common reporting and, in the future, the application of AI and machine learning. The growth of available information, integration and application of intelligence creates an advantage to agencies allowing for more efficient and effective operation.

AFFORDABLE

InterTalk Enlite™ is available on a annual subscription model. Organizations of all sizes can benefit from reduced fixed costs, infinite hosted scalability, and pay-by-need equality, minimizing needed capital equipment expenditures.

CONNECT ANYWHERE

InterTalk Enlite™ enables communication and information to be shared via public safety grade network WiFi or LTE-enabled laptop, desktop, tablet and/or smartphone from almost anywhere.

InterTalk Enlite™ enables the dispatcher to work within a web-based browser (such as Chrome) on Android devices (smartphones and tablets) and requires no downloaded application to deploy.

SECURE

InterTalk Enlite™ adheres to the latest encryption guidelines from NIST and OWASP for securing real time communications over the public Internet and for storing sensitive data at rest utilizing encrypted VPN links. Hosted architecture is engaged that is compliant with individual requirements for data center security and operations policies. Each system can be configured with independent monitoring and central logging and can be managed according to specific jurisdiction.

NSF-ISR
Registered to ISO 9001 and ISO 27001

BETTER, MORE TIMELY INFORMATION SAVE LIVES.

InterTalk Enlite™ software development methodology includes a fully automated deployment pipeline with automatic vulnerability scans, peer reviews and transparent deployments, adhering to NIST 800-160, ISO 27001:2013 and ISO 9001:2015 standards.

RELIABLE

Multi, hybrid and multi-location hosted architecture minimizes disruption risk through geo-diversity and geo-redundancy. InterTalk Enlite™ architecture is configured to ensure high availability and operational continuity, with your existing radio and telephony approaches.

INTERTALK ENLITE™ ENABLES BETTER, MORE TIMELY INFORMATION TO THE DISPATCHER AND THE FIELD.

TECHNOLOGY BRIDGING

Fully integrates with your current on-premises dispatching solution, providing a seamless migration toward hosted technologies now and into the future. InterTalk Enlite™ supports integrated telephony and radio dispatching on mobile devices. Using InterTalk's IP Radio Gateway hardware, dispatching operations are seamlessly integrated with any analog radio communications infrastructure. InterTalk Enlite™ can also natively integrate with existing digital radio protocols including DMR, TRBO and P25. Enlite™ supports telephone dispatching and can integrate with VoIP or analog-based telephone infrastructures. InterTalk Enlite' intelligent call-management system supports call queuing and can be synchronized with many enterprise contact management systems for seamless synchronization of telephone numbers, addresses and other information. In addition, InterTalk's Enlite platform can integrate with the following:

TELEPHONY

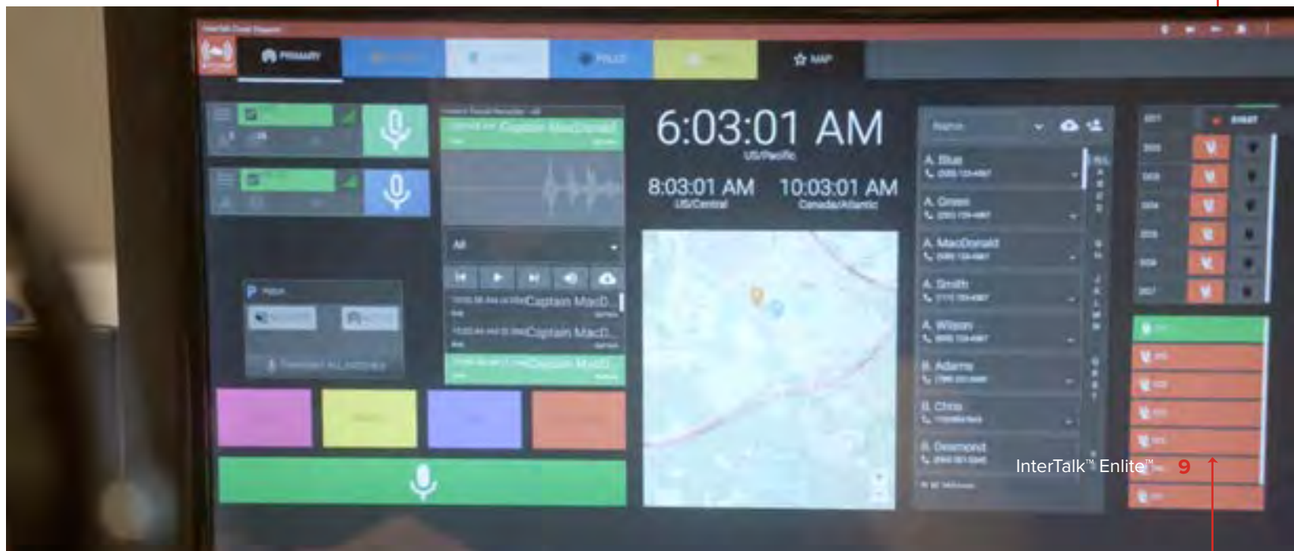
VoIP telephony as well as on-premises T1, POTS or other telephony systems can be integrated into Enlite™ for a seamless dispatch experience.

LMR/PMR

InterTalk Enlite™ can integrate with your existing LMR/PMR radio system using InterTalk's IP Radio Gateways. The gateway supports E&M, Vox, MDC1200, GEStar, Fleetsync, 2-tone paging as well as control-head interfacing to many radio systems.

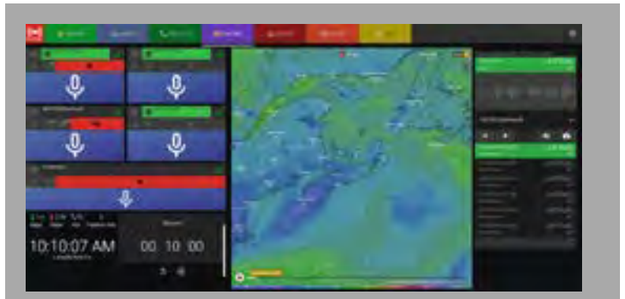
DIGITAL RADIO

Enlite™ can directly connect to your existing digital radio system, including DMR, TRBO and P25 via the console sub-system interface (CSSI) or the Digital Fixed-Station Interface (DFSI). Our standards-based approach allows you to connect InterTalk Enlite™ to radio system supporting these protocols, including those made by Motorola, L3Harris, Tait and Kenwood.

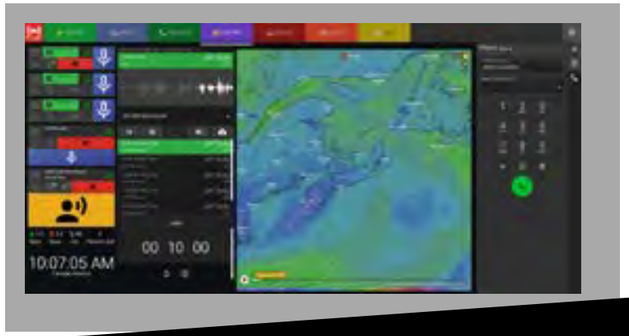


USER EXPERIENCE (UX)

The InterTalk Enlite™ user experience (UX) is responsive to the screen size of the devices it runs on – be that a small smartphone screen in portrait mode or a giant 8K Television and everything in between. Individual screen configurations (termed “Missions”) can be preconfigured using the built-in What You See Is What You Get (WYSIWYG) editor and then made available to other dispatchers according to a granular permissions system.



WHETHER YOU ARE IN PUBLIC SAFETY, UTILITIES, RAIL, AIRLINE OR GOVERNMENT SERVICES, ENLITE™ ENABLES YOUR TEAM TO BE MORE INFORMED, MORE CONNECTED AND MORE MOBILE.



HOSTED OR ON-PREMISES INFRASTRUCTURE

InterTalk Enlite™ is a cloud native browser-based application delivered to a modern Google Chrome or Microsoft Edge browser. The web infrastructure can be hosted either by your organizational on-premises data center or by a cloud provider like Amazon AWS or Microsoft Azure. Each cloud service that comprises hosted Dispatch achieves its high availability goals by having appropriate geo-distribution and appropriate service redundancy along with automated monitoring and alarming. Each service module is containerized, load balanced and deployed using automated scripts. If your agency does not permit the use of cloud-based systems, InterTalk Enlite™ has been architected for deployment as an on-premise enterprise system housed in servers controlled by the end-user customer.

ENLITE™ DISPATCH FEATURES

RADIO	
LMR Interconnection	Enable connection with Land Mobile Radios (see radio compatibility chart)
P25 Interconnection	Enable connection with P25 radios
MDC-1200	Enable PTT-ID and emergency alerting
PTT Timeout	Limits the length of individual PTT transmissions (120 seconds)
Audio Controls	Adjusts audio features to ensure maximum audio quality
Audio Transmission Controls	Adjust audio transmission rate to ensure maximum audio quality
Test tone	One click option for playing test tone to the selected radio channel(s)
Select	Select a single radio tool
Multi-Select	Select multiple radio tools
Unselect	Unselect radio tool
RX audio indicator	Indicates incoming audio in process
TX audio button	Indicated outgoing audio status with idle, in use and transmitting colour options
Mute button / indicator	Enables muting of the radio channel
Audio routing controls	Enables the routing of audio by device, microphone and speakers
Volume control	Ability to control audio levels by radio channel
PTT-ID Alias Display	Receive PTT-ID / Alias display
PTT-ID Alias History	Receive PTT-ID / Alias history
Multi Frequency Radio Control	Enable channel changing
Active User List	View list of active users on radio channel
VU Meter	Displays active TX/RX levels
Patching	Enables patching transmission connection of radio groups
Instant Recall Recorder (IRR)	Records for playback incoming (with option for outgoing) radio transmissions including download of transmission to hard drive
Mic Mute	Enable desktop mic to be muted
Telephone and Analog Paging	Enable radio paging messages to be transmitted from the console; view the status of sent messages; display messages by color code based on status. Includes the ability to define priority and to Hold PTT.
Quick Paging	Create preset pages for quick selection and sending
Radio Tool Locking	Ensures locked radio groups stay active on all Missions
Mission Audio Controls	Configurable audio controls for Tools within the Mission tab

RADIO LOGGING RECORDER INTEGRATION COMPATIBILITY

- Eventide®
- NICE®
- Transcript™ Archival Logging Recorder

TELEPHONY COMMUNICATION

Calling	Enables sending and receiving of phone calls
Dialing	Dial pad available on all screens/missions
Historical Call Queue	Displays list of incoming and outgoing calls during logged in session
Test call	One click option for making a test call
Hold	One click option for placing a call on hold
Transfer	Assisted and Unassisted call transfer via Contacts or through dial pad dialing
Speed Dial	Enables 1 click outbound dialing to preset phone number
Multi-Line Select	Select available telephone line for outbound calling

COORDINATION

Mapping	Dynamic Map Display showing location of active users; configurable to display desired map type; *Open Street Maps provided as standard; Option to link to user defined alternate maps
Location Tracking - Radios	Location of radio users displayed on the included map (Radio Dependent)
AUX-IO	Board-based AUX IO
VoIP Intercom	Active user group audio PTT channel enabling incoming and outgoing inter-system transmissions
Accessibility	Usability features for visual/auditory disability
Web Frames	Web browser tool within the product enables the display of external sites and systems
YouTube	YouTube player to enable the playing of video within mission screens
Twitter	Configurable Twitter to ensure directed feed

GENERAL

Toolbars	Configurable button layout
User information	Display logged-in user/role on screen
Documentation	Printed materials available; additional mediums pending (online, videos, etc.)
Buttons	Add or remove quick configuration buttons
Cross-platform	Browser-based GUI (Chrome/Chromium)
Layout editor	Compose screens for groups of users
Layout editor	WYSIWYG configuration
Labels	Customizable label options
On-screen help	Contextual Help file for each feature
Role-Based Authentication System	Assign features and functionalities based on user role
Mission	Configurable Mission tab order and colors
Mission	Mixed-used Tools on a single tab
User Admin	Add or modify users and roles
Role Admin	Add or modify role types and permissions
Channel Admin	Add or modify channels connected within Radio Tools
Distributed Architecture	Use cloud services or on-prem deployment
Unlimited console positions / scalability	Scale out and buy only services needed
Contacts List	Displays list of contact names with phone and radio information
Stopwatch	Count up time elapsed
Countdown Timer	Count down time with completion notification
On-Screen World Clock	Analog or digital clock, time zone, date options
Saved Screen	Save screens to desired layout
Network Health Panel	Display network metrics
Monitoring	Tracking and alerting of network status
Android Compatibility	Chrome and Chromium browser-based
Microsoft Compatibility	Chrome and Chromium browser-based
Network Health Tool	Indicates upload and download rates, latency and packet loss
Layout	Configurable sizes of tools and buttons
Layout Editing	Configurable placement of buttons

INTERTALK™

ENLITE™

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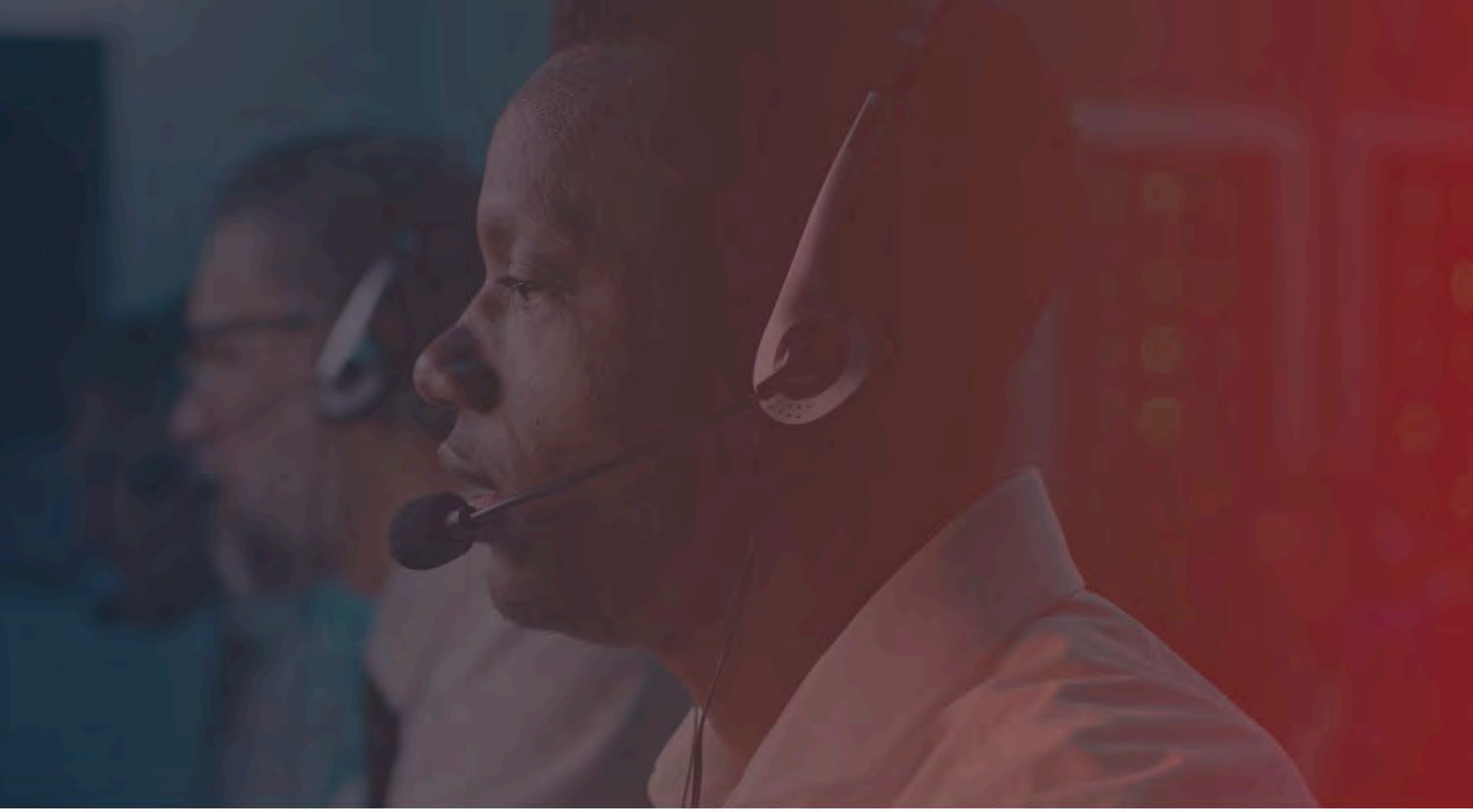
sales@intertalksystems.com



ENLITE™

THE (R)EVOLUTION OF DISPATCH

INTERTALK™

INTERTALKSYSTEMS.COM +1 833 55-ITALK SALES@INTERTALKSYSTEMS.COM

WHY CHOOSE INTERTALK?

INTERTALK'S EXTENSIVE EXPERTISE IN CONSOLE SYSTEM DESIGN

- Our collaborative approach to system design ensures that our customers are fitted with a radio/telephone console system that meets their exact needs, and reflects the way they conduct their specific operations.
- In supporting the customer's vision for their Dispatch Console equipment, InterTalk is not in business to constrict our customers with proprietary interfaces, "must-have" proprietary features, or forced product obsolescence after only a few years in service.
- As a development partner, InterTalk believes that our customer requirements are paramount, and supersede any commercial product specification or interest.
- InterTalk recognizes the vital role our equipment plays in radio-telephone communications.

A POWERFUL COMMUNICATIONS ECOSYSTEM

- InterTalk is an ideology more so than just a product – it is a means of providing dispatchers and emergency managers the best tools and the right information that they need, when they need it, where it is needed, in the right format.
- The InterTalk product line includes the InterTalk Enlite "Cloud-Ready" Dispatch, InterTalk Dispatch Console System (DCS), Sentinel IP Radio Gateway, Quad Radio Line Interface Gateways (QRLI), Citadel IP Radio Gateway, Integrated Voter-Steering system, and other radio control products which help achieve a complete communications ecosystem.

INTERTALK IS SIMPLY A SUPERIOR COMMUNICATIONS TOOL

- InterTalk specializes in Dispatch Consoles that satisfy real-world requirements – this is what we do as our core business, not as a sideline to support radio sales.
- Our products are built upon existing software and hardware platforms, and are modified to suit the customer's exact needs.
- InterTalk's Dispatch Consoles have always focused on supporting the exact-fit integration and interoperability of different radio and telephone systems to satisfy real-world operational needs; it is how we have made our name and reputation over the past 25+ years.

QUALITY AND SECURITY ARE INTERTALK'S MANDATE

InterTalk has adopted the following policy toward Quality Assurance:

INTERTALK™ Quality Statement

"To provide products and services that consistently meet or exceed the needs our customers in a timely manner, and to maintain a high level of customer satisfaction through superior personal service and continuous improvement."

NSF-ISR
Registered to ISO 9001 and ISO 27001

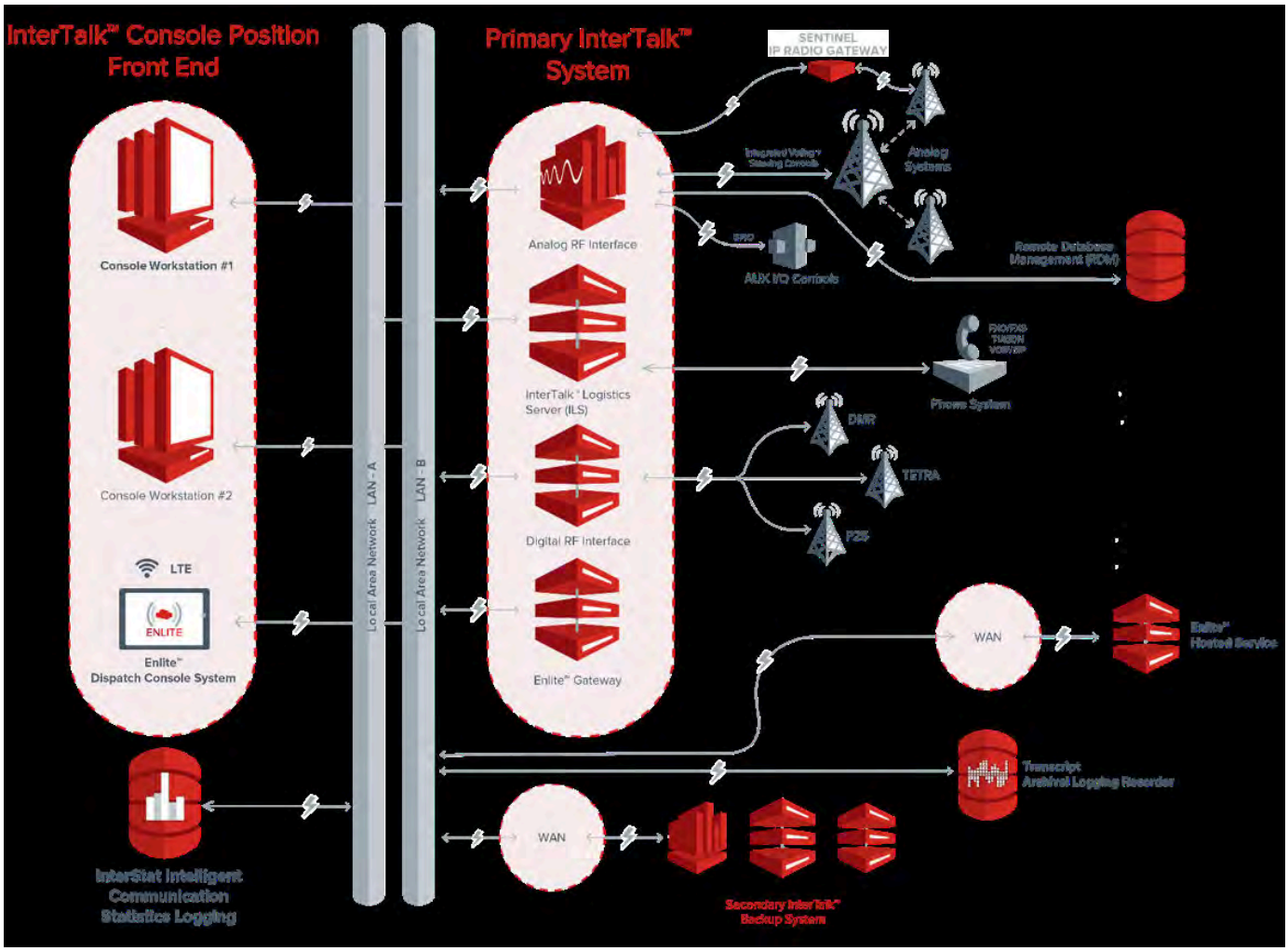
This commitment to quality is evidenced by InterTalk's certification with the **ISO 9001:2015** Quality Management Systems International Standard.

Further, **InterTalk is the first and only North American console manufacturer to earn global ISO 27001:2013 certification** for Information Security Management Systems ("ISMS"). The ISO 27001:2013 accreditation further entrenches InterTalk's standing as a global industry leader in information security.

All InterTalk employees are committed to achieving this policy along with understanding, controlling and continuously improving the processes that deliver our products. This policy, together with the combined commitment of management and employees, will ensure that InterTalk remains a leader in the design, manufacturing, installation and commissioning of critical and emergency communication systems.

INTERTALK'S PRODUCT ECOSYSTEM

Proposed system may contain all or some of the products indicated. The drawing is for informational purposes.



INTERTALK ENLITE™

InterTalk Enlite is a Cloud-Ready dispatch solution for today — and tomorrow. This public-safety grade radio and telephone dispatch console system empowers dispatchers by bringing traditional radio (LMR), digital radio protocols (P25) and telephone call-taking capabilities to their fingertips. With a growing wealth of available data integrations such as social media, mapping, weather, and video, the right information is always available. Enlite™ enables you to coordinate radio and telephony communication and enhance situational awareness from wherever the action takes you – from your desk to the field, ensuring operational continuity.

ON-PREMISE OR HOSTED INFRASTRUCTURE

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DIGITAL RADIO

Enlite™ can directly connect to your existing P25 digital radio system, via the console sub-system interface (CSSI) or the Digital Fixed-Station Interface (DFSI). Our standards-based approach allows you to connect InterTalk Enlite™ to a radio system supporting these protocols, including those made by Motorola, L3Harris, Tait and Kenwood.

SECURE

InterTalk Enlite™ adheres to the latest encryption guidelines from NIST and OWASP for securing real-time communications over the public Internet and for storing sensitive data at rest utilizing encrypted VPN links. Hosted architecture is engaged that is compliant with individual requirements for data center security and operations policies. Each system can be configured with independent monitoring and central logging and can be managed according to specific jurisdiction. InterTalk Enlite™ software development methodology includes a fully automated deployment pipeline with automatic vulnerability scans, peer reviews and transparent deployments, adhering to NIST 800-160, ISO 27001:2013 and ISO 9001:2015 standards.

INTERTALK ENLITE

CONSOLE POSITION

Due to the flexibility of the WebRTC architecture, an Enlite console position can take many different forms. If a standard desktop workstation is desired, Enlite can be deployed on any modern PC capable of running either Chrome or Microsoft Edge, utilizing mission-critical USB peripherals and accessories. Easily integrate mobility into your operations with the ability to operate Enlite's dispatch console on Android tablets and phones, connecting through your organization's private WAN or through cloud services such as AWS, Microsoft Azure, or Google Cloud.

INTERTALK LOGISTICS SUPERVISOR (ILS)

The InterTalk Enlite dispatch console system offers the very best in reliability through the use of high-availability server cluster infrastructure, with no loss of radio resources connected to the system. If a server in the cluster fails, another server or node can take over immediately to help ensure the application or service supported by the cluster remains operational. Using high-availability clusters helps ensure there is no single point of failure for critical IT and reduces or eliminates downtime. Enlite is "Cloud Ready", allowing your deployment to remove the physical ILS server clusters and host them in the cloud as nodes that perform the same function as the on-premises system described above.

The ILS handles all aspects of system operation including user authentication, signal processing, call management, background health monitoring and inter-site coordination. The ILS can be comprised of three separate servers (providing high – availability) each identically equipped with redundant AC power supplies (NB. -48 VDC power supplies are available as an option), Solid-State hard drives (SSD) to guard against any disk drive fault, multiple hot-swappable fans and sufficient RAM and processor power to support the proposed system and at least twice the required number of endpoints.

The high – availability ILS cluster allows for load-balancing and replication of data between the nodes. In the case of a critical failure of one of these servers, the other two servers can continue to operate the system, providing a seamless transition to the dispatcher, ensuring they do not lose connection to their resources while providing high-quality five-nines reliability.

High – availability architecture is the next generation of mission-critical redundancy. In traditional redundancy scenarios, a secondary server assumes control within seconds but extra time may be required if interface re-connection is necessary. In-progress telephone calls may be lost. Radio calls will not be lost but if a dispatcher is transmitting at the point of failover the transmitter may un-key and will need to be rekeyed by pressing PTT again. This is not the case when utilizing the high- availability ILS architecture Enlite can provide, providing a seamless transition, either on-site or in the cloud

Regardless of the fault, the system logs all system messages allowing a later detailed analysis that greatly simplifies system troubleshooting.

SPEAKERS

InterTalk has tested and confirmed the mission-critical readiness of the Creative T60 USB Speakers for use with Enlite. The speakers are specially designed to provide a frequency response from 50 Hz to 20,000 Hz and connect to the console through a USB-C cable. The Creative T60 features two powerful 2.75″ full-range drivers and a built-in digital amplifier with the capability to handle the entire

audio range spectrum to ensure audio consistency. The T60 2.0 sound system is also capable of 30W RMS acoustics power, with a peak power of up to 60W. The T60 USB Speakers operate on an 18V, 2A AC Power Adapter.

KEY SPECIFICATIONS:

- **Operating Temperature:** 0 - 45°C (32 - 113 °F)
- **Weight:** 1.9 kg / 4.18 lbs
- **Dimensions:** Left Satellite: 147 x 92 x 199 mm / 5.79 x 3.62 x 7.84 inches, Right Satellite: 157 x 92 x 199 mm / 6.18 x 3.62 x 7.84 inches
- **Drivers:** Dual 2.75” Speaker Drivers
- **Power Input:** 18V, 2A AC Power Adapter
- **Power Output:** 2 x 15W RMS, Total System Power: Up to 30W RMS, Peak Power 60W

COMMUNICATIONS MANAGEMENT UNIT

The Communications Management Unit (CMU) connects to the Enlite console position via a USB Type-A connector. It provides two dual-prong PJ327 jacks for standard 4-wire/6-wire headsets, and volume control. The CMU requires no external power and supports PTT devices. Usually, the CMU

boxes are mounted to the left and right of the operating position allowing the headset cord to lead away from the user's dominant arm.

KEY SPECIFICATIONS:

- **USB:** USB 2.0
- **Weight:** 1.9 kg / 4.18 lbs
- **Dimensions:** 6" X 5.75" X 1.5"
- **Control:** Two volume control knobs (Front)
- **LED:** Two (2) PTT LEDs (Front)
- **Input:** Two (2) Audio input channels
- **Output:** Six (6) Audio output channels

FOOTSWITCH

Enlite utilizes Plantronics USB footswitch, giving dispatchers options in how they communicate. This footswitch is made of heavy-duty materials such as the metal casing that will provide years of uninterrupted service in a hectic dispatching environment. The footswitch is furnished with a 10' USB

Type-A cable that is connected to the Enlite console position. When connected to Enlite, the footswitch keys up the selected radio resource or resources.

KEY SPECIFICATIONS:

- **USB:** USB Type-A
- **Material:** Metal
- **Color:** Black
- **Brand:** Plantronics

RADIO ENDPOINTS

The Sentinel IP Radio Gateway represents the next generation of analog-to-IP conversion solutions. Optimized for operation at remote sites with IP connectivity, Sentinel can handle wireline and microwave bearer circuits, including the ability to mix different types of circuits. The Sentinel interfaces 2/4/6 wire radios to your IP network for audio communication. The Sentinel can connect to and control base stations using local PTT/COR connections. Other control mechanisms can be supported, with additional ports available to control radio units using RJ45, USB or Ethernet. The Sentinel can control up to two (2) base stations per controller using a single IP connection with TCP/IP for control, and RTP/UDP/IP for voice streaming.

The Sentinel IP Radio Gateway is easily integrated with your existing dispatch system. With the capability of bridging and operating in parallel with other equipment, the Sentinel has the capability to eliminate downtime while installing. The smaller form factor of the Sentinel IP Radio Gateway ensures

valuable space in your server rack is not needlessly occupied. Utilizing Sentinel, IP connections between sites allow for advanced features such as peer-to-peer receiver voting, transmitter steering, and unit identification.

The Sentinel IP Radio Gateway operates on an embedded open-source Linux operating system. This allows for flexibility to modify the Sentinel for just about any job you can imagine for your site. Utilizing Linux ensures continued support through software and security updates for years to come. Taking advantage of modern technology, the Sentinel is equipped with a quad-core, 64-bit ARM-based processor operating at 1.2GHz. Combining this with 1GB SDRAM and expandable eMMC flash memory of up to 32GB ensures the Sentinel has the power available to meet your needs today and well into the future. In situations when more than two base stations require control, or higher redundancy is desired, simply deploy multiple Sentinel gateways into your system. Radio endpoints can connect to Enlite using either Quad Radio Line Interfaces (QRLI) located in the central equipment room, via four-port Citadel units that can be remotely positioned at the radio or other remote sites, and via the two-port Sentinel IP Radio Gateway. All types of interfaces connect to the central InterTalk Logistics Supervisor (ILS) via IP.

KEY SPECIFICATIONS:

- **Operating Temperature:** -13°F to 158°F
- **Frequency Response:** < +1/-3dB from 300Hz-3300Hz
- **Signaling:** DTMF In/Out, MDC-1200, 2-tone, Tone Remote Control
- **Features:** DTMF Tone Call-In, RSSI Indicator, Opto-isolated COR input
- **Advanced Base Station Control:** Tait TM9400, Kenwood NX5000, MOTOTRBO XPR500, L3Harris XL Series

SPECIFICATIONS: INTERTALK ENLITE™

Console System Interfaces	
Analog RF	4/6-wire; control station interface with select Tait and Kenwood radios
Digital RF	P25 (ISSI/CSSI, DFSI)
Paging Formats	QC-I and II, 5/6 Tone, EIA, 2-tone/4-tone, Selcal, DTMF
Signaling Formats	MDC1200, GEStar, FSK, MSK, GMSK (Intrac)
Voting and Transmitter Steering (Enlite)	Vote on best SNR, RSSI (serial, Ethernet, voltage, limiter current). Compatible with existing systems. Console user sees vote/UNSQ status and has full control. Transmitter steering to voted site, multiple sites, per UNSQ sites, rule-based steering. Console user steers release, status, and override control.
Legacy Key-up	PTT/COR, EIA TRC Guardtone, E&M
Telephony	SIP-I/SIP-T, FXO, FXS, T1/E1, ISDN, G.703, V.35, ringdown, SS7 signaling

Enlite System Requirements	
Processor	Intel® Core™ i5 (or better)
Operating System	Windows 10 Pro / Android / Chrome
Memory	8GB (or better)
Hard Drive	1TB (or better)
USB	Standard PC-provided

Network	Single Gigabit NIC / Dual-Redundant Gigabit NIC
Video Card	1920 x 1080 resolution or better, 22” monitor or better recommended
Pointer	Mouse, Trackball and/or touchscreen
Keyboard	Standard PC-provided
InterTalk Logistics Supervisor (ILS) Server	
Processor	Intel® Xeon®-D, 4-core or better, 2.20GHz or better, 6M cache or better, 35W, D1527
Memory	32GB (or better)
USB	Standard PC-provided
Network Controller	2GB Ethernet Port
Hard Drive	1TB or more
Operating System	Red Hat Enterprise Linux 7

INTERTALK ENLITE FEATURES

Please note that these standard features are for informational purposes.

Unlimited console positions/scalability	Yes
Toolbars	Configurable button layout
User Information	Display logged-in user/role on screen
Buttons	Add or remove quick configuration buttons
Instant Recall Recorder	Yes
Cross-platform	Browser-based GUI (Chrome/Chromium)
Layout editor	Compose screens for groups of users
Layout	WYSIWYG configuration
Labels	Customizable label options
On-screen help	Contextual Help file for each feature
Role-Based Authentication System	Assign features and functionalities based on user role
Channel Admin	Add or modify channels connected within Radio Tools
Distributed Architecture	Use cloud services or on-prem deployment
Remote maintenance	Yes, via secure VPN connection
Contact directory	Yes, phone and radio contacts

Network Health Tool	Yes, indicates upload and download rates, latency and packet loss
Monitoring	Yes, Tracking and alerting of network status
Touchscreen operation	Yes, also supports mouse/keyboard or touchscreen/ mouse/keyboard use
Mapping	Yes, Dynamic Map Display showing location of active users
VoIP Intercom	Yes
AUX-IO	Yes, Board-based AUX IO
Accessibility	Usability features for visual/auditory disability
Radio ID display	Yes, alias configurable
Call history	Yes
Historical Call queue	Yes
VU meter	Yes
Radio Logging Recorder Integration	Eventide®, NICE®, Transcript™ Archival Logging Recorder

OTHER FEATURES

Alert Tones	Enlite customizable transmit button can be configured as an alert tone and assigned radio channels to broadcast the alert to any desired combination of channels. Tones include Test, Alert, Slow Alert, CFG Alert, Beep (A, B, C...), Warble, Slow Warble, Fast Warble.
All Mute	A single button press of this button mutes all unselected audio for a configurable time.
Channel Cross Mute	Programmable cross muting is supported across all ports.
Channel Marker Tone	Channel marker tones can be set up by the System Administrator and can be invoked at console positions. The marker can be configured to play continuously until disabled by the originating operator or for a fixed time.
Console Cross Mute	Console cross mute across shared channels is set up by the System Administrator.

Console Monitoring	Supervisory positions can monitor dispatcher console operations remotely and even take over or barge in if necessary.
Duplex Operation	Enlite supports 4-wire full-duplex connections to radio systems that support this type of interface.
External Alarm and Actuator Connections	Enlite has extensive AUX I/O capabilities, which flow from our Radio Endpoints.
General Purpose I/O	Enlite AUX I/O is also known as General Purpose I/O (GPIO). GPIO/AUX I/O provides the ability to sense external inputs and to control external actuators.
Instant-Recall Recorder	InterTalk Enlite comes with a built-in Instant Recall Recorder that saves recordings from the console position to the server infrastructure. Generally, systems are designed to retain at least 90 days of IRR but can be provisioned to retain more and for longer if needed. The IRR can be configured to capture incoming audio only or both outgoing and incoming. A dispatcher can display all channels or select a specific channel's IRR records.
Last Phone Number Redial	Each console position has a HISTORY window showing a list of received and sent calls.
Custom Missions	The Enlite user experience (UX) is responsive to the screen size of the devices it runs on – be that a small smartphone screen in portrait mode or a giant 8K Television and everything in between. Individual screen/tab configurations (termed “Missions”) can be preconfigured using the built-in What You See Is What You Get (WYSIWYG) editor and then made available to other dispatchers according to a granular permissions system. Dispatchers can have a locked-down strategic mission for monitoring an area and then can launch new tactical missions that are focused on more complicated operations when the need arises. Each Mission created can be tailored exactly to the desired workflow, feature set or use case.

Multiple Frequency Base Station Control	Enlite supports the entire EIA specified tone remote control protocol. DC current control is also available as an extra cost option.
Mute	Each talkgroup or conventional channel is represented on screen using a radio resource. When a radio resource is not selected, the console user can choose to mute that channel.
Names, Labels, and Screen Appearance	Each radio resource has a name label. Radio resources appear on the screen in fixed locations which can be changed by the System Administrator or, if permitted, by the console user. All aspects of the resource can be configured – size, colors, fonts, attributes, etc.
Outgoing Phone Call Dial	When the console user presses the PHONE icon at the top right of the screen, the console shows the Intelligent Dial Pad (IDP). The IDP is organized in the same fashion as a telephone dial pad including showing alphabetic letters on the key faces.
Cross Patch	Radio/talkgroup to radio/talkgroup patching is supported. Patching refers to the amalgamation of channels and/or talkgroups into what is essentially a single resource. Every radio user can hear every other radio user and the console has overriding control. Telephony Cross patch is currently in testing for release end of Q1 2023.
Place Phone Call on Hold	This is accomplished by pressing the HOLD button on the Enlite GUI.
Radio Control	Enlite provides remote control features using EIA specified tone remote control sequences. In addition, as an extra cost option, Enlite can provide Frequency Shift Keying (FSK) signalling to remote sites. This type of signalling can be used for controlling backbone and drop radio systems as well as for more mundane tasks such as controlling gates, doors, lighting, generators, etc. The same type of signalling can also be used for site alarm transmission. The FSK schemes used by InterTalk are like Motorola INTRAC.
Radio ID Display	In systems that support PTT ID, Enlite can use the incoming signalling to show the radio ID of the caller. In addition, Enlite supports a full range of ALIASING capabilities allowing the raw radio ID to be tagged against

	a meaningful label. For example, radio #1234 can be shown on-screen as “John Smith” or “Tactical 34” or whatever alias is required. The alias database can be maintained by the System Administrator or, with proper credentials. Enlite supports all types of PTT ID schemes including MDC1200 and GEStar.
Radio Unit Emergency	Enlite plays an emergency alert tone when a radio on the active Mission receives an emergency alert. The tone will play from the default speaker device until the alerts are acknowledged. Enlite Instant Recall Recorder also records and indicates with a bell symbol and highlights that transmission was from a radio that initiated its emergency state.
Selected Audio	Enlite supports SELECT/UNSELECT operation. In addition, each channel and talkgroup also has an individual volume control allowing the console user to set them to individual preference.
Speed Dial (User defined)	On-screen instant speed-dial buttons can be user-defined. Each button has a label and an associated telephone number. Pressing an instant speed-dial button causes the system to automatically select an appropriate outbound telephone trunk and place the call. The Quick Access sidebar automatically appears and normal telephone operation begins. In addition to the on-screen speed-dials, each console position has a Quick Access Contact button which, when pressed, pops up a telephone directory. Once the desired entry has been located, a single button press causes the system to automatically select an appropriate outbound telephone trunk and place the call after which normal telephone operation begins.
Supervisory Call Monitoring	Supervisor-authorized users have executive capabilities on all telephone circuits defined by the System Administrator. Supervisors can monitor all defined radio and talkgroup circuits as well. This feature allows supervisors the ability to monitor what is happening across all operating positions and provides the ability to “jump in” when necessary either to join a conversation or to “take over” a call that is going wrong.

Telephony Control	Enlite has extensive telephony capabilities. The system can interface to any type of telephone system from the Plain Old Telephone System (POTS) through emergency ring-down circuits and digital T1 and ISDN schemes to the most modern VoIP networks.
Time of Day to Sync to External Source	Enlite can be synched to an external time-of-day service such as a Spectracom Netclock GPS-based standards or, through the Internet, to any NTP server. Other time standards are also supported.
Unselected Audio	As described above under “selected audio”, Enlite fully supports traditional SELECT/UNSELECT operations.
User ID (Alias)	Enlite supports the aliasing of all incoming IDs such as radio PTT-ID. The alias database can be administered by the System Administrator or by any suitably credentialed user.
Volume Control	Each console position has individual control over its own volume levels. There is a master SELECT and a master UNSELECT level control that sets the overall levels. In addition, each radio resource has its own individual volume setting allowing the user to customize the unselect audio across all channels/talkgroups.
Volume Unit Meter	A VU meter is located on the console's display in such a way as to give optimum visibility to the operator. The meter shall indicate the transmit audio level and selected receive audio level. Each Radio Tool actively displays Transmit and Receive audio levels. The RX is displayed on the left-hand side while the TX is displayed on the right.
Voter Control	The Enlite integrated voter shows the status of sites that are currently voted, steered, home, repeated, and squelched in real-time. The interface allows a site to be force-voted, set to home, force-steered, or set to be repeated. It also allows clearing all voted and steered sites, turning on or off repeating or simulcast settings.

INTERTALK ENLITE USER EXPERIENCE (UX)

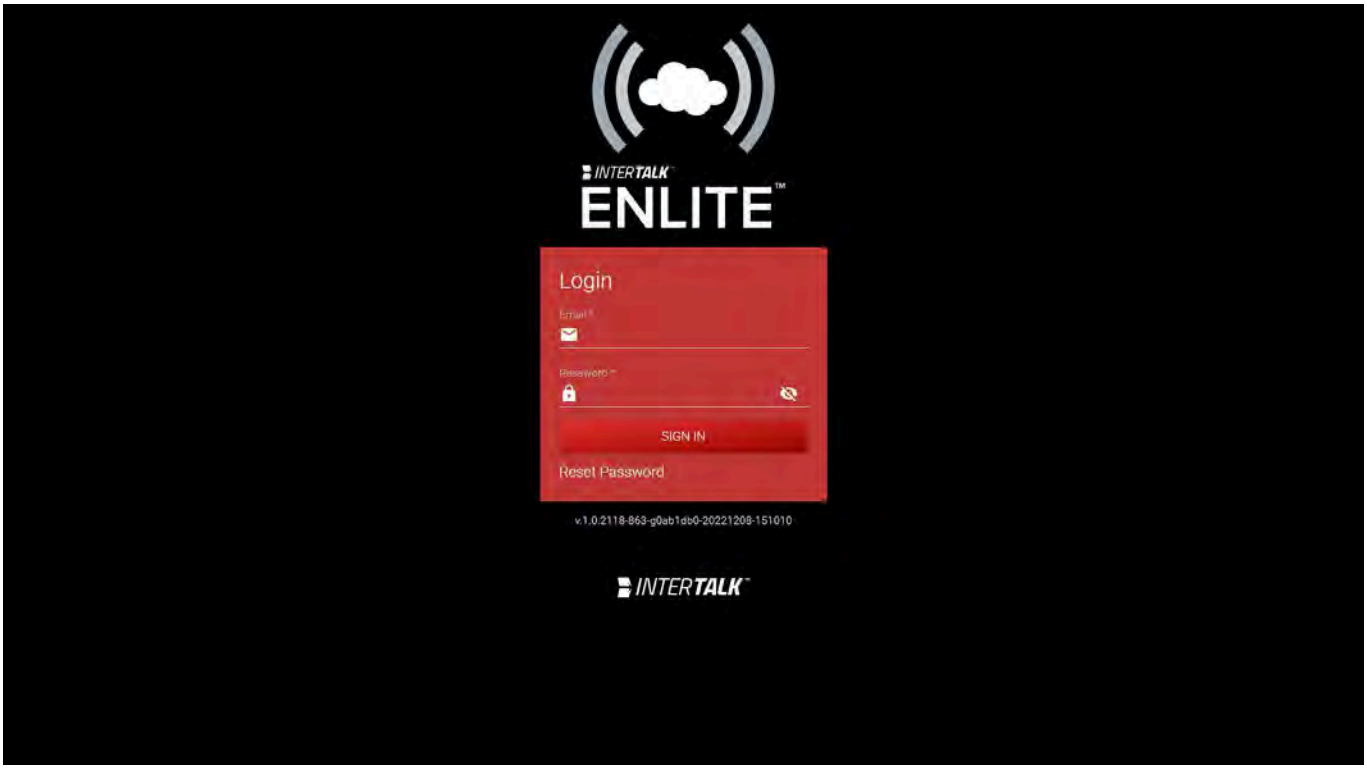


Figure 1: InterTalk Enlite Sample UX – User Login Screen

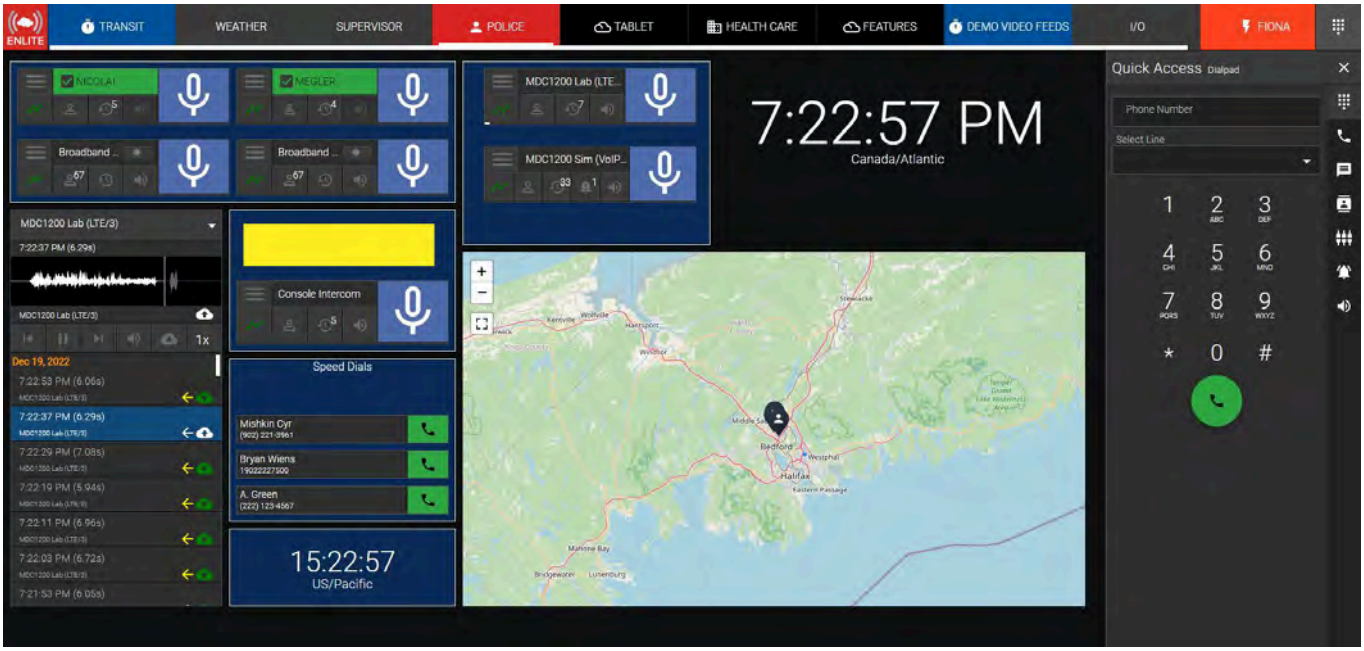


Figure 2: InterTalk Sample UX – Active Multi-Selected Radios, Phone Dialler, and Instant Recall Recorder

Figure 3: InterTalk Sample UX – Sample integrated voter/transmitter-steerer functionality within UX.

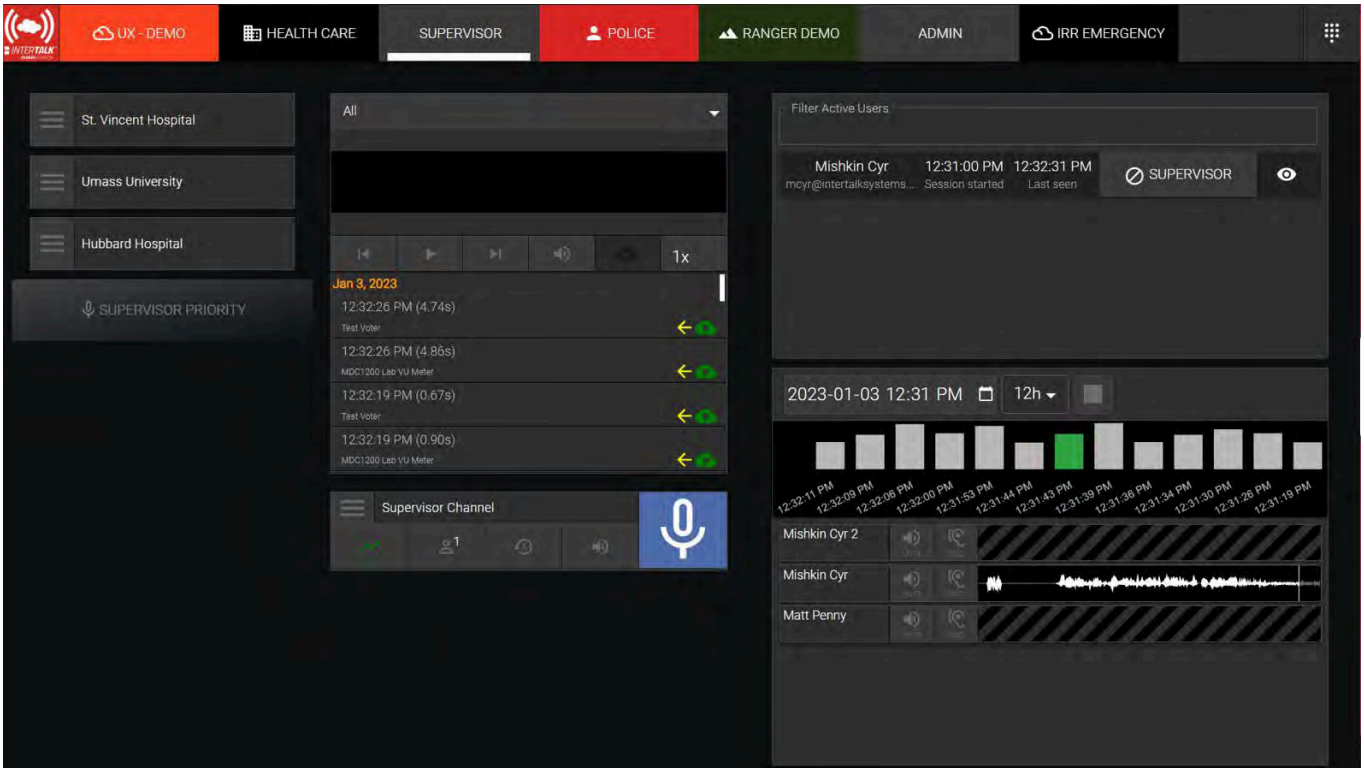


Figure 4: InterTalk Sample UX - Supervisory Control Functions

SENTINEL IP RADIO GATEWAY

Sentinel IP Radio Gateway

The Sentinel IP Radio Gateway represents the next generation of analog-to-IP conversion solutions. Optimized for operation at remote sites with IP connectivity, Sentinel can handle wireline and microwave bearer circuits, including the ability to mix different types of circuits. The Sentinel interfaces 2/4/6 wire radios to your IP network for audio communication. The Sentinel can connect to and control base stations using local PTT/COR connections. Other control mechanisms can be supported, with additional ports available to control radio units using RJ45, USB or Ethernet. The Sentinel can control up to two (2) base stations per controller using a single IP connection with TCP/IP for control, and RTP/UDP/IP for voice streaming.

Sentinel Product Specs

- ☑ DTMF Tone Call in
- ☑ Power-over Ethernet (PoE) Capable
- ☑ 12 Vdc Power requirement
- ☑ Supports MDC1200, Tone Remote Control, 2-tone, Complete tone set as specified by EIA
- ☑ 2 X USB Type A
- ☑ 2 X RJ45 Radio Ports
- ☑ RSSI Indicator
- ☑ Audio interface to radios, phone, voters, and other audio sources


INTERTALK™

INTERTALK™
Critical Information Systems

Sentinel
IP Radio Gateway

ANALOG TO IP CONVERSION GATEWAY

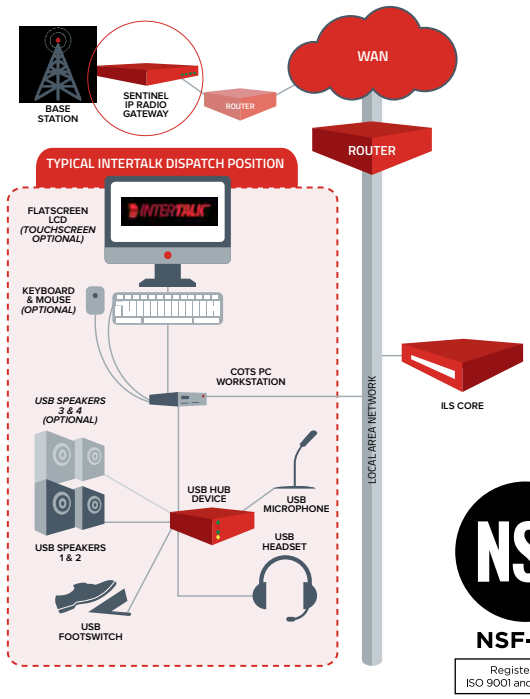
The Sentinel IP Radio Gateway represents the next generation of analog to IP conversion solutions. Optimized for operation at remote sites with IP connectivity, Sentinel can handle wireline and microwave bearer circuits, including the ability to mix different types of circuits. The Sentinel interfaces 2/4/6 wire radios to your IP network for audio communication. The Sentinel can connect to and control base stations using local PTT/COR connections, including Tone Remote Control (TRC). Other control mechanisms can be supported, with additional ports available to control radio units using RJ45, USB or Ethernet. The Sentinel can control one (1) donor radio per controller using a single IP connection with TCP/IP for control, and RTP/UDP/IP for voice streaming.

POWERFUL, OPEN SOURCE, AND SECURE

The Sentinel IP Radio Gateway operates on an embedded open-source Linux operating system. This allows for flexibility to modify the Sentinel for just about any job you can imagine for your site. Utilizing Linux ensures continued support through software and security updates for years to come. Taking advantage of modern technology, the Sentinel is equipped with a quad-core, 64-bit ARM-based processor operating at 1.2GHz. Combining this with 1GB SDRAM and expandable eMMC flash memory up to 32GB ensures the Sentinel has the power available to meet your needs today and well into the future. In situations when more than two base stations require control, or higher redundancy is desired, simply deploy multiple Sentinel gateways into your system.

EASY INTEGRATION WITH EXISTING SYSTEMS

The Sentinel IP Radio Gateway is easily integrated with your existing InterTalk dispatch Console system. With the capability of bridging and operating in parallel with other equipment, the Sentinel has the capability to eliminate downtime while installing. The smaller form factor of the Sentinel IP Radio Gateway ensures valuable space in your server rack is not needlessly occupied. Utilizing Sentinel, IP connections between sites allow for advanced features such as peer-to-peer receiver voting, transmitter steering, and unit identification. When integrated with an InterTalk™ Dispatch Console System, a small and very functional radio network can be built economically.



NSF®
NSF-ISR
Registered to ISO 9001 and ISO 27001

Sentinel IP Radio Gateway
Specifications

*Rack mounted configuration

FEATURES
DTMF Tone Call-In
RSSI Indicator
Opto-isolated COR Input or Contact Closure to Ground
Solid State PTT Relay Control
Local Radio Control
PTT ID Meta Data

LINE TYPES
Two-wire - Switched Simplex
Four-wire - Full Duplex
Six-wire - Full Duplex Audio Plus PTT
COR - Carrier Operated Relay, switched to ground

INPUTS/OUTPUTS
Power-over-Ethernet (PoE) Capable
Ethernet RJ45
USB Type A x 2
RJ45 Radio Ports x 2
MicroUSB Port
Barrel Connector for Power

LAN SPEED
10/100/Gig, RJ45 PoE connection

SIGNALING
DTMF In/Out
E & M Signaling
Complete tone set as specified by EIA
MDC-1200
2-tone
Tone Remote Control (TRC)

ENVIRONMENT
Temperature Range [-25°C to 70°C (-13°F to 158°F)]

POWER
12 Vdc

TECHNICAL
Total Harmonic Distortion plus Noise > 50dB
Frequency Response < +1/-3dB from 300Hz-3300Hz
Output Levels: Programmable up to +10 dBm
Input Impedance [switchable 600Ω or 10KΩ]
Output Impedance [switchable 600Ω or 10KΩ]

DTMF DECODE
Dynamic range -50 to +10 (in dBm) Configurable
Tone encode resolution (in Hz) < +/- 0.1Hz

SENTINEL
IP Radio Gateway

INTERTALK™

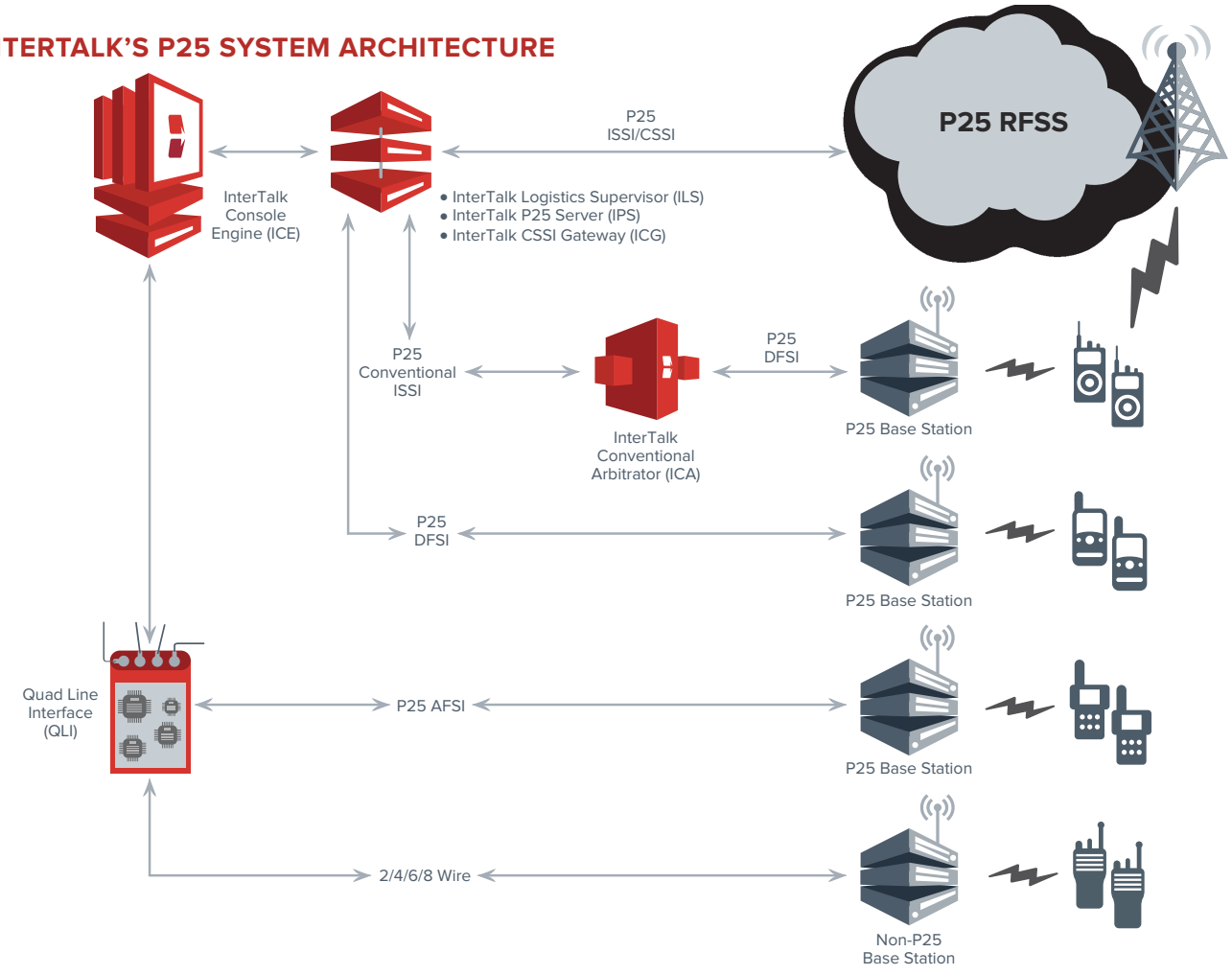
P25

InterTalk Dispatch Console System

INTERTALK HAS YOUR ADVANCED P25 CONSOLE SOLUTION

Project 25 (P25) is the standard for digital wireless communications products. Governed by APCO and the Telecommunications Industry Association (TIA), and developed with input from public safety officials at the local, state, and federal levels, P25 is administered by the TIA's Mobile and Personal Private Radio Standards Committee known as TR-8. P25 technology has many benefits to its end users, including interoperability, integrated voice and data, easy migration, competitive procurement opportunities, and spectral efficiency.

INTERTALK'S P25 SYSTEM ARCHITECTURE



P25 InterTalk Dispatch Console System

	FEATURE	P25 CONVENTIONAL	P25 TRUNKING
VOICE	Unaddressed Voice Call	✓	–
	Voice Group Call	✓	✓
	Announcement Group Call	–	✓
	Broadcast Voice Call	–	✓
	System Voice Call	–	✓
	Individual (Unit-to-Unit) Call	✓	✓
	Emergency Group Call	✓	✓
	Emergency Unit Call	✓	✓
	Call Prioritization	✓	✓
	Call Pre-emption	✓	✓
SUPPLEMENTARY	Call Interrupt	✓	✓
	Emergency Alarm	✓	✓
	Talking Party Identification	✓	✓
	Discreet Listening	✓	✓
	Radio Unit Monitoring	–	✓
	Radio Inhibit/Uninhibit	–	✓
	Radio Check	–	✓
	Status Request	–	✓
	Status Update	–	✓
	Call Alert	–	✓
	Short Messaging	–	✓
	Radio Detach	–	✓
	Audible Signaling	✓	✓
	AES/DES Encryption	✓	✓
CONSOLE	Console Priority	✓	✓
	Registration	✓	✓
	Cross-Patching	✓	✓

NIST STANDARDS FOR CRYPTO MODULE		
STANDARD	DATE	DESCRIPTION
FIPS PUB 140-2	Jan 1994	Security Requirements for Cryptographic Modules
FIPS PUB 197	Nov 2001	Advanced Encryption Standard (AES)
FIPS PUB 46-3	Oct 1999	Data Encryption Standard (DES)

SUPPORTED INTERFACES
Trunked Inter-RF Subsystem Interface (ISSI)
Trunked Console Subsystem Interface (CSSI)
Conventional Inter-RF Subsystem Interface (ISSI)
Analog Fixed Station Interface (AFSI)
Digital Fixed Station Interface (DFSI)

SUPPORTED TIA STANDARDS		
STANDARD	DATE	DESCRIPTION
TSB-102.BACC-B	Nov 2011	ISSI Overview
TIA-102.BACA-B	Nov 2012	ISSI Messages and Procedures for Voice and Mobility Mgmt Services
TIA-102.BACD-B	Nov 2011	ISSI Messages and Procedures for Supplementary Data Services
TIA-102.BACE	Jun 2008	ISSI Messages and Procedures for Conventional Operation
TIA-102.BAHA	Jun 2006	FSI Messages and Procedures
TIA/EIA-102.AAAA-A	Feb 2001	DES Encryption Protocol
TIA/EIA-102.AAAD-A	Aug 2009	Block Encryption Protocol
TIA-102.BABA	May 1998	Vocoder Description
TIA-102.BABA-1	Jul 2009	Half-Rate Vocoder Annex

TESTED AGAINST THE FOLLOWING STANDARDS		
STANDARD	DATE	DESCRIPTION
TIA-102.CACC	Jan 2009	ISSI Conformance Test Procedure
TIA-102.CACC-1	Aug 2011	ISSI Conformance Test Procedure Addendum 1 - Supplementary Data
TSB-102.CBBK-A	Mar 2010	Recommended Compliance Assessment Tests - Trunking ISSI
TIA-102.CACD-A	Feb 2010	ISSI Interoperability Test Procedures for Trunked Systems Involving the ISSI
TIA-102.CACB	Apr 2007	ISSI Performance Recommendations for Voice Services
TIA-102.CACB-1	Dec 2008	ISSI Performance Recommendations for Voice Services - Addendum 1 - Trunked Console ISSI
TIA-102.CACA	Apr 2007	ISSI Measurement Methods of Voice Services
TIA-102.CACA-1	Dec 2008	ISSI Measurement Methods of Voice Services - Addendum 1 - Trunked Console ISSI
CAB Document	Mar 2010	P25-CAB-ISSI_TEST_REQ: ISSI Testing Requirements

**The P25 logo is licensed from the Project 25 Technology Interest Group, of which InterTalk is a member.*
***Not all sections of these documents are relevant to console operation, and standards tested against are available upon request.*

INTERTALK™

InterTalk P25 AES Encryption Dongle

ENCRYPTION MEETING FIPS 140-2 STANDARD

InterTalk's P25 AES Encryption Dongle is a 28 mm x 25 mm single-board security module, designed to conform to FIPS 140-2 standards and targeted for mobiles and base stations. It provides encryption, decryption, key management and key storage services, and can be used with radio and network equipment. The module supports KFD management implementations, including a dedicated 3-wire KFD interface. It includes a complete key storage and critical security material management function for Traffic Encryption Keys (TEK) and Key Encryption Keys (KEK) in non-volatile memory within the dongle, with protection from unauthorised disclosure or modification.

FEATURES

- Single multi-chip embedded 28 mm x 25 mm board
- 24 simultaneous cryptographic channels
- Voice and data encryption and decryption support
- P25 OTAR (Over the Air Rekeying) support
- Key Fill Device (KFD) interface
- Key generation support
- High capacity key and security material storage
- High speed serial host interface
- Multi-level zeroisation capability
- Full zeroisation via direct hardware control
- Firmware integrity and cryptographic power-up tests

PHASE 1 VOICE AND DATA SUPPORT

The P25 AES Encryption Dongle supports encryption and decryption of Phase 1 voice and data traffic, Trunking Control Keystream and OTAR Message Authentication Code (MAC) operations. It implements the following FIPS 140-2 approved algorithms:

- AES-256 ECB
- AES-256 OFB
- AES-256 CBC
- PRNG1
- SHA-12
- DSA
- HMAC

FIPS SECURITY LEVEL

The P25 Encryption Dongle meets the following security levels, as defined in FIPS 140-2:

AREA FIPS 140-2	*SECURITY LEVEL*
Cryptographic Module Specification	Level 1
Cryptographic Module Ports and Interfaces	Level 1
Roles, Services, and Authentication	Level 1
Finite State Model	Level 1
Physical Security	Level 1
Cryptographic Key Management	Level 1
EMI / EMC	Level 1
Power-up Self Tests	Level 1
Design Assurance Level	Level 1

P25 AES Encryption Dongle
Specifications

MAIN COMPONENTS

STARTUP MANAGER
The Startup Manager initialises the Crypto Module software and invokes self-test of the cryptographic algorithms.

HOST INTERFACE
The Host Interface performs common message processing for incoming and outgoing host messages.

HOST MESSAGE HANDLERS
The Host Message Handlers process specific incoming host messages. They request the necessary actions within the Crypto Module, and prepare the appropriate response messages for the host.

KFD INTERFACE
The KFD Interface performs common message processing for incoming and outgoing KFD messages.

KMM HANDLERS
The KMM Handlers process specific incoming key management messages (KMMs). They request the necessary actions within the Crypto Module, and prepare the appropriate response KMMs for the KFD.

DATABASE
The Database allows the other entities to store and retrieve information in a high-level form appropriate to that entity. It translates between this high level form and its storage format, and organises stored information into logical pages.

DATABASE STORAGE MANAGER
The Database Storage Manager is responsible for mapping the logical pages of database information to its physical storage, and for managing failsafe update operations.

CHANNEL ROUTER
The Channel Router coordinates cryptographic channels and routes channel operation messages to and from the individual channels.

CHANNELS
The Channels are the individual cryptographic channels. They implement the specific behaviour of each channel type, and maintain channel state for the life of each channel instance. A Channel invokes the cryptographic algorithms required for its operation using unwrapped (plaintext) key material obtained from the Key Wrapper.

WARM START GENERATOR
The Warm Start Generator is responsible for generation of Warm Start Segment information when requested by the host, including generation of the temporary key using an appropriate Pseudo Random Number Generator algorithm.

KEY WRAPPER
The Key Wrapper performs wrapping and unwrapping operations on keys stored in the database, or received or transmitted over the air. It invokes the appropriate cryptographic algorithms to perform the wrapping and unwrapping, and handles plaintext versions of both the keys being wrapped/unwrapped and the Key Encryption Key with which the wrapping is performed.

ZEROISING AND INTEGRITY
A multi-leveled zeroise feature ensures all the Critical Security Parameters (CSPs) are completely and securely deleted when required. Also digital signatures utilising the SHA-1 and DSA are used to digitally sign and verify software modules during power up self test and when new software versions are uploaded. The module also includes cryptographically sound pseudorandom number generation for key generation.

INTERTALK PART NUMBER	
P25 AES ENCRYPTION DONGLE	830-4001-01

InterTalk Cybersecurity Framework

How InterTalk™ Keeps Your Deployment Secure.

IT derived cybersecurity policies are becoming more and more an integral and expected part of critical information systems like radio dispatch. While InterTalk generally does not operate critical infrastructure serving the public, we provide solutions for organizations that do.

We know that cybersecurity is a lot more than just cipher suites, TLS, and AES.

Framework

To aid agencies in ensuring that their systems are appropriately secured and operated, the US Federal government National Institute of Standards and Technology (NIST) provides an excellent framework for assessing and measuring information systems in their Cybersecurity Framework (CSF) with the latest version of the guide (v2.0 released

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Feb 26, 2024) no longer applying only to critical public infrastructure but applying to all organizations that have cybersecurity requirements and risks to manage.
NIST CSF v2.0 Core provides for six functions that organizations should provide when considering cybersecurity: Govern, Identify, Protect, Detect, Respond, and Recover.

Govern

> *The organization's cybersecurity risk management strategy, expectations, and policy are established, communicated, and monitored.*

Organizations that intend to purchase InterTalk solutions often have existing cybersecurity policies, regulations, and laws that apply. As a system that is built with open source componentry, in-house fabricated hardware, and on standard Commercial Off The Shelf (COTS) components, most organizational cybersecurity governance policies are fully accommodated by InterTalk solutions.

The InterTalk hosted architecture of Enlite complies with rigorous data center security and operational regulations. It aligns with ISO 27001:2013 for information security management, ISO 9001:2015 for quality management, and adheres to the NIST 800-160 guidelines for systems security engineering. We offer management options tailored to specific jurisdiction requirements, ensuring adherence to regional data protection regulations such as GDPR in Europe and CCPA in California.

Identify

> *The organization's current cybersecurity risks are understood.*

During the design and planning phases of any InterTalk solution, the specific components that we propose to install will be identified in detail as well as key staff, supply chain origins, support and maintenance expectations, physical site requirements, and training needs.

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We encourage cybersecurity governance to review suggested componentry and assess them in line with your organizational risk profiles at the outset of any project and ongoing throughout the operational lifetime of your system.

We encourage active scanning of the networks we deliver to detect devices and register them and can accommodate adjustments to hardening guides to enable easier network monitoring. There is always a balance between transparency for governance and monitoring versus opacity to make malign actors' offensive reconnaissance more difficult.

Enlite's ISO 27001:2013 secure software development methodology incorporates a fully automated deployment pipeline with a separation of duties encoded in it. This encompasses Continuous Integration/Continuous Delivery (CI/CD) practices, automatic vulnerability scans, peer reviews, pervasive training and awareness of secure development practices, and transparent deployments to ensure that release artifacts have strong accountability at every step of their creation and delivery. These practices ensure rigorous scrutiny and testing of any code changes before deployment, thereby reducing the risk of introducing security vulnerabilities.

InterTalk's ISO 27001:2013 hardware engineering and production methodology incorporates rigorous inventory management, origin tracking, testing, and reporting to ensure that hardware complies not just with functional requirements but that we know exactly what each component does in every piece of hardware we fabricate. We can also comply with any import/export laws relating to electronic componentry and supply chain attacks.

Protect

> *Safeguards to manage the organization's cybersecurity risks are used.*

All our operating system services are hardened by ensuring only minimum services are exposed, that root/administrator accounts are properly protected, that we only use FIPS-140-2 acceptable cipher suites like AES-256-SHA with TLS 1.2+ encryption, that we use FIPS-140-2 compliant implementations like OpenSSL / libssl between the insecure

network exposed parts of the system, that all 3rd party dependencies are patched and up-to-date, that we use well known prolific COTS components wherever possible with strong communities of active users, and that encryption keys and certificates expire and are rotated out. Where data enters the system from perimeters, it is considered to be intrinsically unsafe, untrusted, and possibly malicious. We consider most system activities to be privileged and protected, requiring authentication and encryption between various elements. We encrypt data at rest at several levels using strong encryption. Operating system root keys and drive encryption hardware can be protected using Trusted Platform Modules (TPM).

For P25 Phase 2 Trunked connections, we offer certified FIPS-140-2 Level 3 HSM support for storing encryption keys, UKEKS, and the like.

User authentication and authorization can be federated to Active Directory or securely hashed and stored in local encrypted data stores.

Encryption/decryption happens at the perimeter of the ILS core so that analog radios and digital radios can be transcoded, mixed, signals processed and recorded. All traffic leaving the DCS core and destined for consoles is encrypted to the PC using TLS 1.2 or better, FIPS 140-2 approved cipher suites, and, depending on PC configuration, FIPS 140-2 cryptographic modules.

For console positions that use wireless headsets, traffic can be encrypted from the PC to the headset using DECT or Bluetooth encryption.

Network links between radio perimeter devices like Sentinel and the DCS ILS Core can be secured using FIPS 140-2 VPN clients and FIPS 140-2 firewall VPN appliances like FortiGate 80F.

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Detect

> *Possible cybersecurity attacks and compromises are found and analyzed.*

All software and operating system configurations are regularly scanned with both active-creative and automated vulnerability scanners to detect any known vulnerabilities in componentry, and we encourage and welcome any 3rd parties doing that to prove your security posture is safe. Where components have assessed vulnerabilities, they are triaged, analyzed, patched, and remediated according to a standard risk model. We encourage the integration of enterprise central logging like ElasticSearch/Logstash/Kibana (ELK), Splunk, Syslog-ng, and log using 12-factor application design principles with rich event log streams to analyze and alarm at multiple levels of granularity. We provide several SNMP traps on multiple services to detect when services change state. We provide active agents to Zabbix, Grafana, and other system monitors for real-time system instrumentation.

As a console dispatch system, individual connections to individual consoles result in notifications of presence to other consoles, so it is hard for an unauthorized person to log in invisibly. GPS locations are broadcast by default and video cameras may be enabled by supervisors without the consent of logged in dispatchers.

Respond

> *Actions regarding a detected cybersecurity incident are taken.*

During a cybersecurity incident, InterTalk has 24/7 support on hand to assist with monitoring and insight. Advanced supervisory controls can be used to isolate and contain intruders with access to various pieces of equipment, including revoking keys, stunning/inhibiting radios that support it, opening microphones and cameras without user consent, force logging out, overriding transmission priority, and other active

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interventions. Logs, recordings, and reporting are available in common formats for transmission to law enforcement for use in investigations.

Recover

> *Assets and operations affected by a cybersecurity incident are restored.*

As a console systems provider, availability is the most common top criteria for customers and so recovery efforts are focused around restoring service quickly and preventing the spread of disaster outside the affected systems by isolating them from each other. While data is retained with encrypted backups in multiple places, the most common cybersecurity disaster recovery is to design the system with mutually supportive sites where each can access resources on some of the others. During a significant outage (including human operational considerations like evacuations), a compromised site is removed from operation, and the modular architecture of our systems allows operations to seamlessly shift to the peers. The sites share access to resources but do not share data or allow administrative access between them using shared credentials or intra-node network access. In significantly secure architectures, sites have their own overlapping radio infrastructure.

Where there is a desire to recover a system rather than replace it, our high availability configurations and strong automated deployment tools make this simple and well-exercised - restoring the system to a previous data state using regular backups, synchronizing the data, and adding it back into service.

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HIGH-AVAILABILITY ADVANTAGE: ENLITE™ CLOUD READY DISPATCH

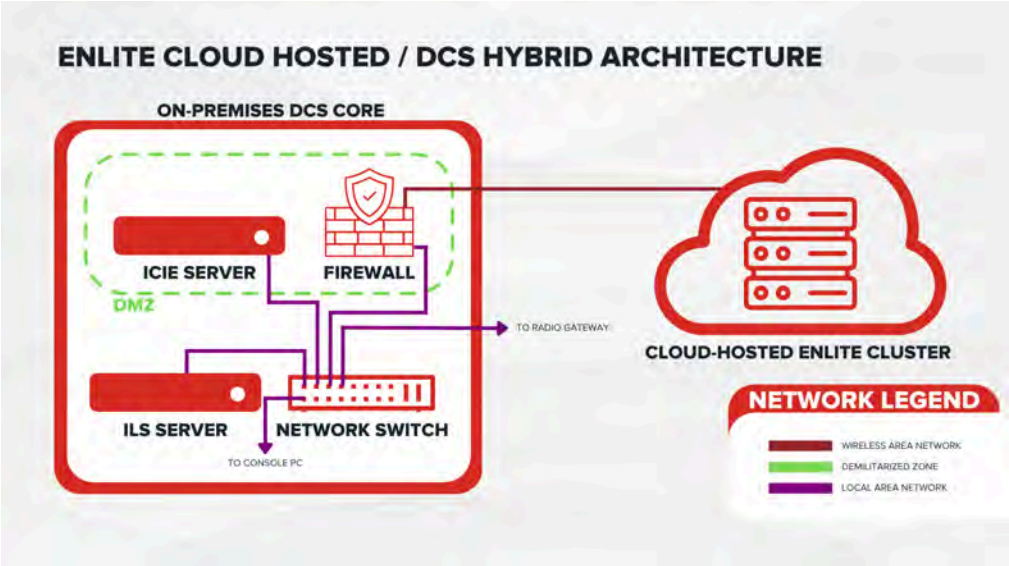
High availability (HA) is the ability of a system to operate continuously without failure for a designated period of time. HA works to ensure a system meets an agreed-upon operational performance level. In a dispatch center, this allows for five-nines availability (99.999%).

HA systems are used in situations and industries where it is critical the system remains operational. Real-world high-availability systems include military control, autonomous vehicles, industrial and healthcare systems. People's lives depend on these systems being available and functioning at all times. In a mission-critical dispatch deployment, this is shown through no loss of resources such as radio and telephony and a failover process that is indistinguishable for the dispatcher.

AVAILABLE ARCHITECTURES

Cloud Hosted and DCS Hybrid Deployment

The InterTalk Enlite Cloud Hosted, Hosted, or Hybrid architecture consists of an on-prem ILS/DCS core connected to a cloud-hosted (typically AWS) Enlite cluster. The on-premises equipment securely connects to and communicates with the cloud Enlite cluster via SSL-encrypted traffic. A network firewall appliance and static public internet IP connection are required to ensure continuous secure communication.



High Availability Failover Selection Process

1. PRIMARY SERVER FAILS

↓

2. THE FIRST SERVER TO NOTICE ASKS IF IT CAN BE PRIMARY

↓

3. OTHER SERVERS RESPOND WITH A VOTE OF YES

↓

4. A MAJORITY VOTE COUNT IS RECEIVED

↓

5. THE SERVER THAT ASKED TO BE PRIMARY SWITCHES TO PRIMARY

↓

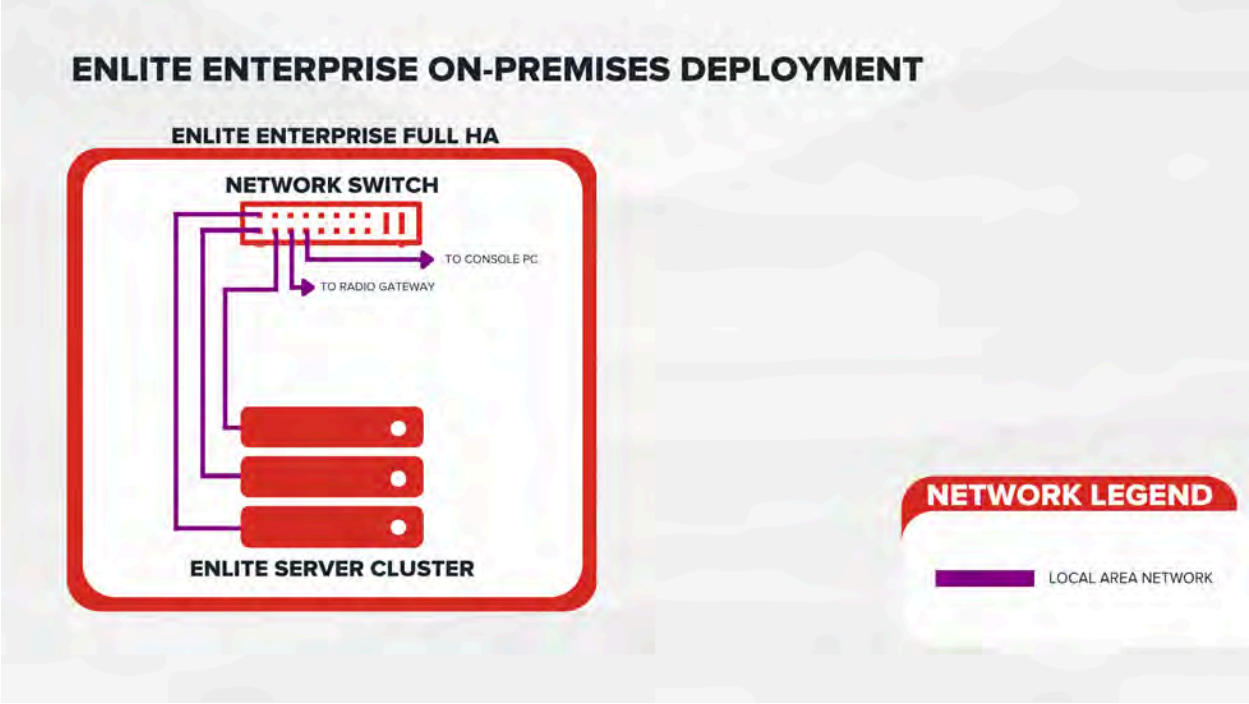
6. THIS MODEL CAN BE SCALED UP AS LONG AS THERE ARE AN ODD NUMBER OF SERVERS IN THE CLUSTER.

Advantages to Enlite™ Hosted High Availability

- Cloud-hosted Enlite provides the best architecture for internet-connected remote console positions
- Easy for InterTalk Support to do regular updates, maintenance, and monitoring
- Offers load sharing/balancing across the active servers
- Can be scaled out to include hundreds or thousands of Enlite cloud servers

On-Premises Enlite Enterprise Deployment (FULL HA)

The InterTalk Enlite Enterprise Full High Availability architecture consists only of on-premises equipment with no cloud component. The HA architecture here is similar to that of the Cloud-hosted architecture, except that this is all on-premise equipment. The ILS and Enlite applications are run on the same servers.



High Availability Failover Selection Process

1. PRIMARY SERVER FAILS

↓

2. THE FIRST SERVER TO NOTICE ASKS IF IT CAN BE PRIMARY

↓

3. OTHER SERVERS RESPOND WITH A VOTE OF YES

↓

4. A MAJORITY VOTE COUNT IS RECEIVED

↓

5. THE SERVER THAT ASKED TO BE PRIMARY SWITCHES TO PRIMARY

↓

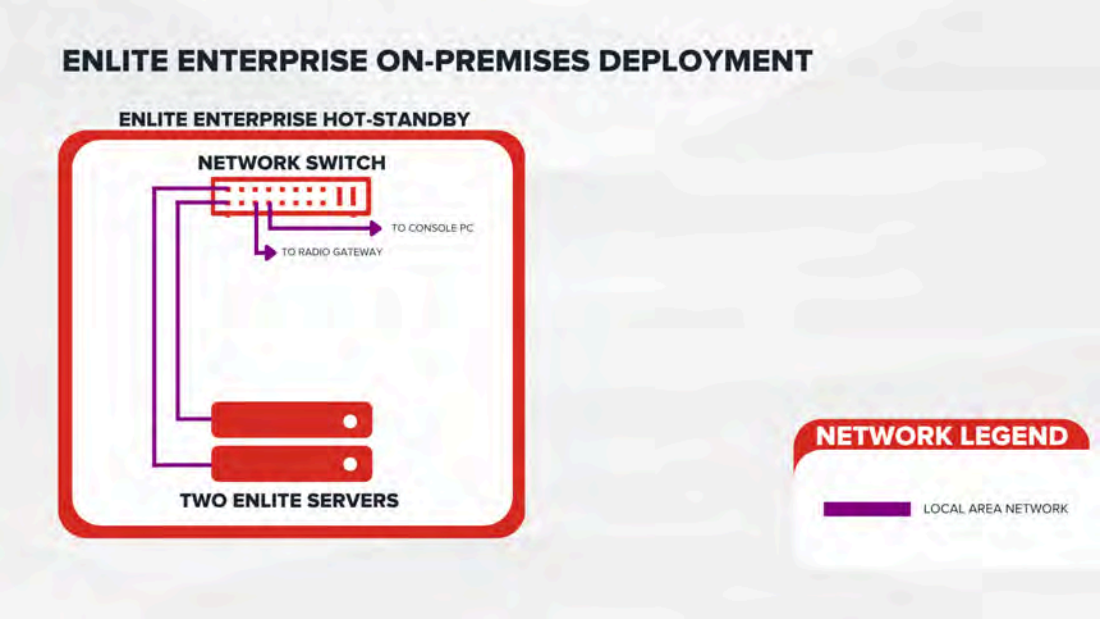
6. THIS MODEL CAN BE SCALED UP AS LONG AS THERE ARE AN ODD NUMBER OF SERVERS IN THE CLUSTER.

Advantages to Enlite™ On-Premise High Availability

- Offers load sharing/balancing across the active servers
- In situations where geo-redundancy is not desired, the Enlite cluster acts to harden your system against failure

On-Premises Enlite Enterprise Deployment (HOT-STANDBY)

The InterTalk Enlite Hot-standby on-premises architecture consists only of on-premises equipment with no cloud component. The ILS and Enlite applications are run on the same server. This architecture is considered one of the most common backend equipment redundancy architectures, where only one server is active at a time, and all other servers are on hot standby with automatic failover. One server acts as the Master ILS, while the other is prepared to take over in case of failure or service disruption.



Hot Standby Failover Process

1. MASTER ILS SERVER FAILS

↓

2. THE SECONDARY PEER SERVER IS INSTANTLY PROMOTED TO MASTER

↓

3. THE SECONDARY, NOW MASTER SERVER CONTINUES OPERATION FROM THE MIRRORED SYSTEM DATABASE

Advantages to Enlite™ Hot Standby Redundancy

- Industry-standard architecture
- Level of redundancy (i.e. the number of servers) can be controlled
- Geo-redundancy can be easily achieved

Conclusion

Enlite can offer the flexibility your client needs when choosing their desired dispatch console system. Enlite has been designed to act as the bridge between traditional LMR and broadband / LTE / 5G, empowering users with the ability to deploy their way today, while providing an evergreen system with a clear migration path to hosted / cloud when they desire.

ATTACHMENT D

Standard Limited Warranty

INTERTALK™ LIMITED WARRANTY AGREEMENT

This document comprises the Limited Warranty Agreement covering the InterTalk™ Software provided by:

InterTalk Critical Information Systems, Inc.
Dartmouth, Nova Scotia, B3B 0J5 Canada
("INTERTALK"),

to:

City of Hammond
310 East Charles Street, Hammond, LA
70404-2788 (the "Purchaser")

Limited Warranty

1. Limited Warranty

INTERTALK warrants for a period of 12 months from the date of delivery that the InterTalk Software will perform substantially in accordance with the accompanying written materials.

2. General

This warranty shall not apply to defects resulting from improper or inadequate maintenance by the Purchaser, or unauthorized modifications, or misuse, or operation outside the environmental specifications of the host devices, or improper site preparation or maintenance. This warranty shall not apply if the InterTalk Software has been subjected to improper testing, repair, or alteration.

3. Customer Remedies

INTERTALK's entire liability and the Purchaser's exclusive remedy shall be, at INTERTALK's option, either (a) an adjustment to the cost of the license granted therein, or (b) the repair or replacement of the software that does not conform to this Limited Warranty.

4. No Other Warranties

INTERTALK disclaims all other warranties, except as specified under the "Patent and Trade Secret Indemnity" clause herein, either express or implied including, but not limited to implied warranties of merchantability or fitness for a particular purpose, with respect to the InterTalk Software and the accompanying written materials.

5. No Liability for Consequential Damages

In no event shall INTERTALK or its distributors be liable for any damages whatsoever including, without limitation, damages for loss of business profits, business interruption, loss of business information, or other pecuniary loss arising out of the use or inability to use the InterTalk Software, even if INTERTALK has been advised of the possibility of such damages. In no event shall any damages which may be assessed upon INTERTALK for any reason exceed the purchase price of the InterTalk Software License granted herein. Any action against INTERTALK must be commenced within one (1) year after the cause of action arises and shall not be commenced thereafter.

Terms of License and Limited Warranty Agreement

i. The InterTalk Software is hereby licensed under this License and Limited Warranty Agreement, which shall remain effective until terminated. The license hereunder is revocable, personal, non-transferable, and non-exclusive.

ii. So long as the Purchaser complies with all terms of this License and Limited Warranty Agreement, the license granted herein shall be perpetual.

iii. Without prejudice to any other rights, INTERTALK may terminate this InterTalk Software License and Limited Warranty Agreement if the Purchaser fails to comply with the terms and conditions of this agreement. In such an event, the Purchaser must destroy all copies of the InterTalk software.

iv. The Purchaser may terminate this agreement by destroying the InterTalk Software and all copies thereof, and notifying INTERTALK in writing of its action.

v. Any term of this License and Limited Warranty Agreement may be waived in writing by the party entitled to the benefits thereof. No waiver of any condition or breach shall be deemed to be a further or continuing waiver of such condition of breach. Delay or failure to exercise any right or remedy shall not be deemed the waiver of that right or remedy. Any provision of this License and Limited Warranty Agreement, which shall be determined by a count of competent jurisdiction to be invalid or unenforceable, shall be severed from this License and Limited Warranty Agreement without invalidating the remaining provisions thereof. This License and Limited Warranty Agreement represents the entire agreement between the parties with respect to the InterTalk Software and supersedes any prior agreement between the parties. Any modifications of this License and Limited Warranty Agreement shall be in writing and signed by the parties. No agent or employee of INTERTALK is authorized to make any representation binding on INTERTALK unless the representation is in writing and signed by an authorized officer.

vi. This Agreement shall be governed by the laws of the Province of Nova Scotia and the federal laws of Canada applicable therein.

vii. Failure to return a signed copy of this agreement or the usage of the InterTalk Software shall constitute acceptance of the Terms and Conditions contained herein.

Should the Purchaser have any questions concerning this Agreement, or if the Purchaser needs to contact INTERTALK for any reason concerning the InterTalk Software, correspondence should be addressed to:

InterTalk Critical Information Systems, Inc.
371 Cutler Avenue
Dartmouth, Nova Scotia, Canada B3B 0J5

On behalf of the Purchaser, I have read and understand the terms of this Limited Warranty Agreement, and agree to adhere to them.

Signature	
Name	
Title	
Company	
Date	

General Info

Total:

$214,522.39

Number

RFP 25-05 for 3 Operator Position Dispatch Console

Deadline

11/07/2024 10:00 AM CST

Vendor

Communications International

Submitted

11/06/2024 09:34 AM CST

Signed by

Mindy Swetz
Account Holder Mindy Swetz

Opened

11/07/2024 10:03 AM CST **By** noto_kk@hammond.org

Description

3 Operator Position Dispatch Console
The dispatch console must be a complete workstation, providing interfaces to all common audio accessories such as headset jacks, foot switches, speakers, desk microphones, a NENA telephone interface. It must provide the user interface and do all the VoIP communications, utilizing the audio system via an internal USB connection. No position PC is required. Each Console will receive information from (9) New P25 radios.

Allows zero unit prices and labor

No

Allows negative unit prices and labor

No

General Information:

Name of Firm: *

Communications International, Inc.

Address: *

2150 15th Ave, Vero Beach, FL 32960

Contact Person: *

Mike Farrell

Phone Number: * **Fax:**

(251) 366-8840

E-mail: *

mfarrell@ask4ci.com

PROPOSAL AMOUNT

$214,522.39

Proposer agrees to Furnish All Material, Supplies and Services in complete accordance with all RFP 25-05 Specifications for the sum indicated:

(Amounts shall be shown in words and digits. In case of discrepancy, words shall govern.)

TOTAL PRICE IN WORDS *

two hundred fourteen thousand five hundred twenty two and 39/100

TOTAL PRICE IN DOLLARS *

$214,522.39

Attachment List

RFP 25-05 3 Operator Position Dispatch Console.pdf (251 KB)

Addendum 1.pdf (177 KB)

Required Document List

Name	Omission Terms	Submitted File
RFP Package Upload proposer's RFP Package.		RFP-25-05-3-Operator-Position-Dispatch-Console Ci FINAL RESPONSE.pdf
Additional Attachment Upload additional attachment.	I do not have additional documents to attach.	RFP-25-05-3-Operator-Position-Dispatch-Console Ci FINAL RESPONSE PRODUCT
2 Required Documents		

Name	Omission Terms	Submitted File
		DESCRIPTION.pdf
2 Required Documents		

City Of Hammond
Purchasing Department

RFP 25-05
for
3 Operator Position Dispatch Console

Proposals Shall Be Received by the Purchasing Department,
City of Hammond
310 East Charles Street
Hammond, Louisiana 70404-2788

Until

10:00 A.M. November 7, 2024

Any technical questions on Specifications should be addressed in writing to Stephanie Rogers at rogers_sm@hammond.org

Site visit can be scheduled by calling Stephanie Rogers at 985-277-5748

PURCHASING DEPARTMENT

P.O. BOX 2788 | HAMMOND, LOUISIANA | 70404| PURCHASING@HAMMOND.ORG

985-277-5633| WWW.HAMMOND.ORG

This is the Proposal of:

Date: 11//6/2024

Company: Communications International, Inc.

Section 3 Business/WBE/SBE/MBE/DBE: n/a

Address: 2150 15th Ave.

City: Vero Beach **State:** FL **ZIP Code:** 32960

Person to Contact: Mike Farrell , District Sales Manager, AL, MS, LA

Phone: 251-366-8840 **Fax:**

Email: mfarrell@ask4ci.com

Your Proposal is important to us.
However, should you choose NOT to submit a Proposal for this project, the City would still ask you to complete this sheet and indicate "No Proposal". This shall NOT affect your participation in future RFPs, but only serve as a means of verifying you received notification of this RFP.

Section 3 Business/WBE/SBE/MBE/DBE
The City encourages Proposals from Section 3 businesses, Woman Business Enterprises, Minority Business Enterprises, Small Business Enterprises, and other potentially Disadvantaged Business Enterprises. If your company is one of these types of businesses, please indicate "Section 3," "WBE," "SBE," "MBE," or "DBE" in the space provided above.

Nondiscrimination Requirements
By submitting and signing this Proposal, the Proposer agrees to comply with Title VI and VII of the Civil Rights Act of 1964 as amended; the Vietnam Era Veterans Readjustment Assistance Act of 1974; Section 503 of the Rehabilitation Act of 1973; Section 202 of Executive Order 11246 as amended; and the Americans with Disabilities Act of 1990.
The Proposer also agrees to keep informed of and comply with all federal, State, and local laws, ordinances, and regulations which affect the Proposer's employees or prospective employees.

SCOPE

The Hammond Police Department is seeking proposals from qualified contractors with proven industry experience to furnish and install total of three (3) new dispatch console workstations.

SITE INSPECTION

Prospective proposer may schedule an appointment to inspect the current dispatch center if needed. Current floorplans will not be mailed, emailed, or otherwise sent to any prospective proposers for inspection.

1.0 GENERAL

▪The following RFP specifications are to be used as minimum standards.

▪ No proposal may be withdrawn for at least thirty (30) days after the scheduled closing time for the receipt of proposals. Quoted prices shall remain firm until product(s) have been accepted by the City of Hammond as delivered.

▪Only the manufacturer's factory installers or their trained and authorized designees experienced with the working environment of a public safety dispatch center shall assemble and install the console.

▪The manufacturer must provide a plan for a post-installation walkthrough intended to confirm full compliance to the floor plan, console design, and materials specified

▪ The manufacturer must provide a detailed plan for training all users and support staff in the proper use of all adjustment controls, ergonomic functions, and technical access.

▪ Each proposer is requested to furnish, attached to the proposal, complete descriptive literature on product being proposed. Any item(s) appearing in the manufacturer's regularly published specifications as "standard" equipment are assumed to be included in the proposer's proposal.

▪ Each respective proposer shall be responsible for insuring that his/her product meets or exceeds specifications as described herein.

▪Successful proposer should furnish complete warranty information for product(s) being proposed, to include all sub-contracted components installed by vendor as well as vendor warranted components.

2.0 **SPECIFICATIONS**

3 Operator Position Dispatch Console

The dispatch console must be a complete workstation, providing interfaces to all common audio accessories such as headset jacks, foot switches, speakers, desk microphones, a NENA telephone interface. It must provide the user interface and do all the VoIP communications, utilizing the audio system via an internal USB connection. No position PC is required. Each Console will receive information from (9) New P25 radios.

Complete Distributed VoIP Design
Complete P25 Interface
No PC or Server requirement / LINX Based design
No proprietary Wiring
No limit to the number of positions to be added at a later date
SIP based VoIP Telephone Functionality
Direct IP Steaming of console position audio to VoIP capable recorders
Supports AES, DES and FIPS 140-2 compliant options
NENA Telephone Interface
Supports ALL Page and Selective Paging
Console Instant Recorder re-call (last 50 transmissions)
Multiple Screen Tabs
Administrative Log-in and/or individual user log-in
Fully Customizable GUI for screen layout design
Cross Patching
Two tone sequential paging stacked with capability to tone out multiple fire departments

3 - Operator Positions, each including:
2 Speakers per Position (Select/Unselect) w/capability of up to 8
1 Headset Jack per Position
1 Footswitch per Position
1 Desk Microphone per Position
1 22” Monitor (Optional Touch Screen Upgrade Available)
1 Operator Software License

Each Position is provided with:
NENA Protocol Telco Headset Interface
Crosspatch
Simul-Select Transmit
Multi-functional RAPID recall recorder (Telephone/Radio)
Mouse/Trackball control
1 - Pre-Wired 36” Rack Assembly including Dual Card Cage Assembly, Power Supply, Backplane Daughterboard, Punch-block, Cable Assembly and Cisco Ethernet Switch
20 - Radio Line Interface Cards
Delivery, Installation, and On-site Labor

DELIVERY

Delivery of the System will occur within a 90 – 180 days schedule after receipt and acknowledged acceptance of the order by vendor, training on the system to be included with proposal.

Instructions to proposers

PROPOSERS ARE URGED TO PROMPTLY REVIEW THE REQUIREMENTS OF ALL SPECIFICATIONS AND SUBMIT QUESTIONS FOR RESOLUTION AS EARLY AS POSSIBLE DURING THE SUBMITTAL PERIOD. QUESTIONS OR CONCERNS MUST BE SUBMITTED TO THE PURCHASING DIRECTOR DURING THE PROPOSAL PERIOD AND SHALL BECOME PART OF YOUR PROPOSAL PACKAGE. OTHERWISE, THIS WILL BE CONSTRUED AS ACCEPTANCE BY THE PROPOSERS THAT THE INTENT OF THE SPECIFICATIONS IS CLEAR AND THAT COMPETITIVE PROPOSALS MAY BE OBTAINED AS SPECIFIED HEREIN. PROTESTS WITH REGARD TO THE SPECIFICATION DOCUMENTS SHALL NOT BE CONSIDERED AFTER PROPOSALS ARE OPENED.

RFP Packages are mailed only as a courtesy. The City of Hammond does not assume responsibility for proposers to receive RFP packages. Proposers should rely on advertisements in the local newspaper, City Website www.hammond.org, online at www.bidexpress.com or personally pick up RFP packages with specifications. Full information may be obtained, or questions answered, by contacting the Purchasing Department, Hammond City Hall Complex, 310 East Charles Street.

These specifications are written in a manner to invite open competition. Any manufacturer's names, trade names, brand names, or catalog numbers used in the specifications are for the purpose of describing and establishing general quality levels. Such references are not intended to be restrictive unless the RFP states that only the brand name will be considered for reasons of compatibility, etc.
The RFP number, Proposers name, address and RFP opening date shall be clearly printed or typed on the outside of the Proposal envelope, if mailed. Only one (1) proposal shall be accepted from each proposer. Alternates shall not be accepted unless specifically requested in the RFP specifications. Proposals can be delivered or mailed. The method of delivery of proposals is the responsibility of the proposer. All proposals shall be received by the Purchasing Department, Hammond City Hall Complex, 310 East Charles Street Hammond, Louisiana on or before the specified RFP opening date and time. Normally, bid bonds will not be required on bids for materials, supplies, annual contracts or small labor contracts. If a bid bond is required, it will be specifically requested on the RFP form and included in the specifications.

Proposals shall be accepted only on the RFP forms furnished by the City of Hammond Purchasing Department. The City of Hammond shall only accept proposals from those proposers in whose name the RFP forms and or specifications were issued. Altered or incomplete proposals forms, or use of substitute forms or documents, shall render the proposal non-responsive and subject to rejection. **The RFP package and copies of any addenda issued shall be submitted to the Purchasing Department as THE RFP.** All proposals must be typed or written in

BLUE/BLACK INK. Any erasures, strikeover and/or changes to prices shall be initialed by the proposer. Failure to initial shall be cause for rejection of the proposal as non-responsive. All proposals shall be signed. Failure to do so shall cause the proposal to be rejected as non-responsive. Where one (1) or more vendor's exact products or typical workmanship is designated as the level of quality desired or equivalent, the Purchasing Agent/Fire Chief, after study and review, reserves the right to determine the acceptability of any equivalent offered. The decision, after study and review, shall be final and binding. If proposing "equivalent" products, specifications, illustrative literature and any deviations shall be submitted with proposal. Representative samples shall be submitted upon request, if appropriate.

Liability:

The Contractor at all times during the term of the contract shall maintain and pay for property damage and public liability insurance with limits of at least ($1,000,000.00) one million dollars inclusive of bodily injury and property damage for any one occurrence. Prior to commencing work under this contract the Contractor must file with the City a "certificate of insurance" meeting aforementioned requirements with the City of Hammond named insured by added endorsement. All premiums and expense incurred with this insurance shall be paid for by the Contractor. The Contractor shall assume the defense of and indemnify and save harmless the City and its Officers and Agents from all claims relating to work.

The Contractor shall be responsible for any and all damages or claims for damages or injuries or accidents done or caused by him or his employees, or resulting from the execution of the work, or any operations, or caused by reason of existence or location or condition of facilities or of any materials, supplies, or machinery used thereon or therein, or neglect or omission on his part, or all of the several acts or things required to be done by them, under and by these conditions, and covenants, and agrees to hold the City harmless and indemnified for all such damages and claims for damages.

The Contractor shall indemnify and save harmless the City from and against all losses and all claims, demands, payments, suits, actions, recoveries, all attorney fees, and judgments of every nature and description made, brought or recovered against the City by reason of any act or omission of the Contractor, his agents or employees, in the execution of his work.

Worker's Compensation:

The Contractor shall, at all times, pay or cause to be paid, any assessment or compensation required to be paid pursuant to the Worker's Compensation Act.

The Contractor shall, at the time of entering into a Contract with the City, provide satisfactory proof that all assessments or compensation payable to the Worker's Compensation Board have been paid and the City may, at any time during the performance or upon the completion of such Contract require a further declaration such Contract require a further declaration that such assessments or compensations have been paid.

As a qualified proposer for the project, I have carefully examined all of the RFP Documents and have examined the conditions and specifications of the work to be done, and I hereby propose to furnish all labor, materials, equipment, tools, etc., as called for by the RFP specifications.

I hereby acknowledge that I have received the following Addenda and they are reflected as part of this quote.

List by date and Addendum number if applicable

_____

Proposal Amount

To furnish and install three (3) new dispatch console workstations. Lump sum shall include all labor, tools, training, material and equipment, including, but not limited to delivery and installation.

(Amounts shall be shown in words and digits. In case of discrepancy, words shall govern.)

Total Price two hundred fourteen thousand five hundred twenty two and 39/100 **DOLLARS**

($ 214,522.39)

Signature of Proposer _____

Name of Company Communications International, Inc. **Date** 11/6/2024

The above signature on this Proposal certifies that proposer has carefully examined the instructions to proposers, terms and specifications applicable to and made a part of this quote. Proposer further certifies that the prices shown are in full compliance with the conditions, terms and specifications of this RFP.

November 7, 2024

The City of Hammond, LA

RFP 25-05 for

3 Operator Position Dispatch Console

COMMUNICATIONS INTERNATIONAL
An Employee Owned Company

$214,522.39

Communications International, Inc. • 2150 15th Ave., Vero Beach, FL 32960

Contact: Mike Farrell, District Sales Manager • E: mfarrell@ask4ci.com • Cell 251-366-8840

City of Hammond, LA
Purchasing Department
Hammond City Hall Complex
310 East Charles Street
Hammond, Louisiana 70404-2788

Subject: RFP 25-05 for 3 Operator Position Dispatch Console

Dear Ms. Rider:

Communications International, Inc. (Ci) is pleased to provide the City of Hammond, LA, with a proposal in response to the request for proposal to furnish and install a total of three (3) new dispatch console workstations. Along with our partner Zetron Communications, Ci will provide the City of Hammond's first responders and citizens with a new state-of-the-art radio console system designed to meet the City's needs today and into the future. We sincerely appreciate the opportunity to earn your trust and build a long-term partnership on your dispatch system project.

While designing your new dispatch solution, the Ci team considered several ways to enhance the performance of the City of Hammond's dispatch network.

- **Integration -** We understand how important integration is for your new system, even between different manufacturers of dispatch subsystems. We have met all the integration requirements in the RFP by partnering with the leader in open standards dispatch solutions, Zetron. Zetron partners with all the manufacturers of the City of Hammond's other existing systems. Finally, MAX Dispatch integrates easily with most CAD systems, providing Application Programmer Interfaces to CAD systems to enable radio communications, AVL, and radio paging.
- **High Interoperability—**MAX Dispatch is compatible with all major radio interfaces and major radio manufacturers' equipment, making it one of the most interoperable systems available. This is critically important when managing events across departments or jurisdictions**.** Ci will easily facilitate communications with neighboring systems regardless of the technology or Vendor used.
- **Future-proof -** With nearly 50 years of experience delivering interoperable end-to-end command & control solutions, including over 40,000 consoles in 100 Countries, Zetron is an established global leader in connecting communications centers with First Responders. Zetron's complete portfolio of integrated IP-based solutions for next-generation emergency call-taking, dispatch, CAD, fire station alerting, and other mission-critical systems combine to provide scalable, interoperable, and highly configurable communications capabilities across remote and geo-diverse operations. The P25 Console Subsystem Interface (CSSI) is a critically essential open-standards interface that links one vendor's dispatch console solution to another's radio infrastructure. Thanks to the growing use of the P25 CSSI among manufacturers, customers have ever-increasing opportunities to use a dispatch system that uses the CSSI with any radio network that employs the CSSI. The MAX Dispatch console is designed for your current and future needs. You can easily add new dispatcher positions or radio interfaces into your system. We are constantly monitoring the industry and adding new capabilities to MAX Dispatch. In addition, Max Systems' portfolio of products is tightly integrated to provide a complete command and control solution. Each solution can be purchased as a modular, cost-effective package, whether stand-alone or with one or more other console products. This includes MAX Call-Taking, MAX CAD, MAX GIS, and MAX Fire Station Alerting.

- **Redundancy you can rely on -** Ci has engineered a robust infrastructure to ensure paramount system survivability, including a fully redundant system core and redundant networking components. End-to-end network redundancy keeps the system running even if the IP network goes down. The architecture provides scalability for system designs ranging from dedicated LAN networks to multi-node, geographically diverse WAN applications. Ci includes redundant power for 120v AC devices like the Console positions and equipment racks and 12v DC devices like the radio assets. Because MAX Dispatch supports network redundancy for every endpoint, it can tolerate any single point of failure in the IP network with no loss of service. This keeps your vital operations running, even if a fault condition occurs. This solution **EXCEEDS** all RFP requirements.
- **Open Standards -** Zetron is deeply committed to developing products that utilize open standards such as Project 25 (P25), Digital Mobile Radio (DMR), and Terrestrial Trunked Radio (TETRA). That's because open-standards-based solutions promote:
    - Interoperability across systems, agencies, and jurisdictions.
    - Products that utilize open standards can interoperate, even from different manufacturers. Proprietary solutions typically do not support this level of interoperability.
    - The freedom to choose equipment that meets your needs and suits your operations. Proprietary solutions can limit you to a single vendor's products.
    - The freedom to select equipment that fits your budget. Proprietary solutions often require using a particular manufacturer's products, even if they are more expensive and less suitable for your operations.
- **Maintenance & Support -** We understand that any new technology or vendor change is an adjustment. Because of that, Ci has taken great care in developing a strategy to ensure this is as pain-free as possible. Ci has helped many customers successfully migrate technology, even from different manufacturers. Ci is dedicated to optimizing your system's performance through regular maintenance and ongoing support. This begins with training, vital to ensuring a smooth cutover for the City's system technicians, users, and dispatchers. The City of Hammond's solution includes a comprehensive training program comprised of online and in-person sessions with certified trainers. Ci and Zetron protect your investment further by guaranteeing serviceability and product lifecycles.

On behalf of Ci's entire team of employee-owners and our partner, Zetron, I am fully committed to building a long-standing partnership with the City of Hammond. The safety and security of the City's first responders and citizens is our top priority. We look forward to exceeding your expectations and earning your trust as we modernize your radio dispatch system.

This proposal is valid for 6 months following the due date, and no addenda has been received to acknowledge it to date.

Respectfully,

Mike Farrell
District Sales Manager, AL, MS, LA
251-366-8840 cell

Communications International (Ci) is a wireless systems integrator headquartered in Vero Beach, Florida. Our specialization is designing, supporting, and implementing critical communication systems across the Southeastern United States.

With a history spanning nearly half a century, Ci was founded with a core mission: to serve the public safety community by delivering top-tier services and solutions to fulfill our customers' telecommunication requirements.

Our service footprint extends across seventeen strategically placed locations in Florida and the Southeast, reflecting our rich history of dedication and integrity. Ci takes pride in cultivating genuine partnerships with our customers, serving as their single point of contact. We bring together cutting-edge technologies, time-tested methodologies, unwavering commitment, and the expertise of our 180+ employee-owners.

Ci is a prominent reseller and implementation provider for critical communications products from L3Harris and Tait. Our exceptional dedication and proficiency in land mobile radio have earned Ci recognition from L3Harris, designating us as a Regional Center of Excellence (RCE), a distinction shared with only one other entity in the United States.

Contact Information

Corporate Office:

2150 15th Ave.,

Vero Beach, FL 32960

Ph: 772.569.5355

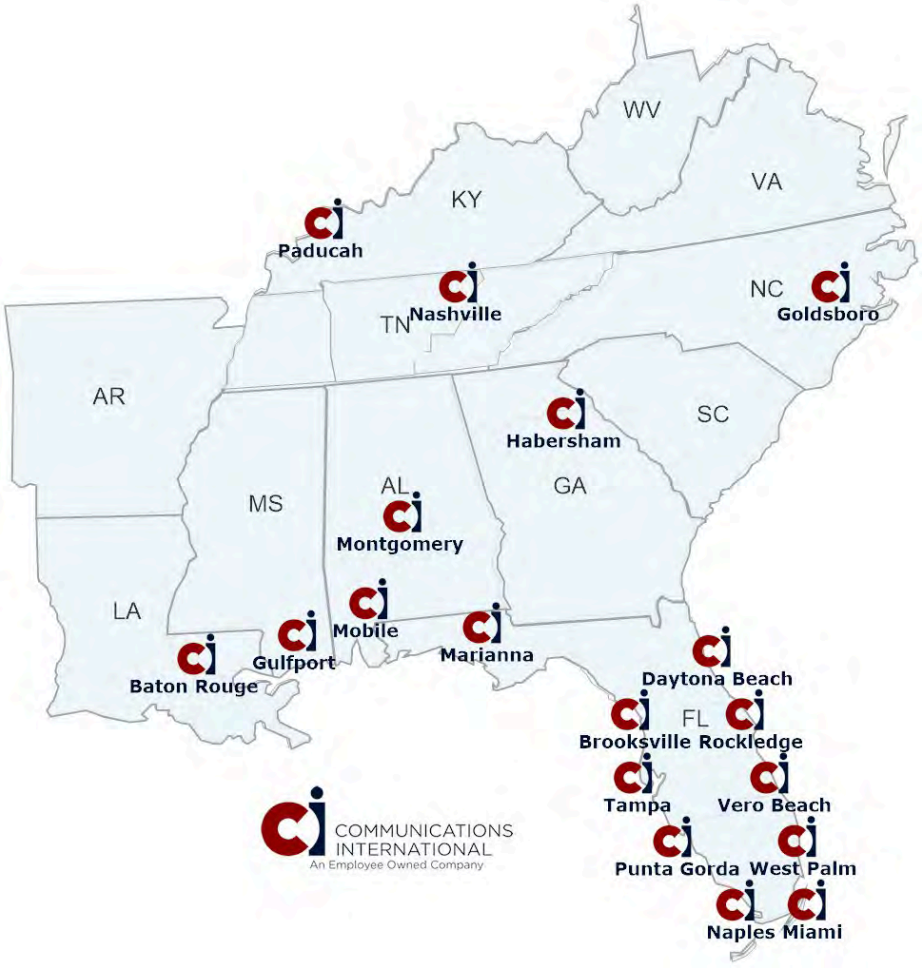
Website: ask4ci.com

Authorized Company

Contact: Mike Farrell

Email: mfarrell@ask4ci.com

Ph: 251-366-8840



THE RIGHT **SOLUTION** NEEDS THE RIGHT **PARTNER**

Successful wide-area radio communication systems depend on each individual piece working reliably and seamlessly with every other part of the whole. Ci has established an experienced senior-level team with years of relevant experience and proven expertise in the design, integration, deployment, and support of complex communications systems.

Ci provides:

- Proven depth of experience in implementing turnkey reliable Project 25 trunked land mobile radio single site, multi-site, simulcast, and switching land mobile radio communications systems.
- Flexible, highly responsive, innovative, future-ready, and cost-effective solutions.
- Turnkey solutions and custom design services to enable reliable communications across regions while allowing agencies to get the most from previous investments in systems, software, and resources.
- True systems integrator services with successful experience in the incorporation, support, and service of legacy systems while adding in new elements as needed.
- Project teams comprised of highly qualified and certified engineers and technicians that are poised and ready to work closely to finalize custom turnkey comprehensive implementation plans to fit any schedule and budget.
- Investment in the discovery, analysis, and understanding of the existing system and how radio communications can be used to help facilitate and enhance operations.
- Strong, long-term relationships with the many leading manufacturers in the industry to give a comprehensive solution with the best technologies available.
- Experience as one of the largest resellers and implementation providers of L3Harris Corporation products.
- Eighteen (18) locations throughout the Southeast assure the benefit of an extensive range of local experience and commitment and offer the highest level of service with a single point of contact and no finger-pointing.
- Comprehensive acceptance and coverage RF test plans and testing, ensuring project goals and deliverables are met.
- A full range of field services to ensure the seamless operation of these new and existing systems, including:
  - 24 x 7 remote monitoring of system health
  - 24 x 7 on-call support
  - Tier 2 support for local staff or self-maintained
  - Local presence and System/Operational Management

Partners and Subcontractors

Our Partners

Successful radio communications systems depend on the ability of each individual piece to operate reliably and seamlessly with every other part of the network. This also applies to the vendor you choose to implement your radio system.

We recognize that selecting a partner that is technically qualified does not ensure the County has a positive experience or gets the most benefit from its contract performance. For us, it's not just about selling you a product, anyone can do that. At Ci, our goal is to strengthen our relationship with you and provide the County with the best solution available to support you in your mission. The City of Hammond will benefit from Ci's successful record of accomplishment implementing public safety radio systems, our highly qualified technical and project management staff, as well as our quality service and 45 years of experience in the LMR industry.

With this in mind, we are pleased to provide the City of Hammond with Ci's core strengths enhanced by a close partnership with Zetron.

The combined strength and versatility of our team is unrivaled at providing turnkey solutions to a growing group of loyal customers who know that we will fulfill our commitments, in a manner that exceeds their expectations every day.

Zetron

Zetron is a worldwide leader in end-to-end mission critical communications. Our customers are located on all seven continents and work in a variety of vital industries, including public safety, federal government, transportation, utilities, and natural resources. With 80+ years of experience, we have an exceptional reputation for powering high-quality solutions that work seamlessly and reliably in both public and private sectors — anywhere that uninterrupted communications are non-negotiable. Our solutions are highly configurable and vendor agnostic to ensure interoperability, flexibility and choice. This empowers our customers to execute their critical communications without roadblocks. We foster long-lasting relationships with our customers, partners, and employees, investing in their success, adapting as their needs change, and innovating to solve their present and future challenges.

Mission

To deliver integrated, end-to-end communications solutions that help save lives and enable critical operations.

Vision

To be an innovation leader in mission critical communications, providing top quality, interoperable, always-on systems that enable vital personnel and organizations to efficiently collaborate, coordinate, and act when it matters most.

Company values

QUALITY

We have an 80+ year track record of solving our customers' most important communications challenges. We do this by providing purpose-built solutions that are durable, reliable, high performing, and functionally resilient in even the most extreme conditions — alongside an unparalleled customer service experience.

INTEGRITY

Our business is built on trust, honesty, accountability, openness, and a steadfast commitment to always do right by our customers. Every customer. All the time.

CONVICTION

We operate with a profound sense of duty and pride to serve the people who provide critical services. We are dedicated, passionate, humble, and always bring a can-do attitude in support of the everyday heroes we call customers.

FOCUS

As technology evolves and our customers' needs change, we are constantly improving. We balance forward-looking innovation with use case-specific functionality requirements to deliver pragmatic, customer-driven solutions.

An enduring leader in mission critical communications

Since its establishment in 1980 as a regional volunteer fire paging product business in Issaquah, Washington (USA), Zetron has been entrenched in the mission critical communications industry with an unwavering commitment to reliable connectivity, superior quality, and exceptional customer service.

Critical communications technology is ever evolving and Zetron innovation over the years has consistently had a profound influence on the development of what are today's industry standards. While the company's roots were modest, today's Zetron is a global leader, with offices across the US, Canada, United Kingdom and Australia, and its technology used to serve millions of people in critical environments on all seven continents.

The year 2021 marked a pivotal moment in the company's history, when Zetron was acquired by Codan Limited (ASX:CDA). This strategic purchase culminated in a merger of Zetron and Codan's Critical Communications business, which expanded Zetron's offerings to create a fully integrated end-to-end mission critical communications portfolio of solutions and services.

Zetron's commitment to being always on and always ready reached new heights in 2023, with the acquisition of long-time partner GeoConex, and Eagle NewCo (a business unit of NEC Software Solutions UK Limited). These acquisitions and subsequent integrations further widened Zetron's solutions suite and ability to provide customers worldwide with even more flexibility and choice in meeting their critical communications needs.

Today's Zetron includes over 80 years of collective experience (beginning with Daniels Electric, founded in 1938). Showcasing innovative, integrated IP-based solutions, purpose-built for the next generation of emergency call taking, dispatch, CAD, fire station alerting, and other mission critical systems. With focus on interoperability, configurability and scalability, Zetron solutions address the unique demands of remote and geo-diverse operations now, and wherever those demands evolve in the future.

Behind the technology, Zetron offers industry-leading services, including project management, training, technical support, professional services and more. Zetron has also long-established a wide network of experienced and trained value-add technology and services partners, resellers, system integrators and distributors that fortify Zetron's overall support ecosystem, ensuring our customers have the resources they need, where, when and how they need them.

As communications technology continues to evolve, Zetron will remain a beacon of resilience, innovation, and customer-centric values. Zetron's history is not just a timeline of milestones, but a testament to its enduring commitment to excellence in mission critical communications.

Zetron References

Zetron has delivered thousands of integrated public safety dispatch systems for police, fire, EMS agencies, 9-1-1 emergency call centers, campus security, government agencies, and regional emergency operations centers worldwide. Our public safety solutions have earned a solid reputation for meeting the stringent requirements for Mission Critical Systems providing reliable, flexible, configurable, expandable, and easy to use products. Zetron's public safety software suite–including E9-1-1 call taking, computer-aided dispatch, radio & telephony dispatch, and fire station alerting systems are used by Public Safety agencies throughout the world. Zetron Public Safety communications solutions are available for purchase under a variety of government contract vehicles for your convenience.

Zetron Max Dispatch and Ci Customer Successful Project List:

Temple Terrace Police Department/Fire Department

11250 N. 56th Street

Temple Terrace, Florida 33617

Service Commander Sheryl Shingleton

Office - 813-506-6512

Email - sshingleton@templeterrace.com

5 Position Zetron MAX Dispatch Center (Main Dispatch Center)

2 Position Zetron Max Dispatch Center (Back-up Dispatch Center)

City of Plant City Police Department/Fire Department

1 Police Way

Plant City, Florida 33563

Sergeant Robert McLellan - Information Services Division

Office - 813-707-2256

Email - rmclellan@plantcitygov.com

4 Position Zetron MAX Dispatch Center

University of South Florida Police Department

4202 E. Fowler Ave

Tampa, Florida 33620

Edwin Lovett Comm's Manager

Office - 813-974-3961

Email - eglovett@usf.edu

3 Position Zetron MAX Dispatch Center

City of Zephyrhills Police Department

6118 8th Street

Zephyrhills, Florida 33542

Mike Panak IT Manager

Office - 813-780-0046

Email - mpanak@ci.zephyrhills.fl.us

3 Position Zetron MAX Dispatch Center

Collier County Public School Board

5775 Osceola Trail

Naples, Florida 34109

Don DeTeso – Director of Transportation

Office - 239-377-0618

Email - detesd@collierschools.com

11 Position Zetron MAX Dispatch Center

1 system in 5 locations at district offices.

Hendry County Sheriff's Office

100 E. El Paso Street

Clewiston, Florida 33440

Chief Deputy Kevin Nelson

Office – 863-674-5600

Email – knelson@Hendrysheriff.org

4 Position Zetron MAX Dispatch Center

Hillsborough County Sheriff's Office

2214 Falkenburg Rd.

Tampa Florida 33619

Steve Mitchell Director of General Services

Office – 813-247-0080

Email – smitchell@teamhcso.com

5 Position Zetron MAX Dispatch Center in Orient Road Jail

Clearwater Police Department

645 Pierce Street

Clearwater, Florida 33756

Tracy Kimball - Communications Manager

Office – 727-562-4239

Email – tracy.kimball@myclearwater.com

2 Position Zetron MAX Backup Dispatch Emergency Operations Center

Max Dispatch System Description

Zetron's MAX Dispatch system is an IP-based console system designed for mission-critical dispatch applications. MAX Dispatch employs the latest, standards-based IP protocols to offer the highest levels of interoperability, scalability and usability. It is designed to streamline the console operator's job and help them focus on the incident or task at hand.

The MAX Dispatch System comprises four key elements working together over an IP network. The MAX Console is the dispatcher's graphical user interface for all system control points. The Media Dock is a sub-element of the MAX Console and provides the audio interface and connection point for operator workstation peripherals such as a footswitch or desktop microphone. The Central is a hardware platform that hosts several key applications that are important to the MAX Dispatch system. The Radio Gateway and Infrastructure Gateway (IG) provide the interfaces to mobile radios or base stations.

System Components

1. MAX Dispatch Console

The MAX Dispatch console is the system element that provides the critical user interface to dispatchers. Each console consists of a Windows based client running the MAX Dispatch, Graphic User Interface (GUI) software as well as controlling critical audio functions in conjunction with the Media Dock. The Media Dock provides the audio interface and connection point for accessories such as microphone, speakers, handset, headset, and PTT foot switch. The console PC is equipped with two full-duplex Ethernet ports for connecting into a redundant IP network using NIC bonding.

MAX Dispatch's user interface introduces new concepts to the dispatcher to reduce stress, screen clutter and response time. These unique elements are combined with the familiar concepts of traditional dispatch consoles resulting in an intuitive user interface that requires minimal training time. It offers the flexibility to create user layouts that match the needs of the dispatch center.

The dispatchers work in a "workspace" screen concept where there may be multiple workspaces that perform different functions. Screen and button templates are used to select the general layouts with flexibility for additional modifications as required. Also, the screens can be dynamic or locked down by administrators. Dispatchers can select from the following screen features:

- Configurable on a per Z-Node, per workstation, and per user basis
- Move channels around the workspace

- Resize objects as needed
- Add or remove channels
- Dynamic drag and drop capabilities
- Group channels together to manage them as a single incident
- An activity view for interacting with active items

2. Media Dock XS

The Media Dock XS serves as the primary audio routing device for the console position. This arrangement provides for a highly flexible setup to support up to four independent speakers, up to two dual-pronged headset jack boxes, a desktop microphone, and a foot switch. Eight speakers are supported at a console by adding a second media dock. The Media Dock XS also has connection capabilities for adding local auxiliary I/O function to each console position. There are a total of 4 inputs and 4 outputs available on each device. The console software routes and controls all audio through the use of display screens and the Media Dock XS. The console receives VoIP packets, de-packetizes, and sends the digital audio signals via a USB port connection to the Media Dock XS. It receives the digital USB audio signals, uses a powerful digital signal processor (DSP) to convert it back into analogue signals and sends it to one of the audio devices such as a headset for the dispatcher or a designated speaker. It also works in reverse for outgoing audio, using the DSP to process the audio signals from a microphone and sending them via the USB port to the console. This Media Dock XS arrangement allows headset side tones, TRHI, microphones, and four speakers to be independently connected to various channels via console setup controls.

3. Laptop Mode

The console software can be hosted on a laptop with a sound card utilized for audio on two channels and a USB headset for the dispatcher. This is to allow a position to be added locally or remotely to the system for management, maintenance access to monitor ongoing operations, or dispatching capabilities. A media dock can be connected to the laptop for full position peripheral control just like the workstation.

4. MAX Central

MAX Central is a centralized hardware platform that hosts several services that are critical to the MAX Dispatch system. If a specific system has multiple, geographically disparate sites, MAX Central acts as the communication portal among them. In addition, the MAX Central provides the interface to other console system essentials, such as SIP telephony gateways, third-party IP voice loggers, auxiliary I/O devices, Location Gateway Service, AVL Service, and CAD Gateway Service. A minimum of one MAX Central device is required at each site. Adding a second MAX Central at each site provides redundancy for the core functions of the MAX Dispatch system.

5. MAX Radio Gateway

The Radio Gateway serves as the interface point between a radio or base station and the rest of the MAX system. The Radio Gateway supports both analog and digital radios, including P25 radios. It converts the radio specific messaging into MAX messaging for use throughout the internal system. Each Radio Gateway may interface up to two radios and has two independent Ethernet ports available to accommodate full MAX network redundancy. The Radio Gateway interfaces to a wide range of conventional and trunked protocols, both manufacturer proprietary and open standard, all of which can coexist on a single MAX Dispatch system. The Radio Gateway is also equipped with physical I/O's to provide system-wide, auxiliary I/O functions that can be used for monitoring site alarms and controlling site devices such as generators. The functions of the Radio Gateway include:

- Operation for up to two radio channels simultaneously with four inputs and four outputs of AUX I/O per unit
- Harmonization of various fixed station interfaces with MAX internal protocols
- Controlling the operating frequency of the attached fixed station
- Controlling various features of the attached fixed station. (e.g., CTCSS, talk-group control)
- Signal processing capabilities to support in-band tone signaling, vocoding, mixing, and encryption
- Supports patching and conferencing among multiple resources
- Able to interface to several analog and digital radio types

6. Infrastructure Gateways (IG)

The Infrastructure Gateway is like the Digital Radio Gateway in that it serves as the interface point between IP-based radio systems and the MAX system. The Infrastructure Gateway differs from other Radio Gateways in that it runs on COTS (commercial, off-the-shelf) servers and supports dozens of channels per unit instead of two. Currently the Infrastructure Gateway supports DMR and P25 CSSI, and additional interfaces are planned.

7. DMR Application Interface Specification (AIS) Interface

Interface into a Tier III (trunked) DMR System is supported by the Application Interface Specification (AIS) as a direct IP connection to the MAX Infrastructure Gateway (IG). Many DMR Radio System vendors support the DMR AIS standard. Zetron regularly tests with several of these vendors to ensure AIS feature support; Zetron DMR test results are available upon request. Continuous evolution of the DMR AIS feature set is fully supported by Zetron, and Zetron is very active in the various AIS standards committees.

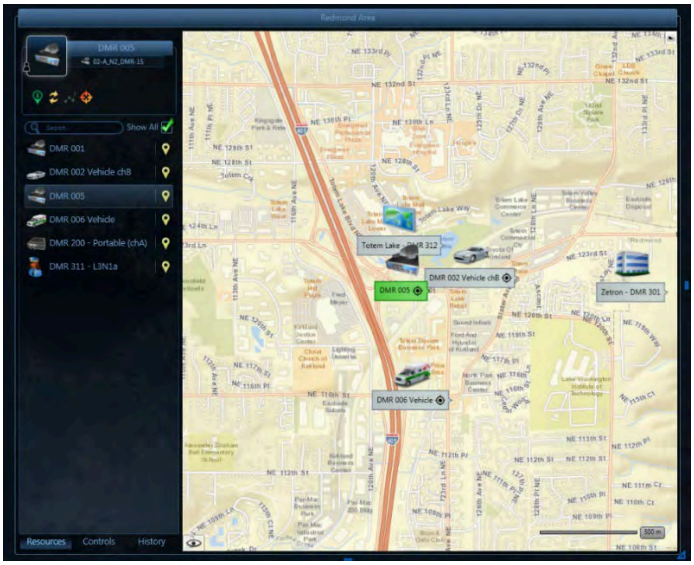
8. P25 Console SubSystem Interface (CSSI)

Communication with Project 25 (P25) trunked system is accomplished through the industry standard P25 CSSI interface. The CSSI gateway operates on server hardware. The MAX Dispatch solution implements the CSSI per applicable P25 standards that allow radio systems from various venders to interface with the MAX Dispatch console system. The specification provides for different voice communication call types, the ability for the dispatcher to control radios, and both clear (unencrypted) and secure (encrypted) communication between radio users and the MAX Dispatch system.

9. Location Gateway Service, AVL Service

The MAX Location Gateway Service is hosted on a MAX Central and provides an interface for receiving, translating, and distributing field unit location data between various radio networks and the map UI of the system's MAX Consoles, as well as the Geographical Information System (GIS) API service. The interfaced radio network must support Location Services (aka Automatic Vehicle Location - AVL), and the MAX Location Gateway Service must support the radio network's specific AVL interface. Supported AVL interfaces include the Tait DIP used on Tait's DMR systems. Check with Zetron for availability of other radio network AVL interfaces.

The AVL Service communicates with a MAX system database to record and recall historical location information. The MAX Location Gateway Service and AVL Service must be hosted on a dedicated MAX Central as the only two services running on the Central.



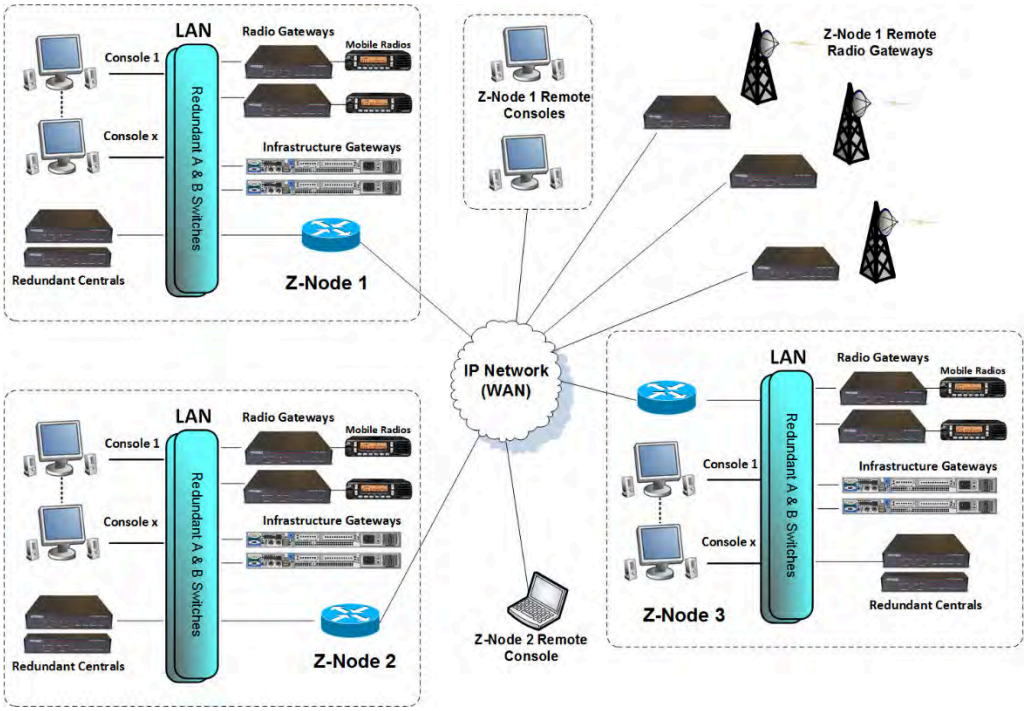
10. MAX Centralized System Management (CSM)

Supports the operation, administration, provisioning, and maintenance of the MAX Dispatch system. Its main functions include system-wide configuration, directory services, remote programming, device cloning, performance monitoring, and fault and alarm management. A technician or system administrator with appropriate permissions can launch the CSM application from anywhere on the network to configure or change parameters or check the status of alarm conditions.

11. Z-Node for Larger MAX Installations

The MAX Dispatch system can be divided into multiple subsystems; each of which is called a “Z-Node”. Each Z-Node has its own MAX Manager serving as its central point of control (see attached diagram). Besides the MAX Manager, each Z-Node may have any mix of console and gateway elements. The IP network interconnecting the elements of a Z-Node System Architecture must be capable of routing multicast IP packets and must support the same multicast IP address space. Multiple IP address spaces are allowed in a single Z-Node (implying the presence of IP routers) so long as any routers within the Z-Node are capable of routing IP multicast.

Multiple Z-Nodes can be linked together by the MAX Portal. The MAX Portal transports MAX messages and data among Z-Nodes, so consoles in one Z-Node can access and control the gateways in other Z-Nodes



MAX Dispatch User Interface

MAX Dispatch's state-of-the-art graphical user interface (UI) is specifically designed to accomplish the most frequent tasks with minimal effort. The UI offers a contact-based approach rather than simply a traditional path-based approach. For example, the dispatcher can identify who they wish to communicate with rather than worry about which radio or phone resource to use to contact them. MAX not only raises the bar on visual interfaces via its modern UI, but it also provides the best-in-class audio interfaces designed for rugged, ergonomic 24x7 operations. Highly configurable features in the MAX Dispatch UI enable each work site or even each individual position to be tailored for a wide variety of work-flow applications and user preferences.

A Layout contains a customizable and configurable selection of tools, widgets, controls, workspaces, views, and other user interface elements for MAX Dispatch. The following example layout shows the three major areas used during typical operation of a MAX Dispatch Console. Because MAX Dispatch is extremely configurable, each system may be arranged differently.

- Side Bar - There can be up to four Side Bars, one at each edge of the screen. If there is a Side Bar enabled at the bottom, it resides just above the Notification Bar (3). The Side Bar contains items that always remain on the screen regardless of which Workspace View is being used.
- Workspace View - This displays the currently active workspace, an area containing the controls and resources you are currently working with. The layout can be configured with multiple Workspaces, e.g., dedicated to specific areas of responsibility or operational situations.
- Notification Bar - This displays commonly used information, status, and controls.

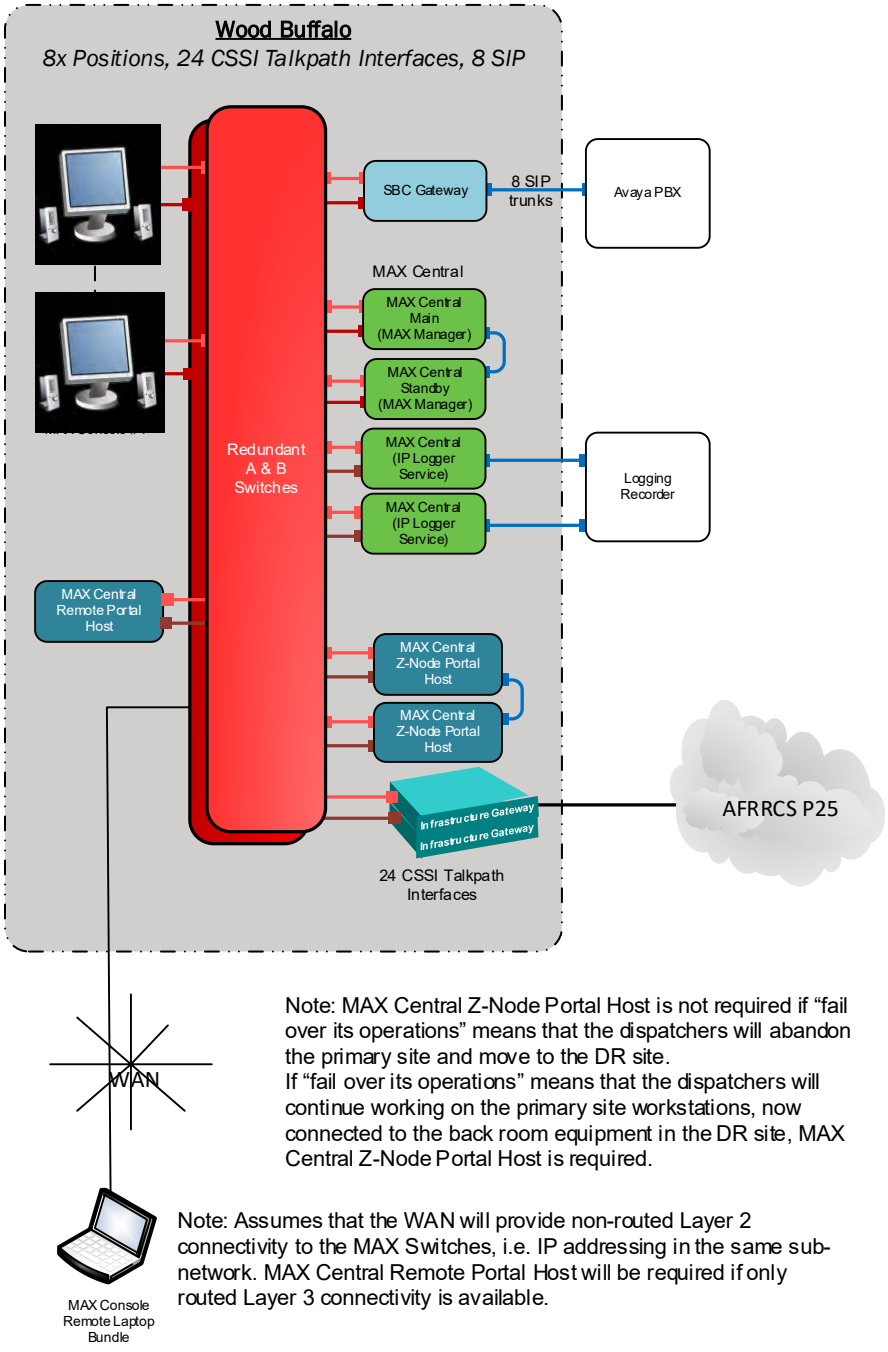
MAX Dispatch System Summary

Zetron has been designing and delivering communications systems for mission-critical control rooms and communication centers worldwide since 1980. Zetron is the dispatch industry premier supplier, and we pride ourselves for consistently providing our customers best-in-class console systems. MAX Dispatch offers the following features and functionality:

- The system's intelligent user interface (UI) selectively displays important information so operators can focus on the incident at hand without the distraction of unnecessary information.
- Unique one-click operations and intuitive UI give operators immediate access to information and controls. This improves response times and reduces operator fatigue and errors.
- Support for off-site access allows MAX Dispatch to be maintained and operated remotely. This facilitates appropriate staffing as well as the timely diagnosis and resolution of system issues.
- The system's analog and digital radio gateways interface to a wide range of conventional and trunked protocols, both manufacturer proprietary and open standard, all of which can reside on a single system.
- MAX Dispatch is scalable from a single LAN configuration to a multi-node, geographically diverse WAN configuration.
- The use of standards-based IP protocols ensures the system's compatibility with commercial, off-the-shelf (COTS) IP network devices.

Diagrams

System Diagrams

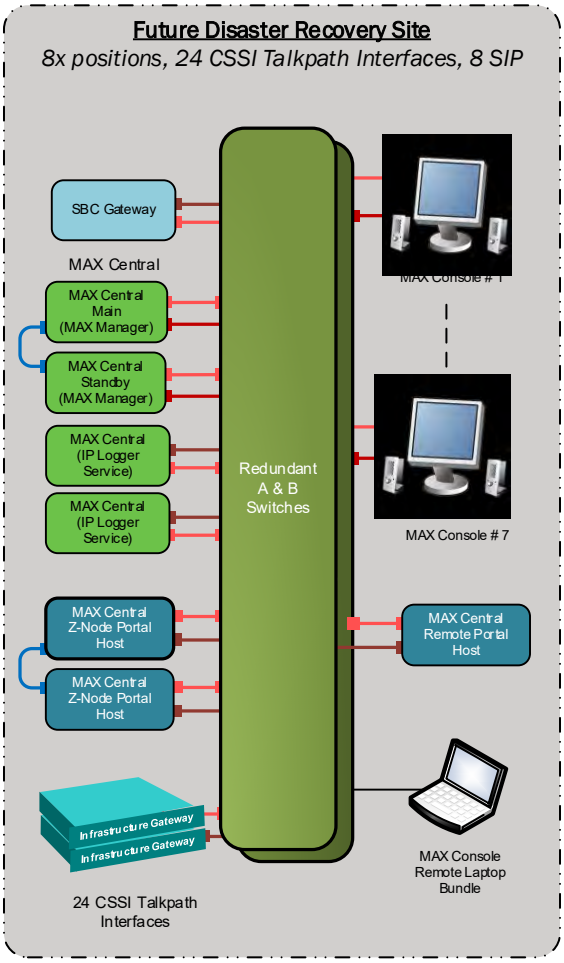


Note: MAX Central Z-Node Portal Host is not required if "fail over its operations" means that the dispatchers will abandon the primary site and move to the DR site.
If "fail over its operations" means that the dispatchers will continue working on the primary site workstations, now connected to the back room equipment in the DR site, MAX Central Z-Node Portal Host is required.

Note: Assumes that the WAN will provide non-routed Layer 2 connectivity to the MAX Switches, i.e. IP addressing in the same sub-network. MAX Central Remote Portal Host will be required if only routed Layer 3 connectivity is available.

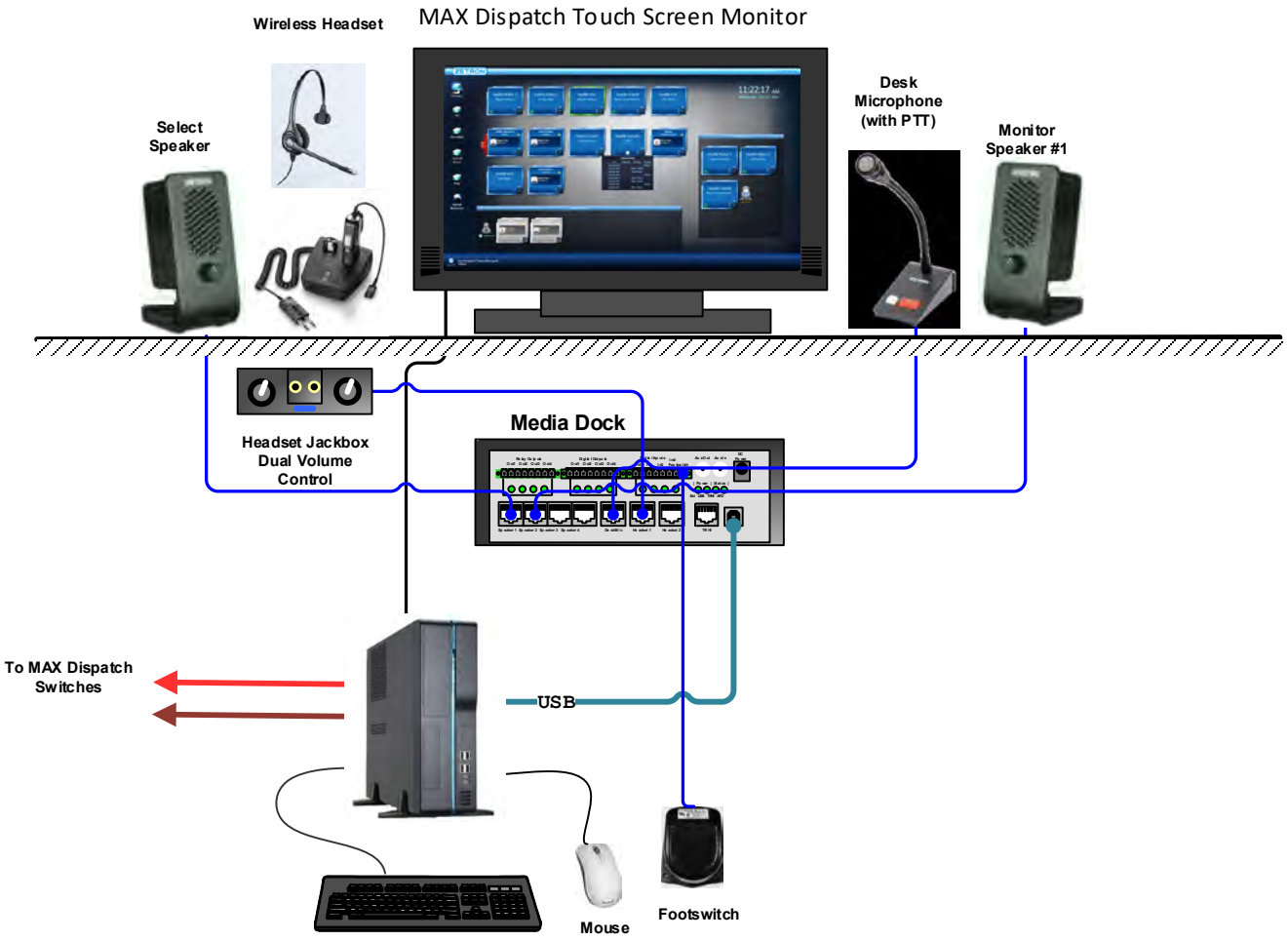
NOTE: This drawing is preliminary and is to be used only for conceptual discussions with the end customer. This drawing does not represent an offer from Zetron to sell such a configuration or that the configuration will operate properly in the customer's system (without further review).

System Overview – Disaster Recovery Site



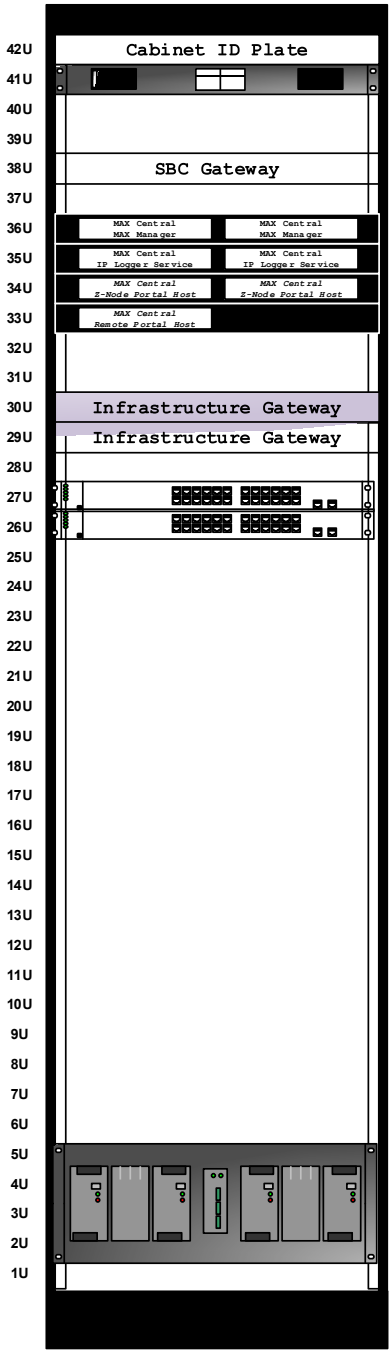
NOTE: This drawing is preliminary and is to be used only for conceptual discussions with the end customer. This drawing does not represent an offer from Zetron to sell such a configuration or that the configuration will operate properly in the customer's system (without further review).

Typical Console Layout



NOTE: This drawing is preliminary and is to be used only for conceptual discussions with the end customer. This drawing does not represent an offer from Zetron to sell such a configuration or that the configuration will operate properly in the customer's system (without further review).

Cabinet Elevation



CABINET 1
(provided by others)

Fuse Panel
Support up to 20 MAX Dispatch devices

Session Border Controller
8 x SIP Channels

MAX Centrals
2X MAX Central w/ Z-Node Manager
2X MAX Central Logger Service
2X MAX Central w/ Inter Z-Node Portal Host - optional
1X MAX Central w/ Remote Portal Host – optional

Infrastructure Gateway
24 x CSSI Talk Paths

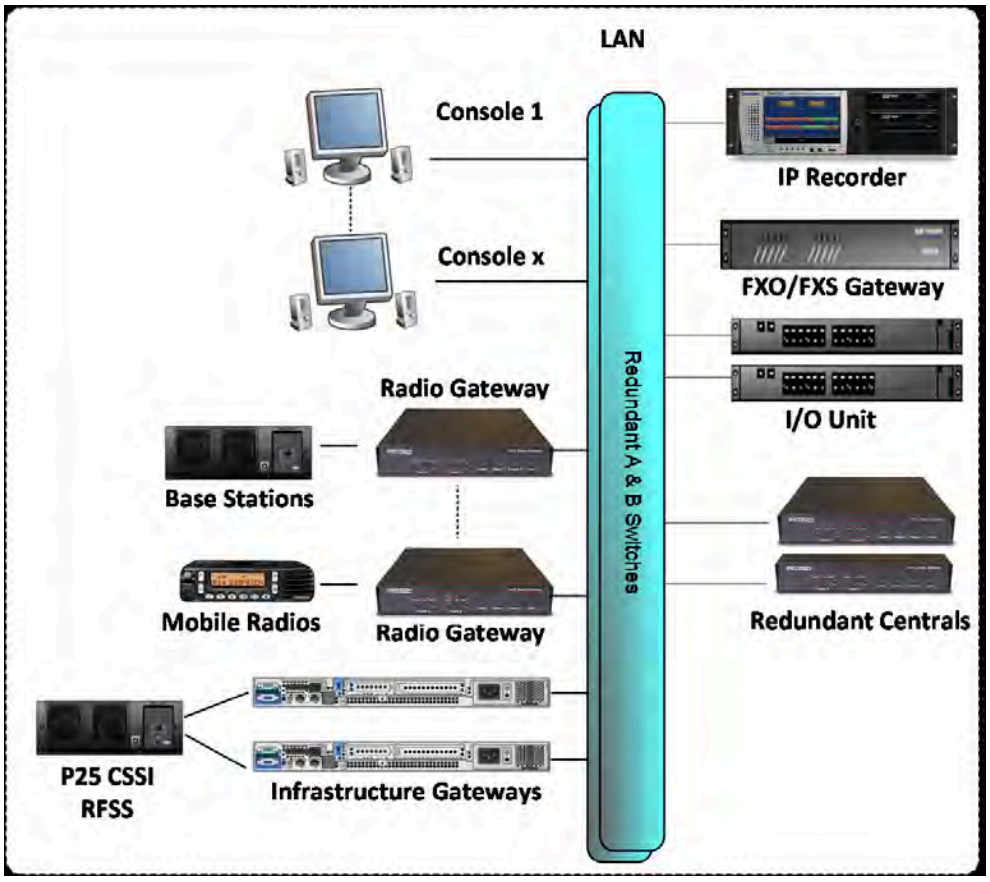
Network Switches
2 x 24-Port Switches

Power supply
Redundant 12VDC Power System - Up to 20 devices

NOTE: This drawing is preliminary and is to be used only for conceptual discussions with the end customer. This drawing does not represent an offer from Zetron to sell such a configuration or that the configuration will operate properly in the customer's system (without further review).

MAX Dispatch System Architecture

The core of MAX Dispatch system is its use of commercial-off-the-shelf (COTS), Internet Protocol (IP), network equipment. Based on Voice-over-Internet-Protocol (VoIP) technology, MAX Dispatch can be deployed on a dedicated or shared IP network for the most cost effective and flexible system available on the market today. Using the IP infrastructure and Zetron's engineered hardware and software, the system provides scalability to many system elements to address very modest systems to large statewide networks. The MAX Dispatch system allows a variety of radio types to be easily included in the network without changes to the control or display software in addition to providing self-healing protocols and optional end-to-end redundancy and hot standby. The system drawing below depicts this architecture in a simplified diagram.



COMMUNICATIONS INTERNATIONAL
An Employee Owned Company

Project Name: City Of Hammond Police Dispatch

Section Response to RFP 25-05 3 Operator Position Dispatch Console

Date: 11/7/2024

QTY	Vendor	Part #	Description	Unit Sale	Extended Sale
3	Zetron	905-0581	**Max Standard WorkStation Bundle**	$ 8,713.22	$ 26,139.67
			Max Operator Workstation Software License		
3	Zetron	930-0222	Individual Call License	$ 1,302.91	$ 3,908.74
3	Zetron	930-0223	Telephony Feature Set	$ 1,954.37	$ 5,863.10
3	Zetron	930-0224	Tone Signalinf/Paging Feature Set	$ 1,954.37	$ 5,863.10
3	Zetron	930-0225	Event Replay	$ 2,214.58	$ 6,643.73
3	Zetron	930-0240	Max Dispatch Base Software	$ 6,069.02	$ 18,207.07
				$ -	$ -
			Work Station Hardware Options		
3	Zetron	957-0003	Wireless Headset Adapter-Noise Canceling	$ 1,405.80	$ 4,217.40
6	Zetron	802-0115	Headset Top Noise Canceling	$ 172.26	$ 1,033.56
3	Zetron	950-1077	Dual Prong Headset Jack Box Option Dual Volume Control	$ 999.18	$ 2,997.54
3	Zetron	901-9731	Desktop Microphone / w 6 Ft Cable	$ 1,468.74	$ 4,406.22
3	Zetron	950-9102	Foot Switch w Cable	$ 303.94	$ 911.82
3	Zetron	709-0170-10F	10 Ft Shielded Cat5e for Speakers	$ 26.39	$ 79.17
			Max CNB Radio Gateway Interface		
5	Zetron	901-9690	Max CNB radio Gateway Hardware	$ 3,256.34	$ 16,281.72
10	Zetron	930-0260	L3Harris Interface License XG-75M	$ 391.25	$ 3,912.48
10	Zetron	709-8003-10F	XG-75M Interfcae Cable	$ 162.86	$ 1,628.64
			Max Hardware/Software		
3	Zetron	901-9740	Max Central	$ 4,659.20	$ 13,977.60
2	Zetron	930-0231	Z-Mode Manager	$ 3,925.74	$ 7,851.48
1	Zetron	930-221	Block of 10 Radio Channel Licenses	$ 786.24	$ 786.24
1	Zetron	930-0237	IP Voice Logger Channel Block License	$ 583.31	$ 583.31
1	Zetron	395-0135	Max Dispatch Software	$ 105.56	$ 105.56
1	Zetron	395-0162	Common Componets for Max Software	$ 0.91	$ 0.91
			Max Telephony Gateway		
1	Zetron	930-0235	Telephony Gateway Service	$ 2,532.53	$ 2,532.53
6	Zetron	930-236	Telephony Port License	$ 101.92	$ 611.52
			Rack Mounting & Power Equipment		
1	Zetron	950-1142	Redundant 12 VDC Power System	$ 3,165.89	$ 3,165.89
1	Zetron	950-1134	12 VDC Power Distribution Panel	$ 641.00	$ 641.00
1	Zetron	416-0043	Fuse 3 amp	$ 29.00	$ 29.00
1	Zetron	950-0588	Dual Rack Mount	$ 228.41	$ 228.41
			Network Equipment		
2	Zetron	950-1461	Max Dispatch 24 Port Managed Gigabit Network Switch	$ 893.00	$ 1,786.00
			Max Dispatch Manual Set		
1	Zetron		Manual Set	$ 34.00	$ 34.00
			On Site Training		
2	Zetron	XMP-0344-OSO	MA-PSP On Site Operating Training per Day	$ 3,835.00	$ 7,670.00
			Zetron Equipment Total		**$ 142,097.42**
			Console LCD Monitors & HDMI Cables		
3	Vendor	ASUS	24" Monitor Full HD 1920 X 1080 Ultra Low Blue & Flicker Free	$ 300.00	$ 900.00
			Total for Monitor & Cables		**$ 900.00**
			Console Control Radios		
9	L3H	XG-75M	XG75M 746/869 MHz P25 Phase 2 Control Radios	$ 4,554.33	$ 40,988.97
			Total for Console Control Radios		**$ 40,988.97**

CI Services						
1	CI	SS	Installation, Engineering & Project Management		$	30,536.00
			Total for Services		**$**	**30,536.00**
			Total		**$**	**214,522.39**

Zetron Optional Product Service Plans						
3	Zetron	XMP-0344-EBS-4	MAX-PSP Extended Service Plan 4 Years	$ 7,330.96	$	21,992.88
2	Zetron	XMP-0344-RCA	Remote Reconfiguration Services after System Setup	$ 750.00	$	1,500.00
1		950-1400	Session Border Controller Gateway	$ 2,630.88	$	2,630.88
					$	**26,123.76**

Optional UPS Equipment						
3	Tripp Lite	Smart1500LCD	TrippliteSmart UPS 1500 VA for Console Stations	$ 364.87	$	1,094.60
2	Tripp Lite	SMART3000RM2UN	Tripplite Eaton 3000VA UPS for Core Equipment	$ 1,541.45	$	3,082.90
					$	**4,177.50**

Notes:

All Pricing is based on Current Quotes and Information Available at the Time Of Proposal

UPS Equipment Required if Dispatch Center is not equipped with a Centralized UPS System

QUOTE TERMS AND CONDITIONS:

1. Quotes are exclusive of all installation and programming charges unless expressly stated and all applicable taxes.
2. Title will pass upon shipment, risk of loss will pass upon delivery to purchaser's facility.
3. Ordered equipment may be returned for a full refund, less a 25% restocking fee, if the equipment is returned unused and undamaged in its original packaging within six months after shipment.
4. Prices quoted are valid for the duration as noted above.
5. Net 30 days after invoice
6. Manufacturer's standard equipment warranty (which will be furnished upon request) applies to all ordered equipment. Communication International, Inc. DISCLAIMS ALL OTHER WARRANTIES WITH RESPECT TO THE ORDERED PRODUCTS, EXPRESS OR IMPLIED INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
7. Communication International, Inc.'s TOTAL LIABILITY ARISING FROM THE ORDERED PRODUCTS WILL BE LIMITED TO THE PURCHASE PRICE OF THE PRODUCTS WITH RESPECT TO WHICH LOSSES OR DAMAGES ARE CLAIMED, IN NO EVENT WILL COMMUNICATIONS INTERNATIONAL INC. BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.
8. These terms will prevail over any inconsistent or additional terms on any purchase order submitted by the purchaser.
9. This proposal does not reflect (include) material/labor cost escalations beyond a standard inflationary rate (SIR) of 5%. We reserve the right to recover cost impacts above (SIR).

Preliminary Implementation and Transition Plan

Introduction

Ci's preliminary Migration Plan highlights the migration strategy to move the City of Hammond to Zetron Max dispatch consoles.

As the cutover will be transparent to the users, at this time the users will have access to the new Zetron Max dispatch system equipment and the cutover will be complete.

A successful transition approach requires:

- Dedicated Ci project team assigned to the City of Hammond.
- A customer-focused collaboration during the planning phases to build consensus and buy-in from key stakeholders.
- Continual dialogue and cutover support to address user concerns.

The local Ci team will work with the City of Hammond's project team to modify the final plan to suit the user's needs.

This preliminary plan proceeds as follows:

1. Procure the new Zetron Max dispatch system equipment.
2. Stage, configure, and test the Zetron Max dispatch system equipment before shipment to the City of Hammond dispatch.
    a. Since the new console system will feature all-new interop radios versus the existing system in use today, emphasis is placed on the staging effort to ensure the system will perform as expected at the cutover time.
3. Switch Users to new Zetron Max dispatch system equipment.

Installation of Zetron Max dispatch consoles and interop radios

Goal

To install the new Zetron Max dispatch consoles, one position at a time to minimize the impact on dispatch users. Ci will make all efforts to maintain a minimum of downtime by scheduling system-impacting work at low call volume times.

Sequence of Events

- Coordinate with the Dispatch Center to systematically install one dispatch position at a time.
    - Positions will temporarily have both legacy and Zetron Max consoles installed during the transition. Dual console installations are very important to provide a seamless transition from the legacy system to the new dispatch system at cutover.

  - Installations will be completed so that the legacy equipment is connected to a separate input on the new monitor. This will allow simple cutover by switching inputs on the display and conserve dispatch space by having only one display for both the legacy and new Zetron Max dispatch consoles.
  - Positions will have both legacy and Zetron Max console speakers and headsets/microphones installed and available for use through the transition.

- Establish Zetron Max dispatch console connectivity
- Configure console equipment with pre-defined user setups and screen layouts
- Configure console database
- Test and align audio levels.
- Prepare consoles for cutover.
- Install new interop radios in the designated IT server room.
- At cutover, antenna cables will be moved from legacy radios to new radios.

Impact

- Through pre-scheduled maintenance windows, there will be a slight impact on the dispatch users. Close coordination and planning will be taken to minimize the impact on dispatch by installing only one position at a time.
- Installation teams will coordinate with dispatch managers to temporarily relocate a dispatcher to another position while work is in progress. This work will be scheduled and coordinated with each dispatch center ahead of time to have a minimal impact on the dispatchers.

Anticipated results after this step

The Zetron Max dispatch consoles are installed and operational. Interop radios are installed, awaiting the cutover.

- After successful cutover, the legacy console system will be shut down and removed.
- To minimize downtime to dispatch users, legacy consoles will be removed one position at a time.
- Legacy equipment racks will be removed, and new equipment racks will be placed in permanent locations and secured to the floor.
- All wiring to be cleaned up and secured for long-term serviceability.

Training Program Overview

Operation Training Courses

Zetron's operation training provides users, management, and administrators with the skills needed to operate our systems and software thoroughly and effectively. Available for MAX solutions.

Operators Course

(Call-Takers, Dispatchers)

Duration: 2.5 hours

Operator training covers the key components necessary for operation of the MAX solution. Courses utilize a variety of theory, demonstration, and hands-on techniques.

Administration

(IT, maintenance staff)

Duration: 2.5 - 3 hours

Zetron's operation training for administration includes the same curriculum as our standard Operator course, but adds additional content specifically designed for staff that will maintain functions of their MAX solution. Content varies per specific MAX solution, but includes such topics as data entry for phone books and speed dials, account set-up for personnel additions, etc.

Management

(Managers, Supervisors)

Duration: 2.5 - 3 hours

Zetron's operation training for management includes the same curriculum as our operator course, but adds additional content specifically designed for the needs of leadership personnel. Content varies per specific MAX solution, but includes such topics as permission-based functionality, reporting, and tools/ techniques for staff training. Management courses also include best practices for MAX solution feature use based on the needs and SOP's of the customer. These sessions are often held as the first training sessions prior to staff training to allow customer management to provide guidance to the Zetron trainer on any topics that should be emphasized or omitted while training their staff.

Train-the-Trainer

Duration: Varies

Train-the-Trainer sessions are available as requested. These sessions are customized per function and customer specification.

*Duration of courses are approximate. Descriptions apply to MAX Dispatch, MAX Call-Taking, and MAX Fire Station Alerting solutions. Please contact sales for MAX CAD and GIS training options.

Technical Training

Zetron's technical training provides technical staff with a full range of skills from system installation and deployment to post-cutover maintenance.

Installation and Maintenance

Certification Course

Duration: MAX Call-Taking – 20 hours (1)

MAX Dispatch – 20 hours (1)

MAX Fire Station Alerting – 8 hours (1,2)

Zetron's Installation and Maintenance Courses provide detailed, hands-on instruction for technicians and support personnel. Courses utilize a variety of theory, demonstration and hands-on techniques using actual MAX Solutions systems located in our Redmond, WA training facility. These courses provide the needed expertise to install and configure MAX Solutions. Post-install maintenance and troubleshooting topics are also covered.

1- Hours reflect instructor-led sessions. Courses may include additional hours of individual lab assignments outside of lecture hours. (up to 4 hrs.) Attendees should have a technical background with a basic understanding of communication systems and networking.

2- Required prerequisite: Prior completion of the MAX Dispatch Technical Training Course, or installation experience of a MAX Dispatch system.

Technical Training Certification Info

Zetron's Installation and Maintenance course provides trainees with Zetron product certification.

Requirements:

To achieve certification, trainees must attend all hours of coursework and individually complete a series of specific lab exercises using actual MAX Solutions system components.

Term of certifications:

Zetron recommends that courses be re-taken every two-years to stay current with new software features, configuration, and operational changes.

Delivery Options

Zetron offers training courses at our facility in Redmond, WA, and remotely via the internet. Some courses can also be provided at a customer location. This allows us to offer a complete package of options to meet the specific needs of our customers.

On-site

Operation training courses can be delivered at a customer location. This requires the availability of the customer's MAX solution to provide trainees with a hands-on experience. Zetron does not provide demo systems for training use. If a system is not available, we recommend our remote training option which allows for internet access to MAX solution systems located in our Redmond, WA facility. If requested, operation training can also be performed in a presentation-only, classroom format.

Remote

Operation and technical training courses can be delivered remotely. These live, instructor-led remote courses continue Zetron's traditional factory program of detailed, hands-on training. Trainees remotely access real MAX solution systems located in our Redmond, WA training facility.

Technical courses are offered on a regular schedule, posted at:

https://www.zetron.com/factory-training/

Remote operation courses are run by request only; dates are subject to availability.

Factory (Redmond, WA)

Operation and technical training courses are available at Zetron's training facility in Redmond, WA. Courses are run by request; dates are subject to availability.

Product Brochures

City of Hammond, LA
RFP 25-05 for 3 Operator Position Dispatch Console
November 7, 2024

ZETRON

MAX Dispatch System

Maximize Your Control

Improving your operations, preparing you for the future

There's a lot riding on your dispatch system. That's why we've designed MAX Dispatch to be one of the most effective tools available for managing a range of operations—from routine to mission-critical. It links those who need services with those who provide them. It connects the control center with staff in the field and field staff with each other. It coordinates operations that span departments, agencies, or geographic regions. And it gets your critical messages through, even when other communication modes can't.

What is MAX Dispatch?

Zetron's IP-based MAX Dispatch integrates a full range of tools and resources into a single console system and presents them to the dispatcher through a streamlined graphical user interface (GUI). This gives your dispatchers instant access to the information they need from a single, centralized point. MAX Dispatch can be set up to display information pertinent to an incident only when it's needed. Its IP functionality not only eliminates the need for costly leased lines, but supports mobile, remote, and geographically diverse operations.

How MAX Dispatch Works

Three basic components—the **MAX Console with Media Dock**, the **MAX Gateway**, and **MAX Central**—form the building blocks of each MAX Dispatch system. The size and capabilities of your system will determine how many of each of the three basic components your system will require. The flexibility and simplicity of the MAX Dispatch architecture allows you to easily scale your system up or down to accommodate changes in your organization.

MAX CONSOLE WITH MEDIA DOCK

The MAX Console with Media Dock is the point through which the dispatcher interacts with the MAX Dispatch system.

MAX RADIO GATEWAY

The MAX Gateways serve as the interface point between a radio, base station or radio system and the rest of the MAX Dispatch system. These allow MAX to be ready for whatever the market demands.

MAX CENTRAL

MAX Central hosts and serves as the control point for a variety of centralized system functions, such as voice-logging services and administrative telephone lines.

Why MAX Dispatch?

A streamlined UI that improves response times and efficiency.
The clean design of the MAX Dispatch user interface (UI) reduces screen clutter, operational steps, and response times. It gives dispatchers instant access to information pertinent to the task at hand. And it's easy for dispatchers to grasp—trainers report that it takes about 30 minutes to learn. This reduces training time and costs. Plus, MAX Dispatch is highly configurable, allowing you to create screen layouts that meet the unique needs of your dispatch center.

Redundancy you can rely on.
Because MAX Dispatch supports network redundancy for every end point, it can tolerate any single point of failure in the IP network with no loss of service. This keeps your vital operations up and running, even if a fault condition occurs.

Low-cost expansion, upgrades, and maintenance.
MAX Dispatch is built to not only support your current operations, but to adapt as your operations change over time. You can easily add channels and consoles to MAX Dispatch. The system hardware and software architecture also provides an easy upgrade path that keeps your technology current without the need for a large-scale system overhaul. Plus, it can be configured and maintained remotely. This keeps your costs low and ensures that changes and updates can be made quickly.

High interoperability.
Its compatibility with all major radio interfaces and major radio manufacturers' equipment makes MAX Dispatch one of the most interoperable systems available. This is critically important when you have to manage events across departments or jurisdictions.

Resource sharing and backup across geo-diverse locations.
MAX Dispatch can be used with the MAX Geo-diverse Portal to link and share resources across geographically distributed locations. This maximizes the efficient use of resources, reduces costs, and allows systems at different sites to back each other up—with just the click of a mouse.

Dispatch from anywhere.
Because MAX Dispatch can be operated over a laptop or tablet, it gives you the flexibility to deploy remote, temporary, backup, or mobile operations quickly and securely. And delivers all of the features, functionality, and interoperability available in the control room.

MAX Dispatch is future ready.
Its design is well suited for anywhere the market moves.

Why Zetron?

Zetron services and support

Your MAX Dispatch system comes with a standard 12-month hardware warranty, 12-month software warranty, operator web training, and exclusive membership into the Zetron MAX Users Group (ZMUG). Zetron also offers a range of optional support services to ensure that your system is installed and configured to run optimally. These services include: 24/7 telephone support, software maintenance, hardware replacement and repair, remote and on-site configuration assistance, system re-optimization, and technical and operational training. Many of these options are available as standalone services.

Help with financing

Looking for alternate ways to fund your new dispatch system? Zetron is partnering with a leader in public finance to offer tax-exempt financing to help public-safety agencies purchase new equipment. The program not only applies to a full range of public-safety products, but can be "bundled" to include installation and dispatch furniture as well as other equipment.

Performance you can count on

Zetron has a reputation for the reliability and robustness of its products. They are specifically designed to meet the needs of mission-critical operations that must stay up and running 24/7. Zetron solutions are also known for their longevity. Not only do they continue to deliver a rock-solid performance over time, but they have the flexibility to keep pace with emerging technologies and changing operational requirements.

About Zetron

Founded in 1980, Zetron manufactures and provides communications systems designed to equip the entire mission-critical control room. Its integrated solutions include IP-based dispatch, NG9-1-1 call-taking, voice logging, IP fire station alerting, CAD, mapping, and automatic vehicle location (AVL) systems. Zetron has offices in the United States, the United Kingdom, Australia, and numerous field locations; and a worldwide network of resellers, system integrators and distributors. Zetron is a member of the Codan group of companies.

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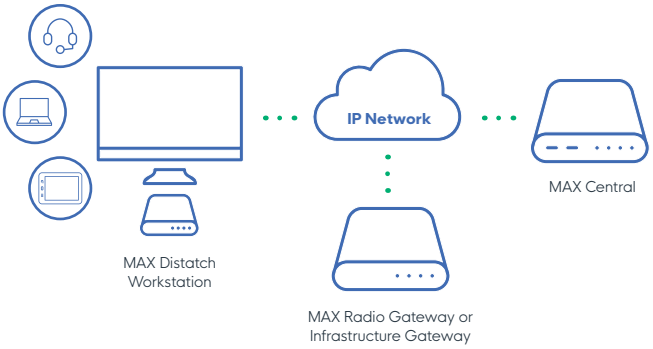
ZETRON

Always on, always ready.

MAX Dispatch

SPEC SHEET

Zetron's IP-based MAX Dispatch console system is designe to meet the varying needs of the dispatch community while providing a low cost of ownership to the customer. Whether it is expanding the positions and interfaces of one system, sharing resources across multiple systems, increasing mobility options for staff or ensuring your control room can interface to legacy and emerging technologies, the MAX Dispatch radio dispatch console provides the customer an easy path on which to move forward.



FEATURES

- **Simpler operation, lower training Cost:** The user interface is designed to focus attention on the incident by reducing screen clutter, improving response times, and therefore reducing user stress. MAX Dispatch requires minimal training and fewer steps to perform tasks and access information.
- **Three workstations** supports standard PC with Media Dock, laptop version, and CommandIQ complete desktop station.
- **Map-based dispatching:** Available for systems that support location services.
- **High reliability:** End-to-end network redundancy keeps the system up and running even if the IP network goes down. Minimize Maintenance Time and Cost: Configure, troubleshoot and maintain the system from the convenience of the office.
- **Scalable Operations:** The architecture provides scalability for system designs ranging from dedicated LAN network to multi-node, geographically diverse WAN applications.
- Support for PTToC applications.

MAX Dispatch Standard Console with Media Dock

The MAX Dispatch console is the system element that provides the critical user interface to dispatchers. Each console consists of a Windows®-based client running the MAX Dispatch application software and the optional Media Dock. The console PC is equipped with two, full-duplex Ethernet ports for full network redundancy If your system has a Media Dock it provides additional audio interfaces and connection points for accessories.

MEDIA DOCK INTERFACES SUPPORT

- Up to eight speakers
- Desktop microphone
- 4-wire or 6-wire headset jackbox
- PTT and monitor footswitches
- Four local binary inputs and output that can be used for workstation status
- Four local relay contact closure outputs

WORKSTATION REQUIREMENTS

Operating System:	Windows 7 x 64 Windows 10 Professional
Video Monitor(s):	1920 x 1080 required DirectX 10-compatible graphics processor with a Windows Display Drive Model (WDDM) 1.1 driver pixel shader 3.0 in hardware 1GB of video RAM (minimum)
Processor:	i5 3.0 GHz or better
Memory:	16GB
Drive:	256GB SSD or larger
Network:	100/1000 Ethernet Connection
VideoCard:	AMD Radeon R5 430, 2GB, HH (DP/DP)

CommandIQ for MAX Dispatch

The CommandIQ workstation is a compact, fully functional hardware console option for MAX Dispatch with an embedded PC, internal speaker and microphone, 10.1" touchscreen display, handset, and supports external accessories (e.g., additional speakers, headsets, microphones, footswitches, etc.). It's efficient 15" X 10" x 4.5" footprint saves space on desks, enables it to be stored easily, and is configured to easily wall mount. The CommandIQ workstation provides mobility, flexibility, and adaptability to meet any command center, office, or field work environment while maintaining full access to radio, telephone, auxiliary I/O, and paging networks.

MAX Radio Gateway

The Radio Gateway serves as the interface point between a radio or base station and the rest of the MAX system. Radio Gateways are available in both analog and digital forms depending on the radio interface requirement.

SUPPORTED FEATURES

- Analog gateways support up to two radio connections.
- Digital gateway supports Ethernet connection to digital base station infrastructure.
- Dual Ethernet ports for network redundancy.
- Analog voice logger output.
- Four binary inputs and outputs for generic site monitoring and control use (analog gateways only). Relay closures available via optional Zetron Model 6080.

ZETRON

SUPPORTED RADIO INTERFACES (INQUIRE FOR ADDITIONAL RADIOS SUPPORTED)

- 2-wire, 4-wire local (PTT/COR).
- Tone Remote Control (per TIA102.BAHA Section 7).
- Analog/conventional radios: Kenwood TK-x180, Motorola XTL 5000 (O5), Harris M7300/XG75, & XG100.
- P25 conventional/trunking radios: Kenwood TK-5x10, Motorola APX 7500 (O5 Mobile), Motorola XTL 5000 (O5 Mobile), Motorola Quantar with DIU-3000 (conventional only), Harris M7300/XG75 & XG100., Viking VM5000.
- Smartnet/SMARTZONE radios: Motorola APX 7500 (O5 Mobile), Motorola XTL 5000 (O5 Mobile), EFJ VM400/600/900.
- EDACS radios: Harris M7300/XG75 & XG100.
- P25 Digital Fixed Station Interface (DFSI) per TIA102.BAHA.
- Kenwood NEXEDGE radios: NX-700/800/900, NX-720/820
- Kenwood NEXEDGE NXR-700/800 Conventional and Trunking Repeaters.
- DMR AIS Tier II and Tier III, Hytera, Tait and JVCKenwood
- MotoTRBO

MAX Infrastructure Gateway (IG)

The IG serves as the interface point between the radio system and the rest of the MAX system. It is server-based and supports both CSSI and DMR Tier III.

SUPPORTED FEATURES

- Unit ID Display
- Talkgroup selection
- Group calls (inbound/outbound)
- Inbound emergency group call
- Individual calls (inbound/outbound)
- Inbound emergency alert
- Inbound call alert
- Encryption (non-FIPS, not to console position)
- Manual encryption key load
- KVL encryption key load support
- Static talkpath to talkgroup mapping through console system acceptable
- Long term voice logging support for voice
- Long Term Logging support for Group call source id
- Patching of talkgroups by operator
- Console behavior same as with current radio interfaces providing consistent visual indications for transmit, receive, audio routing, call state
- Console Pre-emption of inbound calls

MAX Central

The Central is the hardware platform that hosts several software services used in the MAX Dispatch system. These software services provide essential management and control to the system as well as act as a gateway to various third party devices for additional functionality such as telephony gateways, IP voice loggers, MODBUS IP auxiliary I/O devices and Location Services (AVL). It also hosts the service that provides remote console, remote radio gateway and multiple MAX Dispatch site linkage.

SUPPORTED FEATURES

- Dual network connections
- Dual power connections
- Hot standby capability for Z-Node Manager, Telephony Gateway, Portal services and Location Gateway service.
- Long term IP voice loggers supported: Eventide, Exacom, Stancil, CVDS, REVCORD, Higher Ground, NICE, Verint, DSS Corporation.

Specifications

HARDWARE

Dimensions (HxWxD)

Media Dock XS: 2.5 x 7.5 x 10 in. (64 x 192 x 254mm)
Central: 1.25 x 7.5 x 10 in. (31.75 x 191 x 254mm)
Radio Gateway: 1.25 x 7.5 x 10 in. (31.75 x 191 x 254mm)

Weight

Media Dock XS: 2.6 lbs (1.2 kg)
Central: 2.5 lbs (1.13 kg)
Radio Gateway: 2 lbs (0.91 kg)

Operating Temperature

Media Dock XS: 0 to 60 ° C
Central: 0 to 50 ° C
Radio Gateway: 0 to 50 ° C

Maximum Power Draw

Media Dock XS: 3W, 200mA (no speakers), 21W (with speakers)
Central: 1.8A @ 10.5 VDC
Radio Gateway: 1A @ 10.5 VDC

NETWORK

Radio Gateway Payload (per radio):	168 kbps active. Less than 5kbps idle
Console Workstation Payload:	84 kbps maximum for each active audio stream (Tx or Rx) N*84 kbps for simultaneous Tx on N channels.
Packet Loss:	< 0.1% (< 1% for non-mission critical)
Packet Delay:	< 40 ms for LAN environments; up to 2 seconds for longhaul (long delay) environments.
Packet Jitter:	< 20 ms (< 40 ms for-non mission critical)
Network Infrastructure:	100 Mbps minimum, full-duplex Ethernet Switches and routers must be multicast aware. Mission-critical applications should use a dedicated network

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Always on, always ready

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Solicitation Advertised	Wayne Pontiff	Kort's Construction Services, Inc.	10/15/2024 02:10 PM EDT
Solicitation Advertised	David Muller	M & J Civil Construction, LLC	10/15/2024 01:10 PM CDT
Solicitation Advertised	Rebecca Bergin	Douglas Food Stores Inc	10/15/2024 02:10 PM EDT
Solicitation Advertised	Michael Hackley	Hackley Enterprises LLC Construction	10/15/2024 01:10 PM CDT
Solicitation Advertised	steven williams	A Property 4 U,LLC	10/15/2024 01:10 PM CDT
Solicitation Advertised	Jonathan Love	HMSE	10/15/2024 02:10 PM EDT
Solicitation Advertised	Joshua Cain	Siema Construction	10/15/2024 02:10 PM EDT
Solicitation Advertised	James Madden	Madden Gulf Coast, LLC	10/15/2024 01:10 PM CDT
Solicitation Advertised	J. Todd Koniar	Vulcan Inc.	10/15/2024 02:10 PM EDT
Solicitation Advertised	Chad Mizell	Micon Services, Inc.	10/15/2024 02:10 PM EDT
Solicitation Advertised	Joseph Wall	Blue Boy Construction LLC	10/15/2024 01:10 PM CDT
Solicitation Advertised	Bradley Simmons	B & B CONSTRUCTION SOLUTIONS LLC	10/15/2024 01:10 PM CDT
Solicitation Advertised	Garner Admin	Garner Environmental Services, Inc.	10/15/2024 01:10 PM CDT
Solicitation Advertised	Jon Martin	Aivast Construction LLC	10/15/2024 01:10 PM CDT
Solicitation Advertised	Jason Bankston	Grady Crawford Construction Co., Inc. of Baton Rouge	10/15/2024 01:10 PM CDT
Solicitation Advertised	Jennifer Casadaban	Casco Contracting, LLC	10/15/2024 02:10 PM EDT
Solicitation Advertised	Harshitha Kethineni	OpenTeQ Technologies LLC	10/15/2024 01:10 PM CDT
Solicitation Advertised	Martin Padial	Workbox	10/15/2024 01:10 PM CDT
Solicitation Advertised	Richard Price	Richard Price Contracting Co., LLC	10/15/2024 01:10 PM CDT

49 Notification Logs

Notification	User	Business	Time
Solicitation Advertised	Nathan Stubbs	Stubbs NK Contractors LLC	10/15/2024 01:10 PM CDT
Solicitation Advertised	Jimmy Rogers	Dezigner Construction and Consulting	10/15/2024 01:10 PM CDT
Solicitation Advertised	Jeff Mendelsohn	Pavement Markings, L.L.C.	10/15/2024 01:10 PM CDT
Solicitation Advertised Text	Bradley Simmons	B & B CONSTRUCTION SOLUTIONS LLC	10/15/2024 01:10 PM CDT
Solicitation Advertised Text	Michael Hackley	Hackley Enterprises LLC Construction	10/15/2024 01:10 PM CDT
Solicitation Addendum	Mindy Swetz	Communications International	10/30/2024 10:51 AM EDT
Solicitation Addendum	Wayne Pontiff	Kort's Construction Services, Inc.	10/30/2024 10:51 AM EDT
Solicitation Addendum	David Muller	M & J Civil Construction, LLC	10/30/2024 09:51 AM CDT
Solicitation Addendum	Rebecca Bergin	Douglas Food Stores Inc	10/30/2024 10:51 AM EDT
Solicitation Addendum	Michael Hackley	Hackley Enterprises LLC Construction	10/30/2024 09:51 AM CDT
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