

ILLINOIS STATE POLICE
Office of the Statewide 9-1-1 Administrator



State of Illinois

Application for
9-1-1 Modification Plan

NARRATIVE STATEMENT:

(Provide a detailed summary of system operations for a modified 9-1-1 plan. Also, if incorporating an NG9-1-1 solution, please include the additional items listed below pursuant to 1325.205 b)12).

- 1) Indicate the name of the certified 9-1-1 system provider being utilized.
- 2) Explain the national standards, protocols and/or operating measures that will be followed.
- 3) Explain what measures have been taken to create a robust, reliable and diverse/redundant network and whether other 9-1-1 Authorities will be sharing the equipment.
- 4) Explain how the existing 9-1-1 traditional legacy wireline, wireless and VoIP network, along with the databases, will interface and/or be transitioned into the NG9-1-1 system.
- 5) Explain how split exchanges will be handled.
- 6) Explain how the databases will be maintained and how address errors will be corrected and updated on a continuing basis.
- 7) Explain who will be responsible for updating and maintaining the data, at a minimum on a daily basis Monday through Friday.
- 8) Explain what security measures will be placed on the IP 9-1-1 network and equipment to safeguard it from malicious attacks or threats to the system operation and what level of confidentiality will be placed on the system in order to keep unauthorized individuals from accessing it.

Plan Narrative:

The Pike County ETSB 9-1-1 System is transitioning from E9-1-1 to Next Generation 9-1-1 (NG911). AT&T is the 9-1-1 System Provider ("SSP").

The Pike County ETSB 9-1-1 System will comply with all Federal and State laws and with National Emergency Number Association Standards (NENA) that pertain to NG911 including the NENA i3 Standard for Next Generation - NENA-STA-010.3a-2021.

The State of Illinois has selected AT&T to provide a statewide Next Generation 9-1-1 System. AT&T's ESInet combines AT&T's network capabilities with technology from Intrado Life & Safety, Inc. (Intrado). The AT&T ESInet solution will facilitate an efficient transition from legacy 9-1-1 networks to networks capable of supporting the growing demands of a mobile society. With AT&T ESInet, the State is taking advantage of AT&T's investment in a pre-built, cloud-based solution that delivers next-generation functionality. AT&T is also providing their industry-leading AT&T VPN MPLS network for primary access to all PSAPs.

AT&T's ESInet solution is a combination of their IP network and Next Gen Core Services (NGCS) components that includes industry leading SLAs, management services and tools to help ensure that they provide the best possible service.

The design is based on building redundant systems to avoid any single point of failure (SPOF) in the ESInet and the overall NG9-1-1 Network Architecture. The NG9-1-1 system will provide flexibility in the routing of calls. The ESInet being deployed has all PSAPs connected and can route calls based on not only location, but also by availability. In a Next Generation solution, a call will be answered through intelligent routing. Additionally, there will be more available positions to answer calls because all connected and tested PSAPs will be technically able to answer the call and will be able to dispatch or transfer the call to another PSAP.

AT&T's ESInet defense-in-depth security is built into the architecture. AT&T's Global IP network is monitored by 8 different Security Operations Center (SOC) facilities located across the world. AT&T uses its security portfolio capabilities to protect their data centers and networks.

AT&T's ESInet provides six (6) geographically diverse and fully redundant facilities to increase resiliency and survivability in natural and man-made disaster scenarios, with scalable capacity capable of supporting more than twice the 9-1-1 busy hour call for the entire United States. AT&T has documented business continuity and restoration plans, including complex disaster and evacuation contingencies. The 24x7 operations center employs an Incident Handling process modeled on FEMA's Incident Command System, with notifications built into the process.

Plan Narrative:

The ESInet is monitored 24x7x365 from a NOC with tier 2 and tier 3 technical resources dedicated to the AT&T ESInet. AT&T's 9-1-1 Resolution Center has dedicated public safety resources.

The AT&T ESInet provides a flexible routing platform that supports both ESN (tabular) and GIS (spatial) routing on the same Emergency Call Routing Function (ECRF).

The AT&T ESInet solution will interconnect to legacy selective routers as defined per NENA standards. AT&T provides redundant, public safety grade points of presence in each LATA for OSP ingress locations for Legacy Network Gateways (LNGs).

AT&T will interconnect to Legacy Selective Routers to transfer and/or receive calls with Automatic Number Identification (ANI) and Automatic Location Identification (ALI) information to the State's NGCS via legacy means through the Legacy Selective Router Gateway (LSRG). Interconnections will also allow legacy PSAPs served by legacy selective routers to serve as the abandonment route for PSAPs served by the AT&T ESInet solution.

Connectivity extends beyond the internal ESInet transport to external network and OSP interfaces. The ESInet supports both TDM and IP OSP ingress at geographically distributed Points of Interconnection (POI's). The ESInet supports standards-based protocol interfaces to external ESInets for call hand-off and call transfers. With pre-established connectivity capabilities, PSAPs on the ESInet have the ability to transfer calls to PSAPs on other ESInets or PSAPs that have not yet transitioned off legacy selective routers.

AT&T will coordinate getting the OSPs records into the AT&T ESInet database. AT&T will also jointly plan the interconnecting network with the OSP. Circuits will be ordered and implemented between the OSP and the ESInet POI. The ESInet POI may reside in an AT&T office or hub. AT&T will cooperatively test and turn up all trunking arrangements with the OSP. Traffic migrations from the legacy to new AT&T infrastructure will follow. Integrated Text-to-911 is supported by the ESInet.

AT&T is responsible for negotiating interconnection agreements and trunking arrangements with each service provider. Interconnection agreements will include the roles and responsibilities of the Parties related to the exchange of 9-1-1 traffic including but not limited to, split rate centers, tandem to tandem and IP connections.

GIS data is submitted to the AT&T ESInet via a web-based spatial interface (SI) portal. The portal provides secure GIS file transfer. 9-1-1 Authorities can maintain their local database schema and configure database changes using attribute field mapping tools.

The Spatial Interface (SI) validation engine logs errors and refers errors back to the originating 9-1-1 Authority in comprehensive reports that are retrieved in the 9-1-1 Enterprise Geospatial Database Management System (9-1-1EGDMS). Validation errors are corrected by the 9-1-1 Authority within their own GIS database. Updates are submitted and processed on an on-going basis.

AT&T's ESInet cyber security policies, standards, and guidelines are consistent with industry best practices as defined by International Organization for Standardization and Control Objectives for Information and related Technology. The AT&T ESInet is a highly secure, privately managed IP network providing IP based call routing services for next generation 9-1-1 call delivery. All inbound and outbound traffic interactions are with pre-authorized entities, utilize agreed upon protocols and traverse controlled access points. Call processing and real-time data delivery are protected through both physical and logical controls.

Sensitive data resides in trusted data centers that employ logical and physical access controls. All hardware and software elements deployed in a production environment go through stringent release management processes that incorporate thorough penetration scan testing. Corporate and development environments are separate from production and are not used in development or system test environments. Inter-zone traffic is restricted to only that of authorized personnel and the necessary protocols destinations used to support the management and applications of the ESInet with all other traffic implicitly denied by way of redundant and diverse Session Border Controllers (SBC) and stateful firewalls. A Network Operations Center (NOC) staffed 24 hours a day, seven days a week, 365 days a year to actively monitor and manage the AT&T ESInet end-to-end service is provided. When a potential or actual Customer-affecting issue is detected, the Incident Administration team is engaged by the NOC. The team uses established processes that are ISO 9001:2008-compliant for immediate escalation, notification, resolution, and reporting. All buildings, NOC and Data Center access are monitored by 24x7 security and access control systems.

Pike County ETSB does not currently accept text to 9-1-1.

The backup PSAP for Pike County ETSB is Scott County E-911 PSAP.

Pike County ETSB does not have a pre-determined alternate route in place at this time.

VERIFICATION

I, Stephanie Reinhardt, first being duly sworn upon oath, depose and say that I am the 9-1-1 Coordinator/Dispatch Supervisor, of Pike County ETSB; that I have read the foregoing plan by me subscribed and know the contents thereof; that said contents are true in substance and in fact, except as to those matters stated upon information and belief, and as to those, I believe same to be true.

Stephanie Reinhardt

Stephanie Reinhardt, 9-1-1 Coordinator

Subscribed and sworn to before me

this 31st day of July, 2024.



Angela Brawdy Kirk
NOTARY PUBLIC, ILLINOIS

9-1-1 SYSTEM PROVIDER LETTER OF INTENT

July 29, 2024

(Date)

Lisa Wirtanen

(9-1-1 System Provider Company Representative)

AT&T

(9-1-1 System Provider Company Name)

4918 W. 95th Street

(Street Address)

Oak Lawn, IL 60543

(City, State, Zip Code)

Dear Ms. Wirtanen _____ :

This letter is to confirm our intent to modify our 9-1-1 System. Enclosed is your copy of our modification plan to be filed with the Department of the Illinois State Police for approval. Thank you for your assistance in this matter.

Sincerely,



Stephanie Reinhardt
9-1-1 Coordinator/Dispatch Supervisor
Pike County ETSB

enclosure: Modification Plan

FINANCIAL INFORMATION

Annual recurring 9-1-1 network costs
prior to modification

N/A_____

Projected annual
recurring 9-1-1 network costs after
modification

TBD_____

Installation cost of the project

N/A_____

Anticipated annual revenues

N/A_____

FIVE YEAR STRATEGIC PLAN FOR MODIFIED PLAN

(Provide a detailed summary of the proposed system's operation, including but not limited to, a five-year strategic plan for implementation of the modified 9-1-1 plan with financial projections)

Narrative:

N/A

COMMUNITIES SERVED

Provide a list of all communities to be served by the proposed 9-1-1 System. Please include the name of the community and the official mailing address including street address, city and zip code.

USE ADDITIONAL SHEETS AS NECESSARY

City, Town or Village	Street Address, City, Zip Code
Pittsfield	City Hall, 215 N Monroe St,Pittsfield, IL 62363
Griggsville	City Hall, 108 S Corey St,Griggsville, IL 62340
Barry	City Hall, 1005 Bainbridge St,Barry, IL 62312
Baylis	Village Hall, 140 S Main St,Balis, IL 62314
Kinderhook	Village Hall, PO Box 66, Kinderhook, IL 62345
Hull	Village Hall, PO Box 70, Hull, IL 62343
New Salem	Village Hall, PO Box 132, New Salem, IL 62357
Perry	Village Hall, PO Box 173, Perry, IL 62362
Florence	Village Hall, 107 Hall St, Pittsfield, IL 62363
Detroit	Village Hall, Detroit, IL 62332
Milton	Village Hall, PO Box 68, Milton, IL 62352
Nebo	Village Hall, PO Box 277, Nebo, IL 62355
Pearl	Village Hall, PO Box 148, Pearl, IL 62361
Pleasant Hill	Village Hall, 104 W Quinjcy St, Pleasant Hill IL 62366

PARTICIPATING AGENCIES

Provide a list of public safety agencies (Police, Fire, EMS etc.) that are to be dispatched by the 9-1-1 System. Each Agencies land area(s) in square miles and estimated population which will have access to the proposed 9-1-1 System. Do not forget to include County Sheriff's jurisdiction and Illinois State Police Districts. Each agency that appears on this list should also have signed a call handling agreement.

9-1-1 Participant Agencies	Street Address, City, Zip Code	Administrative Telephone No.	Direct Dispatch	Transfer	Call Relay
Pike County Sheriff's Dept	1600 Bus. Hwy 54W, Bowling Green, MO		X	X	
Pittsfield PD	219 N. Monroe St, Pittsfield, IL 62363		X	X	
Pittsfield Fire	121 E. Jefferson St, Pittsfield, IL 62363				
Griggsville Fire	306 W. Quincy St., Griggsville, IL 62340				
Baylis Fire	P.O. Box 115, Baylis, IL 62314				
East Pike Fire	P.O. Box 1, Milton, IL 62352				
Spring Creek Fire	710 E. Bridge St., Nebo, IL 62355				
Hull-Kinderhook Fire and EMS	320 W. Highway 106, Hull, IL 62343				
New Canton Fire and EMS	220 Main St., New Canton, IL 62356				
Barry Fire	867 Main St., Barry, IL 62312-1235				
Barry EMS;Ambulance	867 Main St. Barry, IL 62312-1235				
North Pike EMS	103 East Main St. Perry, IL 62362				
Baylis EMS	P.O. Box 115, Baylis, IL 62314				
SpringCreek PleasantHill EMS	710 E. Bridge St., Nebo, IL 62355				
Pike County Ambulance	24085 365th St., Pittsfield, IL 62363				
Pleasant Hill Fire	Bottom St., Pleasant Hill, IL 62366				
Pike County EMS	2305 Georgia St., Louisiana, MO 63353				
Adams County 9-1-1	222 N. 52nd St., Quincy, IL 62305				
Adams County EMS	507 Vermont St., Quincy, IL 62301				
Adams Co. Sheriff's Dept.	521 Vermont St., Quincy, IL 62301				
Brown County Ambulance	835 Route 24 West, Mt. Sterling, IL 62353				
Brown County Fire	145 Main St., Mt. Sterling, IL 62353				
Brown Count Sheriff's Dept.	Courthouse, Mt. Sterling, IL 62353				
Calhoun County Sheriff's Dept.	N. County Rd., Hardin, IL 62047				
Carrollton PD	621 S. Main St., Carrollton, Il 62016-1252				

ATTACHMENTS

Ordinance - The local ordinance which created an ETSB prior to January 1, 2016.

Contracts - The contract for a new 9-1-1 system provider or for NG 9-1-1 service.

Intergovernmental Agreement

Back-up PSAP Agreement - The agreement that establishes back-up service due to interruptions or overflow services between PSAPs.

Network Diagram - Diagram provided by the 9-1-1 System Provider. Re-evaluate P.01 grade of Service for cost savings and network efficiency.

TEST PLAN DESCRIPTION

1) Description of test plan (back-up, overflow, failure, database).

See Attached

2) List wireline exchanges to be tested.

3) List of wireless and VoIP Carriers to be tested.

AGREEMENTS

November 2023

For 9-1-1 Emergency Communications

This agreement is made between the Pike County 9-1-1 Communications System Public Safety Answering Point, hereinafter referred to as "PSAP", and the West Central 9-1-1, for the purpose of effective handling and routing of 9-1-1 Emergency calls.

CALL HANDLING (Exhibit 8)

Pike County 9-1-1 PSAP Center receiving a call for emergency services in your jurisdiction shall dispatch the call in the following manner:

Primary: **Radio Frequency :**
And/or
Telephone Number: 217-243-1874

Secondary: **Radio Frequency :**
And/or
- **Telephone Number:**

AID OUTSIDE NORMAL JURISDICTION BOUNDARY (Exhibit 9)

Once an emergency unit is dispatched in response to a request through the system, such unit shall render its service to the requesting party without regard to whether the unit is operating outside its normal jurisdictional boundaries.

The legislative intent is that 9-1-1 be used for emergency calls only. Therefore, all calls of an administrative or non-emergency nature shall be referred to your agency's published telephone number.

The PSAP Center agrees to keep all records, times, and places of all calls. All records will be available to all participants of the 9-1-1 System.

It shall be the responsibility of your agency to maintain the report of the call and the disposition of each call received.

All agreements, management, records, and service will be the responsibility of the advisory and policy board.

 Pike County 9-1-1
PSAP

 West Central 9-1-1
Agency

By _____

By _____

Title 911 Coordinator

Title _____

ADAMS COUNTY 9-1-1 SYSTEM
&
PIKE COUNTY 9-1-1 SYSTEM
ALTERNATE ROUTING AGREEMENT

THIS Agreement was made and entered into between the Adams County Emergency Telephone Systems Board (hereinafter referred to as "Adams County ETSB") and the Pike County Emergency Telephone Systems Board (hereinafter referred to as "Pike County ETSB").

WITNESSETH

WHEREAS Pike County ETSB is currently implementing an Enhanced 9-1-1 emergency telephone system (hereinafter referred to as "Enhanced System").

WHEREAS under Illinois law each Enhanced system is required to select a location for alternate routing when the 9-1-1 lines to the primary Public Safety Answer Point ("PSAP") are busy or if the primary PSAP closes for a period of time due to an emergency situation; and

WHEREAS Article VII, Section 10 of the 1970 Illinois Constitution and Chapter 5, Section 220/5 of the *Illinois Compiled Statutes* authorize and intergovernmental cooperation association to enter contracts with units of local government; and

WHEREAS Pike County ETSB and Adams County ETSB mutually desire to enter into an Agreement establishing Adams County ETSB as the location for alternate routing of 9-1-1 calls when all 9-1-1 lines to Pike County ETSB are busy or in the event Pike County ETSB closes for a period of time due to an emergency system.

1. Beginning approximately October 1, 2024, or at such time the Pike County Enhanced System is operational, if at any time all 9-1-1 lines coming into Pike County PSAP are busy, AT&T will be instructed to route all overflow 9-1-1 calls to Adams County ETSB.
 2. If at any time the Pike County PSAP is forced to cease operation due to unforeseen circumstances, AT&T will be instructed to route all 9-1-1 calls to the Adams County PSAP, until such time that the Pike County PSAP returns to full operation.
 3. When there is a need for alternate routing, Pike County ETSB will contact the Adams County PSAP, advise the reason for the alternate routing request, length of time the alternate routing will need to be in effect (if possible), provide information on personnel at the Pike County PSAP, and provide estimated time of arrival of Pike County ETSB personnel to assist at the Adams County PSAP. Calls
-

ADAMS COUNTY 9-1-1 SYSTEM
&
PIKE COUNTY 9-1-1 SYSTEM

ALTERNATE ROUTING AGREEMENT

- received during these times that require dispatch will be relayed to Pike County ETSB via telephone numbers 217-285-5011 or 217-285-4471.
4. Adams County ETSB agrees to serve as Pike County's PSAP without any compensation. Any costs associated with providing this service will be the responsibility of Pike County, upon prior approval.
 5. This Agreement shall be effective when executed by the proper officials of Pike County ETSB and Adams County ETSB. Adams County ETSB may elect to withdraw from this Agreement. The withdrawal shall be effective upon 30 days' notice. Such notice of withdrawal will be sent registered or certified mail to the Chairman of the Pike County ETSB.
 6. Under the terms of this Agreement, Adams County ETSB does not assume responsibility or liability for dispatching personnel in response to calls or requests directed to any Pike County Emergency Response Agency and the ETSB's PSAP except according to a separate call handling agreement.
 7. Pike County ETSB agrees to indemnify, defend and hold harmless both Adams County and the Adams County Central Dispatch System acting as agent for Adams County, the officers, agents, and employees of Adams County Central Dispatch System and Adams County ETSB from and against all loss or expense, including costs and attorney's fees, arising out of any injury to any person, damage or alleged damage to any property, arising out of or in consequence of the performance of this Agreement and the terms, conditions, and duties imposed therein, whether such injury to person or damage to property is due or claimed to be due to the negligence of Adams County, Adams County Central Dispatch System, their officers, agents or employees.
 8. In the event a Court of proper jurisdiction determines that any paragraph or paragraphs of this Agreement are invalid the parties agree that such invalidity shall not affect the validity of the remaining portions of this Agreement.
 9. This Agreement is not assignable by Adams County ETSB or Pike County ETSB and any purported assignment of this Agreement by Adams County ETSB or Pike County ETSB shall be deemed null and void, provided however, Pike County ETSB or Adams County ETSB shall be entitled to assign this Agreement to any successor entity of Pike County ETSB or Adams County ETSB.
 10. The persons signing this Agreement on behalf of Adams County ETSB and Pike County ETSB warrant that they have actual authority to enter into this Agreement on behalf of Adams County ETSB and Pike County ETSB respectively.

ADAMS COUNTY 9-1-1 SYSTEM
&
PIKE COUNTY 9-1-1 SYSTEM

ALTERNATE ROUTING AGREEMENT

11. This Agreement constitutes the complete, final and entire Agreement between Adams County ETSB and Pike County ETSB, and supersedes any prior agreements, either written or oral, between the parties.
12. Any modification to this Agreement must be in writing and signed by both Pike County ETSB and Adams County ETSB to be effective.
13. This Agreement shall be governed and construed in accordance with the laws of the State of Illinois.

IN WITNESS WHEREOF the undersigned governmental units have caused this Agreement to be duly executed.

Adams County 9-1-1 System

Pike County 9-1-1 System

By: 
Chairman-ETSB

By: 
Chairman-ETSB

Date: 10/9/2024

Date: 9-26-2024

Test Plan Description i3

TEST #	TEST CASE	TYPE
1	Trunk Verification (SIP)	Call Routing
2	Trunk Verification (SS7 Ingress from LSR)	Call Routing
3	Trunk Verification (SS7 Egress from AGC to LSR)	Call Routing
4	Perform reboot and validation on each AT&T network edge router at PSAP	Failover test
5	Perform WAN interface shutdown and validation on each AT&T network edge router at PSAP	Failover
6	Perform reboot and validation on each ATT Interface Router (between CPE and AT&T router)	
7	Wireline Call Routed to PSAP through AT&T ESInet	Equipment
8	Wireless Call Routed to PSAP through AT&T Esinet	Equipment
9	VOIP Call Routed to PSAP through AT&T ESInet	Equipment
10	CPE bids i3 Components	Call Handling
11	i3 Routing Fails, Routing via SRDB for Wireline call	Call Routing
12	i3 Routing via ECRF for Wireline call	Call Routing
13	i3 Transfer: Fixed Bridge Conferencing Confirmation (Call to IP PSAP then bridge to i3 PSAP if available – willing PSAP)	Call Handling
14	S/R Transfer: Selective Bridge Conferencing Confirmation, if used by the PSAP	Call Handling
15	S/R Transfer: Fixed Bridge Conferencing Confirmation	Call Handling
16	S/R Transfer: Fixed Bridge Conferencing Confirmation	Call Handling
17	PSTN Transfer: Fixed Bridge Conferencing Confirmation	Call Handling
18	Manual Transfer to valid local TN	Call Handling
19	Manual conference bridging to invalid unassigned number	Call Handling
20	Manual conference bridging to a valid 8YY number	Call Handling
21	Manual conference bridging to a valid Busy number	Call Handling
22	Manual conference bridging to a Multi-Party Conference	Call Handling
23	Manual conference bridging to a valid long-distance cell	Call Handling
24	Alternate Routing	Call Routing
25	Ring no Answer Timer	Call Routing
26	No position Logged In	Call Routing
27	Abandonment Routing	Call Routing
28	Un-Abandonment Routing	Call Routing
29	Abandonment Routing – PAD Testing (if PAD available)	Call Routing
30	Un-Abandonment Routing – PAD Testing (if PAD available)	Call Routing
31	Test line appearances that appear on each CPE	Call Processing
32	TTY call	Call Handling
33	TTY conference call	Call Handling