Genesys PureCloud Provider SIP Trunk Configuration Guide

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1 Introduction

The intended purpose of this document is to provide a general guideline to configure your Genesys PureCloud Provider SIP Trunk to Portal. This document does not cover advanced SIP configurations that could be used.

To access the Portal, follow the link below
https://portal.infobip.com/apps/voice-and-webrtc/sip-trunks

2 Requirements & Information

2.1 GENESYS PURECLOUD

- Your organization will be configured in a Genesys zone which can be identified by the URL you use to login to PureCloud portal. For instance, in the United States:
  - **US East 1 (us-east-1)** - https://login.mypurecloud.com
  - **US East 2 (us-east-2)** - https://login.use2.us-gov-pure.cloud
  - **US West 2 (us-west-2)** - https://login.usw2.pure.cloud/
- BYOC license is required to create a BYOC Carrier Trunk (Provider trunk)
- BYOC requires a SIP Termination URI which is unique to each organization
- Incoming calls to BYOC are authenticated by IP Access Control List and Request URI SIP Termination URI
- BYOC requires E.164 format phone numbers

Genesys PureCloud Login URL	Infobip Region Name (Portal)	Infobip Region Name (API)
https://login.mypurecloud.jp	AP Northeast 1	AP_NORTHEAST_1
https://login.apne2.pure.cloud	AP Northeast 2	AP_NORTHEAST_2
https://login.apne3.pure.cloud	AP Northeast 3	AP_NORTHEAST_3
https://login.aps1.pure.cloud	AP South 1	AP_SOUTH_1
https://login.mypurecloud.com.au	AP Southeast 2	AP_SOUTHEAST_2
https://login.cac1.pure.cloud	CA Central 1	CA_CENTRAL_1
https://login.mypurecloud.ie	EU West 1	EU_WEST_1
https://login.euw2.pure.cloud	EU West 2	EU_WEST_2
https://login.mypurecloud.de	EU Central 1	EU_CENTRAL_1
https://login.euc2.pure.cloud	EU Central 2	EU_CENTRAL_2
https://login.mec1.pure.cloud	ME Central 1	ME_CENTRAL_1
https://login.sae1.pure.cloud	SA East 1	SA_EAST_1
https://login.mypurecloud.com	US East 1	NA_US_EAST_1
https://login.use2.us-gov.pure.cloud	US East 2	NA_US_EAST_2
https://login.usw2.pure.cloud	US West 2	NA_US_WEST_2

3 Portal Configuration

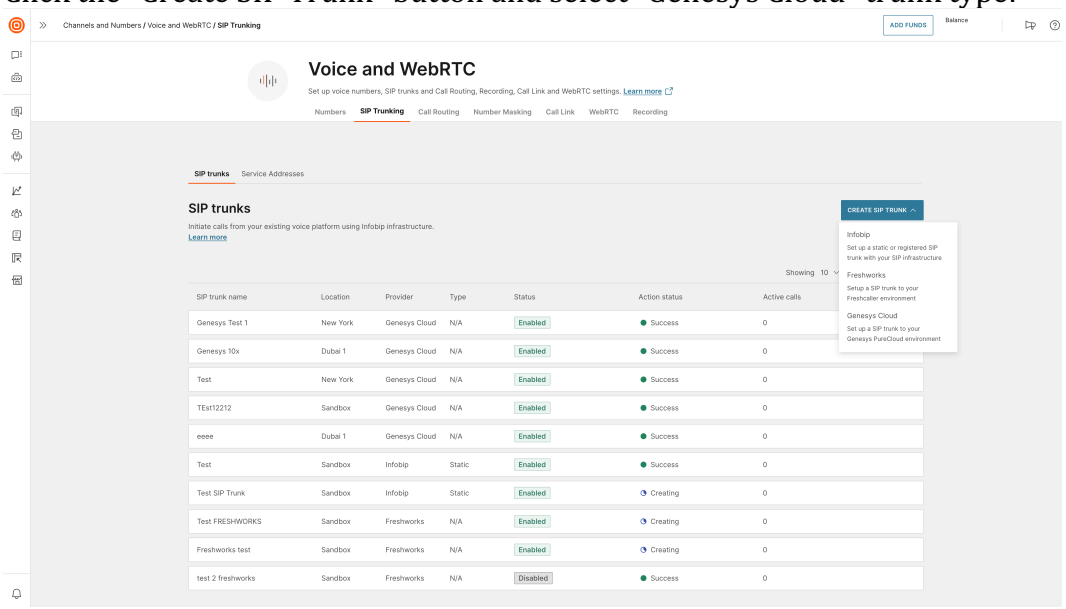
We will assume that you have created an Infobip Portal account and will purchase at least one DID.

3.1 PORTAL LOGIN

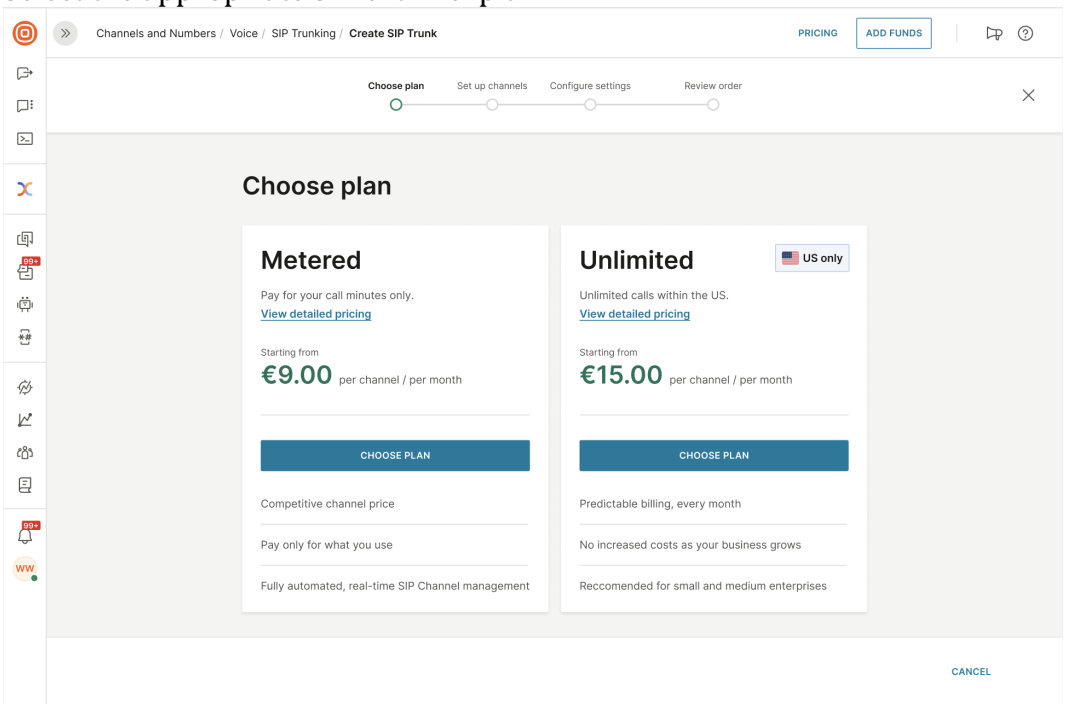
Login to the Portal using your login credentials. https://portal.infobip.com/apps/voice-and-webrtc/sip-trunks

3.2 ADD SIP TRUNK

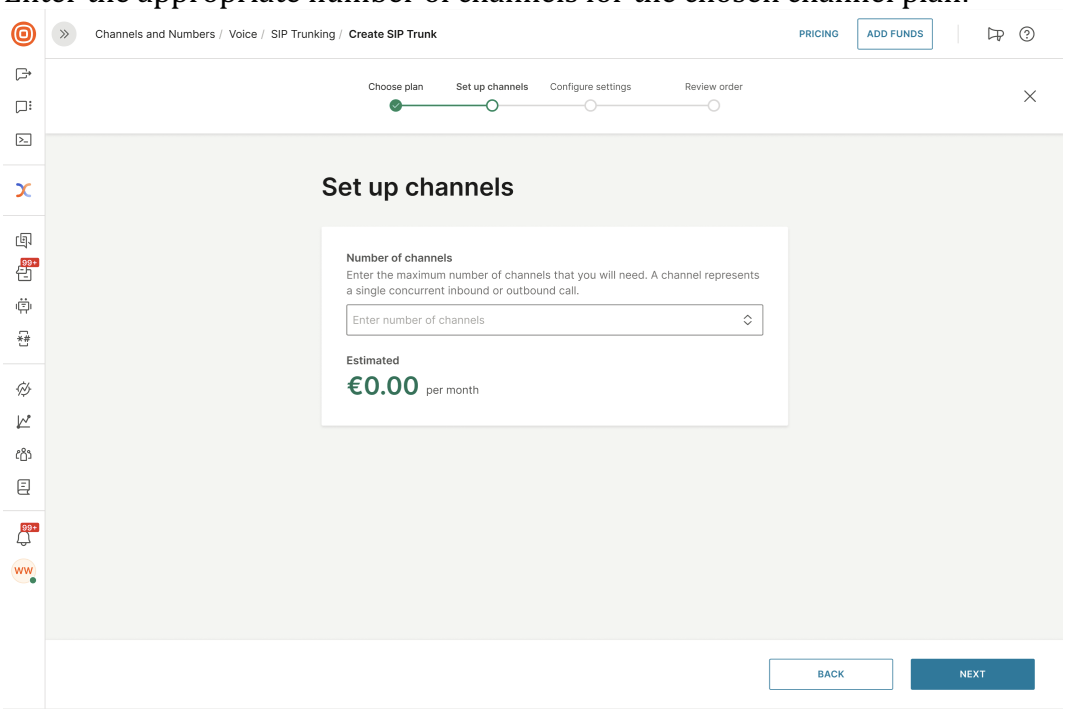
- Click the "Create SIP Trunk" button and select “Genesys Cloud” trunk type:



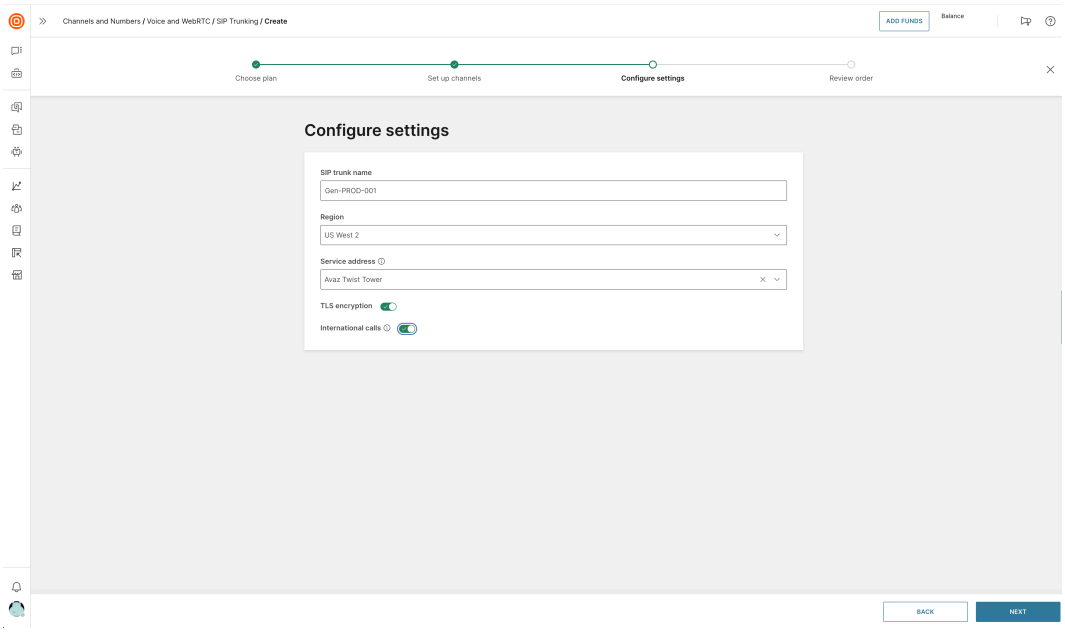
- Select the appropriate SIP channel plan:



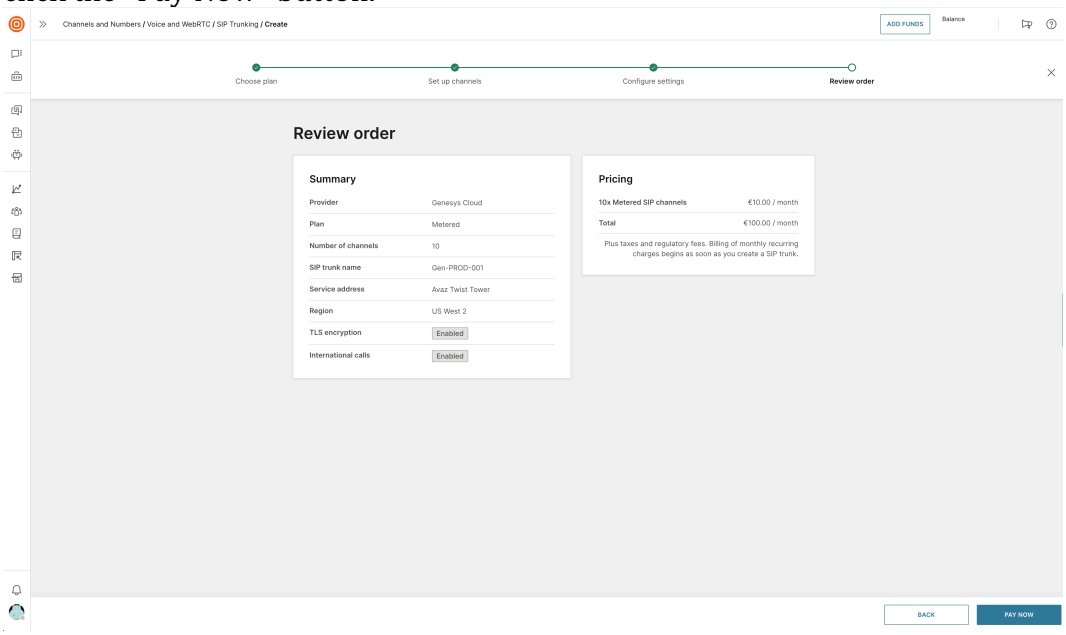
- Enter the appropriate number of channels for the chosen channel plan:



- Choose the following trunk settings and click the “Next” button
  - A SIP Trunk name
  - Service Address = the primary place of use for this trunk. For more information on service addresses and why these should be correctly defined, see https://www.infobip.com/docs/voice-and-video/sip-trunking#service-address
  - Genesys Region = select the Region your organization is configured
  - TLS/SRTP Encryption = Enabled or Disabled
    - Enabled if you plan to do encryption using TLS/SRTP
    - Disabled if you plan to do unencrypted using UDP/RTP
  - International Calling = Disabled (Default) or Enabled

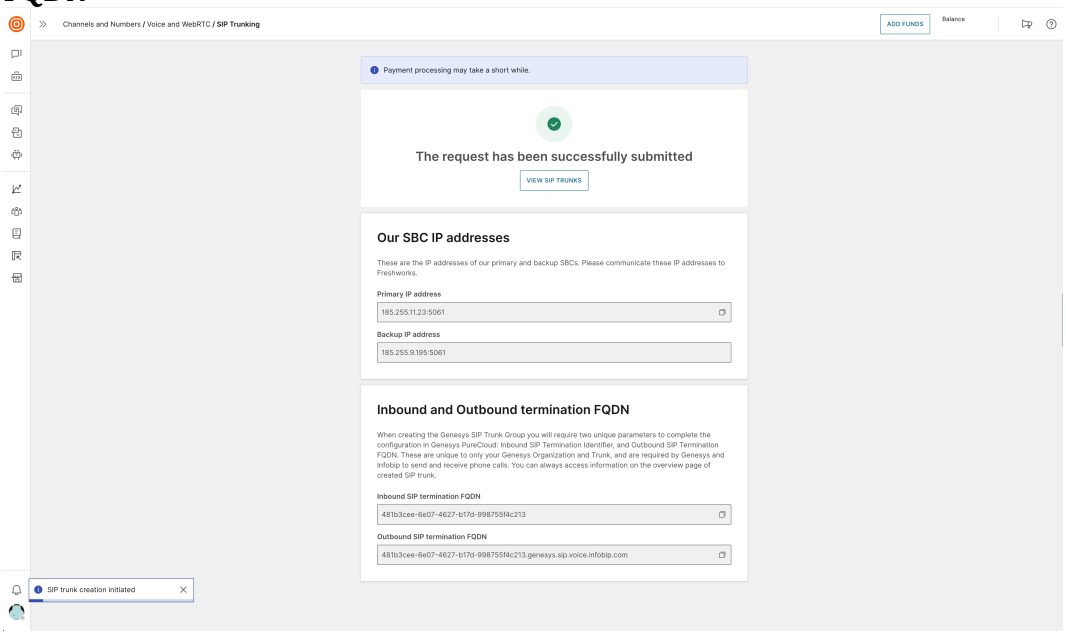


- Validate that the trunk name, settings and Charges are the expected values and click the "Pay Now" button.



- On the order confirmation screen, take note of the **Infobip SBC IP address(es) and port**, **Inbound SIP termination identifier** and **Outbound SIP termination**

FQDN



- Upon returning to the list of SIP trunk, monitor the status of your newly created Cisco Webex trunk until it is in status **Enabled** with an action status **Success**.
- Proceed to the Genesys Cloud Admin Portal.

4 PureCloud BYOC Carrier Configuration

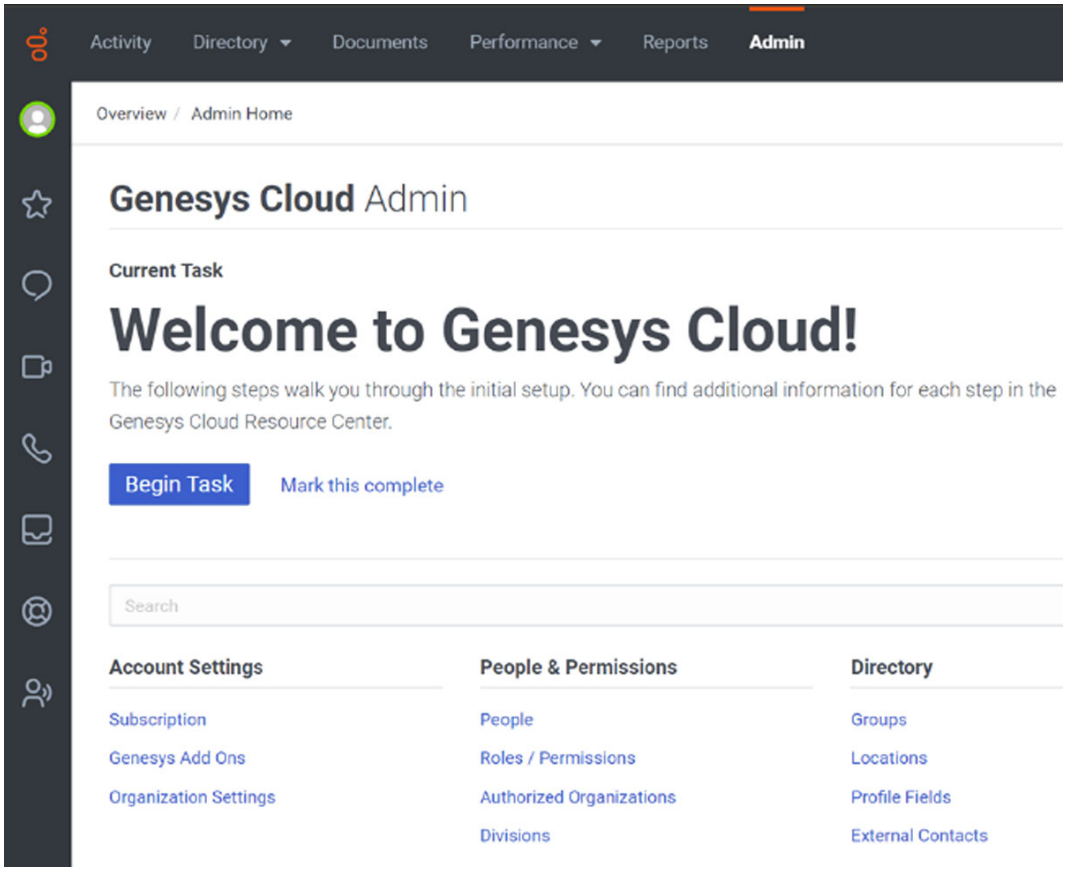
4.1 TRUNK GROUP ID & UNIQUE GENESYS ID

When creating the Genesys SIP Trunk Group we will require two unique parameters required to complete the configuration: **Inbound SIP Termination Identifier**, and **Outbound SIP Termination FQDN**. These are unique to only your Genesys Organization and Trunk and are required by Genesys and Portal carrier to send and receive phone calls. Both parameters are derived from the Trunk ID given at the end of section 3.2.

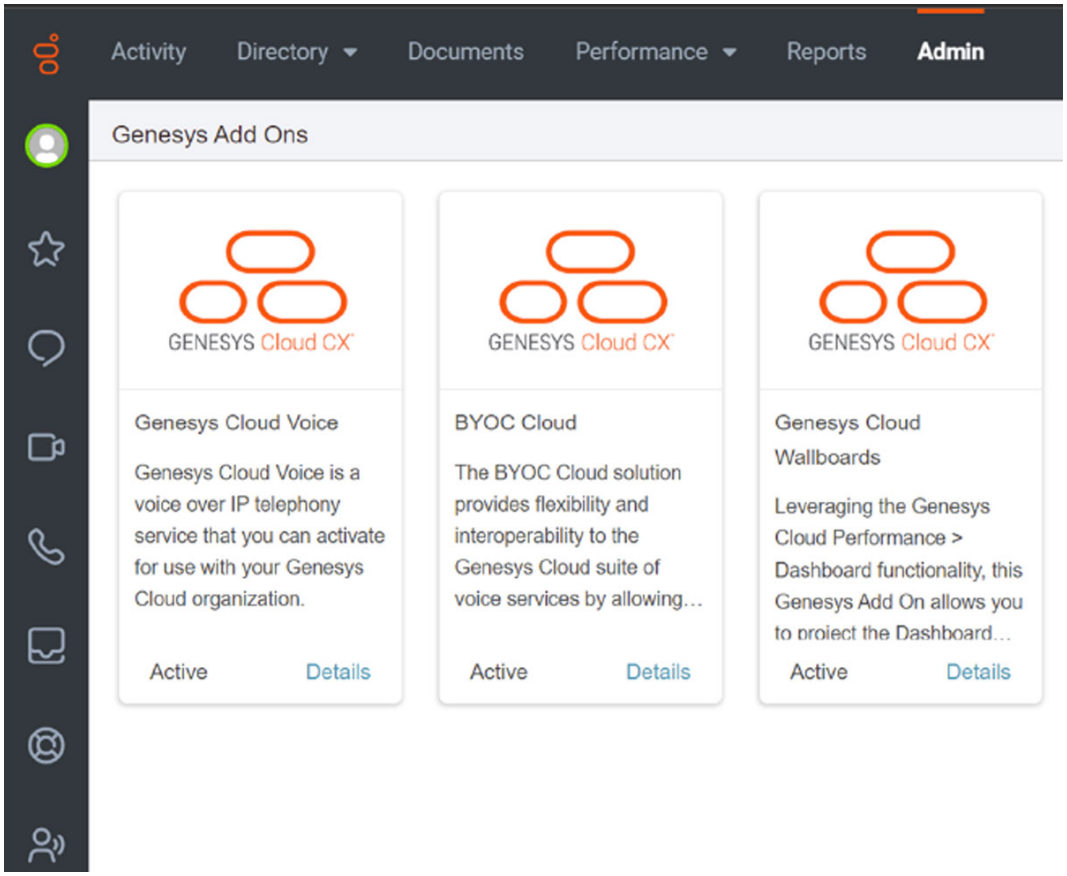
If you did not save this information while creating the trunk, go back to the list of SIP trunks on the portal (https://portal.infobip.com/apps/voice-and-webrtc/sip-trunks), click on your Genesys Cloud trunk and copy these identifiers from the Overview tab. The SBC IP addresses and associated ports are listed on the IP Addresses tab.

4.2 BYOC FEATURE LICENSE

- BYOC license is required to create a BYOC Carrier Trunk.
- Validate/Activate the BYOC feature.
- Navigate to Admin > Account Settings > Genesys Add Ons.

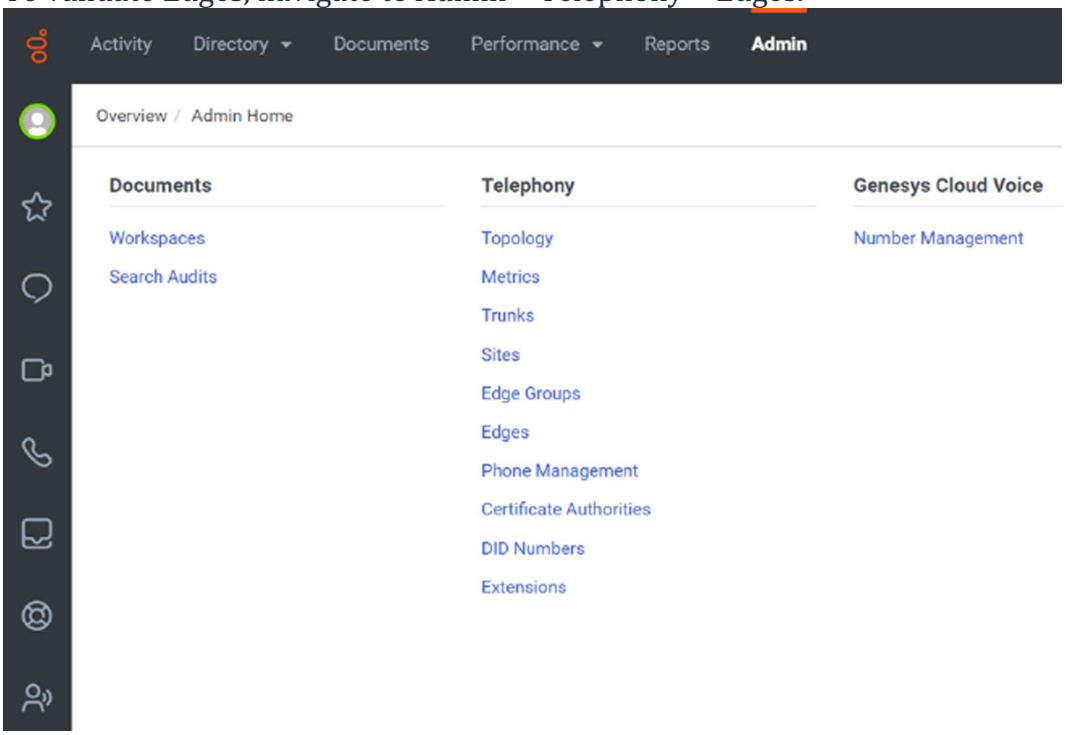


- Select "Activate" for BYOC Cloud if it does not already say "Active".

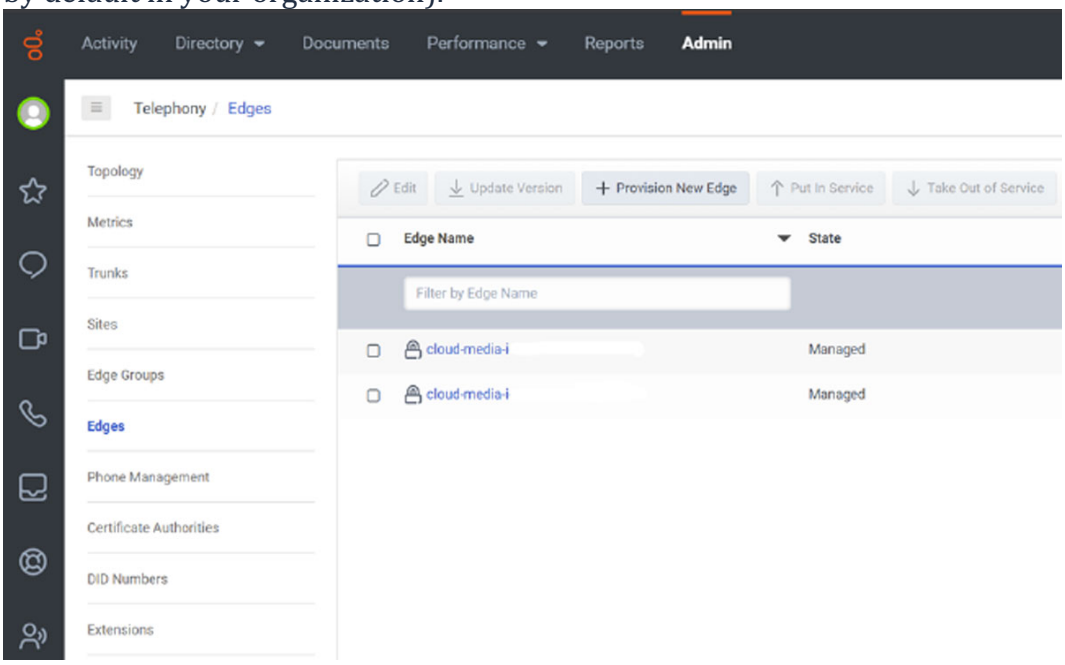


4.3 EDGES

- To validate Edges, navigate to Admin > Telephony > Edges.

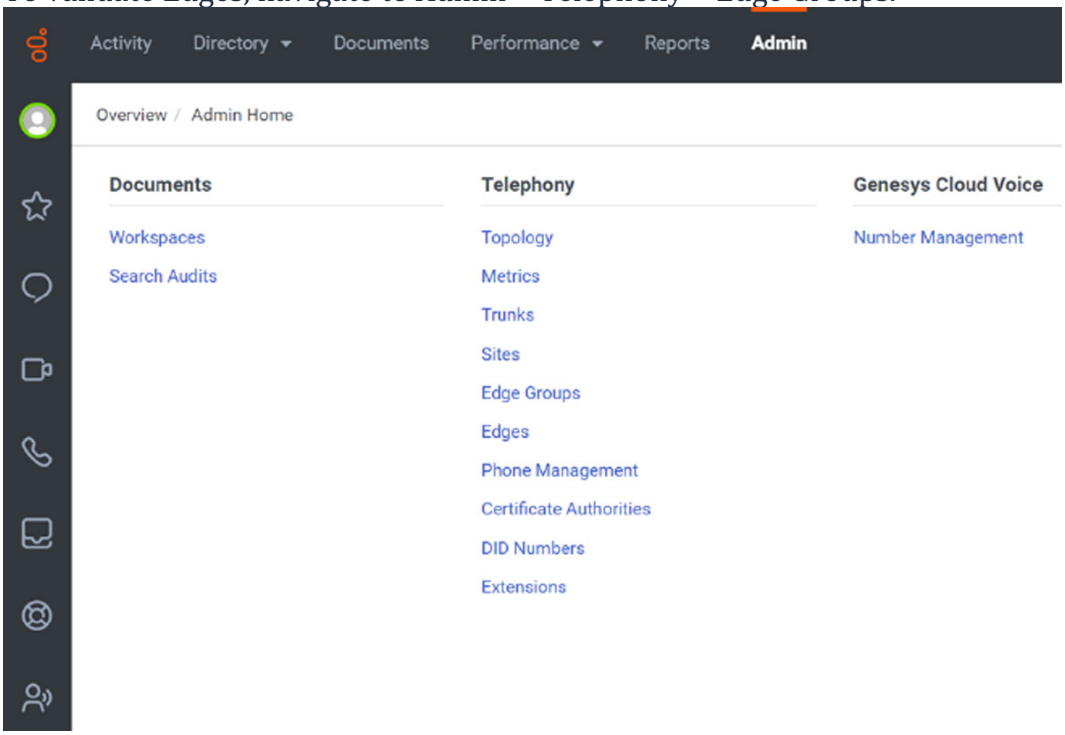


- You should see 2 virtual Edges, assigned to an Edge Group and to a Site (created by default in your organization).

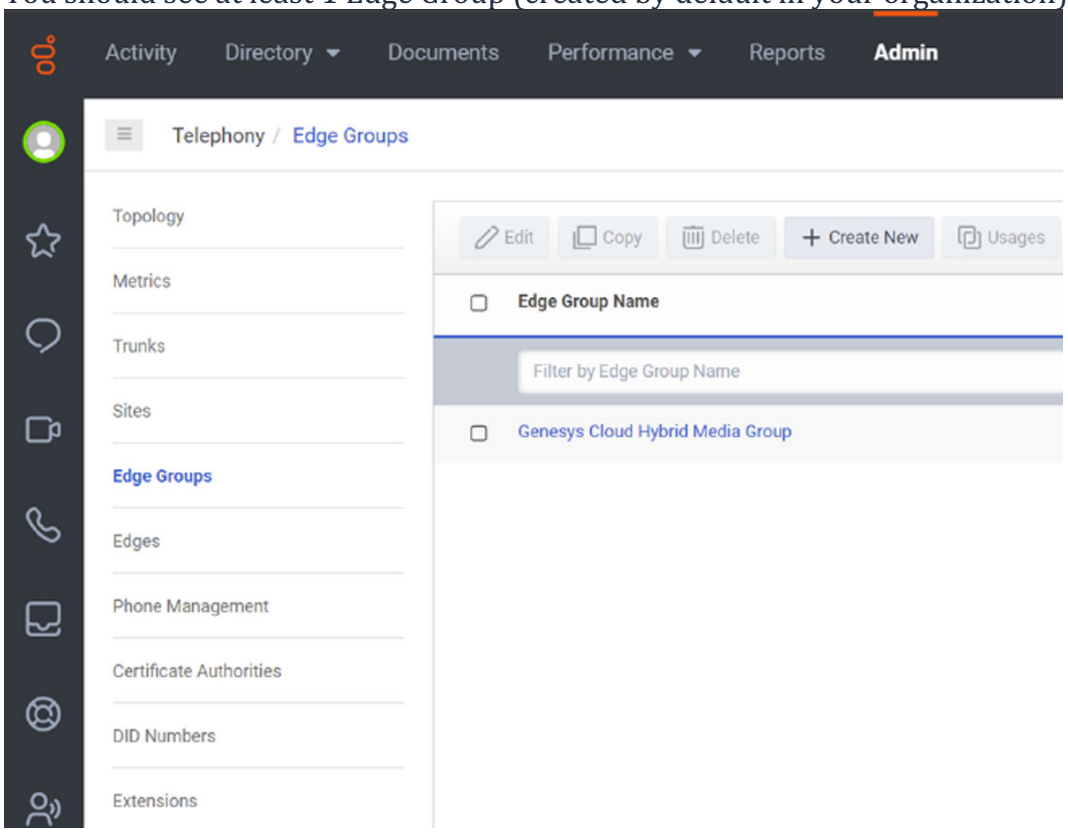


4.4 EDGE GROUPS

- To validate Edges, navigate to Admin > Telephony > Edge Groups.

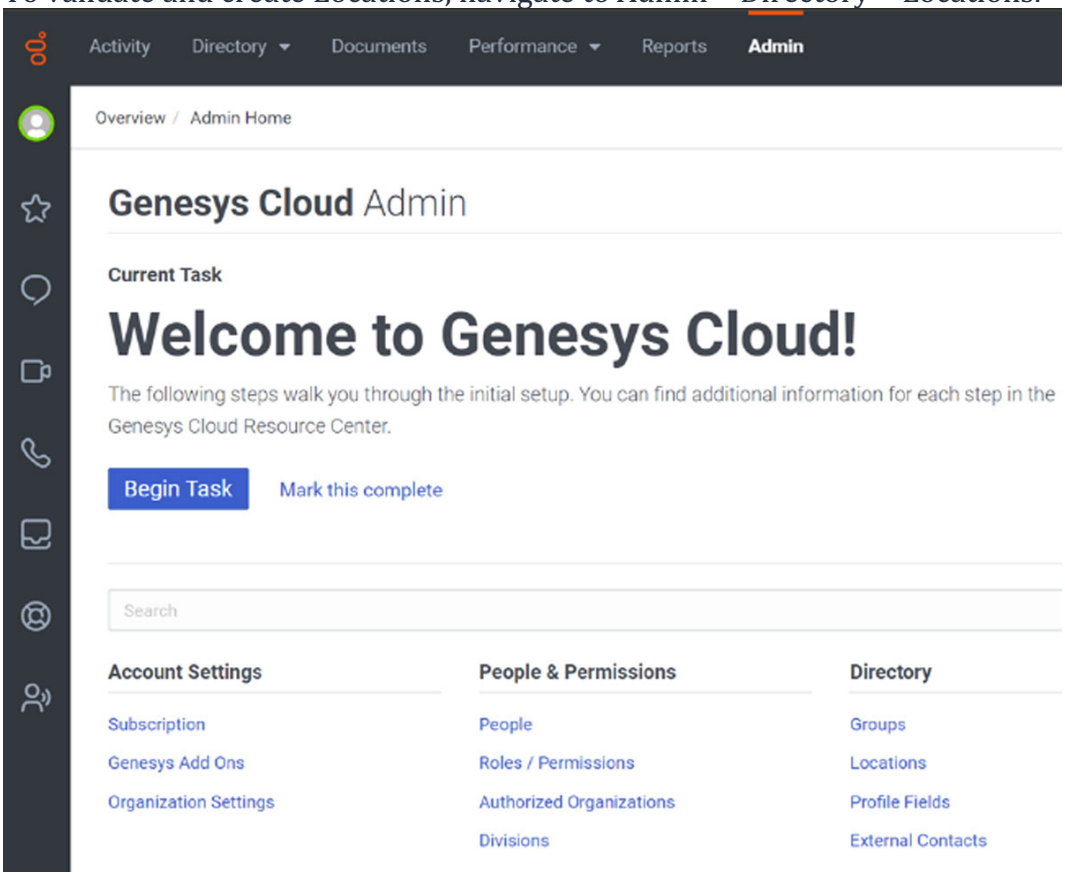


- You should see at least 1 Edge Group (created by default in your organization).

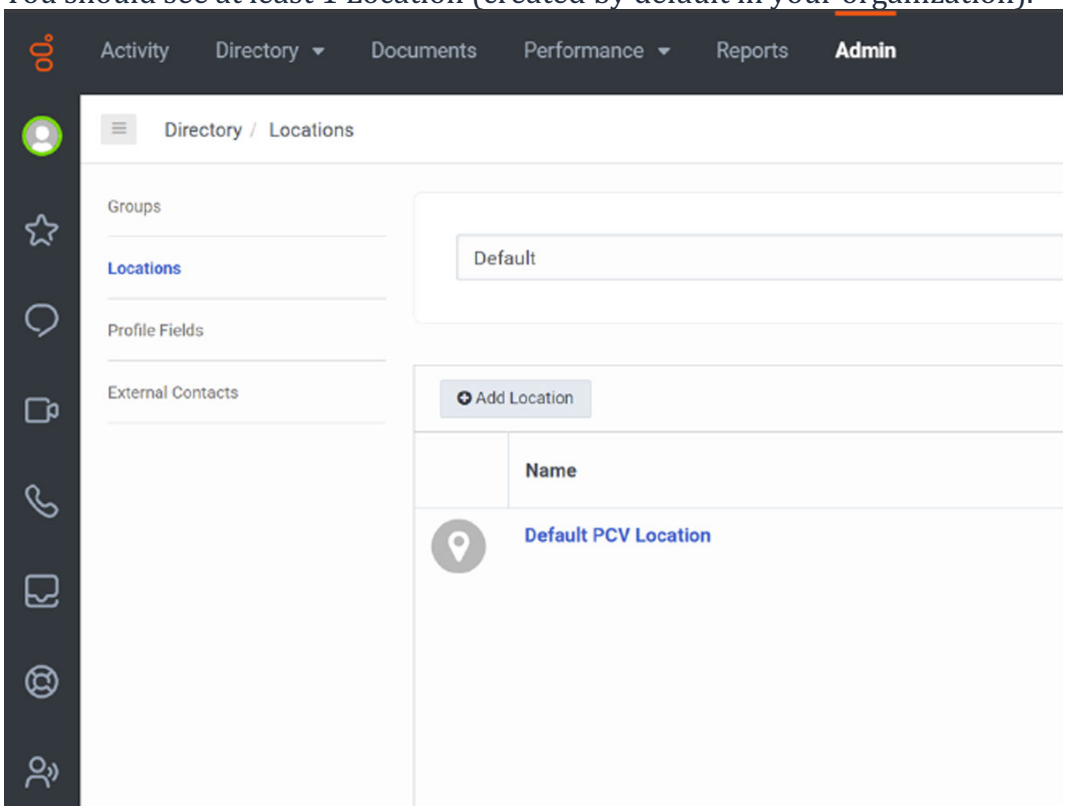


4.5 LOCATIONS

- To validate and create Locations, navigate to Admin > Directory > Locations.

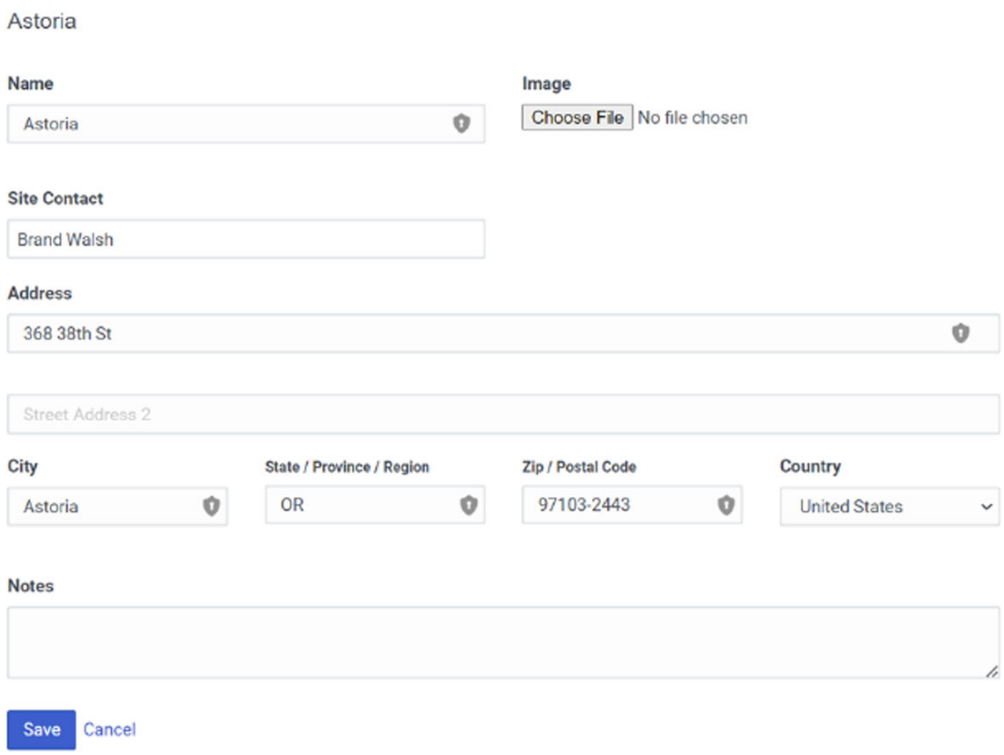


- You should see at least 1 Location (created by default in your organization).



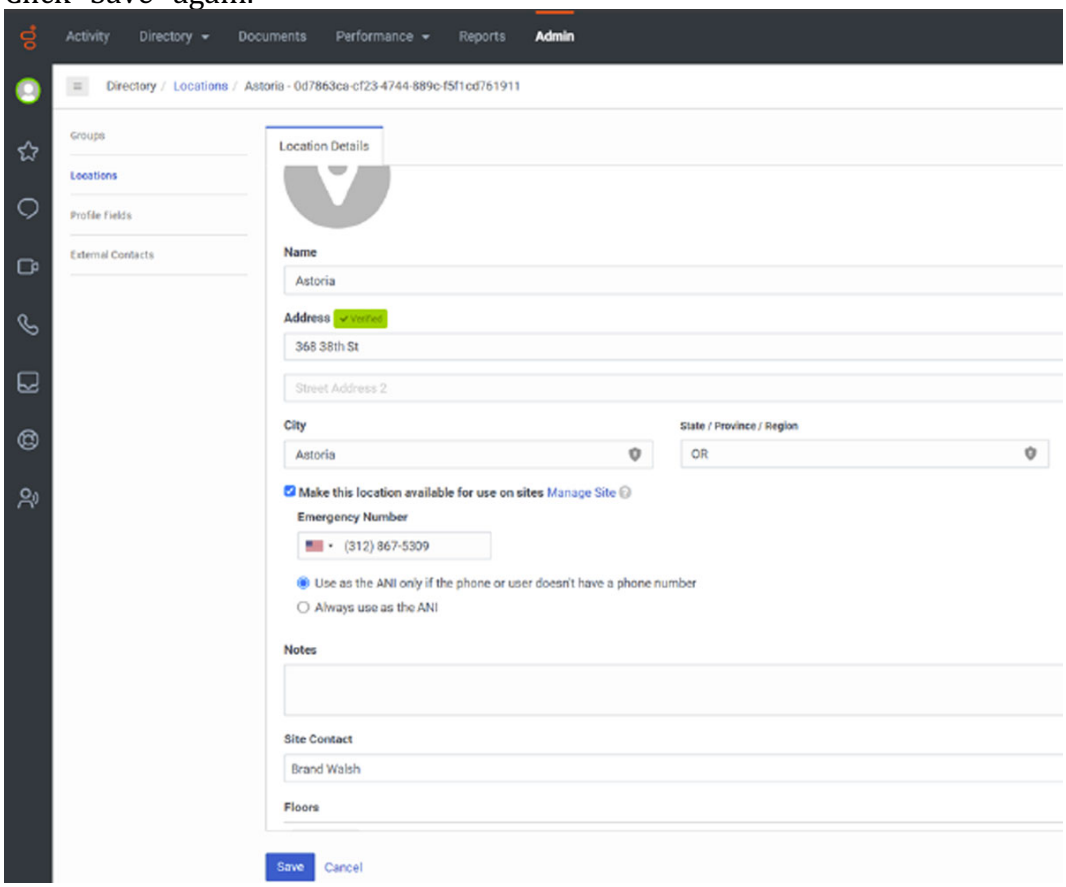
- Click "Add Location".
    - Give the Location a Name.
    - Enter a valid Address (this address will be checked by an external web service).

- Click "Save".



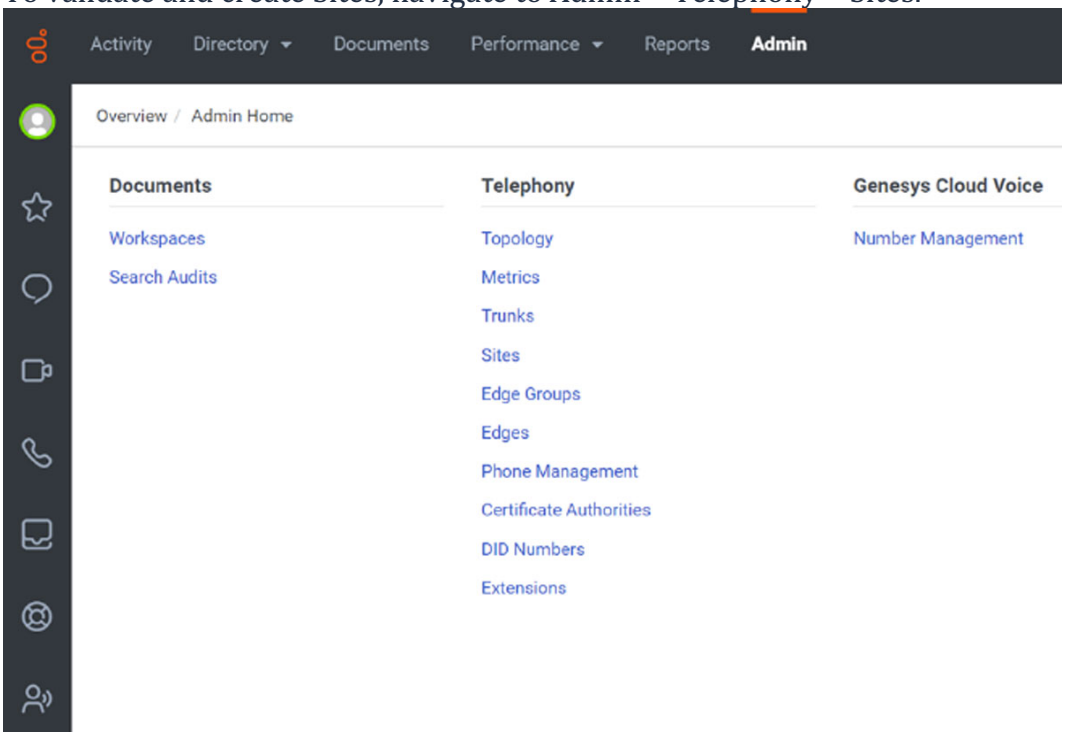
- Select "Make this location available for use on sites" checkbox.
- Enter a valid Emergency Number.
- Assign a Site Contact.

- Click "Save" again.

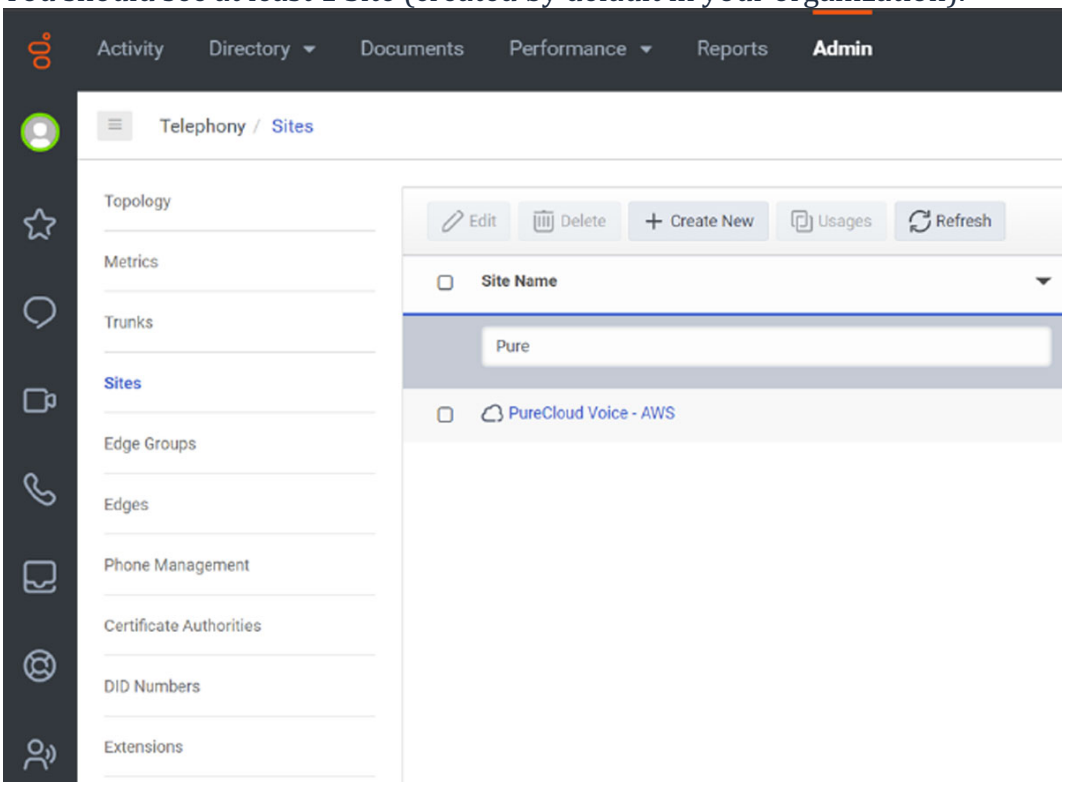


4.6 SITES

- To validate and create Sites, navigate to Admin > Telephony > Sites.

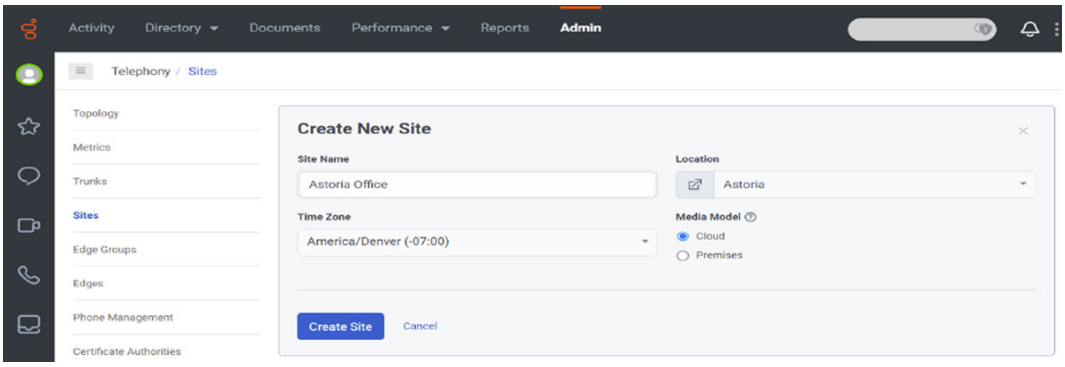


- You should see at least 1 Site (created by default in your organization).



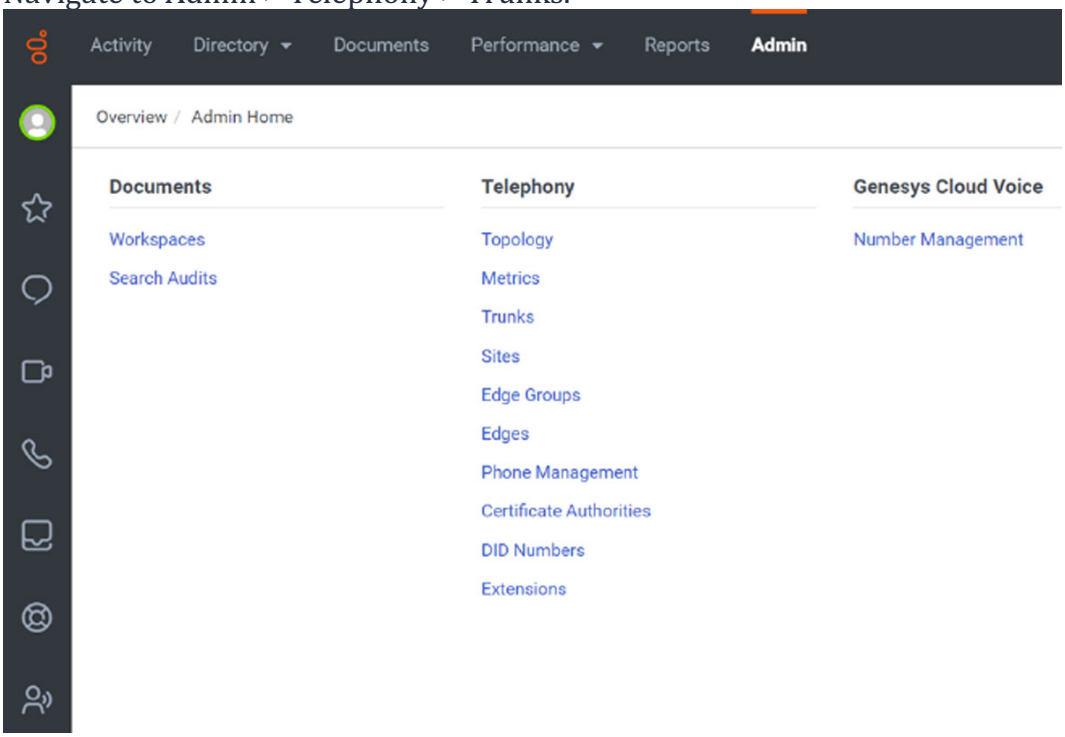
- Click "Create New".
  - Give the Site a Name.
  - Assign the Location we just created.

- Assign the appropriate Time Zone.
- Click "Create Site".

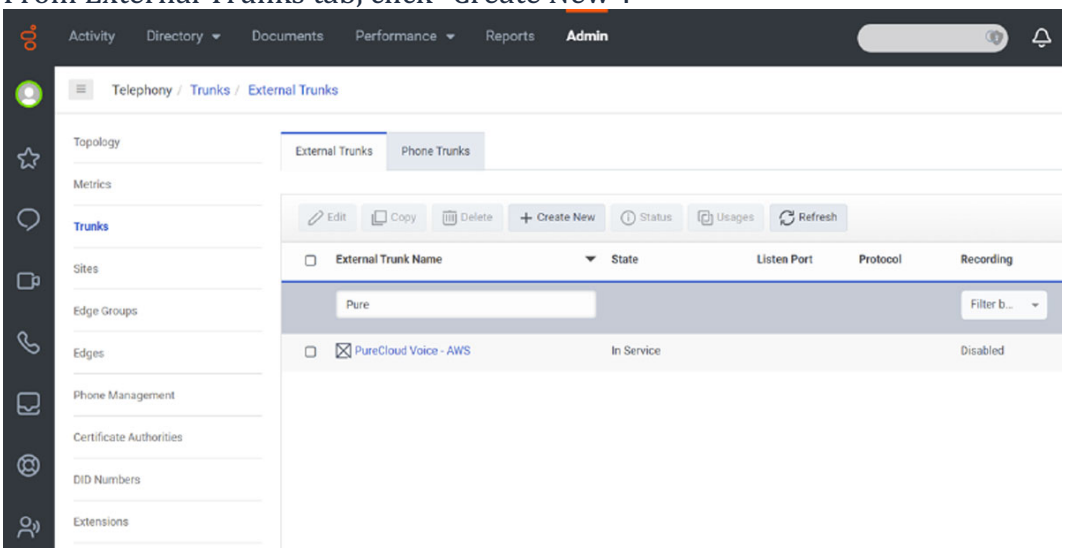


4.7 TRUNKS

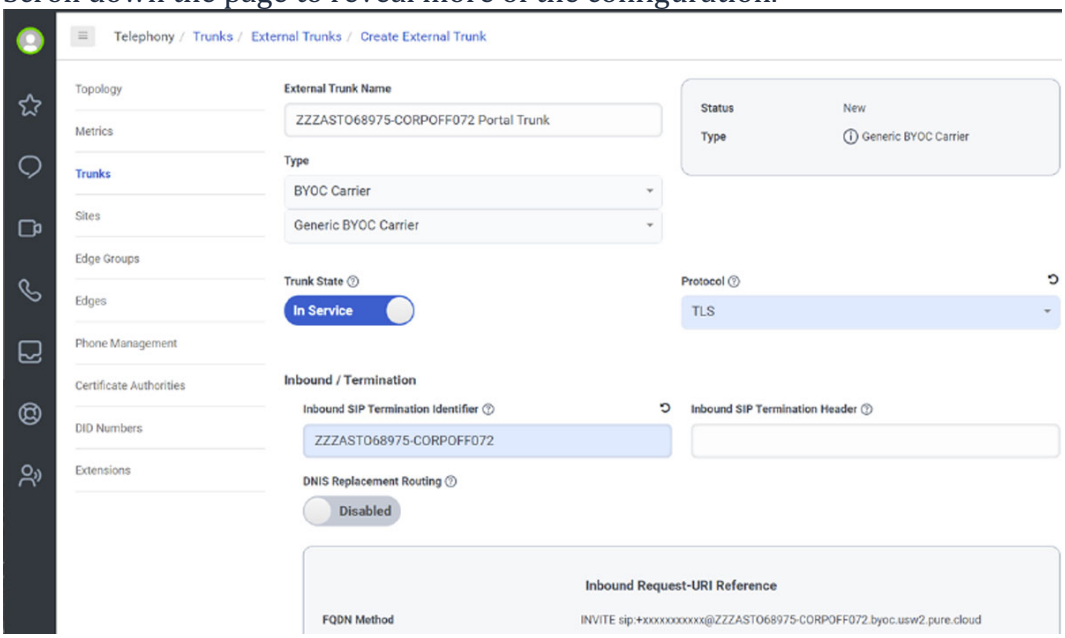
- Navigate to Admin > Telephony > Trunks.



- From External Trunks tab, click "Create New".



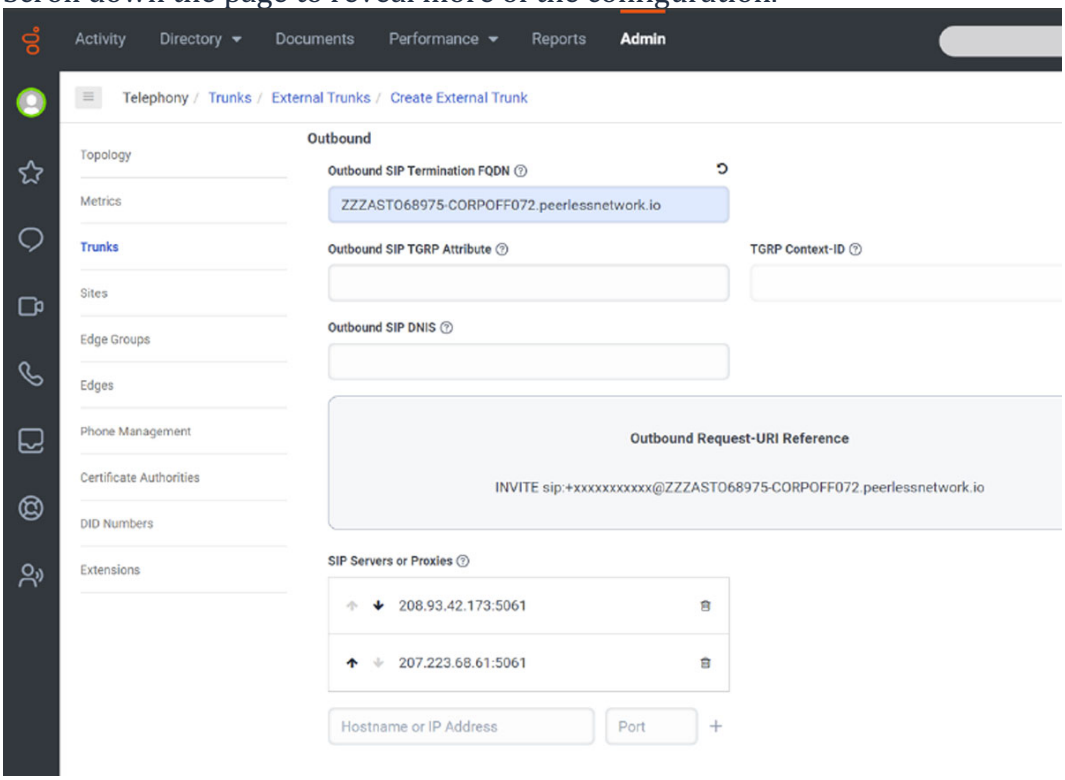
- Give the External Trunk a Name.
- Select BYOC Carrier from the Type dropdown.
- Select Generic BYOC Carrier from the next Type dropdown.
- Set Trunk State to In Service.
- Select the appropriate Protocol from the Protocol dropdown:
    - Select TLS if you Enabled TLS/SRTP in section 3.2
    - Select UDP if you Disabled TLS/SRTP in section 3.2
- Input the unique identifier discussed in section 4.1 for the Inbound SIP Termination Identifier.
- Scroll down the page to reveal more of the configuration.



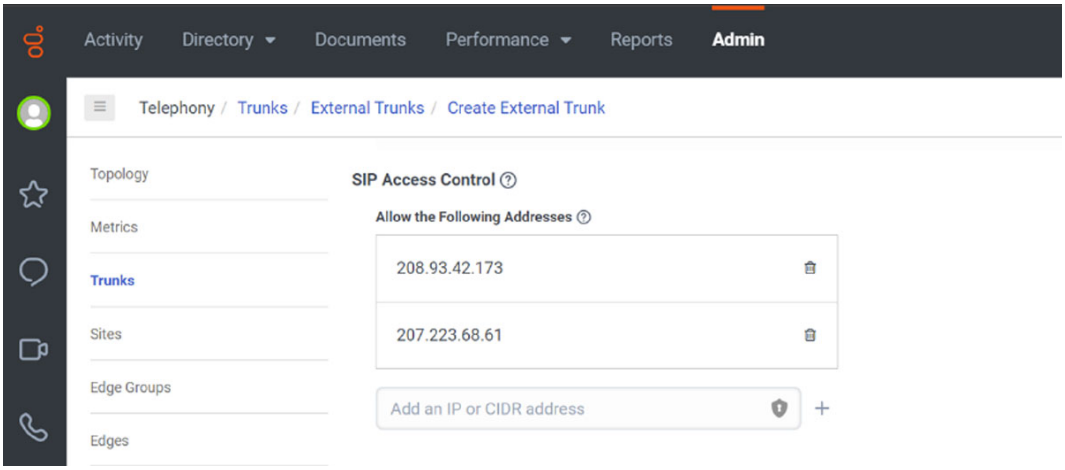
- Input the Unique Outbound SIP Termination FQDN discussed in section 4.1 as the Outbound SIP Termination FQDN.
- Add the SIP Server IP and Ports one at a time, clicking the "+"" button each time. These correspond to the SBC IP Addresses that were returned when creating the

trunk under section 3.2. See section 4.1 if you did not copy and save the SBC IP Addresses at that time.

- Scroll down the page to reveal more of the configuration.

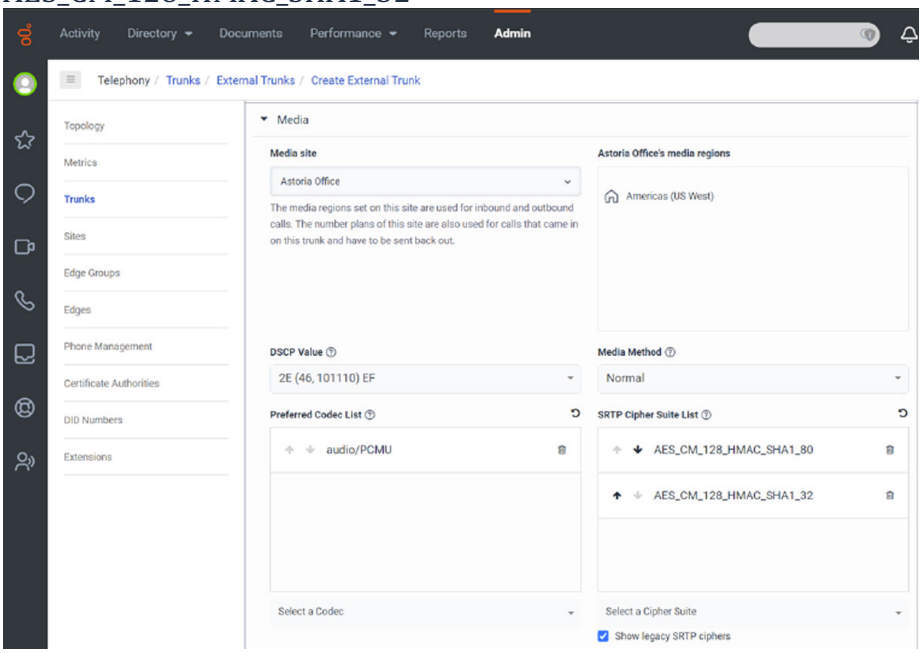


- Validate the two SIP Server IP and were automatically added to SIP Access Control

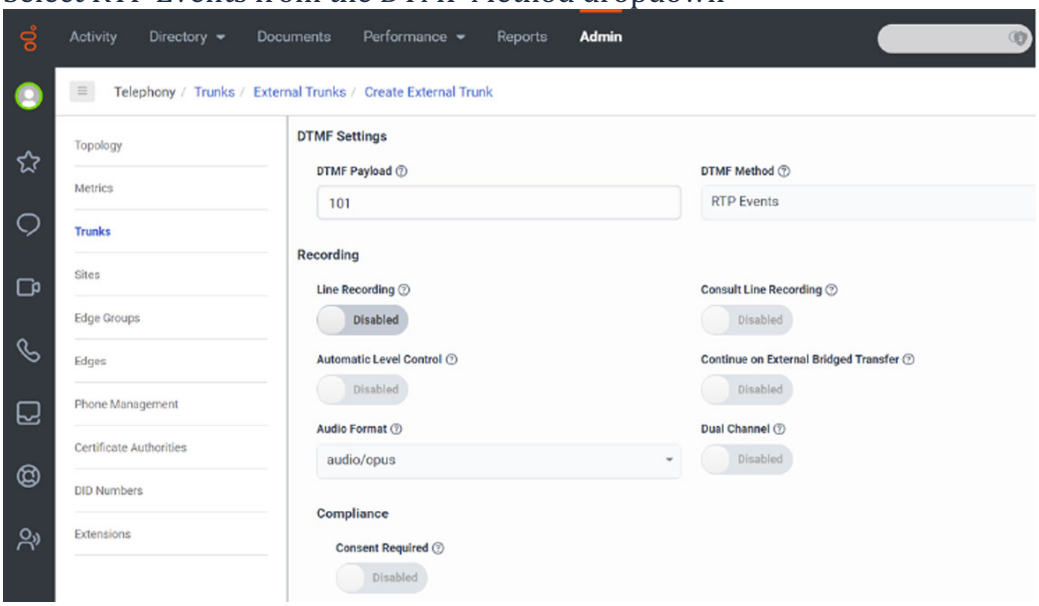


- Expand the Media section of External Trunk Configuration
    - Select the Site previously created in the Media Site dropdown
    - Set PMCU in the Preferred Codec List, and remove all other Codecs
    - If you Enabled TLS/SRTP in section 3.2, complete the below step for SRTP. If you Disabled TLS/SRTP in section 3.2, proceed to the next bullet point to set DTMF Payload.
        - Select "Show legacy SRTP ciphers" and add the two cipher suites below:
            - AES_CM_128_HMAC_SHA1_80

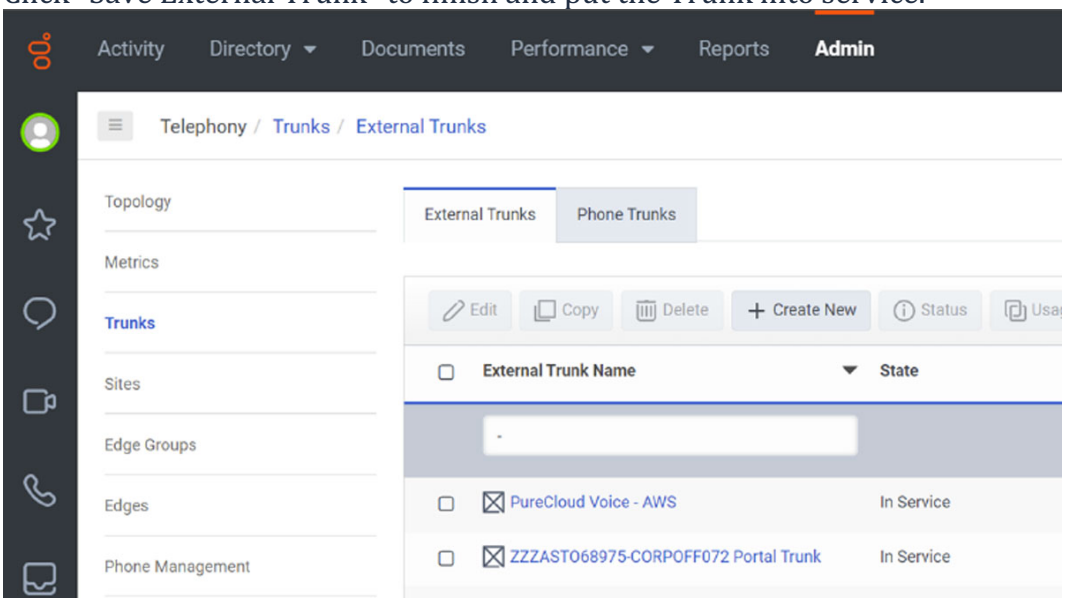
- AES_CM_128_HMAC_SHA1_32



- Set DTMF Payload to 101
- Select RTP Events from the DTMF Method dropdown

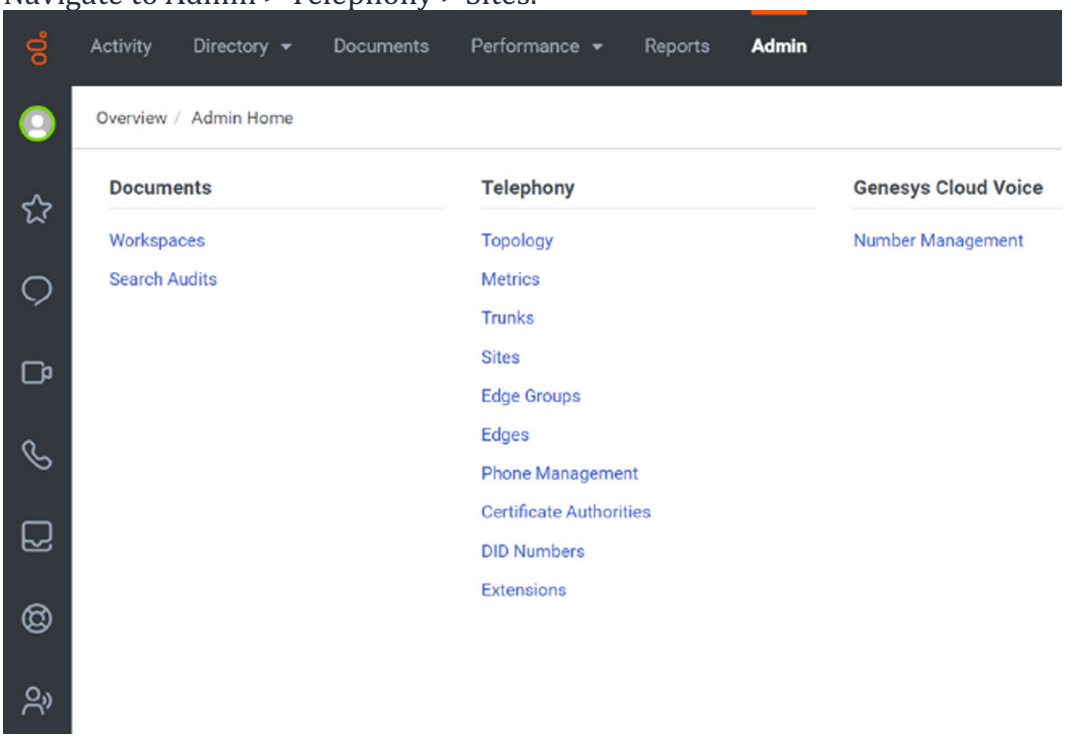


- Click "Save External Trunk" to finish and put the Trunk into service.

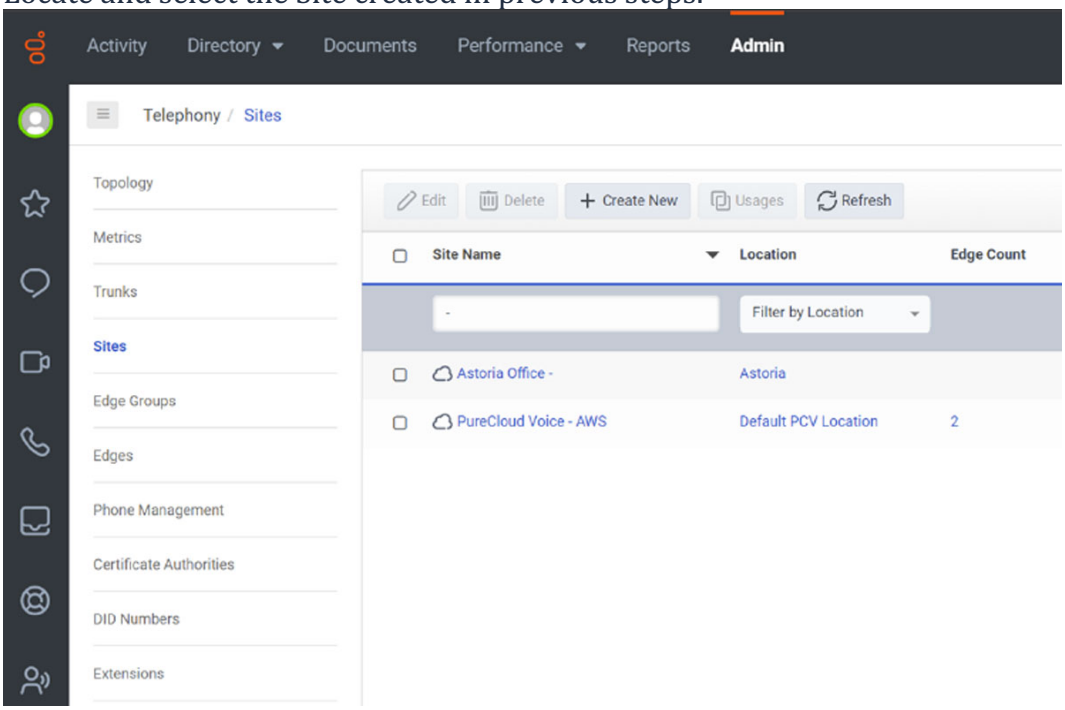


4.8 OUTBOUND ROUTES

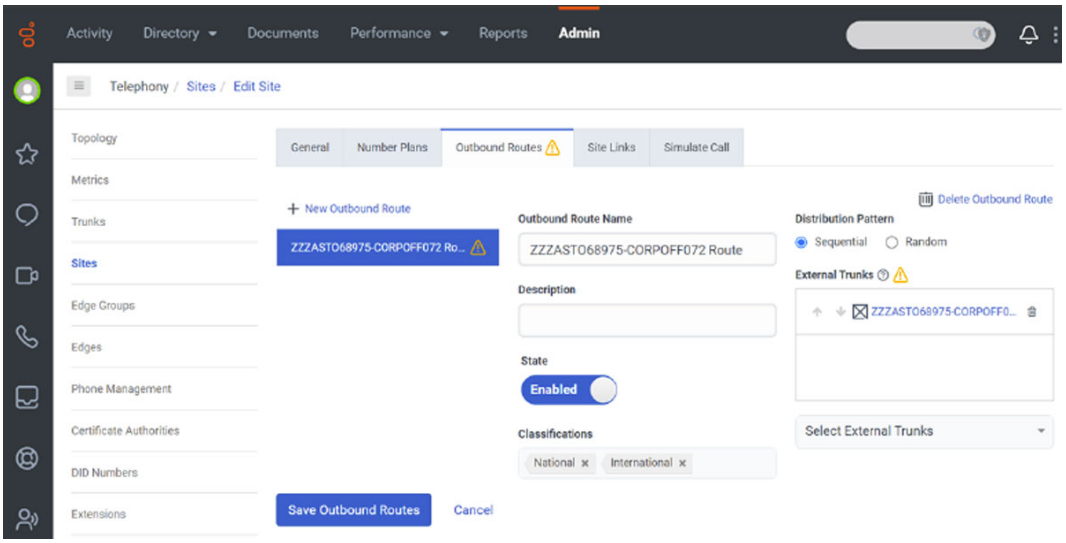
- Navigate to Admin > Telephony > Sites.



- Locate and select the Site created in previous steps.

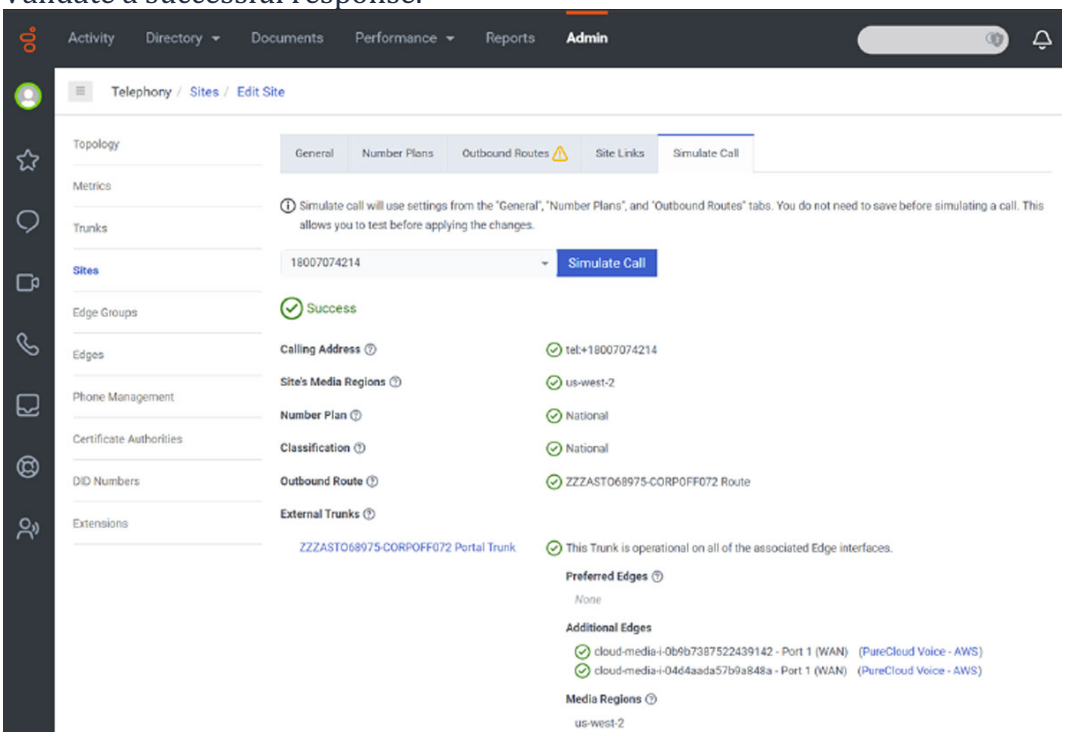


- Select the Outbound Route tab.
  - Give the Outbound Route a name.
  - Set State to Enabled.
  - Select the previously created External Trunk from the Select External Trunk Dropdown.
  - Set the Classifications to International and National.
  - Click "Save Outbound Route".



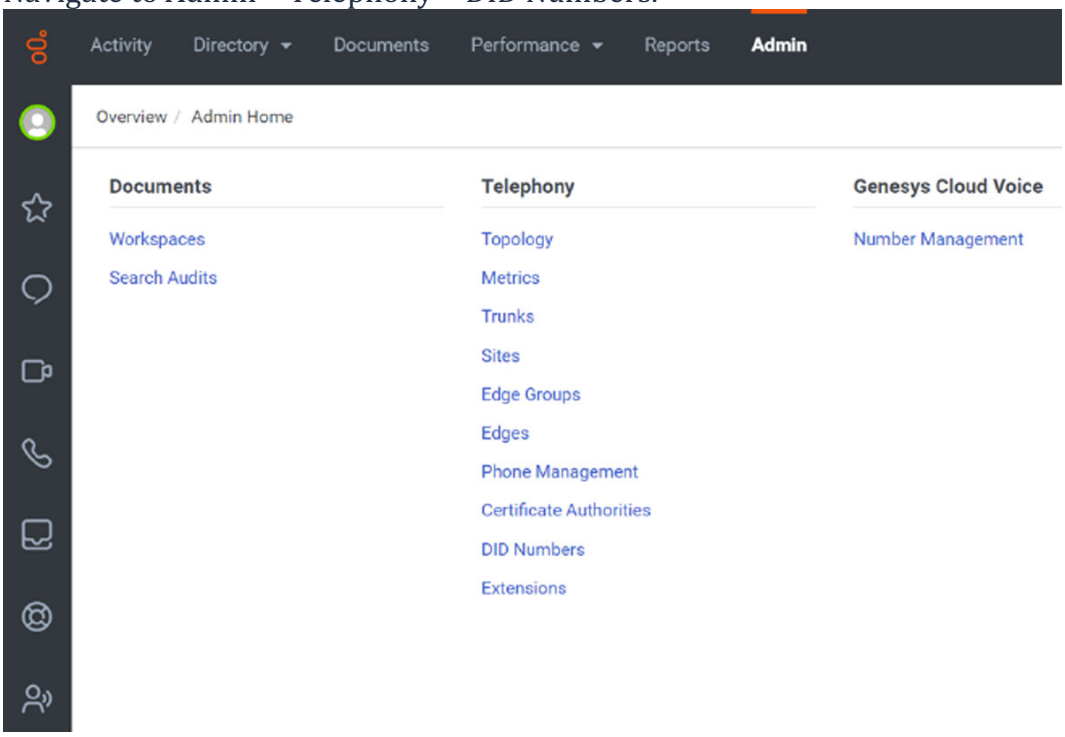
- Select the Simulate Call tab.
  - Enter a valid National or International number.
  - Click "Simulate Call".

- Validate a successful response.



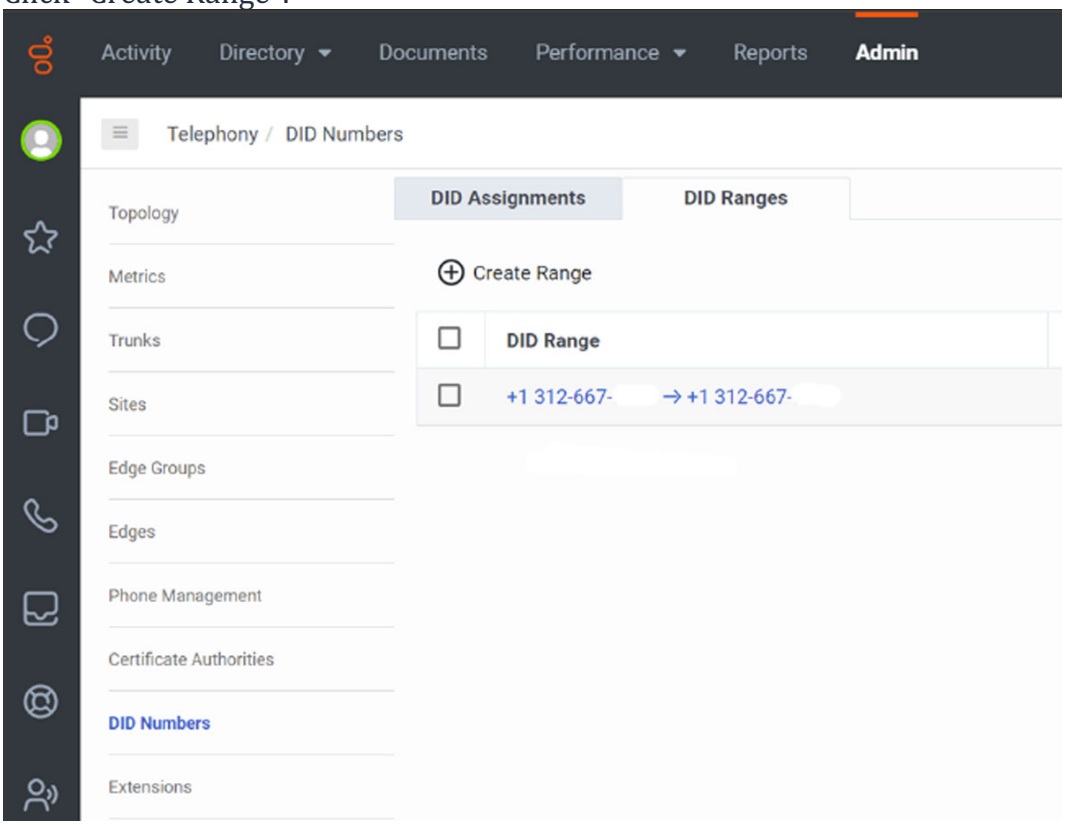
4.9 DID NUMBERS

- Navigate to Admin > Telephony > DID Numbers.

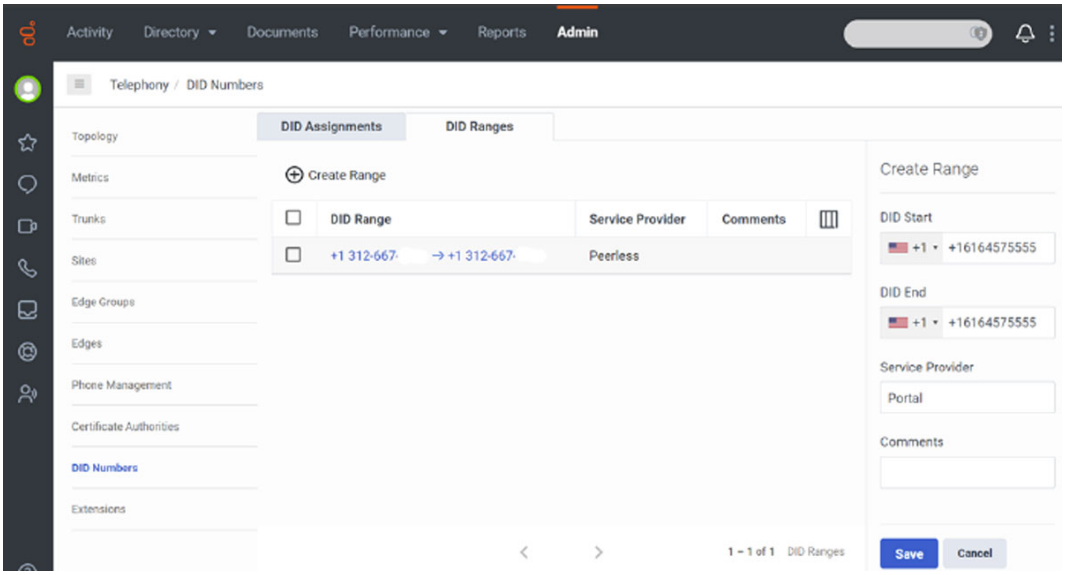
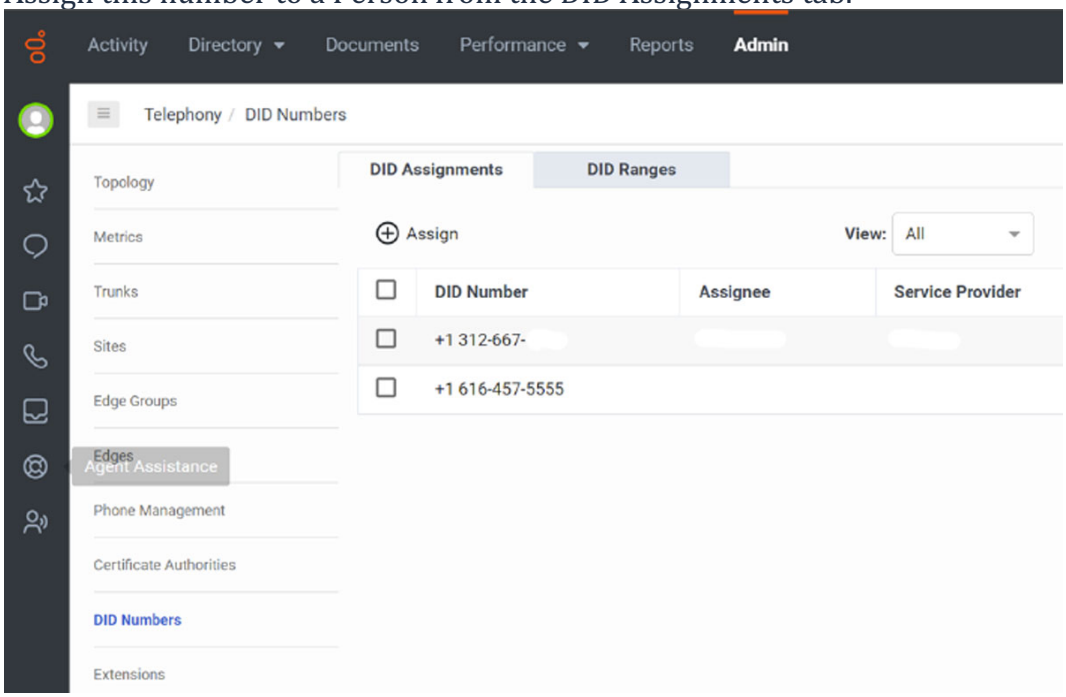


- Select the DID Ranges tab.

- Click "Create Range".



- Select the appropriate Country from the DID Start dropdown.
- Enter the DID that was purchased from the Portal in the DID Start.
- Select the appropriate Country from the DID End dropdown.
- Enter the DID that was purchased from the Portal in the DID End (enter the same as DID Start if only one DID was purchased).
- Enter the Service Provider.
- Click "Save".



- Assign this number to a Person from the DID Assignments tab.