



# **Interface Control Document Integrating CER and E911Anywhere® Version 1.4**

## Revision History

Date	Version	Revision	Made By
5/4/2017	1.1	• Formatting & Network Configuration	Warren Hunter
6/1/2020	1.2		Ryan Olsen
12/16/2020	1.3	• Updated for E911 Anywhere© 7.x	Ryan Olsen
7/14/2022	1.4	• Added support for .bcfks file type	Ian Senne

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## Introduction

This document details the technical aspects of the integration between RedSky's E911 Anywhere® and Cisco Emergency Responder Servers. E911 Anywhere provisions the ALI records in the national ALI Database, and provides routing of 911 calls to the correct PSAP based on the ELIN and ERL.

## Audience

This document is intended for Call Server/CER and E911 Administrators. After reading this document an administrator should be able to prepare an enterprise's environment for integration between E911 Anywhere and Cisco Emergency Responder.

## Requirements

E911 Anywhere directly integrates with Cisco Emergency Responder. Protocols and ports used by E911 Anywhere must have IP connectivity to the Cisco Emergency Responder. If a firewall is between Cisco Emergency Responder and E911 Anywhere (Redsky's cloud solution) ports must be opened allow communication. Additionally, DNS must be configured on the CER server, and able to resolve <https://anywhere.e911cloud.com>

## Port Requirements

SSL	TCP	443	<ul style="list-style-type: none"><li>Port opened on firewall that is used for communication between CER &amp; E911 Anywhere which resides in the cloud.</li></ul>
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## Configuring Intrado VUI Settings

Redsky will provide the certificate to the customer to install on the Cisco Emergency Responder Server.

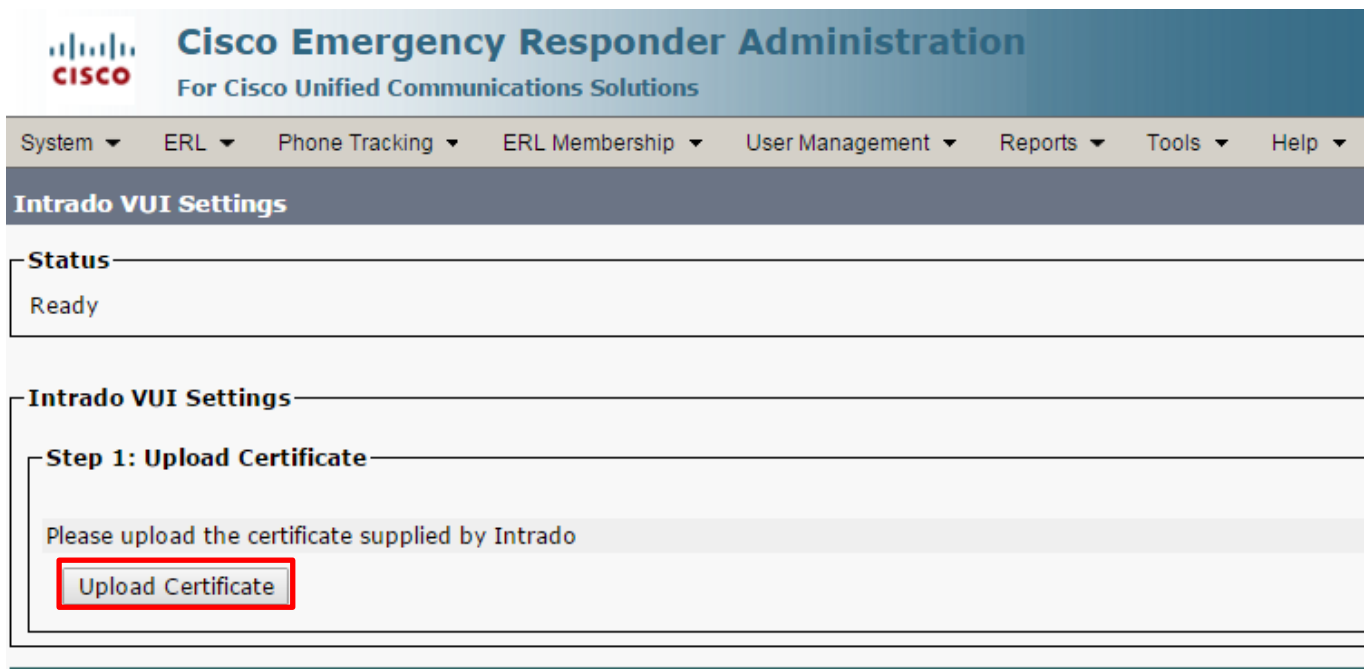
1. After logging into CER go to System > Intrado VUI Settings



## 2. **Intrado VUI Settings**

### **Step 1: Upload Certificate**

Click on the Upload Certificate button

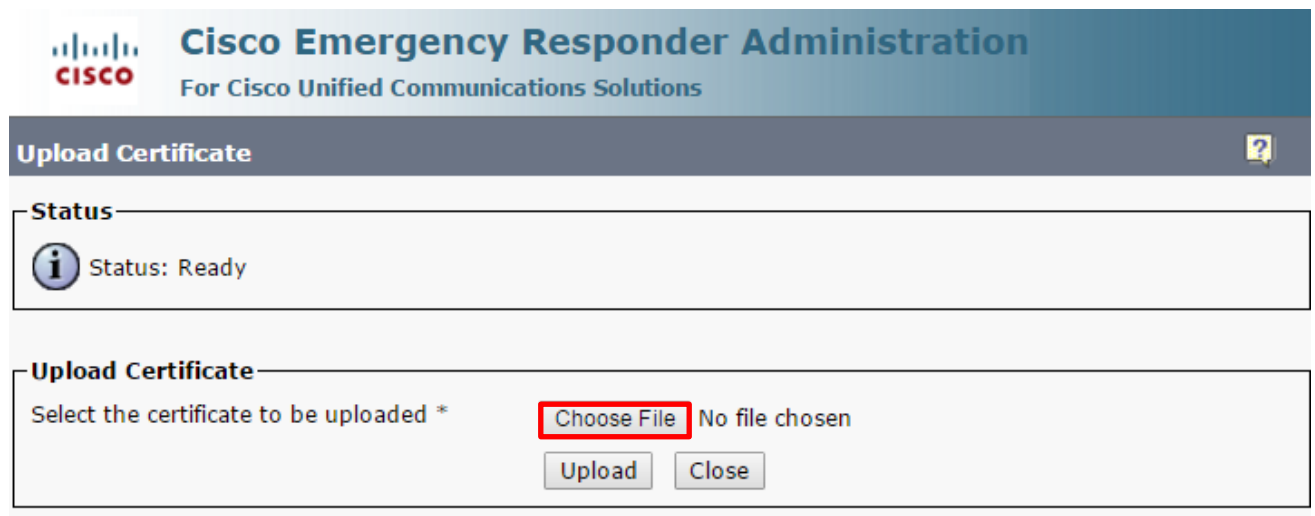


The screenshot shows the Cisco Emergency Responder Administration web interface. The top navigation bar includes links for System, ERL, Phone Tracking, ERL Membership, User Management, Reports, Tools, and Help. The main heading is 'Intrado VUI Settings'. Below this, there is a 'Status' section indicating 'Ready'. The 'Intrado VUI Settings' section contains a sub-section titled 'Step 1: Upload Certificate' with the instruction 'Please upload the certificate supplied by Intrado'. A red rectangular box highlights the 'Upload Certificate' button.

Figure 1: Intrado VUI Settings (Upload Certificate)

## 3. **Upload Certificate**

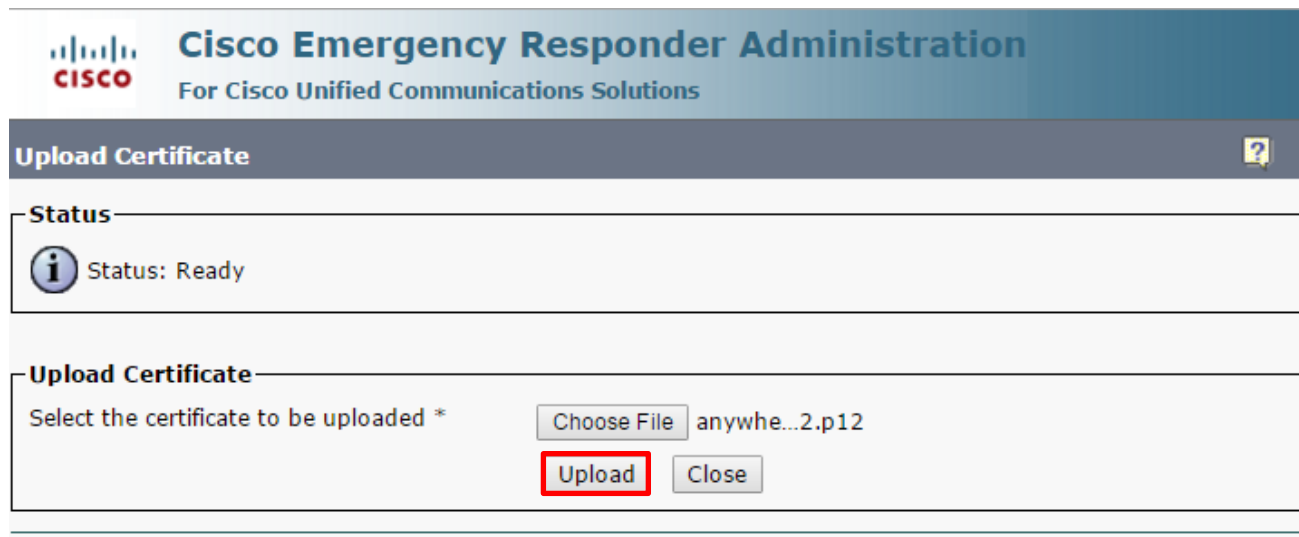
Click on **Choose File Button**



The screenshot shows the 'Upload Certificate' page in the Cisco Emergency Responder Administration interface. The top navigation bar is the same as in Figure 1. The main heading is 'Upload Certificate'. Below this, there is a 'Status' section indicating 'Status: Ready'. The 'Upload Certificate' section contains the instruction 'Select the certificate to be uploaded \*'. A red rectangular box highlights the 'Choose File' button. Below the 'Choose File' button are 'Upload' and 'Close' buttons.

Figure 2: Upload Certificate cont. (Choose File)

4. Navigate to the directory where the certificate is stored/saved, Click on **Upload the Upload Button**.



The screenshot shows the 'Cisco Emergency Responder Administration' interface. The main title is 'Cisco Emergency Responder Administration For Cisco Unified Communications Solutions'. Below this is a section titled 'Upload Certificate'. The 'Status' section shows 'Status: Ready'. The 'Upload Certificate' section has a text input field with 'anywhe...2.p12', a 'Choose File' button, and 'Upload' and 'Close' buttons. The 'Upload' button is highlighted with a red box.

Figure 3: Upload Certificate cont. (Upload)

\*\*\*CER 14.SU2 supports .bcfks file types instead of the .p12 pictured above\*\*\*

5. Ensure file has been successfully uploaded. Click on Close after file has been successfully uploaded



The screenshot shows the 'Cisco Emergency Responder Administration' interface. The main title is 'Cisco Emergency Responder Administration For Cisco Unified Communications Solutions'. Below this is a section titled 'Upload Certificate'. The 'Status' section shows 'Status: File anywherecert2.p12 uploaded successfully'. The 'Upload Certificate' section has a text input field with 'No file chosen', a 'Choose File' button, and 'Upload' and 'Close' buttons. The 'Close' button is highlighted with a red box.

Figure 4: Upload Certificate cont. (uploaded successfully)

## 6. Validate Certificates

### Step 2: Validate Certificates

Enter the Intrado Certificate Password (**password is provided by Redsky**),  
VUI URL – Enter <https://api.anywhere.e911cloud.com/cer-service/ws/CERService>  
Click on the **Test and Validate Button**

Intrado VUI Settings

Step 1: Upload Certificate

Certificate uploaded : **DennisAnywhereOnly.p12**

Upload Certificate

Step 2: Validate Certificate

Intrado Certificate Password \*

VUI URL \* <https://api.anywhere.e911cloud.com/cer-service/ws/CERService>

Test and Validate Cancel

Step 3: Configure Account Details

VUI Schema URL \* VUI.xsd

Intrado Account ID \* 10000 [Test Connectivity](#)

Max VUI Connections \* 1

Update Cancel Delete Account

Figure 5: Validate Certificates

## 7. Configuring Account Details

### Step 3: Configure Account Details

Enter in the following:

**VUI Schema URL:** Enter “VUI.xsd”

**Intrado Account ID:** Redsky will provide this Account ID

**Max VUI Connections:** this defaults to 1, Click **Update**.

Intrado VUI Settings

-Status

Updated & Validated successfully

-Intrado VUI Settings

Step 1: Upload Certificate

Certificate uploaded : **anywherecert2.p12**

Upload Certificate

Step 2: Validate Certificate

Intrado Certificate Password \*

VUI URL \* <https://anywhere.redskytech.com/CiscoCER/process>

Test and Validate Cancel

Step 3: Configure Account Details

VUI Schema URL \* VUI.xsd

Intrado Account ID \* 12041961 [Test Connectivity](#)

Max VUI Connections \* 1

Update Cancel Delete Account

Figure 6: Configure Account Details



## 8. Test Connectivity – Perform this step to ensure TCP/SSL connectivity to E911 Anywhere

**Click on:** Test Connectivity

**Click on Connect:** Test Results should display the following:

Connection succeeded:

Response code – 200

Response from server: OK

Click on Close

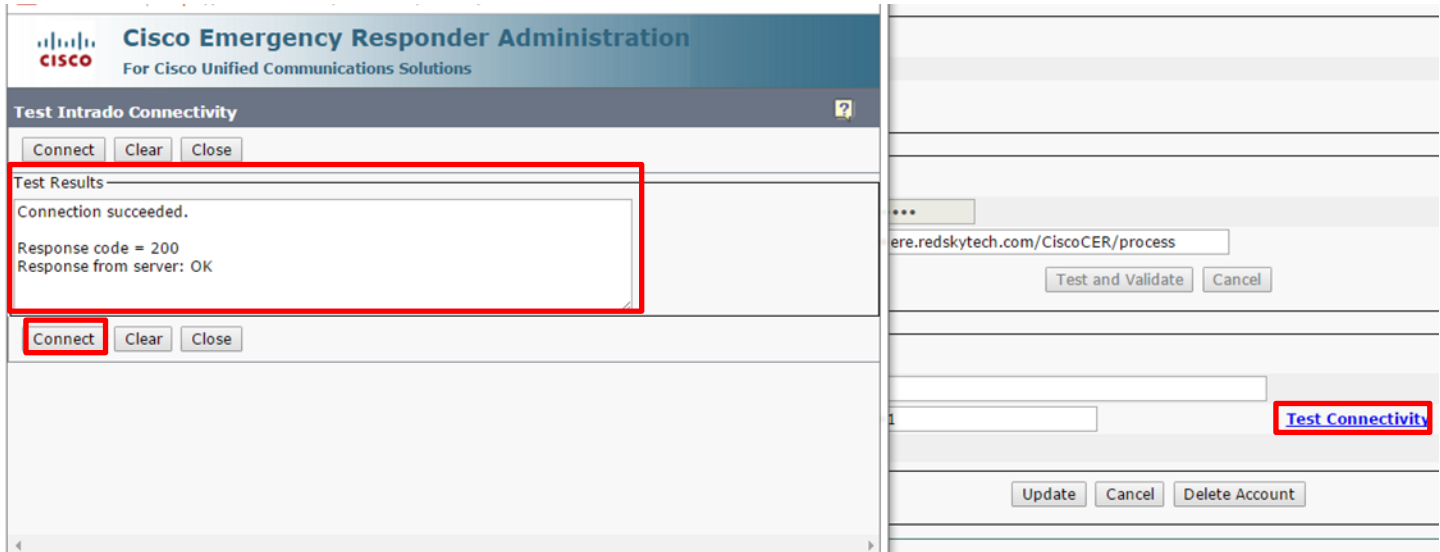


Figure 7: Test Connectivity

### ***Migrating Conventional ERL's to Intrado ERL's***

In order for ERL's record to be pushed into E911 Anywhere, Conventional ERL's must first be migrated into Intrado ERL's. If there are no Conventional ERL's listed in Cisco Emergency Responder, Intrado ERL's must be created or imported in Cisco Emergency Responder.

Listed below are procedures for migrating Conventional ERL's into Intrado ERL's. The ERL Migration tool can be used to perform a bulk migration of Conventional ERLs to Intrado ERLs.

Bulk pushing of Intrado ERL's can also be scheduled by going to the ERL > Intrado ERL > Intrado ERLs tab. The details of the pushed Intrado ERL's can be tracked in CER by going to Reports > ERL Audit Trail. The information will provide the details as to whether the ERL pushed successfully or failed, and the reason.

9. Migrate Conventional ERLs to Intrado ERLs – Go to ERL > ERL Migration Tool Tab

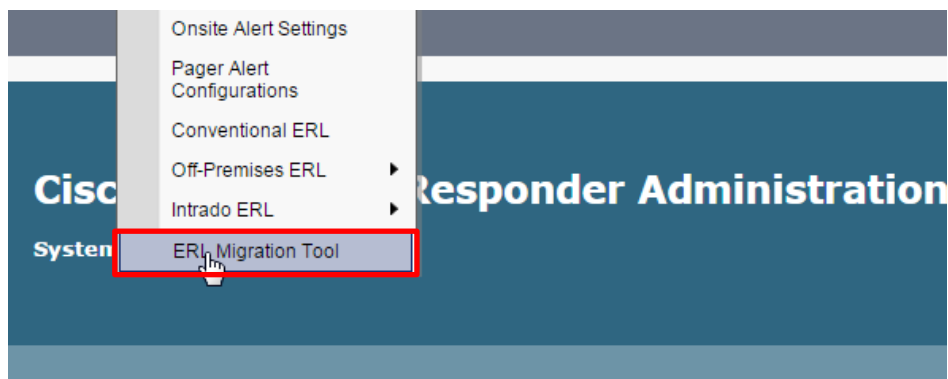


Figure 8: Migrate Conventional ERLs to Intrado ERLs

10. **ERL Migration Tool**

**ERL Migration Tool Configuration**

**In the ERL Search Parameters:**

**Find:** From the Dropdown select **Conventional ERL** > Click **Find**, Conventional ERLs will be listed  
Ex. ERL Name – **Hunter**.

**Put a check next to the ERL/s to be migrated into Intrado ERLs, Click on Migrate to Intrado ERL**

A screenshot of the 'ERL Migration Tool' web interface. At the top, there is a header bar with the text 'ERL Migration Tool'. Below this, there is a 'Status' section showing 'Ready'. The main section is titled 'ERL Search Parameters' and contains a search form. The form has a 'Find' dropdown menu set to 'Conventional ERL', a 'where ERL Name' dropdown set to 'contains', an empty text input field, a 'Find' button, and a 'show 20 items per page' option. Below the search form, there is a table with the heading 'Conventional ERL (1 - 1 of 1)'. The table has two columns: a checkbox column and an 'ERL Name' column. The first row has a checked checkbox and the name 'Hunter'. Below the table, there is a 'Migrate to Intrado ERL' button. The 'Find' dropdown, the 'Find' button, the 'Hunter' row in the table, and the 'Migrate to Intrado ERL' button are all highlighted with red rectangular boxes.

Figure 9: ERL Migration Tool

## 11. *ERL Migration Tool cont.*

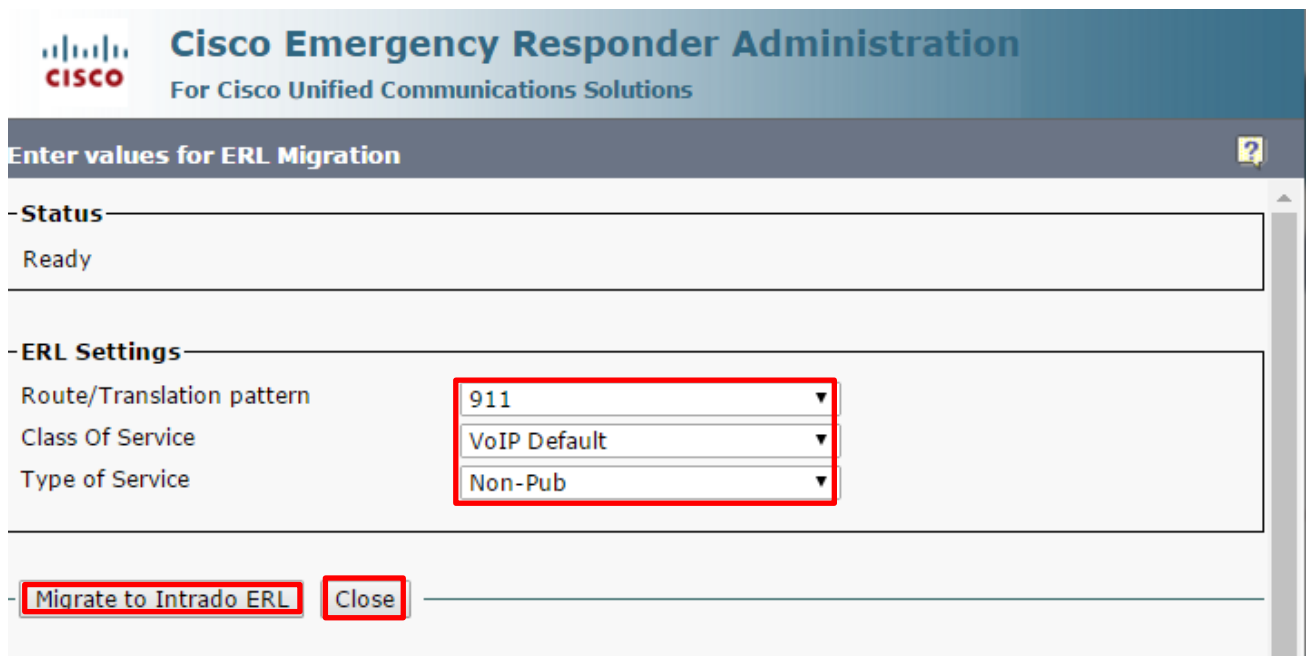
### **ERL Migration Value Settings**

**Route/Translation pattern** – This is the route/translation pattern configured in CUCM to route 911 calls out the gateway to Redsky E911 Anywhere.

**Class of Service** - From the dropdown Select VOIP Default

**Type of Service** – From the dropdown Select Non-Pub

Click on **Migrate to Intrado ERL**, Click Close



The screenshot displays the Cisco Emergency Responder Administration web interface. At the top, the Cisco logo and the title "Cisco Emergency Responder Administration" are visible, along with the subtitle "For Cisco Unified Communications Solutions". Below this, a section titled "Enter values for ERL Migration" contains a "Status" field set to "Ready". Under the "ERL Settings" section, three dropdown menus are configured: "Route/Translation pattern" is set to "911", "Class Of Service" is set to "VoIP Default", and "Type of Service" is set to "Non-Pub". These three dropdown menus are highlighted with a red rectangular box. At the bottom of the settings section, two buttons are present: "Migrate to Intrado ERL" and "Close", both of which are also highlighted with red rectangular boxes.

Figure 10: Enter Values for ERL Migration

## Pushing ERL Records into E911 Anywhere

### 12. Procedures for pushing ERL records into E911 Anywhere

Log into Cisco Emergency Responder > ERL > Intrado ERL > Click **Search and List Tab**

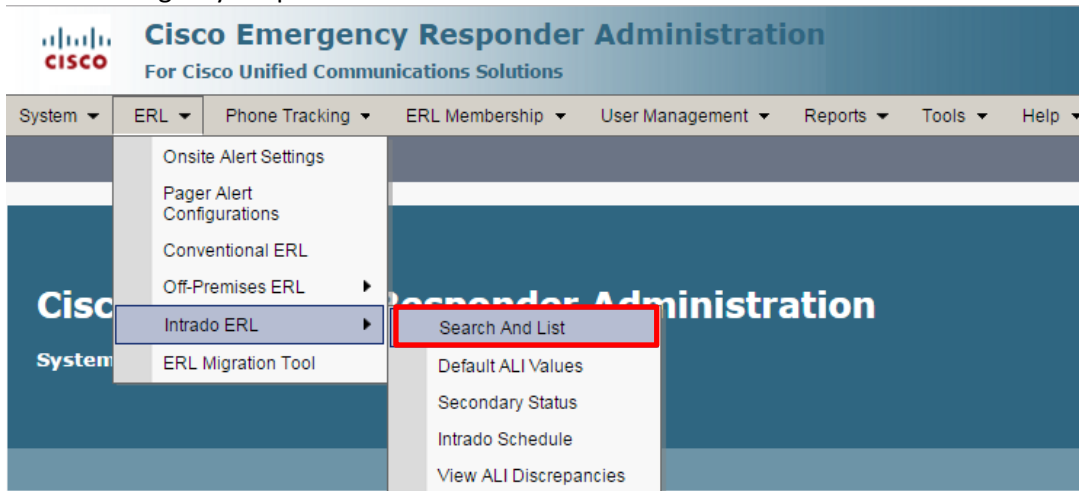


Figure 11: Pushing ERL records into E911 Anywhere

### 13. Intrado ERL's

#### List Intrado ERL's

Click on Find to list the migrated ERL's

Select the Intrado ERL to be pushed into E911 Anywhere

**Find Intrado ERL Data**

Status: Ready

ERL Search Parameters

Find Intrado ERL where  contains  **Find** and show  items per page

**ERL (1 - 11 of 11)**

<input type="checkbox"/>	ERL Name	Route/Translation Pattern--ELIN	Onsite Alert Ids.	Street Name	Community Name
<input type="checkbox"/>	<a href="#">16th Floor East</a>	<a href="#">811--312432123....</a>	<a href="#">1</a>	<a href="#">MICHIGAN</a>	<a href="#">CHICAGO</a>
<input type="checkbox"/>	<a href="#">Canada test</a>	<a href="#">711--3121239876</a>		<a href="#">Bay</a>	<a href="#">Toronto</a>
<input type="checkbox"/>	<a href="#">Earl</a>	<a href="#">811--7082891033</a>		<a href="#">Michigan</a>	<a href="#">Chicago</a>
<input type="checkbox"/>	<a href="#">Home</a>	<a href="#">811--3125551229</a>		<a href="#">Michigan</a>	<a href="#">Chicago</a>
<input checked="" type="checkbox"/>	<a href="#">Hunter</a>	<a href="#">911--9542902075</a>		<a href="#">Amherst</a>	<a href="#">UNIVERSITY PARK</a>
<input type="checkbox"/>	<a href="#">JordanTest</a>	<a href="#">811--312778889</a>		<a href="#">Albion</a>	<a href="#">CHICAGO</a>
<input type="checkbox"/>	<a href="#">NewTest</a>	<a href="#">811--3126674125</a>		<a href="#">HARVEST</a>	<a href="#">UNIVERSITY PARK</a>
<input type="checkbox"/>	<a href="#">RedskyALITest</a>	<a href="#">811--312778888</a>		<a href="#">CLARK</a>	<a href="#">CHICAGO</a>
<input type="checkbox"/>	<a href="#">Test</a>	<a href="#">811--7084445555</a>		<a href="#">Samson</a>	<a href="#">University Park</a>
<input type="checkbox"/>	<a href="#">TestBuilding</a>	<a href="#">811--7088432222</a>		<a href="#">AMHERST</a>	<a href="#">UNIVERSITY PARK</a>
<input type="checkbox"/>	<a href="#">WarrenTest</a>	<a href="#">811--3129991212</a>		<a href="#">24TH</a>	<a href="#">LAUDERDALE LAKES</a>

Figure 12: List Intrado ERL's

## 14. **Validating ALI/ERL record information**

### **Verify ERL and ELIN Settings**

ERL Information for Hunter

Validate the ELIN Settings – Ensure the correct Route Pattern and ELIN are added/entered correctly.

Click the Edit ALI Button to check ALI/ERL information

**ERL Information for Hunter**

**ERL Settings**

ERL Name \* **Hunter**

Description

**ELIN Settings**

Route/Translation pattern

ELIN

Add Update Remove

911--9542902075

**Onsite Alert Settings**

Available Onsite Alert IDs

1

Add Remove

Onsite Alert IDs for the ERL

**ERL Address**

ALI Details

**Level of service**

Level of service

**Figure 13: Validating ALI/ERL record information**

## 15. Validating the ALI/ERL Information

The Query from Intrado and Pre-Validate from Intrado buttons are not supported. (Do Not Use)

Click on the **Update ALI Info** Button after verifying ALI information. Click the Close Button

**ALI Information for Hunter**

Query from Intrado Pre-validate from Intrado Show upto 1 records at a time (for MSAG Query results)

**Query Intrado for MSAG details**

House Number **	1103	House Number Suffix	
Street Name ***	Amherst	Prefix Directional	
Street Suffix	LN --Select one--	Post Directional	
Community Name **	UNIVERSITY PARK	State ***	IL
Main NPA			
Class Of Service *	VoIP Business	Type of Service *	Non-Pub
Exchange		Customer Name *	Hunter
Order Number		Extract Date	051217
County ID		Company ID *	456
Zip Code *	60484	Zip Code Extension	
Customer Code *	222	Comments	
Longitude		Latitude	
Elevation		TAR Code	
Location	HunterTest	Reserved (for Company use)	

\* indicates required item for updating ALI info only  
 \*\* indicates required item for updating ALI info and MSAG Pre-validation  
 \*\*\* indicates required item for updating ALI info, MSAG Pre-validation and MSAG Query

Update ALI Info Cancel Changes Close

Figure 14: Validating ALI Information

### ALI Information Field Mapping

House Number	Required by RedSky	House Number Suffix	Optional
Street Name	Required by RedSky	Prefix Directional	Optional
Street Suffix	Optional	Post Directional	Optional
Community Name	Required by RedSky	State	Required by RedSky
Main NPA	Not Used	Main Telephone No	Not Used
Class of Service	VoIP Default	Type of Service	Non-Pub
Exchange	Not Used	Customer Name	RedSky provided Account ID
Order Number	Not Used	Extract Date	Not Used
County ID	Not Used	Company ID	RedSky provided Account ID
Zip Code	Required by RedSky	Zip Code Extension	Not Used
Customer Code	911	Comments	Not Used
Longitude	Not Used	Latitude	Not Used
Elevation	Not Used	TAR Code	Not Used
**Location	Optional - Used for enhanced location information (eg. Floor and Room)	Reserved	Not Used

Figure 15: ALI Information Field Mapping

16. **Click on the Update to Intrado Button to validate and push the record to E911 Anywhere.**  
A response of “SUCCESS” indicates that the record was pushed to E911 Anywhere and that the address was validated.

The screenshot displays the 'ERL Information for Hunter' form. It is divided into several sections: 'ERL Settings' with fields for 'ERL Name \*' (containing 'Hunter') and 'Description'; 'ELIN Settings' with a 'Route/Translation pattern' dropdown (set to '-----Select-----'), an 'ELIN' field, and buttons for 'Add', 'Update', and 'Remove'. A list of ELINs is shown, with '911--9542902075' selected and a 'SUCCESS(0)' status message highlighted in a red box. 'Onsite Alert Settings' includes 'Available Onsite Alert IDs' (with '1' selected) and 'Onsite Alert IDs for the ERL', with 'Add' and 'Remove' buttons. 'ERL Address' has an 'ALI Details' field and an 'Edit ALI' button. 'Level of service' has a 'Level of service' dropdown (set to 'No Coverage') and a 'Get level of service' button. At the bottom, the 'Update to Intrado' button is highlighted in a red box, along with 'Save', 'Cancel Changes', and 'Close' buttons.

Figure 16: Records push to E911 Anywhere

## Procedure to Validate ERL Records are pushed into E911 Anywhere

### 17. Validate ERL Records Pushed into E911 Anywhere

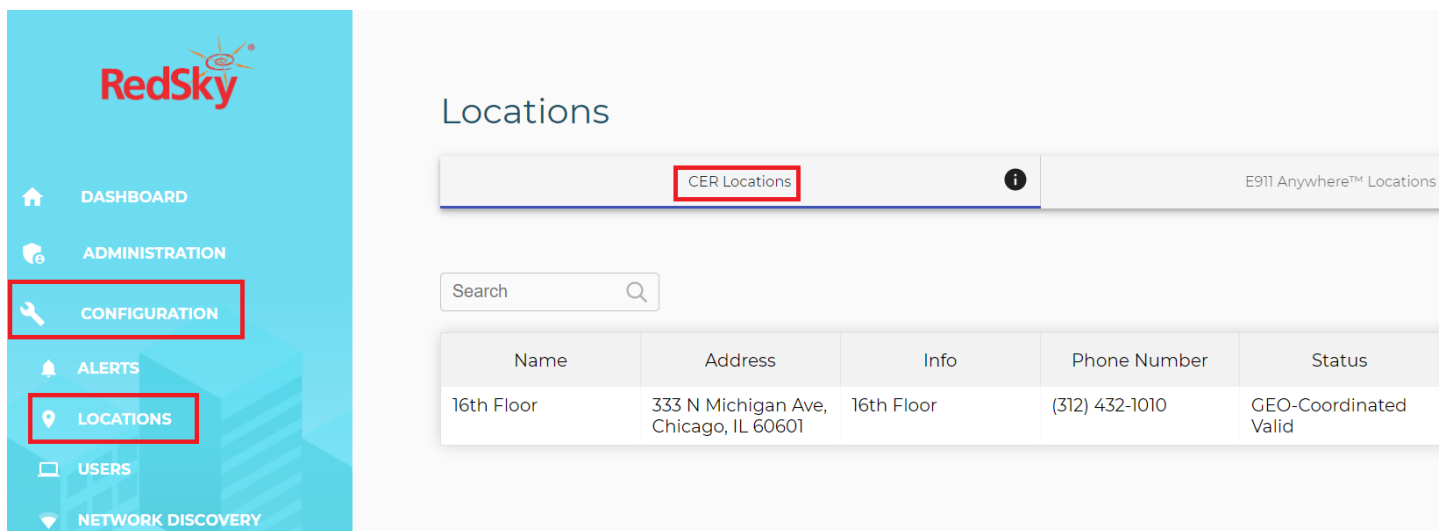
#### Verify ERL Records

Log into <https://anywhere.e911cloud.com> with valid credentials

Navigate to Locations under the Configuration tab

Records pushed from CER will be listed under the CER Locations tab on the Locations screen.

CER Locations cannot be added, edited, or deleted from the E911 Anywhere portal



The screenshot displays the RedSky E911 Anywhere portal interface. On the left, a blue sidebar contains navigation links: DASHBOARD, ADMINISTRATION, CONFIGURATION (highlighted with a red box), ALERTS, LOCATIONS (highlighted with a red box), USERS, and NETWORK DISCOVERY. The main content area is titled 'Locations' and features two tabs: 'CER Locations' (highlighted with a red box) and 'E911 Anywhere™ Locations'. Below the tabs is a search bar with the text 'Search' and a magnifying glass icon. A table with five columns (Name, Address, Info, Phone Number, Status) displays a single record: '16th Floor', '333 N Michigan Ave, Chicago, IL 60601', '16th Floor', '(312) 432-1010', and 'GEO-Coordinated Valid'.

Name	Address	Info	Phone Number	Status
16th Floor	333 N Michigan Ave, Chicago, IL 60601	16th Floor	(312) 432-1010	GEO-Coordinated Valid

Figure 17: Validate Record Pushed into E911 Anywhere



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## ***Frequently Ask Questions (FAQ)***

**Question -** When an ERL is converted to an Intrado ERL, is call routing impacted for that location?

**Answer:** No  
Call routing will not be impacted until configuration changes are made within CUCM to send 911 calls to E911 Anywhere.

**Question -** How to check that call back is working in CUCM when changing from Conventional to Intrado

**Answer:** An inbound CTI route point and translation pattern must be created in CUCM and in CER under System > Telephony Settings > PSAP Callback Route Point Pattern must match the inbound CTI route point extension.

Call back can be testing by placing a call to the ELIN, from a cell phone, after a test emergency call has been placed. The call should route to the extension that placed the emergency call.

**Question -** What is the difference between an Intrado ERL and Conventional ERL?

**Answer:** Intrado ERL's allows you to enter and synchronize location information into E911 Anywhere database. Conventional ERL's – The ERL information is maintained in a database on Cisco Emergency Responder Server.

**Question-** What do we need to enter in as a Route Pattern? / How do we route calls to RedSky through CER/CUCM?

**Answer:** The customer is responsible for entering this route pattern. This could depend on whether the customer is routing call via PSTN or SIP. There are different ways this can be accomplished depending on how the customer routes their calls.

The call flows is "Device > CUCM>CER> CUCM>Gateway

Example - a 911 route pattern can be configured in CUCM to route calls out of a certain gateway. The 911 route pattern must also be configured in CER under System > Telephony Settings > Intrado Route Pattern Settings.

**Question-** How to validate the connection/records transfer worked

**Answer:** To validate the connection, follow the section #8 Test Connectivity in the ICD

To validate records transfer worked – Follow the procedures under the section Procedures to Validate ERL Records

**Question -** How do we set up CER?

**Answer:** Click on the link to download the Cisco Emergency Responder Guide [CER Administration Guide](#)