**AT&T 21-State**

**9-1-1**

**Product**

**Guide**

|  |  |  |
| --- | --- | --- |
| **Version Number** | **Revision Date** | **Summary of Change** |
| 1.0 | 9.13.2018 | First Issue – This issue replaces the following documents that were previously found in CLEC Online (CO) or AT&T Prime Access (PA). The documents are identified by their document titles, not their former link names:   |  |  |  | | --- | --- | --- | | MW Region | CO | Title: AT&T Midwest E911 Product Guide  Subtitle: 911Emergency Number Service Access (ENSA) | | CO | Title: E911 Requirements for Line-Splitting Arrangements  Subtitle: AT&T ILECs Illinois Bell Telephone Company, Indiana Bell Telephone Company, Michigan Bell Telephone Company, Ohio Bell telephone Company and Wisconsin Bell Inc. | | CO | Title: 911 Locator ID | | Southeast Region | CO | Title: E911 Guide For Independent Telephone Companies | | CO | Title: CLEC Users Guide to E911 for Facility Based Providers | | PA | Title: Wireless E911 Guide | | PA | Title: VoIP Service Provider (VSP) E911 Guide | | Southwest Region | CO | Title: AT&T E9-1-1 Wireline Product Guide | | CO | Title: E911 Requirements  Subtitle: ULS-ST Loop  Subtitle: Southwestern Bell Telephone, L.P. d/b/a SBC Arkansas, SBC Kansas, SBC Missouri, SBC Oklahoma, SBC Texas | | West Region | CO | Title: 911/E-9-1-1 for Facilities/Switch-Based and UNE | | CO | Title: E911 for Resellers | | CO | Title: CA/NV 9-1-1 UNE-P Checklist | | CO | Title: Understanding the E9-1-1 Database  Subtitle Part 1 E9-1-1 System Overview  Part II Local Number Portability  Part III The Directory and File Management  Part IV Error Correction  (Note: These documents were PowerPoint presentations) | | PA | Title: Network  Subtitle: Maintenance & Trouble Resolution for Trunks and Facilities  (Note: This document was prepared originally for just WSP OSPs) | | Multi-Region | PA | Title: 12-State Wireless Trunk Intervals | | PA | Title: AT&T 21-STATE VoIP 9-1-1 ESQK Guidelines | | PA | Title: NENA Technical Information Document  Subtitle: SS7 Guidelines for MSC to Selective Router Connectivity  (Note: Replaced the document copy with a cross reference to NENA’s website where the document is located) | |  |  |  | |
| 1.01 | 4.10.2020 | 1.10 Updated call flow for Southwest and West regions to show that they use the default ESN methodology used by the Midwest region and not the predominant ESN methodology of the Southeast region. |
|  |  | 7 Renumbered section 7 to accommodate insertion of new subsection 7.2.2. |
|  |  | 7.2.1 Added new text to address the application of charges if AESP uses an ASR to order an Inter-Selective Router trunk instead of the CLEC Online form. |
|  |  | 7.2.2 New subsection and material to address Routing Directory Numbers. |
| 1.02 | 6.26.2020 | 1 iconectiv license clarification |
|  |  | 7.1 Introduced a new front-door process for an AESP to trigger migration planning from an old 911 service provider to AESP’s network and service. |
|  |  | 7.2 Changed phrase “Inter-Selective Router Trunks” to “Transfer Trunks” and clarified how to order the trunks |
|  |  | 7.2.2 Changed phrase “Inter-Selective Router Trunks” to “Transfer Trunks” and added new paragraph to clarify that calls transferred over these trunks must use an RDN. |
|  |  | 7.3 Corrected instructions for OSPs needing help deleting their 911 records once they have migrated to a new 911 database provider. |
|  |  | 8.2.6, 8.2.7 and 8.2.30 Inserted new set of link navigation instructions and renumbered the rest of the section to accommodate. |
|  |  | 9.2 Inserted definition for RDN. |
| 1.03 | 1.13.2021 | 4.3 Changed language to address the in-house 9-1-1 database |
|  |  | 5.2 Revised language to address the in-house database and the location for its user guide and identified how to find instructions for accessing the AT&T 9-1-1 PSP. Also added reference to the AT&T 9-1-1 PSP as an interface for correcting or deleting error records, changed West Saftey Services to Intrado, added E911-EFS as the interface for SOI files on the in-house database |
|  |  | 5.3 Revised language on NRF report so text applies to both vendor-supported and in-house database |
|  |  | 5.4.1.2 revised language to allow the NPAC Validation Process to apply to both vendor-supported database and in-house database |
|  |  | 6.4.1 Added the AT&T 9-1-1 PSP as a resource for requesting an extract of up to 10,000 telephone numbers |
|  |  | 6.4.2 Added the AT&T 9-1-1 PSP as a resource for requesting extracts of more than 10,000 telephone numbers. |
|  |  | 6.6 updated Matrix for Requests for TN record extracts to include AT&T 9-1-1 PSP and to change name of West Safety Services to Intrado |
| 1.04 | 5.14.2021 | 1.6 Clarified the use of a shell record during call processing for wireless calls. |
|  |  | 1.8 Clarified the use of a shell record during call processing for VoIP calls. |
|  |  | 4.3 Updated the database transitioning language to bring it current. |
|  |  | 5.4.1.2 Updated the NPAC Validation process to identify the difference in the process between AT&T 9-1-1 PSP and 9-1-1 Net. |
|  |  | 5.5 corrected text regarding use of the steering record |
|  |  | 6.2 Corrected how OSPs will provide AT&T with notification of new NPANXXs depending on whether OSP is using AT&T 9-1-1 PSP or 9-1-1 Net |
|  |  | 6.4.1 Corrected how OSP will request extracts depending on whether OSP is using AT&T 9-1-1 PSP or 9-1-1 Net |
|  |  | 6.4.2 Corrected how OSP will request extracts depending on whether OSP is using AT&T 9-1-1 PSP or 9-1-1 Net |
|  |  | 6.6 Updated trouble reporting to differentiate between support for database issues versus support for technical issues. |
|  |  | 8.2.16 Identified which contacts are for AT&T 9-1-1 PSP versus 9-1-1 Net and updated the email address for the Midwest, Southeast and Southwest regions |
|  |  | 8.2.18 Updated link navigation instructions as a result of database migration to AT&T 9-1-1 PSP |
|  |  | 8.2.31 Updated link navigation instructions for AT&T Prime Access as a result of database migration to AT&T 9-1-1 PSP |
| 1.05 | 8.6.2021 | 1.1 Corrected which regions have an off-board versus an on-board network. |

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# 1. Overview

The information contained in this document is applicable to all Originating Service Providers (OSPs) that use the AT&T Incumbent Local Exchange Carriers’ (AT&T ILECs’) 9-1-1 Service. This includes Incumbent Local Exchange Carriers (ILECs) Competitive Local Exchange Carriers (CLECs) Wireless Service Providers (WSPs) and Interconnected VoIP Providers (IVPs). This document also contains information that applies to other 9-1-1 System Service Providers and to both Mobile Positioning Centers (MPCs) and VoIP Positioning Centers (VPCs) that dynamically administer Automatic Location Information (ALI) and pseudo-Automatic Number Identification (pANIs) for OSPs.

This document makes extensive use of hyperlinks and is intended to be read in its electronic format. Please contact your account representative should you encounter a broken hyperlink or an incorrect link navigation instruction.

9-1-1 was first developed in the 1960s to provide a uniform, nationwide, and easy-to-use system to access emergency services. The original 9-1-1 system offered only dispatcher response. It did not have the ability to obtain or provide additional data beyond what the caller provided. This level of service is known as “Basic 9-1-1” or “B9-1-1”.

In the early 1970’s AT&T improved the service to, among other things, provide the dispatcher with a visual display of the telephone number, the name associated with the telephone number, and the address of the telephone number. A 9-1-1 service that provides this level of detail is known as “Enhanced 9-1-1” or “E9-1-1”.

9-1-1 Authorities are in the process of migrating to Internet Protocol- (IP-) based 9-1-1 systems. Such systems will allow the public to interact with emergency service providers using voice and data (e.g. photos, video, and text messaging). A 9-1-1 service that uses IP-technology is commonly known as “Next Generation 9-1-1” or “NG9-1-1”.

Originating Service Providers (OSPs) are companies with end users that originate 9-1-1 traffic. They may be Incumbent Local Exchange Carriers (ILECs), Competitive Local Exchange Carriers (CLECs), Wireless Service Providers (WSPs), or Interconnected VoIP Providers (IVPs). All OSPs are responsible for following the 9-1-1 requirements established by the state commissions and/or state legislatures that have authority over the area(s) within which OSP operates. OSP is responsible for obtaining these requirements directly from the individual state commission and/or the 9-1-1 Authority. A list of state commissions within AT&T 21-state’s footprint, along with their location and contact information, is available in [CLEC Online](https://clec.att.com/clec/). Instructions for finding the list are [here](#State_Commissions). [CLEC Online](https://clec.att.com/clec/) also contains links to each commission’s home page. Instructions for finding those links are [here](#State_Commissions). Each state has legislation governing the billing, administration, and where applicable, the remittance of the 9-1-1 surcharge. OSP is responsible for obtaining this information on its own.

Jurisdictional areas for 9-1-1 are generally either county- parish- or community-based and are determined by state, county/parish, and municipal laws and agreements. Public Safety Answering Points (PSAPs) have been given jurisdictional responsibility for 9-1-1 based on these laws and agreements.

AT&T ILEC is not always the 9-1-1 System Service Provider or even the 9-1-1 Database provider for every PSAP within the AT&T ILEC’s service footprint/franchise territory. PSAPs determine who will be their 9-1-1 System Service Provider and 9-1-1 Database provider. OSP is responsible for establishing service and connectivity with the company(ies) selected by the PSAP for the geographic area where OSP offers service. OSP must direct its 9-1-1 traffic to the correct 9-1-1 System Service Provider’s network/system and establish the appropriate default routing arrangement that will be used when routing information is unavailable. Each OSP must also provide ongoing database record updates to the correct 9-1-1 Database provider.

Where AT&T 21-State is the 9-1-1 System Service Provider, OSP will establish 9-1-1 trunks to the correct AT&T 21-State Selective Router. The correct AT&T 21-State Selective Router is the one that serves the PSAP(s) that will receive OSP’s 9-1-1 calls. OSP, or its representative, will also provide timely, accurate, and complete record updates to AT&T 21-state where AT&T 21-state is the database provider.

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## 1.1 Generic Architectures

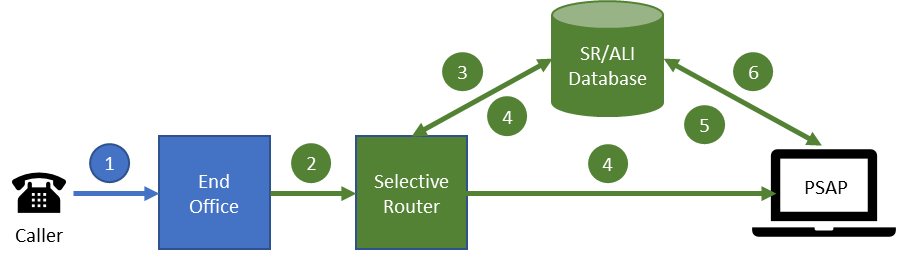
Two general 9-1-1 architectures exits within AT&T 21-state. They are differentiated based upon the positioning of the Selective Router database that associates an incoming trunk group with a unique PSAP’s Emergency Service Number (ESN). In the 12-state region, the Selective Router database is included in the ALI Database (called an offboard network). In the 9-state region, the Selective Router database is a table inside the Selective Router (called an onboard network).

The network configuration, database information, and terminating PSAP equipment are all unique to each PSAP. E9-1-1 systems are designed based on various factors such as type of equipment and participating OSPs. The following network diagrams and call flow descriptions are for generic network configurations and the Architecture diagrams and call flow narratives will use the convention SR/ALI database to refer to both onboard and offboard architectures.

## 1.2 Call Routing

9-1-1 call flows vary by originating service provider and by the network(s) used. The following call flows describe the processes used by the legacy AT&T ILECs when their networks are the service provider to a PSAP. Additionally, the following call processing flows are based on a generic OSP configurations and actual OSP’s processing might be different than described below

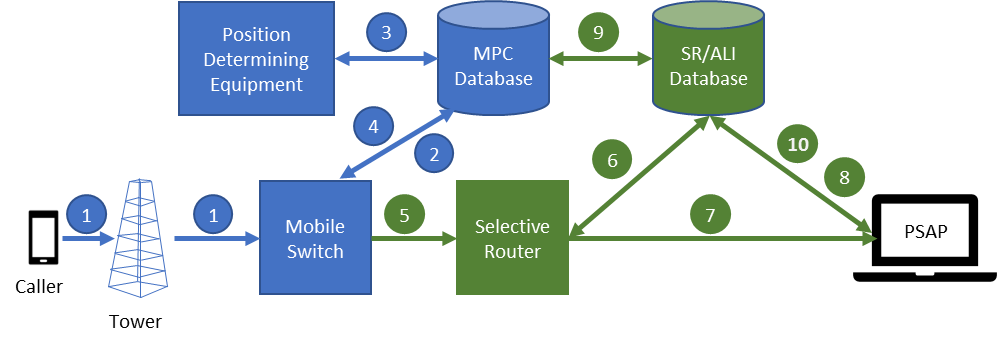
## 1.3 Landline Generic Architecture



## 1.4 Landline Call Routing:

1. End User dials 9-1-1 and the call is transported through OSP’s originating end office.
2. OSP transports the 9-1-1 call over 9-1-1 trunks to the AT&T ILEC Selective router
   1. Included in the call’s signaling information is the caller’s originating telephone number which is also called the Automatic Number ID (ANI).
3. The Selective Router uses the ANI to query the SR/ALI Database for the Emergency Service Number (ESN) of the PSAP that should receive the call
4. The SR/ALI Database responds with the ESN of the PSAP and the Selective Router uses the ESN to route the call to the PSAP
5. The PSAP receives the call and uses the ANI to query the 9-1-1 ALI Database for the caller’s location information
6. The 9-1-1 ALI Database responds with the caller’s location and class of service for display on the dispatcher’s computer screen

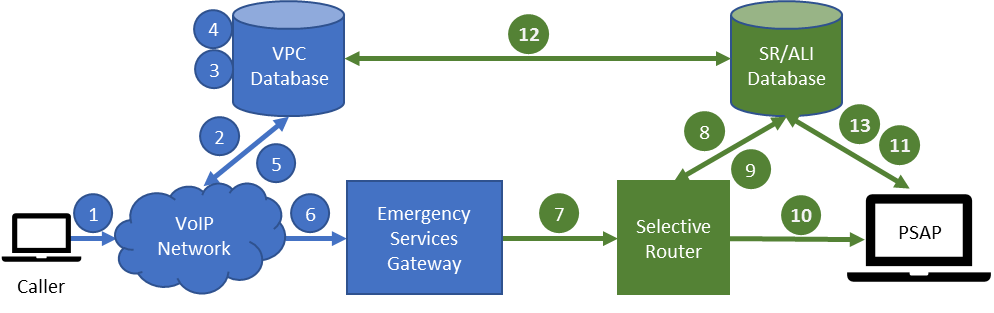
## 1.5 Wireless Generic Architecture



## 1.6 Wireless Call Routing

1. End User dials 9-1-1 and the call is transported from the cell tower to the wireless OSP’s originating Mobile Switching Center
2. Mobile Switching Center queries its Mobile Positioning Center (MPC) for the pseudo ANI (pANI) or tower location used by the call
   1. This information will be used to identify the routing information for the correct PSAP based on the caller’s current location
3. The MPC queries Position Determining Equipment (PDE) for caller’s location information and retains it for use by AT&T 21-state’s 9-1-1 ALI Database
   1. PDE can be handset- or network-based
   2. Caller’s location information includes the location of the tower caller is using and caller’s x/y coordinates
   3. Caller’s location information will determine what pANI/ESRK the MPC will use
4. MPC uses the tower location to create an Emergency Service Routing Key (ESRK) and sends the ESRK to OSP’s Mobile Switching Center where the call is waiting
   1. An ESRK is a pANI that identifies a wireless call
   2. Each ESRK refers to one PSAP but each PSAP can have multiple pANIs
   3. Each ESRK maps the PSAP’s location on a per-call basis
5. OSP transports the call over 9-1-1 trunks to the AT&T ILEC’s Selective Router
   1. Included in the call’s signaling information is the ESRK that the MPC assigned to the call
6. The Selective Router uses the ESRK to obtain the Emergency Service Number (ESN) of the correct PSAP from the SR/ALI Database
   1. This ESN is also called the routing ESN and/or the default ESN
7. The Selective Router uses the ESN to route the call to the PSAP
8. The PSAP receives the call and uses the pANI/ESRK to query the AT&T 21-state’s 9-1-1 ALI Database for the caller’s location information
9. AT&T 21-state’s 9-1-1 ALI Database uses the appropriate shell record for the ESRK to direct the ALI database to query the correct MPC for the caller’s dynamic location information and call back number. This information includes:
   1. location (x,y, and z coordinates)
   2. Confidence Factor (as a %)
   3. Uncertainty Factor (in meters)
10. MPC returns callers’ call back number and location information to AT&T ILEC’s ALI database
11. AT&T ILEC’s ALI database populates the call back number and location information into the ALI response and sends the response to the PSAP for display on the dispatcher’s computer screen.

## 1.7 IVP Generic Architecture



## 1.8 IVP Call Routing

1. End User “dials” 9-1-1 and the call, along with the call-back number, is transported to the VoIP OSP’s originating network
   1. VoIP works with IP addresses, not telephone numbers. In this case, the typed digits 9-1-1 are converted by the end-user’s device into to an IP address [sos@local.domain.name](mailto:sos@local.domain.name)
2. OSP’s network recognizes the session as a 9-1-1 request and uses end-user’s identity information (IP address/device ID) and/or call-back number to query the OSP’s VoIP Positioning Center (VPC) for routing instructions
   1. If IVP is providing “fixed” VoIP (meaning the call-originating device and caller are not migratory), IVP does not need to use a VPC and the call routing will occur the same as a landline scenario.
3. VPC uses the end-user’s identity information and/or call-back number to determine the location of the caller and the correct PSAP.
   1. The end user must have registered the current location of the call-back number before the call took place.
4. VPC assigns an Emergency Services Query Key (ESQK) from its pool of ESQKs
   1. An ESQK is a non-dialable North American Numbering Plan number
   2. Each VPC has a unique pool of ESQKs for each PSAP. Each ESQK is temporarily assigned/used for each 9-1-1 call and only after the 9-1-1 call is terminated can that ESQK be reassigned
   3. When a VPC serves multiple VoIP OSPs, VPC will use the same set of ESQKs for a given PSAP across all VoIP OSPs that it serves
5. VPC sends the ESQK back to OSP’s network where the call has been waiting
6. VoIP OSP transports the call, along with the ESQK, to an Emergency Services Gateway (ESGW)
7. ESGW converts the session to TDM and uses the ESQK to route the call over 9-1-1 trunks to the correct AT&T ILEC’s Selective Router
   1. Included in the call’s signaling information is both the ESQK (pANI) assigned to the call and the end-user’s call-back number
   2. IVPs do not generally connect directly to AT&T 21-state’s network. The 9-1-1 trunk and associated facility used to carry these IVP’s 9-1-1 calls usually belongs to IVP’s CLEC network partner
8. The Selective Router uses the ESQK to query its SR/ALI Database to obtain the Emergency Service Number (ESN) of the PSAP associated with that ESQK
   1. This ESN is also known as a Routing ESN or the Default ESN
9. The SR/ALI Database responds with the routing ESN and AT&T ILEC’s Selective Router routes the call to the associated PSAP
   1. Included in the call’s signaling information is the ESQK which is acting as the ANI for the call
10. CPE at PSAP’s location receives the call and uses the ESQK to query the AT&T ILEC’s ALI database for caller’s location information and call-back number
11. The appropriate shell record for the ESQK in the AT&T ILEC’s ALI database directs the ALI Database to use the ESQK to query the VPC for the location information and call-back number for the caller
    1. The ALI Database query and the VPC’s response are exchanged over steering links that connect the ALI database with the VPC’s database
12. VPC returns caller’s call back number and location information to AT&T ILEC’s ALI database
13. AT&T ILEC’s ALI database populates the call back number and location information into the ALI response and sends the response to the PSAP for display on the dispatcher’s computer screen.
    1. The display will identify the call as VoIP and contain both the call-back number and the registered address of the caller

## 1.9 Default Routing

The Selective Router invokes default routing when it cannot selectively route a call. This occurs when the 9-1-1 call arrives at the Selective Router without the telephone number that originated the call. This is known as an ANI failure or, in the case of a wireless or VoIP call, a pANI failure (An ANI/pANI failure also includes instances where the ANI/pANI digits are garbled). ANI/pANI failures result in AT&T 21-state sending an Emergency Service Central Office (ESCO) response to the PSAP. The following call flow starts at the point that the ANI/pANI failure is encountered by AT&T 21-state’s Selective Router and can be compared to the regular call flows above

1. ANI/pANI failure is encountered by the Selective Router
   1. The 9-1-1 call does not contain the end-user’s originating telephone number (ANI) or does not contain the pANI (ESRK or ESQK) for a wireless or VoIP call
      1. This includes instances where the ANI or pANI is garbled or unrecognized by the Selective Router
      2. This also includes instances when the SR/ALI database or its data links are down or otherwise inoperable
   2. Default routing for an ANI/pANI failure is based upon the default ESN (dESN) assigned to the trunk group that delivered the call to the Selective Router. This default ESN was established when OSP initially ordered the trunk.
      1. It is OSP’s responsibility to obtain the assignment of a default ESN by contacting the appropriate 9-1-1 agency. The default PSAP’s default ESN is a required entry on ordering request that OSP uses to establish the trunk group.
2. The Selective Router accesses an internal table called Emergency Service Central Office (ESCO) to obtain the default ESN assignment of the trunk that carried the incoming call.
   1. The default ESN identifies the PSAP to which the Selective Router will route the call
   2. The Selective Router does not query the SR/ALI database for the ESN (without the ANI/pANI, it has nothing to query with)
3. The Selective Router delivers the call to the default PSAP along with an ESCO number
   1. The ESCO number is delivered in the form of NPA911XXXX for display on the dispatcher’s screen
      1. An ESCO number indicates a default-routed call.
      2. XXXX in the ESCO number identifies the incoming trunk group to the Selective Router
4. The default PSAP asks the caller for the originating telephone number and launches a manual ALI bid (query) to the 9-1-1 database for that telephone number
   1. This means the PSAP manually queries the database.
   2. The 9-1-1 Database returns the ALI record for the queried telephone number for display on the dispatcher’s screen

## 1.10 No Record Found

A No Record Found (NRF) occurs when the call has ANI/pANI but the SR/ALI database does not have a corresponding record to support it. This results in AT&T 21-state’s Selective Router sending a “No Record Found” response to the PSAP. The following call flow begins with the Selective Router’s query to the SR/ALI Database and can be compared to the regular call flows above.

1. The Selective Router queries the SR/ALI Database for the ESN to which it will route the call
   1. The Midwest, Southwest, and West regions will default route the call to the default ESN that was established on the 9-1-1 trunk group as discussed above for Default Routing
   2. The Southeast region uses a predominant ESN to route the call as discussed below
2. The SR/ALI Database does not have a record for the caller’s ANI/pANI (or a steering record for the pANI) and returns a No Record Found response
3. The Selective Router uses the ESCO record to identify the predominant ESN associated with the NPA-NXX or NPA-NXX-X block level of the ANI/pANI
4. The Selective Router routes the call to the predominant PSAP identified by the ESN along with the ANI/pANI and an “NRF” for display on the dispatcher’s screen
5. Dispatcher asks caller for location information

# 2 Pre-Planning

OSP’s should perform certain pre-planning actions prior to ordering any 9-1-1 trunks. Some of these pre-planning actions are general and should be performed whenever OSP enters a new service area and some are specific to a state or region.

## 2.1 Pre-Planning with State Agencies

OSP should always arrange a pre-planning meeting with each 9-1-1 Authority operating in the area where OSP will provide service. OSP is responsible for complying with all 9-1-1 Authority specifications, including any service level agreements or specific 9-1-1 forms. During the pre-planning meeting with the 9-1-1 Authority, OSP should discuss the following:

* OSP should confirm to the 9-1-1 Authority its National Emergency Number Association (NENA) Company ID(s) (CID(s)) and 24X7 contact number(s)
  + Wireless and IVP OSPs should confirm their MPC and VPC providers, and those provider’s NENA CIDs and 24X7 contact information
  + IVPs should also confirm their ESGW provider (if different from IVP) as well as their ESGW’s 24X7 contact
* OSP should confirm with the 9-1-1 Authority whether the Authority requires any Service Level Agreements or 911 forms between it and OSP
  + Examples of some forms are:
    - TDe-280A for CLEC OSPs in California
    - TDe-280W for WSP OSPs in California
    - Attachment A – Certificate of Authorization (also known as the COG Certificate) and Exhibit 1 for CLEC OSPs in Texas
  + The above list is not a complete list and OSP is solely responsible for determining all forms that it needs to complete and submit to a 9-1-1 Authority
* OSP should confirm whether the 9-1-1 Authority requires any call-through testing with the PSAP(s)
* OSP should confirm with the 9-1-1 Authority the identity of the 9-1-1 Database Provider
* OSP should confirm with the 9-1-1 Authority what ESN to use for each PSAP
* OSP should confirm with the 9-1-1 Authority all requirements specified by the 9-1-1 Authority
* Wireless and IVP OSPs should provide the 9-1-1 Authority information about the shell records their MPC or VPC will use
* Wireless and IVP OSPs should confirm with each 9-1-1 authority the formatting of the 9-1-1 records that will be used in the 9-1-1 authority’s service area

## 2.2 Jurisdiction-Specific Pre-Planning

Certain Jurisdictions in AT&T 21-State’s footprint have unique requirements:

### 2.2.1 Kansas Trunk Requirements

Many Kansas PSAPs do not subscribe to Selective Routing. These types of PSAPs are known as ANI/ALI-only PSAPs and they use AT&T’s Selective Router only as an aggregation point for their 9-1-1 calls. AT&T’s Selective Router will direct calls to ANI/ALI-only PSAPs based upon the default ESN assigned to the trunk group that carried the call. Therefore, landline OSPs that are operating in the service territory of an ANI/ALI-only PSAP must install and maintain a separate 9-1-1 trunk group per PSAP ESN. The Selective Router capability of a PSAP, along with its specific default ESN information, can be found in the Trunk Group Design Guide (TGDG) for Kansas. This document is in [CLEC Online](https://clec.att.com/clec/) and instructions for finding it are [here](#TGDG). An additional document, “Kansas 9-1-1 Trunk Methodology”, is also available that will help all OSPs determine how to trunk for Kansas PSAPs. This document is available in [CLEC Online](https://clec.att.com/clec/) and instructions for finding it are [here](#KS_Trunk_Methodology).

If the Kansas TGDG identifies an ANI/ALI-only PSAP, a landline OSP must include the following in the Remarks field of the ASR: “**911 trunk grp for ANI/ALI only PSAP-off board SR set to NO, DESN XXX**” (where XXX is the actual default ESN assignment for the PSAP). Using this Remarks entry will ensure that the landline trunk translations are set appropriately.

PSAPs in Kansas have unique default ESNs (DESNs) for landline, wireless, and nomadic VoIP calls to 911. Therefore, OSPs must not commingle these traffic types on the same trunk group; instead, they should route landline on its own trunk group, wireless on its own trunk group, and nomadic VoIP on its own trunk group.

### 2.2.2 Texas 9-1-1 Agencies

Texas has three types of 9-1-1 Agencies. Each has its own area of jurisdiction. Texas Public Utility Commission rules require each OSP to gain authorization from the correct agency before connecting to AT&T Texas’ 9-1-1 network. These agency types are:

1. Texas 9-1-1 Alliance – Emergency Communication Districts (ECDs)
   1. ECDs are the 9-1-1 agencies that provide local 9-1-1 services. These agencies are usually associated with a major city or county. They are responsible for multiple PSAPs within their service area and pay E9-1-1-related PSAP bills and make buying decisions.
   2. The Texas 9-1-1 Alliance was created when the separate ECDs banded together to discuss common issues and to speak with one voice when negotiating contracts with various 9-1-1 service providers
   3. ECDs might require OSP to enter into a service level agreement and to submit specific forms (e.g., TX Exhibit 1).
   4. For your convenience, a link to the 9-1-1 Texas Alliance website can be found [here](#Texas_Alliance).
2. Emergency Communication District-Municipalities (ECD-Ms)/Old Home Rule Cities (HRCs)
   1. ECD-Ms are a subset of ECDs and were formerly known as HRCs. Most of them are in North Texas and are usually limited to a single city providing 9-1-1 for their citizens.
3. Council of Governments (COGs)/Regional Planning Commission (RPC)
   1. All COG/RPCs fall under the Commission of State Emergency Communications’ (CSEC’s) rules and guidance.
   2. CSEC was created by the Texas state legislature to administer the state’s 9-1-1 service in areas where service was not provided by local administration.
   3. COGs/RPCs are the agencies that handle areas where service is not provided by local administration.
   4. In areas managed by CSEC, CLEC OSP usually interfaces with a COG
   5. COGs/RPCs require CLEC OSPs to have an approved “Attachment A – Certificate of Authorization”. **CLEC** **OSP must submit this document to its SrCAM before issuing an ASR or engaging in any planning discussions with AT&T Texas. The subject line of the email should equal “CLEC Name/COG Name Certification”. For example: XYZ Telecom/CAPCOG Certification.**
   6. CLEC OSP may need to amend its certification over time and should obtain from the COG/RPC the circumstances under which amendments are required
   7. COGs/RPCs will provide CLEC OSP with default ESN(s) on Attachment No. 6 (titled 911 Entity Default Routing Description) of the COG Service Agreement.
   8. For your convenience, a link to CSEC’s website can be found [here](#CSEC).

OSPs can find PSAP jurisdiction in the Texas Trunk Group Design Guide (TGDG) in [CLEC Online](https://clec.att.com/clec/). Instructions for finding TGDGs, including the Texas TGDG are [here](#TGDG).

### 2.2.3 California

#### 2.2.3.1 California 9-1-1 Emergency Communications Branch

The CA 9-1-1 Emergency Communications Branch is a branch of the Public Safety Communications division of the California Governor’s Office of Emergency Services (Cal OEs). It oversees 9-1-1 services in California. Its goal is to “provid[e] its citizens and visitors the best emergency services possible”.[[1]](#footnote-1) It publishes an Operations Manual to which all OSPs and 9-1-1 service providers must comply. For your convenience, a link to the Cal OES home page, and directions for finding the CA 9-1-1 Emergency Communications branch website, are located [here](#CA_ECB). Also at the CA 9-1-1 Emergency Communications Branch website are links to the CA TDe-280 forms (e.g., TDe-280A for CLEC OSPs, TDe-280V for IVP OSPs, and TDe-280W for WSP OSPs), CA 9-1-1 processes (e.g., Operations Manual), and important contacts (e.g., County Coordinators).

#### 2.2.3.2 County Coordinators

County Coordinators act as a liaison between OSPs and the PSAPs that are within their county jurisdiction. County Coordinators, with the agreement of the PSAP, assign default ESNs. OSPs request default ESN assignments using the appropriate TDe-280 form (e.g., TDe-280A for CLECs, TDe-280V for IVP and TDe-280W for wireless). Contact information for County Coordinators is available from the California 9-1-1 Emergency Communications Branch webpage.

## 2.3 Pre-Planning with AT&T 21-State

New OSP entrants that are switch-based (e.g., ILECs, CLECs, WSPs, and AESPs) should establish pre-planning communications with AT&T 21-state (e.g., planning call or iterative emails). This should be done only after the new entrant has completed any required start-up efforts and completed its pre-planning meetings with the applicable 9-1-1 agency(ies). Examples of start-up efforts include:

* Contract negotiations/execution
* Credit application
* CLEC, Customer, or Wireless Profile completion (as appropriate)
* New Customer Packet or New CLEC Start-Up forms

CLEC OSPs that are establishing a new local interconnection network that includes local ancillary trunks such as 9-1-1 trunks, must complete a 21-State Network Interconnection Sheet (NIS & Forecast). The NIS & Forecast is a CLEC OSP-specific document used for the initial establishment of a CLEC’s network in a LATA. A Reverse NIS form, also available on [CLEC Online](https://clec.att.com/clec/), contains network technical data that CLEC OSP can use to fill out the Network Interconnection Sheet. Once CLEC OSP completes the NIS & Forecast form, CLEC OSP should submit the form to the Network Interconnection Team (NIT) Lead as identified in the CLEC Local Interconnection FAQs and Contacts document that is also available in [CLEC Online](https://clec.att.com/clec/). Instructions for finding these three documents are [here](#NIS).

## 2.4 Trunk Group Design Guide (TGDG)

AT&T 21-state maintains TGDGs to assist CLEC/landline OSPs with determining the parameters of their 9-1-1 trunk groups. OSPs should use TGDGs as guides only. OSP is solely responsible for the design and deployment of its 9-1-1 network.

TGDGs are designed around rate center exchange areas for wireline networks and are generally not useful for either WSP OSPs or migratory IVP OSPs. However, TGDGs do identify PSAP jurisdictions and which AT&T 21-state Selective Router serves which PSAP. This identification can help any OSP determine the correct Selective Router to which it needs to trunk.

CLEC OSPs can use TGDGs as a guide for obtaining the following information:

* What company is the 9-1-1 Selective Routing provider by rate center exchange area
* What company is the 9-1-1 Database operator by rate center exchange area
* What is the CLLI code for AT&T 21-state’s Selective Router by rate center exchange area (when AT&T is the 9-1-1 System Service Provider)
* Who is the predominant PSAP/county/parish agency by rate center exchange area (when AT&T is the 9-1-1 system service provider)

In addition to the above, the following TGDGs will also provide, on behalf of the 9-1-1 agency/PSAP, the landline/wireline default ESN/default PSAP by rate center exchange area (when AT&T ILEC is the 9-1-1 system service provider):

* Nevada
* Kansas
* Midwest Region (all states)
* Tennessee

CLEC/landline OSPs can also use the regional TGDG to address the following relationships when designing their 9-1-1 trunk groups:

* Each rate center corresponds to an AT&T ILEC Selective Router
  + The rate center to which a telephone number is assigned does not change when a telephone number ports to a new carrier
* Each Selective Router might support multiple NPAs
  + CLEC/Landline OSPs using MF signaling must have one trunk group per NPA within the rate center
  + CLEC/Landline OSPs using SS7 signaling can have multiple NPAs per trunk group within the rate center when the A and Z locations and DESN/default PSAP are the same.

A TGDG identifies only the predominant county/parish of a Rate Center. Rate Center boundaries do not coincide with county boundaries. If a Rate Center overlaps an NPA, Selective Router, or county/parish boundaries, CLEC/landline OSP might need a new trunk group to cover that overlap. If CLEC/landline OSP is establishing service in an area where AT&T 21-state is not the 9-1-1 Service Provider, CLEC/landline OSP will need to contact the appropriate service provider to establish 9-1-1 trunks and data base updates to that 9-1-1 Service Provider.

TGDGs are subject to change (e.g., because of code changes (such as NPA overlays), system changes, PSAP consolidations, etc.) and are updated regularly. CLEC/landline OSP should always use the most current version of the relevant TGDG. TGDGs are published in [CLEC Online](https://clec.att.com/clec/) and instructions for finding them are [here](#TGDG).

## 2.5 Selective Router Table

In addition to the data contained in the TGDGs, OSP will need information about AT&T 21-state’s Selective Routers, such as name, address, CLLI codes, point codes, NPAs covered, switch type, and SS7 feature package. This information is maintained in [CLEC Online](https://clec.att.com/clec/) and [AT&T Prime Access](https://primeaccess.att.com/). Instructions for finding it and other Selective Router-related documents are [here](#Selective_Router).

AT&T 21-state has deployed mirrored (dual routed) Selective Routers in Atlanta, Georgia, New Orleans, Louisiana, and Chicago, Illinois. CLEC OSPs providing service in the rate centers served by these mirrored tandems must install two 9-1-1 trunks to each mirrored tandem. CLEC OSPs must issue the trunk ASRs together using the RPON field. Additional information about mirrored (dual routed) Selective Routers are in the applicable Selective Router table, located in both [CLEC Online](https://clec.att.com/clec/) and [AT&T Prime Access](https://primeaccess.att.com/). Instructions for finding these tables are [here](#Selective_Router). AT&T Midwest Region has two separate pairs of Selective Routers identified on the table: one pair for landline OSPs and one for pair for wireless OSPs. This is because the city of Chicago uses different Selective Routers for landline versus wireless traffic. Wireless and landline OSPs should use only the pair identified for its traffic type.

## 2.6 Testing

No OSP should send live traffic into AT&T 21-state’s network until OSP has successfully deployed and tested its 9-1-1 capability.

OSP is responsible for testing its trunks and data administration processes prior to providing live service. Call-through testing is how the 9-1-1 system is tested from both a network and a database perspective. Because data already in the Selective Router can be impacted when additional OSPs or PSAPs are implemented, any pre-existing NXXs for the city/county/parish must be tested as well as those being added.

OSP should obtain from PSAP or 9-1-1 Authority any call-through testing requirements they might have. Examples of some of these testing requirements include, but are not limited to, Selective Router test call, no record found test call, default routed test call, garbled ANI test call, etc. Finding out about a PSAP’s or 9-1-1 Authority’s call-through testing requirements is best done during OSP’s pre-planning phase.

# 3 Network

## 3.1 Facilities (T1/DS1)

### 3.1.1 General Facility Requirements

Although OSP will need T1/DS1 facilities to carry its 9-1-1 trunks and connect to AT&T 21-state’s Selective Routers, AT&T 21-state’s wholesale 9-1-1 offering does not offer a facility component. OSP is responsible for obtaining whatever facility(ies) it will use to carry its 9-1-1 trunks. OSP can use its own facilities or obtain/lease facilities from a third party. OSP can also obtain facilities from certain of AT&T 21-states’ facility products such as Special Access, Business Data Services, and, for a Wireless OSP in the Southeast Region, MegaLink Service. Such facility offerings are available according to the terms, conditions, and prices of their respective tariff or guidebook offerings. OSP can obtain support for these services from its Wholesale Sales Account Team.

Certain jurisdictions (e.g., Illinois) require OSP to deploy and maintain diverse facilities (where facilities permit). AT&T 21-state strongly recommends that OSP deploy and maintain diverse facilities even where such diversity is not required by the relevant jurisdictional authority. Diversity helps to avoid a single point of network failure. Diversity can include carrier, cable fiber (ring topology), trunk bay, fusing and power feed to help insure fault tolerance. CLEC and Wireless OSPs that request diversity in the West region must relate the Access Service Requests (ASRs) by using the “RPON” field of the ASR. This use of the RPON field is not necessary in the other regions on diversity requests.

### 3.1.2 Facility Ordering Requirements

OSP must use an Access Service Request (ASR) when ordering a facility from an Access Tariff or Guidebook. CLEC OSP guidelines for submitting such an ASR in AT&T 12-state are in [CLEC Online](https://clec.att.com/clec/) and instructions for finding them are [here](#ASR_Ordering_Guidelines_Facilities). Wireless OSPs in the Southeast region do not order facilities from the Access Tariff/Guidebooks. Instead, they order MegaLink service from the General Subscriber Services Tariff or Private Line Guidebook using a Wireless Service Request (WSR).

The T1(DS1) facilities that carry 9-1-1 trunks (DS0s) must meet the following requirements:

* The facility must be dedicated to 9-1-1 at a DS1 interface on the AT&T 21-state network
  + The designated physical point of connection can either be owned by OSP or leased from a third-party transport provider
* The facility must be channelized (24 channels)
* The facility must support MF or SS7 signaling trunks; however, OSP should use SS7 signaling where SS7 signaling is available
* The facility must connect directly to the AT&T Selective Router location (SECLOC, “Z” location) with the following exceptions:
  + CLEC OSPs in the Midwest region requesting any other type of connection must get approval from AT&T ILEC’s Network Capacity Management (Facility Planner)
  + All OSPs in the West region must terminate their T1s/DS1s to the 9-1-1 hub location identified in the West Selective Router Table. That table is in [CLEC Online](https://clec.att.com/clec/) and instructions for finding it are [here](#Selective_Router).
* The facility must support SF/AMI or ESF/B8ZS T1 protocol framing options
* WSPs operating in AT&T 12-state region and CLEC OSPs operating in AT&T 21-state region that are not requesting diversity from AT&T ILEC should note that in the Remarks section of their ASR to avoid clarification issues.

### 3.1.3 Meet Point Billed Facilities

OSPs within an AT&T ILEC’s franchise that want to reach a 9-1-1 network that is outside of that AT&T ILEC’s franchise can order a T1 facility from AT&T 21-state to reach the other network. Such facilities are generally deployed in a Meet Point Billing (MPB) arrangement. In a MPB arrangement, the T1 facility’s ACTL is typically within the AT&T ILEC’s franchise and the SECLOC is in another ILEC’s franchise. OSPs will order such T1s as an access service from the applicable access tariff or guidebook. AT&T 21-state does not identify Meet Point Billed facilities as 9-1-1 facilities within its ordering and inventory systems because these facilities are not connecting to an AT&T ILEC’s 9-1-1 Selective Router.

## 3.2 9-1-1 Trunks (DS0)

### 3.2.1 General Trunk Requirements

Unless otherwise agreed to in OSP’s wholesale 9-1-1 agreement:

* The trunk must be dedicated to OSP and to OSP’s 9-1-1 traffic
* Trunks should be at the DS0 level with either a 2-wire analog interface or as part of a digital 1.544 MB interface
* OSP should order and maintain one trunk group per default PSAP
  + All calls within each trunk group will default route to the same default PSAP
* OSP must design its 9-1-1 trunks at a P.01 grade of service or better (meaning that no more than one call per one hundred calls can be blocked)
* Each trunk group must have the “A” location as OSP’s switch CLLI and the “Z” location as AT&T 21-state’s Selective Router CLLI
  + The AT&T Selective Router “Z” location CLLI should be the Selective Router serving the PSAP that OSP needs to reach. Routing to secondary tandems is prohibited except in the cased of mirrored/dual routed tandems and split wire centers for legacy ILEC OSPs.
* Trunks should use System Signaling 7 (SS7) signaling instead of Multi-Frequency (MF) signaling wherever SS7 signaling is available
  + MF signaling transmits only a 7-digit ANI. SS7 transmits a 10-digit ANI. When MF signaling is used, OSP will need a separate trunk group per NPA (in addition to needing a separate trunk group per default ESN PSAP)
* OSP should not commingle different traffic types on the same trunk group (e.g., wireless and landline (wireline) should not be sent over the same trunk group).
  + Trunk-level emergency maintenance procedures invoked against calls using pANI do not work properly against calls routing on ANI and vice versa. Commingling different traffic types over the same trunk group eliminates the ability to affect one specific type of traffic during an emergency.
* Wireless OSPs will order their 9-1-1 trunks as Type 2C.

### 3.2.2 Trunk Ordering Requirements

A 9-1-1 trunk connects OSP’s switch to AT&T 21-state’s Selective Router. OSP must follow all business rules for submitting trunk order requests

* CLEC OSPs in AT&T 21-state and WSP OSPs in AT&T 12-state will submit an Access Service Request (ASR) via the electronic Common Access Front End (CAFE) ordering system to order a 9-1-1 trunk
  + CLEC and WSP OSPs in the West Region have three diversity options that they can choose among when completing their ASR. These three options are:
    - Option 1: One trunk is designated as a primary-high path (PH) and the back-up trunk is designated as an alternate-final path (AF)
    - Option 1A: The same requirements as option 1 except that the facility ACTLs are the same location/CLLI for both the PH and AF trunk group
    - Option 2: One trunk group with two diverse T1 systems, designed as a direct final (DF).
* WSP OSPs in AT&T 9-state will submit a Wireless Service Request (WSR) via the electronic Wireless Ordering System (WOS) to order a 9-1-1 trunk
* ILEC OSPs will submit the 21-State ILEC Trunk Form via the manual ILEC infrastructure process. This form is available from ILEC OSP’s ILEC Service Manager.
* Alternate Emergency Service Providers (AESPs) will submit an AESP 21-state 911 Trunk Order Request to install an inter-Selective Router trunk (also known as a transfer trunk). This form is available from [CLEC Online](https://clec.att.com/clec/) and instructions for finding it are [here](#AESP_Trunk_Order_Form).

Information regarding CAFE and WOS, including instructions for accessing them and how to gain support, are in [CLEC Online](https://clec.att.com/clec/) and [AT&T Prime Access](https://primeaccess.att.com/). Instructions for finding the information are [here](#OSS_Applications_and_Tools).

Whether using an ASR or WSR or ordering through CAFE or WOS, OSP must follow all business rules for submitting the request. The following ordering guides are available in [CLEC Online](https://clec.att.com/clec/) or [AT&T Prime Access](https://primeaccess.att.com/):

* 12-state region
  + ASR ordering guidelines and ASR examples for CLEC OSPs are in [CLEC Online](https://clec.att.com/clec/) and instructions for finding them are [here](#ASR_Ordering_Guidelines_Trunks).
    - Additional ordering guidelines for CLEC OSPs in the Midwest region is also available. This guide is in [CLEC Online](https://clec.att.com/clec/) and instructions for finding it are [here](#ASR_Ordering_Guidelines_Trunks).
  + ASR examples for WSP OSPs for Type 2C trunks are in [AT&T Prime Access](https://primeaccess.att.com/)s and instructions for finding them are [here](#ASR_Examples).
* 9-state Region
  + WSR guidelines are in [AT&T Prime Access](https://primeaccess.att.com/) and instructions for finding them are [here](#WSR_Guidelines).

### 3.2.3 Combo ASRs

OSPs that use ASRs cannot generally request both the 9-1-1 trunk and the T1(DS1) facility on the same request. OSPs that want to obtain a leased T1(DS1) facility for their 9-1-1 trunks must first submit a request for the T1/DS1 facility on a stand-alone T1 ASR. Once AT&T 21-state has provided OSP with a Firm Order Confirmation (FOC) for that ASR, OSP can issue a 9-1-1 trunk-only ASR. The exception is Texas, where facility costs are factored into the trunk rate as defined in Texas subrules, Chapter 26. In AT&T Texas only, OSP may issue a combo ASR (an ASR requesting both the T1/DS1 facility and the 9-1-1 trunk).

### 3.2.4 Standard Intervals

The following table identifies standard intervals for 9-1-1 trunks as well as exceptions to those intervals:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | MW | SE  (landline only) | SW | W |
| Firm Order Confirmation (FOC) | 7 Bus. Days | 7 Bus. Days | 7 Bus. Days | 7 Bus. Days |
| Establish/Augment a 9-1-1 Trunk Group | 20 Bus. Days | 20 Bus. Days | 20 Bus. Days | 25 Bus. Days |
| Translations Only | 15 Bus. Days | 15 Bus. Days | 15 Bus. Days | 15 Bus. Days |
| Disconnect/Partial Disconnect of a 9-1-1 Trunk Group | 10 Bus. Days | 10 Bus. Days | 10 Bus. Days | 10 Bus. Days |
| Standard Interval Calculation | * Interval calculation begins upon receipt of a complete and accurate service request (i.e., ASR, WSR, ILEC, or AESP Trunk Form) to AT&T 21-state. All days are AT&T 21-State business days. | | | |
| Expedite Requests | * AT&T 21-state does not accept expedite requests for 9-1-1 Trunk orders. Pre-planning between OSP and PSAP is key to establishing timelines that work for all. OSP should consider the above standard due date intervals when negotiating its preplanning activities with PSAP. There are no exceptions to the guidelines within this matrix. | | | |
| Exceptions to Standard Interval | * When AT&T ILEC initiates a Trunk Group Service Request (TGSR) to augment an existing 911 trunk group because of a “critical” blocking condition, the TGSR will indicate the interval/Due Date to apply to the augment trunk order. | | | |
| * Replacement or additional 9-1-1 trunk group due to outage and more than 50% of OSP’s network infrastructure is incapacitated (e.g., loss of underlying facilities-backbone or long-haul network, cable cut, etc.) | | | |
| * Replacement or additional 9-1-1 trunk group required because of a natural/national disaster which has major impacts to the network (e.g., earthquake, flood, fire, hurricane, etc.) | | | |
| * The Southeast region does not have standard intervals for wireless trunks. All Intervals for wireless trunks in the Southeast region are negotiated | | | |

### 3.2.5 Guidelines for Estimating Trunk Volumes

AT&T 21-state recommends that OSP engineer, at a minimum, two (2) trunks for up to 8,000 lines and three (3) or more trunks for 8,000 lines and up (with an additional trunk added for each additional 10,000 lines). AT&T strongly recommends OSP perform traffic studies to ensure that the trunks maintain a P.01 grade of service.

Based on P.01 call rates, AT&T 21-states provides the following estimation matrix as a ***guideline*** for OSP’s use.

| Guidelines for Estimating 9-1-1 Trunks | | |
| --- | --- | --- |
| No. of access lines | Estimated No. of 9-1-1 trunks to install | Estimated No. of 9-1-1 trunks to install (Illinois Only) |
| <8,000 | 2 | 3 |
| 8,001-19,000 | 3 | 4 |
| 19,001-34,000 | 4 | 5 |
| 34,001-49,000 | 5 | 6 |
| 49,001-67,000 | 6 | 7 |
| 67,001-85,000 | 7 | 8 |
| 85,001-104,000 | 8 | 9 |
| 104,001-124,000 | 9 | 10 |
| 124,001-145,000 | 10 | 11 |
| 145,001-166,000 | 11 | 12 |
| 166,001-187,000 | 12 | 13 |
| 187,001-209,000 | 13 | 14 |
| 209,001-231,000 | 14 | 15 |
| 231,001-253,000 | 15 | 16 |

### 3.2.6 SS7 Signaling and MF Signaling

All Selective Routers in AT&T 21-state are SS7 capable and OSP should only use SS7 signaling when establishing 9-1-1 trunks. MF signaling should exist only if OSP installed such trunks prior to the availability of SS7 at the Selective Router. OSPs that do have MF signaling should strongly consider replacing their MF signaling with SS7 signaling. NENA’s Technical Documents: Document Number 03-503 for wireline and IVP OSPs and Document Number 05-501 for WSP OSPs addresses guidelines for connecting to a 9-1-1 Selective Router using SS7 signaling. A link to NENA’s website is [here](#NENA).

AT&T 21- state recommends that landline OSPs send an Initial Address Message (IAM) with the following parameters on 9-1-1 calls:

|  |  |
| --- | --- |
| Parameter | Value |
| Called Party Number | the digits “11” or “911” |
| Calling Party Number | Caller’s call-back number |
| Charge Number | Same value that OSP used for Calling Party Number |
| Calling Party Category | Coded as 11100000 (decimal 224) |
| Originating Line Information | Coded as 00000000 (POTS) |

Note: landline OSP should not include the Generic Digits Parameter (GDP) in the IAM of a landline 9-1-1 call.

[AT&T Prime Access](https://primeaccess.att.com/) contains recommended SS7 parameters that WSP OSPs can use when signaling 911 calls to AT&T 21-state’s network for Channel Associated Signaling (CAS), Non Call-path Associated Signaling (NCAS), and Hybrid Channel Associated Signaling (HCAS). Instructions for finding that document are [here](#SS7_IAM_Parameters_for_WSPs).

### 3.2.7 New Code Impacts

The introduction of a new NPA (whether as a split or an overlay) or a new NPA-NXX code might require OSP to make changes to its existing 9-1-1 network configuration. Whether OSP must take any action regarding its trunks and facilities depends upon whether OSP is using MF signaling or SS7 signaling.

#### 3.2.7.1 MF Signaling

* OSP must install new MF signaling 9-1-1 trunks (or replace an existing MF signaling 9-1-1 trunk with a new SS7 signaling 9-1-1 trunk group)
  + On an NPA Overlay
    - before providing service in the new NPA
  + On an NPA Split
    - Before the date permissive dialing begins for any current service that exists in the new NPA’s footprint
  + On a new central office code (NPA-NXX)
    - CLEC is responsible for determining if a new MF signaling 9-1-1 trunk will be required before providing service in the new NPA-NXX
* OSP should install any new MF signaling 9-1-1- trunk at least one month prior to the date permissive dialing begins on NPA splits or one month prior to providing service in the new NPA in an NPA overlay. This will provide sufficient time to test the trunks and ensure they are ready to carry 9-1-1 calls before the split occurs or service begins in the new NPA.
* OSP is solely responsible for all call-through testing

#### 3.2.7.2 SS7 Signaling

OSP will generally not need a new trunk to provide service using the new NPA. Multiple NPAs can ride the same SS7 signaling 9-1-1 trunk when the A and Z locations as well as the default ESN/default PSAP are the same for all NPAs. Ongoing installations for the new NPA are configured in the normal provisioning manner

### 3.2.8 Impacts from Code & Thousands-Block Migrations

Each OSP is responsible for reviewing its trunk requirements to determine if its network requires modification to support the migration of a code (NPA or NPA-NXX) or a thousands-block (NPA-NXX-X) from one OSP to another OSP

### 3.2.9 Texas Trunk Waiver

The Texas Public Utility Commission’s Substantive Rule 26.272(e)(1)(B)(vi) allows OSPs to disconnect “unnecessary direct dedicated 9-1-1 trunks”. The rule defines these trunks as: “those dedicated 9-1-1 trunks that generally would be part of a local interconnection arrangement but for: the [certified telecommunications utility’s] warrant in writing that the direct dedicated 9-1-1 trunks are unnecessary and all 9-1-1 traffic from the [certified telecommunications utility] will be accommodated by another 9-1-1 service arrangement that has been approved by the appropriate 9-1-1 administrative entity or entities accepting the [certified telecommunications utility’s] warrant.”

This means that, in Texas, if OSP obtains the necessary documentation, OSP can use an alternative 9-1-1 arrangement (e.g., a third-party aggregator) for its 9-1-1 connectivity. With the necessary documentation, OSP would not have to establish or maintain 9-1-1 trunks directly to AT&T Texas and can disconnect any existing 9-1-1 trunks previously installed. Although originally written for OSPs that have Interconnection Agreements with AT&T Texas, AT&T Texas will accept this documentation from any OSP.

The documentation OSP must use is:

* CTU Warrant of Unnecessary Dedicated 9-1-1 Trunks (along with its Attachment A)

For your convenience, a copy of the document is published in [CLEC Online](https://clec.att.com/clec/) and instructions for finding it are [here](#TX_Trunk_Waiver).

OSP should complete the waiver on a per-Selective Router and per serving rate center/PSAP basis. OSP can do this by reviewing the Texas Trunk Group Design Guide (TGDG), sort it by Selective Router, and copying the rate centers and 9-1-1 entities column to create the list of signatories needed. OSP should then add a signatory page for each different 9-1-1 Agency and work with the agencies to obtain their approval and signature.

OSP should then give a copy of the signed documents to its AT&T Texas Wholesale Account Manager. The Account Manager will forward the copy to an AT&T Wholesale Contract Negotiator who will work with OSP to execute an alternative 9-1-1 amendment to OSP’s contract.

Concurrent with OSP’s amendment negotiations, AT&T Texas will move forward with OSP’s request to establish its interconnection network without 9-1-1 trunk group(s). For existing OSP networks, AT&T Texas will move forward with OSP’s request to disconnect its existing 9-1-1 trunk group(s); however, OSP should not submit its disconnect requests before obtaining approval from its AT&T Texas Wholesale Account Manager. This will avoid the risk of those requests getting rejected.

### 3.2.10 CFA Rolls and Coordinated Hot Cuts

A Connecting Facility Assignment (CFA) roll is the move of an existing trunk group to a new DS1 facility (T1 CFA) without changing the trunk group’s 2-6 code. A CFA Roll follows standard due date intervals, project guidelines, and Coordinated Hot Cut (CHC) guidelines. Documentation on Project and CHC guidelines are in [AT&T Prime Access](https://primeaccess.att.com/) and instructions for finding the document are [here](#Project_Guidelines). OSPs that want to keep the existing trunk group(s) running while the CFA Roll is occurring, should request a Coordinated Hot Cut. A CHC results in minimal service disruption as the CFA Roll activity is coordinated both internally within AT&T ILEC and between the AT&T ILEC and OSP.

OSPs requesting CHCs of 9-1-1 trunks should request that their CHCs fall within the time frames noted below:

|  |  |  |  |
| --- | --- | --- | --- |
| Hours of Availability for Coordinated Hot Cuts of 9-1-1 Trunks | | | |
| Coordinated Hot Cuts are not available on weekends and AT&T-recognized Holidays. | Weekdays | Hours | Time Zone |
| Midwest Region | Monday through Friday | 8AM to 5PM | Central |
| Southeast Region | Monday through Friday | 8AM to 5PM | East |
| Southwest Region | Monday through Friday | 8AM to 5PM | Central |
| West Region | Monday through Friday | 8AM to 5PM | Pacific |

OSPs can direct questions regarding CFA grooms and CHCs to the contact identified in the Groom Project Information document located in [AT&T Prime Access](https://primeaccess.att.com/). Instructions for finding that document are [here](#Groom_Project_Information).

## 3.3 Trouble Reporting

### 3.3.1 Maintenance & Trouble Tickets

OSPs should contact AT&T 21-state’s Customer Assistance Bureau (CAB) for anything dealing with maintenance issues on facilities and 9-1-1 trunks. The CAB contact information for CLEC and ILEC OSPs is in [CLEC Online](https://clec.att.com/clec/) and instructions for finding it are [here](#CAB). The CAB contact information for WSP and IVP OSPs, as well as AESPs, is in [AT&T Prime Access](https://primeaccess.att.com/) and instructions for finding it are [here](#Maintenance_WSP_IVP_AESP).

OSP must isolate the trouble condition/out-of-service condition before reporting it to AT&T 21-state. OSP should create trouble tickets electronically using either EBTA or Express Ticketing. All escalations must be submitted through one of these electronic tools to establish ticket priority. The primary tool OSP should use for trouble reporting is EBTA. Express Ticketing is not designed to accommodate circuits served in a wholesale relationship. Information regarding EBTA, including instructions for accessing the tool and how to gain support, are in both [CLEC Online](https://clec.att.com/clec/) and [AT&T Prime Access](https://primeaccess.att.com/) and instructions for finding the information are [here](#EBTA). A link to the Express Ticketing’s interactive web application is [here](#Express_Ticketing_URL). A guide for using Express Ticketing is in [CLEC Online](https://clec.att.com/clec/) and instructions for finding it are [here](#Express_Ticketing_Guide).

OSP should be prepared to provide the following information:

* OSP name, location, and telephone number
* Circuit information:
  + Two-six code, including member numbers
  + T1 Circuit Facility Assignments (CFAs)
* Description of the trouble condition, including tests OSP performed for trouble isolation, and current duration of service outage. **OSP must specify that the trouble condition is for 9-1-1.**
* Name and telephone number of the person reporting the trouble report, hours available for contract/questions and test(s) performed for trouble isolation.

Additional contact information for after-hours maintenance, such as service restorals and service disruptions, can be found in both [CLEC Online](https://clec.att.com/clec/) and [AT&T Prime Access](https://primeaccess.att.com/). Additionally, all OSPs should use the [AT&T Prime Access](https://primeaccess.att.com/) maintenance documents for maintenance escalations on DS0 and DS1 services. Instructions for finding the [AT&T Prime Access](https://primeaccess.att.com/) documents are [here](#Maintenance_WSP_IVP_AESP).

### 3.3.2 Misroutes

A misroute is when a 9-1-1 call is delivered to the wrong PSAP. When OSP identifies or is notified by a PSAP of a misroute, OSP should investigate the misroute and take appropriate corrective action. One of those actions may be to open a trouble ticket in EBTA (as addressed above in the section on “Maintenance & Trouble Tickets”). OSP should provide the following information when reporting a misroute in EBTA:

* Indicate “reporting trouble ticket regarding a 911 misroute”
* Identify the trunk group over which the call reached the Selective Router:
  + Two-Six Code
  + 911 trunk circuit ID
* Provide the CLLI of the Selective Router to which OSP delivered the call
* Provide the specific TN and street address of the caller as it exists in the SR/ALI Database
* Provide the name of the PSAP and the ESN to which the call misrouted
* Provide the name of the PSAP and the ESN to which the call should have routed
* Provide the date and time the call was made using 24-hour clock time; e.g., 3/1/18 @ 22:49

# 4 Database

## 4.1 General

OSP, or its representative, must provide accurate 9-1-1 database records for end users that can make 9-1-1 calls. OSP can select among a combination of electronic tools and manual forms to load and administer its 9-1-1 data. The available tools and forms are described in [CLEC Online](https://clec.att.com/clec/) and instructions for finding the information (which includes how to obtain access to each tool) are [here](#OSS_Applications_and_Tools).

All data files must be in the NENA data exchange standard format. AT&T 21-state strongly recommends that OSP use the NENA 2.1 format. NENA’s Technical Document, Document Number 05-001 addresses E2 Connectivity. For your convenience, a link to NENA’s website can be found [here](#NENA). In the West region, which supports PSAP to ALI Messaging (PAM) connectivity, OSPs should contact West Safety Services at the regional email addresses located [here](#Database_Contacts_Regional_Level).

Each OSP must register with the National Emergency Number Association (NENA) and have received a NENA Company ID (NENA CID/NENA COID.[[2]](#footnote-2) The NENA CID is a 3- to 5-character code that identifies:

* The entity providing service to the end user,
* The Mobile Positioning Center (MPC) that provided the dynamic ALI update,
* The VoIP Positioning Center (VPC) that provided the dynamic ALI update, or
* The Emergency Services Gateway (ESGW) provider that performed protocol conversion and routed a VoIP call to the Selective Router

The NENA CID, along with a 24-hour, 7-day a week (24X7) contact number is maintained by NENA in its nationally accessible database. A NENA CID is used by PSAPs to quickly identify and contact the OSP for emergency intervention activities such as line interrupt, call trace, and other emergency actions. The NENA CID is also used by the administration system of the SR/ALI database to support tracking, completeness, accuracy, and security of ALI records. For example, if the NENA CID for a change or delete request does not match the NENA CID of the existing ALI record, the update will not process, and an error will be created. OSP obtains NENA CIDs by contacting NENA directly. For your convenience, a link to NENA’s Company Identifier Database website (which also has their application form) is [here](#NENA_CID).

OSP, MPC, VPC, and ESGW providers should have one NENA CID per 24X7 contact number. If OSP, MPC, VPC, or ESGW has only one national contact center, it needs only one NENA CID. However, if it has multiple serving areas, each supported by a different 24X7 contact number, it should have a different NENA CID for each area/contact number. The contact number should allow a PSAP to reach a person capable of providing support for such actions as line interrupts, call traces, or other emergency contact reasons.

## 4.2 Database Records

End user database records vary depending upon whether the end user has fixed service (e.g., landline) or migratory service (e.g., wireless and migratory VoIP services).

### 4.2.1 Fixed Service Records

If the end user’s service is a fixed service, the database record, called an Automatic Location Identification (ALI) record, will contain the end-user’s name, address, telephone number, associated ESN of the default PSAP, class of service, type of service, and OSP’s NENA CID.

### 4.2.2 Migratory Service Records

If the end-user’s service is migratory, the database will contain what is called a “shell record” (other terms are a pANI record, ESRK record and ESQK record). These shell records are input and maintained by OSP or by a Positioning Center on OSP’s behalf. A shell record contains the ESRK or ESQK, the ESN of the default PSAP, class of service, NENA CID of wireless or VoIP service provider and the NENA CID of the MPC or VPC that will perform the dynamic ALI update. Shell records not involved in an active 9-1-1 call do not contain an end-user’s telephone number or location information. That information is inserted dynamically during the 9-1-1 call through a coordinated effort between AT&T 21-state’s SR/ALI database and the database of the supporting MPC or VPC.

OSPs with shell records must administer those records independently, even when multiple records are associated with the same originating location. For example, a WSP OSP that wants to include cell site sector information can create a shell record for each face of an antenna. If the antenna has three faces, each of the three shell records must be created and administered independently of the others. If the address changes for the cell site, OSP must separately update each of the three shell records.

The ten-digit call-back number of the wireless or migratory VoIP caller, along with the appropriate location information, are normally provided dynamically to the SR/ALI database by an MPC or VPC by way of a real-time update during 9-1-1 call processing. As the PSAP receives the 9-1-1 call, along with the call-back number and pANI from the Selective Router, the real-time update takes place and the caller’s call-back number, latitude/longitude coordinates (optional for a VoIP call), and wireless sector location information (for a wireless call) are loaded into the shell record. PSAP equipment will query the 9-1-1 database using the call-back number it received from the Selective Router and retrieve the dynamically updated ALI record.

## 4.3 Database Vendor

AT&T 21-state is transitioning from a vendor-supported 9-1-1 database to an in-house 9-1-1 database. The Midwest Region’s transition has already completed. The Southwest Region’s transition began May 3, 2021. The Southeast Region’s transition is scheduled to begin August 16, 2021. No transition for the West Region has yet been announced. The Southwest and Southeast Regions will each use both databases until their transitions complete. Regions where the Intrado database is still in use might have differences in the functionality of available database tools. An overview of each of the tools and their regional differences (if any) for both database platforms is in [CLEC Online](https://clec.att.com/clec/). Instructions for finding the overview (including how to gain access and support for each tool) are [here](#OSS_Applications_and_Tools).

## 4.4 MPC & VPC Connectivity

AT&T 21-state supports E2 connectivity between MPC/VPC and the ALI database host in all regions except the West region where it supports PSAP to ALI Messaging (PAM) connectivity. Guidelines for E2 connectivity are in NENA Technical Document Number 05-001. For your convenience, a link to NENA’s website is [here](#NENA). For detailed questions on E2 and PAM connectivity, contact West Safety Services at the regional email addresses located [here](#Database_Contacts_Regional_Level).

AT&T 21-state is not responsible for the location determination technology, the accuracy of the location determination technology, or the investigation or maintenance of said technologies used by WSP/MPC and IVP/VPC.

## 4.5 Premises-Based ALI Systems

Some PSAPs use their own ALI database located on their premises. These are referred to as Premises-based ALI systems. Wireless and IVP OSP must identify all PSAPs that use premises-based ALI systems in OSP’s service area(s). Wireless and IVP OSP should then meet with these PSAPs to determine if the PSAP has any special data or interface requirements. OSP should also determine whether such PSAP uses selective routing or direct trunking to receive 9-1-1 calls. If PSAP is not using selective routing, OSP may need to deliver 9-1-1 calls to the PSAP’s administrative lines (or use other arrangements as negotiated between OSP and PSAP). This guide will not address any further issues related to premises-based ALI systems.

# 5 Database Administration

## 5.1 Pre-Validation

### 5.1.1 Master Street Address Guide (MSAG)

OSP should pre-validate every telephone number record against the MSAG prior to submitting the record to the ALI database for processing. MSAG is a database of street names and house number ranges within their associated communities defining Emergency Service Zones (ESZs) and their associated Emergency Service Numbers (ESNs) to enable proper routing of 9-1-1 calls.[[3]](#footnote-3) The MSAG is formatted according to NENA-established industry standards. OSP can obtain a sample of an MSAG record from NENA. A link to NENA’s website is located [here](#NENA). MSAG was created originally by ILECs but is now owned, updated, and maintained by each 9-1-1 entity. MSAG’s primary purpose is to provide an ESN for each street segment.

Each 9-1-1 entity is responsible for assigning, maintaining, and resolving discrepancies in MSAG data for their service area. 9-1-1 Authorities are also responsible for providing new address information and changes to address information to AT&T 21-state’s database vendor. OSPs are responsible for ensuring that all data records sent to the 9-1-1 database have a valid MSAG address. Each OSP should work directly with the relevant 9-1-1 entity to resolve any address or ESN discrepancy.

OSP’s pre-validation process for addresses requires a literal character-by-character match to the MSAG. Every telephone number record OSP provides to AT&T 21-state is matched against the appropriate MSAG. The address on the telephone number record OSP submits must be an **exact match** (including the community name) to the MSAG. If it is, an Emergency Service Number (ESN) is assigned to the TN record and the record is passed to the SR/ALI Database. If an exact match is not found, the record will err and post to an error file. OSP pre-validation will prevent delays in processing the telephone number record.

A table of Community Abbreviations and their associated County Codes is available to CLEC/landline OSPs in the West region. This table can help CLEC/landline OSPs find the correct community abbreviation and county code to use when loading records into the 9-1-1 database. That table is in [CLEC Online](https://clec.att.com/clec/) and instructions for finding it are [here](#Community_Abbr_and_County_Code_List).

Wireless OSPs should assign an MSAG-valid address to all towers, even if the tower is in a rural area. Wireless OSP can obtain MSAG-valid addresses from the addressing authority in the 9-1-1 area where the cell site is located.

### 5.1.2 NPA-NXX pre-Validation

In addition to pre-validating the record with the MSAG, OSP should also ensure that the NPA-NXX it is using for the record is assigned out of the correct Rate Center. OSP can validate the NPA-NXX assignment through the North American Numbering Plan Administration (NANPA) website. For your convenience, a link to the NANPA’s website and advice for using the website to validate an NXX are [here](#NANPA).

## 5.2 Error and Status Files

Statistic (status) and error files of each OSP’s Service Order Input (SOI) file are created as those files are processed. A status file will contain OSP’s confirmation of successful 9-1-1 record inserts and updates. An error file will contain OSP’s list of 9-1-1 records that failed to insert or update along with an error code that corresponds to the reason for the error

Error codes for the vendor-supported database are standardized across AT&T 21-state’s footprint and are in [CLEC Online](https://clec.att.com/clec/). Directions for finding those codes are [here](#Database_Error_Summary_Guide). Error codes for the AT&T 9-1-1 Public Safety Platform (PSP) are in the User Guide that is accessible from the Help Menu of the AT&T 9-1-1 PSP. Instructions for accessing the AT&T 9-1-1 PSP are in the OSS, Applications, and Tools – User Guide document in [CLEC Online](https://clec.att.com/clec/). Instructions for finding that user guide are [here](#OSS_Applications_and_Tools). OSP should correct all errors as soon as possible. Until OSP corrects its error, the information for that end user will either be incorrect in the database or not in the database at all. This could result in a 9-1-1 call being directed to the wrong PSAP and delayed emergency aid to the caller.

OSP must correct or delete its error records. OSP can make these corrections through 9-1-1 NET or the AT&T 9-1-1 PSP Graphic User Interface (GUI), as appropriate, or by issuing corrective Service Order Interface Records (SOIRs) through the Service Order Input (SOI) process. When a SOIR is processed, the administration system for the SR/ALI database checks whether an error record exists in the error file. If one does (and it is not for an unlock or migrate record) and the new SOIR updates successfully into the database, the existing error record is deleted. If the new SOIR update is not successful, the new error record will replace the old error record (i.e., an error file will not contain duplicate error entries). Error records for unlock and migrate records are resolved differently and are discussed elsewhere in this document.

OSPs can obtain their status and error files through the same interface they use to submit their SOI files. Generally, that is through their Intrado-provided Connect:Enterprise mailboxes or, where AT&T uses an in-house database, the E911 External File Server (E911-EFS). Documentation on both of these tools is in [CLEC Online](https://clec.att.com/clec/) and instructions for finding them are [here](#OSS_Applications_and_Tools).

Intrado delivers status and error reports in near-real time after the SOI file has finished processing. Therefore, these reports are generated as often as OSP sends a SOI file.

## 5.3 No Record Found (NRF)

An NRF occurs when the ALI database cannot respond to a PSAP query with an ALI record (because it doesn’t have one). NRFs can seriously complicate the handling of emergency calls and delay emergency response. PSAPs that encounter an NRF might contact OSP for emergency call handling assistance, such as call trace, line seizure, line interrupt, a hostage situation, address verification, etc. All OSPs should, therefore, provide PSAP with a contact that is available 24-hours per day, 7-days a week (24X7). OSP should post its 24X7 contact(s) to NENA’s website on a per NENA CID basis.

An NRF Report is produced every business day. These reports are assembled by state by NENA CID and each report is sorted by telephone number. The reports are then provided to OSP in the same manner OSP gets its status and error files. OSP will need to log into its Connect:Enterprise or E911 External File Service mailbox, as appropriate, to retrieve its NRF report. OSP must investigate all NRF entries on the report to identify the reason for the NRF and to take correction action as is necessary. Some of the more common reasons for an NRF are:

* The record may be in the error file
* A SOIR update might not have been sent to insert the record into the database
* The update SOIR file transmission may have failed to complete successfully
* For a wireless NRF, the record may not have posted between the time the cell site has been “turned up” and the time the record is processed and inserted into the database
* For a pANI NRF, the record may not have posted between the time the OSP sends a 9-1-1 call to the SR and the time the record is processed and inserted into the database

PSAPs and County Coordinators can also generate NRF reports using their access to the 9-1-1 NET tool. These reports are directed to AT&T which then re-directs them to the appropriate OSP based upon the NENA CID.

Whether generated automatically or through PSAP’s/County Coordinator’s input, both AT&T 21-State and the PSAPs expect OSP will correct its ALI records and eliminate the NRF. Individual PSAPs may request AT&T to follow up with OSP if one of OSP’s NRFs is not corrected, but it is always OSP’s sole responsibility to investigate and correct NRFs associated with its end-users’ accounts.

## 5.4 Local Number Portability Impacts

OSP ownership of a database record must change when an end user ports its telephone number from one OSP to another. This ownership change does not happen automatically and requires action from both the old and the new OSP to make it work. The database uses NENA CIDs to identify ownership of a 9-1-1 record. Therefore, old and new OSPs must coordinate to change the NENA CID from one to the other. PSAPs and first responders depend upon the accuracy of the NENA CID so that they can reach out to the correct OSP when they need OSP’s assistance during an emergency.

### 5.4.1 Unlocking and Migrating

Changing the NENA CID of an ALI record uses an unlock (“U”) and migrate (“M”) process. This process is also colloquially known as “unlock and lock”, because the migrate update locks the record to the new OSP’s NENA CID. This process begins when the old OSP submits an “U”nlock record. This places the ALI record into an unlock file (without any change in the ALI record). The new OSP then submits a “M”igrate record. The “M”igrate record is a complete telephone number record update containing the end-user’s complete address and NENA CID of the new OSP. The database management system validates the “M”igrate record against the MSAG and if validation is successful, replaces the old OSP’s ALI record with the new OSP’s ALI record. With that update, the record migrates to the new OSP’s ownership for all subsequent data administration. The unlock and migrate process ensures that an ALI record is never deleted from the database during porting and that the end user never loses 9-1-1 functionality because of the porting process.

Both the old and new OSPs should manage their unlock and migrate activities as close to the port activation as possible. However, should either the old or new OSP not manage its respective actions in a timely manner they will create a stranded unlock or a stranded migrate record. Resolution of stranded unlock and stranded migrate records is addressed below.

#### 5.4.1.1 Stranded Unlock and Migrate Records

A stranded unlock record occurs when the old OSP issues an unlock record but the new OSP does not send in a migrate record. Stranded unlock records are retained only for a limited period. AT&T 21-state’s database vendor will delete stranded unlock records on a weekly basis if the record is ten (10) business days old or older. AT&T 21-state’s database vendor will also send a report of any deleted unlock records to the old OSP.

A migrate record will fail to update and enter error status if it arrives before the SR/ALI administrative system has processed the corresponding unlock record. The migrate record is then held for 72 hours (hopefully enough time for the unlock record to process) and then re-processed. If the ALI record is still not unlocked at the time of reprocessing, the record will err again. The migrate record will remain in error status until the old OSP unlocks the record. **A new OSP cannot make any changes to an existing record until the old OSP unlocks the record and the new OSP successfully migrates the record to its own ownership**.

The new OSP is responsible for both notifying the old OSP of its failure to unlock its record and ensuring that the old OSP does unlock its record.

#### 5.4.1.2 NPAC Validation Process

PSAPs and first responders depend on accurate 9-1-1 database records to secure the public’s safety. In the event the old and new OSPs cannot coordinate their efforts to avoid stranded migrate records, AT&T 21-state and its database vendor will execute its Number Portability Administration Center (NPAC) Validation Process to resolve the stranded migrate record. This process does not circumvent the old and new OSPs’ responsibility to issue all appropriate unlock and migrate records and to correct all errors received.

This is how the NPAC Validation Process works:

1. AT&T 9-1-1 PSP

A stranded migrate record will remain in error status for up to 3 calendar days. During this time, AT&T 911 PSP will also check hourly with the NPAC for a change in Service Provider ID (SPID) to the new OSP. If the correct SPID change is identified, AT&T 911 PSP will allow the record to migrate to the new OSP. If a SPID change to the new OSP is not encountered before the end of the 3 calendar days, AT&T 9-1-1 PSP will generate a report to the new OSP that the migrate failed. A report of NPAC validation activity that OSP can use to investigate and correct its record is delivered to OSP through EFS.

1. 911 Net

A stranded migrate record will remain in error status for seven (7) calendar days waiting for the corresponding unlock record. At the end of this waiting period, the NPAC will be checked for a change in Service Provider ID (SPID) to the new OSP. If the correct SPID is identified, the ALI record will be unlocked to allow the migrate record to process. If the NPAC does not have a SPID change to the new OSP, the ALI record will remain locked to the old OSP. The database administration system will generate a report of NPAC validation activity that OSP can use to investigate and correct its records. This report is delivered to OSP’s Connect:Enterprise mailbox.

### 5.4.2 Intermodal Porting

When an end user ports from an OSP that uses pANI, to an OSP that uses ANI (i.e., end user ports from wireless or migratory VoIP to landline) the new OSP (the one that uses ANI) should issue a migrate record. AT&T 21-state’s database vendor will change the “M”igrate record to an “I”nsert record if the telephone number record does not already exist in the 9-1-1 database (WSP and migratory IVP OSPs use shell records, not ALI records; therefore, there is no ALI record to unlock and migrate.).

When an end user ports from an OSP that uses ANI to an OSP that uses pANI (e.g., end user ports from landline to either wireless or migratory VoIP), the old OSP (the one that uses ANI) should issue a “D”elete record.

## 5.5 ESRK and ESQK Administration

The SR/ALI database administers Emergency Services Routing Key (ESRK) and Emergency Services Query Key (ESQK) records in a similar manner. OSPs that use ESRK and/or ESQK records have a “shell” record that contains the pANI, OSP, and ESN information and a Steering Table record used to create a steering indicator for the shell record. During 9-1-1 call processing, the Selective Router uses the shell record to route the 9-1-1 call to the correct PSAP and the SR/ALI Database uses the steering table to reach the correct MPC or VPC to request the dynamic ALI update. The dynamic ALI update is inserted into the shell record so that the SR/ALI database can provide the caller’s location information when queried by the PSAP.

Populating the SR/ALI database with complete and accurate shell records and steering tables is the responsibility of the respective MPC or VPC. MPC and VPC will administer their shell records through the Service Order Input (SOI) process or the 9-1-1 NET tool. MPC and VPC will administer their steering table records through a 21-state ALI Steering Table Form. A document describing the SOI Process and 9-1-1 NET Tool, as well as instructions for how to gain access and support, is in [CLEC Online](https://clec.att.com/clec/) and instructions for finding it are [here](#OSS_Applications_and_Tools). A copy of the 21-State ALI Steering Table Form is in [AT&T Prime Access](https://primeaccess.att.com/) and instructions for finding it are [here](#ALI_Steering_Table_Form). Instructions for returning that form are on the form.

## 5.6 Resale, Local Wholesale Complete, and Unbundled Local Switching

CLEC OSPs that provide service using AT&T 21-state’s Resale, Local Wholesale Complete (LWC), or unbundled local switching products administer their 9-1-1 records by submitting Local Service Requests (LSRs). These LSRs will generate a service order that enters AT&T 21-states’s own SOI process and these updates are passed through internal ordering systems to the SR/ALI administrative system. 9-1-1 service is not available for any resold, LWC or ULS service that cannot make outgoing calls.

It is CLEC OSP’s responsibility for accurately creating and maintaining its end-user 9-1-1 ALI records. If CLEC OSP submits an LSR that is incomplete or creates errors in the database record, OSP is responsible for submitting an appropriate LSR that corrects the record.

## 5.7 Private Switch ALI

Private Switch ALI (PSALI) is the generic name for services that help Private Branch Exchange (PBX) owners deliver a caller’s station location information on 9-1-1 calls.

AT&T 21-state offers a resale Private Switch ALI service only in the AT&T 9-state region under the name PBX Locate. Resale CLEC OSPs in the 9-state region can order PBX Locate using the 911 PBX Locate ordering form in [CLEC Online](https://clec.att.com/clec/). Instructions for finding the form are [here](#PBX_Locate). Resale CLEC OSPs in AT&T 12-state region that have end users that want a PSALI service can obtain the service from Retail (at Retail terms, conditions, and prices).

Where available, PSALI services can be ordered only with PRI Direct Inward Dial (DID) telephone numbers.

### 5.7.1 Database Records

The end user, not its OSP, has direct control over, and responsibility for, its database records (e.g., timeliness and accuracy of updates). However, the end-user’s OSP is responsible for ensuring that the end-user’s PBX station numbers do not fall outside the boundary of the Selective Router serving the physical address of the PBX location.

### 5.7.2 PSALI and AESPs

Alternate Emergency Service Providers (AESPs) that are deploying NG9-1-1 systems are responsible for contacting all PSALI switch owners and determining the type of PSALI switch the end user has. If the end user’s service does not use PRI Direct Inward Dial (DID) telephone numbers, AESP is responsible for working with the end user to obtain a solution for its NG9-1-1 system.

AESP is also responsible for determining if the PSALI switch owner uses its own NENA CID. If it does, AESP is responsible for contacting such switch owners and including them in its database migration plan.

PSALI switch owners with their own NENA CID will need to know:

* How to make their updates in AESP’s database
* When to make their initial load into AESP’s database and begin making dual updates into both AESP’s and AT&T ILEC’s database
* When to stop making dual updates and deleting their records in AT&T’s database

PSALI switch owners that use an AT&T ILEC’s NENA CID are migrated as part of the AT&T ILEC’s data migration efforts. The migration of their data to AESP’s database will be transparent to these PSALI switch owners.

## 5.8 Line Splitting

Line-splitting arrangements involve the use of an xDSL unbundled loop to provide both voice and xDSL service to the same end user at the same location. The xDSL unbundled loop can be used by a single CLEC OSP or shared between two different CLEC OSPs. Additional information on line-splitting is in [CLEC Online](https://clec.att.com/clec/) in the UNE or Unbundled Network Elements (UNEs) sections of Products and Services.

CLEC OSPs that establish line-splitting accounts administer their 9-1-1 Database records by issuing Local Service Requests (LSRs). If CLEC makes a change that affects the end-user’s physical address, CLEC is responsible for issuing an LSR to update the database. An example of such a change is CLEC connecting the unbundled local switching-shared transport port to a loop that serves a different address than was originally associated with the line-splitting arrangement. It is CLEC OSP’s responsibility to administer its 9-1-1 Database records so that the 9-1-1 database accurately reflects the physical location of the end user

Changes to the Master Street Address Guide can result in required changes to existing 9-1-1 database records, including records for line-splitting. AT&T 21-state will automatically update line-splitting telephone number records for these types of changes. CLEC OSP is not required to initiate an LSR to update its end-user records associated with MSAG changes.

## 5.9 Foreign Exchange Service

Foreign Exchange (FX) service does not work well with E9-1-1 and OSP should discuss interoperability between FX service and E9-1-1 with the 9-1-1 Authority prior to offering any FX service.

Foreign Exchange (FX) service allows an end user to obtain dial tone from a central office that is “foreign” to the physical location of the subscriber. This could be within the same city/county/parish or over an even greater distance. For example, a New Orleans end user may opt for FX service that provides dial tone from Shreveport.

When telephone numbers for an NXX are loaded into the SR/ALI database, that load will also include all FX lines. How E9-1-1 interoperates with calls from these FX lines depends upon whether the FX address and the PSAP serving that address use the same Selective Router. When they do, the FX service will be validated to the MSAG and 9-1-1 calls will route to the PSAP associated with the ESN in the MSAG. OSP should change the address in the 9-1-1 SR/ALI database to add information explaining that this record is for an FX line. When the FX address and the PSAP serving that address use different Selective Routers, state commission requirements govern whether a 9-1-1 call is delivered to a PSAP or routed to a recording. OSP is solely responsible for knowing whether 9-1-1 calls for an FX service will route to a PSAP or to a recording.

The West Region has additional documentation on tandem boundaries that can help OSP with administering records for FX service in California. That document is in [CLEC Online](https://clec.att.com/clec/) and instructions on finding it are [here](#CLEC_Tandem_Boundary_Charts).

## 5.10 Foreign Central Office

Foreign central office service allows an end user within one exchange of a central office to draw dial tone from another central office within the same exchange (this is different from FX service because FX service involves different exchanges). For example, the end user could have an address in central office “1”, which is served by PSAP “A” but a telephone number in central office “2” which is served by PSAP “B”. In the example, both counties served by central offices “A” and “B” have 9-1-1. Therefore, when the end-user’s record is validated against MSAG it will load into the 9-1-1 database with the correct ESN. If, however, the county served by central office “B” did not have 9-1-1, the end-user’s record would not become part of the 9-1-1 database.

## 5.11 Dual Service

Dual service supplies the same dial tone and telephone number to two different addresses within the same serving wire center at the same time. End users usually request dual service when they are moving from an old address to a new address and they want the service working at both addresses for some period of time.

The 9-1-1 database can contain only one address per telephone number. That address will be the new address. The record is created when the order for service at the new address is completed. Therefore, 9-1-1 service is not provided at the old address of a dual service.

# 6 Database Maintenance Activities

## 6.1 New NPAs

The North American Numbering Plan Administration (NANPA) has responsibility for administering the North American Numbering Plan (NANP). This is the organization responsible for planning, assigning, and announcing new NPAs. OSP is responsible for obtaining notification of new NPAs (whether implemented as a split or as an overlay) and making the appropriate changes within its network to continue providing its customers with 9-1-1 service. AT&T 21-state might require OSP to make specific changes to accommodate NPA relief, including upgrades or changes to network configurations. For your convenience, a link to the NANPA’s website is [here](#NANPA).

### 6.1.1 NPA Splits

When NANPA creates a new NPA as a split, it creates new geographic boundaries for the old and the new NPA. The old NPA boundary is usually divided into two geographic areas with the old NPA designated for one area and the new NPA designated for the other area. Permissive dialing, the ability to dial using the old NPA to reach a number in the new NPA’s area, is enabled for a specific timeframe (usually 90 days). At the end of the permissive dialing period, callers must use the correct NPA to reach the party they are calling.

OSP must always take action regarding the administration of its database records when an NPA splits. That action is to update all internal customer records and begin creating and updating its ALI records with the new NPA by the date permissive dialing begins (for those end-user customers that reside in the new NPA boundary). Note: AT&T 21-state will not maintain a dual database during the permissive dialing period. Instead, AT&T 21-state will automatically convert the embedded database records for all OSPs on the date permissive dialing begins. OSP must be prepared to administer its data correctly as of AT&T 21-state’s database conversion.

### 6.1.2 NPA Overlays

When NANPA creates a new NPA as an overlay, the geographic boundaries of the old NPA remain unchanged and are shared by the new NPA. New end users are assigned telephone numbers from the new NPA irrespective of the end-user’s physical location within the overlay area. This could result in a new neighbor in an apartment building having a different NPA than the neighbor in next door apartment. OSP does not need to take any action regarding the administration of its database records other than to use the correct NPA for records it creates using the new NPA

## 6.2 New NXXs

An OSP must provide AT&T 21-state with advance notification before it implements a new NXX:

* OSPs that use AT&T 9-1-1 PSP can access an NPA-NXX form from the help section of any screen in the AT&T 9-1-1 PSP
* OSPs that use 9-1-1 Net in the Southeast and Southwest regions will use a form located in either [CLEC Online](https://clec.att.com/clec/) or [AT&T Prime Access](https://primeaccess.att.com/) to make that notification. Instructions for finding the form are [here](#New_NPANXX_Form). Where to return the form is noted on the form.
* OSPs that use 9-1-1 Net in the West region will notify AT&T’s database support team at the email addresses located [here](#Database_Contacts_Regional_Level).

## 6.3 Code & Thousands-Block Migrations

Code ownership in the Local Exchange Routing Guide (LERG) can be at the NPA level or the NPA-NXX level. Thousands-block ownership is at the NPA-NXX-X level. Occasionally an OSP that has been assigned a code or a thousands-block will migrate ownership of that code or thousands-block to another OSP. When this happens, not only will code/thousands-block ownership and switch assignment change in the LERG, ownership of the 9-1-1 database records must also change. To do so, the old OSP must delete its associated 9-1-1 database records and the new OSP must insert its new 9-1-1 database records under its NENA CID. The old and new OSP should coordinate their efforts so that no end user loses 9-1-1 functionality. The new OSP cannot perform call-through testing until the effective date in the LERG for the migration.

## 6.4 Reconciliation and Extracts

### 6.4.1 Up to 10,000 Telephone Numbers

OSP can extract up to 10,000 of its database records on a single request. Instructions for making such an extract request are as follows:

* OSPs using AT&T 9-1-1 PSP can access the help section from any screen in the AT&T 9-1-1 PSP for instructions
* OSPs using IUP/9-1-1 Net can access the job aid “Exporting TN Data via 9-1-1Net” from the Document Library of the Intrado Unified Portal (IUP) in the Southwest and West regions.
* OSPs using 9-1-1 Net in the Southeast region can access the job aid “Exporting TN Data via 9-1-1 Net” from [CLEC Online](https://clec.att.com/clec/) and instructions for finding it are [here](#Exporting_TN_Data).

### 6.4.2 Greater than 10,000 Telephone Numbers

* OSPs that use AT&T 9-1-1 PSP can use the “TSP Compare” option in EFS to pull an extract by state. Details on how to perform this extract can be found in the EFS User Guide located within the EFS help menu.
* OSPs that use IUP/9-1-1 Net in the Southwest and West regions can make their requests directly to Intrado at the telephone number located [here](#WSS_DIU_for_SW_and_W)
* . OSPs that use 9-1-1 Net in the Southeast region will use a form located in both [CLEC Online](https://clec.att.com/clec/) and [AT&T Prime Access](https://primeaccess.att.com/). Instructions for finding the form are [here](#Exporting_TN_Data).

## 6.5 PSAP Inquiries

A PSAP might reach out to OSP directly to get issues corrected with OSP’s database records. OSP should be prepared to work directly with PSAP for such corrections. Following are some of the common reasons PSAP may contact OSP:

* No Record Found
  + OSP should investigate to determine why the data record is not in the database. If OSP determines that the telephone number is in the error file or is otherwise a valid end user or pANI, OSP should submit an SOI update to insert the data record.
* Wrong ALI Display
  + OSP should investigate the discrepancy and make the appropriate database update. OSP might need to coordinate with PSAP to determine the correct address/location information. If the ESN is not correct, OSP will need to coordinate with PSAP to correct the record.
* Misroutes
  + A misroute indicates the 9-1-1 call routed to the wrong PSAP. The Selective Router determines routing by the ESN associated with the matching address record in the MSAG. OSP must coordinate with PSAP to determine the correct address and ESN and then update the database record as necessary.

## 6.6 Database Trouble Reporting

Contacts for database issues will vary by state, by region and whether the issue is technical or data-related. For data support including issues associated with MSAG, contact the Data Integrity Unit at the Region-specific Office Group Mailboxes are [here](#Database_Contacts_Regional_Level).

For technical support, please refer to the “Access to OSS, Applications, and Tools – User Guide” for the and the support section for the 9-1-1 tool being use. This document is in both CLEC Online and AT&T Prime Access and instructions for locating it are [here](#OSS_Applications_and_Tools).

# 7 Alternate Emergency Service Provider (AESP) & NG9-1-1

## 7.1 AESP

9-1-1 Authorities are replacing their legacy B9-1-1/E9-1-1 platforms with Next Generation IP-based platforms. These next generation platforms, called NG9-1-1 platforms, add new capabilities such as video and texting to expand communications capabilities between end users and emergency service providers. NG9-1-1 platforms are typically provided by Alternate Emergency Service Providers (AESPs).

When AESP is ready to deploy its service, it should notify AT&T 21-State so that the two companies can begin working together to establish a timely and efficient transfer of service. AT&T 21-State has established a global mailbox dedicated to these notifications as well as a process document that identifies what information AT&T 21-State needs to receive from AESP. The email address for the dedicated AESP global mailbox is [here](#AESP_Mailbox). A process document, titled “AESP Migration Request Process” is available from both [CLEC Online](https://clec.att.com/clec/) and [AT&T Prime Access](https://primeaccess.att.com/). Instructions for finding the process document are [here](#AESP_Migration_Request).

The AESP Migration Request Process identifies four documents that AESP needs to include in its initial request:

1. AESP Carrier Change Notification; this document is created by AESP following industry guidelines for notifying other carriers of a network change. At a minimum, it should include lists impacted jurisdiction(s), services changing, AESP Single Point of Contact, and estimated timeframe for migration
2. 911 Authority Letter of Authorization; this document is created by the 911 authority that designates AESP as the new 911 service provider and given by the 911 Authority to AESP.
3. “Network Transition Planning” form (TPF); this form was created by AT&T and is completed by AESP. The document standardizes the input AT&T 21-State needs to create a migration plan for interconnecting with any AESP. This document is available from both [CLEC Online](https://clec.att.com/clec/) and [AT&T Prime Access](https://primeaccess.att.com/). Instructions for finding the document are [here](#AESP_Transition_Planning_Form).
4. Network Diagram; this document is created by AESP and details AESP’s desired AESP-to-AT&T network design and call flows.

Missing or incomplete documentation in AESP’s initial request will delay AT&T 21-State’s migration planning. A complete TPF and Network Diagram are especially important. Without these documents, AT&T 21-State cannot create a migration plan.

## 7.2 Transfer Trunks

### 7.2.1 Establishing

AESP and the AT&T 21-state 9-1-1 service provider might need to connect their 9-1-1 networks to accommodate PSAP transfers. This is typically done by establishing Transfer Trunks (also known as Inter-Selective Router trunks) between their networks. Although AESP and AT&T 21-state will establish such trunks pursuant to the terms and conditions of their commercial contract, each party typically bears its own cost of the supporting facilities. AESP can obtain these one-way Transfer Trunks to the AT&T 21-state legacy Selective Router as infrastructure (bill-and-keep) using the “AT&T 21-state AESP 911 Trunk Order Request Form”. That form is in [CLEC Online](https://clec.att.com/clec/) and instructions for finding it are [here](#AESP_Trunk_Order_Form). AESP should submit the completed AT&T 21-state AESP 911 Trunk Order Request Form(s) to its designated AT&T 21-state project manager during its migration period. AESP should request all Transfer Trunks during its migration period to ensure timely provisioning of such trunks. AESP should not submit requests for Transfer Trunks using an ASR. Although an ASR for a Transfer Trunk might process to provisioning for an established access customer, the ASR will also trigger billing. AESP should promptly disconnect any Transfer Trunks ordered through an ASR and reorder such trunks using the AT&T 21-state AESP 911 Trunk Order Request form.

### 7.2.2 Routing Directory Numbers (RDNs)

AT&T 21-state and AESP exchange traffic over Transfer Trunks using Routing Directory Numbers (RDNs). An RDN is a 10-digit number assigned by the 911 Service Provider to its supported PSAPs; each RDN designates a specific PSAP to which a 911 call will be terminated. The companies exchange traffic using RDNs instead of selective routing to avoid creating a loop between their networks for call transfers.

AT&T 21-state designates the RDNs AESP will use to send call transfers to AT&T 21-state and AESP designates the RDNs AT&T 21-state will use to send call transfers to AESP. The RDNs designated by AT&T 21-state and AESP do not have to be the same (and typically are not the same); however, AT&T 21-state will designate and/or use only one RDN per terminating PSAP. AESP will obtain the RDNs it will use to send traffic to AT&T 21-state from the project manager AT&T 21-state designates for AESP’s transition.

AESP must deliver an RDN for the correct PSAP on all calls routed to AT&T 21-state over a Transfer Trunk. AESP cannot use Transfer trunks to selectively route calls. Transfer Trunks are designed only to transfer calls and each call must have an RDN signaled along with the ANI. If a call goes first to AESP, and AESP cannot provide RDN on the transfer to AT&T 21-state, AESP must work with the OSP so that OSP sends its 911 calls to the correct 911 System Provider from the start.

## 7.3 OSP Impacts

Although the transition plan and network architecture used to migrate to an NG9-1-1 platform might vary by AESP and PSAP, all OSPs, including AT&T ILEC, will ultimately complete the following steps:

* Establish switch connections from their network to AESP’s NG9-1-1 network
* Change their switch translations to route their 9-1-1 traffic to AESP’s NG9-1-1 network over their new switch connections
* Disconnect their switch connections from AT&T ILEC’s E911 network once they’ve completed their switch translations and those switch connections are no longer needed
* Load their end-user ALI records into AESP’s 9-1-1 database and delete their records from AT&T ILEC’s database (except for ILEC OSPs in split wire center/shared exchange locations where an ILEC OSP must administer its records in both databases).

AT&T ILEC, as the outgoing 9-1-1 service provider has one additional task to complete:

* AT&T ILEC will disconnect its E9-1-1 system from the transitioning PSAP, as directed by the PSAP.

Each OSP operating in the transitioning PSAP’s serving territory is individually responsible for coordinating with AESP and following AESP’s transition schedule. When AESP’s transition schedule ends, all OSPs must have:

* rehomed their switch(es) to AESP’s network
* migrated their database records to AESP’s database, (or AESP’s database provider)
* deleted their database records from AT&T ILEC’s database (legacy ILEC OSPs operating in a split wire center/shared exchange might be required to maintain their ALI records in both databases)
* disconnected their legacy 9-1-1 trunks from the AT&T ILEC’s Selective Router.

OSP may not remain connected to AT&T ILEC’s 9-1-1 network beyond the transition period established by the AESP and PSAP. OSPs that continue to pass 9-1-1 traffic to AT&T ILEC’s Selective Router risk the loss of 9-1-1 functionality when AT&T ILEC retires or otherwise repurposes its displaced 9-1-1 equipment. Additionally, OSP may not keep its database records in AT&T ILEC’s database once the dual update period has ended (except for legacy landline ILEC OSPs in shared exchange/split wire center scenarios). OSPs that need help deleting their records from AT&T ILEC’s database can submit an Authorization to Delete E9-1-1 Database Records to authorize AT&T 21-state to delete their records on their behalf. OSPs that want to use this form should download the template to their own PC, fill out the form, print it, sign it, scan it to .PDF format, and email it to the email address noted on the form. The form is in [CLEC Online](https://clec.att.com/clec/) and instructions for finding it are [here](#Authorization_to_Delete_Data).

In the case of split wire centers where the AT&T ILEC serves the predominant PSAP or where the AT&T ILEC’s Selective Router continues to serve a non-transitioning PSAP, each OSP can retain its 9-1-1 trunks to the AT&T ILEC’s Selective Router and retain database records in the AT&T ILEC’s database to support 9-1-1 traffic to the these non-transitioning PSAPs.

## 7.4 Legacy Settlements

### 7.4.1 AT&T 9-State

AT&T 9-state has a 9-1-1 settlement arrangement with some ILEC OSPs in some counties within the region. Where these settlement arrangements exist, AT&T 9-state bills a PSAP on ILEC OSPs’ behalf and then settles that billing between the companies. Any such settlement arrangements will end when PSAP migrates to an AESP. Generally, the ending of the settlements process will be when PSAP disconnects from AT&T 9-state’s Selective Router; however, the end-point may depend on AESP’s transition plan and architecture. AT&T 9-state will advise participating ILEC OSPs when the settlement(s) end.

### 7.4.2 Wisconsin

Wisconsin state statute 256.35 defines a 9-1-1 cost recovery mechanism for wireline networks. This cost recovery mechanism, also known as the User Fee, applies to all designated 9-1-1 service providers, including AESPs using NG911 platforms. The User Fee and settlement process is pursuant to a contract between the county, the 9-1-1 Service Provider, and all participating wireline OSPs. The 9-1-1 Service Provider is responsible for filing the contract with the Wisconsin Public Service Commission. The new 9-1-1 Service Provider (e.g., AESP) is responsible for coordinating with the outgoing 9-1-1 Service Provider (e.g., AT&T Wisconsin) to synchronize the beginning and ending of ownership of the User Fee settlement process.

# 8 Contacts

## 8.1 People & Centers

Contact information for the various AT&T groups identified in this document, including:

* Local Service Center (including hours of operation)
* Number Portability Service Center (including hours of operation)
* IS Call Center
* Senior Carrier Account Managers, and
* Wholesale Support Mangers

are in the [Customer Service Contacts](https://clec.att.com/clec_documents/unrestr/clec/Customer_Service_Contact_List.doc) section of the home page of [CLEC Online](https://clec.att.com/clec/) home page or in [AT&T Prime Access](https://primeaccess.att.com/) in the following sections:

* [Customer SVC/Overview/Ordering](https://primeaccess.att.com/shell.cfm?section=161)
* [Customer SVC/Provisioning](https://primeaccess.att.com/shell.cfm?section=4401)
* [Customer SVC/Maintenance](https://primeaccess.att.com/shell.cfm?section=4341)
* [Customer Svc/Billing](https://primeaccess.att.com/shell.cfm?section=4382)
* [Contact Us](https://primeaccess.att.com/shell.cfm?section=24)

## 8.2 Internally Referenced Documents and Resources

### 8.2.1 9-1-1 Alliance

* <http://www.texas911alliance.org/>

### 8.2.2 9-1-1 Database Error Summary Guide

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the appropriate region
* Select Guides/Tech Pubs
* Select 911
* Select 21-State 911 Database Error Summary Guide

### 8.2.3 21-State ALI Steering Table Form

[AT&T Prime Access](https://primeaccess.att.com/)

* Select Products & Services
* Select Wireless or IVP as appropriate
* Select 911
* From the Forms & Exhibits - Multi-Regions section, select 21-State ALI Steering Table Form

### 8.2.4 21 State Network Interconnection Sheet

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the appropriate Region
* Select Forms & Exhibits
* Select Network
* For Midwest and Southwest Regions
  + select Network Forms
  + Select 21 State Network Interconnection Sheet (NIS & forecast), 21 State Reverse NIS, or CLEC Local Interconnection FAQs and Contacts as appropriate
* For West and Southeast Regions:
  + select Network Reference Material
  + Select 21 State Network Interconnection Sheet (NIS & Forecast), 21 State Reverse NIS, or CLEC Local Interconnection FAQs and Contacts as appropriate

### 8.2.5 AESP 21-State 911 Trunk Order Request

[AT&T Prime Access](https://primeaccess.att.com/)

* Select Products & Services
* Select 911 AESP
* Select Link to forms for 911 AESPs
* Select AESP 21State 911 Trunk Form (Word Document)

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the appropriate Region
* Select Forms & Exhibits
* Select 911
* Select Link to forms for 911 AESPs (omit this step for the Midwest Region)
* Select AESP 21State 911 Trunk Form (Word Document)

### 8.2.6 AESP Global Mailbox for Migrations

* [AESPMigrations@att.com](mailto:AESPMigrations@att.com)

### 8.2.7 AESP Migration Request Process

[AT&T Prime Access](https://primeaccess.att.com/)

* Select Products & Services
* Select 911 AESP
* Select Link to forms for 911 AESPs
* Select AESP Migration Request Process (Word Document)

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the appropriate Region
* Select Forms & Exhibits
* Select 911
* Select Link to forms for 911 AESPs (omit this step for the Midwest Region)
* Select AESP Migration Request Process (Word Document)

### 8.2.8 ASR Examples

[AT&T Prime Access](https://primeaccess.att.com/)

* Select Online Resources
* Select ASR Examples
* Complete the drop-down boxes and click on “Search”

### 8.2.9 ASR Ordering Guidelines for Facilities

[CLEC Online](https://clec.att.com/clec/)

For Midwest, Southwest, and West Regions

* Select CLEC Handbook
* Select the appropriate region
* Select Forms & Exhibits
* Select Access Svcs Start-Up
* Select Access T1 ASR Guide

### 8.2.10 ASR Ordering Guidelines for Trunks

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the appropriate region
* Select Guides/Tech Pubs
* Select Ordering
* Select ASR Guidelines for Local Interconnection Ordering
* Select AR Ordering Guidelines (for the region) and use table of contents to find E911 Service

An additional guide is available for the Midwest region as follows:

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the Midwest region
* Select Guides/Tech Pubs
* Select 911
* Select ASR 911 Trunk Guide for Midwest Region

### 8.2.11 Authorization to Delete Data

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select appropriate region
* Select Forms & Exhibits
* Select 911
* Select Authorization to Delete Data (select twice for all regions except Midwest)

### 8.2.12 CA 9-1-1 Emergency Communications Branch

* http://www.caloes.ca.gov/home
* From the home page, select the link for Public Safety Communications
* Select link for CA 9-1-1 Emergency Communications Branch

### 8.2.13 CLEC Tandem Boundary Charts

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the West Region
* Select Guides/Tech Pubs
* Select 911
* Select CLEC Tandem Boundary Charts (Svc Across Tandem Bndrs)

### 8.2.14 Community Abbreviation and County Code Table

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the West Region
* Select Guides/Tech Pubs
* Select 911
* Select Community Abbreviation and County Code Table

### 8.2.15 CSEC

* <https://www.csec.texas.gov/s/?language=en_US>

### 8.2.16 Database Contacts Regional Level

|  |  |
| --- | --- |
| * Midwest Region (AT&T 9-1-1 PSP) | [midwest911diu@att.com](mailto:midwest911diu@att.com) |
| * Southeast Region (9-1-1 Net) | [bsprojoff.safetyservices@west.com](mailto:bsprojoff.safetyservices@west.com) |
| * Southeast Region (AT&T 9-1-1 PSP) | [att911database@att.com](mailto:att911database@att.com) |
| * Southwest Region (9-1-1 Net) | [ATTSWWE.safetyservices@west.com](mailto:ATTSWWE.safetyservices@west.com) |
| * Southwest Region (AT&T 9-1-1 PSP) | [att911database@att.com](mailto:att911database@att.com) |
| * West Region (9-1-1 Net) | [ATTSWWE.safetyservices@west.com](mailto:ATTSWWE.safetyservices@west.com) |
| * West Region (for new NXX **only**) | [ca911datasupport@att.com](mailto:ca911datasupport@att.com) |

### 8.2.17 EBTA for Access and Local Customers

[AT&T Prime Access](https://primeaccess.att.com/)

* Select Online Resources from the left-hand column of the home page
* Select EBTA

[CLEC Online](https://clec.att.com/clec/)

* Select Getting Started
* Select Operations Support Systems
* Select OSS, Applications, and Tools – User Guide and use the index to find the section on EBTA

### 8.2.18 Extracting TN Data

From [CLEC Online](https://clec.att.com/clec/)

For extract requests of 10,000 records or less

* Select CLEC Handbook
* Select Southeast Region
* Select Guides/Tech Pubs
* Select 911
* Select Extracting TN Data via 9-1-1 NET – Job Aid (Adobe Document)

For extract requests greater than 10,000 records:

* Select CLEC Handbook
* Select the Southeast Region
* Select Forms & Exhibits
* Select 911
* Select TN Record Extract Request
  + OSPs in the Southwest and West regions should contact West Safety Services Data Integrity Unit at this [telephone number](#WSS_DIU_for_SW_and_W)) for extract requests greater than 10,000.

From [AT&T Prime Access](https://primeaccess.att.com/)

* Select Product & Services
* Select Wireless or IVP
* Select 911
* From the section Guides/Tech Pubs –Region Specific, select Extracting TN Data via 9-1-1 NET – Job Aid (for extract requests of 10,000 records or less in the Southeast Region. Southwest and West regions should access this job aid from within IUP)
* From the section Forms & Exhibits –Region Specific, select SE TN Record Extract Requests (for extract requests greater than 10,000 in the Southeast regions)
  + OSPs using 9-1-1 Net in the Southwest and West regions should contact West Safety Services Data Integrity Unit at this [telephone number](#WSS_DIU_for_SW)) for extract requests greater than 10,000.

### 8.2.19 Express Ticketing URL

<https://expressticketing.acss.att.com/expressticketing/>

### 8.2.20 Express Ticketing User Guide

[CLEC Online](https://clec.att.com/clec/)

* Select the tab “CLEC User Forum” from the tab at the top of the page
* Select Express Ticketing Guide

### 8.2.21 Groom Project Information

[AT&T Prime Access](https://primeaccess.att.com/)

* Select Resource Library
* Select Ordering
* Select Universal Project Spreadsheets
* Select Roll and Groom

### 8.2.22 Kansas 911 Trunk Methodology

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the Southwest Region
* Select Guides/Tech Pubs
* Select 911
* Select KS 911 Trunk Methodology

### 8.2.23 Customer Assistance Bureau

CLEC and ILEC OSPs:

[CLEC Online](https://clec.att.com/clec/)

* Select Mechanized CLEC Escalation Matrix from the center of the home page
* Select Center Contacts (first row of data at the top of the page)
* Complete the “Function” “State” and “Product” entries
  + Function = Maintenance
  + State = Select the appropriate state
  + Product = DS0/Interconnection-911 or, for DS1 facilities Product = DS1/Interconnection-911 (for a referral to AT&T Prime Access)

### 8.2.24 Mechanized CLEC Escalation Matrix

From [CLEC Online](https://clec.att.com/clec/)

* Select Mechanized CLEC Escalation Matrix from the center of the home page

### 8.2.25 Maintenance for Wireless OSPs, IVP OSPs and AESPs

[AT&T Prime Access](https://primeaccess.att.com/)

* For Maintenance Issues
  + Select Customer Svc/Maintenance from the left-hand column of the home page
  + Select service level (e.g., DS0 Services) from left-hand column
    - For DS0, use the contact information provided
    - For DS1, select the DS1 Services PDF file
* For Provisioning Issues
  + Select Customer Svc/Provisioning for provisioning issues
  + Select the Provisioning Escalation Contacts Excel file

### 8.2.26 NANPA

* <https://www.nationalnanpa.com/>

For validating NXX assignments, from the NANPA home page

* Select Reports
* Select Central Office Codes
* Select Central Office Codes Utilized Report
* Select desired state and NPA
* Click on Generate Report

### 8.2.27 Negotiation Requests

* [m41654@att.com](mailto:m41654@att.com)

### 8.2.28 NENA

* <https://www.nena.org/>

### 8.2.29 NENA CID

* <http://companyid.nena.org/>

### 8.2.30 Network Transition Planning form

[AT&T Prime Access](https://primeaccess.att.com/)

* Select Products & Services
* Select 911 AESP
* Link to forms for 911 AESPs
* Select Network Transition Planning form (Word Document)

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the appropriate Region
* Select Forms & Exhibits
* Select 911
* Select Link to forms for 911 AESPs (omit this step in Midwest Region)
* Select Network Transition Planning form (Word Document)

### 8.2.31 New NPANXX Request Form

For [CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the appropriate Region
* Select Forms & Exhibits
* Select 911
* Select New NPANXX Request
* For Southeast and Southwest Regions, select New NPANXX Request again)
* For West region, do not use the link. Instead, send an email request to the mailbox listed below the New NPANXX Request link)

For [AT&T Prime Access](https://primeaccess.att.com/)

* Select Products & Services
* Select Wireless or IVP as appropriate
* Select 911

SE Region

* Select SE New NPANXX Request
* Select SE New NPANXX Request (Word document)

SW Region

Select SW – New NPANXX Request

* Select SW New NPANXX Request (Excel document)

West Region

* send an email request to ca911datasupport@att.com

### 8.2.32 PBX Locate

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the Southeast Region
* Select Forms & Exhibits
* Select 911
* Select SE 911 “Locate” Form RF-1187

### 8.2.33 OSS, Applications, and Tools – User Guide

From [CLEC Online](https://clec.att.com/clec/)

* Select Getting Started from the left-hand column of the home page
* Select Operations Support Systems
* Select OSS, Applications, and Tools – User Guide
* Select Access to OSS, Applications, and Tools – User Guide and look in Table of Contents for the section on 911 Tools

From [AT&T Prime Access](https://primeaccess.att.com/)

* Select Resource Library
* Select OSS Applications and Tools – User Guide
* Select Access to OSS, Applications, and Tools – User Guide

### 8.2.34 Project Guidelines

[AT&T Prime Access](https://primeaccess.att.com/)

* Select Resource Library
* Select Ordering
* Select Project Criteria & Standard Interval Guide
* Select 21 State Project Criteria Guidelines

### 8.2.35 Selective Router

From [CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the appropriate Region
* Select Guides/Tech Pubs
* Select 911
* Select Selective Router Table
* Note: The West and Southeast Regions have related documentation that is also located under the Selective Router heading

From [AT&T Prime Access](https://primeaccess.att.com/)

* Select Products & Services
* Select Wireless
* Select 911
* From the Guides/Tech Pubs – Region-Specific section, select Selective Router Table for the appropriate region
* Select Selective Router Table

### 8.2.36 SE NPA-NXX Tandem Tool

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the Southeast Region
* Select Guides/Tech Pubs
* Select 911
* Select E911 Tandem CLLI Information Tool (NPA/NXX)

### 8.2.37 SE E911 Database & Network Data

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the Southeast Region
* Select Guides/Tech Pubs
* Select 911
* Select SE E911 Tandem Database Data or Selective Router Table as appropriate

### 8.2.38 SS7 IAM Parameters for WSPs

[AT&T Prime Access](https://primeaccess.att.com/)

* Select Products & Services
* Select Wireless
* Select 911
* Select 21-State SS7 IAM Parameters for WSPs

### 8.2.39 State Commissions

[CLEC Online](https://clec.att.com/clec/)

For location and contact information of each commission:

* Select Getting Started from left-hand column of the home page
* Select Guide to Getting Started
* Select Getting Started
* Go to Section 3.1

For only a link to each commission’s home page

* Select Links from the left-hand column on the home page
* Select state commission link from the section: “Index of State Public Utilities Commissions”

### 8.2.40 Trunk Group Design Guides

[CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the appropriate Region
* Select Guides/Tech Pubs
* Select 911
* Select Trunk Group Design Guide for the appropriate state or region

### 8.2.41 Texas 9-1-1 Alliance

* <http://www.texas911alliance.org/>

### 8.2.42 TX 9-1-1 Trunk Waiver

From [CLEC Online](https://clec.att.com/clec/)

* Select CLEC Handbook
* Select the Southwest Region
* Select Forms & Exhibits
* Select 911
* Select TX 9-1-1 Trunk Waiver

From [AT&T Prime Access](https://primeaccess.att.com/)

* Select Products & Services
* Select Wireless or IVP as appropriate
* Select 911
* Select SW - TX 9-1-1 Trunk Waiver under Forms & Exhibits – Region-Specific
* Select TX 9-1-1 Trunk Waiver

### 8.2.43 WSR Guidelines

[AT&T Prime Access](https://primeaccess.att.com/)

* Select Products & Services
* Select Wireless
* Select 911
* From the Guides/Tech Pubs – Region Specific section, select SE - Wireless E9-1-1 SS7 Interconnection Guide or SE - Wireless E9-1-1 WSR Order Guide,

### 8.2.44 WSS Data Integrity Unit for Southwest & West Region

* 855-804-0490
  + Use Option 1 for Extract Requests greater than 10,000 telephone numbers.

# 9 Glossary/Abbreviations

## 9.1 Glossary/Abbreviations specific to 9-1-1

|  |  |  |
| --- | --- | --- |
| Abbreviation | Term | Definition |
| ALI | Automatic Location Identification | Definitions for these 9-1-1 abbreviations and terms are in the NENA Master Glossary of 9-1-1 Terminology (NENA-ADM-000.19-2016, 12/20/2016 or later version). This document is available from NENA’s website. For your convenience, a link to NENA’s website is [here](#NENA). |
| ANI | Automatic Number Identification |
| CAS | Channel Associated Signaling |
| CID | Company ID |
| E2 | E2 Interface |
| ESCO | Emergency Service Central Office |
| ESGW | Emergency Services Gateway |
| ESN | Emergency Service Number |
| ESQK | Emergency Services Query Key |
| ESRK | Emergency Services Routing Key |
| MPC | Mobile Positioning Center |
| MSAG | Master Street Address Guide |
| NCAS | Non Call-path Associated Signaling |
| NENA | National Emergency Number Association |
| NRF | No Record Found |
| P.01 | P.01 Grade of Service |
| pANI | Pseudo Automatic Number Identification |
| PDE | Position Determining Equipment |
| PSALI | Private Switch Automatic Location Identification |
| PSAP | Public Safety Answering Point |
| SOI | Service Order Input |
| VPC | VoIP Positioning Center |

## 9.2 General Glossary/Abbreviations

| Abbreviation | Term | Definition |
| --- | --- | --- |
| 24X7 | Twenty-four-Hours by Seven-days a Week | A convention that indicates a process or service that operates continually and is available day or night. |
|  | 9-state | AT&T’s Southeast region, formerly known as BellSouth |
|  | 12-state | A combination of AT&T’s Midwest region, Southwest region, and West regions that were formerly known as SBC. |
|  | 21-state | A combination of AT&T’s 9-state and 12-state regions. |
| ACTL | Access Customer Terminal Location | For the purposes of this document, an ACTL identifies either the Facility Terminal CLLI code location on a T1 Facility order (Facility ACTL), or the Switch CLLI code location on a 9-1-1 trunk order (Trunk ACTL). |
| A and Z location | A Location and Z Location | For purposes of this document, terms used to describe the originating (“A”) and terminating (“Z”) locations of a trunk/T1 circuit. Locations “A” and “Z” are each 8 or 11 character CLLI codes representing each end of a trunk/T1 circuit. |
| AESP | Alternate Emergency Service Provider | A 9-1-1 Service Provider chosen by a 9-1-1 Authority to replace the legacy 9-1-1 Service Provider (which is usually an ILEC). AESPs generally operate NG9-1-1 platforms. |
| AF | Alternate-Final Path; also Alternate Final Usage | A trunk group that is built to accept overflow traffic from a Primary-High or Intermediate-High Usage group. This trunk group does not overflow to another trunk group. |
| ASC | Access Service Center | For purposes of this document, the central center where Access Service Requests (ASRs) are submitted and processed for Special and Switched Access services. |
| ASR | Access Service Request | A request form carriers use to request access services from one another. The ASR uses standardized fields defined by the Ordering and Billing Forum of ATIS. |
| CAFE | Common Access Front End | CAFE is a web interface application that is used for a variety of Access activities, primarily ordering, Design Layout Record (DLR) information, ASR history, circuit information and other ordering and preordering functionality. |
| CAMA | Centralized Automatic Message Accounting | CAMA trunks can be used to connect end offices or PSAPs to a Selective Router and are can transmit 7-digit ANI. |
| CCS SS7 | Common Channel Signaling Signaling System 7 | An out-of-band network that uses packet-based SS7 signaling protocol |
| CFA | Connecting Facility Assignment | A CFA identifies the connecting facility assignment of a T1 circuit that carries the 9-1-1 trunk(s). |
| CFA Roll | Connecting Facility Assignment Roll | Moving a trunk from one T1 facility to a different T1 facility |
| CHC | Coordinated Hot Cut | A process that allows AT&T and an OSP to coordinate their CFA roll efforts so that the CFA roll appears instantaneous. |
| CLEC | Competitive Local Exchange Carrier | A company that is certified by a state regulatory commission to provide telephone exchange service anywhere within the state and is therefore able to compete with an ILEC within the ILEC’s franchise territory. |
| CLLI | Common Language Location Identifier code | A code that is issued and maintained by Telcordia that specifies the location of network equipment |
| COG/RPC | Council of Governments/Regional Planning Commission | Texas agencies that fall under the CSEC’s rules and guidance. These agencies handle areas where 9-1-1 service is not provided by local administration. |
| COID | Company ID | An AT&T-specific term that is often used in place of CID in AT&T 21-state documents and file names (see above reference to NENA Master Glossary for the definition of CID). |
| County Coordinator |  | A person representing the local government agency in the implementation and operation of E9-1-1. The County/PSAP MSAG coordinator is responsible for defining the MSAG and ESNs for their area and must approve all changes to the MSAG. |
| CSEC | Commission of State Emergency Communications | An organization created by the Texas state legislation to administer the state’s 9-1-1 service in area where service is not provided by local administration |
| DESN | Default ESN | A default ESN identifies the PSAP calls should be routed in the event of an ANI/pANI failure. |
| DF | Direct Final also Direct Final Usage | A trunk group that is the only route for a particular type of traffic. This trunk group does not overflow to another trunk group nor does it receive overflow from other trunk groups. |
| DID | Direct Inward Dialing | One-way inward dialing |
| DS0 | Digital Signal, Level 0 | The bandwidth needed to transmit one voice call. 24 DS0s can be multiplexed into one DS1 |
| DS1 | Digital Signal, Level 1 | A 1.544 Mbs circuit that can be channelized to carry 24 DS0s |
| EBTA | Electronic Bonding Trouble Administration | An AT&T electronic application through which users can create and view trouble reports via the internet (GUI) or application-to-application. Users can enter trouble tickets online with “real time” status of the trouble ticket. |
| ECD | Emergency Communication Districts | 9-1-1 agencies in Texas that provide local 9-1-1 services and are usually associated with a major city or county. ECDs are responsible for multiple PSAPs within their service area and pay E9-1-1-related PSAP bills and make buying decisions. |
| ECD-M | Emergency Communication District-Municipalities | In Texas, a subset of ECDs that were formerly known as Old Home Rule Cities |
| ESF/B8ZS | Extended Superframe/Bipolar and Bit Zero Substitution | For purposes of this document, an option on DS1 facilities that will extend the framing structure that provides improved diagnostic capabilities and better performance information within the signal and used to provide 64kbps Clear Channel Capability |
| FOC | Firm Order Confirmation | A notification that a providing carrier sends to a requesting carrier which confirms the requesting carrier’s order has been entered into the providing carrier’s ordering system. The FOC contains the providing carrier’s service order number. |
| FX | Foreign Exchange | A service that allows an end user to obtain dial tone from a central office that is foreign to the physical location of the subscriber |
| HCAS | Hybrid Channel Associated Signaling | An AT&T-only solution with limited acceptance that combined aspects of NCAS and HCAS. HCAS used the CAS approach from the Mobile Switching Center to the Selective Router, the NCAS approach from the Selective Router to the PSAP. WSP OSP delivers the tower location information to the Selective Router via pANI/Emergency Service Routing Digit and delivered the Call Back Number to the Selective Router with the voice call and delivered it to the PXSAP via a SR/ALI database path. HCAS can require PSAP CPE upgrades. |
| HRC | Old Home Rule Cities | The former name of ECD-Ms in Texas |
| ILEC | Incumbent Local Exchange Company | As defined by the Telcom Act, a local exchange carrier that provided exchange service as of the date the Telecom Act of 1996 was enacted, was a member of the exchange carrier association as of that date, or is a successor or assignee of such a company |
| IP | Internet Protocol | A packet switched protocol used by the internet. |
| IVP | Interconnected Voice over Internet Protocol (VoIP) Provider | As defined by the F.C.C.; but generally, it is a company that provides VoIP services that are capable of receiving calls from the Public Switched Telephone Network (PSTN) and terminating calls to the PSTN. |
| LERG | Telcordia**®** LERG™ Routing Guide (LERG) | A routing guide owned and maintained by Telcordia. More comprehensive information can be found at [www.telcordia.com](http://www.telcordia.com). |
| LNP | Local Number Portability | The ability of telecommunications customers to retain, at the same location, their existing telephone numbers when switching from one telephone service provider to another. |
| LOA | Letter of Authority | For purposes of this document, a letter authored by a 9-1-1 Authority that identifies an entity as its 9-1-1 service provider and authorizes the 911 service provider to act on its behalf with OSPs and others for the purpose of 9-1-1 services. |
| LSC | Local Service Center | For purposes of this document, the central center where Access Service Requests (ASRs) are submitted and processed for 9-1-1 trunks. |
| LSOR | Local Service Order Requirements | An AT&T reference document that provides trading partners with (among other things) business rules for port out requests. |
| LSR | Local Service Request | A request form that carriers use to request services from one another. In the case of LNP, LSRs are used to port an end-user between trading partners. The LSR uses standardized fields defined by the Ordering and Billing Forum of ATIS. |
| MF | Multifrequency Signaling | A legacy in-band signaling protocol that uses a combination of tones and supervision signaling |
| NANC | North American Numbering Council | Created by the FCC, NANC is a Federal Advisory Committee. It advises the FCC and makes recommendations for numbering issues. Its members are representatives of telecommunications carriers, regulators, cable providers, VoIP providers, industry associations, vendors and consumer advocates. More comprehensive information regarding NANC can be found at [www.fcc.gov](http://www.fcc.gov) (search the site for NANC) and [www.nanc-chair.org](http://www.nanc-chair.org) |
| NANP | North American Numbering Plan | The numbering plan for the Public Switched Telephone Network for Canada, the U. S. and its territories, and the Caribbean. |
| NANPA | North American Numbering Plan Administration | The organization with responsibility for administering the North American Number Plan. |
| NIS | Network Interconnection Sheet | A CLEC OSP-specific network planning form used for the initial establishment of a CLEC in a LATA. |
| NPA | Numbering Plan Area | An area code. An area code is the first 3 digits of a ten-digit telephone number. |
| NPAC | Number Portability Administration Center | Seven regional databases, each covering an area roughly the equivalent of the seven original Regional Bell Operating Companies, which contain the number portability information for that geographic region. |
| NXX | Central Office Code | An end office code that identifies a central office exchange. In a portable environment, all telephone numbers of an end office code may not reside in the same switch. |
| NPA-NXX-X | Thousands Number Block | A code that identifies one thousand numbers within an NPA-NXX combination. |
| OSP | Originating Service Provider | A service provider whose end users can originate 9-1-1 calls. |
| PBX | Private Branch Exchange | A private switch owned and operated by an end user. |
| PH | Primary-High Path also Primary-High Usage | A trunk group that is offered first route traffic only and is designed to overflow to an alternate route |
| POI | Point of Interconnection | For purposes of this document, POI means a point on AT&T 21-states network (Selective Router or some other mutually agreeable location(s)) where AESP and AT&T 21-state deliver 911/E911 traffic to each other, and also serves as a demarcation point between the facilities that each Party is responsible to provide (or as is otherwise defined in their contract). |
| RDN | Routing Directory Number | An RDN is a 10-digit number assigned by the 911 Service Provider to its supported PSAPs; each RDN designates a specific PSAP to which a 911 call will be terminated |
| PRI | Primary Rate Interface | An Integrated Services Digital Network service that provides 23 bearer channels and 1 data channel. |
| RPC | Regional Planning Commission | See COG/RPC |
| RPON | Related Purchase Order Number | LSR field used to relate orders that have the same due date and are associated with the same end user at the same or different location. |
| SECLOC | Secondary Location | Identifies the terminating end of a circuit. |
| SF/AMI | Super Frame/Alternate Mark Inversion | For purposes of this document, D4 super framing signal provides limited and minimal observations of circuit performance and conveys binary digits that makes allowances for deliberate long strings of 0 (zero) bits |
|  | Shared Exchange | See Split Wire Center |
|  | Split Wire Center | A split wire center occurs when 1) more than one PSAP serves the local calling scope of a wire center and 2) the PSAPs choose different 9-1-1 service providers. Legacy ILEC OSPs, generally lack the technology to route traffic originating from the same switch to different 9-1-1 service providers. Instead, the 9-1-1 service providers arrange themselves into primary and secondary Selective Routers. The legacy ILEC OSPs direct all originating 9-1-1 traffic to the primary Selective Router. The primary Selective Router then selectively routes the calls and delivers them, as appropriate, to its corresponding primary PSAP or to the secondary Selective Router for deliver to its corresponding secondary PSAP. |
| SR/ALI | Selective Router/Automatic Location Information | A word convention that refers to the ALI database as a table with the Selective Router and an independent ALI database that is not physically part of the Selective Router. |
| SrCAM | Senior Carrier Account Manager | An AT&T 21-State employee who provides a primary point of contact for each CLEC or IVP purchasing local services, including Local Number Portability. |
| SOIR | Service Order Interface Records | The records contained in a SOI file |
| T1 | Trunk Level 1 | A digital transmission link with a total signaling speed of 1.544 Mbps. For the purposes of this document a T1 is the same as a DS1. |
|  | Trading Partner | Carriers engaged in the exchange of end-user customers through LNP activity. |
| TGDG | Trunk Group Design Guide | An AT&T ILEC document that organizes details of the retail 9-1-1 deployment by rate center. It is useful for landline ILECs and CLECs to determine which Selective Routers to trunk to. |
| TSC (also 2/6 code) | Two-Six Code | An 8-character code used to identify a trunk. Its format is XXYYYYYY where X is an alpha character and Y is a number (e.g., AM234567). |
|  | Type 2C | A type of trunking WSP OSPs use to connect their network to an AT&T Selective Router |
| UNE | Unbundled Network Element | Pieces of the network that Incumbent Local Exchange Companies are required to offer on an unbundled basis. |
| VoIP | Voice over Internet Protocol | For the purposes of this document, the transmission of voice calls using internet protocol |
| WOS | Wireless Ordering System | For purposes of this document, an Operational Support System (OSS) for WSPs to order access services, including 9-1-1 trunks. |
| WSP | Wireless Service Provider | A carrier that possesses a license from the FCC to provide wireless telephone service. |
| WSR | Wireless Service Request | For purposes of this document, a request form WSPs use to order facilities and trunks from the AT&T ILEC |
| xDSL | Digital Subscriber Loop | A naming convention meant to convey many different types of DSL without specifying them; e.g ADSL, HDSL, IDSL, etc. |
| Z location | Z location | See entry for A and Z location. |

1. State of California 9-1-1 Operations Manual, Introduction [↑](#footnote-ref-1)
2. NENA CID is also referred to as NENA COID in AT&T 21-state documentation. There is no difference in the definition of CID and COID. [↑](#footnote-ref-2)
3. NENA Master Glossary of 9-1-1 Terminology; NENA-ADM-000.19-2016 dated 12/20/2016 [↑](#footnote-ref-3)