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

State of Illinois

Application for
9-1-1 Modification Plan

911 GENERAL INFORMATION

DATE: 10/11/2022

Type of Change:	☒ Long Form Modification Plan		☐ Short Form Modification Plan	
Current System Name:			Population Served	Land Area in Sq Miles
West Central Consolidated Communications			34419	9

List PSAPs:	Primary	Secondary
West Central Consolidated Communications	X	

911 System Contact: Bud Hicks

Street Address: 2359 Des Plaines Ave.

City, State and Zip Code: North Riverside, IL 60546

Office Telephone: _____

Cellular Telephone: (815) 378-3141

Email: bhicks@wccc911.org

Wireless Coverage for Consolidated System:

_100_ % Phase II compliant

_100_ % Phase I compliant

Please check if applicable:

__X__ NG9-1-1 capable

_____ Receive 9-1-1 Text

_____ Receive 9-1-1 Video

VERIFICATION

I, Bud Hicks_____, first being duly sworn upon oath, depose and say that

I am Executive Director_____, of West Central Consolidated Comm.____; 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.

_____
Bud Hicks

Subscribed and sworn to before me

this 14____ day of October_____, 20 22___.

_____
NOTARY PUBLIC, ILLINOIS

9-1-1 SYSTEM PROVIDER
LETTER OF INTENT

October 11, 2022
(Date)

Bud Hicks, Executive Director
(9-1-1 System Provider Company Representative)

West Central Consolidated Communications
(9-1-1 System Provider Company Name)

2359 Des Plaines Ave.
(Street Address)

North Riverside, IL 60546
(City, State, Zip Code)

Dear AT&T :

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,

(Name) BUD HICKS
(Title) EXECUTIVE DIRECTOR

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:

The West Central Consolidated Communications (WC3) Joint Emergency Telephone System Board (JETSB) operates a Moducom telephone system that processes all of it's 9-1-1 calls.

With the implementation of the State of Illinois ESInet, WC3 will interface to this network and transition off the legacy CAMA trunk 9-1-1 call delivery. The anticipated date for this migration is November 2nd, 2022.

The only change in the current configuration will be the network itself, as AT&T migrates from legacy CAMA Trunk call delivery to NG9-1-1 call delivery, via the State of Illinois ESInet.

Database updates will be coordinated between the Executive Director of WC3 and their GIS consultant, Crossroads GIS Solutions (Crossroads). This is to ensure that GIS data pushed into the network and legacy MSAG continue to match moving forward. We currently do not have many edits to the MSAG so the frequency of updates is as required right now. Crossroads has taken exhaustive measure to ensure the map data and MSAG are as accurate as possible.

There are no proposed changes to the current overflow and backup configuration at this time. As other ECC/PSAPs migrate to the ESInet, the ETSB will continue to evaluate the best configuration for overflow, bypass, and enhanced disaster recovery.

Security will be managed by our current information technology consultant through the use of firewalls, antiviruses, and training for our staff.

Transfers to other systems will use the SIP URI sos: address, otherwise non-9-1-1 systems will still have to use a translation to a 10 digit number.

See attached for specific Next Generation 911 narrative.

Plan Narrative:

The WC3 JETSB is transitioning from E9-1-1 to Next Generation 9-1-1 (NG911). AT&T is the System Provider ("SSP").

The WC3 JETSB shall comply with all Federal and State laws and with National Emergency Number Association (NENA) Standards 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 9-1-1System. 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 9-1-1networks 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.

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 interconnectingnetwork 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.
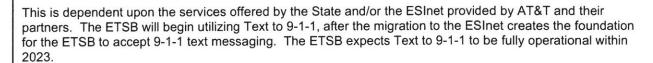
Integrated Text-to-911 is supported by the ESInet.

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 ⊞

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:

This is dependent upon the services offered by the State and/or the ESInet provided by AT&T and their partners. The ETSB will begin utilizing Text to 9-1-1, after the migration to the ESInet creates the foundation for the ETSB to accept 9-1-1 text messaging. The ETSB expects Text to 9-1-1 to be fully operational within 2023.

As more information becomes available from the State after we connect to the ESInet, the ETSB will closely watch and prepare for that next step in our NG9-1-1 journey.

As NG9-1-1 matures, the ETSB will be reevaluating call distribution for overflow, backup and disaster recovery.

Additionally, the ETSB will remain focused on our GIS. Significant work has gone into preparing the center for this migration. We must continue to maintain a high level of quality with our centerline data. We have partnered with our local units of government to ensure that we maintain this level of accuracy.

Lastly, as enhancements to the ESInet bring additional services and features, the ETSB will continue to partner with the state 9-1-1 office to maintain a level of preparedness, allowing us to forecast future hardware and/or software needs.

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
McCook, Village of	5000 Glencoe Avenue, 60525
Riverside, Village of	27 Riverside Road, 60546
North Riverside, Village of	2401 South Des Plaines Avenue, 60546
Brookfield, Village of	8820 Brookfield Avenue, 60513

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
McCook Police Department	5000 Glencoe Avenue, 60525	(708) 447-1234	X		
McCook Fire Department	5000 Glencoe Avenue, 60525	(708) 447-7561	X		
Riverside Police Department	31 Riverside Road, 60546	(708) 447-2700	X		
Riverside Fire Department	27 Riverside Road, 60546	(708) 447-2123	X		
North Riverside Police Dept.	2359 South Des Plaines Avenue, 60546	(708) 447-9191	X		
North Riverside Fire Dept.	2331 South Des Plaines Avenue, 60546	(708) 447-1981	X		
Brookfield Police Department	8820 Brookfield Avenue, 60513	(708) 485-8131	X		
Brookfield Fire Department	9001 Shields Drive, 60513	(708) 485-0076	X		
708-345-6550	Berwyn ETSB				

ADJACENT AGENCIES LIST

Provide a list of public safety agencies and existing 9-1-1Systems that are adjacent to the proposed system's boundaries. Each agency that appears on this list should also have signed a call handling agreement and/or aid outside jurisdictional boundaries.

AGENCY	STREET ADDRESS, CITY, ZIP CODE	TELEPHONE NUMBER
Broadview ETSB	2350 25th Ave, 60155	708-345-6550
Berwyn ETSB	6401 31st St, 60402	(708) 795-5600
LTACC ETSB	304 W. Burlington, 60526	(708) 579-2334
WSCDC ETSB	400 Park Avenue, 60305	(708) 386-2131
Des Plaines Valley 911 ETSB	6701 S. Archer Road, 60501	(708) 598-1313
Oak Lawn Central	9446 Raymond Avenue, 60453	(708) 499-7721
CERC for Cook County	5303 W. 25th Street, 60804	(708) 652-2130
CCSO Communications	8511 W. Harrison, 60016	(847) 294-4444
ACDC	1471 Jeffrey Road, 60101	(630) 543-3080

CARRIER LISTING

(Wireline, Wireless, VoIP)

Provide a list of each carrier that will be involved in the proposed system.

(USE ADDITIONAL SHEETS AS NECESSARY)

CARRIERS	STREET ADDRESS, CITY, ZIP CODE	TELEPHONE NUMBER
ATT Mobility	PO Box 97061, Redmond, WA 98073-9761	(513) 657-6270
Verizon Wireless	1301 Solana Suite 2500, Westlake, TX	(682) 831-6473
T-Mobile	601 Pennsylvania Ave NW, North Building Suite 800,	
	Washington DC, 20004	
Sprint	1601 Dry Creek Drive, Longmont, CO 80503	

TEST PLAN DESCRIPTION

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

During the migration to NG9-1-1, the acceptance test plan per the state contract with ATT will be followed . The test plan provided by the State has been attached.

Additionally, the ETSB will make several wireless test calls throughout it's jurisdiction as well with wireline, VoIP, and PRI deployments we can identify within the community.

2) List wireline exchanges to be tested.

See network diagram

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

Wireless network infrastructure/carriers Verizon Wireless, T-Mobile and ATT Mobility each will be tested. Please see the network diagram for any additional Mobile Network Operators (MNO)

Mobile Virtual Network Operators (MVNO) will not be tested as we do not have a pool of devices on each to test specifically and the mobile network will be tested itself via test call with using the operators SIM.

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