



Emergency Call Handling with RedSky

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Emergency Call Handling with RedSky Overview



Important This feature is applicable from Releases 12.5(1)SU6 and 14SU2 onwards.

The RedSky solutions integrated with Unified Communications Manager allow the clients to have an active location for 9-1-1 emergency calling coverage for their entire workforce, whether on campus or remote and send the calls to emergency responders.

The endpoints store the location URI received from the RedSky server as a response to HTTP Enabled Location Delivery (HELD) request. When an emergency number 9-1-1 is dialed from Webex, the Unified Communications Manager obtains the previously saved location URI as Geolocation header in INVITE message and routes the calls to the RedSky server with outgoing INVITE containing the location URI as Geolocation header corresponding to the location of the called device. RedSky server replaces with the right ELIN and sends the call to any Public Safety Answering Points (PSAP) for an emergency transmit. E911 Anywhere simultaneously sends call notifications including SMS text, Email, and Security desk screen alerts.

The Cisco Emergency Responder automatically finds and tracks the dispatchable locations of all your devices as they move throughout the enterprise so you can comply with E911 regulations. Emergency Responder tracks Cisco IP Phones through Switch Port or Access Point or IP Subnet or Manually configured. Emergency Responder maintains the status of the phones (On-premises, Off-premises, unlocated), and passes on any Automatic Location Information (ALI) or ELIN information to RedSky. Phone users rely on Unified CM to route their emergency calls to RedSky and the designated emergency provider.

For Off-premises phones, if the user's phone's current location has not been previously defined, the user is directed to the Emergency Responder Off-Premises User web page to create a new location. After the new location has been defined and the address has been confirmed, emergency calls placed from off-premises phones will then be completed through the RedSky.



Note We recommend that when an employee is working on-premises at an organization site, the user's location should be defined by the calling system administrator.

Emergency Call Handling Configuration Task Flow

The administrator can use the following task to have a dynamic location for 9-1-1 emergency calling and transfer the call to emergency responders.

Procedure

	Command or Action	Purpose
Step 1	Configure RedSky Server	Create a SIP Trunk for routing the call to the RedSky server.
Step 2	Configure Service Profile	Add the Service Profile details of an end-user for emergency calls.
Step 3	Assign the Service Profile	Assign the created service profile to the Webex client end-user.
Step 4	Setting Up the SIP Route Pattern for Routing Calls	Create SIP Route Pattern with the domain name and associate the same with the previously created SIP trunk.

Configure RedSky Server

Use this procedure to create a SIP Trunk for routing the call to the RedSky server.



Note Steps 7, 8 and 9 are only needed during on-premises integration.

Procedure

- Step 1** From Cisco Unified CM Administration, choose **Device > Trunk**.
- Step 2** Click **Add New**.
- Step 3** From the **Trunk Type** drop-down list, choose **SIP Trunk**.
- Step 4** From the **Protocol Type** drop-down list, choose the type of SIP trunk that matches your deployment and click **Next**.
- Step 5** In the **SIP Information** area, enter an IPv4 address of the RedSky server, fully qualified domain name, or DNS SRV record for the server or endpoint that you want to connect to the SIP trunk in the **Destination Address** text box.
- Step 6** From the **SIP Trunk Security Profile** drop-down, assign a security profile. If you don't select this option, a SIP Trunk Security Profile nonsecure profile will be assigned.
- Step 7** (Optional) From the **SIP Profile** drop-down list, assign a Ping option enabled RedSky SIP profile.
- Step 8** (Optional) In the **Normalization Script** area, from the **Normalization Script** drop-down, choose **redsky-alternate-id-interop**.
- Step 9** (Optional) For **Parameter Name** and **Parameter Value**, enter the respective information.

The following inputs are supported for **Parameter Name**:

- **RedSky-CustomerID**—This is a mandatory field. It is the HELD ID from RedSky admin page. This is used to identify the customer account for the calling party.
- **Alternate-Callback-Number**—This is an optional field. This field inserts an optional callback number for emergency calls. It should be used for callers that do not have Direct Inward Dial (DID) numbers for callback.
- **Ext-Length**—This is an optional field. This parameter is used for customers with non-E.164 numbering convention. The parameter will enter the non-E.164 into the RedSky E911-User-ID header.
- **Agent-Ext**—This is an optional field. This parameter identifies agent extensions based on the leading digits. Populating this parameter puts the agent calling party into the RedSky E911-User-ID header.

Step 10 Click **Save**.

Configure Service Profile

Use this procedure to add the Service Profile details of an end-user for emergency calls.

Before you begin

- You need to create a SIP Trunk with the destination as the RedSky server and a SIP Profile with Ping options enabled. A SIP route pattern must be created with the required domain name (RedSky), and it is associated with the trunk created previously.
- A service profile is applied for a given device only when the owner's user ID is specified.

Procedure

Step 1 From Cisco Unified CM Administration, choose **User Management > User Settings > Service Profile**.

Step 2 Click **Add New**.

Step 3 Enter a **Name** and **Description** for the chosen Service Profile Configuration.

Note For each UC service that you want to be a part of this profile, assign the **Primary**, **Secondary**, and **Tertiary** connections for that service. The fields in the **Service Profile Configuration** window vary depending on which UC service you configure.

Step 4 In the **Emergency Calling Profile** section, perform the following:

- a) Check **Enable Emergency Calling** to enable configuration parameters to endpoints and soft clients to update location and send emergency calls to the Emergency Calling Service Provider.
- b) Enter the Company ID and Passphrase provided by the Emergency Calling Service Provider when the account is created, and service is enabled in the **Organization ID** and **Secret** field. For example, 32-character alphanumeric string provided by RedSky.
- c) Enter the passphrase required by the Emergency Calling Service Provider Authorization Service in the **Secret** field. For example, 16-character alphanumeric string provided by RedSky.
- d) Enter the URL that the device uses to request and set the location in the **Location URL** field.

- e) Enter the **Emergency Service Numbers**. By default, 911, 933 is entered with a comma separating each number.

Note When Webex client dials any emergency pattern configured in Emergency Numbers, it will be routed with Geolocation headers to the RedSky server configured in the SIP Trunk.

Step 5 Complete the remaining fields in the **Service Profile Configuration** window. For detailed field descriptions, see the online help.

Step 6 Click **Save**.

Assign the Service Profile

Use this procedure to assign the created service profile to the Webex client end-user. If Webex is not registered to Unified CM, the end-user will not be active and does not route the emergency calls to RedSky.

You can apply the Service Profile to an end-user to assign the UC services configuration settings in the Service Profile to that end user. You can configure different service profiles for different groups of users in the organization so that each group of users has the right services configured for their job.

Procedure

Step 1 From Cisco Unified CM Administration, choose **User Management > End User**.

Step 2 In the **Find and List Users** window, perform either of the following:

- a) Click **Add New** to configure a new user.
- b) Specify the filters in the **Find User Where** field and then click **Find** to retrieve a list of users.

Note For more information on associating a device with a user, see the Associate Devices to End User section in [Cisco Emergency Responder Administration Guide](#).

Step 3 In the **Service Settings** section, select the RedSky Service Profile from the **UC Service Profile** drop-down list.

Step 4 Complete the remaining fields in the **End User Configuration** window. For detailed field descriptions, see the online help.

Step 5 Click **Save**.

Setting Up the SIP Route Pattern for Routing Calls

Use this procedure to create SIP Route Pattern with the domain name and associate the same with the previously created SIP trunk.

All emergency calls that are routed to the Emergency Provider must match a route pattern. The route pattern directs the call to a Route Group, Route List, and SIP Trunk or PRI gateway that can reach the RedSky server.

PRI - RedSky provides the customer an account-specific access number. In this case, the number is the customer ID and the CALLING PARTY is the user reference. It follows traditional RP/RG/RL/GW redundancy. The calling party number must match the RedSky user's ID.

We recommend using SIP Trunks to connect with the RedSky server. For dedicated instances, this is the default method. For customers having an on-premises deployment of Unified Communications Manager on-premises, you must configure the SIP Trunk, Route Group and Route List before creating the route pattern that will be used to reach the RedSky server.

If using a SIP trunk, the administrator must use a predefined LUA script to ensure proper customer identification. For Unified CM deployments, you must upload the script and apply it to the SIP Trunk. The LUA script allows for only one parameter, which is the RedskyOrgID.

Procedure

- Step 1** From Cisco Unified CM Administration, choose **Call Routing > SIP Route Pattern**.
 - Step 2** Click **Add New** to add the RedSky route pattern.
 - Step 3** From the **Pattern Usage** drop-down, choose **Domain Routing**.
 - Step 4** Enter the route string in the **IPv4 Pattern** or **IPv6 Pattern** field depending on whether you are deploying the IPv4 or IPv6 address.
 - Step 5** Choose a RedSky SIP trunk in the **SIP Trunk/Route List*** drop-down.
 - Step 6** (Optional) Click the **Edit** link to view or change the Trunk Configuration details.
 - Step 7** Complete the remaining fields in the SIP Route Pattern Configuration window. For detailed field descriptions, see the online Help.
 - Step 8** Click **Save**.
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