



ALI Formatting Tool User Guide for Verizon

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Preface

The preface describes who should read this publication and provides the document conventions.

The preface includes the following topics:

- Purpose, page v
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Purpose

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

The ALI Formatting Tool User Guide provides you with the information that you need to understand, install, use, and troubleshoot the ALI Formatting Tool (AFT).

Audience

Network engineers, system administrators, and telecommunications engineers should review this guide to learn the steps that are required to install, use and troubleshoot AFT. You should be familiar with Cisco Emergency Responder and Cisco Unified CallManager before deploying AFT.

Related Documentation

For information about Cisco Unified CallManager and additional information about Cisco Emergency Responder (Cisco ER), refer to these publications:

- These Cisco Emergency Responder documents are available at:
<http://www.cisco.com/univercd/cc/td/doc/product/voice/respond/index.htm>
 - *Release Notes for Cisco Emergency Responder*
 - *Cisco Emergency Responder Administration Guide*
 - *Cisco Emergency Responder User's Guide* (also built into the end-user interface as the Cisco ER online help system)
- Cisco Unified CallManager documents are available at:
http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/index.htm

Online Help and Document Conventions

The *ALI Formatting Tool User Guide* is built into the end-user interface as the AFT online help system. AFT's online help system provides task-oriented help that is available from the AFT window.

The help system includes an index and is organized the same way as the *ALI Formatting Tool User Guide*.

- Using the Online Help, page vii
- Document Conventions, page vii

Using the Online Help

You can access online help in any of these ways:

- From the Help menu, access the contents of the online help system by selecting **Help > Contents and Index** or by clicking on the Help icon, a question mark.
- For a printed version of the manual associated with the application, or to view or search an Adobe Acrobat version of the help system, click the **View PDF** button in the top frame of the help system. If you have Adobe Acrobat installed (either as an independent application or as a plug-in to your browser), the document opens.

From Acrobat, you can search the entire manual, print the entire manual or selected pages, or read the manual online.

Document Conventions

This publication uses the following conventions:

Convention	Description
boldface font	Commands and keywords are in boldface .
<i>italic font</i>	Arguments for which you supply values are in <i>italics</i> .
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
screen font	Terminal sessions and information the system displays are in <code>screen font</code> .
boldface screen font	Information you must enter is in boldface screen font .
<i>italic screen font</i>	Arguments for which you supply values are in <i>italic screen font</i> .
Action > Reports	Command paths in a graphical user interface (GUI).

Notes use the following convention:

**Note**

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the publication.

Cautions use the following convention:

**Caution**

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation at this URL:

<http://www.cisco.com/techsupport>

You can access the Cisco website at this URL:

<http://www.cisco.com>

You can access international Cisco websites at this URL:

http://www.cisco.com/public/countries_languages.shtml

Product Documentation DVD

The Product Documentation DVD is a comprehensive library of technical product documentation on a portable medium. The DVD enables you to access multiple versions of installation, configuration, and command guides for Cisco hardware and software products. With the DVD, you have access to the same HTML

documentation that is found on the Cisco website without being connected to the Internet. Certain products also have .PDF versions of the documentation available.

The Product Documentation DVD is available as a single unit or as a subscription. Registered Cisco.com users (Cisco direct customers) can order a Product Documentation DVD (product number DOC-DOCDVD= or DOC-DOCDVD=SUB) from Cisco Marketplace at this URL:

<http://www.cisco.com/go/marketplace/>

Ordering Documentation

Registered Cisco.com users may order Cisco documentation at the Product Documentation Store in the Cisco Marketplace at this URL:

<http://www.cisco.com/go/marketplace/>

Nonregistered Cisco.com users can order technical documentation from 8:00 a.m. to 5:00 p.m. (0800 to 1700) PDT by calling 1 866 463-3487 in the United States and Canada, or elsewhere by calling 011 408 519-5055. You can also order documentation by e-mail at tech-doc-store-mkpl@external.cisco.com or by fax at 1 408 519-5001 in the United States and Canada, or elsewhere at 011 408 519-5001.

Documentation Feedback

You can rate and provide feedback about Cisco technical documents by completing the online feedback form that appears with the technical documents on Cisco.com.

You can submit comments about Cisco documentation by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

From this site, you will find information about how to:

- Report security vulnerabilities in Cisco products.
- Obtain assistance with security incidents that involve Cisco products.
- Register to receive security information from Cisco.

A current list of security advisories, security notices, and security responses for Cisco products is available at this URL:

<http://www.cisco.com/go/psirt>

To see security advisories, security notices, and security responses as they are updated in real time, you can subscribe to the Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed. Information about how to subscribe to the PSIRT RSS feed is found at this URL:

http://www.cisco.com/en/US/products/products_psirt_rss_feed.html

Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you have identified a vulnerability in a Cisco product, contact PSIRT:

- For Emergencies only—security-alert@cisco.com

An emergency is either a condition in which a system is under active attack or a condition for which a severe and urgent security vulnerability should be reported. All other conditions are considered nonemergencies.

- For Nonemergencies—psirt@cisco.com

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532

**Tip**

We encourage you to use Pretty Good Privacy (PGP) or a compatible product (for example, GnuPG) to encrypt any sensitive information that you send to Cisco. PSIRT can work with information that has been encrypted with PGP versions 2.x through 9.x.

Never use a revoked or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one linked in the Contact Summary section of the Security Vulnerability Policy page at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

The link on this page has the current PGP key ID in use.

If you do not have or use PGP, contact PSIRT at the aforementioned e-mail addresses or phone numbers before sending any sensitive material to find other means of encrypting the data.

Obtaining Technical Assistance

Cisco Technical Support provides 24-hour-a-day award-winning technical assistance. The Cisco Technical Support & Documentation website on Cisco.com features extensive online support resources. In addition, if you have a valid Cisco service contract, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not have a valid Cisco service contract, contact your reseller.

Cisco Technical Support & Documentation Website

The Cisco Technical Support & Documentation website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, at this URL:

<http://www.cisco.com/techsupport>

Access to all tools on the Cisco Technical Support & Documentation website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

**Note**

Use the Cisco Product Identification (CPI) tool to locate your product serial number before submitting a web or phone request for service. You can access the CPI tool from the Cisco Technical Support & Documentation website by clicking the **Tools & Resources** link under Documentation & Tools. Choose **Cisco Product Identification Tool** from the Alphabetical Index drop-down list, or click the **Cisco Product Identification Tool** link under Alerts & RMAs. The CPI tool offers three search options: by product ID or model name; by tree view; or for certain products, by copying and pasting **show** command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests, or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—An existing network is down, or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of the network is impaired, while most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Quick Reference Guide* is a handy, compact reference tool that includes brief product overviews, key features, sample part numbers, and abbreviated technical specifications for many Cisco products that are sold through channel partners. It is updated twice a year and includes the latest Cisco offerings. To order and find out more about the Cisco Product Quick Reference Guide, go to this URL:

<http://www.cisco.com/go/guide>

- Cisco Marketplace provides a variety of Cisco books, reference guides, documentation, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

<http://www.cisco.com/go/marketplace/>

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:

<http://www.ciscopress.com>

- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

<http://www.cisco.com/packet>

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:

<http://www.cisco.com/go/iqmagazine>

or view the digital edition at this URL:

<http://ciscoiq.texterity.com/ciscoiq/sample/>

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

<http://www.cisco.com/ipj>

- Networking products offered by Cisco Systems, as well as customer support services, can be obtained at this URL:

<http://www.cisco.com/en/US/products/index.html>

- Networking Professionals Connection is an interactive website for networking professionals to share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:

<http://www.cisco.com/discuss/networking>

- World-class networking training is available from Cisco. You can view current offerings at this URL:

<http://www.cisco.com/en/US/learning/index.html>



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 to a format that is compatible with the one used by your service provider.

Cisco Emergency Responder (Cisco ER) helps you manage emergency calls in your telephony network. 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 Emergency Responder-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 Emergency Responder and the ALI formatting tool:

- Overview of Enhanced 911, page 1-2
- Overview of the ALI Formatting Tool, page 1-3
- Understanding E911 and Emergency Responder Terminology, page 1-4

Overview of Enhanced 911

Cisco Emergency Responder (Cisco ER) 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 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 Emergency Responder (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 Emergency Responder Terminology, page 1-4
- Chapter 3, “Using the ALI Formatting Tool”

Understanding E911 and Emergency Responder Terminology

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

Table 1-1 *E911 and 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 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. 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 Emergency Responder, you assign switch ports and phones to ERLs, and ERL definitions include ALI data.

Table 1-1 *E911 and 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. 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>



Installing the ALI Formatting Tool

Use these topics to install ALI Formatting Tool (AFT):

- System Requirements, page 2-1
- Installing the ALI Formatting Tool, page 2-2

System Requirements

The ALI Formatting Tool (AFT) requires the following software components to operate:

- Cisco Emergency Responder 1.2 (Cisco ER) or later
- Microsoft Windows 2000

The ALI Formatting Tool (AFT) supports all hardware platforms supported by Emergency Responder. Refer to the *Cisco Emergency Responder Administration Guide* for Cisco ER-supported Cisco Media Convergence Server (MCS) hardware platforms.



Note

You must install AFT on the same server with Cisco ER.

Related Topics

- Installing the ALI Formatting Tool, page 2-2

Installing the ALI Formatting Tool

The ALI Formatting Tool (AFT) is downloadable from the Internet. To install AFT, perform the following steps:

Procedure

- Step 1** Start the Cisco MCS or Cisco certified server and log in to Windows 2000.
- Step 2** Use a web browser to access the following URL:
`http://www.cisco.com/cgi-bin/tablebuild.pl/aft`
- Step 3** Download the AFT installation file that is specific to your service provider.
The AFT .exe files are named as shown here:
`CER-aft-<serviceprovider>.<mainrelease> - <minorrelease>
-<maintrelease>.exe`
where *serviceprovider* is the name of your Service Provider
and *mainrelease*, *minorrelease* and *maintrelease* make up the AFT release number.
For example, to select the Verizon AFT, click on: **CER-aft-Verizon.1-1-1.exe**
- Step 4** Double-click on the downloaded file to launch the installer.
The Welcome to the ALI Formatting Tool (AFT) Installation Wizard screen appears.
- Step 5** At this point, the installation checks for the presence of Cisco ER 1.2 or later.
If Cisco ER 1.2 or later is not present, you are prompted to install it. The installation of AFT will not continue until Cisco ER 1.2 or later is present.
- Step 6** Click **Next**.
The License Agreement Screen appears.
- Step 7** Select **Accept** and click **Next**.
The User Information Screen appears.
- Step 8** Enter the user name and organization information and click **Next**.

Step 9 Select administrator rights by clicking on one of the following choices:

- **For me**
- **For all who use the computer**

Step 10 Click **Next**.

The Ready to Install screen appears.

Step 11 Click **Next**.

Step 12 To test that the application successfully loaded, install the new shortcut path and launch the AFT application. Go to:

- a. **Start > Programs > Cisco Emergency Responder > AFT > <serviceprovider (NENA version)>**

For Verizon go to:

Start > Programs > Cisco Emergency Responder > AFT > Verizon (NENA 2.0)

The AFT login screen appears.

- b. To log in to AFT, enter your Cisco ER Main Administrator or ERL Administrator login ID and Password.

Related Topics

- System Requirements, page 2-1
- Chapter 3, “Using the ALI Formatting Tool”



Using the ALI Formatting Tool

This section provides information about how to use the ALI Formatting Tool (AFT):

- Using the ALI Formatting Tool Interface, page 3-1
- Using AFT to Generate a Formatted ALI File, page 3-7

Using the ALI Formatting Tool Interface

To familiarize yourself with the AFT interface, select the pull-down menus from the AFT main menu to see the options. Hold your mouse over each AFT icon to view the icon description in the tool tip box.

These topics will help you become familiar with the AFT interface:

- ALI Formatting Tool Fields, page 3-2
- Using the Tool Bar and Icons, page 3-3

ALI Formatting Tool Fields

You can edit the following fields using AFT:

- The header and trailer fields. The ALI Formatting Tool (AFT) displays all the ALI record data in the ALI tab. The ALI file consists of one header record and one trailer record only; there is not an individual header and trailer record for each ELIN record.
- The Function/Transaction Code field. Refer to the Appendix A, “Using the ALI Formatting Tool for Verizon” for more information.
- Any service provider-specific fields. Refer to the Appendix A, “Using the ALI Formatting Tool for Verizon” for more information.

You cannot edit the following fields using AFT:

- The ALI records fields that you configure and edit through Cisco Emergency Responder (Cisco ER). They are disabled (greyed out) in AFT.
- The record count field. This trailer field cannot be edited in AFT because AFT calculates this number internally based on the number of records selected to export.

Related Topics

- Using the Tool Bar and Icons, page 3-3
- Before You Generate Files, page 3-7
- Generating a Formatted ALI File, page 3-8

Using the Tool Bar and Icons

Use Table 3-1 to learn how you use the AFT interface to perform the main AFT tasks.

Use the “Generating a Formatted ALI File” section on page 3-8 for a step-by-step procedure about putting the tasks together and generating reformatted ALI files.

Table 3-1 **Using the AFT Interface**

Task	Procedure	Notes
Give a NENA file as input to AFT	Use one of these methods: <ul style="list-style-type: none"> • Click the File Open icon. • Select Menu > File > Open (Ctrl+O). 	If the NENA files are on the Master CER server and AFT is installed on the Standby CER server, you can use the Open Window Dialog box to browse to a shared Master CER folder.
Go to a specific ELIN number	<ol style="list-style-type: none"> 1. Select Menu > File > Go to ELIN (Ctrl+E). 2. Enter the ELIN number. 	If the ELIN is present, it is selected in the tree and the ALI tab is populated with data for that record. If it is an invalid record number, a message displays with the valid range of numbers.
Go to a specific record	<ol style="list-style-type: none"> 1. Select Menu > File > Go to Record Number (Ctrl+R). 2. Enter the record number. 	If the record number is valid, that record is selected in the tree and the ALI tab is populated with data for that record. If it is an invalid record number, a message displays with the valid range of numbers.

Table 3-1 Using the AFT Interface (continued)

Task	Procedure	Notes
View ALI details for an ELIN/Select an ELIN to edit its ALI fields	Click on the ELIN in the tree.	This highlights the ELIN and populates its details in the right pane of the window. You can then edit the ALI records by entering new values in the ALI editable fields.
Undo record change/Redo record change	Use one of these methods: <ul style="list-style-type: none"> • Click the Undo/Redo icon. • Select Menu > Edit > Undo record/Redo record change (Ctrl+Z/Ctrl+Y). 	The Undo/Redo option remembers the last 20 record changes.
Cut/Copy/Paste record input	Use one of these methods: <ul style="list-style-type: none"> • Click the Cut/Copy/Paste icon. • Select Menu > Edit > Cut/Copy/Paste (Ctrl+X/Ctrl+C/Ctrl+V). 	

Table 3-1 *Using the AFT Interface (continued)*

Task	Procedure	Notes
Select ALI records to be exported to your service provider	<p>In the tree, click in the ELIN check box. Use one of the following options:</p> <ul style="list-style-type: none"> • Select all ELINs in the tree by checking the root node of the tree. • Select all ELINs with a specific area code by checking the Area Code in the tree. For example, checking the 408 check box will select all the numbers in the 408 area code. • Select all ELINs with a specific City Code by checking the City Code in the tree. For example, clicking on 228 will also select 228-9333 and 228-5672. • Select an individual ELIN by checking the 4-digit directory number, for example, 9933. 	Check marks will indicate the ELINs that are selected.
Generate Formatted File	<p>Use one of the following methods:</p> <ul style="list-style-type: none"> • Click the Generate Formatted File icon. • Go to Menu > Tools and click Generate Formatted File (Ctrl+G). 	AFT generates an ALI file in a format that your service provider can read.

Table 3-1 Using the AFT Interface (continued)

Task	Procedure	Notes
Perform a bulk update to the ALI files	<ol style="list-style-type: none"> 1. Use one of these methods: <ul style="list-style-type: none"> – Click the Bulk Update icon. – Select Menu > Tools > Bulk Update (Ctrl+B). AFT displays the bulk update form. 2. Select one of the following options: <ul style="list-style-type: none"> – To apply the changes to all records, click the first tab, Apply All. – To apply the changes to one area code, click the second tab, Apply by Area Code. – To apply the change to one area code and one city code, click the third tab, Apply by Area Code and City Code. 	The bulk update feature saves the changes automatically.
Save updates to the ALI file	Select Menu > Tools > Save Record (Ctrl+S) .	The new value is saved and displayed in the interface. If you modify an ALI record but do not save the changes, an alert asks if you want to save the changes.
Close AFT	Select Menu > File > Exit .	If you try to close AFT without saving changes, AFT asks if you want to generate a formatted file.

Related Topics

- ALI Formatting Tool Fields, page 3-2
- Using AFT to Generate a Formatted ALI File, page 3-7

Using AFT to Generate a Formatted ALI File

Use the following topics to generate a formatted ALI file:

- Before You Generate Files, page 3-7
- Generating a Formatted ALI File, page 3-8

Before You Generate Files

Make sure you have completed the following tasks before you begin to use AFT to generate an exported file:

- You have installed, set up and used Cisco Emergency Responder (Cisco ER) to configure ERLs with the ELIN and ALI information and to generate a NENA file. For information on performing these tasks, refer to the *Cisco Emergency Responder Administration Guide*.
- You have successfully installed, launched and tested AFT. See Chapter 2, “Installing the ALI Formatting Tool,”
- You understand which specific information you modify for your service provider. For details, see Appendix A, “Using the ALI Formatting Tool for Verizon.”

Generating a Formatted ALI File

To use AFT to generate a formatted file, perform the following steps:

Procedure

Step 1 Provide a NENA file generated by Cisco Emergency Responder (Cisco ER) as input to AFT in one of these ways:

- Select **Menu > File > Open (Ctrl+O)** and browse to select the file name.
- Use the File Open icon and enter the file name.



Tip

If the NENA files are on the Master Cisco ER server and AFT is installed on the Standby Cisco ER server, you can use the Open Window Dialog box to browse to a shared Master Cisco ER folder.

AFT displays all the ELINs from the NENA file in a tree box in the left side of the page by the Area Code, City Code and 4-digit directory number.

Step 2 To view details of the ALI files, click on an ELIN in the tree.

This highlights the ELIN and populates its details in the right pane of the window.

Step 3 Edit the ALI fields by entering new values in the editable fields.

Step 4 Save any changes that you made to the ALI file:

Select **Menu > Tools > Save Record (Ctrl+S)**.

Step 5 Select the ELINs that you want to export to the service provider by clicking in the corresponding check boxes in the tree.

- To select all ELINs in the tree, check the root node of the tree.
- To select all ELINs with a specific area code, click in the Area Code check box in the tree. For example, clicking the 408 check box will select all the numbers in the 408 area code. All the 408 numbers display check marks.
- To select all ELINs with a specific City Code, click in the City Code check box. For example, selecting 228 will also select 228-9333 and 228-5672.
- To select an individual ELIN, click in the 4-digit check box, for example, 9933

Check marks will indicate the ELINs that are selected.

- Step 6** Update the service provider-fields in AFT:
- For details about the service provider-specific information required, see Appendix A, “Using the ALI Formatting Tool for Verizon.”
- Step 7** At this point, if the service provider-specific field is common for many ELIN records (for example, if all the ELIN records share the same Private Switch Code), you can use AFT’s Bulk Update feature:
- a. Select **Menu > Tools > Bulk Update (Ctrl+B)** or the **Bulk Update** icon.
AFT displays the bulk update form.
 - b. Select one of the following options:
 - To apply the changes to all records, click the first tab: **Apply All**.
 - To apply the changes to one area code, click the second tab: **Apply by Area Code**.
 - To apply the changes to one area code and one city code, click the third tab: **Apply by Area Code and City Code**.
- Step 8** Generate a formatted file in one of these way:
- Go to Menu > Tools and click **Generate Formatted File (Ctrl+G)**.
 - From the Tool Bar, click the Generate Formatted File icon.
- AFT generates an ALI file in a format specific to your service provider and prompts you for a location to save it.
- Step 9** Enter a location where you want to store the formatted file.
- Step 10** Using the service provider’s preferred method of transmitting files, send the ALI file to your service provider so they can update their E911 database with the ELINs from the AFT ALI file.

**Tip**

Be sure to keep a copy of the AFT ALI file for your records. This will be helpful if the service providers reports errors; you can make any required changes to the file without having to re-do all the AFT formatting changes.

Step 11 Your service provider returns the status of the ALI files.

- If your service provider reports that there are no errors, you can continue using AFT to generate more formatted records or you can quit the program.
- If your service provider reports that there are ALI errors, perform the following steps:
 - Make corrections to the formatted file that you sent to the service provider. All the error codes for the service providers are defined in the ALI format documentation for that service provider. Refer to their documentation to determine the errors in your file and correct the errors using AFT.



Note If an error occurs in fields that cannot be edited using AFT, you must use CER to correct the fields. Then use AFT to generate the file again.

- Send the corrected file to your service provider. Again, be sure to keep a copy of your corrected file for your records.
 - Repeat this process until your service provider can read the formatted files and can use them to update their ELIN records.
-

Related Topics

- Using the Tool Bar and Icons, page 3-3
- Chapter 4, “Troubleshooting the ALI Formatting Tool”
- Appendix A, “Using the ALI Formatting Tool for Verizon”



Troubleshooting the ALI Formatting Tool

These topics address problems you might encounter using the ALI Formatting Tool (AFT) and provide ways to resolve them:

- Collecting Error and Trace Messages, page 4-1
- Troubleshooting AFT Problems, page 4-2
- Frequently Asked Questions, page 4-4

Collecting Error and Trace Messages

The ALI Formatting Tool (AFT) logs errors, warnings, record changes, and information messages using a logging device that is similar to the one that Cisco Emergency Responder (Cisco ER) uses.



Note

Un-installing AFT does not remove the AFT logs. This allows you to use the logs to find details about old AFT transactions.

For bulk operations, AFT logs information related to the bulk operation, not individual record updates.

You can access the AFT logs, in one of two ways. Go to:

- the log folder at:
C:\ProgramFiles\CiscoSystems\AFT\logs*<providername>*
- the install folder at:
C:\Program Files\CiscoSystems\AFT*<providername>*
and follow the shortcut to the AFT logs.

Related Topics

- Troubleshooting AFT Problems, page 4-2
- Frequently Asked Questions, page 4-4

Troubleshooting AFT Problems

Use the following sections to resolve AFT problems:

- Cannot Install AFT, page 4-2
- Cannot Log In To AFT, page 4-3
- Cannot Locate the AFT Logs, page 4-3

Cannot Install AFT

Problem: You receive an error message when you try to install AFT on a Windows 2000 system.

Action: Cisco Emergency Responder (Cisco ER) must be installed before you can install AFT. You must install AFT on the same server with Cisco ER.

Make sure that Cisco ER is installed, then try to install AFT again.

Cannot Log In To AFT

Problem: You get an “Invalid Login” message when you try to log in to AFT.

Action: You must be a member of CERSystemAdmin and CERERLAdminGroup for Cisco Emergency Responder (Cisco ER). Check the group membership at:

Start > Control Panel > Administrative Tools > Computer Management > Users and Groups > Groups

Cannot Locate the AFT Logs

Problem: You cannot find the AFT Logs.

Action: The ALI Formatting Tool (AFT) is installed in:

C:\Program Files\CiscoSystems\AFT*<providername>*

Follow the shortcut in this folder to the AFT Log Folder.

All AFT logs are saved here:

C:\ProgramFiles\CiscoSystems\AFT\logs*<providername>*

Related Topics

- Collecting Error and Trace Messages, page 4-1
- Frequently Asked Questions, page 4-4

Frequently Asked Questions

- Q.** My Service Provider accepts NENA 2.0 files. From the Cisco Emergency Responder (Cisco ER) documentation, I see that Cisco ER itself generates NENA 2.0 files. Will I need to use AFT for sending ALI files to my service provider?
- A.** Cisco ER was designed to generate ALI files in NENA 2.0, 2.1 and 3.0 format. However, many service providers have specific fields that they use for internal purposes. If their fields are missing, they might reject the ALI file you send them from Cisco ER. These ALI files need formatting for the service provider-specific fields. This might be adding, removing, or changing the position of some fields. AFT is a small application that you can download from CCO and use for formatting the ALI files which Cisco ER generates according to your service provider's requirements.
- Q.** In my Cisco ER setup, I have a set of ELINs that I bought from Verizon and another set of ELINs that I bought from Sprint. I have configured these ELINs in Cisco ER. I did an ALI export and exported the ELINs to a single file. How will I send this ELIN file separately to Verizon and Sprint?
- A.** You can use AFT to accomplish this task. Perform the following steps:

Procedure

-
- Step 1** Download the Verizon AFT and download the Sprint AFT from CCO and install them on your Cisco ER server.
- Step 2** Give the ALI file exported from Cisco ER as input to the Verizon AFT.
- Step 3** Perform the necessary formatting selectively for the Verizon ELINs.
- Step 4** Use the Verizon area code to generate an output file that is specific to Verizon. This will be different than the Sprint area code. Send this file of the Verizon ELINs to Verizon. For more information on generating an output file, see the "Generating a Formatted ALI File" section on page 3-8.
- Step 5** Repeat steps 2 - 4 to generate a file containing just the Sprint ELINs by using the Sprint AFT.
-

Related Topics

- [Collecting Error and Trace Messages](#), page 4-1
- [Troubleshooting AFT Problems](#), page 4-2

Frequently Asked Questions



Using the ALI Formatting Tool for Verizon

This section provides information about how to set up the AFT fields that are specific to Verizon. Use the following information along with Chapter 3, “Using the ALI Formatting Tool” to generate ALI files in a format that Verizon can use to update their ELIN records.

Changing the Function Code

Cisco Emergency Responder (Cisco ER) sets the Function Code to one of the following:

- I—Inserting a new ALI record (the default)
- C—Updating an ALI record, such as changing a street name
- D—Deleting an ALI record
- U—Unlocking an ALI Record (included to support Local Number Portability)
- M—Migrating an ALI Record (included to support Local Number Portability)

If you make changes to an ALI record in Cisco ER to correct errors reported by Verizon, you may need to use AFT to change the Function Code for ELIN records.

Example A-1 illustrates when you need to change the Function Code.

Example A-1 Changing the Function Code

Cisco ER initially generates ALI records with a Function Code of I, for insert. After you format a file and export it to Verizon using AFT, Verizon may reject the file because of an error. The error may be that the street suffix is incorrect, for example. You cannot change the street suffix in AFT because this field is disabled in AFT. You must change the ALI record using Cisco ER.

When Cisco ER generates the ALI record the second time after you make the change, it sets the Function Code to C because it assumes that the first file was accepted. Use AFT to change the Function Code for ELIN records from C to I. Then, generate the format using AFT, and send the reformatted file to Verizon.

Modifying the Disability Indicator for Verizon New England States

To make the ELIN records readable by Verizon's New England states (MA, ME, NH, RI, VT), you may need to use AFT to update the Verizon specific field—Disability Indicator. The Disability Indicator is a reserved 20 character field that the carrier can use to enter disability information. Table A-1 shows the Disability Indicator designations that you can use to populate the location field of an ALI record:

Table A-1 Disability Indicator

Disability Indicator	Description
LSS	Life Support System
MI	Mobility Impaired
B	Blind
DHH	Deaf and Hard of Hearing
TTY	Teletypewriter
SI	Speech Impaired
DD	Developmentally Disabled

AFT intelligently identifies the New England states (from the state field of the ALI record) and it allows you to update the Disability Indicator field both individually (by selecting an New England ELIN record from the tree) or in bulk (through the Bulk Update feature). For more information on using the Bulk Update feature, see the task “Perform a bulk update to the ALI files” in the “Using the Tool Bar and Icons” section on page 3-3.

Modifying the Customer Name for Verizon West States

The Verizon West states (CA, HI, ID, IL, IN, MI, NC, OH, OR, SC, TX, WA, WI) read the Customer Name field in the following format that uses a comma followed by a space between the last name and the first name:

Last Name, First Name

This format prevents display errors at the PSAP. You can use AFT to update the field so that it follows the format that is used by Verizon West states.

AFT intelligently identifies the Verizon West states (from the state field of the ALI record) and allows you to update the Customer Name field both individually (by selecting a Verizon West ELIN record from the tree) or in bulk (through the Bulk Update feature). For more information on using the Bulk Update feature, see the task “Perform a bulk update to the ALI files” in the “Using the Tool Bar and Icons” section on page 3-3.

When you use AFT to make updates, it creates two different entries for the Customer Name field—one in the CER database and one in the Service Provider's database. To avoid future discrepancies, you should also make the same update in the Customer Name field in the CER GUI too. To assure this, AFT displays a warning in its GUI to copy the updated value and paste it in Customer Name field of the selected ELIN in the CER's ALI details form.

Modifying the Location for New Jersey

Verizon's New Jersey (NJ) system is a keyword driven system that is based on a state requirement that location data be uniformly displayed at all PSAPs. Data is extracted from the location field, only when one or more keywords, associated data, and delimiters are present in exact prescribed format. The NJ system location has four separate and distinct location type fields which can be simultaneously displayed at the PSAP. They are as follows:

- Unit Type (APT, BOX, LOT, PIER, RM, ROOM, RU, SUIT, SUITE, UNIT, WING)
- Floor Number (FLR)
- Building Description (BLDG)
- Coin Location Description (DES)

AFT intelligently identifies the NJ system specific requirement for Location (from the state field of the ALI record) and allows you to update the location individually (by selecting a New Jersey ELIN from tree) as well as in bulk (through the Bulk Update feature). For more information on using the Bulk Update feature, see the task “Perform a bulk update to the ALI files” in the “Using the Tool Bar and Icons” section on page 3-3.

When you use AFT to make updates, it creates two different entries for the Customer Name field—one in the CER database and one in the Service Provider's database. To avoid future discrepancies, you should also make the exact update in the Location field in CER GUI. To assure this, AFT displays a warning in its GUI to copy the updated value and paste it in Location field of the selected ELIN in the CER's ALI details form.



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