



Interface Control Document
Integrating CER and E911Anywhere®
Version 1.3
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Revision History

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5/4/2017	1.1	• Formatting & Network Configuration	Warren Hunter
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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">Port opened on firewall that is used for communication between CER & E911 Anywhere which resides in the cloud.
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Configuring Intrado VUI Settings

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

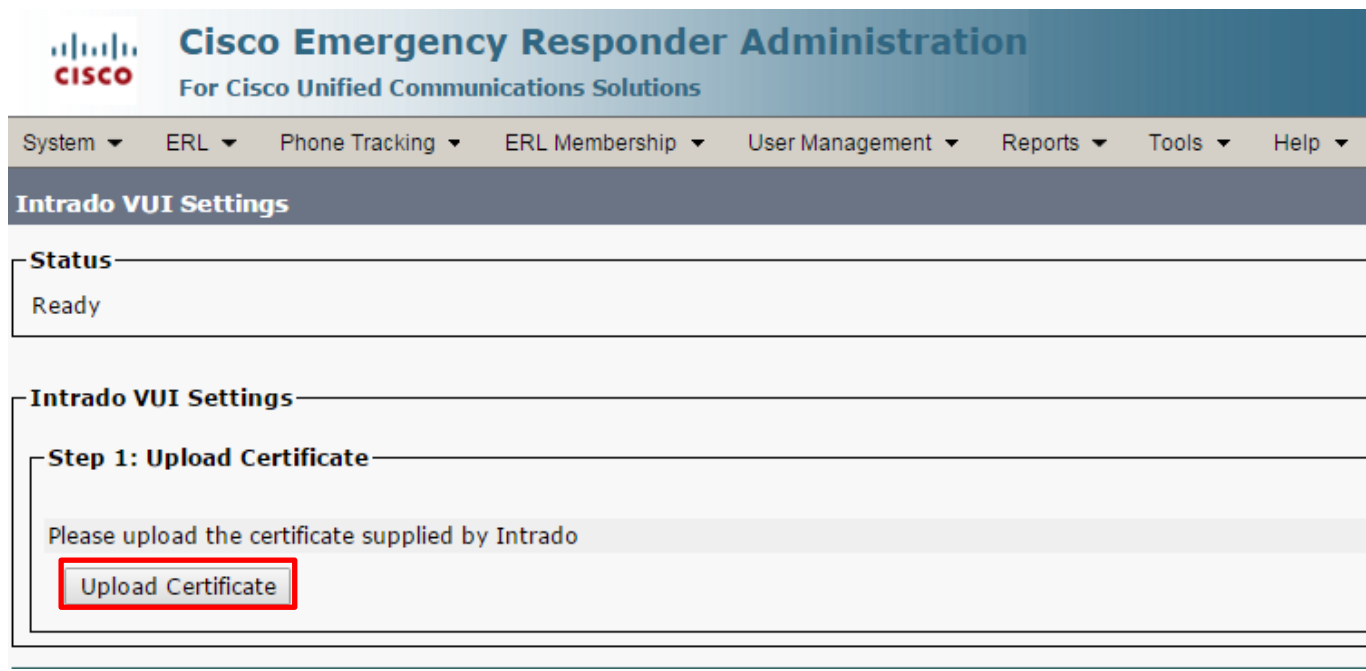
1. After logging into CER go to System > Intrado VUI Settings



2. **Intrado VUI Settings**

Step 1: Upload Certificate

Click on the Upload Certificate button

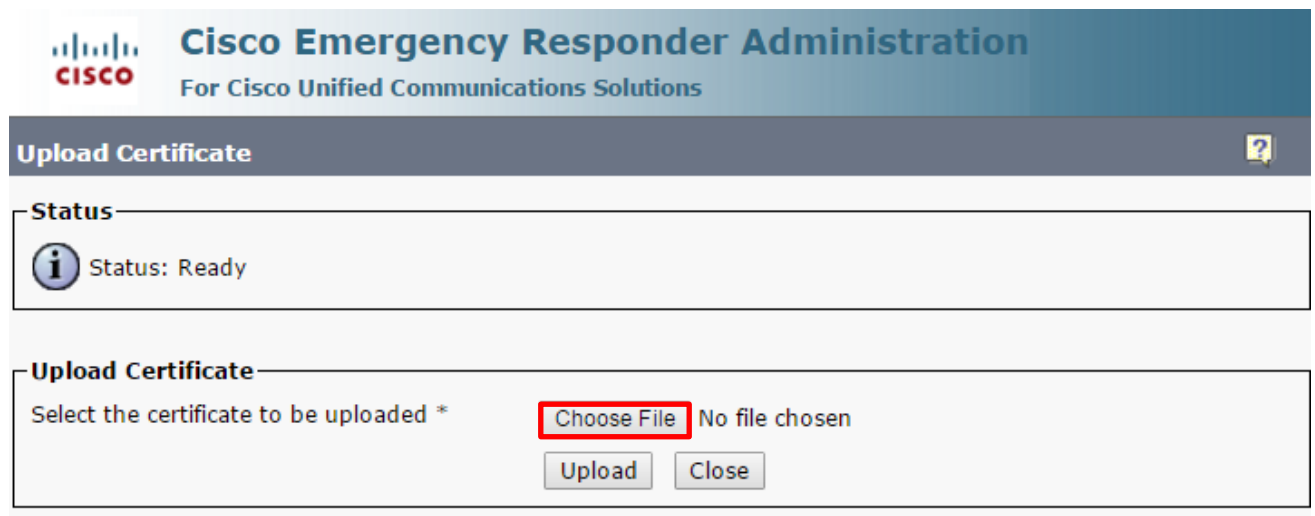


The screenshot shows the Cisco Emergency Responder Administration web interface. At the top is a navigation bar with the Cisco logo and the title 'Cisco Emergency Responder Administration For Cisco Unified Communications Solutions'. Below this is a menu bar with items: System, ERL, Phone Tracking, ERL Membership, User Management, Reports, Tools, and Help. The main content area is titled 'Intrado VUI Settings'. It contains a 'Status' section with the text 'Ready'. Below that is the 'Intrado VUI Settings' section, which includes a sub-section 'Step 1: Upload Certificate'. This sub-section contains the text 'Please upload the certificate supplied by Intrado' and a button labeled 'Upload Certificate' which is highlighted with a red rectangle.

Figure 1: Intrado VUI Settings (Upload Certificate)

3. **Upload Certificate**

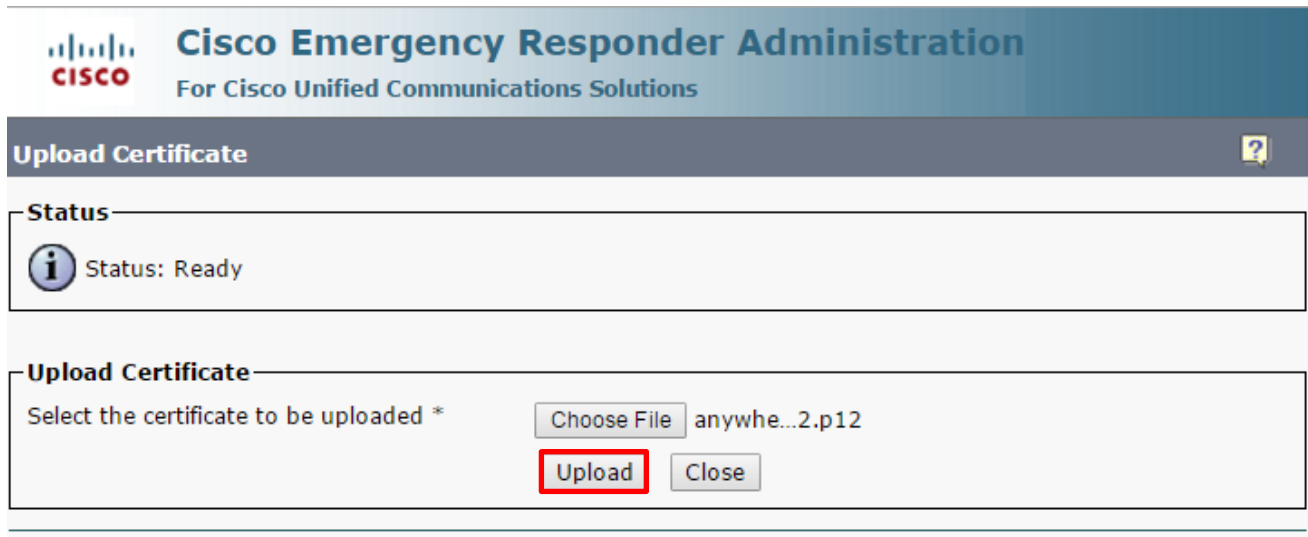
Click on **Choose File Button**



The screenshot shows the 'Upload Certificate' page in the Cisco Emergency Responder Administration interface. It features the same header and navigation bar as Figure 1. The main content area is titled 'Upload Certificate'. It contains a 'Status' section with an information icon and the text 'Status: Ready'. Below this is the 'Upload Certificate' section, which includes the text 'Select the certificate to be uploaded *'. To the right of this text is a red-bordered button labeled 'Choose File', followed by the text 'No file chosen'. Below the 'Choose File' button are two buttons: 'Upload' and 'Close'.

Figure 2: Upload Certificate cont. (Choose File)

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



Cisco Emergency Responder Administration
For Cisco Unified Communications Solutions

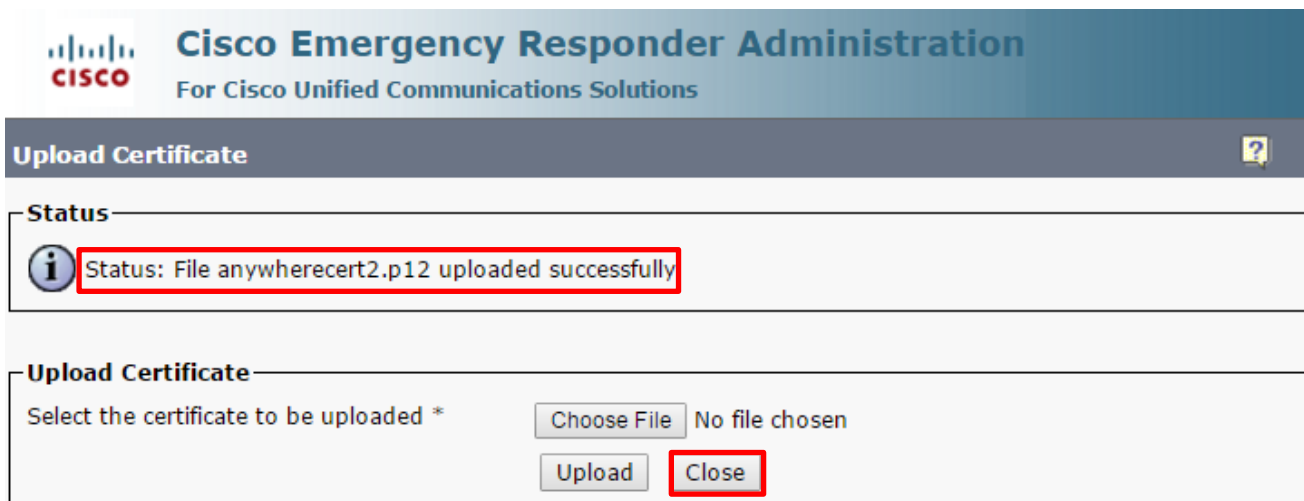
Upload Certificate

Status
Status: Ready

Upload Certificate
Select the certificate to be uploaded *
Choose File anywhe...2.p12
Upload Close

Figure 3: Upload Certificate cont. (Upload)

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



Cisco Emergency Responder Administration
For Cisco Unified Communications Solutions

Upload Certificate

Status
Status: File anywherecert2.p12 uploaded successfully

Upload Certificate
Select the certificate to be uploaded *
Choose File No file chosen
Upload Close

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**

The screenshot shows the 'Intrado VUI Settings' form. Under 'Step 2: Validate Certificate', the 'Intrado Certificate Password' field is masked with dots. The 'VUI URL' field contains the URL <https://api.anywhere.e911cloud.com/cer-service/ws/CERService>, which is highlighted with a red rectangle. Below this, 'Step 3: Configure Account Details' shows 'VUI Schema URL' as 'VUI.xsd', 'Intrado Account ID' as '10000', and 'Max VUI Connections' as '1'. A 'Test Connectivity' link is visible next to the account ID. At the bottom are 'Update', 'Cancel', and 'Delete Account' buttons.

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**.

The screenshot shows the 'Intrado VUI Settings' form. At the top, it says 'Status: Updated & Validated successfully'. Under 'Step 3: Configure Account Details', 'VUI Schema URL' is 'VUI.xsd', 'Intrado Account ID' is '12041961', and 'Max VUI Connections' is '1'. These three fields are highlighted with red rectangles. A 'Test Connectivity' link is next to the account ID. At the bottom are 'Update', 'Cancel', and 'Delete Account' buttons.

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

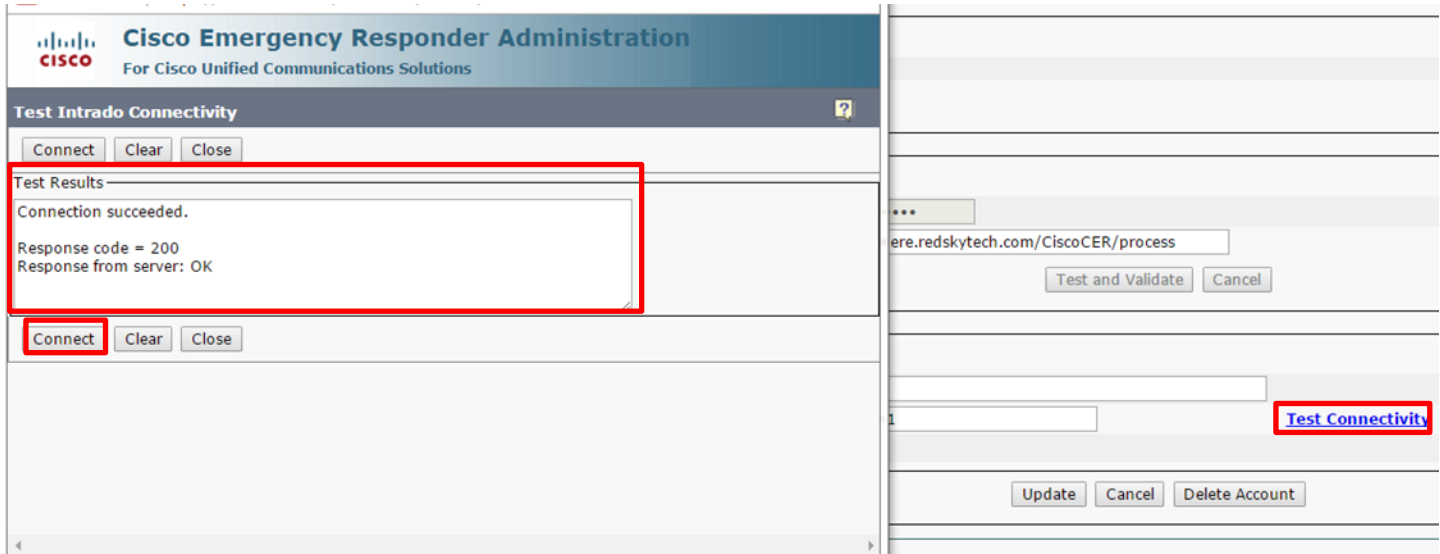


Figure 7: Test Connectivity

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

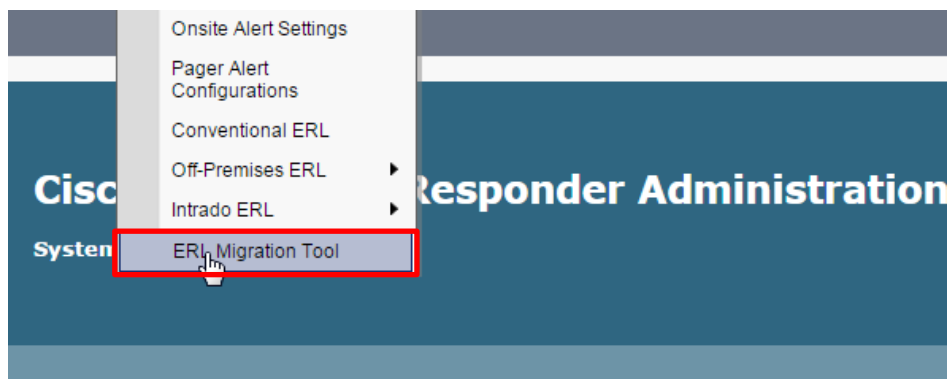


Figure 8: Migrate Conventional ERLs to Intrado ERLs

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 interface. The 'Status' is 'Ready'. Under 'ERL Search Parameters', the 'Find' dropdown is set to 'Conventional ERL', the search criteria is 'contains', and the 'Find' button is highlighted with a red box. Below the search bar, a table lists 'Conventional ERL' (1 - 1 of 1). The table has a checkbox column and an 'ERL Name' column. The entry 'Hunter' is listed, with its checkbox highlighted by a red box. At the bottom left, the 'Migrate to Intrado ERL' button is highlighted with a red box.

Figure 9: ERL Migration Tool

11. *ERL Migration Tool cont.*

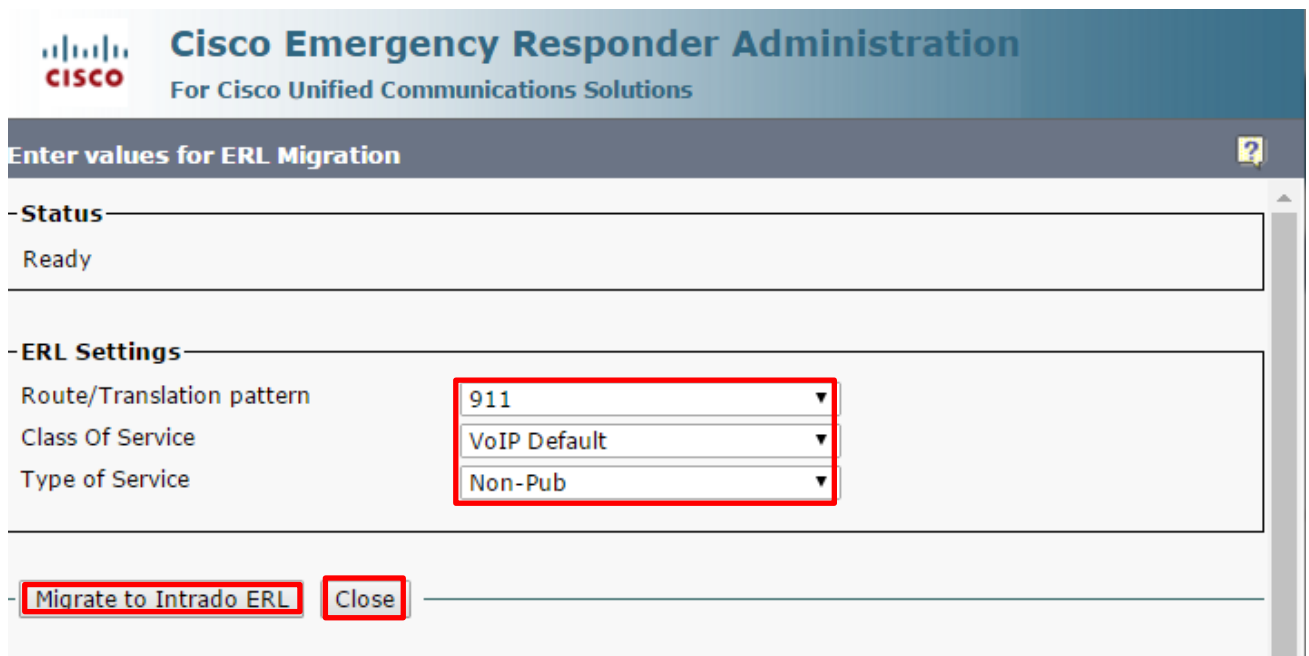
ERL Migration Value Settings

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. The header includes the Cisco logo and the text "Cisco Emergency Responder Administration For Cisco Unified Communications Solutions". Below the header is a section titled "Enter values for ERL Migration". This section contains a "Status" field set to "Ready". Under the "ERL Settings" section, there are three dropdown menus: "Route/Translation pattern" set to "911", "Class Of Service" set to "VoIP Default", and "Type of Service" set to "Non-Pub". At the bottom of the form, there are two buttons: "Migrate to Intrado ERL" and "Close", both of which are 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**

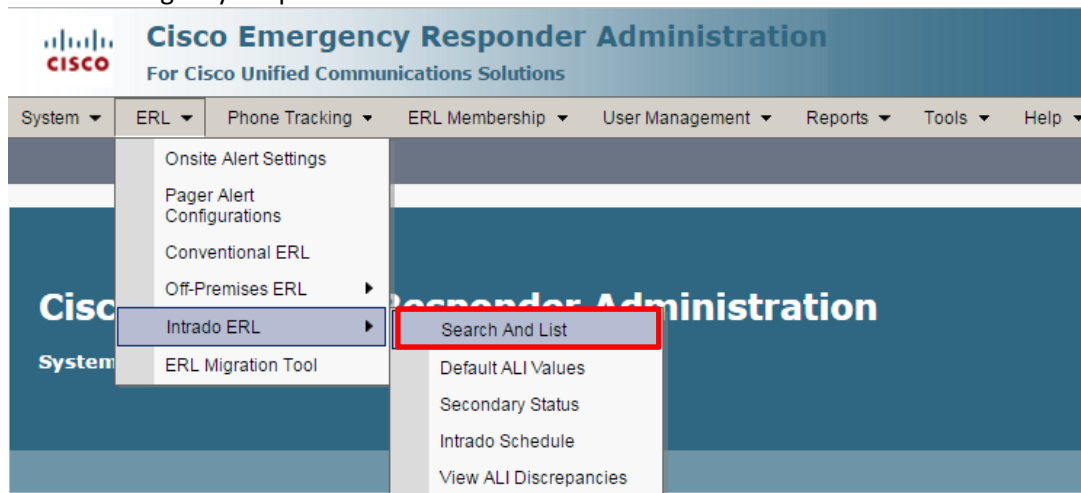


Figure 11: Pushing ERL records into E911 Anywhere

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

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

Add Update Remove

ELIN

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. The form is divided into several sections: 'ERL Settings', 'ELIN Settings', 'Onsite Alert Settings', 'ERL Address', and 'Level of service'. In the 'ERL Settings' section, the 'ERL Name' is 'Hunter'. In the 'ELIN Settings' section, the 'Route/Translation pattern' is '911--9542902075' and the 'ELIN' field is empty. In the 'Onsite Alert Settings' section, the 'Available Onsite Alert IDs' list contains '1'. In the 'ERL Address' section, the 'ALI Details' field is empty. In the 'Level of service' section, the 'Level of service' is 'No Coverage'. At the bottom of the form, the 'Update to Intrado' button is highlighted with a red box. Other buttons include 'Save', 'Cancel Changes', and 'Close'.

ERL Information for Hunter	
ERL Settings	
ERL Name *	Hunter
Description	
ELIN Settings	
Route/Translation pattern	911--9542902075
ELIN	
Onsite Alert Settings	
Available Onsite Alert IDs	Onsite Alert IDs for the ERL
1	
ERL Address	
ALI Details	
Level of service	
Level of service	No Coverage
Buttons	
Update to Intrado	Save, Cancel Changes, Close

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

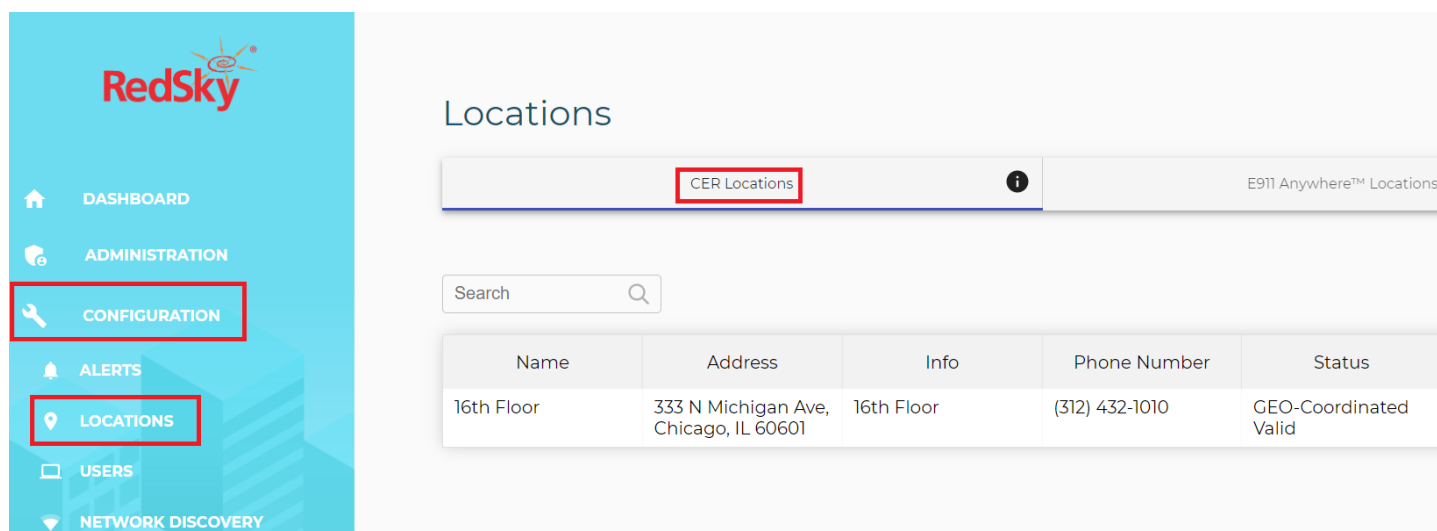
Verify ERL Records

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 is a blue sidebar with navigation options: 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 and a table with the following data:

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

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](#)