

Appendix B: TECB Policy 9

District Minimum Technical Operating Standards



POLICY NO. 09 DISTRICT MINIMUM TECHNICAL OPERATING STANDARDS

PURPOSE: The following policy establishes minimum technical operating standards for emergency communications districts (“ECDs”) and public safety answering points (“PSAPs”) in order to ensure continuity of 911 operations and compatibility for connectivity to the statewide next generation 911 (“NG911”) infrastructure.

POLICY:

I. TECHNICAL OPERATING STANDARDS FOR E-911 SERVICE

A. Pursuant to Tenn. Code Ann. § 7-86-306(a)(9), all PSAPs in Tennessee shall:

1. Be capable of receiving and processing 911 calls, and associated data elements, via the legacy and/or NG911 ESI Network, including Automatic Numbering Identification (“ANI”) to determine a caller’s phone number, Automatic Location Identification (“ALI”) to pinpoint a wireline caller’s location, and Phase II wireless coordinates as contemplated by 47 C.F.R. § 20.18 and the applicable orders of the Federal Communication Commission and their progeny, and shall make every effort to satisfy the National Emergency Number Association’s i3 requirements;
2. Arrange with other PSAPs within the ECD, or within close proximity, for 911 call answering in the event of a major equipment failure or PSAP evacuation.¹ In cases where a PSAP is so large that another PSAP within close proximity cannot adequately provide call answering, then the PSAP should establish an alternate answering center or arrangement that minimizes the number or potential of unanswered 911 calls.
3. Prepare and regularly test, at least annually, a PSAP Operations Continuity Plan that specifically provides procedures for on-duty personnel in the re-routing of 911 calls, switchover to backup systems, evacuation plans, temporary call answering plans, return to normal plans, and other plans that minimizes the number or potential of unanswered 911 calls. Annually report to the Board the results of PSAP Operations Continuity Plan tests. The Tennessee Emergency Communications Board (the “Board”) can provide, upon request, a model plan that can be customized for individual PSAPs.

II. GIS MAPPING SYSTEM CAPABILITIES

¹ Typically, alternate routing of 911 calls to an adjacent PSAP or mobile PSAP unit would be considered a short range plan with a projected duration of less than a week. This gives the PSAP and ECD managers time to implement more long range plans when re-occupancy of a PSAP will be delayed due to fire, tornado damage, or other significant event.



A. Each ECD shall obtain, and be capable of effectively operating, a Geographic Information Systems ("GIS") mapping system in accordance with the minimum standards set forth by the Board, and shall migrate their GIS data to follow the Tennessee Information for Public Safety ("TIPS") format or other format that the Board may designate, defining field naming conventions for address points, street centerlines and ESN boundaries.

B. With Respect to Local GIS Operations, each ECD shall:

1. Provide the Board with the name and direct contact information of the individual(s) who shall be responsible for their GIS Mapping and maintenance.
2. Coordinate with the Board or the Board's designee(s) to migrate GIS data to the TIPS format and maintain TIPS data on a monthly basis.
3. Implement and maintain the following data layers and provide that data to the Board or the Board's designee(s):
 - a. Street Centerlines:
 - i. Emergency service zones and street centerline data layers are seamless between counties with no gaps or overlaps between boundary polygons; and
 - ii. All boundary Street centerlines share an exact begin or end node with adjacent county street centerline;
 - b. Address Points;
 - c. Emergency Service Zone Boundaries (ESN Boundaries);
 - d. Fire Hydrants;
 - e. Administrative Boundaries (City, State, and County);
 - f. PSAP Routing Boundaries; and
 - g. Other layers NENA may require.
4. Strive to comply with NENA GIS Mapping Standards.

III. NOTICE OF OUTAGE

A. Each ECD or the agent(s) or designee(s) responsible for carrying out "operations of the district" shall notify the Network Operations Center designated by the Board of any misrouted 911 calls or any failure or decrease in the level of any type or degree of 911 service of a duration over, or predicted to be over, thirty (30) minutes. Such notices shall be provided as soon as practicable after the outage occurs or notice of a predicted outage is received in order to permit the Board to assist in the restoration of service, if appropriate. The Executive Director or the



Executive Director's designee shall determine the Board's level of involvement, if any, in assisting ECDs, carriers and service providers in restoring the appropriate level of E-911 service.

- B. In the event of service interruptions as a result of ECD local failure, ECDs shall be responsible for maintaining and/or restoring service. ECDs and carriers shall receive authorization from the Executive Director or the Executive Director's designee prior to halting or reducing the level or quality of E-911 service within any area of the state.
- C. The NOC shall be notified of all activities in the PSAP that could impact NG911 network as follows:
 - 1. No later than 24 hours prior to scheduled activities; and
 - 2. As soon as possible for unscheduled events and no later than one hour after such event.
 - 3. Upon the second violation of this Policy, the Board may require the director and chairman of the ECD to appear at the next regularly scheduled Board meeting for a determination of whether the ECD is taking sufficient actions or acting in good faith to establish, maintain or advance 911 service for the citizens within the boundaries of the ECD. It is recommended that ECD leadership require their CPE vendors to execute an agreement promising not to undertake any activities that could impact NG911 equipment or connectivity to the network without first notifying the NOC consistent with this Policy.

IV. MINIMUM BACKUP POWER REQUIREMENTS

- A. All PSAPs operated by ECDs shall purchase and maintain:
 - 1. An uninterruptible power supply ("UPS") capable of providing uninterrupted power to emergency communications operations for a minimum of one (1) hour. UPS systems be of the "online" type, providing filtered power to protect against surges, voltage drops and other power-related issues often caused by switching to and operating on generator power or interruptions or degradation of the commercial power supply.
 - 2. An emergency generator and fuel source for the generator capable of providing power sufficient to maintain minimum 911 service operations and a suitable work environment to the PSAP for a minimum of forty-eight (48) hours. ECD management shall assure backup power equipment and fuel supplies are not located in areas prone to flooding.

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- B. Minimum backup power requirements shall apply to equipment used to provide NG911 service to the PSAP.
- C. The Board recommends an additional backup emergency generator that utilizes an alternative fuel source with respect to backup power at PSAPs.

V. PLAN FOR REROUTING 911 CALLS

- A. Each ECD shall develop and adopt a written plan that defines how 911 calls will be rerouted for all affiliated or self-operated PSAPs in the event of network facility disruption, equipment failure, PSAP evacuation, or for any other reason that 911 call cannot be answered at the intended PSAP.
- B. Each ECD shall file its plan for each PSAP with the Board. Plans that require calls to be rerouted to another ECD must include a written agreement with the ECD that will receive the rerouted calls. Any changes or revisions to the plan must be filed with the Board thirty (30) days after such changes or revisions are made.
- C. The plan for rerouting 911 calls may be included as part of the overall contingency plan for the ECD if so desired.

VI. PSAP RELOCATION

- A. Any ECD planning to relocate any PSAP shall provide the Board with written notice no later than ninety (90) days prior to the move. ECDs with PSAPs that are connected to the NG911 infrastructure prior to relocation shall bear the costs connecting their new locations to the NG911 Infrastructure.

Effective: May 3, 2017.

Supersedes: Policy No. 20 (Adopted 3-12-04); Policy No. 31 (Adopted 3-17-05); Policy No. 32 (Adopted 3-17-05); Policy No. 33 (Adopted 3-17-05); Policy 36 (Adopted 4-20-06); Policy No. 44 (Adopted 5-17-12); and Policy 9 (Adopted 8-5-15).

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