



# Configure Emergency Responder and Intrado V9-1-1 Enterprise Services

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## Emergency Responder and Intrado V9-1-1 Enterprise Services Overview

Cisco Emergency Responder (Emergency Responder) supports Intrado V9-1-1 for Enterprise Service in the Cisco Unified Communications environment as an alternative to direct connection with the Local Exchange Carrier (LEC). The Intrado V9-1-1 for Enterprise Service provides local routing and emergency service response for Intrado customers. Emergency Responder works in conjunction with Intrado to provide emergency services to phones that are on the corporate network (on-premise) and phones that are located away from the corporate network (off-premise).

For more information about configuring Emergency Responder, managing Emergency Responder users, working with ERLs, and other related topics, see the "Add Scheduled Intrado Updates" section.

These topics provide an overview of how Emergency Responder operates with Intrado V9-1-1 for Enterprise Service and how to configure and use Emergency Responder to support Intrado V-9-1-1 Enterprise users.

## Intrado V9-1-1 for Enterprise Service

If you are a subscriber to Intrado V9-1-1 for Enterprise Service, you can use Emergency Responder to simplify emergency call management. Emergency Responder provides an interface that allows you to enter and synchronize location information directly to the Intrado database. Emergency Responder provides location information for emergency calls for both on-premise phones and off-premise phones and works with Intrado and Unified CM to complete emergency calls.

Emergency Responder tracks IP phones by the IP subnet or when someone manually configures and assigns the MAC address. Emergency Responder maintains the status of the phones (on-premise, off-premise, unlocated), and passes on any ALI or ELIN information to Intrado. Users with on-premise phones rely on Cisco Unified Communications to route their emergency calls to Intrado and the designated emergency provider.

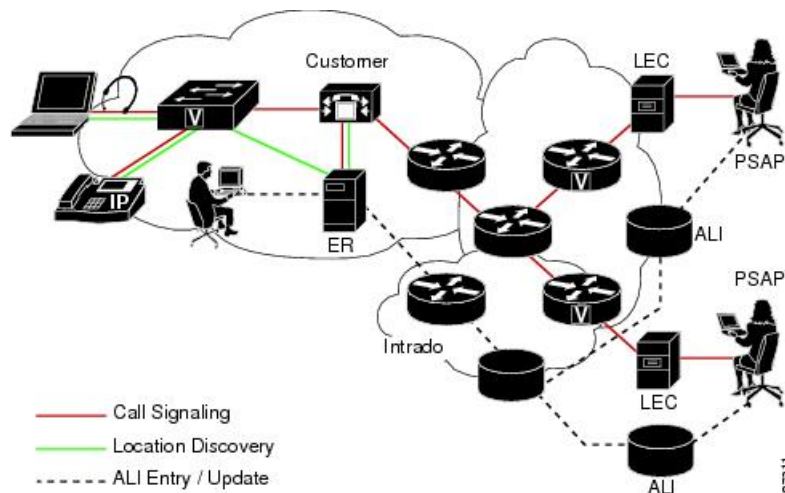
Users with off-premise phones cannot make emergency calls until the users enter in their location and associate this information with their directory number. After the location information has been verified, emergency calls placed from off-premise phones can be completed.



**Note** Users can only configure one off-premise location for each DID (DN + External Mask). This configuration also applies to shared lines. If two off-premise phones share a DID, the user can only associate one location to the DID.

The following figure shows the interactions between users, Emergency Responder, and Intrado.

**Figure 1: Understanding the Interactions Between Users, Emergency Responder, and Intrado**



## Emergency Call Flow

When a user makes an emergency call:

1. Unified CM routes the call to Emergency Responder.
2. Emergency Responder routes the call to Intrado.
3. Intrado receives the 10-digit ELIN for the calling party and obtains the ALI data for the caller from this calling party number.
4. Intrado completes the call.

# Set Up Support for Intrado V9-1-1 for Enterprise Service

After you have confirmed your emergency service support with Intrado, you must configure Emergency Responder to support Intrado V9-1-1 for Enterprise Service.

You must complete the tasks described in the following procedure before creating Intrado ERLs.



**Note** You must configure the IP address of the DNS server to resolve the URLs provided by Intrado before completing these tasks. See *Cisco Unified Operating System Administration Web Interface For Cisco Emergency Responder*.

## Procedure

- Step 1** Configure the following items in the Validation and Update Interface (VUI):
- Upload the certificate provided by Intrado.
  - Validate the certificate.
  - Configure Intrado Account Information.
- Step 2** Configure Route Patterns for routing calls to Intrado on the Emergency Responder server.
- Step 3** Configure Route Patterns and gateway for routing calls to Intrado on Unified CM server.
- See Understanding Route Plans chapter in *Cisco Unified Communications Manager System Guide*, and the “Gateway Configuration” chapter in the *Cisco Unified Communications Manager Administration Guide*.
- Step 4** Create Intrado ERL and verify the validity and consistency of the ALI data for the Intrado ERL against the Intrado TN database.
- Step 5** Assign Intrado ERLs to switch ports, IP subnets, and unlocated phones.

## Related Topics

- [Set Up Emergency Responder to Support Off-Premise Users](#) , on page 7
- [Set Up Intrado VUI Settings](#) , on page 3
- [Set Up Intrado Route Patterns on Emergency Responder](#) , on page 4
- [Set Up Intrado ERLs](#), on page 5
- [Reconcile ALI Discrepancies](#) , on page 6
- [Switch Port Configuration](#)
- [Identify Unlocated Phones](#)

## Set Up Intrado VUI Settings

Before you can configure Intrado VUI settings, you must have your account information and a certificate from Intrado.



**Note** To continue emergency service support when there is a failover to the Emergency Responder subscriber, you must upload the certificate file to the Emergency Responder subscriber separately.



**Note** After upgrading the Cisco Emergency Responder, upload the certificate again to continue using the Intrado Service.

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### Procedure

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- Step 1** From Emergency Responder, choose **System > Intrado VUI Settings**.  
The Intrado VUI Settings page displays.
- Step 2** Click **Upload Certificate**.  
An Upload Certificate window opens.
- Step 3** Use the **Browse** button to locate the Intrado certificate file, highlight the file, and click the **Upload** button.
- Step 4** Enter the Certificate Password and the VUI URL in the adjacent text boxes. Click **Test and Validate**.
- Step 5** Enter the Account Information.
- VUI Schema URL
  - Intrado Account ID
  - Max VUI Connections
- Step 6** Click **Update**.  
For more information about the Intrado VUI settings, see [Intrado VUI Settings](#).

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### Related Topics

- [Set Up Intrado Route Patterns on Emergency Responder](#) , on page 4
- [Set Up Intrado ERLs](#), on page 5
- [Reconcile ALI Discrepancies](#) , on page 6

## Set Up Intrado Route Patterns on Emergency Responder

Before any emergency calls can be completed by Intrado V9-1-1 for Enterprise Service, you must configure the route patterns for routing the call to Intrado.

### Procedure

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- Step 1** From Emergency Responder, Choose **System >Telephony Settings**.  
The Telephony Settings page is displayed.
- Step 2** Under Intrado Route Pattern Settings, enter the Intrado Route/ Translation Pattern and click the **Add** button.
-

# Set Up Intrado ERLs

## Before you begin

You must first configure Intrado route patterns before you can add any Intrado ERLs.



**Note** Intrado ERLs differ from conventional ERLs in the following ways:

- You can only select route patterns from a preconfigured list in the Telephony Settings web page.
- You can query and validate ALI data from Intrado by using Intrado VUI (Validation & Update interface).
- You must submit ALI data (TN Update) to Intrado by using Intrado VUI before an emergency call can be successfully routed.

## Procedure

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- Step 1** From Emergency Responder, choose **ERL>Intrado ERL>Intrado ERL(Search and List)**.  
The Find Intrado ERL Data page displays.
- Step 2** Click the **Add New ERL** button.  
Emergency Responder opens the Add New ERL window. See [Find Intrado ERL](#) for a detail explanation of each field.
- Step 3** Fill in the ERL Information.
- Step 4** Click **ALI Details**  
Emergency Responder opens the ALI Information window.
- Step 5** Enter the ALI Information. The "ALI Information section", *Cisco Emergency Responder Administration Web Interface Appendix A*, contains detailed explanations of each field. To look up an address in the Intradocs MSAG database, click **Query from Intrado**.
- Step 6** After entering the ALI Information, click **Pre-validate from Intrado**.
- Step 7** Make the Add New ERL window the active window if it is not, and click **Insert**.  
Emergency Responder saves the ERL and its ALI.
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## Intrado ERL Imports

If you have multiple ERLs, and you want to add them all at once, you can create a file that contains more than one ERL definition, and import all the ERLs at the same time into your Emergency Responder configuration. For more information about importing ERLs, see [Import Several ERLs](#).

## Intrado ERL Information Export

Use the Export ERL page to create ERL export files for our own use, for example, to back up or move an ERL configuration. For more information about importing ERLs, see [Export ERL Information](#).

**Related Topics**

- [Set Up Intrado VUI Settings](#) , on page 3
- [Set Up Intrado Route Patterns on Emergency Responder](#) , on page 4
- [Reconcile ALI Discrepancies](#) , on page 6

## Reconcile ALI Discrepancies

You can use Emergency Responder to compare the records from Intrado VUI with the records in the database and displays ALI records that have discrepancies. You can examine each record and choose to update the local record with information from Intrado or update Intrado's record.

**Procedure**

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- Step 1** In Emergency Responder Administration, choose **ERL>Intrado ERL>View ALI Discrepancies**.  
The View Intrado ALI Discrepancies page appears.
  - Step 2** Enter search criteria to find any specific ELINS and click **Find**, or click **Find** without any search criteria to display all Intrado ALI discrepancies. The search results appear.
  - Step 3** Click on the radio button next to the ELIN that you want to view or click **View ALI Discrepancies** to launch the View Intrado ALI discrepancies for a particular ELIN.  
The View Intrado ALI Discrepancies for a particular ELIN window appears.
  - Step 4** Choose the correct data from either the local Emergency Responder database or from Intrado.
  - Step 5** Click **Save** to save changes to the local Emergency Responder database. Click **Save Intrado ALI Info** to save changes to the Intrado VUI.
  - Step 6** Click **Close** to close this window.

**Related Topics**

- [Set Up Intrado VUI Settings](#) , on page 3
- [Set Up Intrado Route Patterns on Emergency Responder](#) , on page 4
- [Set Up Intrado ERLs](#), on page 5

## ERL Data Migration

Emergency Responder supports migrating existing conventional ERLs to Intrado ERLs and vice versa.

## Migrate Conventional ERL Data to Intrado ERL Data

**Procedure**

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- Step 1** In Emergency Responder Administration, choose **ERL>ERL Migration Tool**.  
The ERL Migration Tool page appears.

- Step 2** Choose **Conventional ERL** in the search parameter drop-down box, enter the search criteria, and click **Find**.
- Step 3** Select the ERLs that you want to migrate by checking the check box next to the ERL name.  
The Enter Route Patterns for ERL Migration window appears.
- Step 4** Choose an updated route pattern from the drop-down menu.
- Step 5** Click **Migrate to Intrado ERL**.

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**Related Topics**

- [Set Up Support for Intrado V9-1-1 for Enterprise Service](#) , on page 3
- [Migrate Intrado ERL Data to Conventional ERL Data](#) , on page 7

## Migrate Intrado ERL Data to Conventional ERL Data

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**Procedure**

- Step 1**
- Step 2** In Emergency Responder Administration, choose **ERL > ERL Migration Tool**.  
The ERL Migration Tool page appears.
- Step 3** Choose Intrado ERL in the search parameter drop-down box, enter the search criteria, and click **Find**.
- Step 4** Select the ERLs that you wish to migrate by checking the check box next to the ERL name.  
The Enter Route Patterns for ERL Migration window appears.
- Step 5** Enter an updated route/pattern translation pattern in the adjacent text box.
- Step 6** Click **Migrate to Conventional ERL**.

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**Related Topics**

- [Migrate Conventional ERL Data to Intrado ERL Data](#) , on page 6
- [ERLs](#)

## Set Up Emergency Responder to Support Off-Premise Users

Cisco Emergency Responder allow users, who are located outside of the corporate network (off-premise) to make emergency calls. Off-premise emergency call support requires the following:

- Cisco Emergency Responder
- Unified CM 7.1 or later version.
- Intrado V9-1-1 Enterprise Services

After you have configured the off-premise ERLs, users can enter their location information for off-premise phones from the Unified CM User Option page.



**Note** Diable 10-digit North American Numbering Plan numbers are required as DIDs for endpoints using the Emergency Responder off-premises location management feature. However, you can configure an abbreviated line number and an external phone number mask on Unified CM, creating the 10-digit DID in the calling line number in the 911 call to Intrado. Each combination of line number and external mask must be unique to one off-premises user, because it will be used to identify the caller's location and for callback by the PSAP, if necessary.

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### Procedure

- Step 1** Configure Emergency Responder for use with Intrado.
- Step 2** Enable Emergency Responder Location Management in Unified CM for off-premise support.
- Step 3** Configure the AXL application user for Emergency Responder in Unified CM.
- Step 4** Configure AXL authentication with Cisco Unified Communications Manager.
- Step 5** Configure Off-Premise ERLs.
- Step 6** Assign off-premise ERLs to IP subnets and unlocated phones.

**Note** You cannot assign off-premise ERLs to switch ports.

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### Related Topics

- [Set Up Support for Intrado V9-1-1 for Enterprise Service](#) , on page 3
- [Set Up Emergency Responder Location Management in Cisco Unified Communications Manager](#) , on page 8
- [Set Up AXL Application User](#) , on page 9
- [Set Up AXL Authentication](#) , on page 10
- [Set Up Off-Premise ERL](#) , on page 10
- [Identify Unlocated Phones](#)

## Set Up Emergency Responder Location Management in Cisco Unified Communications Manager

You must configure the Emergency Responder Location Management server on the Unified CM server before your users can use it to enter their off-premise locations.

To enable Cisco Emergency Location Manager in Unified CM, follow these steps:

### Procedure

- Step 1** From Unified CM Administration, choose **System > Application Server**.
- Step 2** Click **Add New**.  
The Application Server Configuration page is displayed.
- Step 3** From the Application Server Type drop-down box, choose **CER Location Management**.



- Step 4** Click **Next**.
- Step 5** Enter a name that identifies Emergency Responder Off-Premise application. The name is displayed in the navigation drop-down box on the User Option page and is selected by the user to navigate to the Emergency Responder Off-Premise page.
- Step 6** Enter the URL for the Emergency Responder Off-Premise page. The URL takes the form of `http://cer_host/ofpuser` , where `cer_host` is the name or IP address of the Emergency Responder publisher or Emergency Responder subscriber.
- Note** You must enter both the Emergency Responder publisher and Emergency Responder subscriber as separate application servers on Unified CM Administration.
- Step 7** Click **Save**.

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#### Related Topics

- [Set Up AXL Application User](#) , on page 9
- [Set Up AXL Authentication](#) , on page 10
- [Set Up Off-Premise ERL](#) , on page 10

## Set Up AXL Application User

You must configure the AXL application user for Emergency Responder on Unified CM, so that an off-premises user can log in to the Emergency Responder off-premises user website.

#### Procedure

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- Step 1** In Cisco Unified Communications Manager, choose **User Management > Application User**. Click **Add New**. Cisco Unified Communications Manager displays the Application User Configuration page.
- Step 2** Complete the following required fields:
- **User ID**—Use a descriptive name such as AXL Application User.
  - **Password**—Enter a password for this user.
  - **Confirm Password**—Reenter the password for this user.
- Step 3** Click **Save**.
- Step 4** Choose **User Management > User Group** in the Cisco Unified Communications Manager menu. The user group search page appears.
- Step 5** At search criterion, enter **standard** and click **Find**. The list of user groups starting with the name standard appears.
- Step 6** Click **Standard CCM Admin Users** to display the User Group configuration page.
- Step 7** Click **Add App Users to Group**. The Find and List Application Users pop-up window appears.
- Step 8** Enter the User ID created in Step 2 as the search criterion and click **Find**. The list of Applications users appears.
- Step 9** Click the check box next to the user ID. Click **Add Selected**.

Unified CM adds the selected user to the **Standard CCM Admin Users** user group.

- Step 10** Choose **User Management > User Group**.  
The user group search page appears.
- Step 11** Enter **standard** as the search criterion and click **Find**.  
The list of user groups starting with the name Standard appears.
- Step 12** Click the **Standard TabSync User** group.
- Step 13** Repeat steps 7 through 9 to add the user to the Standard TabSync User group.
- Step 14** Choose **User Management > User Group**.  
The user group search page appears.
- Step 15** Enter **standard** as the search criterion and click **Find**.  
The list of user groups starting with the name Standard appears.
- Step 16** Click the **Standard RealtimeAndTraceCollection** group.
- Step 17** Repeat steps 7 through 9 to add the user to the Standard RealtimeAndTraceCollection group.

## Set Up AXL Authentication

### Procedure

- Step 1** From Emergency Responder, choose **Phone Tracking > Unified CM**.
- Step 2** Under AXL Setting, enter the following information:
- AXL Username
  - AXL Password
  - AXL Port Number
- Step 3** Click **Insert**.

## Set Up Off-Premise ERL

Unlike conventional ERLs, off-premise ERLs do not need to enter ELIN or ALI information. The ERL for a phone is tracked by the IP subnet and the phone MAC address assignment.



**Note** You can only assign off-premise ERLs to IP subnets, unlocated phones, and manual phones. You cannot assign off-premise ERLs to switch ports.

### Procedure

- Step 1** Choose **ERL > Off-Premises ERL > Off-Premises ERL (Search and List)** from Emergency Responder.

**Step 2** Click **Add New ERL**.

**Step 3** Fill in the following information in the Add New ERL window and click **Insert**:

- ERL Name
- Description
- Intrado route pattern/translation Pattern
- Onsite Alerts

Fill in the information in the Add New ERL window. See [Off-Premises ERL](#) for detailed explanations of each field.

**Note** You must add Intrado route patterns before you can add off-premise ERLs.

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## Off-Premise ERL Imports

If you have multiple ERLs, and you want to add them all at once, you can create a file that contains more than one ERL definition, and import all the ERLs at the same time into your Emergency Responder configuration. For more information about importing ERLs, see [Import Several ERLs](#).

## Off-Premise ERL Information Exports

Use the Export ERL page to create ERL export files for our own use, for example, to back up or move an ERL configuration. For more information about importing ERLs, see [Export ERL Information](#).

# Add Scheduled Intrado Updates

You can create ALI and Secondary Status update schedules between Emergency Responder and Intrado. A scheduled ALI update sends newly created TN records to Intrado. A scheduled Secondary Status update sends queries to Intrado requesting information about records with errors that have been corrected.

## Procedure

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**Step 1** Choose **ERL>Intrado ERL>Intrado Schedule** from Emergency Responder, .  
The Intrado Schedule page appears.

**Step 2** Choose the days of the week and the time of day that you want to schedule an update.

**Step 3** Check the **Enable Schedule** box if you want to activate this schedule.

**Step 4** Choose either **ALI Update Schedule** or **Secondary Status Update Schedule**.

**Step 5** Click **Add** to add the schedule to the list of schedules

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## Related Topics

- [Emergency Responder User Management](#)
- [Emergency Responder Role Management](#)
- [Emergency Responder User Group Management](#)
- [Log In to Emergency Responder](#)
- [Server and Server Group Configuration](#)

[Set Up Emergency Responder Cluster and Cluster DB Host](#)  
[Cisco Unified Communications Manager Cluster Changes](#)  
[Work with Emergency Responder Locations](#)  
[Emergency Responder Switch Configuration](#)  
[Phone Management](#)  
[Intrado ERL - Secondary Status](#)  
[Intrado Schedule](#)

## Update Scheduled Intrado Update

### Procedure

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- Step 1** From Emergency Responder, choose **ERL > Intrado ERL > Intrado Schedule**. The **Intrado Schedule** page appears.
- Step 2** Click the **Edit** link adjacent to the schedule that you want to update.
- Step 3** Choose the days of the week and the time of day.
- Step 4** Check the **Enable Schedule** box to activate this schedule.
- Step 5** Click **Update** to change the schedule on the list of schedules.
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### Related Topics

[Emergency Responder User Management](#)  
[Emergency Responder Role Management](#)  
[Emergency Responder User Group Management](#)  
[Log In to Emergency Responder](#)  
[Server and Server Group Configuration](#)  
[Set Up Emergency Responder Cluster and Cluster DB Host](#)  
[Cisco Unified Communications Manager Cluster Changes](#)  
[Work with Emergency Responder Locations](#)  
[Emergency Responder Switch Configuration](#)  
[Phone Management](#)  
[Intrado ERL - Secondary Status](#)  
[Intrado Schedule](#)