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## Troubleshooting ALI Data Uploads

Periodically, you must export your ALI data and submit it to your service provider. The ALI data is used to route emergency calls from your network to the correct PSAP, and provide the PSAP with information about the location of the emergency call.

Cisco ER lets you export the ALI data in a variety of NENA formats. Ask your service provider which format you should use.

During the upload process, you might find that some ALI data records did not upload correctly. Your service provider should be able to provide you with a list of errors, or you might see these when using your service provider's data upload software. You must fix any mistaken records and resubmit the ALI data export file. To fix the records, you might need to manually edit the records in error.

These sections describe the general procedure for fixing ALI data records, and explain how to edit the various types of NENA formatted files.

## Fixing ALI Data Records

To correct data errors you might receive when uploading ALI records to your service provider, follow these steps:

### Before You Begin

Obtain NENA Doc 02-010, *Recommended Formats and Protocols for Data Exchange*, from NENA or your service provider. This document explains the various NENA formats in detail.

### Procedure

**Step 1** Look through the error reports to determine the problems you encountered.

**Step 2** Cisco ER web interface, change the fields that were in error for the ERL/ALI records that failed. For example, if the Street Suffix was an unacceptable abbreviation, change it to an acceptable one. Save all of your changes.

**Step 3** Export the ALI data again (see the online help).

**Step 4** If any of the records in error were new, you must change the database function for the records. Because Cisco ER has already exported these records, Cisco ER will label them as updates rather than new insertions. However, because these records failed on upload, the service provider's database will view them

as new.

Open the ALI export file in a text editor and change the function code for the records that you are fixing. Use an editor that will not add formatting or other extra characters. See these sections for details about editing the files:

◇ Editing NENA 2.0 and 2.1 File Formats, page 11-2

◇ Editing NENA 3.0 File Formats, page 11-3

**Step 5** Submit the edited file to your service provider.

## Editing NENA 2.0 and 2.1 File Formats

The NENA 2.0 and 2.1 file formats have these characteristics:

- ◇ Fixed-length records
- ◇ Fields are in a specific order
- ◇ Unused fields are filled with blanks
- ◇ End of record is indicated by an asterisk (\*)

Use NENA Doc 02-010, *Recommended Formats and Protocols for Data Exchange*, to determine the byte location and length of each field. When you edit the file, ensure that you are not lengthening the records. Delete any extra spaces that get added. If the length of an item is less than the length of a field, pad the field with blanks. Depending on the field, padding might be on the right or the left.

The file contains one header and one trailer record. The ALI data records are contained between these records.

*Table: NENA 2.0 and 2.1 Common Fields* describes the fields you are most likely to edit. You should use the Cisco ER web interface to change the other fields.

**Table: NENA 2.0 and 2.1 Common Fields**

Field	Description
Function Code	<p><b>Location:</b> Byte 1.</p> <p><b>Length:</b> 1 character.</p> <p><b>Description:</b> The database function for the record. One of:</p> <ul style="list-style-type: none"> <li>◇ <b>I?</b>Insert new ALI record</li> <li>◇ <b>C?</b>Change existing record. You must have successfully uploaded the record once before you can use C. If you are correcting a record that has never been successfully uploaded, change the C to an I.</li> <li>◇ <b>D?</b>Delete the record. Cisco ER only generates a deletion record once, in the export file created after you deleted the ALI from the Cisco ER</li> </ul>

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	configuration. If you need to regenerate the record, cut and paste it from the previous export file (and adjust the record count), or recreate the ALI in Cisco ER, save it, export the data, then delete the ALI and export the data again.
Cycle Counter (sequence number)	<p><b>Location:</b> Byte 62 to 67.</p> <p><b>Length:</b> 6 characters.</p> <p><b>Description:</b> The sequence number of the file you are submitting to the service provider (for example, 1, 2, etc.) The number is right-aligned with leading spaces. Your service provider might ignore this field.</p>
Record count	<p><b>Location:</b> Byte 62 to 70 in the trailer record.</p> <p><b>Length:</b> 9 characters.</p> <p><b>Description:</b> The total number of records in the file you are submitting to the service provider (for example, 1, 2, etc.) The number is right-aligned with leading spaces.</p>

## Editing NENA 3.0 File Formats

The NENA 3.0 file format has these characteristics:

- Variable-length records.
- Fields are a tag and data combination, and can be in any order.
- Unused fields are not included. The presence or absence of a tag has this effect:
  - ◊ If the tag is not included, the previous value of the element, if any, is left unchanged.
  - ◊ If the tag is included with a blank value, any previous value for the element is removed.
  - ◊ If the tag is include with a non-blank value, the value of the element is changed to the new value.
- Tags are separated by a vertical bar (|).
- End of record is indicated by a pre-defined character.

Use NENA Doc 02-010, Recommended Formats and Protocols for Data Exchange, to determine tag name and values for each field. Ensure that your values do not exceed the maximum length for the field. You do not need to pad fields with extra blanks.

The file contains one header and one trailer record. The ALI data records are contained between these records.

*Table: NENA 3.0 Common Fields* describes the fields you are most likely to edit. You should use the Cisco ER web interface to change the other fields.

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**Table: NENA 3.0 Common Fields**

Field	Description
Function Code	<p><b>Tag:</b> FOC.</p> <p><b>Description:</b> The database function for the record. One of:</p> <ul style="list-style-type: none"> <li>◇ <b>I?</b>Insert new ALI record (FOCI)</li> <li>◇ <b>C?</b>Change existing record (FOCC). You must have successfully uploaded the record once before you can use C. If you are correcting a record that has never been successfully uploaded, change the C to an I.</li> <li>◇ <b>D?</b>Delete the record (FOCD). Cisco ER only generates a deletion record once, in the export file created after you deleted the ALI from the Cisco ER configuration. If you need to regenerate the record, cut and paste it from the previous export file (and adjust the record count), or recreate the ALI in Cisco ER, save it, export the data, then delete the ALI and export the data again.</li> </ul>
Cycle Counter (sequence number)	<p><b>Tag:</b> CYC.</p> <p><b>Description:</b> The sequence number of the file you are submitting to the service provider (for example, CYC1, CYC2, etc.) Your service provider might ignore this field.</p>
Record count	<p><b>Tag:</b> REC in the header and trailer records.</p> <p><b>Description:</b> The total number of records in the file you are submitting to the service provider (for example, REC1, REC2, etc.).</p>