

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




State of Illinois

Application for
9-1-1 Modification Plan

VERIFICATION

I, KEVIN JENNE, first being duly sworn upon oath, depose and say that I am 911 COORDINATOR, of FAYETTE COUNTY; 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.



911 Coordinator

Subscribed and sworn to before me

this 30 day of May, 2023.



NOTARY PUBLIC, ILLINOIS



9-1-1 SYSTEM PROVIDER LETTER OF INTENT

June 1, 2023

To: Lisa Wirtanen & Joshua Folta

AT&T Services Inc

4918 W. 95th St
Oak Lawn, IL 60453

Dear Mrs. Wirtanen and Mr Folta

This letter is to confirm our intent to modify our 9-1-1 System. Enclosed I 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

Kevin Jenne
911 Coordinator, Fayette County IL

Enclosure: Modification Plan

Next Generation 9-1-1 Modification Plan Narrative

The Fayette 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 Fayette 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.

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.

BACKUP PSAP

The current backup PSAP for Fayette County is Bond County/Greenville PD. This will not change. Since they have already transitioned to the ESINET, we do not anticipate any issues.

TRANSFER METHODS

Fayette County 911 uses several transfer methods based on the capabilities of the agencies we are transferring to. A trunk to trunk transfer is used when possible. Once on the ESINET we will transfer calls via the ESINET. For agencies that are not PSAP's, we will transfer via telephone lines. In all cases, our dispatchers stay on the line to ensure that the call is transferred correctly.

TEXT TO 911

Fayette County 911 currently does not accept Text to 911. We are waiting for the statewide network to support this feature. Once available statewide, we will join into that network

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 | \$ _____ | TBD |
| Anticipated annual revenues | \$ _____ | N/A |

ADJACENT AGENCIES LIST

Provide a list of public safety agencies and existing 9-1-1 Systems 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 |
|----------------------------------|---|------------------|
| BOND COUNTY SHERIFFS OFFICE | 403 S SECOND ST, GREENVILLE IL 62246 | (618) 664-2151 |
| CLINTON COUNTY SHERIFFS OFFICE | 810 FRANKLIN ST, CARLYLE IL 62231 | (618) 523-4712 |
| MONTGOMERY CO. SHERIFFS OFFICE | 140 N. MAIN ST, HILLSBORO IL 62049 | (217) 532-9595 |
| CLAY COUNTY SHERIFFS OFFICE | 300 BROADWAY, LOUISVILLE IL 62858 | (618) 662-7070 |
| EFFINGHAM COUNTY SHERIFFS OFFICE | 101 N FOURTH ST. EFFINGHAM IL 62401 | (217) 342-2101 |
| MARION COUNTY SHERIFFS OFFICE | 204 N WASINGTON, SALEM IL 62881 | (618) 548-2141 |
| SHELBY COUNTY SHERIFFS OFFICE | 151 N MORGAN, SHELBYVILLE IL 62565 | (217) 774-3941 |
| MULBERRY GROVE FIRE DIST | 1897 US RT 40, MULBERRY GROVE IL 62262 | |
| KEYESPORT FIRE DIST | 901 MULBERRY ST, KEYESPORT IL 62253 | |
| NOKOMIS FIRE DIST | 22 S. CEDAR, NOKOMIS IL 62075 | |
| FILLMORE FIRE DIST | PO BOX 32, FILLMORE IL 62032 | |
| ALTAMONT FIRE DIST | PO BOX 155, ALTAMONT IL 62411 | |
| EDGEWOOD FIRE DIST | 306 OAK ST, EDGEWOOD, IL 62426 | |
| KINMUNDY-ALMA FIRE DIST | PO BOX 181, KINMUNDY IL 62854 | |
| PATOKA FIRE DISTRICT | 202 W FAYETTE, PATOKA IL 62875 | |
| OCONEE FIRE DISTRICT | PO BOX 151, OCONEE, IL 62553 | |
| COWDEN FIRE DISTRICT | 207 N GRAND AVE, COWDEN IL 62422 | |
| MARION COUNTY ETSB | 1999 S MARION AVE, SALEM IL 62881 | |
| CLINTON COUNTY ETSB | 810 FRANKLIN AVE, CARLYLE IL 62231 | |
| BOND COUNTY ETSB | 200 W COLLEGE, GREENVILLE IL 62246 | |
| MONTGOMERY COUNTY ETSB | 120 N MAIN ST. HILLSBORO, IL 62049 | |
| CHRISTIAN/SHELBY ETSB | 301 W FRANKLIN, TAYLORVILLE IL 62568 | |
| EFFINGHAM COUNTY ETSB | 301 E. JEFFERSON ST, EFFINGHAM IL 62401 | |
| CLAY COUNTY ETSB | 123 N. LOCUST ST, FLORA IL 62839 | |
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INTERGOVERNMENTAL AGREEMENT
Backup PSAP

This agreement made this 28th day of March, 2017, between the Fayette County Emergency Telephone Systems Board, hereinafter referred to as "Fayette County" and Bond County Emergency Telephone Systems Board, hereinafter referred to as "Bond County."

Whereas, the residents of Fayette County approved by referendum the implementation of E-911 Emergency Service for all the resident and Non-resident users in Fayette County: and

Whereas, it is the desire of the board to establish an E-911 Primary Safety Answering Point, hereinafter referred to as "PSAP" within Fayette County: and

Whereas, it is the desire of the board that, in the event of an emergency or overflow call, the Bond County ETSB provide fully enhanced 9-1-1 backup to Fayette County.

Fayette County will assume all cost for installation and Maintenance of the equipment it deems necessary to the E-9-1-1 system.

Fayette County will provide the necessary Mapping Data it deems necessary to the E-9-1-1 system.

If Fayette County experiences an E-9-1-1 service outage for a period of time exceeding 12 hours, Fayette County will send a dispatcher to the Bond County PSAP to help with communications for the duration of the outage.

The parties to this agreement agree that it is not the purpose of this Agreement to impose any obligation upon Fayette County ETSB or Bond County ETSB or any public safety or emergency services agency in Fayette County to respond to any call received by either PSAP by dispatching Emergency units.

This agreement shall be for a period of two years from the date the Fayette County E-9-1-1 system becomes operational. This agreement may be extended by Mutual agreement of the parties. This agreement may be terminated after a 360 day written notification by either party to the other.

FAYETTE COUNTY EMERGENCY TELEPHONE SYSTEMS BOARD

By: Edward E. Taylor

Title: Chairman

BOND COUNTY EMERGENCY TELEPHONE SYSTEMS BOARD

By: [Signature]

Title: Chairman

FAYETTE COUNTY ESINET MIGRATION

TEST PLAN

The following is the current test plan for the ESINET Migration for Fayette County Illinois.

This plan was provided by ISP-911 and AT&T.

AT&T will contact Fayette County and all will plan a start date and time.

AT&T will verify that call takers are logged into the ESINET profile.

Pretesting will be completed.

The Go Ahead approval to proceed with cut over will be requested.

All traffic will be diverted to the ESINET profile.

Verification testing will be conducted.

Fayette County ETSB 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 |