



***INTEGRATE
CISCO
CUCM®
WITH
MICROSOFT
TEAMS®***

UbiLynx LLC

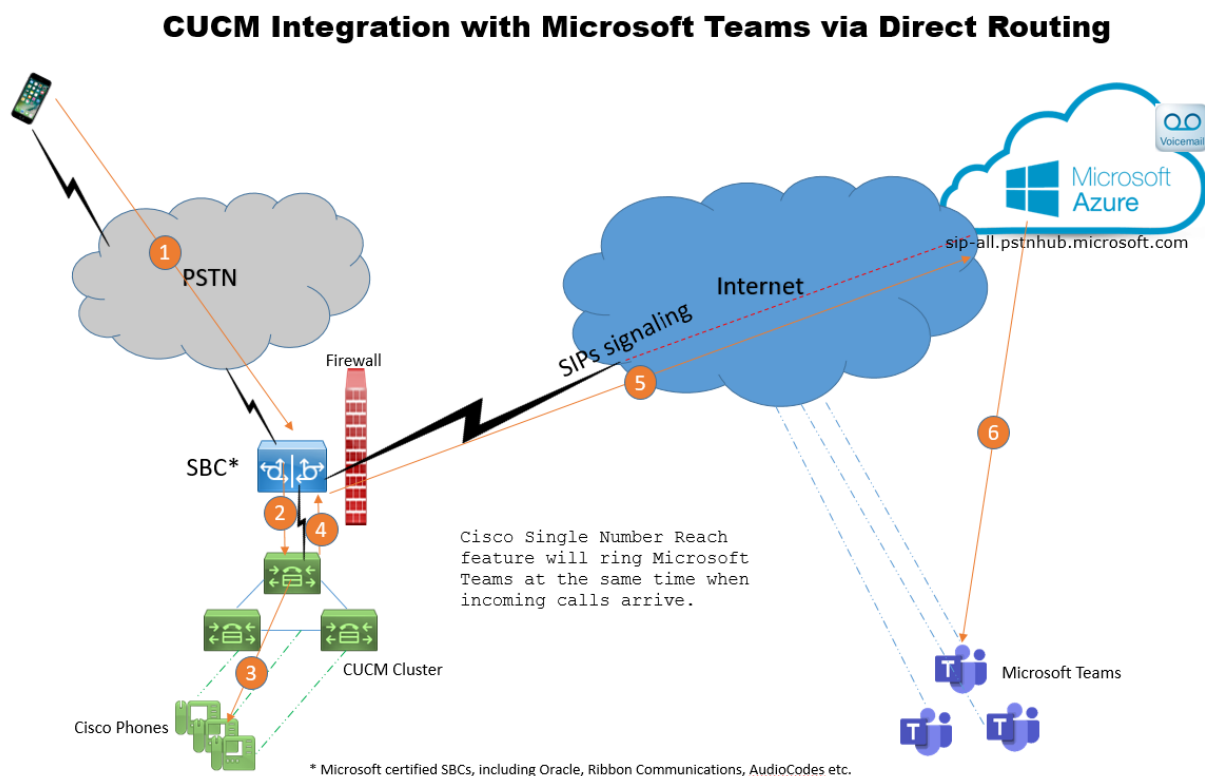
September 2019

Version 1.0

In the last decade, the Cisco Unified Communication Manager has become the most popular business unified communication solution. However, in the last few years, Microsoft Teams has continued to gain momentum and popularity in today's business environment. MS Teams is a chat based collaboration tool that allows different teams to work more efficiently together. The IM chat feature, can also, be easily configured for voice/video communications, either peer to peer or to multi-party conferencing. Many businesses are using Unified Communications solutions from both companies at the same time, in their environment. This can be very confusing and challenging to an end user trying to use these two platforms at the same time.

Some companies have moved further with this solution and integrated the “best” parts of both sides together. As an example, a popular solution is the integration between CUCM and Microsoft Exchange through SIP trunk so that voicemail, Auto Attendant and unified messaging are handled by the on premise Exchange server. The sad news is that recently Microsoft has announced that starting from Exchange 2019, it will stop supporting the Unified Messaging feature for Exchange servers that are running on premises. When a company is considering migration to Office 365, they should seriously consider how best to handle voicemails in the future.

In the following paragraphs, we will demonstrate to you a solution that can integrate your CUCM cluster with Microsoft Teams in the cloud and at the same time provide unified messaging through Azure Voicemail if preferred.



First, we deploy a SIP Session Border Controller (SBC) or a SBC HA cluster on the customer's premise. The SBC has to be Microsoft certified to work with Microsoft Teams Direct Routing feature. The SBC will interface with the CUCM cluster through a SIP trunk. It will build a SIP TLS based trunk with Microsoft SIP trunk in the cloud. The SBC will interface with the Telecom provider directly (SIP trunks, ISDN PRIs, CAS trunks, analog phone lines etc) as well but if the customer does want to keep their existing voice gateways, they can create a SIP trunk to the new SBC and let the new SBC handle the call routing to the Microsoft Teams.

Because the MS Teams is cloud based and it uses the E.164 number dial plan, it is highly recommended to configure the new SBC to handle call routing in an E.164 format. The CUCM can either be converted to be E.164 compliant (E.164 Directory Numbers) or we can define the required translation patterns to support call routing from the SBC in an E.164 format.

There are potentially many dialing plans among these SIP peers. But we think a concise solution should satisfy the following requirements:

- 1) Inbound and outbound PSTN calls from Cisco Phones remain the same
- 2) Inbound PSTN calls will not only ring the end user's Cisco Phone but also ring the end user's Microsoft Teams client through Cisco SNR feature
- 3) Both Cisco and Microsoft users can call each other through internal short extension dialing. When that happens, both end user's Cisco phone(s) and Microsoft teams client will ring at the same time.
- 4) Microsoft Teams client can make PSTN calls through the existing PSTN/SIP trunks on premise. The outbound calls will show the end user's DID as calling number.

After deploying this solution, there is no need for customer to deploy Cisco Jabbers (with MRA) anymore. MS Teams can support almost all the features of Jabber and additional features jabber does not support.

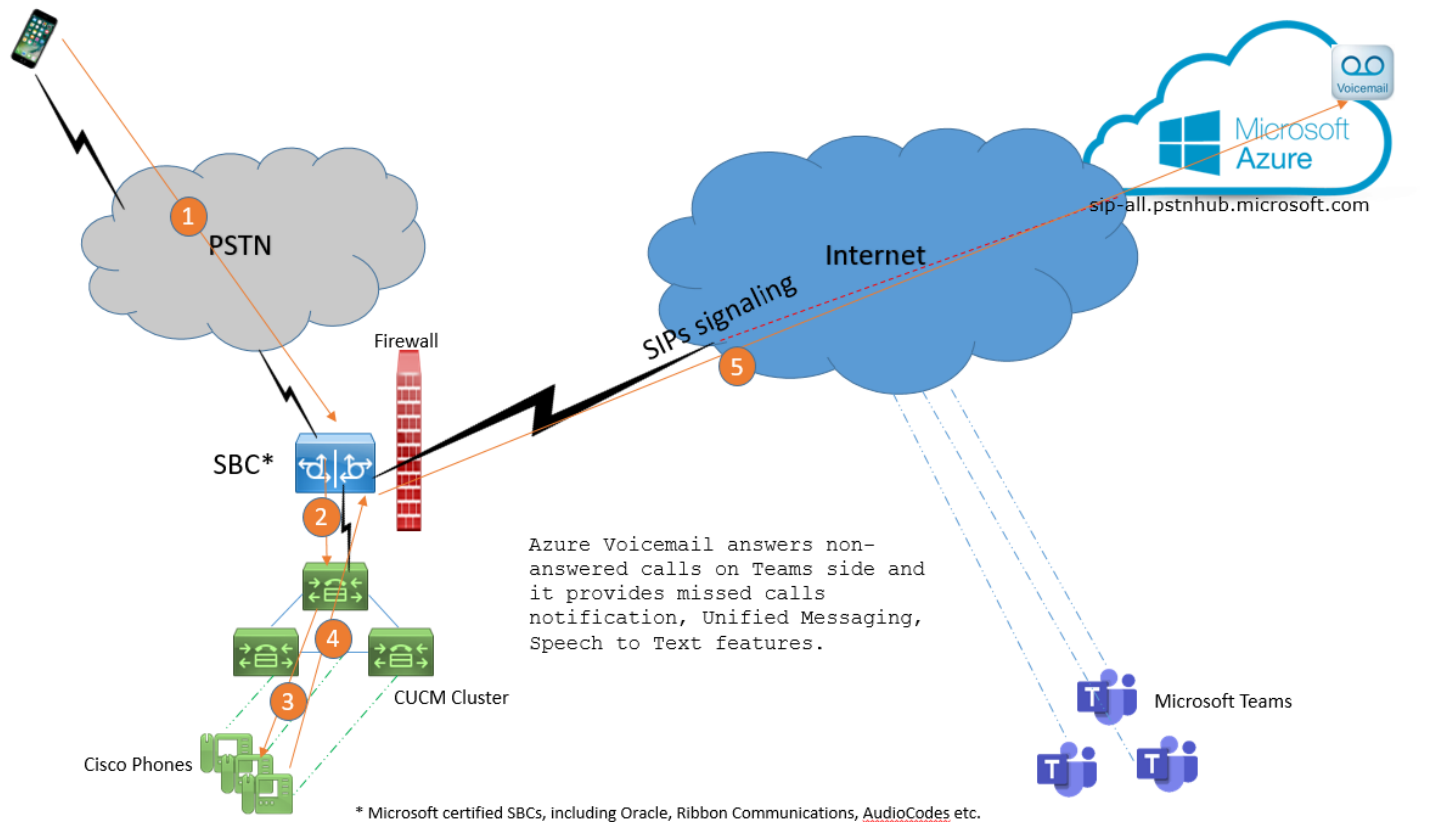
For customers who want to use the Azure Voicemail, we can configure the Cisco side "to not forward" the call to voicemail and let the Azure voicemail service answer the missed call. The voicemail will be relayed into the Exchange email box automatically with Speech to Text feature enabled by default.

The only shortcoming part of this solution is that **the Azure Voicemail service won't be able to turn on/off MWIs on the Cisco phone side**. However, with ubiquitous email accessibility today, MWI is probably not as important as it once was.

Licensing requirements (Office 365):

- Microsoft 365 E3 + Phone System, and Audio Conferencing (Only if you want to route calls into Teams meetings)
- Or
- Microsoft 365 E5

CUCM Integration with Azure VoiceMail via Direct Routing



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