



Interface Control Document Genesys Cloud CX™ with E911 Anywhere®

Version 1.1 | August 11th, 2022

No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of RedSky Technologies, Inc., except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law. For permission requests, write to the RedSky Technologies, Inc., addressed “Attention: Permissions Coordinator,” at the address below.

RedSky Technologies, Inc.

333 North Michigan Avenue, Suite 1600

Chicago, IL 60601

www.redskye911.com

E911 Anywhere® and Horizon Mobility® are registered trademarks of RedSky Technologies, Inc.

Genesys Cloud CX™ is a registered trademark of Genesys

Table of Contents

1. Introduction	5
2. Solution Design Diagram	6
3. System Requirements	7
4. Network Requirements	7
5. Genesys Cloud CX Configuration	8
5.1. Configure an External Trunk.....	8
5.2. Create a New Number Plan.....	12
5.3. Create an Outbound Route	13
6. References.....	14

Table of Figures

Figure 1: Call flow of emergency calls routed from Genesys Cloud	6
Figure 2: External Trunk Configuration Options	8
Figure 3: SIP Servers or Proxies Configuration.....	9
Figure 4: Example Prioritized Caller Selection	10
Figure 5: SIP Access Control Configuration	10
Figure 6: Custom SIP Header Configuration	11
Figure 7: HELD Company ID found within RedSky portal.....	11
Figure 8: Number Plan Configuration	12
Figure 9: Outbound Route Configuration	13

Revision History

Date	Version	Revision	Made By
05/24/2022	1.0	Initial Draft	Dennis Penaranda
08/11/2022	1.1	Updated System/Network requirements General formatting	Dennis Penaranda

1. Introduction

This document details the technical aspects of the integration between RedSky's E911 Anywhere® and Genesys Cloud CX™. With E911 Anywhere®, administrators can provision ALI records in the national ALI Database, and provides routing of 9-1-1 calls to the correct Public Safety Answering Point (PSAP) based on the phone number or Alternate ID of the caller.

Genesys Cloud can be supported by using E911 Anywhere® and MyE911. Calls are routed to E911 Anywhere® over a SIP trunk either directly from Genesys Cloud or from the customer's Bring Your Own Carrier (BYOC) SBC.

For customers routing calls directly from the Genesys Cloud platform:

In order for RedSky to determine which customer has placed the emergency call, the **E911-Organization-ID** must be added to all SIP calls sent to E911 Anywhere®. See below for the changes made to the Genesys Cloud platform to insert this header and route calls to E911 Anywhere®.

2. Solution Design Diagram

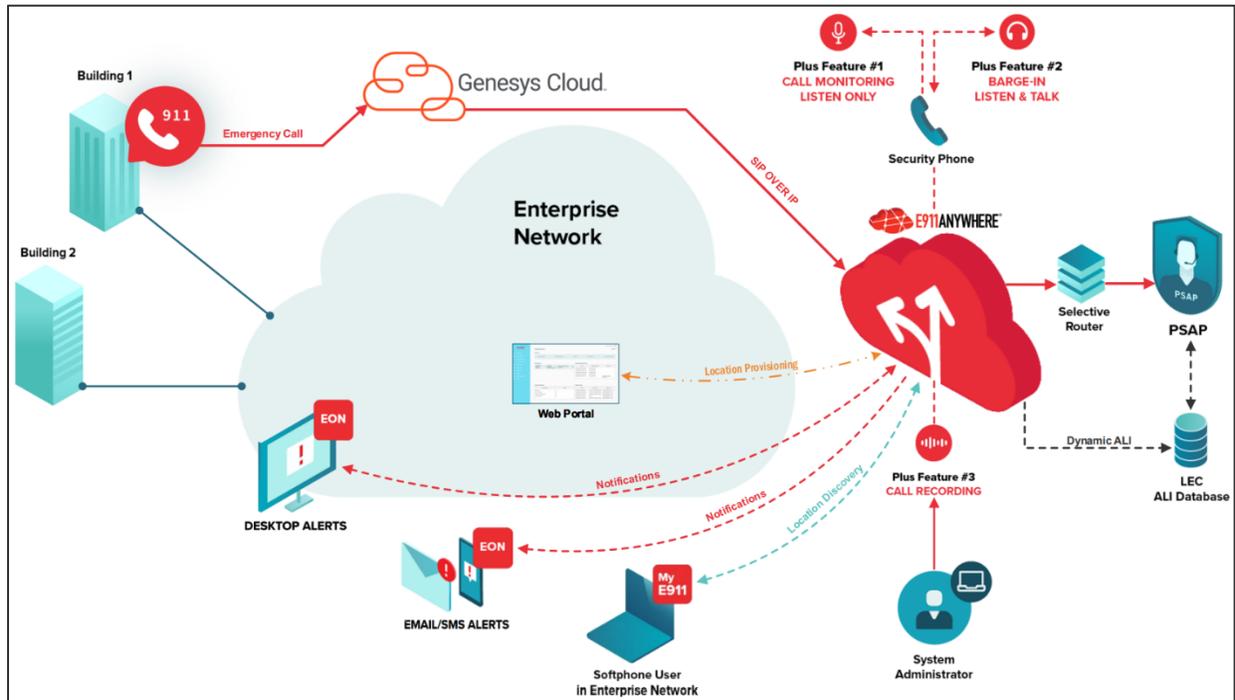


Figure 1: Call flow of emergency calls routed from Genesys Cloud

3. System Requirements

Component:	Requirement:	Notes:
Genesys Cloud	April 6, 2022 release or higher	The prioritized caller selection feature was approved for release beginning April 6 th , 2022
Media Tier	Version 1.0.0.11160 or higher	
Genesys Add Ons	BYOC Cloud	BYOC Cloud add-on must be activated in order to configure an external SIP trunk directly from Genesys Cloud to E911 Anywhere® over the public internet. Contact your Genesys representative for information on activating of this feature.
Genesys Cloud User	Genesys Cloud User 1, Genesys Cloud User 2, or Genesys Cloud User 3 Subscription	The prioritized caller selection feature requires one of the listed subscriptions.

4. Network Requirements

Protocol:	Transport Method:	Ports:	Notes:
SIP			The VoIP protocol used to deliver emergency calls
SIP Signaling	TLS	5061	SIP signaling occurs on port 5061 utilizing encrypted TLS communication
SIP (SRTP) Media	TLS	30000-60000	Audio/Media stream for SIP calls

5. Genesys Cloud CX Configuration

In order to leverage E911 Anywhere® for emergency call routing, an External Trunk will need to be configured to send 9-1-1 and 9-3-3 test calls to RedSky's gateways. The following will need to be configured:

5.1. Configure an External Trunk

Navigate to Telephony > Trunks > External Trunks

5.1.1. **External Trunk Name:** Enter a descriptive name (e.g. RedSky)

5.1.2. **Type:**

- BYOC Carrier
- Generic BYOC Carrier

5.1.3. **Trunk State:** In Service

5.1.4. **Protocol:** TLS

5.1.5. **Inbound SIP Termination Identifier:** Unique URI within your Genesys Cloud organization's region (e.g. RedSky)

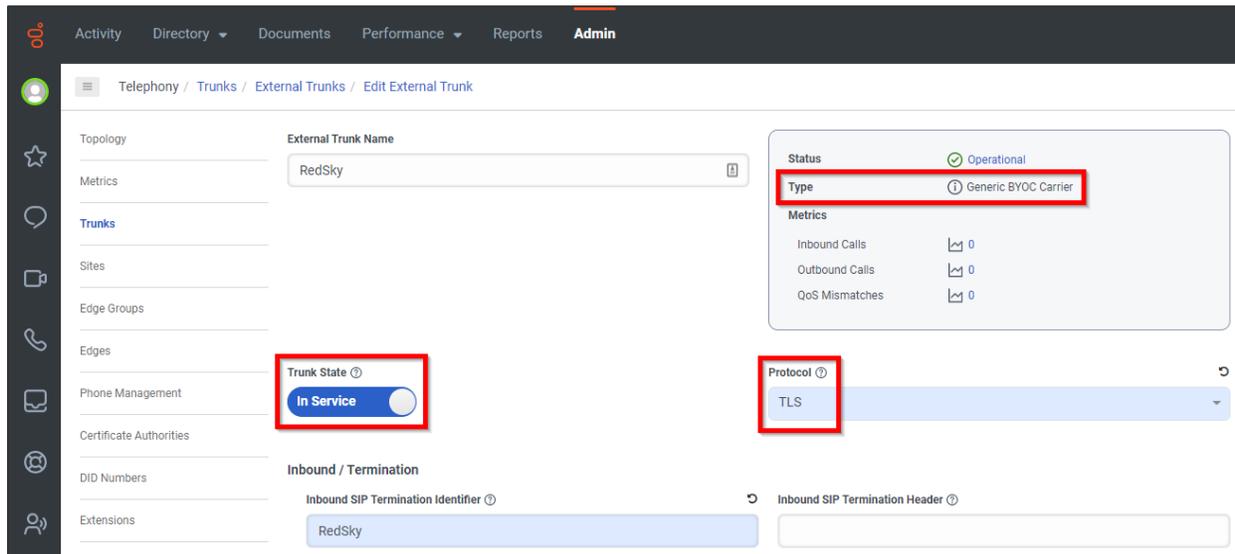


Figure 2: External Trunk Configuration Options

5.1.6. **SIP Servers or Proxies:** E911 Anywhere® gateways FQDN.

- **Hostname:** gw1.anywhere.e911cloud.com, **Port:** 5061
- **Hostname:** gw2.anywhere.e911cloud.com, **Port:** 5061

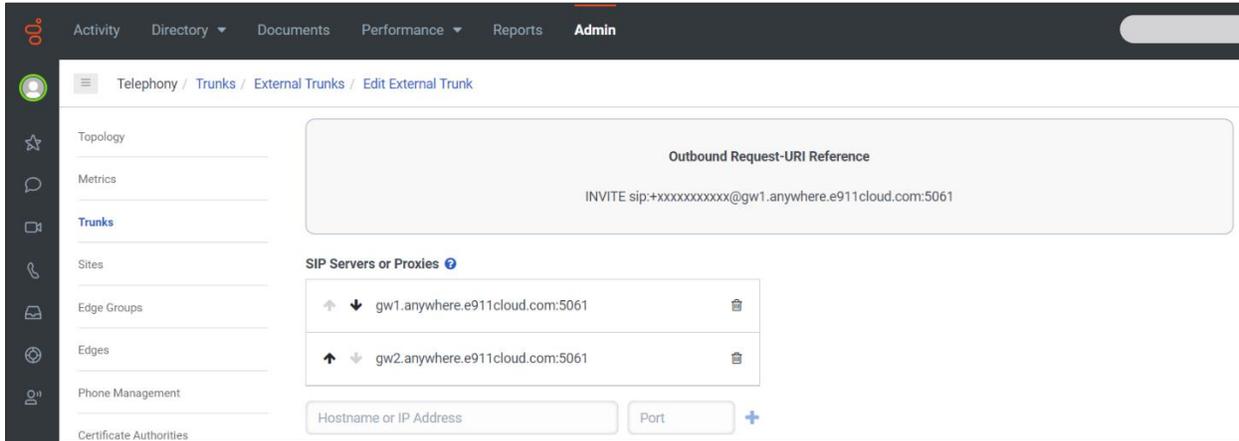


Figure 3: SIP Servers or Proxies Configuration

5.1.7. **Prioritized Caller Selection:** This determines what information will be sent with the emergency call to determine the location of the caller (i.e. what phone number/extension is outpulsed with the emergency call)

5.1.7.1. Recommended order if end users may or may not have a DID assigned to them:

- 5.1.7.1.1. Call Source (Queue / Campaign / User DID)
- 5.1.7.1.2. User Extension
- 5.1.7.1.3. Site
- 5.1.7.1.4. This Trunk

5.1.7.2. Recommended order if end users do not have a DID assigned to them:

- 5.1.7.2.1. User Extension
- 5.1.7.2.2. Site
- 5.1.7.2.3. This Trunk

5.1.7.3. The *prioritized caller selection* will ensure that in the event that the caller does not have DID assigned to them, the User extension will be outpulsed. If the call was placed from a phone that is not tied to a user, the Site ANI will be used. If the Site ANI is empty, Genesys Cloud will default to the Trunk ANI.

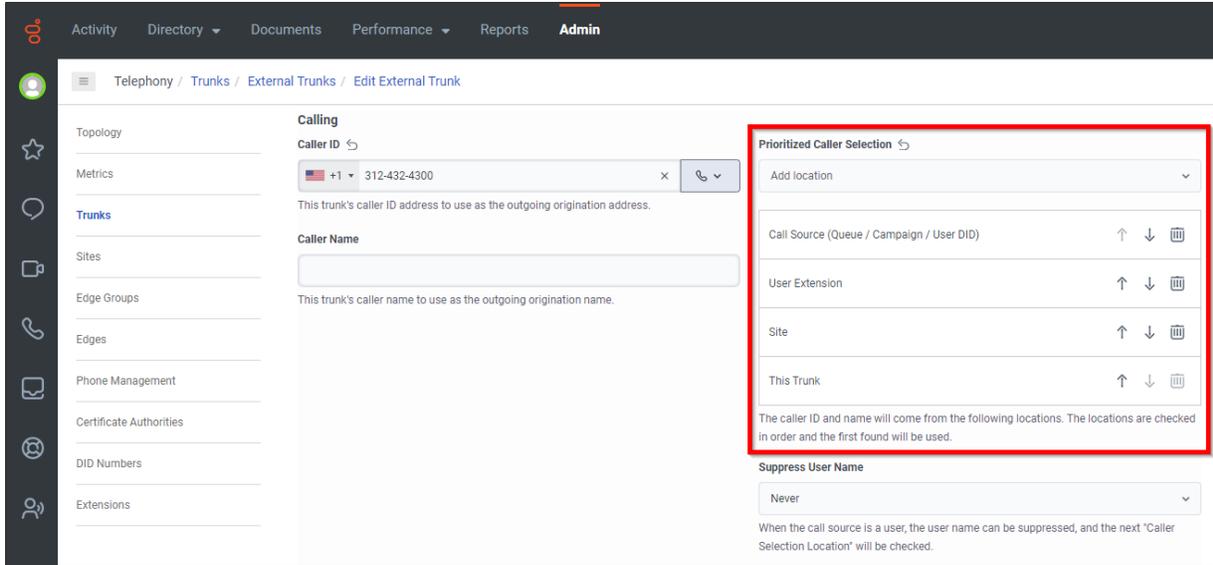


Figure 4: Example Prioritized Caller Selection

5.1.8. SIP Access Control: Add the E911 Anywhere® gateway IP addresses:

- 3.135.80.158
- 18.217.182.60

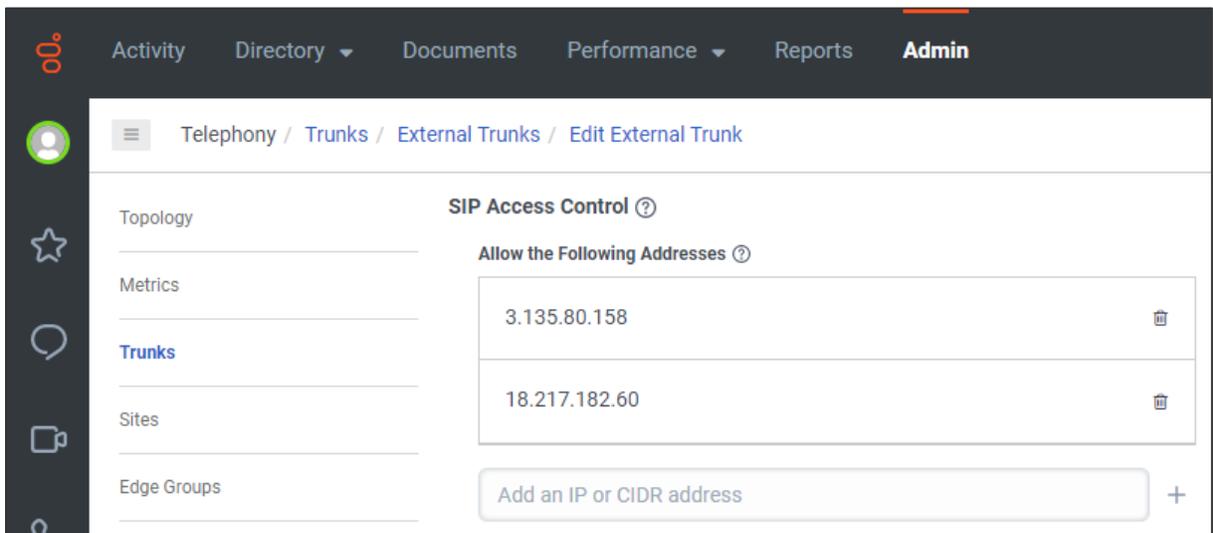


Figure 5: SIP Access Control Configuration

5.1.9. Enable **Static User Data**.

5.1.9.1. Expand the **Protocol** section under *External Trunk Configuration*

5.1.9.2. In the **Outbound** section, enter the following *Custom SIP header*:

- **Header:** E911-Organization-ID
- **Value:** HELD Company ID found on the Dashboard page of the RedSky admin portal

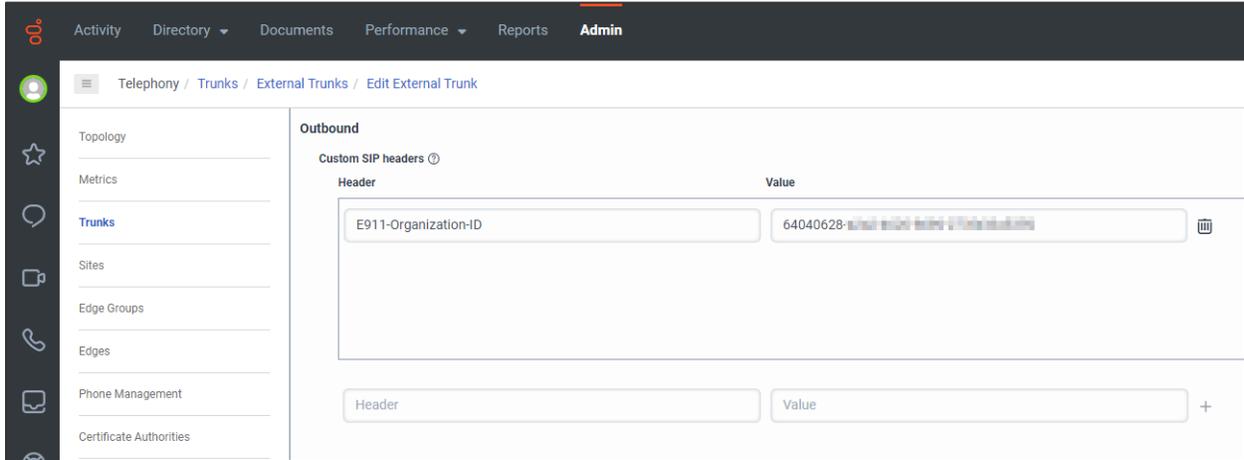


Figure 6: Custom SIP Header Configuration

The screenshot shows the 'IDs and Access Codes' section of the RedSky portal. It contains a table with three columns: 'Name', 'Value', and 'Copy/View'. The first row is highlighted with a red border and contains 'HELD Company ID' in the 'Name' column, '64040628-...' in the 'Value' column, and a copy icon in the 'Copy/View' column. The second row contains 'HELD+ Secret Key' in the 'Name' column, '.....' in the 'Value' column, and both an eye icon and a copy icon in the 'Copy/View' column. The third row contains 'Organization ID' in the 'Name' column, '...' in the 'Value' column, and a copy icon in the 'Copy/View' column.

Name	Value	Copy/View
HELD Company ID	64040628-...	
HELD+ Secret Key	
Organization ID	...	

Figure 7: HELD Company ID found within RedSky portal

5.2. Create a New Number Plan

Navigate to Telephony > Sites > (Select Your Site) > Number Plan

5.2.1. **Number Plan Name:** Enter a descriptive name (e.g. RedSky E911)

5.2.2. **Match Type:** Number List

5.2.3. **Numbers:** 911, 933

- These are the dial patterns that you want to route to E911 Anywhere®

5.2.4. **Classification:** Enter a new classification that is not called 'Emergency' (e.g. E911)

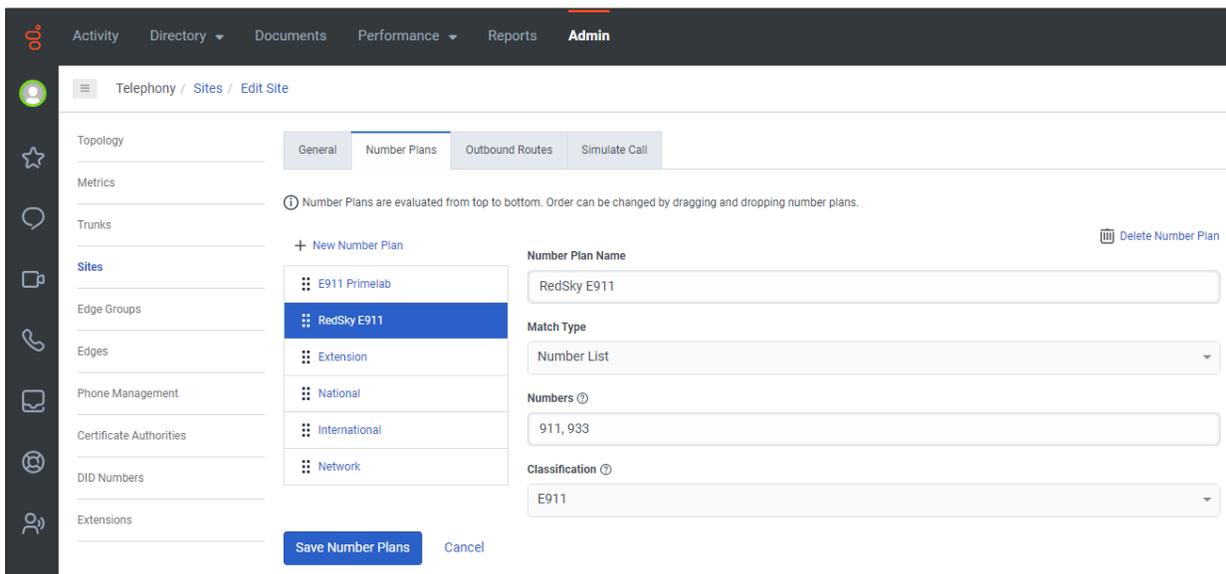


Figure 8: Number Plan Configuration

5.3. Create an Outbound Route

Navigate to Telephony > Sites > (Select Your Site) > Outbound Routes

5.3.1. Enter an outbound route **Name** and a **Description**.

5.3.2. From the **Classifications** list, select the classification created with the Number Plan.
(See section 5.2)

5.3.3. From the **Select an External Trunk** list, select the RedSky External Trunks. (See section 5.1)

5.3.4. If you select more than one external trunk, you can specify a **Distribution Pattern** to define how outgoing calls are routed to available trunks.

5.3.4.1. Select **Sequential** to route outgoing calls to each trunk in succession beginning with the first trunk. (If the first trunk has reached its capacity or the call is rejected, then outgoing calls are routed to the second trunk and so on.)

5.3.4.2. Select **Random** to route outgoing calls to a randomly selected trunk. (You can use this option to essentially load balance outgoing calls across all available trunks.)

5.3.5. To enable the outbound route, enable the **State** setting.

5.3.6. Click **Save Outbound Routes**.

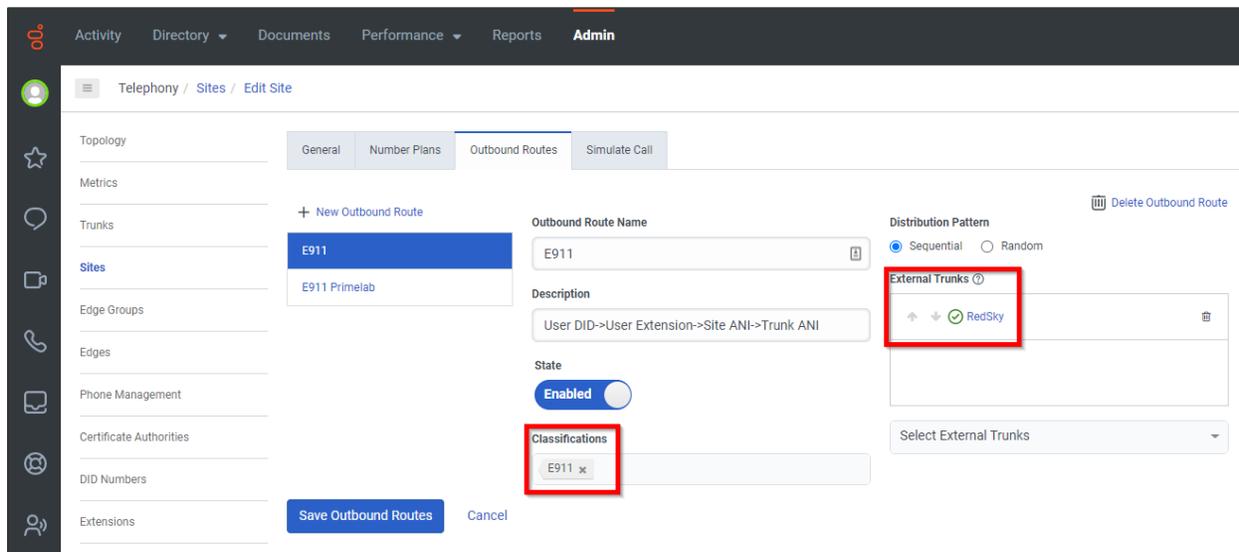


Figure 9: Outbound Route Configuration

6. References

Detailed steps to configure a BYOC Trunk can be found on the following links:

- [Create a BYOC Cloud Trunk](#)
- [Create a BYOC Premises Trunk](#)
- [Configure SIP Routing for a BYOC Cloud Trunk](#)
- [External Trunk Settings](#)
- [Add Number Plan](#)
- [Create Outbound Route](#)
- [Genesys Cloud Resource Center Search Engine](#)