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Oracle SBC Configuration Template Outline for AT&T-IPFlex Sip Trunk with Cisco CUCM

Technical Application Note

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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 Oracle 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 Oracle 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

Version	Date Revised	Description of Changes
1.0	11/05/2021	Initial publication

4 Document Overview

This Oracle document describes how to use our Configuration Assistance feature as a quick and simple way to configure the Oracle SBC for integration with ATTIPFLEX SIP Trunk and Cisco Unified Communication Manager.

5 Validated Oracle Versions

This template can be used for Oracle SBC version SCZ840p5 onwards.

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

6 Configuring the SBC using ATTIPFlexTrunkwithCUCM 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

6.1 Uploading the Template.

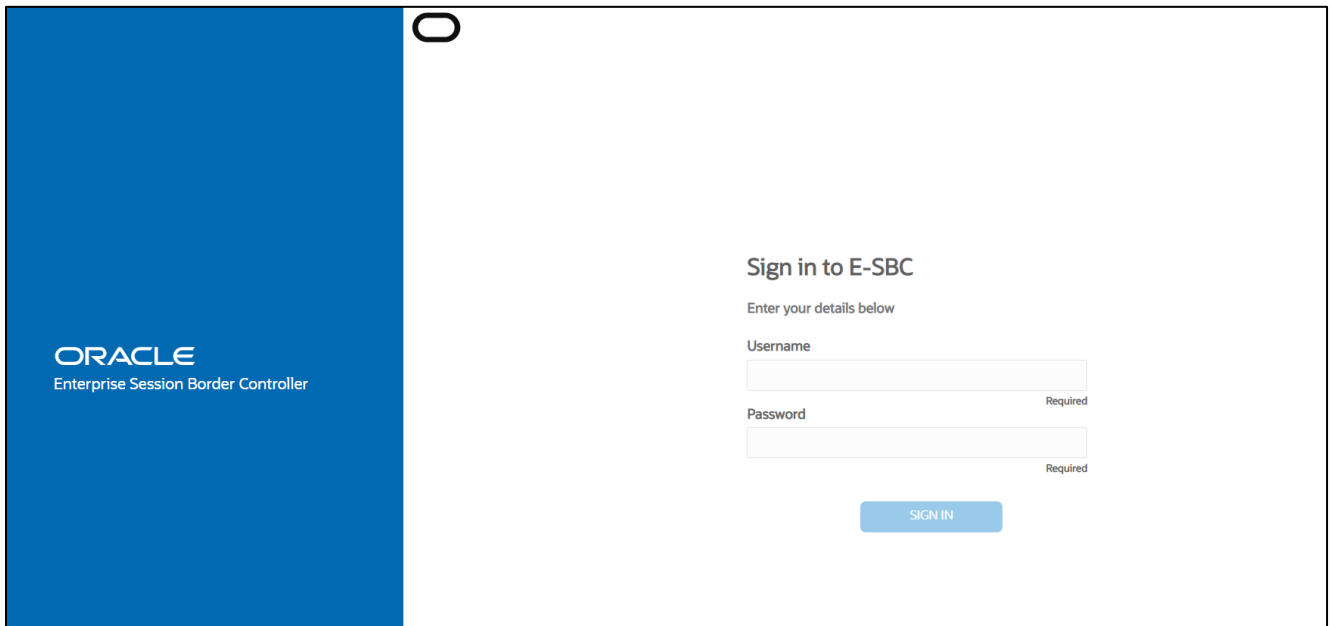
There are two ways the Template can be uploaded on the Oracle SBC.

6.1.1 Through Oracle SBC WebGUI

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.

You can Drag and Drop or Click on Drag and Drop to upload the Template ATTIPFlexTrunkwithCUCMxml.gz by clicking on the upload a template option on the SBC.



ORACLE
Enterprise Session Border Controller

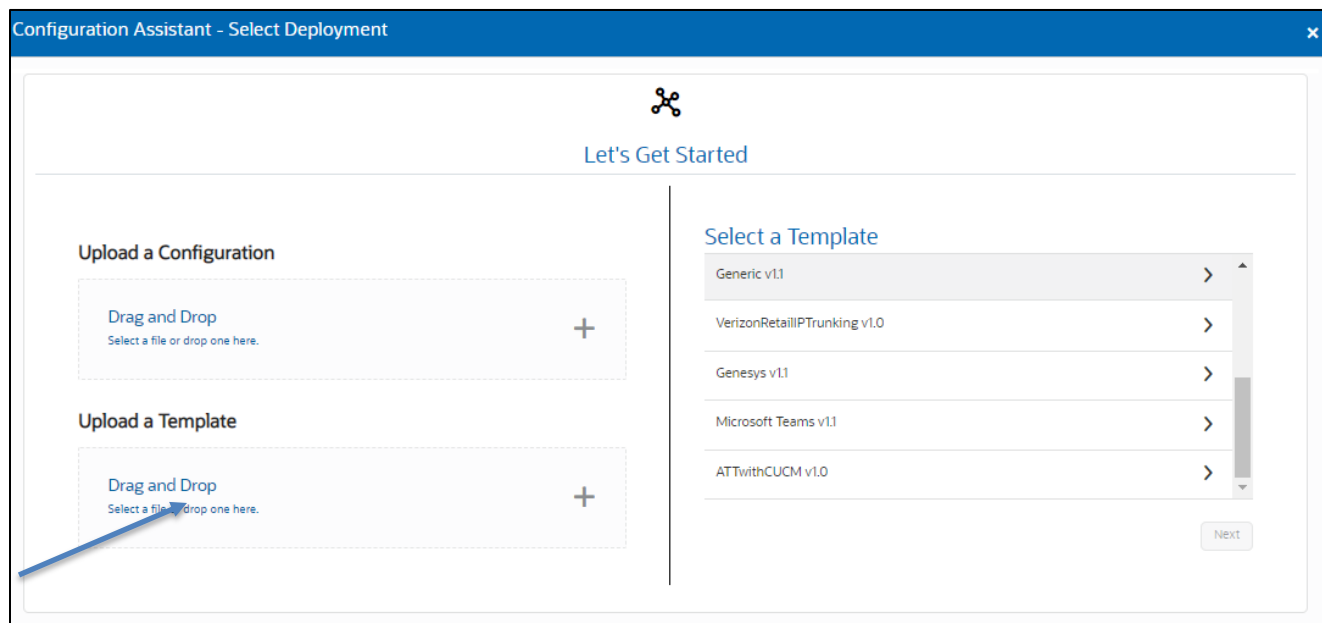
Sign in to E-SBC

Enter your details below

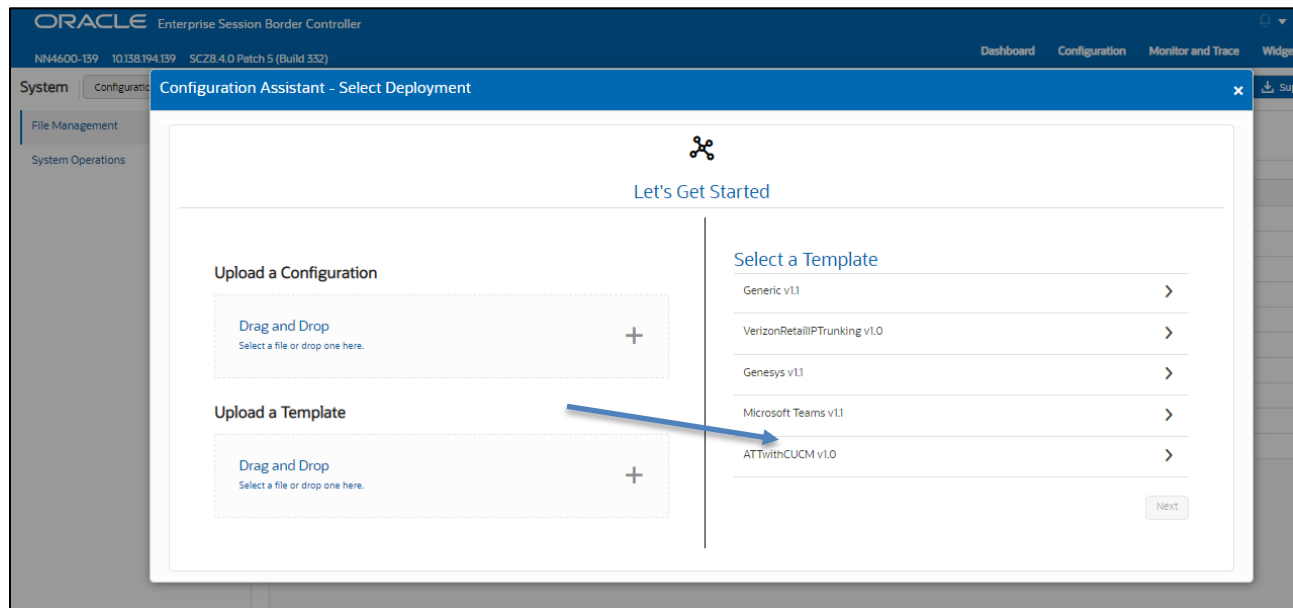
Username Required

Password Required

SIGN IN

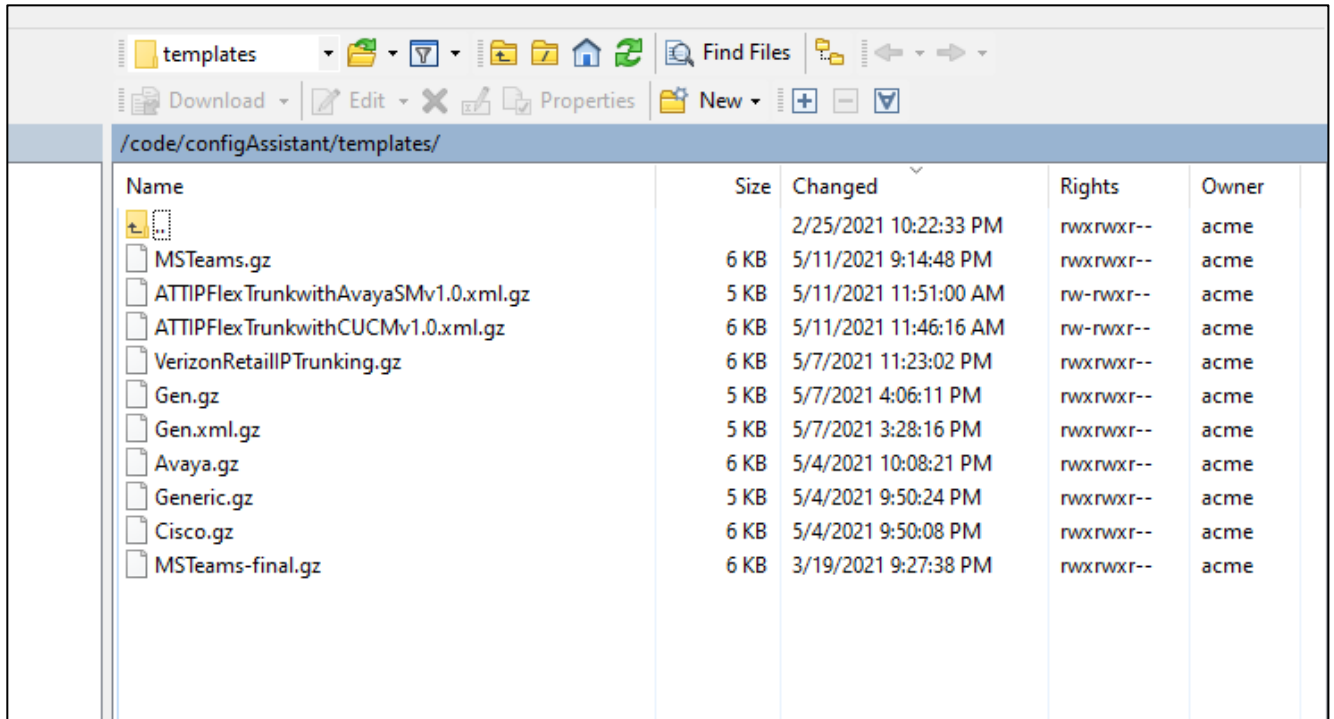



Once uploaded, the Template will start reflecting on the Right hand side of the Configuration Assistant Widget.

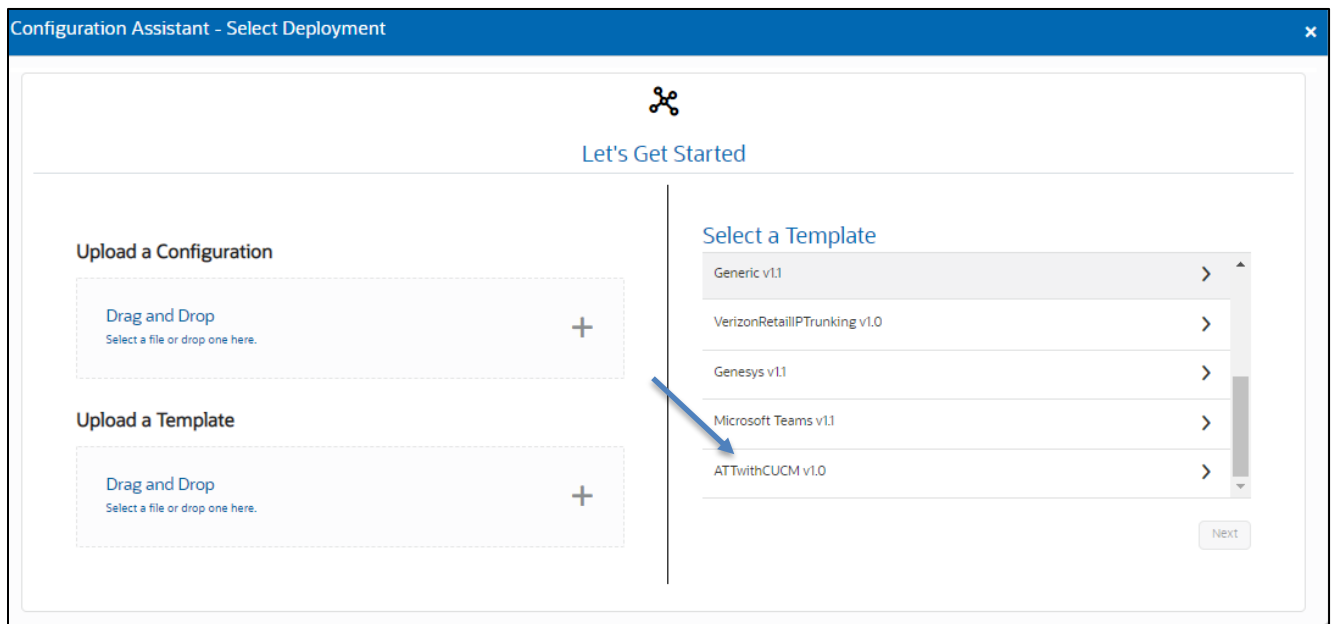


6.1.2 Through File Transfer Tools

You can also upload the Template onto the Oracle SBC through external file transfer tools such as Winscp or FileZilla. Upload the File into the `/code/configAssistant/templates` Directory of the SBC. Below is a screenshot for an example upload through SFTP. Once uploaded, the Template will start reflecting on the Right hand side of the Configuration Assistant Widget on the Oracle SBC WebGUI.



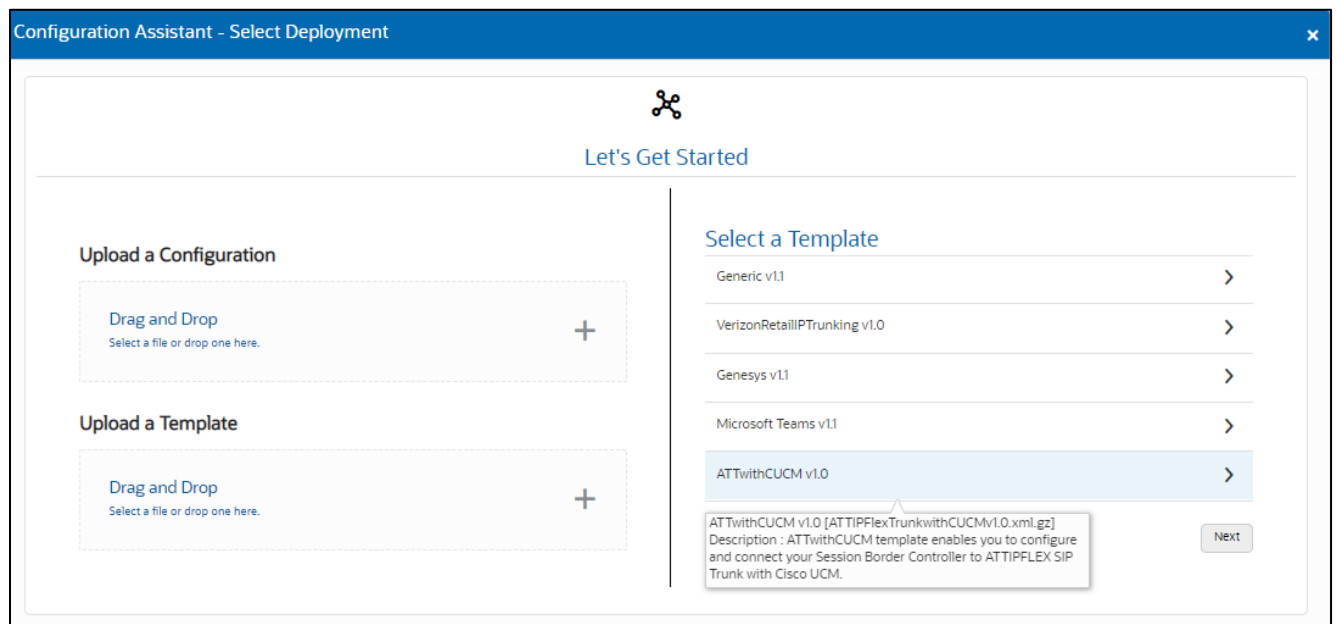
Name	Size	Changed	Rights	Owner
		2/25/2021 10:22:33 PM	rw-rw-r--	acme
MSTeams.gz	6 KB	5/11/2021 9:14:48 PM	rw-rw-r--	acme
ATTIPFlexTrunkwithAvayaSMv1.0.xml.gz	5 KB	5/11/2021 11:51:00 AM	rw-rw-r--	acme
ATTIPFlexTrunkwithCUCMv1.0.xml.gz	6 KB	5/11/2021 11:46:16 AM	rw-rw-r--	acme
VerizonRetailIPTrunking.gz	6 KB	5/7/2021 11:23:02 PM	rw-rw-r--	acme
Gen.gz	5 KB	5/7/2021 4:06:11 PM	rw-rw-r--	acme
Gen.xml.gz	5 KB	5/7/2021 3:28:16 PM	rw-rw-r--	acme
Avaya.gz	6 KB	5/4/2021 10:08:21 PM	rw-rw-r--	acme
Generic.gz	5 KB	5/4/2021 9:50:24 PM	rw-rw-r--	acme
Cisco.gz	6 KB	5/4/2021 9:50:08 PM	rw-rw-r--	acme
MSTeams-final.gz	6 KB	3/19/2021 9:27:38 PM	rw-rw-r--	acme



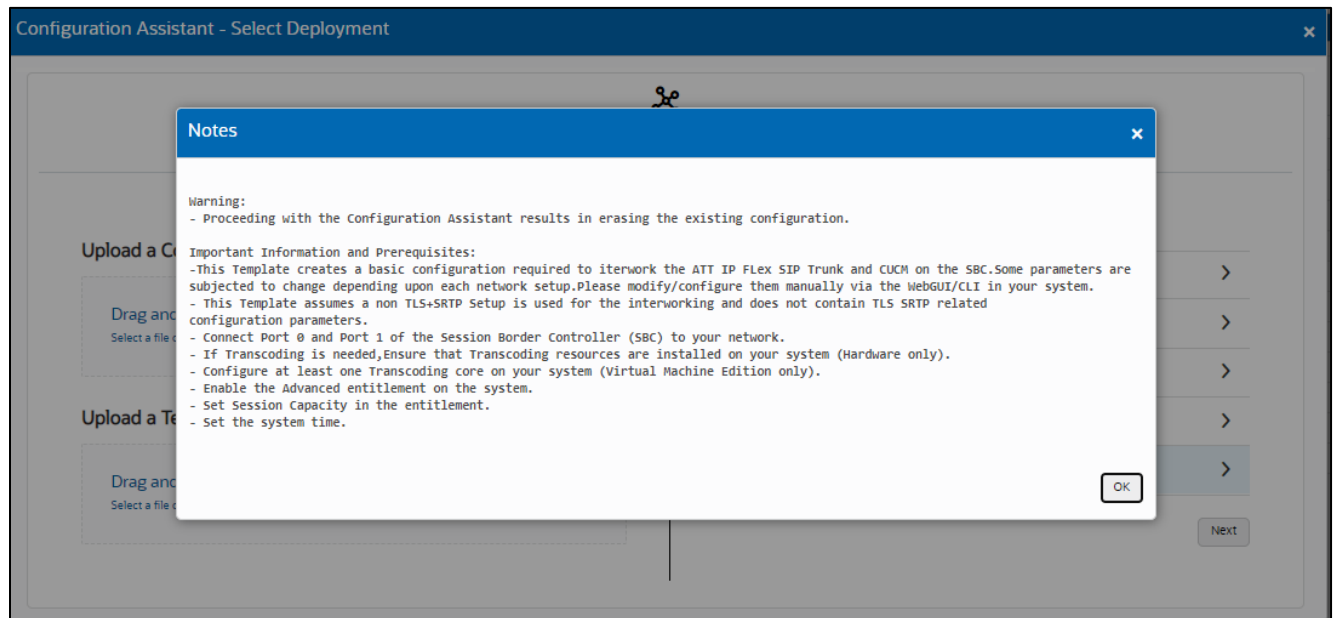
Note: The template is version controlled and has a version number next to the template name. Please specify this version while reporting issues.

6.2 Template Configuration

Once you highlight ATTwithCUCMv1.0 template, you will see a pop up with the filename and description of the templates purpose:



A notes section appears with Prerequisites and a Warning. Read carefully before proceeding.

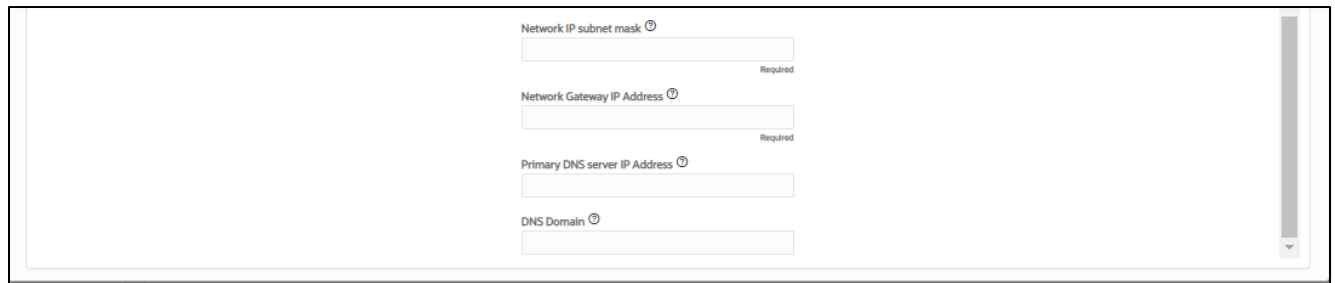


- Click OK

6.2.1 Page 1 – Configure CUCM here.

You will arrive at the Page 1 of the Template where you will provide the information to connect to CUCM.

The screenshot shows the 'Configuration Assistant - Configure CUCM here' window. At the top, there is a progress bar with five steps: 1. Configure CUCM here (active), 2. Configure ATIPFLEX SIP Trunk Here, 3. Offer/less SDP configuration, 4. Transcoding, and 5. Additional Configuration. A 'Skip' button is at the top right. Below the progress bar, the title 'Let's configure the CUCM Session-Agent and the Network-Interface' is displayed. The form contains the following fields:
- 'Enter CUCM Session-Agent hostname here' (text input, required)
- 'Enter the CUCM Session-Agent IP Address here' (text input, required)
- 'Enter the CUCM Session-Agent SIP port here' (text input, required)
- 'Port Number' (dropdown menu, currently showing 'Port 0', required)
- 'Slot Number' (dropdown menu, currently showing 'Slot 0', required)
- 'Network IP Address' (text input, required)
A vertical scrollbar is on the right side of the form.



Network IP subnet mask ⓘ

 Required

Network Gateway IP Address ⓘ

 Required

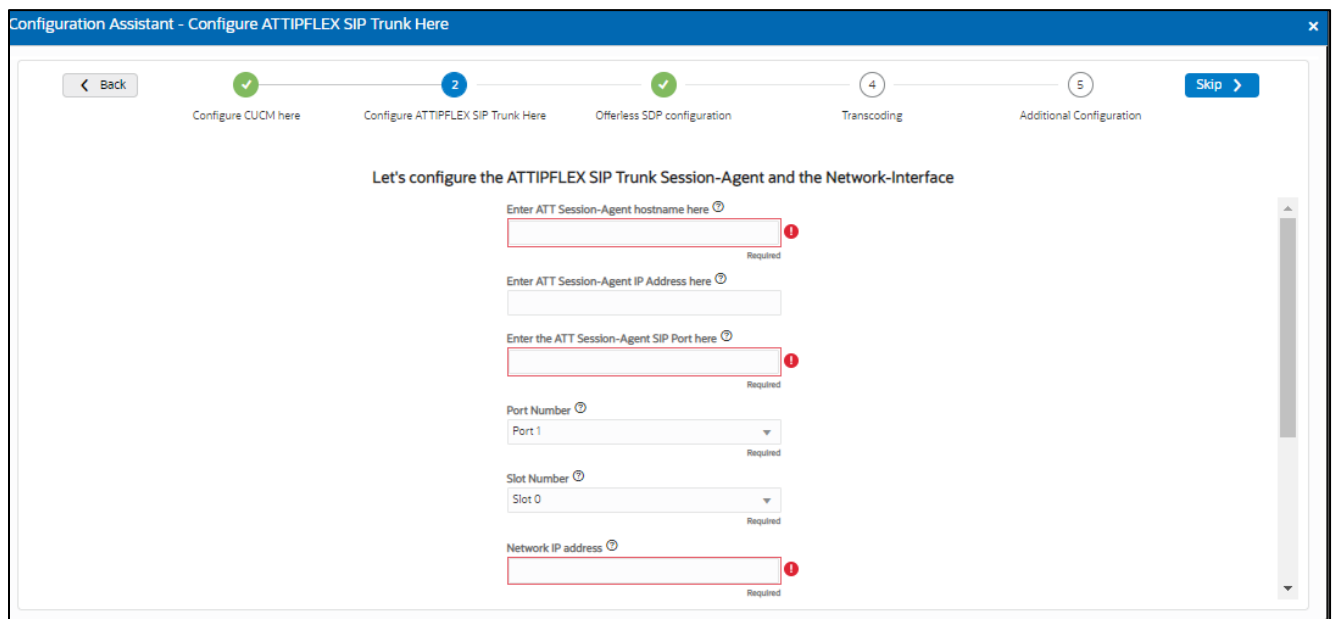
Primary DNS server IP Address ⓘ

DNS Domain ⓘ

Note: Once the mandatory parameters are filled in a page, a green tick appears on the top .There is also an option to skip a page and go to the Next Page if required.

6.2.2 Page 2 – Configure ATTIPFLEX SIP Trunk here.

After filling, the necessary details Click Next to go to Next page. You will configure AT&T IP Flex SIP Trunk side here.



Configuration Assistant - Configure ATTIPFLEX SIP Trunk Here

✓
2
✓
4
5

Configure CUCM here Configure ATTIPFLEX SIP Trunk Here Offerless SDP configuration Transcoding Additional Configuration

Let's configure the ATTIPFLEX SIP Trunk Session-Agent and the Network-Interface

Enter ATT Session-Agent hostname here ⓘ
 ⓘ
 Required

Enter ATT Session-Agent IP Address here ⓘ

Enter the ATT Session-Agent SIP Port here ⓘ
 ⓘ
 Required

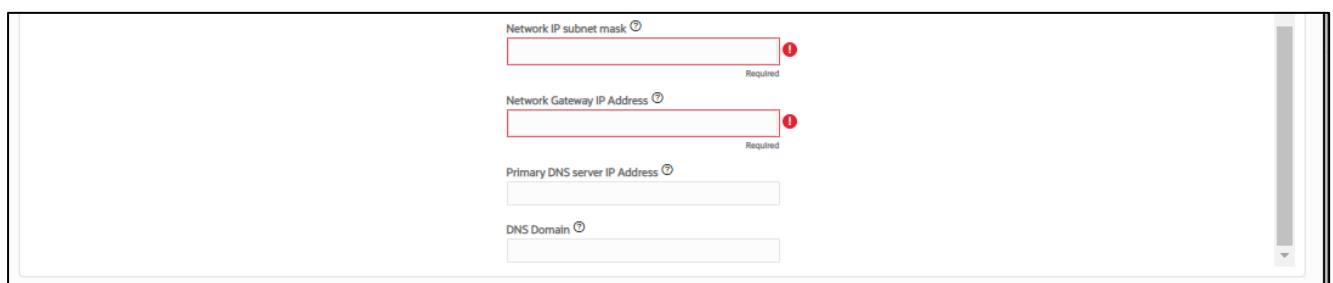
Port Number ⓘ
 Port 1

 Required

Slot Number ⓘ
 Slot 0

 Required

Network IP address ⓘ
 ⓘ
 Required



Network IP subnet mask ⓘ
 ⓘ
 Required

Network Gateway IP Address ⓘ
 ⓘ
 Required

Primary DNS server IP Address ⓘ

DNS Domain ⓘ

6.2.3 Page 3- Offerless SDP Configuration.

Click Next, The System will Navigate to Offerless SDP configuration. You can enable or disable the configuration through the Yes/No Radio Button.

Note Click on the ? to know more about the configuration parameters and their usage.

Configuration Assistant - Offerless SDP configuration

Back 1 2 3 4 5 Next >

Configure CUCM Network here PSTN Network Offerless SDP configuration Transcoding Additional Configuration

Let's configure the SBC to handle offerless invite from CUCM

Do you want SBC to handle offerless INVITE from CUCM? No Yes ?

Do you wish to add Media Profiles? No Yes ?

6.2.4 Page 4 - Transcoding

Click Next to Navigate to Transcoding Section of the Template.

- You can enable or disable the configuration by clicking Yes or No
- If you do not wish to configure transcoding click on Next.
- 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.

Configuration Assistant - Transcoding

← Back

Configure CUCM here

Configure ATTIPFLEX SIP Trunk Here

Offerless SDP configuration

Transcoding

Additional Configuration

Next →

Let's configure transcoding

Do you want to enable transcoding features on the SBC? No ☒ Yes ⓘ

Do you want to select media codecs towards CUCM? No ☒ Yes ⓘ

Select media codecs ⓘ

G722 ✕

Required

Do you want to select media codecs towards ATTIPFLEX Trunk? No ☒ Yes ⓘ

Select media codecs ⓘ

G722 ✕

6.2.5 Page 5 - Additional Configuration

Click Next and the Template will navigate to Additional Configuration Section.

- You can enable or disable the configuration by clicking Yes or No
- If you do not wish to configure transcoding click on Next

Configuration Assistant - Additional Configuration

← Back

Configure CUCM here

Configure ATTIPFLEX SIP Trunk Here

Offerless SDP configuration

Transcoding

Additional Configuration

Review

Let's configure Session Agent capabilities

Do you want to enable OPTIONS ping towards CUCM? No ☐ Yes ⓘ

Do you want SBC to handle call transfer from CUCM? No ☐ Yes ⓘ

Do you want to enable OPTIONS ping towards ATTIPFLEX Trunk? No ☐ Yes ⓘ

Do you want SBC to handle call transfer from ATTIPFLEX Trunk? No ☐ Yes ⓘ

Do you want to enable session translation towards ATTIPFLEX Trunk? No ☐ Yes ⓘ

Do you want to enable session translation towards CUCM? No ☐ Yes ⓘ

6.2.6 Review

At the end of the template, you will notice in the top right, a “Review” tab. If all pages presented across the top are showing green, indicating 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.

The screenshot displays the 'Configuration Assistant - Summary' window. It is divided into two main sections: configuration input on the left and generated configuration on the right.

Configuration Assistant - Summary

Configure CUCM here (Edit button)

Enter CUCM Session-Agent hostname here	Enter the CUCM Session-Agent IP Address here
10.232.50.60	
Enter the CUCM Session-Agent SIP port here	Port Number
5060	
Slot Number	Network IP Address
Slot 1	10.232.50.87
Network IP subnet mask	Network Gateway IP Address
255.255.0.0	10.232.50.1
Primary DNS server IP Address	DNS Domain

Configure ATTIPLX SIP Trunk Here (Edit button)

Enter ATT Session-Agent hostname here	Enter ATT Session-Agent IP Address here
172.18.0.124	
Enter the ATT Session-Agent SIP Port here	Port Number
5060	
Slot Number	Network IP address
Slot 0	172.18.0.127
Network IP subnet mask	Network Gateway IP Address

Generated Configuration (Copy button)

```
codecs-policy
  name ATTCodecPolicy
  allow-codecs *
  add-codecs-on-egress G729
codecs-policy
  name CiscoCodecPolicy
  allow-codecs *
  add-codecs-on-egress G722
http-server
  name webServerInstance
local-policy
  from-address *
  to-address *
  source-realm ATTRealm
  policy-attribute next-hop 10.232.50.60
  realm Cisco-Core
local-policy
  from-address *
  to-address *
  source-realm Cisco-Core
  policy-attribute next-hop 172.18.0.124
  realm ATTRealm
media-manager
  options unique-sdp-id enabled
network-interface
  name ATTInterface
  ip-address 172.18.0.127
  netmask 255.255.0.0
  gateway 172.18.0.1
network-interface
  name CUCMInterface
  ip-address 10.232.50.87
  netmask 255.255.0.0
```

User can edit the entire configuration by clicking on the Edit button.

Configuration Assistant - Summary

Configure CUCM here Edit

Enter CUCM Session-Agent hostname here	Enter the CUCM Session-Agent IP Address here
10.232.50.60	
Enter the CUCM Session-Agent SIP port here	Port Number
5060	Port 0
Slot Number	Network IP Address
Slot 1	10.232.50.87
Network IP subnet mask	Network Gateway IP Address
255.255.0.0	10.232.50.1
Primary DNS server IP Address	DNS Domain

Configure ATTIPFLEX SIP Trunk Here Edit

Enter ATT Session-Agent hostname here	Enter ATT Session-Agent IP Address here
172.18.0.124	
Enter the ATT Session-Agent SIP Port here	Port Number
5060	Port 1
Slot Number	Network IP address
Slot 0	172.18.0.127
Network IP subnet mask	Network Gateway IP Address

Generated Configuration Copy

```

codecs-policy
  name
  allow-codecs
  add-codecs-on-egress
codecs-policy
  name
  allow-codecs
  add-codecs-on-egress
http-server
  name
local-policy
  from-address
  to-address
  source-realm
  policy-attribute
  next-hop
  realm
local-policy
  from-address
  to-address
  source-realm
  policy-attribute
  next-hop
  realm
media-manager
  options
  anonymous-sdp
network-interface
  name
  ip-address
  netmask
  gateway
network-interface
  name
  ip-address
  netmask
  gateway

```

- The template provides you with the ability to “Download” the config by clicking the “Download” tab on the top right. Once you are ready Click Apply to apply the configuration onto the SBC.

Configuration Assistant - Summary

Configure CUCM here Edit

Enter CUCM Session-Agent hostname here	Enter the CUCM Session-Agent IP Address here
10.232.50.60	
Enter the CUCM Session-Agent SIP port here	Port Number
5060	Port 0
Slot Number	Network IP Address
Slot 1	10.232.50.87
Network IP subnet mask	Network Gateway IP Address
255.255.0.0	10.232.50.1
Primary DNS server IP Address	DNS Domain

Configure ATTIPFLEX SIP Trunk Here Edit

Enter ATT Session-Agent hostname here	Enter ATT Session-Agent IP Address here
172.18.0.124	
Enter the ATT Session-Agent SIP Port here	Port Number
5060	Port 1
Slot Number	Network IP address
Slot 0	172.18.0.127
Network IP subnet mask	Network Gateway IP Address

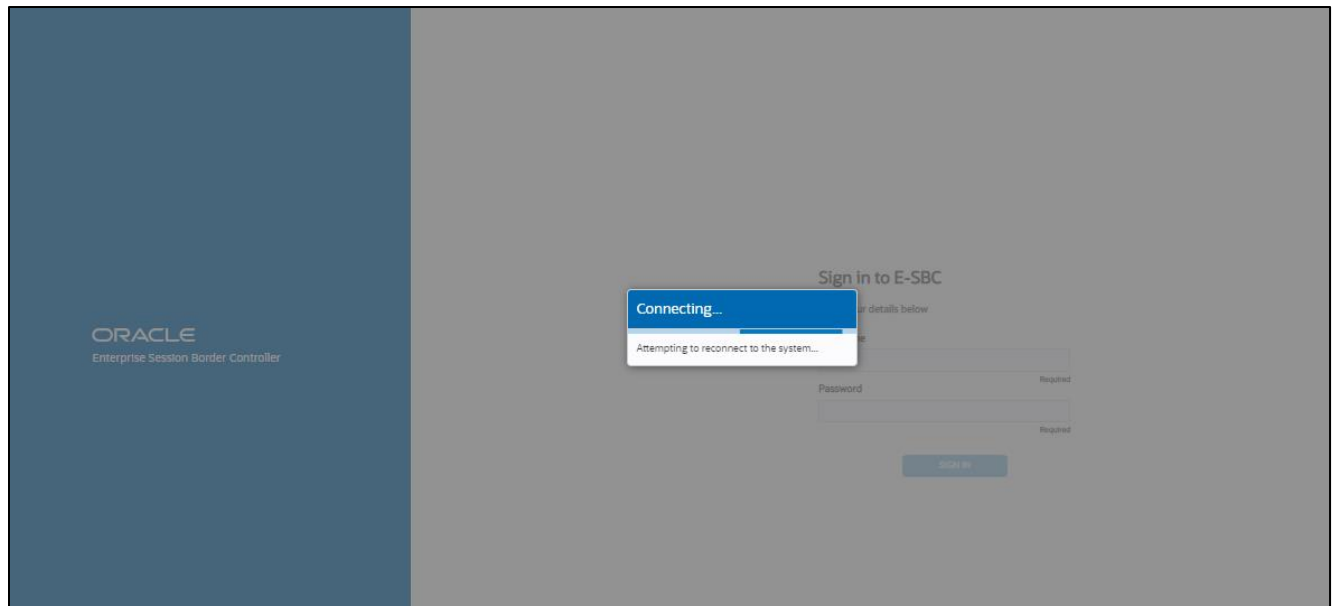
Generated Configuration Copy

```

codecs-policy
  name
  allow-codecs
  add-codecs-on-egress
codecs-policy
  name
  allow-codecs
  add-codecs-on-egress
http-server
  name
local-policy
  from-address
  to-address
  source-realm
  policy-attribute
  next-hop
  realm
local-policy
  from-address
  to-address
  source-realm
  policy-attribute
  next-hop
  realm
media-manager
  options
  anonymous-sdp
network-interface
  name
  ip-address
  netmask
  gateway
network-interface
  name
  ip-address
  netmask
  gateway

```

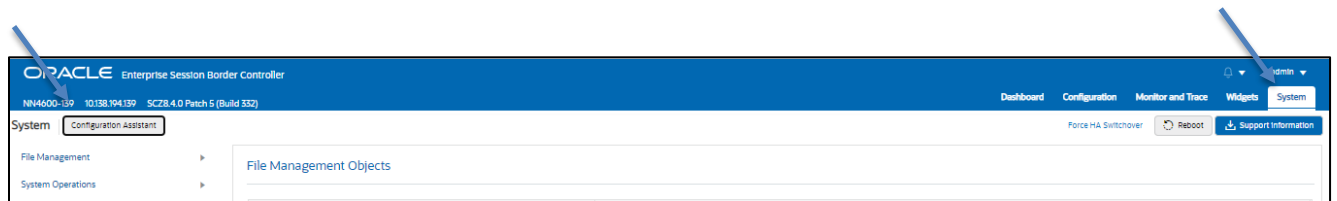
Now you can click “**Confirm**” to confirm you want to apply the configuration to the SBC. The SBC will reboot. When SBC comes back up, the SBC will have a basic configuration in place for interworking of Oracle SBC with ATTIPFLEX SIP Trunk and Cisco UCM.



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.

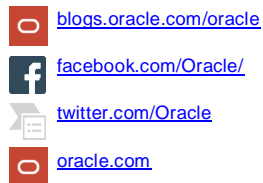
Next, click on the “**Configuration Assistant**” tab, top left.



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



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Integrated Cloud Applications & Platform Services

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