

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



**State of Illinois**

**Application for**  
**9-1-1 Modification Plan**



# VERIFICATION

I, Ronald R Robertson, first being duly sworn upon oath, depose and say that I am Executive Director, of Central Dispatch; 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.

Ronald R Robertson

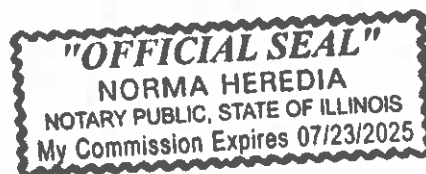
Executive Director

Subscribed and sworn to before me

this 16<sup>th</sup> day of October, 20 22.

Norma Heredia

NOTARY PUBLIC, ILLINOIS



# 9-1-1 SYSTEM PROVIDER LETTER OF INTENT

October 10, 2022

\_\_\_\_\_  
(Date)

Lisa Wirtanen

\_\_\_\_\_  
(9-1-1 System Provider Company Representative)

AT&T

\_\_\_\_\_  
(9-1-1 System Provider Company Name)

4918 W 95th St.

\_\_\_\_\_  
(Street Address)

Oak Lawn, IL 60453

\_\_\_\_\_  
(City, State, Zip Code)

Dear Lisa \_\_\_\_\_ :

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,

  
EXECUTIVE DIRECTOR

(Name)

(Title)

enclosure: 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:

Central Dispatch 9-1-1 is transitioning from E9-1-1 to next Generation 9-1-1 (NG911). AT&T is the System provider ("SSP")

Central Dispatch 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 ESinet combines AT&T 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 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 ESinet defense-in-depth security is built into the architecture. AT&T 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 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 hours 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.

The ESinet is monitored 24X7X365 from a NOC with tier 2 and tier 3 technical resources dedicated to the AT&T ESinet. AT&T 9-1-1 resolution Center has dedicated public safety resources.

## Plan Narrative:

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 Routes 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 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 (POIs). The ESinet supports standard-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 ESinet or PSAPs that have yet transitioned off legacy routers.

AT&T will coordinate getting the OSPs records into 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 trucking 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 trucking 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 ESinet cyber security policies, standards, and guidelines are consistent with industry best practices as defined by International Organizations for Standardization and Control Objectives for information and related Technology. The AT&T ESinet is a highly secure, private 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, utilized 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 the employ logical and physical access control. All hardware and software elements deployed in a production environment go through stringent release management process 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 state 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.

Central Dispatch backup agreement with ECOM remains unchanged (ECOM is Central's offsite backup located at 1154 Ridge Rd, Homewood, IL 60430) after the implementation of NG911.

Central Dispatch Centers call handling agreements remain unchanged after the implementation of NG911.

Central accepts Text to 911 through TTY using Intrado.

There is no changes in any of our call handling agreements.

## FINANCIAL INFORMATION

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

\$ N/A

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

\$ N/A - TBD

Installation cost of the project

\$ N/A - TBD

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











# TEST PLAN DESCRIPTION

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

2) List wireline exchanges to be tested.

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

Date	7-Oct-22					
Intrado Project Manager	Ehtisham Hague					
Intrado Technician Name	Kevin Cronk					
Site Name	Daley's Ambulance					
Site Contact	Ron Robertson					
Site Phone Number	708-259-4815					
Site Address/City/State/ZIP	1234 Sibley Blvd, Dolton, IL					
<b>General Site</b> <input checked="" type="checkbox"/>	<b>Back Room</b>	<b>POS 1</b>	<b>POS 2</b>	<b>POS 3</b>	<b>POS 4</b>	<b>POS 5</b>
Ensure all packing materials and spare equipment are removed from site	Y	N/A	N/A	N/A	N/A	N/
Verify VPN access is working and have HD move Logmein from New Sites to the PSAP site name	Y	N/A	N/A	N/A	N/A	N/
Verify switch configuration is pointing to IP address of the POTS-SRV for proper time sync	Y	N/A	N/A	N/A	N/A	N/
Verify all software versions installed are correct per SOW and most recent KB listing	Y	N/A	N/A	N/A	N/A	N/
Verify all Windows Event logs for Intrado services are error free. Review sysdiag for errors	Y	N/A	N/A	N/A	N/A	N/
Verify teaming per MOP	Y	N/A	N/A	N/A	N/A	N/
All ports to be set to Intrado specification. Refer to MOP's and TA's as needed.	Y	N/A	N/A	N/A	N/A	N/
<b>Viper</b> <input checked="" type="checkbox"/>	<b>Back Room</b>	<b>POS 1</b>	<b>POS 2</b>	<b>POS 3</b>	<b>POS 4</b>	<b>POS 5</b>
Validate ANI / ALI functionality	Y	N/A	N/A	N/A	N/A	N/
Validate 911 Tandem Transfers	Y	N/A	N/A	N/A	N/A	N/
Validate ANI/ALI before answer (if applicable)	Y	N/A	N/A	N/A	N/A	N/
Verify Abandoned Calls functionality	Y	N/A	N/A	N/A	N/A	N/
Confirm ringing and lamping on 911 and Admin Lines	Y	N/A	N/A	N/A	N/A	N/
Verify CDR output functionality	Y	N/A	N/A	N/A	N/A	N/
VIPER 7 - Ensure Positional CAD is configured VIPER 5.1 - Ensure Dual CAD Router is configured	Y	N/A	N/A	N/A	N/A	N/
Verify CAD output functionality	Y	N/A	N/A	N/A	N/A	N/

Multi-Node Specific	Back Room	POS 1	POS 2	POS 3	POS 4	POS
<b>Power Metrics/ECaTS</b> <input checked="" type="checkbox"/>	Back Room	POS 1	POS 2	POS 3	POS 4	POS
Serial Cable Connected to DM Com port	Y	N/A	N/A	N/A	N/A	N/
Verify the RDDM is getting serial dump	Y	N/A	N/A	N/A	N/A	N/
Verify All options are checked in CDR spill and Supplemental Call Events are enabled in Common Directory	Y	N/A	N/A	N/A	N/A	N/
VIPER 5.1 only - Verify MIS installed on RDDM	Y	N/A	N/A	N/A	N/A	N/
Verify Agent IDs have been configured	Y	N/A	N/A	N/A	N/A	N/
Verify Transfer service is working (data getting to ECATs FTP). ECATs Support: 855-333-0827	Y	N/A	N/A	N/A	N/A	N/
<b>ACD</b> <input type="checkbox"/>	Back Room	POS 1	POS 2	POS 3	POS 4	POS
<b>Power 911</b> <input checked="" type="checkbox"/>	Back Room	POS 1	POS 2	POS 3	POS 4	POS
POWER 911 properly installed and running on the Server per MOP including all SPs and KBs	Y	N/A	N/A	N/A	N/A	N/
Power 911 workstation configured per MOP including all SPs and KBs	N/A	Y	Y	Y	Y	Y
Validate phone numbers, transfers, speed dials and agencies and user interface properly configured.	N/A	Y	Y	Y	Y	Y
Validate User Interface and features are laid out per CCS	N/A	Y	Y	Y	Y	Y
Verify all stations can log on to P911 with securities	N/A	Y	Y	Y	Y	Y
Confirm ringing and lamping on 911 and Admin Lines	N/A	Y	Y	Y	Y	Y
Test 911 call flow (presented, routed, answered and logged) through the CPE.	N/A	Y	Y	Y	Y	Y
Verify request for retransmission of ALI	N/A	Y	Y	Y	Y	Y
Validate the ability to submit manual ALI query NOTE: DBR requests not supported for i3	N/A	Y	Y	Y	Y	Y
Retrieve a call from hold using the line panel	N/A	Y	Y	Y	Y	Y
Retrieve a call from hold using the active calls list	N/A	Y	Y	Y	Y	Y
Test Admin call flow (presented, routed, answered) through the CPE.	N/A	Y	Y	Y	Y	Y
Receiving an admin call with Caller's ID (subject to service configured on the provided line)	N/A	Y	Y	Y	Y	Y
Test NNX's built and working	N/A	Y	Y	Y	Y	Y
Place outgoing call (local, long distance, toll free)	N/A	Y	Y	Y	Y	Y
Establish conference with another IWS position	N/A	Y	Y	Y	Y	Y

Verify 3 way calling is enabled. Place an outgoing call then perform a same line conference NOTE: This is contingent on the Telco/PBX admin trunk having this feature	N/A	N/A	N/A	N/A	N/A	N/
Verify Barge-in functions both incoming and outgoing	N/A	Y	Y	Y	Y	Y
Redialing a previous call using the agent call list	N/A	Y	Y	Y	Y	Y
Test Intenal Call Recorder (ICR)	N/A	Y	Y	Y	Y	Y
Save a recorded call (ICR)	N/A	Y	Y	Y	Y	Y
Delete a saved recorded call (Unsave) - ICR	N/A	Y	Y	Y	Y	Y
Receiving a baudot call. Note: TTY testing should be done to and from an external TTY device if possible. Use a fresh call for each test, baudot may not be detected after 30 seconds. NOTE: Can use a relay service in the state or enable on an Android/iphone to enable TTY mode	N/A	Y	Y	Y	Y	Y
Initiate a call to a baudot TTY machine	N/A	N/A	N/A	N/A	N/A	N/
Verify the system acknowledges abandoned calls VIPER 5.1: Confirm CAD router is installed on Obj. Server VIPER 7: Verify P911 server is running	N/A	Y	Y	Y	Y	Y
Verify message board functionality works	N/A	N/A	N/A	N/A	N/A	N/
Verify call history is functioning (actual call records displayed)	N/A	Y	Y	Y	Y	Y
Verify active calls are displaying in the call list	N/A	Y	Y	Y	Y	Y
Verify agent names are displaying in the call list	N/A	Y	Y	Y	Y	Y
Verify position timing is in sync with other IWS and network timing and NTP is running	N/A	Y	Y	Y	Y	Y
Test IWS Network printer is allowed in securities	N/A	Y	Y	Y	Y	Y
Have customer verify and test all agencies	N/A	Y	Y	Y	Y	Y
Validate wireless ALI types are configured correctly	N/A	Y	Y	Y	Y	Y
Verify Line Types are configured correctly	N/A	Y	Y	Y	Y	Y
Workstation and Server Software manuals and CDs on site (along with recovery CDs)	N/A	Y	Y	Y	Y	Y
Verify audio levels for handset and headset refer to MOP.	N/A	Y	Y	Y	Y	Y
Verify Call Gate function, where applicable	N/A	N/A	N/A	N/A	N/A	N/
Verify IVR function, where applicable	N/A	N/A	N/A	N/A	N/A	N/
VPN ONLY: If VPN Laptops were part of the solution, verify VPN connection works	N/A	N/A	N/A	N/A	N/A	N/
P911 6.4 Only: Verify which position(s) have P911 Configurator on them and confirm PSAP Admin can log in	N/A	N/A	N/A	N/A	N/A	N/



<b>I TRR</b> <input checked="" type="checkbox"/>							
	Back Room	POS 1	POS 2	POS 3	POS 4	POS 5	POS 6
Verify I TRR is recording radio	N/A	Y	Y	Y	Y	Y	Y
Verify I TRR is recording telephone	N/A	Y	Y	Y	Y	Y	Y
Verify last phone conversation functionality	N/A	Y	Y	Y	Y	Y	Y
Verify last radio conversation functionality	N/A	Y	Y	Y	Y	Y	Y
Verify Shuffle (search) through phone conversation	N/A	Y	Y	Y	Y	Y	Y
Verify Shuffle (search) through radio conversation	N/A	Y	Y	Y	Y	Y	Y
I TRR 2.0 or higher: Verify List function and call will playback from list module	N/A	Y	Y	Y	Y	Y	Y
<b>MapFlex/SCC</b> <input type="checkbox"/>							
	Back Room	POS 1	POS 2	POS 3	POS 4	POS 5	POS 6
PowerOPS							
ePrinter							
<b>TxT2911-1</b> <input checked="" type="checkbox"/>							
	Back Room	POS 1	POS 2	POS 3	POS 4	POS 5	POS 6
Verify that site IP addressing has been given to TxT2911 team	N/A	Y	Y	Y	Y	Y	Y
Confirm connectivity to TxT2911 routers	N/A	Y	Y	Y	Y	Y	Y
Complete all required testing with TXT team, including PSAP initiated TXT	N/A	Y	Y	Y	Y	Y	Y
<b>Historical Power MIS</b> <input checked="" type="checkbox"/>							
	Back Room	POS 1	POS 2	POS 3	POS 4	POS 5	POS 6
Move MIS server to new VIPER domain	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Confirm MIS reports can be run for historical purposes.	Y	N/A	N/A	N/A	N/A	N/A	N/A
<b>Sentry/VIPER Alarm Monitoring/TPS</b> <input checked="" type="checkbox"/>							
	Back Room	POS 1	POS 2	POS 3	POS 4	POS 5	POS 6
Verify Sentry is sending alarm notifications and the alarm panel is located in the communications center or a visible area.	Y	N/A	N/A	N/A	N/A	N/A	N/A
Confirm Help Desk has configured alarming and alarms are being received by Help Desk. NOTE: PjM may have to engage INFOSEC to open ports for Sentry access in the DMZ	Y	N/A	N/A	N/A	N/A	N/A	N/A
<b>Symantec Update Service/Windows Update (Care Access/TPS)</b> <input checked="" type="checkbox"/>							
	Back Room	POS 1	POS 2	POS 3	POS 4	POS 5	POS 6
Verify Symantec Update Service is configured. PjM will provide the public key	NO	N/A	N/A	N/A	N/A	N/A	N/A
Verify Windows Update Service is configured and running on each position	Y	N/A	N/A	N/A	N/A	N/A	N/A
<b>Discrepancy items not resolved</b>							

### 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