



CCA Enterprise Deployment Guidelines

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1 Introduction

The objective of this document is to provide a clear guidance to implementation teams, Cisco Advanced Services or qualified UC partners, on the configurations on CCA Enterprise architecture that are supported and the ones that are not supported.

It is important to get a good understanding of different configuration in order to set right expectation with the customer. The audience of this document is both internal and external. Internal audience includes, Cloud Operations and Audio Video Operations (AVOPs) team, WebEx TS and onboarding team. External audience includes Cisco Advanced services and qualified CCA implementation UC partners.

2 CCA Enterprise Configurations

There are two primary configurations that are supported on CCA.

2.1 Pure CCA Configuration

This configuration imbibes the true spirit of CCA architecture, which leverages customer's IP WAN network to the fullest and uses WebEx cloud based audio conferencing platform. Customer provides the global audio conferencing phone numbers and carries audio conferencing traffic over its own network from both on-net, traffic originating from or terminating to end points within customer's WAN network and off-net, traffic from endpoints outside customer's WAN network, end points. In this configuration customer does not leverage any WebEx PSTN connectivity. The key call outs are:

- Customer owns the entire set of audio conferencing phone numbers
- Customer carries all callback traffic as well
- The audio conferencing coverage is determined by customer's footprint

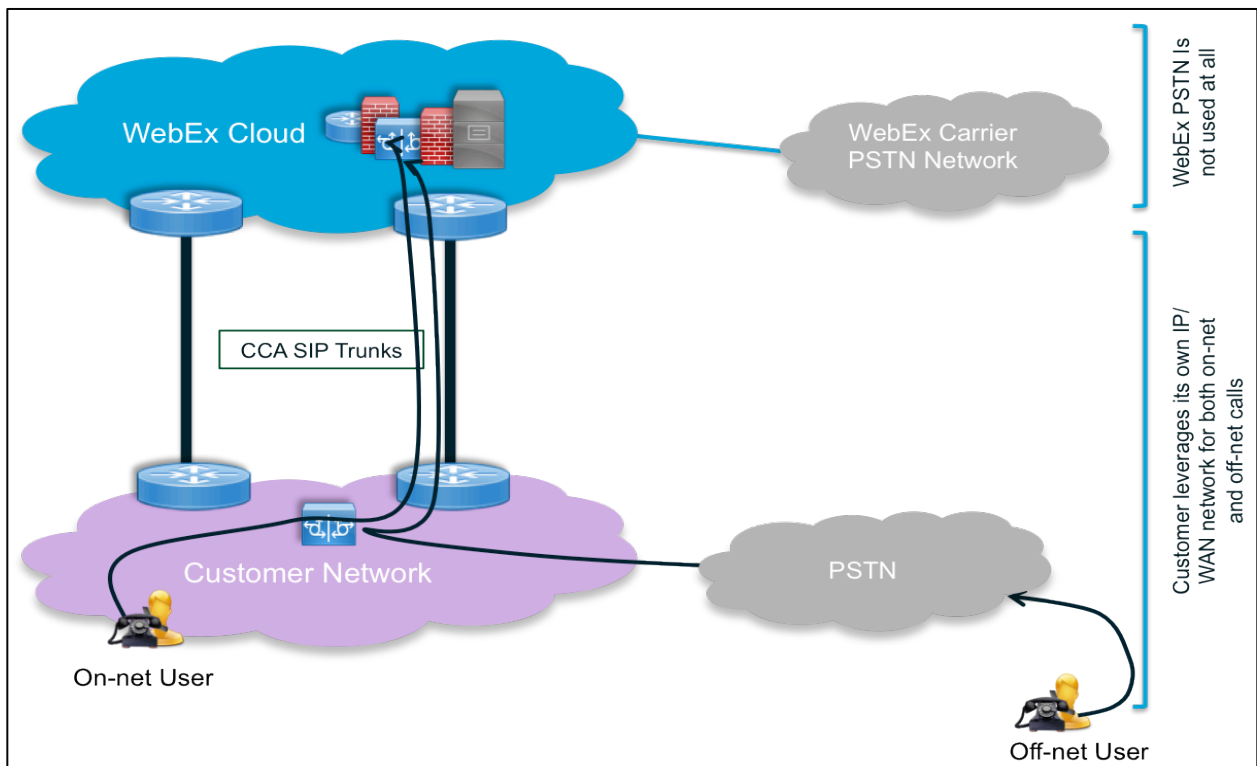


Diagram 1: Pure CCA Configuration

2.2 Hybrid CCA Configuration

This configuration is similar to pure CCA configuration as described above, but also gives the flexibility to customer to leverage WebEx PSTN footprint. Customer can choose to leverage WebEx PSTN dial-in numbers along with customer's own audio conferencing phone numbers. Customer can also choose to leverage WebEx PSTN for callbacks. Below are the key highlights:

- Customer can choose to have both CCA and WebEx PSTN audio on single WebEx site.
- There are separate SKUs for CCA Ports and WebEx PSTN Audio minutes. Customer must purchase WebEx PSTN audio SKUs along with CCA ports to leverage WebEx PSTN minutes with CCA.
- CCA will be billed based on ports and usage on WebEx PSTN numbers will be billed by minutes
- Customers must review and agree with existing WebEx PSTN footprint

CCA Hybrid solution provides flexibility to customer to use WebEx PSTN numbers in countries where it does not have IP network and therefore cannot leverage CCA architecture. In the example below customer does not have IP telephony in UK.

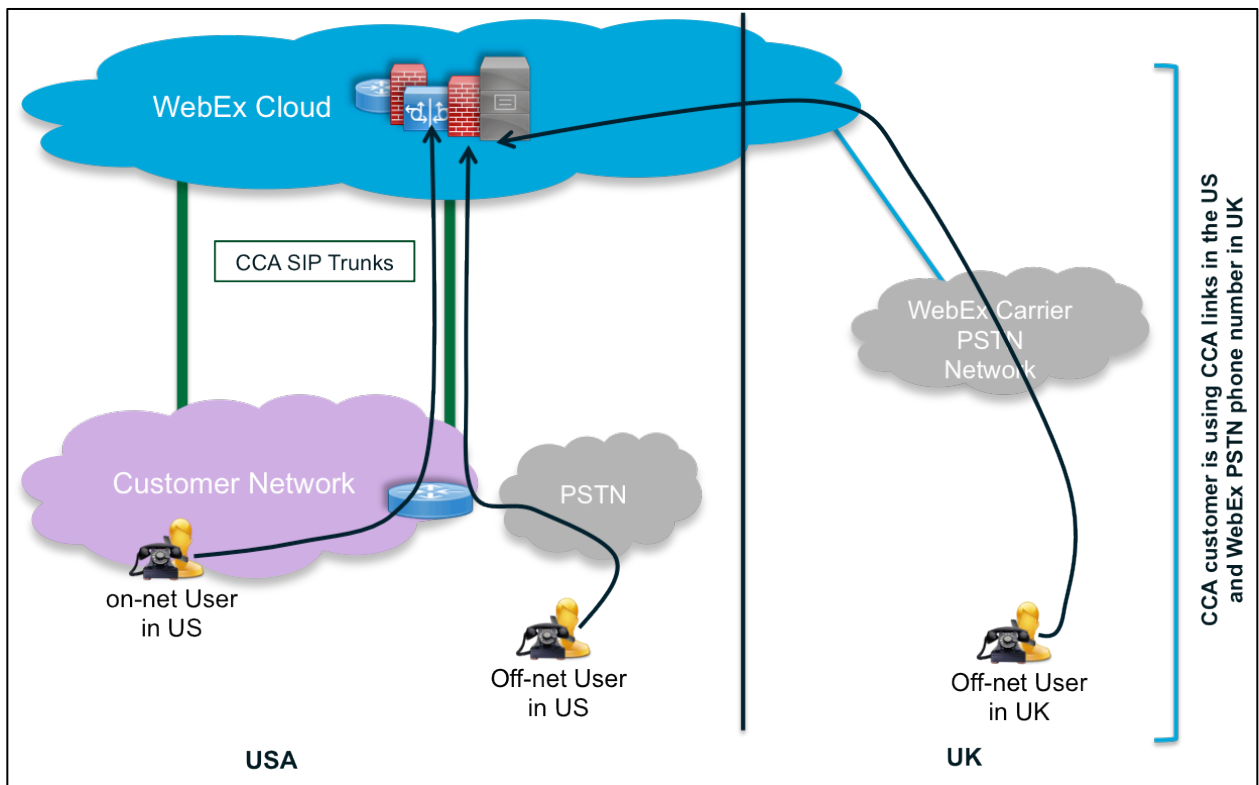


Diagram 2: Hybrid CCA Call Flow

There are several variations of Hybrid CCA Configuration that are not supported.

It is important to understand these variations to set the right expectation with the customer. These configurations are covered in the next chapter.

3 CCA Hybrid Configurations that are NOT supported

3.1 Call Forwarding to WebEx PSTN numbers is not supported

There are a couple of use cases where CCA Enterprise customers request call forwarding.

Use Case 1: On many occasions, customers request the use WebEx PSTN footprint as a short-term solution before they can implement the CCA solution. In doing so, there will be a change in phone numbers as customer will need to migrate from WebEx provided conferencing phone numbers as part of WebEx audio solution to their own phone numbers which are provisioned as part of CCA solution. In order to avoid this change, customers request to have their own CCA numbers be forwarded to WebEx PSTN numbers. **This is not supported.**

Customer must use Webex PSTN numbers if using WebEx PSTN audio and manage the number change when moving to CCA through communication and training.

Use Case 2: Customer may request to use call forwarding from a country where WebEx does not have dial-in numbers. The ask is typically to use a local in-country number procured by the customer and then have it forwarded to one of the WebEx PSTN numbers. **This is not supported.**

Refer to section 4.1 for potential work around for this scenario.

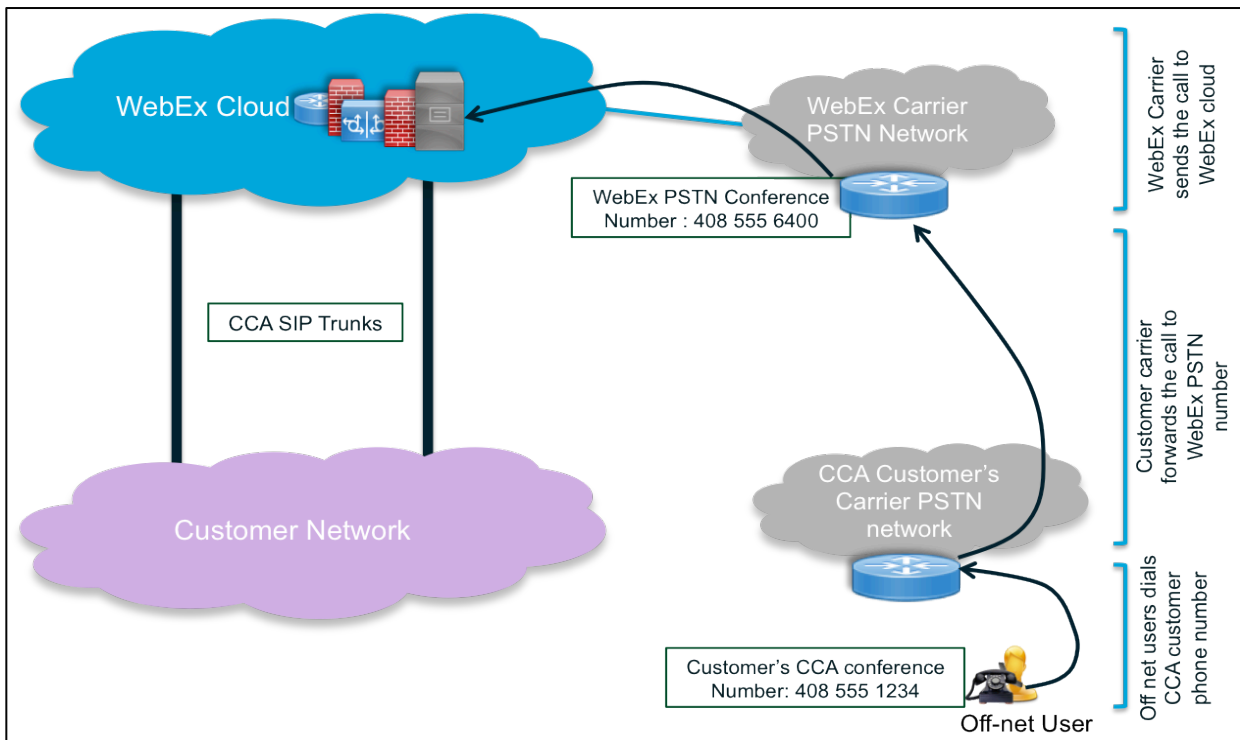


Diagram 3: Call forwarding call flow as described here is not supported

Cisco does not support Call Forwarding from customer's CCA phone number to WebEx PSTN number as it prevents Cisco to troubleshoot customer complaints, call quality issues due to lack of connection or improper propagation of DTMF tones.

3.2 Use of same WebEx dial-in number for both off-net over WebEx PSTN and on-net over CCA links is not supported

This is a scenario where customer wants to leverage same WebEx dial in number for both off-net and on-net user. For off-net user, call will go over WebEx PSTN and WebEx will receive WebEx PSTN DNIS. For on-net user, customer's CUCM will re-route the call to WebEx over CCA links and send CCA DNIS. This scenario is no longer supported as WebEx phone numbers are not dedicated to any customer and therefore, CCA customer will run into issues in joining another customer's WebEx meeting hosted on same cluster as CCA customer's using the WebEx dial in number.

Customer would need to configure separate dial-in numbers, a WebEx PSTN number for off-net users and CCA number for on-net users. Customer can also choose to use only CCA dial-in number for both off-net and on-net user.

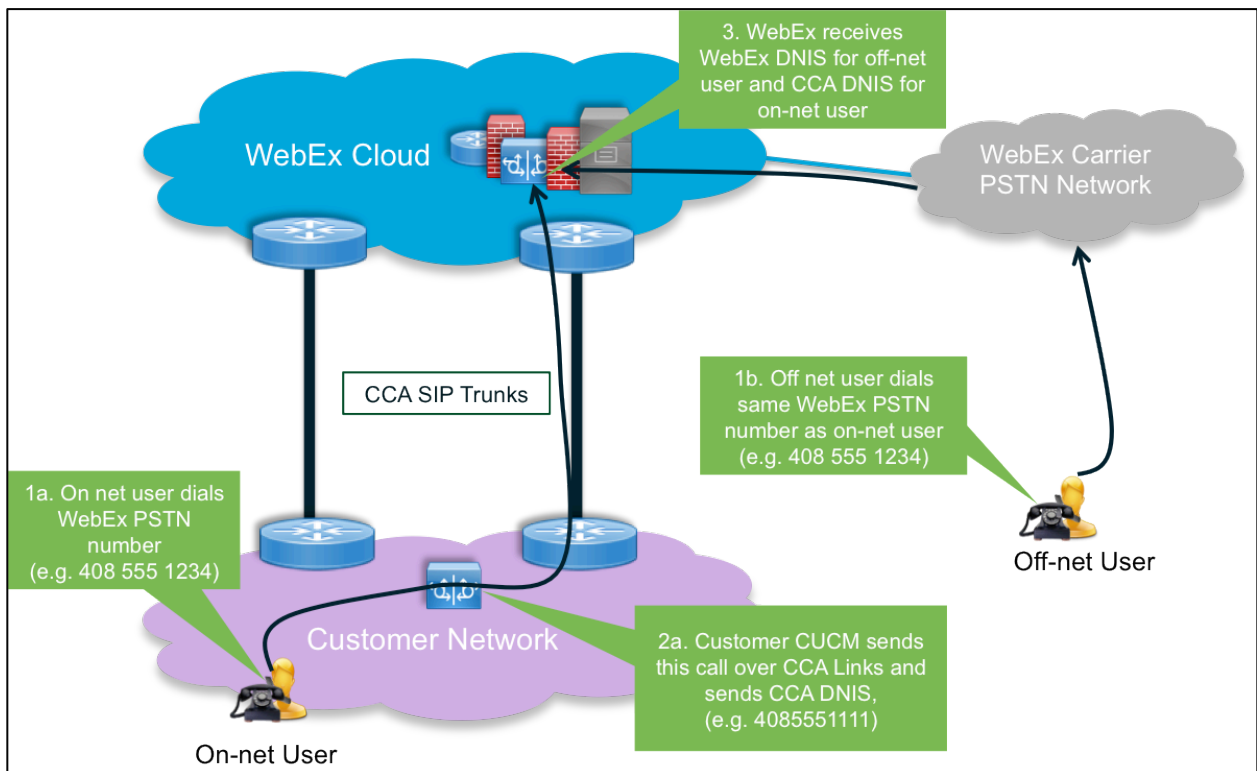


Diagram 4: Call flow as described above is not supported

3.3 User calls the local in country number and customer CUCM calls WebEx PSTN number in a nearby country

Customers generally request this call flow where WebEx does not have a dial-in footprint. In this call flow, customer's end user dials the in-country local number, the call ends up customer's CUCM which then calls the WebEx PSTN number in the nearby country.

Refer to section 4.1 and 4.2 for potential workarounds.

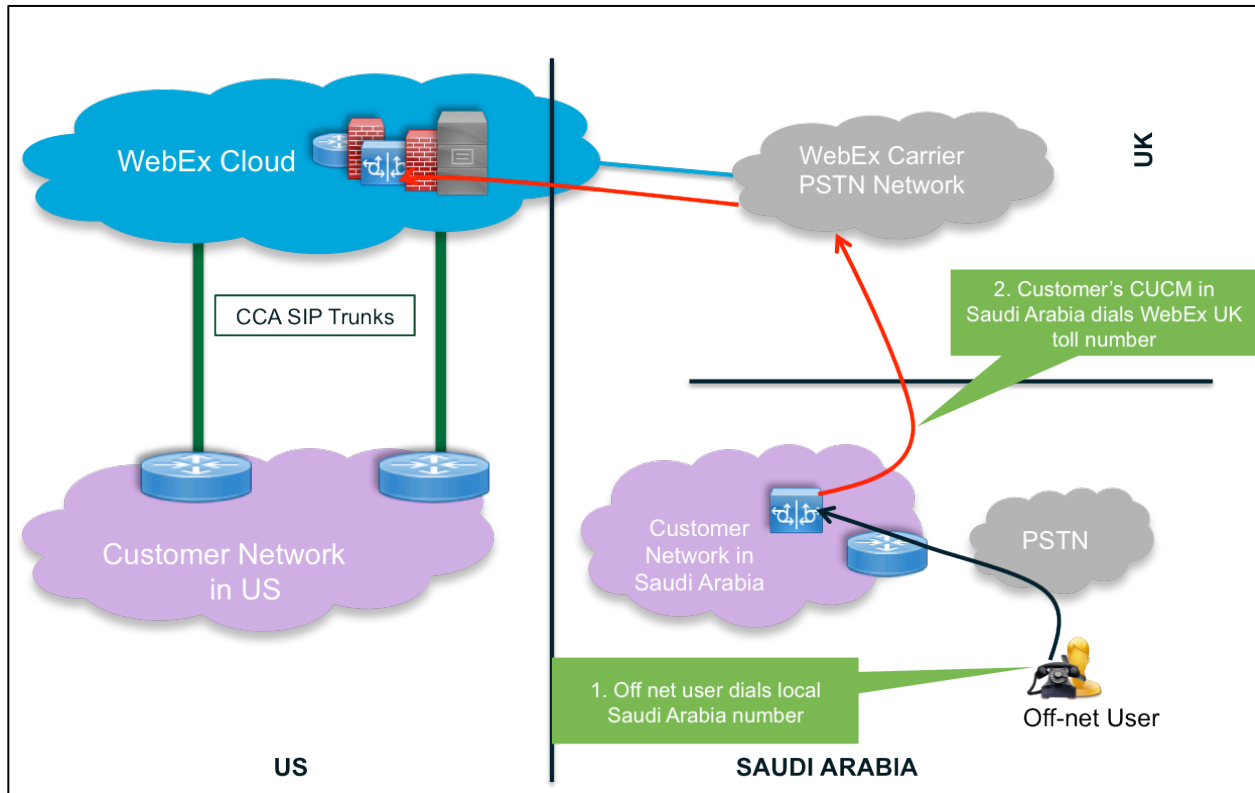


Diagram 5

3.4 Intelligent callback routing - All off-net callback over WebEx PSTN and all on-net callbacks over CCA - is not supported at the moment (under trial)

This is a scenario where CCA customer wants to use WebEx PSTN for all callback calls made to off-net end points and CCA links for callback calls made to on-net end points. Here, customer wants WebEx to carry all callbacks made to numbers that do not belong to customer's dial plan. WebEx has no knowledge of customer's dial plan and therefore cannot determine if a callback number is on-net or off-net. To support this requirement, WebEx is trialing an intelligent callback routing solution. In this solution WebEx sends all callback calls to customer's premise CUSP. Customer's

CUSP will determine if call is off-net or on-net. If callback number does not belong to the customer, then customer will send SIP 380 back to WebEx. On receipt of SIP380, WebEx will send the call over WebEx PSTN network. For non SIP 380 customer, there is no WebEx PSTN failover.

Note that the failover to WebEx PSTN will be governed by WebEx PSTN footprint. Customer should not send SIP380 back to WebEx for countries that are not in WebEx PSTN footprint,

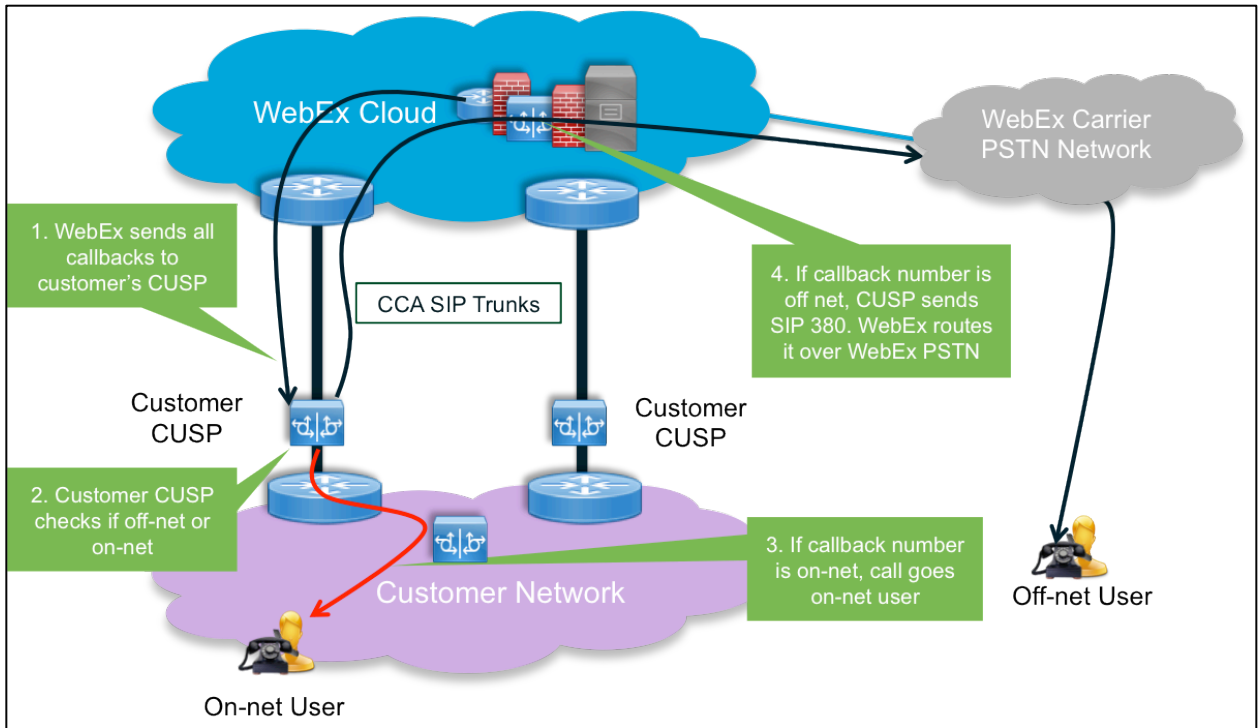


Diagram 6: The off-net callback vs on-net callback routing as described above is not available outside of current trials

4 Potential Workarounds

Scenarios where WebEx PSTN is required, will require Hybrid CCA architecture and therefore, will need to meet the requirements as described in section 2.2.

4.1 Call forwarding to customer's own PSTN number

As explained in the previous section that WebEx does not support call forwarding to one of its PSTN numbers, however there are workarounds the customers can use.

Customer can forward the calls to their own phone number outside of that country and then carry the call over their IP network and hand it over to WebEx over CCA links. Customer controls the call forwarding in this scenario. However, this can still pose challenge in troubleshooting any DTMF or call quality issues. Customer will be responsible for any troubleshooting on this call forwarding as WebEx only sees customer CUBE and call forwarding is transparent to WebEx.

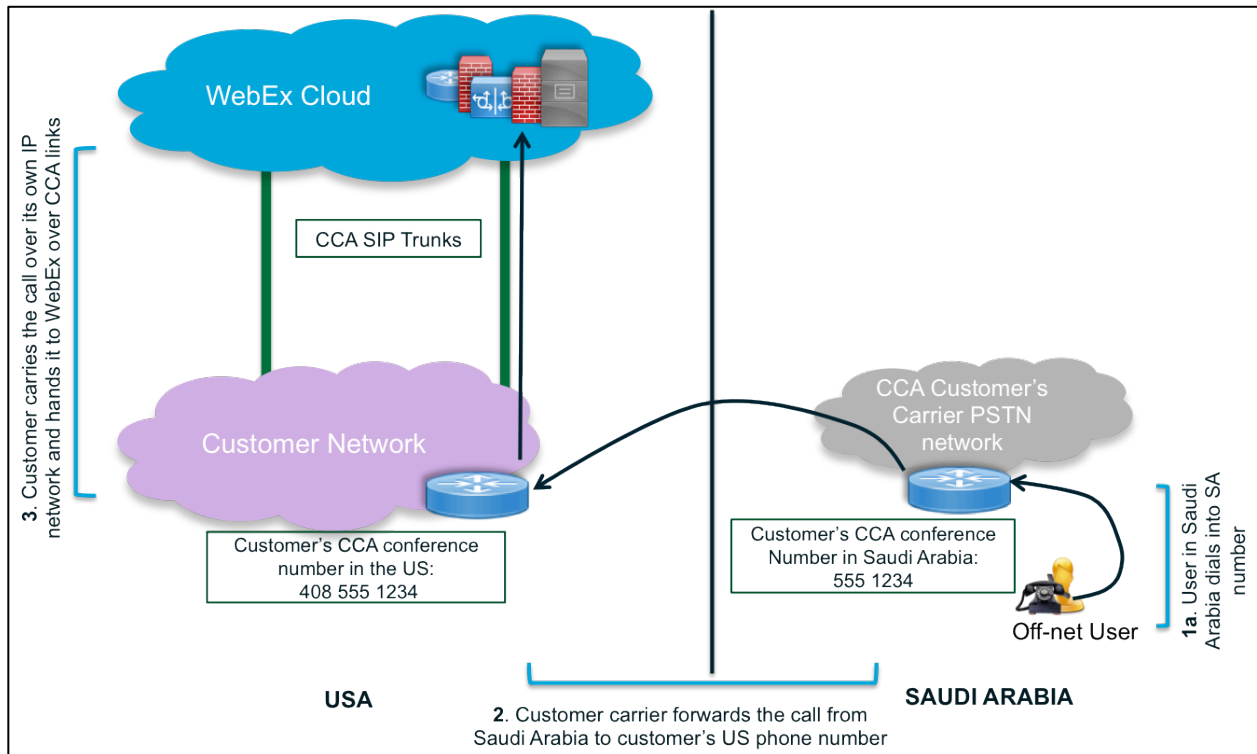


Diagram 7

4.2 Dial WebEx toll number in a nearby country

CCA customer can call WebEx toll number in the nearby country directly, which will be an international toll call for the user. Note that customer must buy WebEx PSTN audio in order to enable this scenario.

In the diagram below, user in Saudi Arabia, where WebEx does not provide any dial-in or callback capability can dial into WebEx UK toll number.

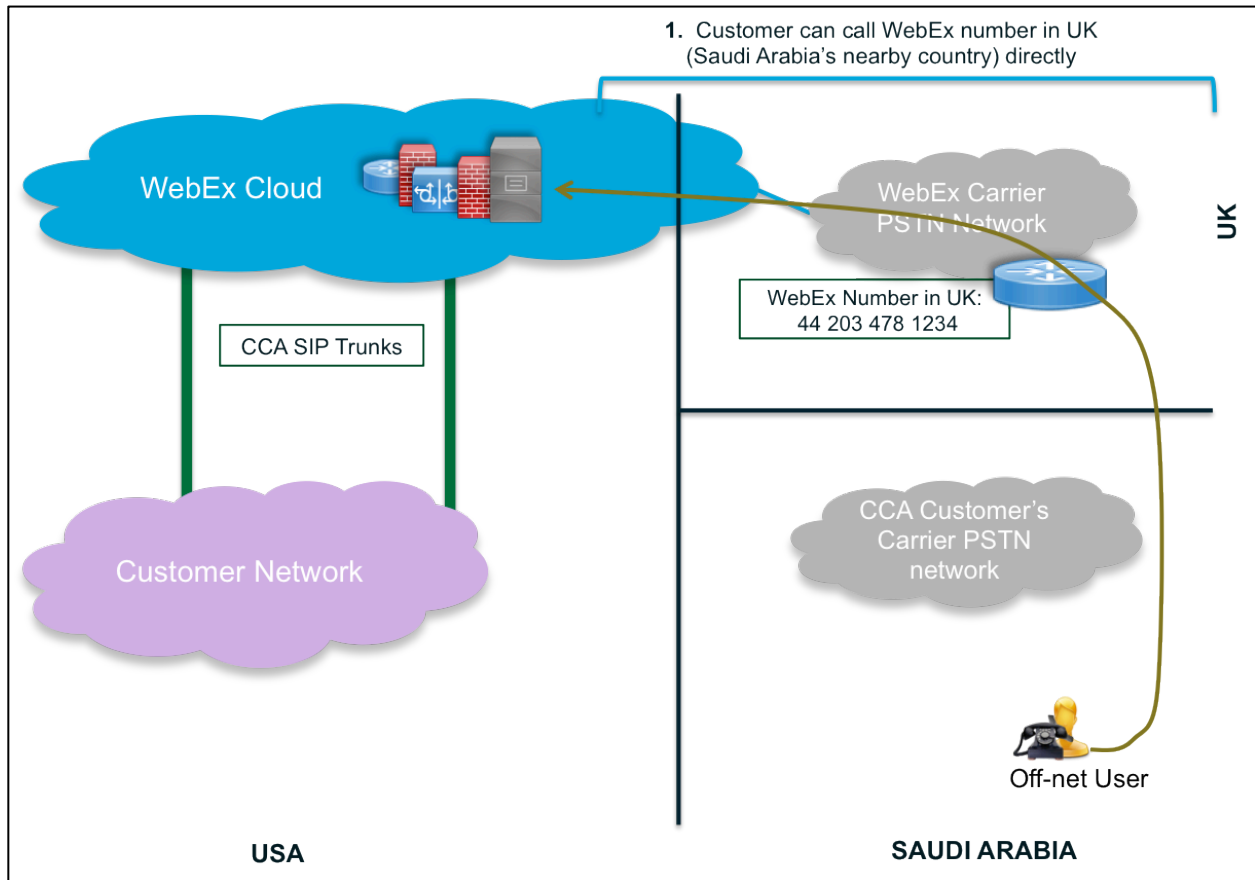


Diagram 8

4.3 Customer CUCM calls WebEx PSTN number if CCA call fails

Customer's CUCM dials the WebEx PSTN number if CCA call fails. This will require both CCA dial-in phone number and WebEx PSTN dial-in number to be displayed as part of WebEx global dial-in footprint. Note that customer must purchase WebEx PSTN audio to enable this scenario. This configuration will be controlled by customer's call manager and will be responsible for troubleshooting in case of call failures.

The configuration to hide the WebEx PSTN number from WebEx global dial-in footprint is **not supported**.

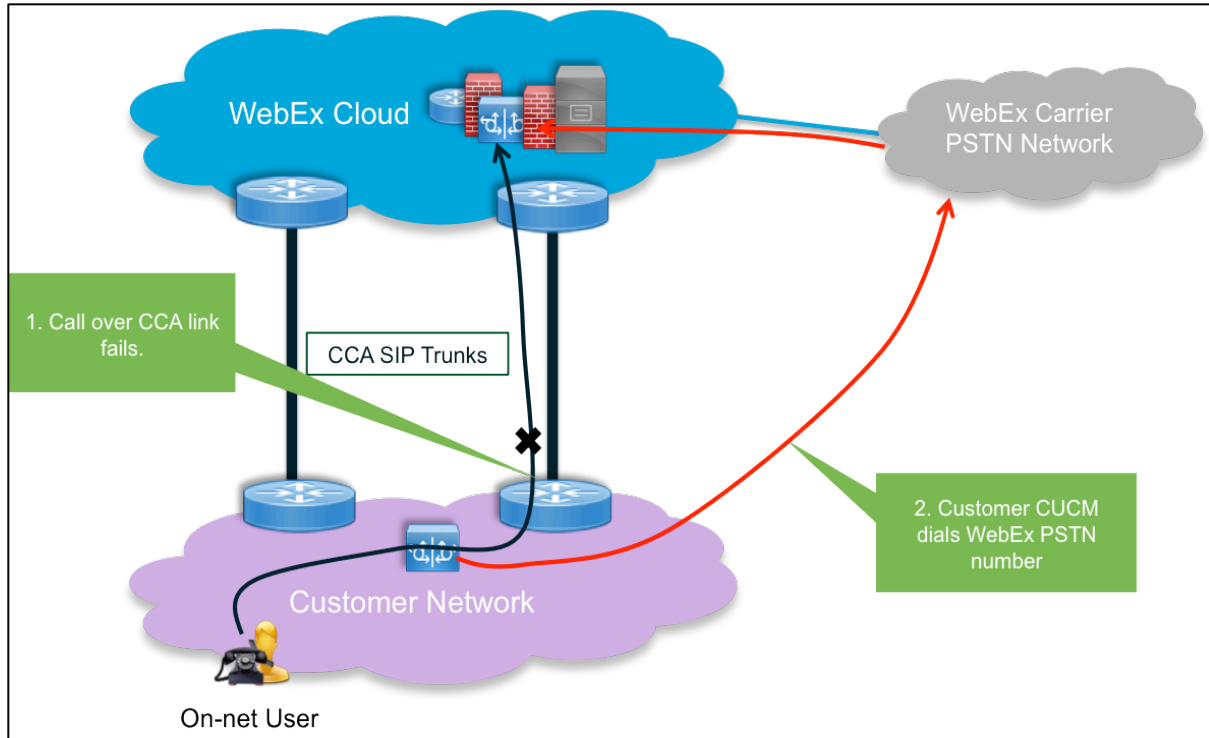


Diagram 9