

2) Microsoft Teams - Enable Direct Routing for Voice

Rev. 1.0.8

Before executing the commands [further down](#) in this guide.

You will need to have the following requirements fulfilled moving forward

Requirements

- **Two** accounts that is a **Teams admin** or **Global admin** in the **Microsoft 365 Admin Center**
- These accounts also needs **Microsoft licenses** that supports **voice**
- Example on licenses that support voice e.g - **E5** or **E1/E3** + **PhonSystem**
- The **two** admin accounts need to have the domain as an email for both **sbc1** and **sbc2**.
Full description on how this is done can be found in the steps below

* Note that accounts can be set up as temporary accounts or use of existing accounts

This is needed for the configuration for the domains for the domain urlmap ([described here](#))

Existing accounts can be restored to its original username/license and domain



If you decide to use the temporary accounts, they can be removed and their corresponding licenses canceled **after completing this guide**.

Connect the admin accounts to the new domains

1. Log in to **Microsoft 365 Admin Center** with the **Admin Account** (admin.microsoft.com)
2. Go to **Active users** and find one of the two accounts mentioned in **requirements**
Let's name these users [sbc1@yourdomain.com](#) and [sbc2@yourdomain.com](#)
in this **example**
3. Click on one of the **users** (e.g [sbc1@yourdomain.com](#))
4. Click **Manage username and email** > Click on the **pen** to edit > Choose **sbc1** from the **domain dropdown** > **Save** settings (see picture on page 2) *
5. Make sure the **username is saved correctly**. You should now have a username like [sbc1@tvxteamsxxxxx-sbc1.sfbcust.telavox.se](#) (see picture on page 2) *
6. Repeat the process for the **second user** - meant for user **sbc2**.
i.e adding a **username** like [sbc2@tvxteamsxxxxx-sbc2.sfbcust.telavox.se](#)

See **example pictures** on the [next page](#) marked with an asterisk from above steps.


Connect the admin accounts to the new domains - **Step 4)** *



Manage username and email

If the primary email is also their username, then changing the primary email will also change their current username. An alias is another email address that people can use to email SBC1 Dummy.


Primary email address and username

sbcl@tvxteams- -sbcl.sfbcust.telavox.se 

Aliases


Username

Domains




tvxteams- -sbcl.sfbcus... 

Add

Connect the admin accounts to the new domains - **Step 5)** *



SBC1 Dummy

 Reset password  Block sign-in  Delete user

[Change photo](#)

Account

Devices

Licenses and apps

Mail

OneDrive

Username and email

sbcl@tvxteams- -sbcl.sfbcust.telavox.se

[Manage username and email](#)

Aliases

[Manage username and email](#)

When this is done we can start executing the Powershell commands in this guide.

Setup Direct routing and configure Domains and User(s)

Step 1) - Adding a Teams module to Powershell

Install the Teams module with the below guide
[Guide to download and install the Teams-Module](#)

Step 2) - Create session towards Teams-Environment and Telavox systems

This step will create the session needed to update the settings in Microsoft-Teams

Run the following command from Powershell (**as administrator**):

```
Connect-MicrosoftTeams
```

Step 3) Make sure the Domains are populated in domain urlmap

Run the following command:

```
Get-CsTenant | fl Tenantid,*Domain*
```

Your result should contain **sbc1** and **sbc2** in the **DomainUrlMap** or as **VerifiedDomains** (The naming convention is dependent on what powershell version is being used)

PowerShell Version 5.1.X

```
PS > Get-CsTenant | fl Tenantid,*Domain*

TenantId      : 67589aad-e0e2-4c1d-b123-ef912abd72d9
Domains       : {tvxteams[redacted]-sbc2.sfbcust.telavox.se, tvxteams[redacted]-sbc1.sfbcust.telavox.se, adv[redacted]teams.onmicrosoft.com,
DomainUrlMap  : {tvxteams[redacted]-sbc2.sfbcust.telavox.se, tvxteams[redacted]-sbc1.sfbcust.telavox.se, adv[redacted]teams.onmicrosoft.com}
```

PowerShell Version 7.X

```
PS /Users/adv[redacted]@macos ~$ Get-CsTenant | fl Tenantid,*Domain*

TenantId      : 67589aad-e0e2-4c1d-b123-ef912abd72d9
SipDomain     : {adv[redacted]teams.onmicrosoft.com, adv[redacted]teams.com, tvxteams[redacted]-sbc1.sfbcust.telavox.se, tvxteams[redacted]-sbc2.sfbcust.telavox.se}
VerifiedDomains : {adv[redacted]teams.onmicrosoft.com, adv[redacted]teams.com, tvxteams[redacted]-sbc1.sfbcust.telavox.se, tvxteams[redacted]-sbc2.sfbcust.telavox.se}
```

If you don't see your domains listed, it might be because PowerShell will only list the first four domains. To make sure all domains are listed you can run the following command:

```
PS cmd $FormatEnumerationLimit = -1
```

After you have run this command you can run the Get-CsTenant command above once again to list all domains.

When this is confirmed - move on to next page with **Step 4)**

Step 4) - Create direct routing rules for Teams

The original guide from Microsoft can be found [here](#)

When running the below commands - remember to change to the **FQDN:s** (Domains) provided by Telavox. These **FQDN:s** (Domains) must be changed on both **sbc1** and **sbc2**

4.1 - Create the PSTN Gateways

Make sure this is **two** complete rows in **Powershell** (without quotation marks)

```
1) "New-CsOnlinePSTNGateway -Fqdn tvxteamsxxxxx-sbc1.sfbcust.telavox.se -Enabled $true -SipSignalingPort 5061"  
2) "New-CsOnlinePSTNGateway -Fqdn tvxteamsxxxxx-sbc2.sfbcust.telavox.se -Enabled $true -SipSignalingPort 5061"
```

4.2 - Create PSTN Usage

```
Set-CsOnlinePstnUsage -Identity Global -Usage @{Add="Telavox"}
```

4.3 Create Voice Route

Make sure this is **two** complete rows in **Powershell** (without quotation marks)

```
1) "New-CsOnlineVoiceRoute -id "Telavox" -NumberPattern ".*" -OnlinePstnGatewayList @{add="tvxteamsxxxxx-sbc1.sfbcust.telavox.se"} -OnlinePstnUsages Telavox"  
2) "Set-CsOnlineVoiceRoute -id "Telavox" -OnlinePstnGatewayList @{add="tvxteamsxxxxx-sbc2.sfbcust.telavox.se"}"
```

4.4 -Create a Voice Routing Policy

```
New-CsOnlineVoiceRoutingPolicy "Telavox" -OnlinePstnUsages "Telavox"
```

After this you will need to create the direct routing rules for Teams (to place and receive calls to and from Telavox servers) this is done in the **following steps**.

Step 5) - Check if a user is present in Microsoft Teams

To check if a user that is created is present in Teams

Run the following command and adjust (username@yourdomain.com)

```
Get-CsOnlineUser -Identity "username@yourdomain.com" | fl RegistrarPool
```

The response to that command should contain and look something like below

```
*.infra.lync.com
```

If that's the case we proceed to **Step 6)**.

Step 6) - Associate a number to a Teams-user

First check in **Telavox Admin** what **landline** number is set to the user.
You **cannot** assign a mobile number to the user.

Next steps is to associate a landline number to a Teams user
This is done differently dependent on **version** of **PowerShell** you are using

Run the following command for **PowerShell 5.X**

```
Set-CsPhoneNumberAssignment -Identity "username@yourdomain.com"  
-PhoneNumber "+4610234567" -PhoneNumberType DirectRouting
```

Run the following command for **PowerShell 7.X**

```
Set-CsPhoneNumberAssignment -Identity "username@yourdomain.com"  
-PhoneNumber "+4610234567" -PhoneNumberType DirectRouting
```

Remember to use the **E.164** number format i.e +46 (without the first zero) this example is for a number with the Swedish country code prefix.

Step 7) - Grant Online Voice Routing Policy to a User

To grant usage of the online voice routing policy to a user - Run the following command

```
Grant-CsOnlineVoiceRoutingPolicy -Identity "username@yourdomain.com" -PolicyName  
"Telavox"
```

To verify that the user have been updated correctly go to **Step 8)**

Step 8) - Verify user creation

To verify that the user is created correctly - Run the follow command

```
Get-CsOnlineUser "username@yourdomain.com" | select OnlineVoiceRoutingPolicy
```

Here you should see **Telavox** as an output then proceed to **Step 9)**

Step 9) - Activate “Forward call history” in Teams Admin portal

Log in to your **Teams Admin portal**. Go to “Voice” > “Direct Routing” and click on the first of your two configured **SBCs**. Choose “Settings” and, in the top right corner, click “Edit SBC”.

Find the setting “**Forward call history**” and turn it **on**.

Repeat the action for your **second SBC**.

Step 10) - Configure the Teams user(s) in Telavox Admin to use teams for incoming/outgoing calls

Login to **Telavox Admin** with a administrator account [here](#)

First the add-on “**MS-Teams**” needs to be added on the user(s) in **Telavox Admin**.

Under “**Additional services**” add the MS-Teams feature for the user(s) that will be using Microsoft Teams with Telavox. This needs to be done separately for each individual user.

Then navigate to **Users**

In the left bottom pane click on **Microsoft Teams** under **Integrations**

Select **all users** you have configured to use Teams

Fill in to use both **incoming & outgoing** calls

Click **Save**

