



Overview of ALI Formatting Tool

The Automatic Location Information Formatting Tool (AFT) enables you to modify the automatic location information (ALI) records that you create in Cisco Emergency Responder (Cisco ER) to a format that is compatible with the one used by your service provider.

Cisco Emergency Responder helps you manage emergency calls in your telephony network. Cisco Emergency Responder tracks a system's phones and locations and exports this information in ALI records that conform to National Emergency Number Association (NENA) 2.0, 2.1, and 3.0 formats. However, many service providers do not use NENA standards. You can use AFT to modify the Cisco ER-generated ALI records according to service provider-specific formats. That service provider then uses the reformatted file to update their ALI database.

The *ALI Formatting Tool User Guide* provides you with the information that you need to understand, install, use and troubleshoot AFT. Service provider-specific information is described in the appendix.

These topics provide an overview of the ALI formatting tool:

- [Overview of Enhanced 911, page 1-2](#)
- [Overview of the ALI Formatting Tool, page 1-3](#)
- [Understanding E911 and Cisco Emergency Responder Terminology, page 1-4](#)

Overview of Enhanced 911

Cisco Emergency Responder (CER) helps you manage emergency calls in your telephony network so that you can respond to these calls effectively and so that you can comply with your local ordinances concerning the handling of emergency calls. In North America, these local ordinances are called “enhanced 911,” or E911. Other countries and locales might have similar ordinances.

Enhanced 911 (E911) extends the basic 911 emergency call standard to make it more reliable.

In basic 911 in North America, if a caller dials 911, the call is routed to a *public safety answering point* (PSAP), also called the 911 operator. The PSAP is responsible for talking to the caller and arranging the appropriate emergency response, such as sending police, fire, or ambulance teams.

E911 extends this standard with these requirements:

- The emergency call must be routed to the local PSAP based on the location of the caller. In basic 911, the call simply needs to be routed to some PSAP, not necessarily the local one.
- The caller’s location information must be displayed at the emergency operator’s terminal. This information is obtained by querying an *automatic location information* (ALI) database.

In E911, the location of the caller is determined by the *emergency location identification number* (ELIN), which is a phone number the PSAP can dial to reconnect to the emergency caller if the emergency call is cut off for any reason, or if the PSAP simply needs to talk to the caller again. The emergency call is routed to the PSAP based on the location information associated with this number. For multi-line phone systems, such as an office system, the ELIN can be associated with more than one telephone by grouping the phones in an *emergency response location* (ERL). In this case, the location the PSAP receives would be the address of an office building. For large buildings, the location would include additional information such as floor or region on a floor. Each ERL requires a unique ELIN.

Related Topics

- [Overview of the ALI Formatting Tool, page 1-3](#)
- [Understanding E911 and Cisco Emergency Responder Terminology, page 1-4](#)

Overview of the ALI Formatting Tool

The ALI Formatting Tool (AFT) reads the automatic location information (ALI) file generated by Cisco ER and displays all the ELIN records in the AFT interface. You can use AFT to:

- Easily view the details of the ALI records. ALI files are difficult to read in the NENA fixed-length format. AFT reads the ALI files and presents the NENA fields in an interface that is easy to read.
- Select a record and update the value for ALI fields. AFT allows you to edit the ALI fields to customize them to meet the requirements of different service providers. Your service provider can then read the reformatted ALI files and use them to update their ELIN records.
- Perform bulk updates on multiple ALI records. Using the bulk update feature, you can apply common changes to all the records that you have selected, to one area code, or to one area code and one city code.
- Selectively export ALI records based on Area Code, City Code or a 4-digit Directory Number. By selecting to export all the ALI records in an Area Code, for example, you can quickly access all the ELIN records for each service provider allowing you to easily support multiple service providers.

Related Topics

- [Overview of Enhanced 911, page 1-2](#)
- [Understanding E911 and Cisco Emergency Responder Terminology, page 1-4](#)
- [Chapter 3, “Using the ALI Formatting Tool”](#)

Understanding E911 and Cisco Emergency Responder Terminology

Table 1-1 defines some of the key terminology used in this document.

Table 1-1 E911 and Cisco Emergency Responder Terminology

Term	Definition
ALI	Automatic location information. Information that ties an ELIN to a location, and is used to route emergency calls from that ELIN to the correct local PSAP. Information that is presented to the PSAP to help the PSAP locate the emergency caller. In Cisco Emergency Responder, you fill in ALI data for each ERL, and submit the ALI data to your service provider for inclusion in the ALI database.
ANI	Automatic number identification. ANI is another name for ELIN.
CAMA	Centralized automated message accounting. An analog phone trunk that connects directly to an E911 selective router, bypassing the PSTN.
DID	Direct inward dial. A telephone number obtained from your service provider that can be used to dial into your telephone network. DIDs are used for ELINs.
ELIN	Emergency location identification number. A phone number that routes the emergency call to the local PSAP, and which the PSAP can use to call back the emergency caller. The PSAP might need to call the number if the emergency call is cut off, or if the PSAP needs additional information after normally ending the emergency call. See ALI .
emergency call	A call made to the local emergency number, such as 911. Cisco Emergency Responder routes the call to the service provider's network, where the call is routed to the local public safety answering point (PSAP).
emergency caller	The person who places the emergency call. The caller might require help for a personal emergency, or might be reporting a more general emergency (fire, theft, accident, and so forth).
ERL	Emergency response location. The area from which an emergency call is placed. This is not necessarily the location of the emergency. If an emergency caller is reporting a general emergency, the actual emergency might be in a different area. In Cisco Emergency Responder, you assign switch ports and phones to ERLs, and ERL definitions include ALI data.

Table 1-1 E911 and Cisco Emergency Responder Terminology (continued)

Term	Definition
ESZ	<p>Emergency service zone. The area covered by a given PSAP. This area usually includes several police and fire departments. For example, a city and its suburbs might be serviced by one PSAP.</p> <p>Each ESZ is assigned a unique emergency service number (ESN) to identify it.</p>
MSAG	<p>Master street address guide. A database listing of all valid street address ranges within a community, the contents of which is typically managed by a local government organization. The MSAG database service can be managed by a local government organization, an incumbent local exchange carrier, or by a database service provider (often the same as the ALI database service provider).</p>
NENA	<p>National Emergency Number Association. The organization that recommends data and file formats for ALI definitions and other emergency call requirements in the United States. Cisco Emergency Responder uses the NENA formats for ALI data export files. Your service provider might have additional restrictions on data format, so ensure that your ALI entries abide by your service provider's rules.</p>
PSAP	<p>Public safety answering point. This is the organization that receives emergency calls, for example, the 911 operator. The PSAP is staffed by people trained in handling emergency calls. The PSAP talks to the emergency caller and notifies the appropriate public service organizations (such as police, fire, or ambulance) of the emergency and its location.</p>

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