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Oracle SBC Configuration Template Outline for Genesys Pure Engage with Twilio Elastic SIP Trunking

Technical Application Note

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Contents

1   Intended Audience

This document is intended for use by Oracle Systems Engineers, third party Systems Integrators, Oracle Enterprise customers, partners and end users of the Oracle Enterprise Session Border Controller (SBC).

Please note, applying a configuration to the SBC via the Configuration Assistant will overwrite any existing configuration currently applied to the SBC. **We highly recommend this only be used for initial setup of the SBC. This feature is not recommended to be used to make changes to existing configurations.**

2   Introduction

When you first log on to the E-SBC, the system requires you to set the configuration parameters necessary for basic operation. To help you set the initial configuration with minimal effort, the E-SBC provides the Configuration Assistant. The Configuration Assistant, which you can run from the Web GUI or the Acme Command Line Interface (ACLI), asks you questions and uses your answers to set parameters for managing and securing call traffic. You can use the Configuration Assistant for the initial set up to make to the basic configuration. See "Configuration Assistant Operations" in the [Web GUI User Guide](#) and "Configuration Assistant Workflow and Checklist" in the [ACLI Configuration Guide](#)

3   Revision History

Date	Document Version	Template Version	Comments
04-06-2021	1.0	1.0	Initial Revision

4 Document Overview

This Oracle document describes how to use our Configuration Assistant feature as a quick and simple way to configure the Oracle SBC for integration with Genesys Pure Engage and Twilio Elastic SIP Trunking.

These software releases with the configuration listed below can run on any of the following products:

- AP 1100
- AP 3900
- AP 4600
- AP 6350
- AP 6300
- VME

5 Requirements

- SBC running release SCZ840p5A or later
- TLS certificate for the SBC preferably in PKCS format, or access to Twilio supported CA to sign certificate once CSR is generated by the SBC. A list of supported CA's can be found here.

- **The template can be downloaded from our app note link given below**
  https://www.oracle.com/technical-resources/documentation/acme-packet.html

  The template designed for Genesys Pure Engage and Twilio can be found under "Configuration Assistant Templates" section of the app note page.

6 Genesys Pure Engage Twilio Trunk Configuration Assistance Template

The following outline assumes you have established initial access to the SBC via console and completed the following steps:

- Configured boot parameters for management access
- Setup Product
- Set Entitlements
- Configured HTTP-Server to establish access to SBC GUI

For more information on how to complete the above, please refer to Section 6 of the Oracle SBC integration with Genesys Pure Engage and Twilio Elastic Sip Trunking
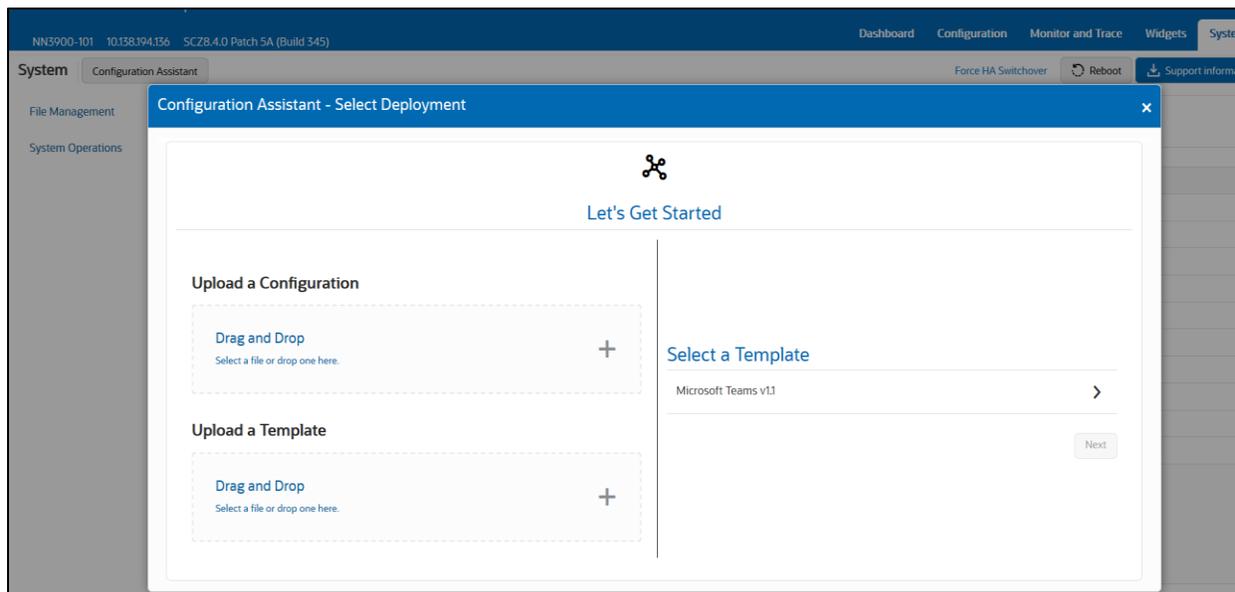
6.1 Initial GUI Access

The Oracle SBC WebGui can be accessed by entering the following in your web browser:

http(s)://<SBC Management IP>.

The username and password are the same as that of the CLI.

If there is no configuration on the SBC, the configuration assistant will show immediately upon login to the SBC GUI:


As you can see in the screen shot above, on the right side, Microsoft Teams is already listed under "Select a Template" which is the default template along with this patch. Please select "Upload a Template" tab on left hand side and select the Genesys Twilio template downloaded from the app note site to upload that to the SBC. **The template downloaded from the app note site will be in .gz(zipped) format**.

As an alternate, the template file downloaded from the site can also be loaded to /code/configAssistant/templates folder of the SBC using WinSCP or any file transfer software. Once done, the template shows up under Select Template tab as shown below.
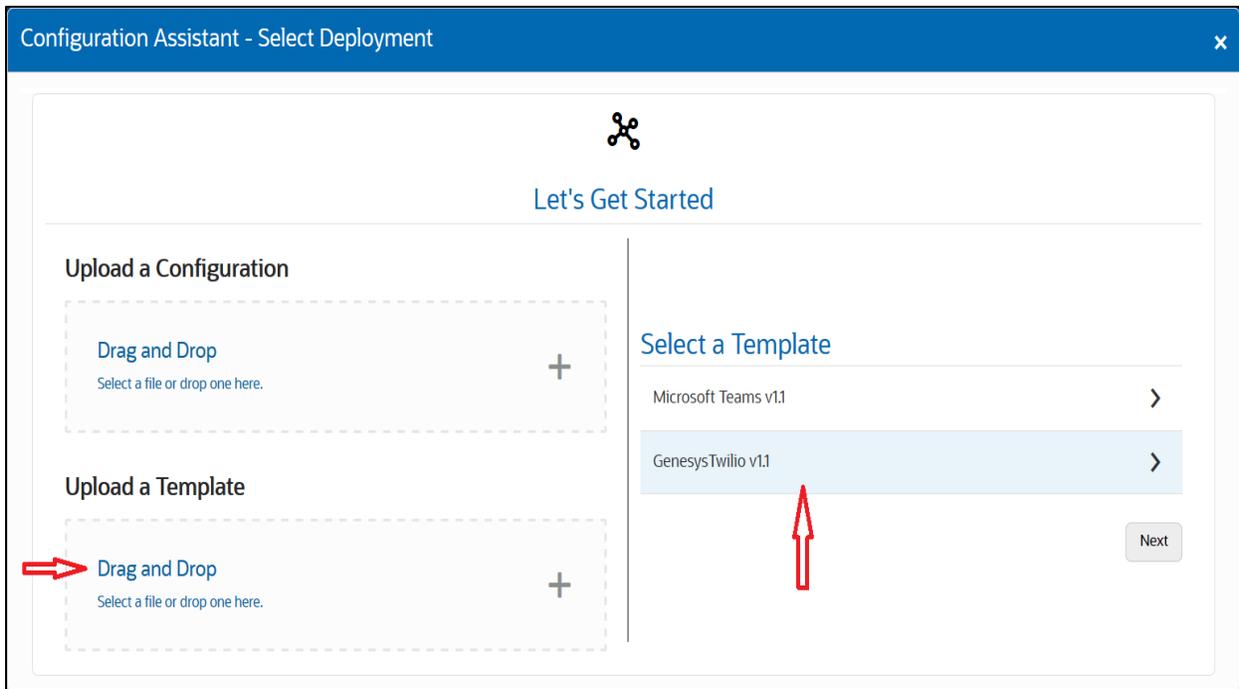
Once you highlight "GenesysTwilio v1.1" template, you will see a pop up with the filename and description of the templates purpose:
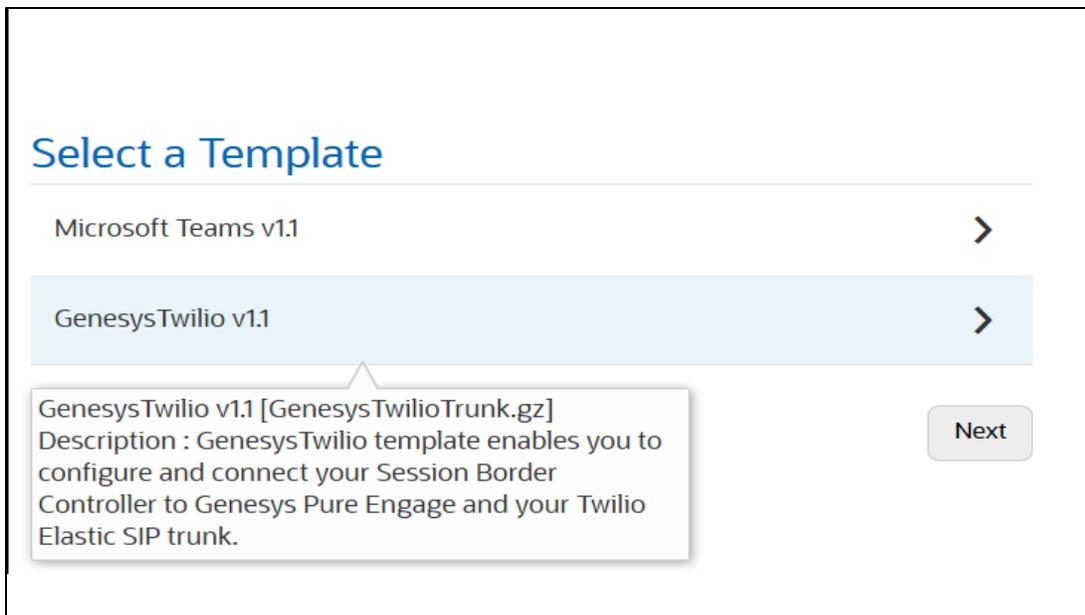
Click *Next*: The following "Notes" will be displayed.

Notes   ✕

```
Warning:
- Proceeding with the Configuration Assistant results in erasing the existing configuration.

Pre-requisites:
- Connect Port 0 and Port 1 of the Session Border Controller (SBC) to your network.
- Add the SRTP license to the system.
- Enable the Advanced entitlement on the system.
- Set Session Capacity in the entitlement.
- Set the system time.
- This Template creates a basic configuration required to interwork between Twilio Elastic SIP Trunk and Genesys Pure Engage on the SBC.
  Some parameters are subjected to change depending upon each network setup.
  Please modify/configure them manually via the WebGUI/CLI in your system.

Recommendations:
- Obtain a signed certificate in PKCS12 format from your Certificate Authority.
```

OK

Click OK at the bottom.

6.2   Networking

6.2.1   Page 1-Genesys Pure Engage Network

Page 1 of the template is where you will configure the network information that connects to Genesys Pure Engage side. The top entry box on this page, "Genesys Session Agent IP/hostname", in this field is where you will enter the next hop IP address/hostname for sip signaling to and from your Genesys Pure Engage.

Next to each field is a help icon. If you hover over the icon, you will be provided with a description or definition of each filed. Also, pay close attention to which fields are listed as "required".

6.2.2   Page 2-Twilio Elastic SIP Trunk Network

Page 2 of the template is where you will configure the network that connects to Twilio Elastic SIP trunking.

The top entry box on this page, "Twilio Session Agent IP/hostname", in this field is where you will enter the next hop IP address/hostname for sip signaling to and from your Twilio Elastic SIP trunk.

Once all required boxes are populated on each page, Top Right, *Skip* becomes *Next*.
Click *Next* to proceed to the next page of the template.

6.3   Security

6.3.1   Page 3-Import DigiCert Root Trusted CA Certificate

Page 3 of this template is where the SBC will import the DigiCert Root CA certificate, which Twilio side use to sign the certs it presents to the SBC during the TLS handshake.
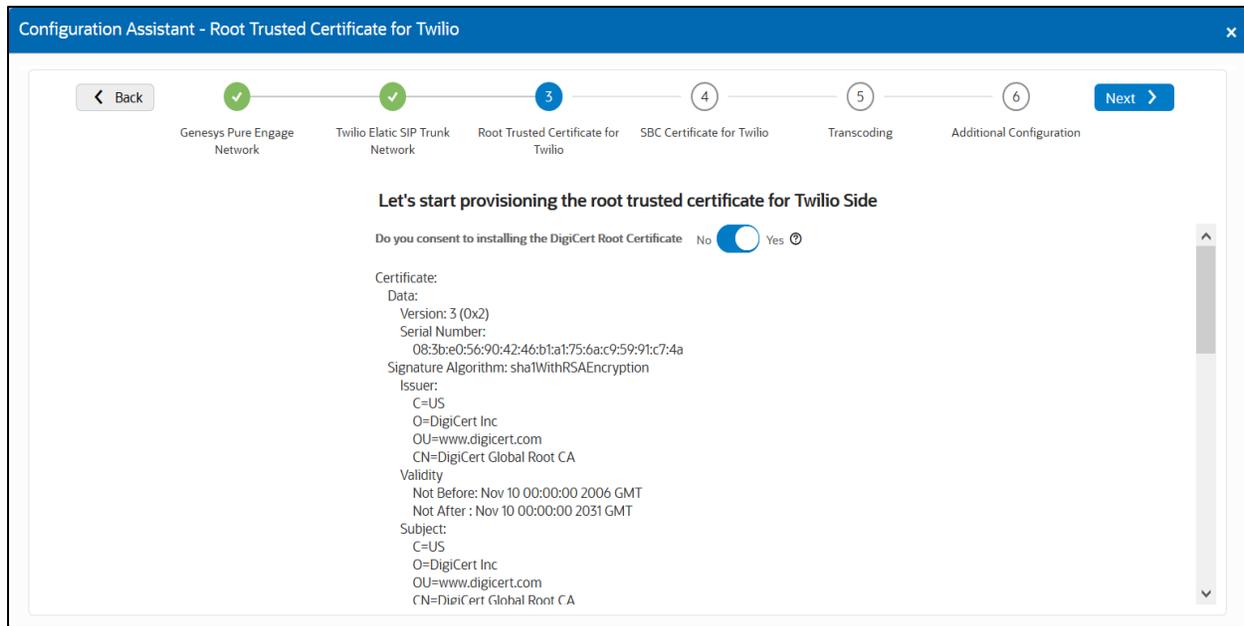
Importing the DigiCert Root CA certs is enabled by default.

6.3.2   Page 4 -SBC Certificates for Twilio side.

Page 4 of this template is where you will either import or create a tls certificate for the SBC for Twilio trunk side.
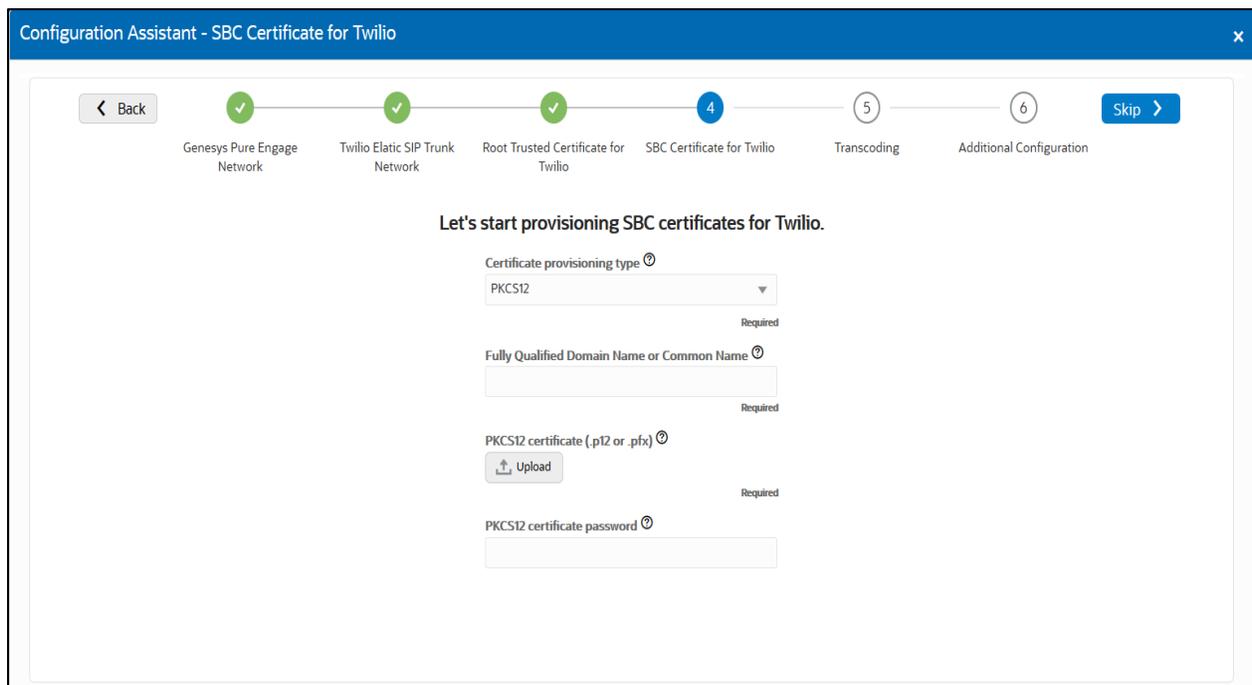
6.3.2.1 PKCS12 Import

By default, the SBC is set to import a certificate in PKCS 12 format. This is the simplest and recommended way to add a certificate to the Oracle SBC. Using this method, you will add the SBC's hostname under "FQDN or Common Name" field, upload a certificate from Twilio supported CA, and enter the certificates password.

6.3.2.2 Certificate Signing Request (CSR)

The alternative to importing a PKCS12 certificate to the SBC is to configure a certificate and generate a certificate signing request that you will have signed by Twilio supported CA.

Same as PKCS12, you will enter the SBC's hostname under "FQDN or Common Name" field (required) and answer the remaining question presented on this page (optional).

6.4 Transcoding

6.4.1 Page 5-Transcoding

Page 5 is where you will be able to configure transcoding between the SBC and Pure Engage side, and/or between your Twilio Elastic SIP trunk and Pure Engage Side.
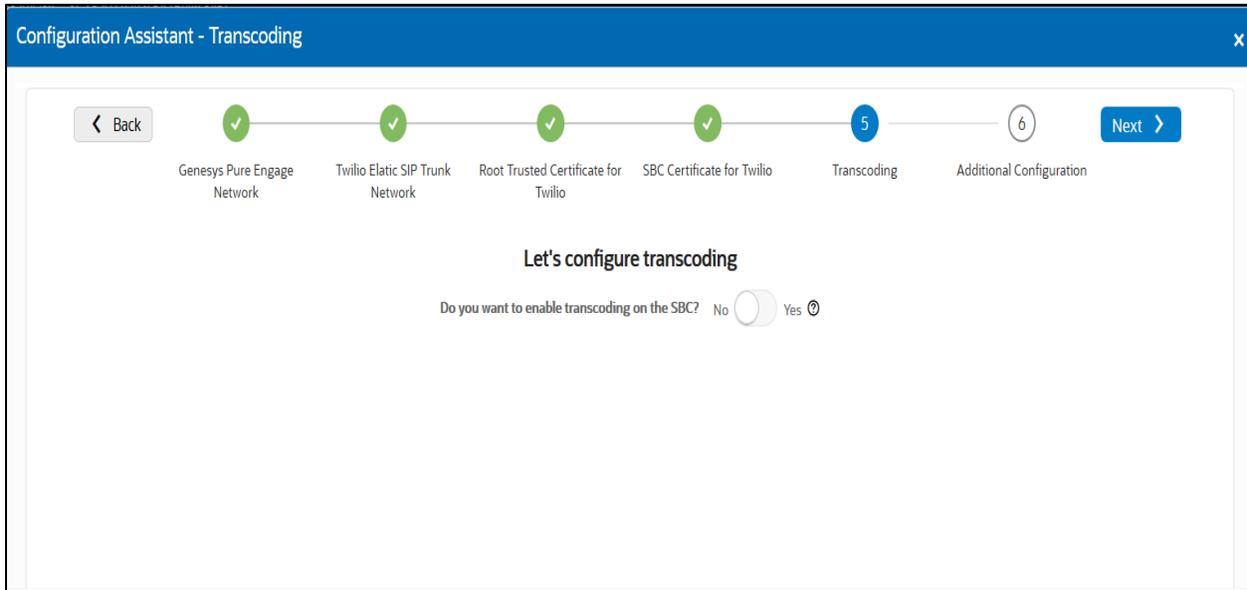
If you select yes to either question regarding media codecs, you will be presented with a required drop down. You can select as many codecs from the list presented as you would like for each side. Please note that we have created default set of Codec Profiles on the SBC. If this does not suit your Network requirement you can skip the section and configure relevant Codec-Policy on the SBC manually through the WebGUI or the ACLI configuration.
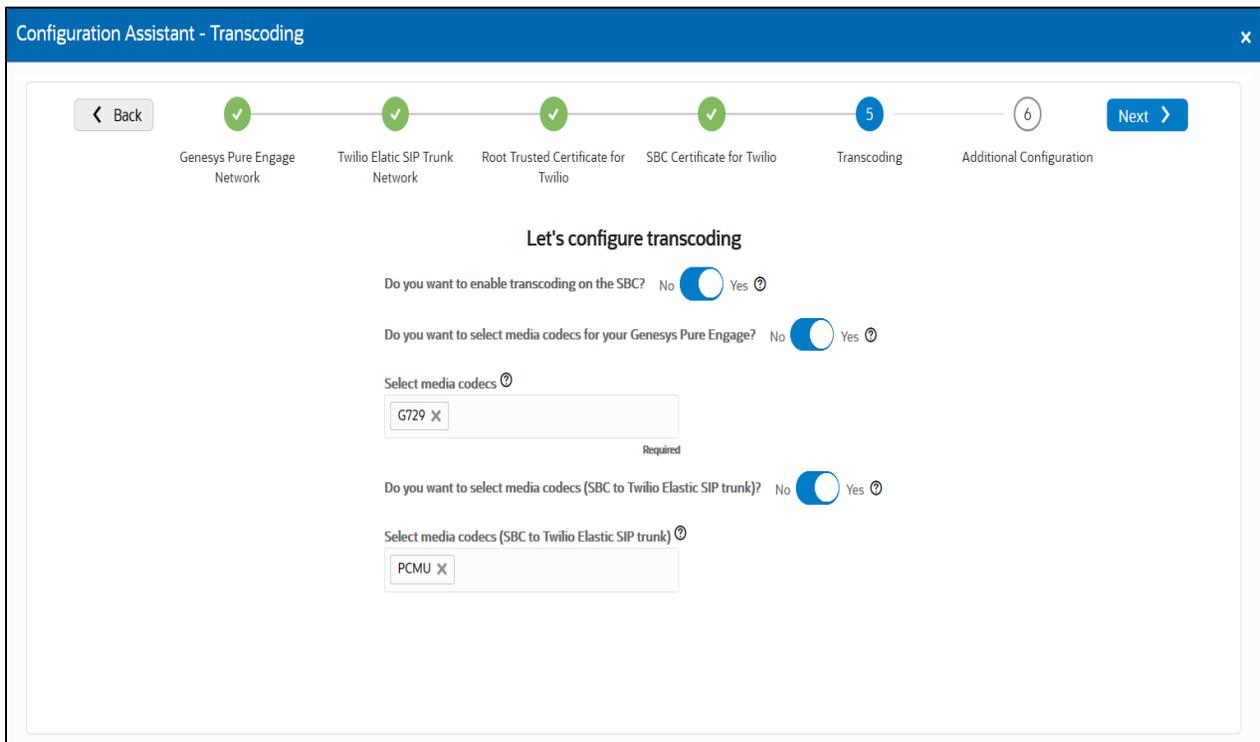
6.5   Additional Configuration

6.5.1   Page 6- Session translation capabilities

Page 6 is where you will be able to configure Session translation capabilities for Genesys Pure Engage side and Twilio Elastic SIP trunk Side.

6.6 Review

At the end of the template, you will notice in the top right, a "*Review*" tab. If all 6 pages presented across the top are showing green, indicting there are no errors with the information entered, click on the "Review" tab:

On the left side of the review contains the entries for each page. Each page has an "*Edit*" tab that can be used to make changes to the information entered on that specific page without having to go through the entire template again.

On the right side of the review page, under the "*Generated Config*" tab is the ACLI output from the SBC. This is the complete configuration of the SBC based on the information entered throughout the template.

Also on the right side of the review page you may see another tab, "*TwilioCSR CSR*".

On Page 4 of the template, if you chose CSR from the drop down menu instead of PKCS, the SBC configures a certificate record and generates a certificate signing request for you.

Click the copy button under the CSR, and paste the output into a text file. Next, provide the txt file to your CA for signature. Once the certificate is signed by Twilio supported CA, you will need to import that certificate into the SBC manually, either via ACLI or through the GUI.

Note: if you chose to import a certificate in PKCS12 format, the CSR tab will not be present under review.
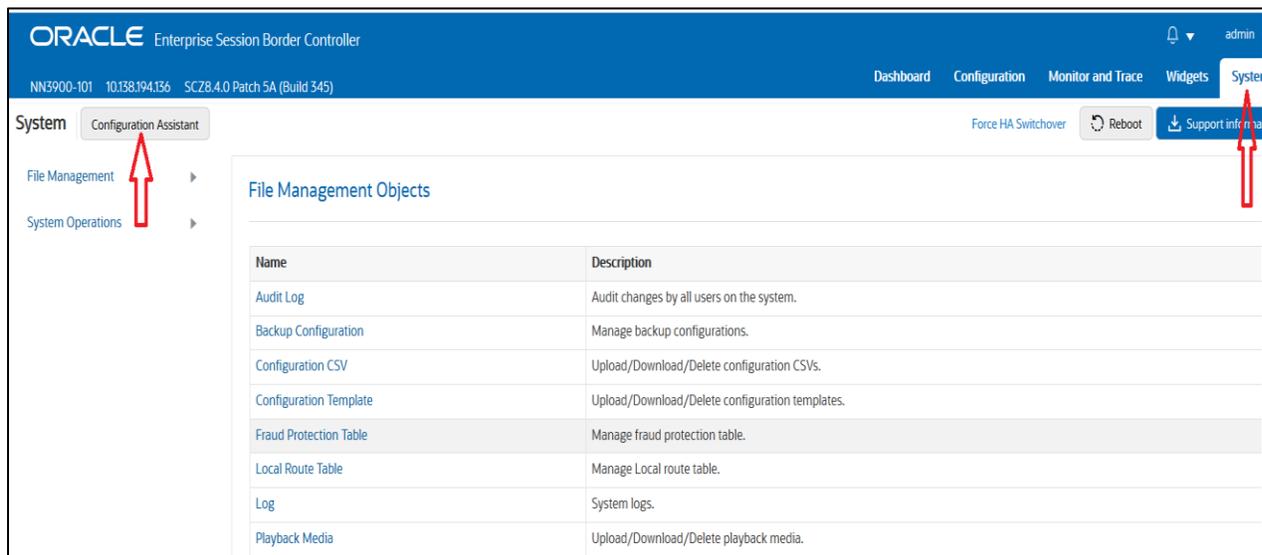
6.7   Download and/or Apply

Now that the entries provided throughout the template have been reviewed, and the CSR has been copied into a text file (optional), the template provides you with the ability to "Download" the config by clicking the "*Download*" tab on the top right. Next, click the "*Apply*" button on the top right, and you will see the following pop up box appear:

Now you can click "*Confirm*" to confirm you want to apply the configuration to the SBC. The SBC will reboot. When it comes back up, the SBC will have a basic configuration in place for Genesys Pure Engage and Twilio.

7   Configuration Assistant Access

Upon initial login, if the Configuration Assistant Template does not immediately appear on the screen, you can access by clicking on the "*SYSTEM*" tab, top right of your screen.

Next, click on the "*Configuration Assistant*" tab, top left.

This allows end users to access the Configuration Assistance at any time through the SBC GUI.

ORACLE

Oracle Corporation, World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065, USA

Worldwide Inquiries
Phone: +1.650.506.7000
Fax: +1.650.506.7200

Integrated Cloud Applications & Platform Services