

PUBLIC SAFETY ANSWERING POINT (PSAP) PREPARATIONS FOR INITIAL PHASE OF NEXT GENERATION 9-1-1 (NG9-1-1)

The new NetTN Internet protocol (IP) network being delivered to each PSAP will be for wireless trunks **ONLY**. All current wireline trunks will remain in place.

The new wireless trunks will be delivered in an IP format and your customer premise equipment (CPE) vendor will need to be notified. If your current CPE vendor cannot accept calls in an IP format; a gateway will be provided. The Tennessee Emergency Communications Board TECB will need to be aware that you require a gateway for your location.

Additional ports will be required on the current CPE to accept the wireless trunks in either an IP format or through an IP-to-centralized automatic message accounting (CAMA) gateway. Either configuration will need to be communicated to the TECB.

After the conversion most PSAP processes will remain in place. The only difference will be that the wireline calls will appear on separate trunks from the wireless calls. Speed dial and call transfer changes are listed below.

This new network will offer several outage failover options. If there is an outage (e.g. cable cut) on either the wireline connection or the wireless connection, several options are available. An example of what the failover might do is to route calls to the remaining wireless or wireline trunks or to a neighboring PSAP.

There will now be two separate paths into each PSAP to deliver calls.

One of the new network features will be the ability to transfer 9-1-1 calls with additional information to other PSAPs in the state. This usually occurs with wireless calls but can occur with wireline calls. Speed dial lists will need to be updated to allow these transfers to occur. This will be the only procedural change at this point.

Then:

A. New equipment requirements which will be reviewed by AT&T

Formatted: Left

AT&T will be visiting each PSAP to determine if any changes are required prior to equipment installation. They will be addressing the following issues:

1. Space

AT&T will require space to install a router and possibly a gateway. Smaller PSAPs will require two rack spaces for installation or wall space to install a router. Larger installations may require additional space.

2. Power

Smaller PSAPs will require a single 110vac power connection on the backup power just as the current controller is now. Larger PSAPs may require additional 110vac connections on the current backup power system.

3. Wiring

The location chosen for the new equipment should be easily accessible to the controller location. Wiring will be required from the current cable entrance to the equipment location and from the equipment location to

the controller. The wiring from the building entrance to the equipment will be supplied by AT&T. The wiring from the equipment to the controller will be the responsibility of your current controller vendor.

B. New Wireless Trunk Requirements (Gateway vs. IP)

As described in the beginning of this document, the new wireless trunks will be delivered to the PSAP in an IP format over an ethernet cable.

1. Controller requirements

Each PSAP will check with their current controller vendor to determine if they can accept 9-1-1 calls in an IP format. If so, the software and interfaces should be set up to accept wireless 9-1-1 call in this manner.

If the controller cannot accept 9-1-1 calls in an IP format, the PSAP can either upgrade to a controller that can accept IP calls or inform the TECB that a gateway will be required until the controller is upgraded.

2. Controller ports

If the controller is capable of accepting IP calls from NetTN, the PSAP CPE vendor will need to set up the software and interfaces to accept calls in an IP format.

If the controller is not capable of accepting IP calls from NetTN, additional CAMA (analog) ports will need to be installed to accept wireless calls from NetTN through the use of a IP-to-CAMA gateway. The CPE vendor will need to install these ports and configure them to accept the wireless calls.

3. PSAP operator procedure differences

Wireline calls will be delivered on one set of trunks and wireless calls on a separate set of trunks. PSAP operators will immediately be aware of this after conversion.

4. Speed dial and call transfer differences

One of the new features will be the ability to transfer 9-1-1 calls with automatic location identification (ALI) to other PSAPs in the state. This usually occurs with wireless calls but can occur with wireline calls. Speed dial lists will need to be updated to allow these transfers to occur. Current call transfer procedures to other PSAPs will also need to be changed.

C. Call recording

1. Determine if recording is on the trunk or station side

The current call recording vendor will need to be contacted by the PSAP to determine if call recording is occurring at the PSAP workstation or the incoming trunk.

2. If recording at PSAP workstation no changes

No changes will be required to the call recording configuration by the vendor if call recording is occurring at the PSAP workstation.

3. If recording on the trunk, note the following issues

If the call recording vendor is recording calls at the incoming trunk there will be configuration changes required by the vendor. The overall trunk count will now include wireless trunks being delivered in an IP configuration. The recording vendor will need to add the capabilities to record on these type trunks.

D. Future ALI changes

One of the goals of this project is to have the TECB own and maintain the ALI database. Currently this data is controlled by several different vendors and in several different formats.

Placing this data from several different sources into a common database will require standardization on a specific ALI format. There are several different formats in use across the state today.

PSAPs and Emergency Communications Districts (ECDs) will be informed as this process continues but should be aware there will be concerns in the future:

1. Some controllers will need to be set up for a different ALI standard.
2. Some computer aided dispatch (CAD) systems may need to be set up to accept a different ALI standard.
3. Procedure issues—All data may appear in different fields on the PSAP operator's screens.