

System Name: QuadCom Public Safety Communications System

Case # 22-M-329

Date Filed: 9/19/22

Illinois State Police (ISP) Review of Plan Modification

Requirement	Information Included	Staff Comment
Contact and 9-1-1 System information	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Christiane Harding 505 Elm Ridge Road Carpentersville, IL 60110 847-428-8787 (O) 224-806-0398 (C) charding@quadcom911.org
Verification	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Letter of Intent	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Plan Narrative (if incorporating an NG9-1-1 solution, narrative must include the following:)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	QuadCom Public Safety Communications System is requesting to modify its 9-1-1 system by transitioning to the statewide Next Generation 9-1-1 ESInet provided by AT&T. QuadCom Public Safety Communications System will transition to the AT&T ESInet on a date yet to be determined. QuadCom Public Safety Communications System began accepting text-to-911 using Comtech as its text control center in March of 2016.
Name of certified 9-1-1 system provider	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	AT&T
Explanation of the national standards, protocols and/or operating measures that will be followed	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	The 9-1-1 System will comply with all State and Federal requirements and is compliant with the National Emergency Number Association (NENA) Standards including the NENA i3 Standard for Next Generation – NENA-STA-010.3a-2021.
Explanation of measures taken to create a robust, reliable and diverse/redundant network and whether other 9-1-1 Authorities will be sharing the equipment	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	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 in the ESInet and the overall NG9-1-1 Network Architecture. The NG9-1-1 system

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			<p>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 provides six 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.</p>
	<p>Explanation of 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</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/></p>	<p>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.</p> <p>AT&T will interconnect to Legacy Selective Routers to transfer and/or receive calls with Automatic Number Identification and Automatic Location Identification information to the State's NGCS via legacy means through the Legacy Selective Router Gateway. 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.</p> <p>Connectivity extends beyond the internal ESInet transport to external network and Originating Service Provider (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.</p>

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	Explanation of how split exchanges will be handled	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	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.
	Explanation of how the databases will be maintained and how address errors will be corrected and updated on a continuing basis	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	AT&T will coordinate getting the OSP's records into the AT&T ESInet database. 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.
	Explanation of who will be responsible for updating and maintaining the data, at a minimum on a daily basis Monday through Friday	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	GIS data is submitted to the AT&T ESInet via a web-based spatial interface 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 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.
	Explanation of security measures 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	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	<p>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.</p> <p>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 and stateful firewalls.</p>

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			All buildings and Data Center access are monitored by 24x7 security and access control systems.
Financial Information			
	Annual recurring 9-1-1 network costs prior to modification	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
	Projected annual recurring 9-1-1 network costs after modification	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	TBD
	Installation cost of the project	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	TBD
	Anticipated annual revenues	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Five Year Strategic Plan			No change
Communities Served			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Participating Agencies			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Adjacent Agencies			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Carrier Listing			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Attachments			If changes necessitate new versions
	Ordinances	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
	Intergovernmental agreement(s)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
	Contracts	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

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	Back-up PSAP agreement	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	There is no change to the current backup arrangement. Elgin 9-1-1 will continue to provide backup services for the QuadCom Public Safety Communications System.
	Network Diagram	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
	Call-Handling and Aid outside jurisdictional boundaries agreements	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
	Test Plan	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	AT&T will jointly plan the interconnecting network with the OSP. Circuits will be ordered and implemented between the OSP and the ESInet POI. 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.

Conclusions:

QuadCom Public Safety Communications System is requesting a networking change to transition to the statewide AT&T Next Generation 9-1-1 network to provide Next Generation 9-1-1 service with transition to the AT&T ESInet on a date yet to be determined for the QuadCom Public Safety Communications System. The ISP has completed its review of the modified plan and has determined that it meets the requirements for a modified plan filing under 83 Ill. Admin. Code Part 1325.205.

Reviewed by: Catherine Dailey

Date: 10/06/22