imagicle

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS

Preparing the Microsoft environment

Imagicle Customer Service solution for Microsoft Teams, including Advanced Queuing, Attendant Console and optionally Auto Attendant, requires to accomplish some preliminary tasks and checks, to make sure that actual implementation goes smoothly without requiring multiple sessions with Imagicle Team.

Below list should be handled by customer/partner prior to schedule a remote session with Imagicle Team:

- A new Domain must be created in Microsoft 365 portal, by following the steps included in below **New Domain Setup** paragraph.
- Domain creation returns three items (TXT name, TXT value and TTL), that should be sent to Imagicle Team via email.

Requirements

- Imagicle UC Cloud Suite
- Imagicle UC Cloud Suite host name, provided by Imagicle Cloud Services team, like: `<customer-name>.imagicle.cloud`
- Admin-level access to Microsoft 365 web portal (Global admin)
- Admin-level access to Microsoft Teams web portal (Teams administrator)
- Admin-level access to MS Teams PowerShell
- One Microsoft 365 "E3" user's license (temporarily needed to create Voice Route and relevant policy)
- One Microsoft Teams Phone Resource Account for each configured Imagicle Queue/Auto Attendant
- Each agent/operator should have a Microsoft 365 "E3" + Microsoft Teams Phone Standard OR a Microsoft 365 "E5" (it already includes the Phone Standard) user's license.

Configuration Overview

To allow Internet SIP routing of inbound calls from MS Teams to Imagicle Advanced Queuing and Auto Attendant application + routing calls from Imagicle Cloud to MS-Teams users, you should create a Voice Route + relevant policy entry, in turns associated to a Direct Routing destination (Imagicle SBC), in turns associated to a Microsoft Auto attendant for each queue, in turns associated to a Resource account virtual user, in turns assigned to an actual PSTN number to allow reaching each Imagicle Queue/Auto Attendant from PSTN.

To enable such Internet SIP routing, the following tasks should be accomplished:

1. Enable a second-level domain, associated to a Direct Routing destination (Imagicle Public SBC)
2. Create a dummy Microsoft "E3" user, to be associated to a VoiceRoute and a Voice Routing Policy
3. Create an Auto attendant for each required Imagicle Queue/Auto Attendant service
4. Create a Microsoft Resource account Virtual User for each required Imagicle Queue/Auto Attendant service
5. Associate above Resource account user to relevant Auto attendant and assign it to an available PSTN number

Microsoft Teams Configurations from MS365 Admin Web Portal and PowerShell

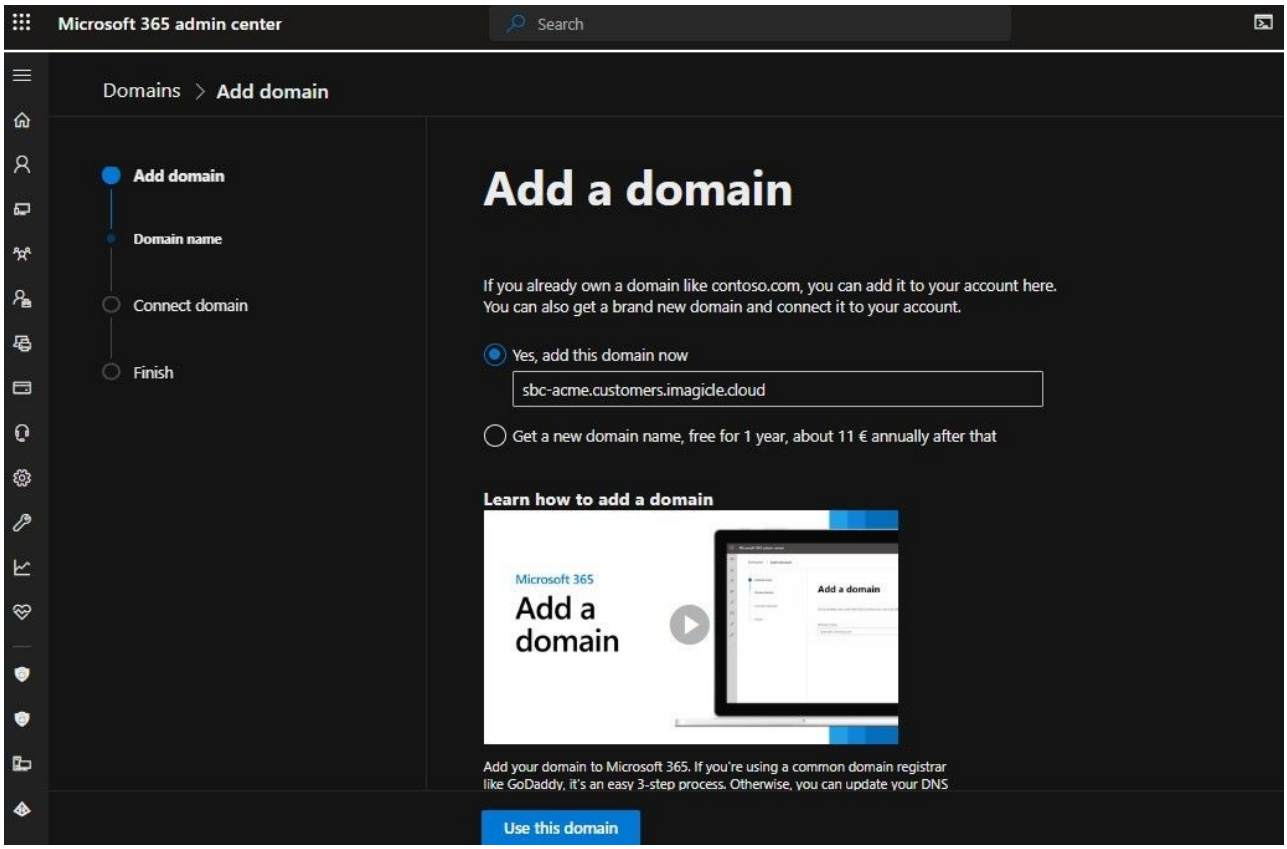
Imagicle UC Cloud Suite is seen by Microsoft Teams as a new Direct Routing location equipped with a SIP-connected SBC. In Imagicle Cloud, a dedicated/shared Cisco CUBE (or vCUBE) "Public SBC" is deployed, to allow the Internet "OTT" Peering between Microsoft Teams cloud and Imagicle Cloud.

New Domain Setup

The following procedure can be autonomously accomplished by the customer/partner, to retrieve domain's "TXT" data and send them to Imagicle team. In this way, you can save time and proceed with further configurations.

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS

Please login to Microsoft 365 Admin web portal and select Domains â Add Domain:



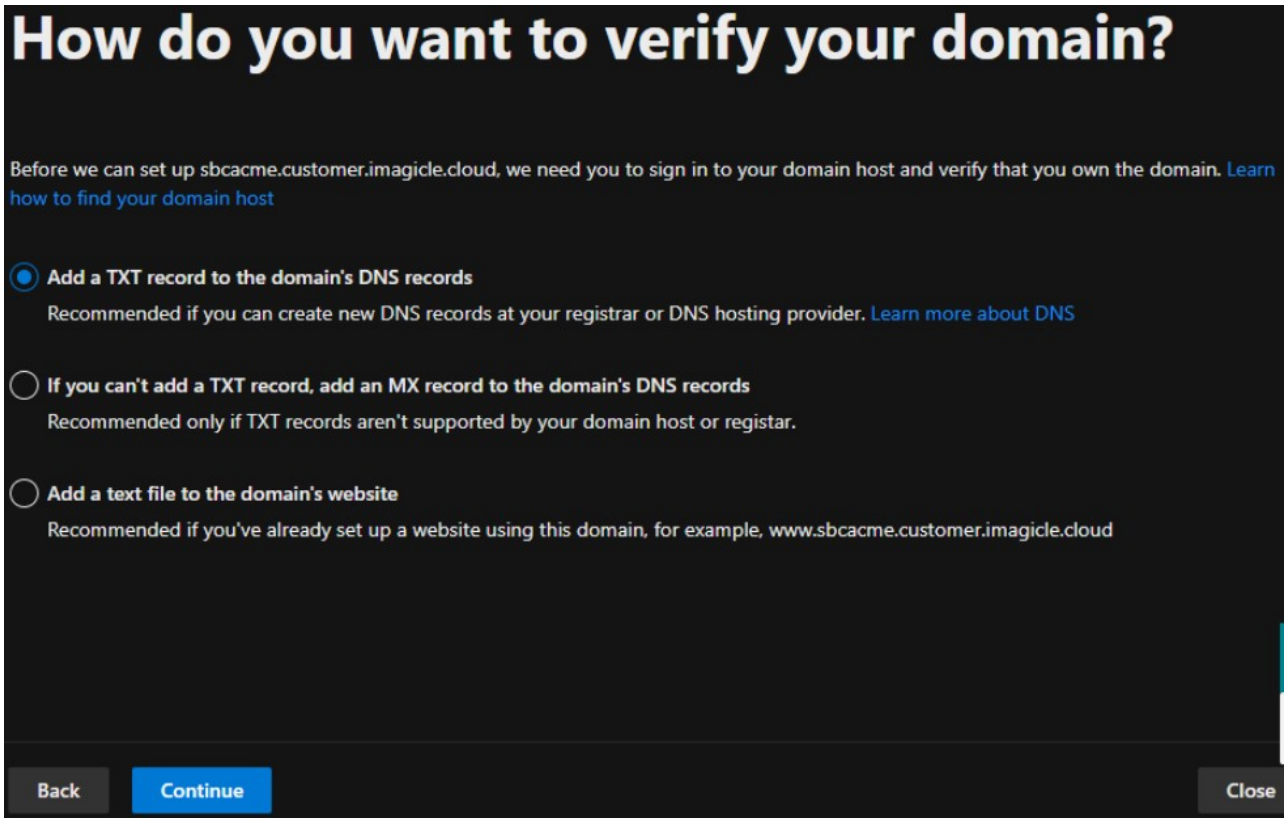
Domain Name must include the DNS name associated to Imagicle UC Cloud Suite deployed in Imagicle Cloud. This is the **mandatory** naming conventions:

- Europe area: **sbc-<company>.customers-eu-1.imagicle.cloud**
- Middle-East area: **sbc-<company>.customers-me.imagicle.cloud**
- North America area: **sbc-<company>.customers-us-1.imagicle.cloud**

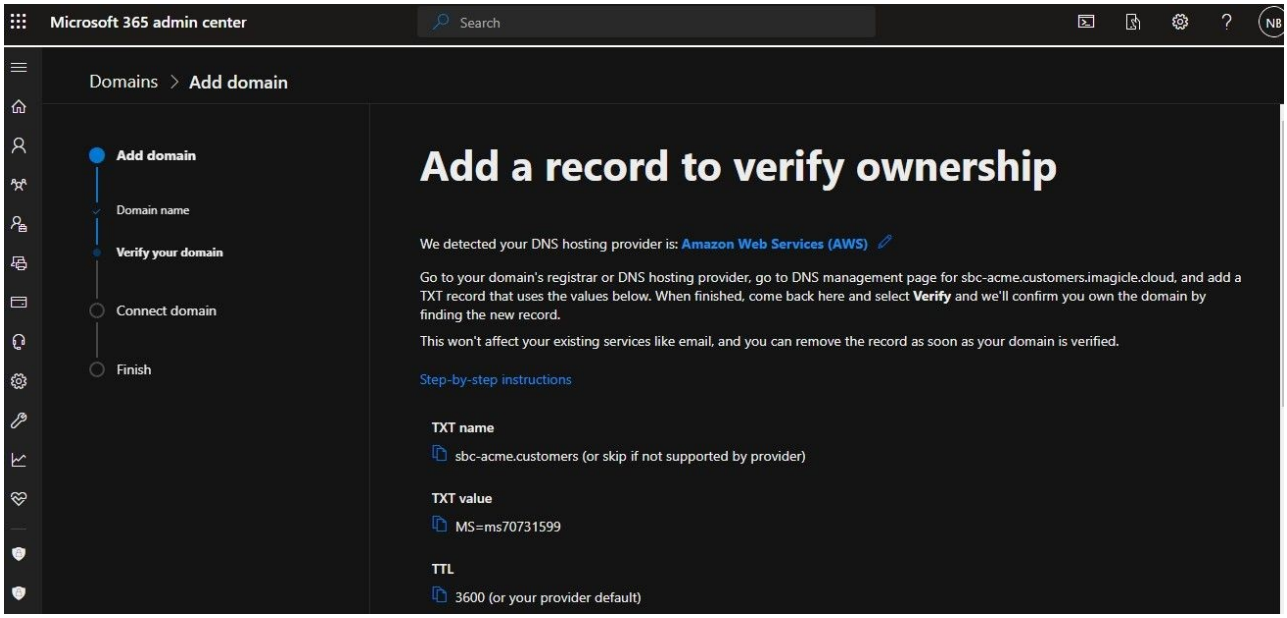
Please do not use other naming formats and just replace "**<company>**" with own Company name (e.g., sbc-**acme**.customers.imagicle.cloud).

Click on "Use this domain" to display Domain verification page:

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



Please select "Add a TXT record to the Domain's DNS records" and hit "Continue":

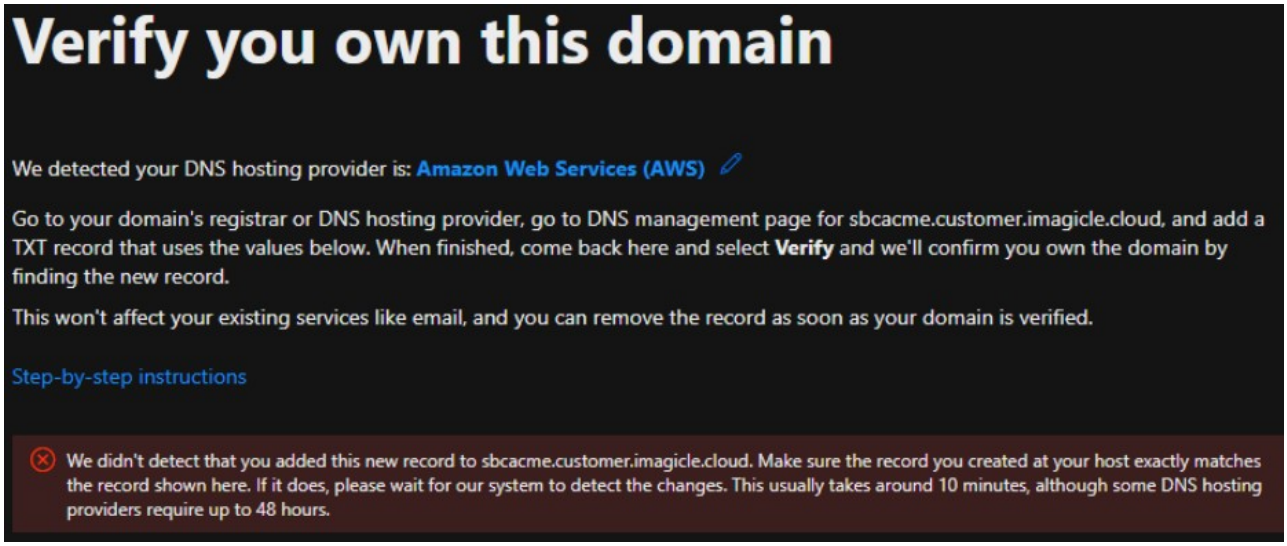


Please copy above three items (TXT name, value and TTL) and send them to Imagicle team, so they can create relevant DNS entry in Imagicle Cloud DNS. Once Imagicle Cloud Services team confirms DNS creation, please hit "Verify".

NOTE: before proceeding disable the flag "[_] Exchange and Exchange Online Protection".

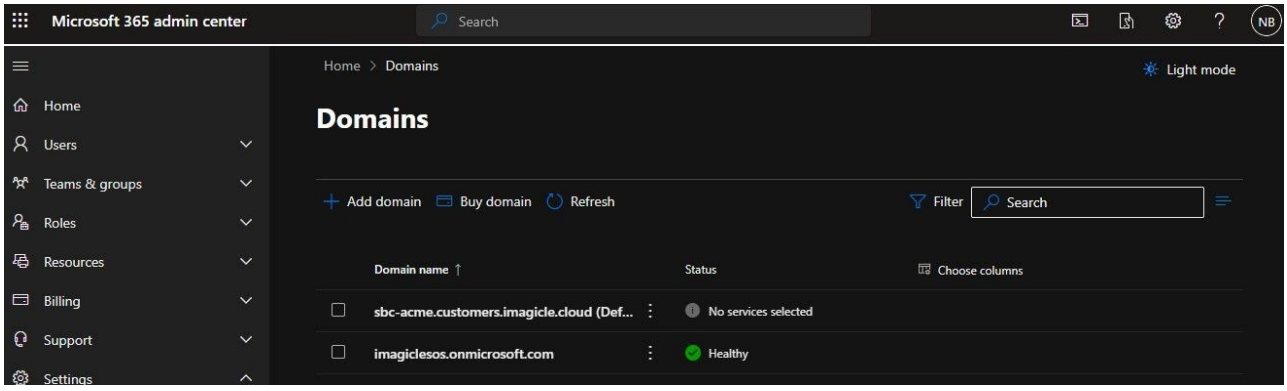
If DNS entry hasn't been created yet in Imagicle Cloud DNS, you get the following error message:

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



Please select "Skip and do this later (not recommended)" option to skip service activation.

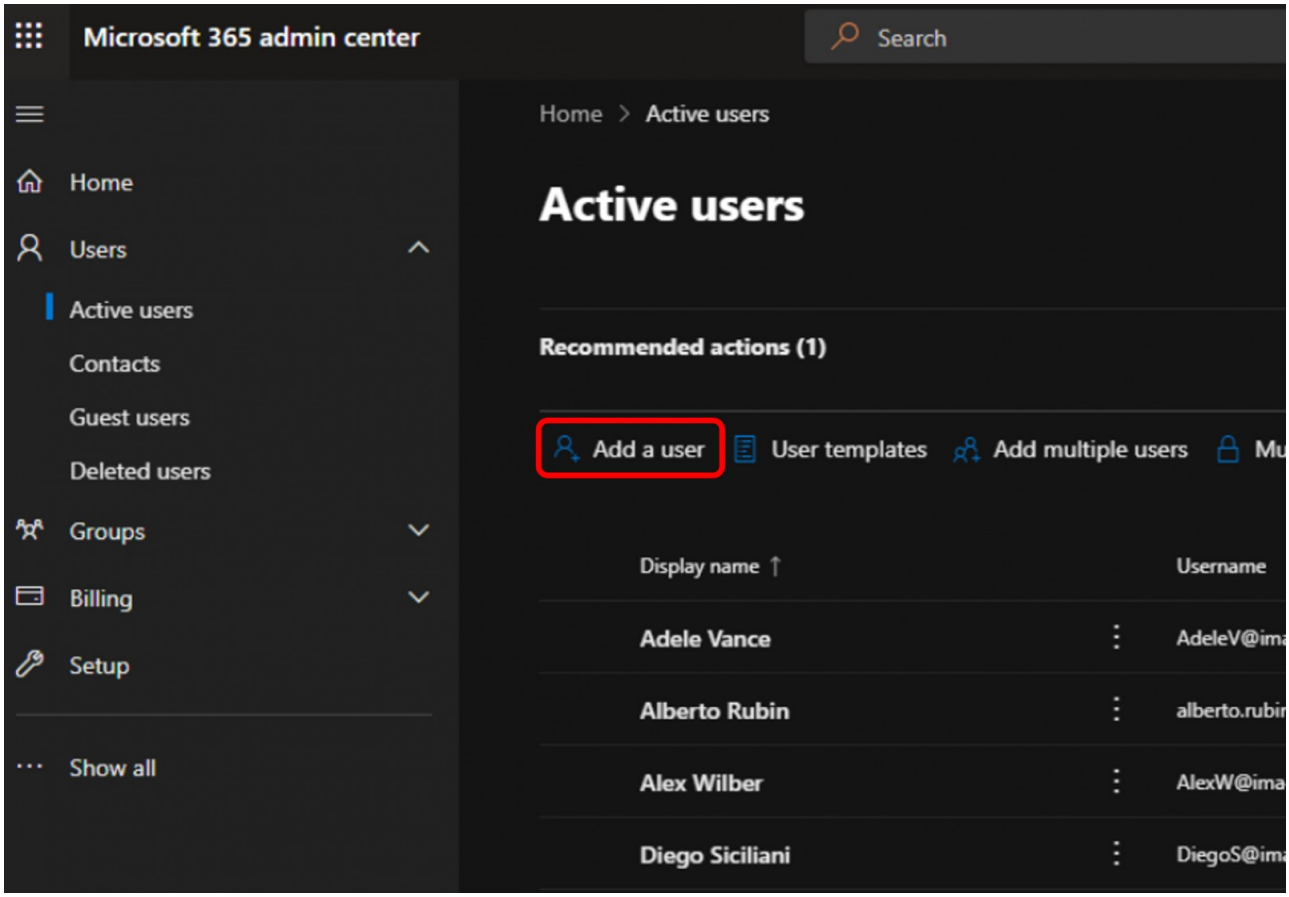
Once Imagicle Cloud team has enabled the DNS entry, you will find new domain in the following status:



Create an Office 365 User

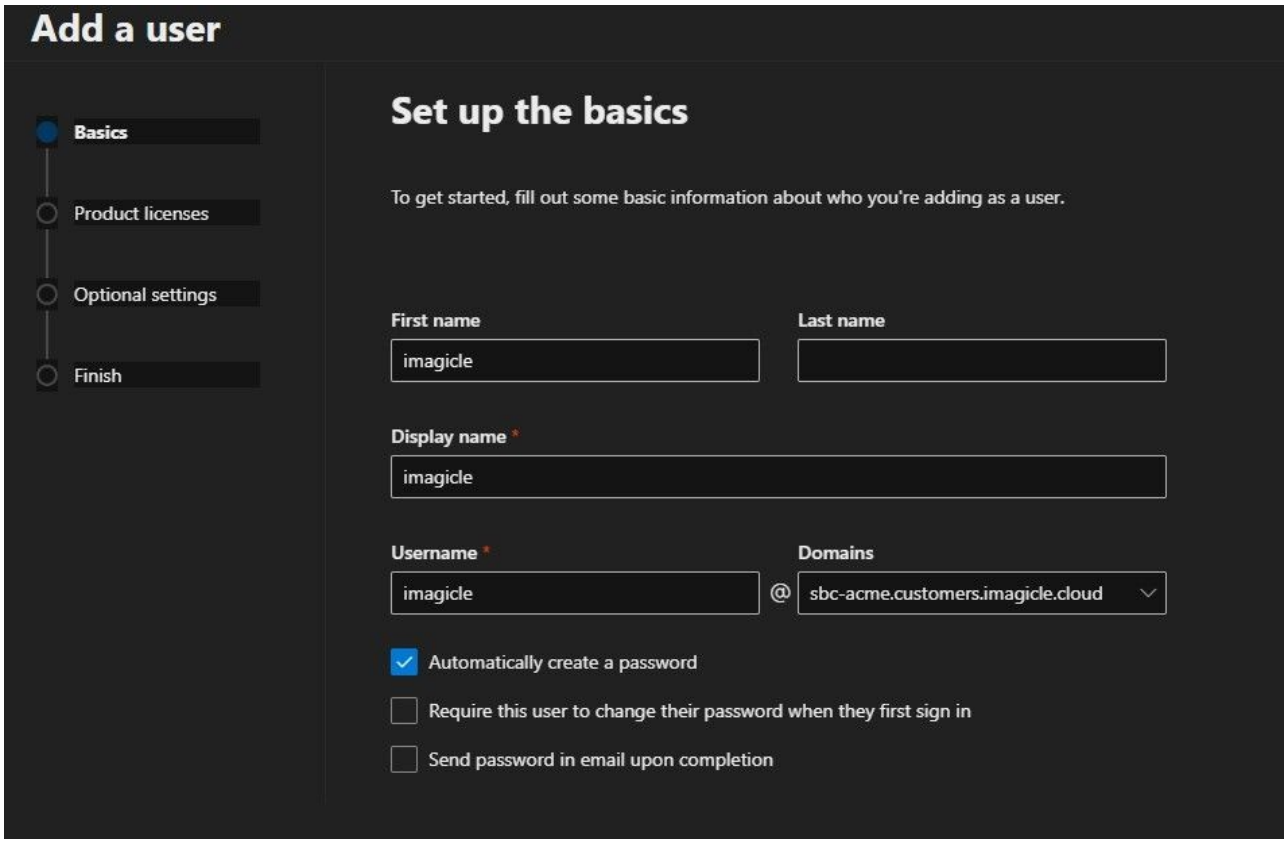
To enable call routing to/from the new created domain, at least one user with Office365 **E3 license** associated must be created in such domain. You can do it following the next steps:

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



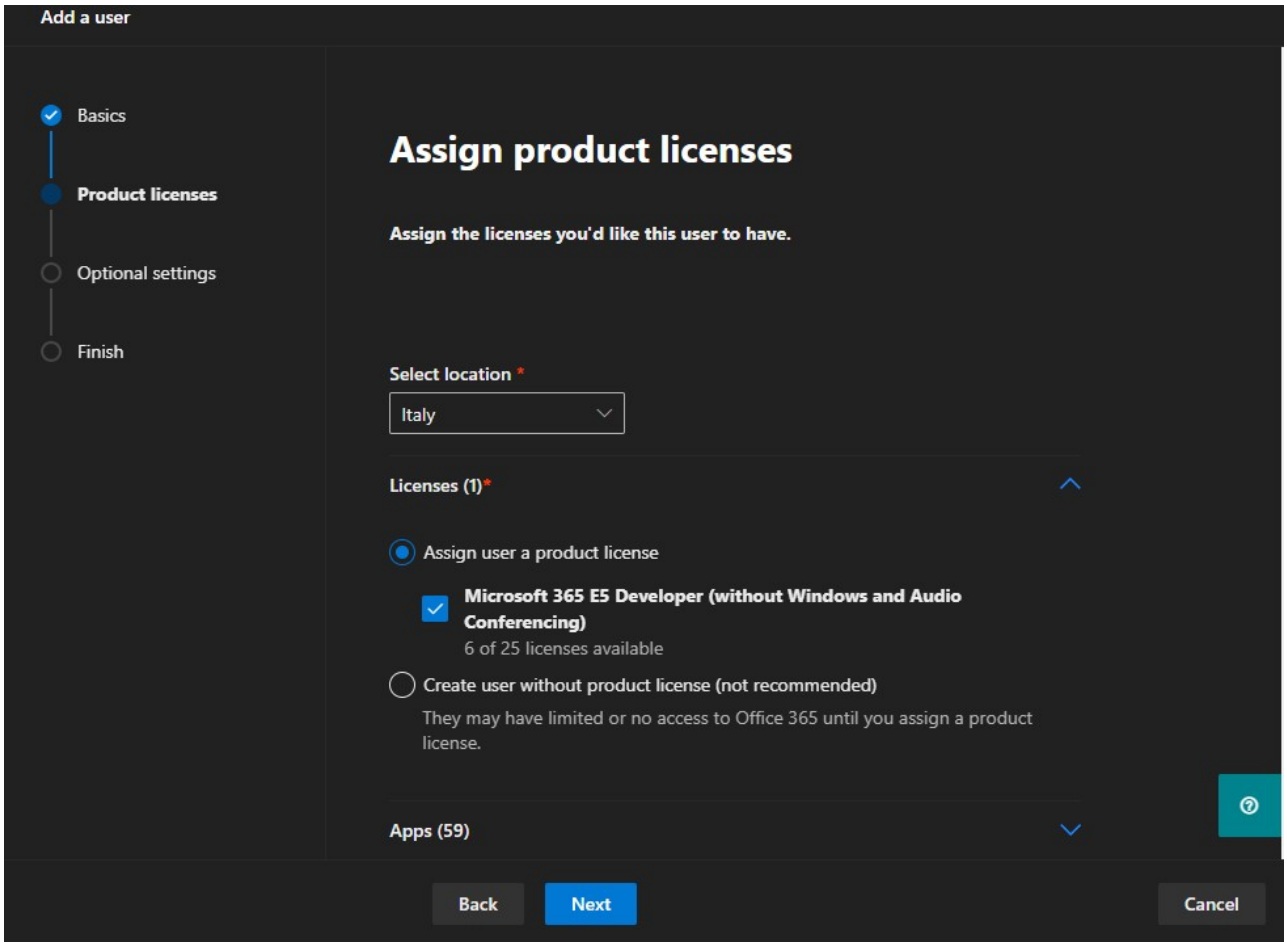
Click "Add a user" and name it "imagicle":

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



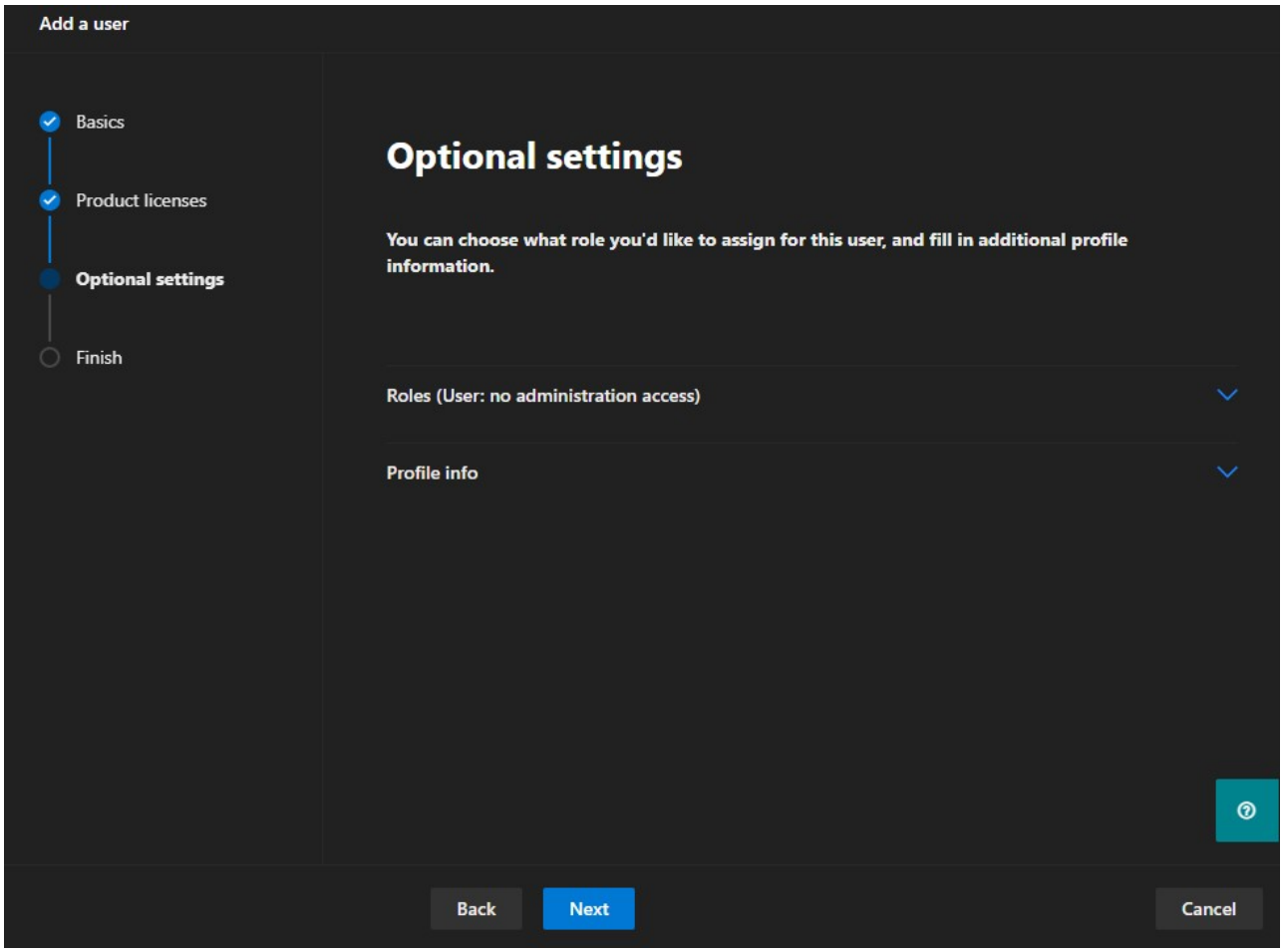
Hit Next to display "Product licenses" page. Please assign an E3 user license at least, as per below sample:

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



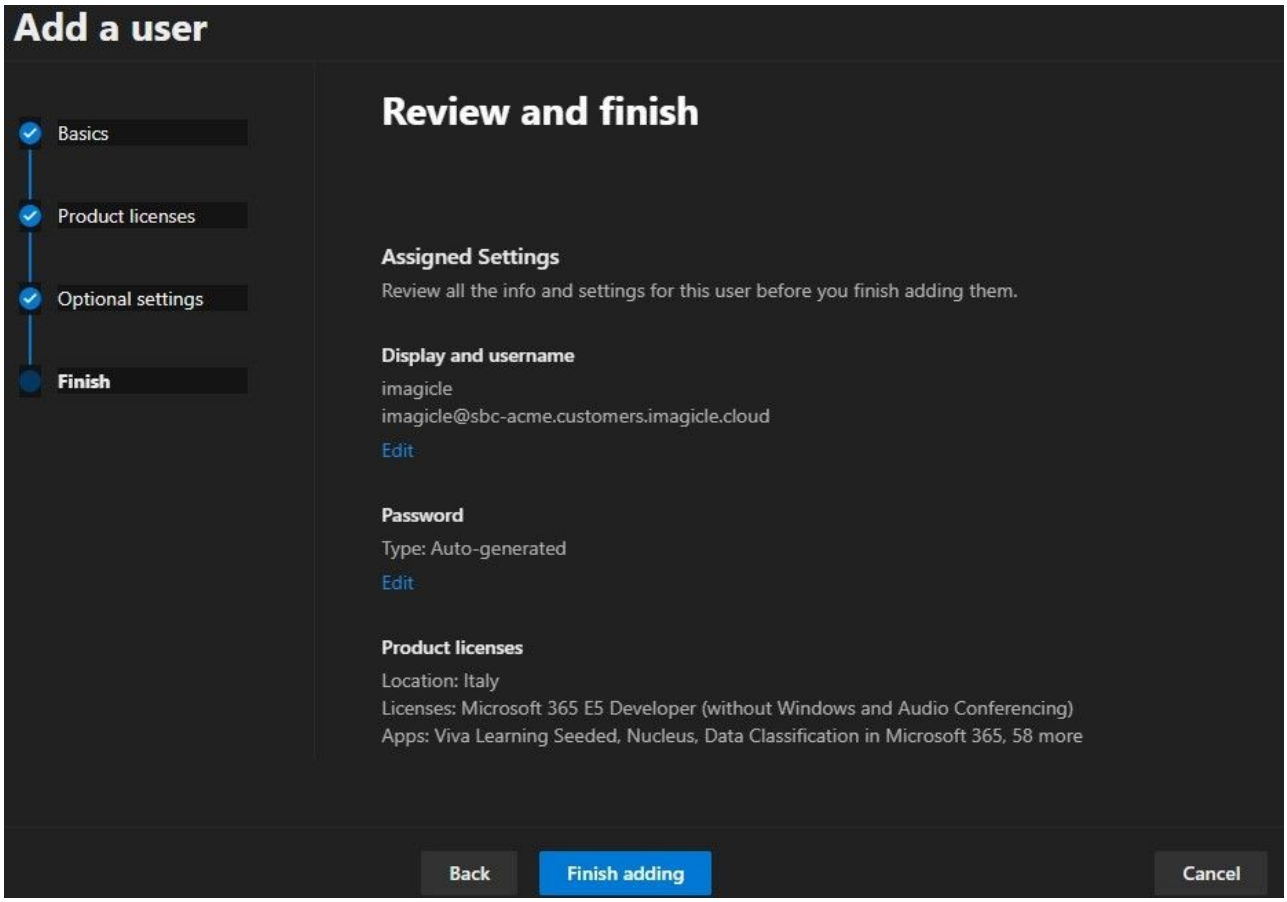
Hit next to assign a permission level to new user. Simple "User" role is enough:

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS

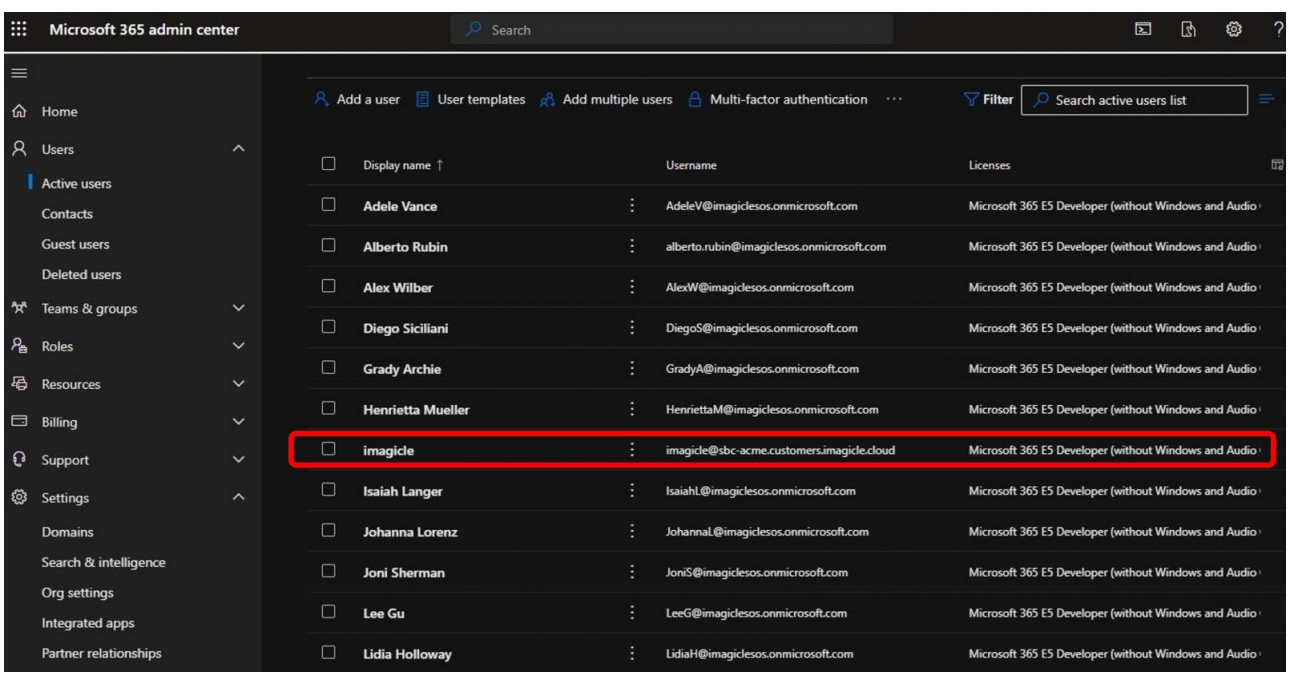


Hit Next to display a User's summary page. Please review entered data.

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



If all correct, please hit "Finish adding" to actually save new user. It subsequently appears in Active Users list. See below:



Common Voice Route to forward calls to Imagicle Cloud

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS

If not yet done, please install MS Teams PowerShell module by issuing the following commands from PowerShell running as Administrator:

```
Install-Module MicrosoftTeams

Import-Module MicrosoftTeams

Connect-MicrosoftTeamsâ  â
```

Please enter Tenant Administrator credentials, when requested.

Now enter the following command:

```
$FormatEnumerationLimit=-1
Get-CsTenant | fl *Domain*
```

The results should include a **VerifiedDomains** line, containing the new domain added at the beginning of this procedure. See below sample:

```
PS C:\Users\nicola.boscolo> $FormatEnumerationLimit=-1
PS C:\Users\nicola.boscolo> Get-CsTenant | fl *Domain*


SipDomain       : {imagiclesos.onmicrosoft.com, sbc-acme.customers.imagicle.cloud}
VerifiedDomains : {imagiclesos.onmicrosoft.com, sbc-acme.customers.imagicle.cloud}
```

If new domain does not appear in the list, please repeat **Get-CsTenant** command until it shows up.

Now you need to perform additional PS commands to enable the configuration of a common routing policies to transfer calls to Imagicle Cloud SBC and, in turns, to Imagicle queues and Auto Attendant services.

Please enter below command:

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

Then the following command, where you need to replace sbc-companyname with the domain configured in previous paragraph. Remember the "us" or "me" prefixes, to be added respectively for North America and Middle-East.

```
New-CsOnlineVoiceRoute -Identity "Imagicle_VR" -NumberPattern "^\+28" -OnlinePstnGatewayList sbc-companyname.customer
```

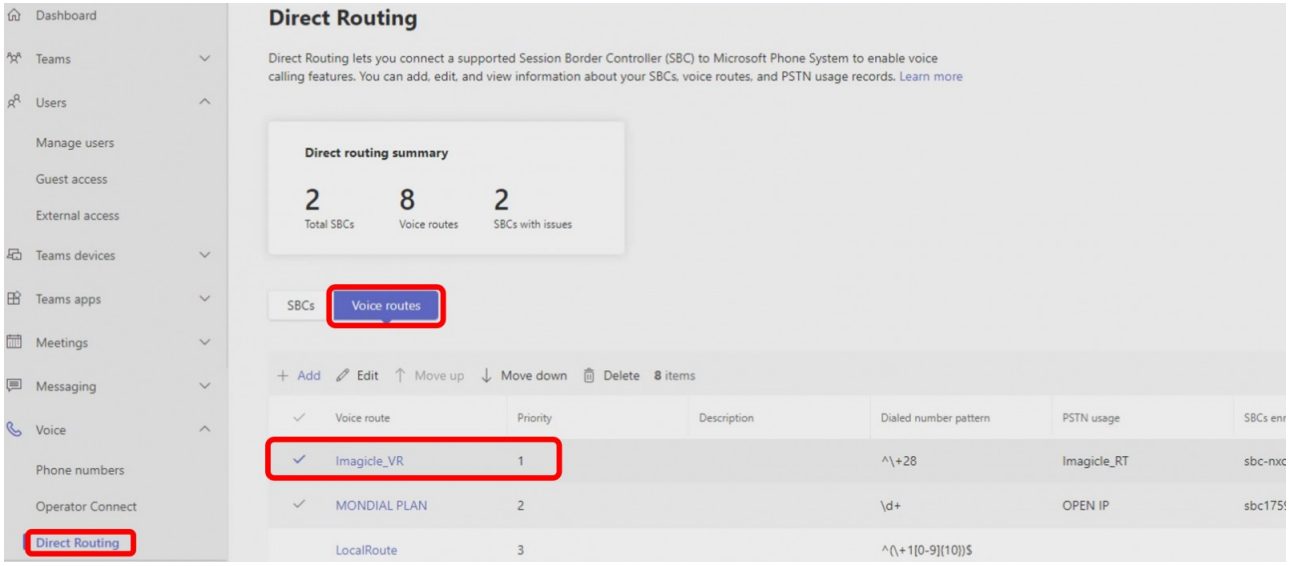
The result should be similar to below screenshot sample:

```
Identity                : Imagicle_VR
Priority                : 11
Description             :
NumberPattern           : ^\+28
OnlinePstnUsages        : {Imagicle_RT}
OnlinePstnGatewayList   : {sbc-masdar.customers-me.imagicle.cloud}
BridgeSourcePhoneNumber :
Name                    : Imagicle_VR


PS C:\WINDOWS\system32>
```

If you get an error "Cannot find specified Gateway", please, check the FQDN you typed and ensure the previous steps (Office365 user creation) was successfull.

Now login as administrator to Microsoft Teams Admin Center and go to Voice â Direct Routing â Voice routes and **Move up** Imagicle_VR entry to the top priority 1 position, to make sure this special rule is always engaged for calls to be routed to Imagicle Cloud instance:

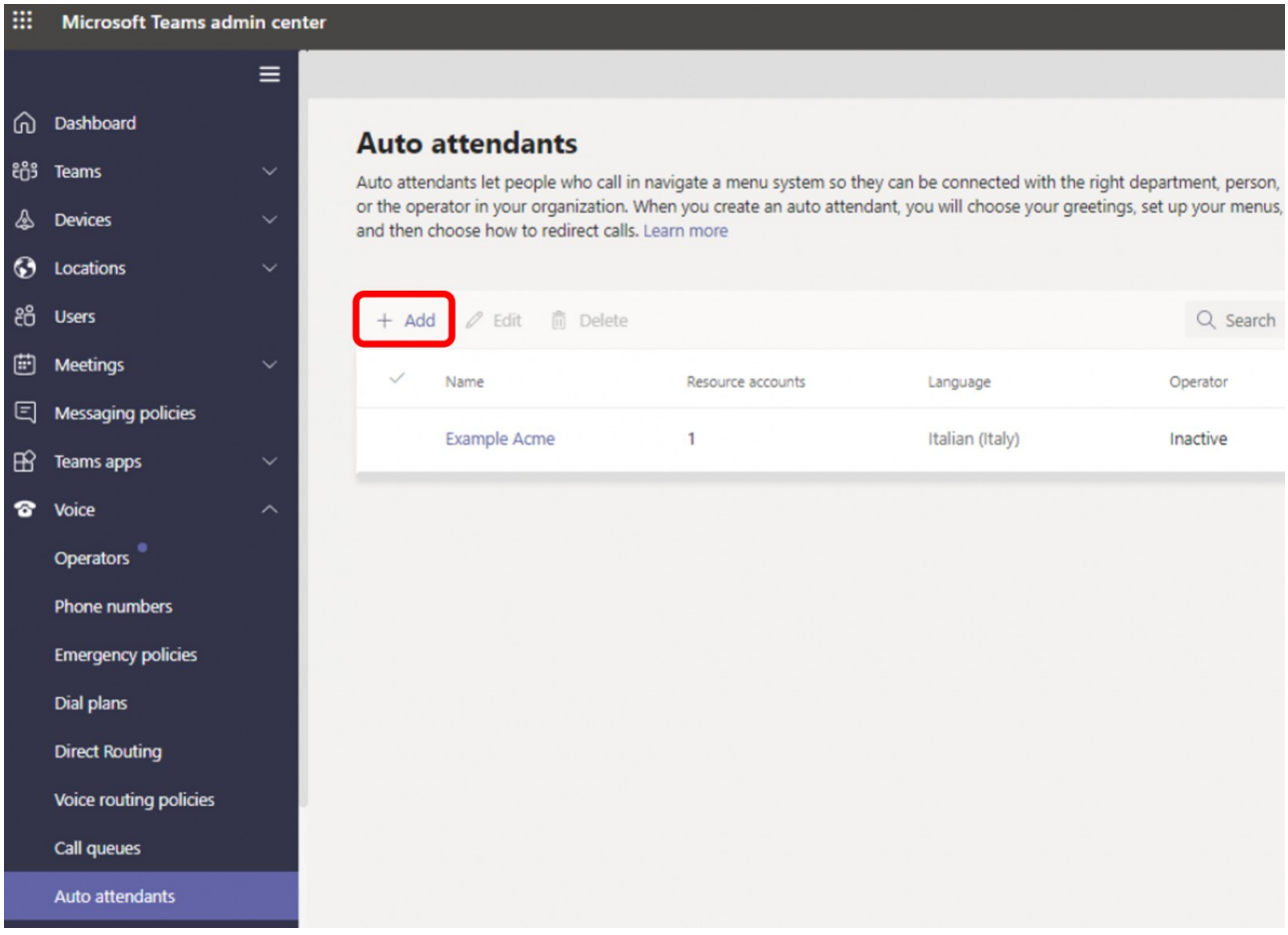
Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



Microsoft Auto attendant creation

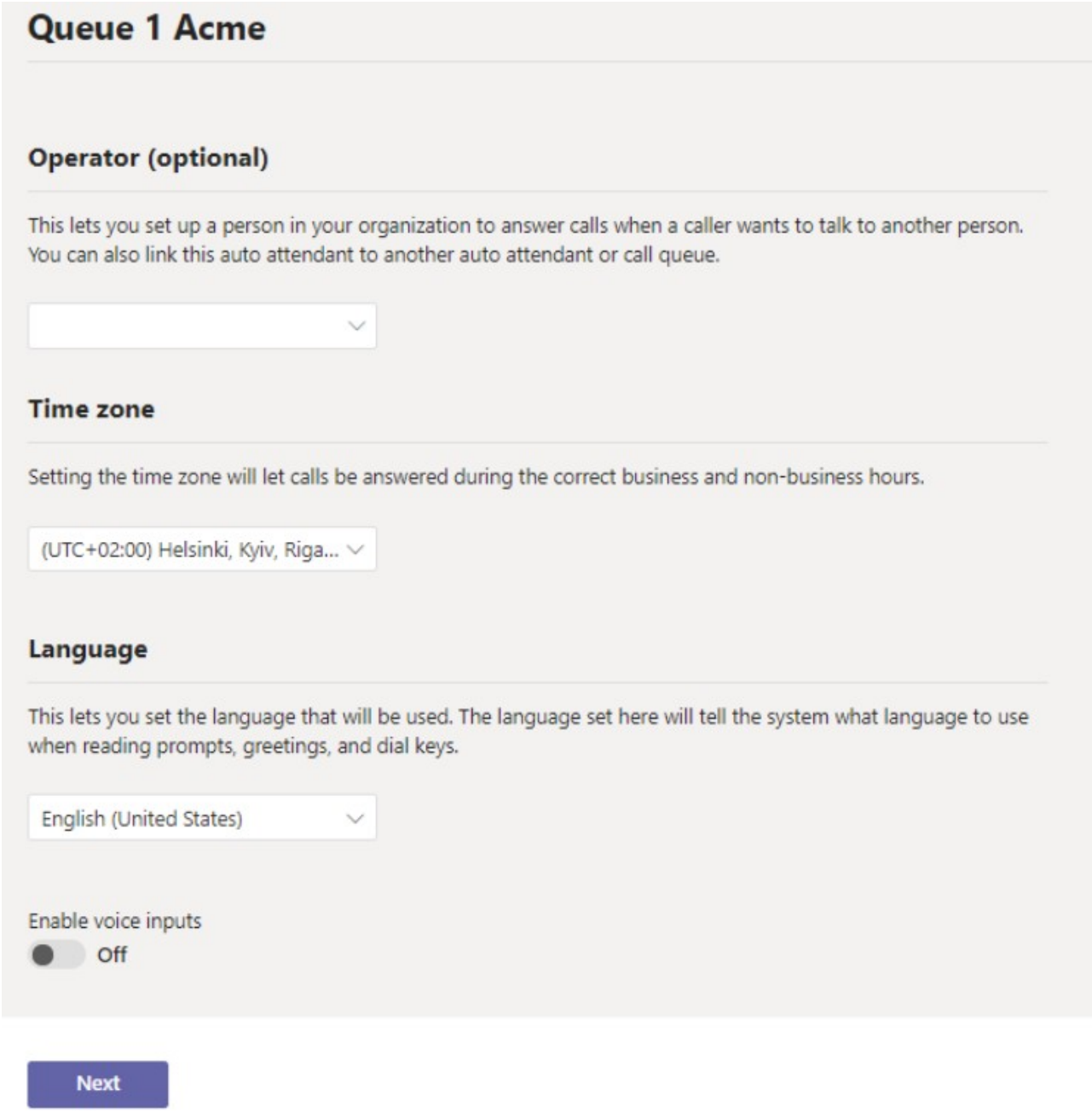
Imagicle leverages Microsoft Teams Auto attendants to allow the routing of inbound calls to Imagicle Queues/Auto Attendant services. Microsoft actually does not allow direct routing of calls, so the Auto attendant is used as a simple ingress point to redirect calls via SIP to Imagicle SBC. No additional configurations are applied on MS Auto attendants.

Under "Voice" menu, locate and select "Auto attendants". See below:



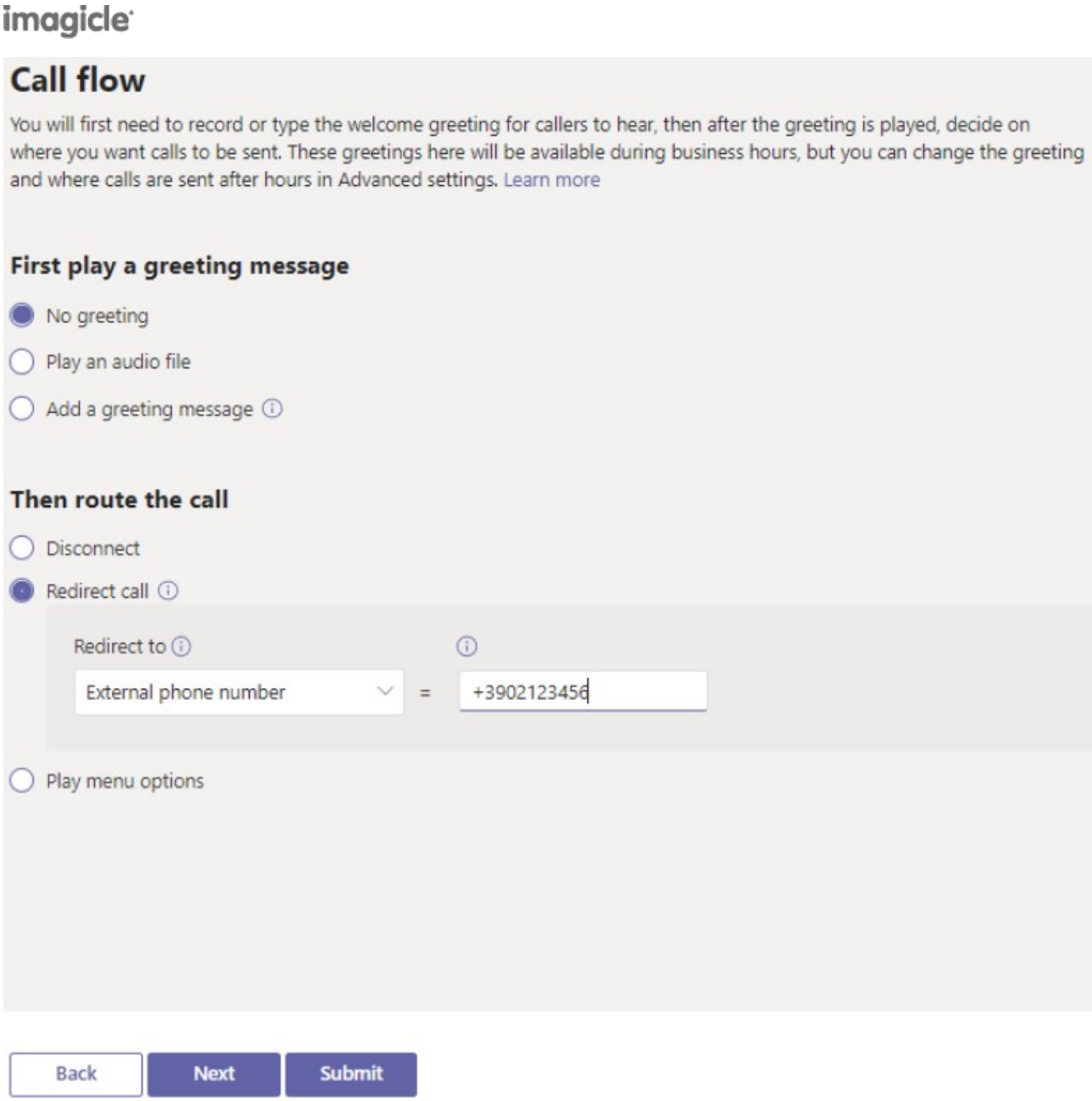
Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS

Click "Add" button and enter a name of your choice, like "Queue 1 <company_name>". Also add local timezone. See below sample:



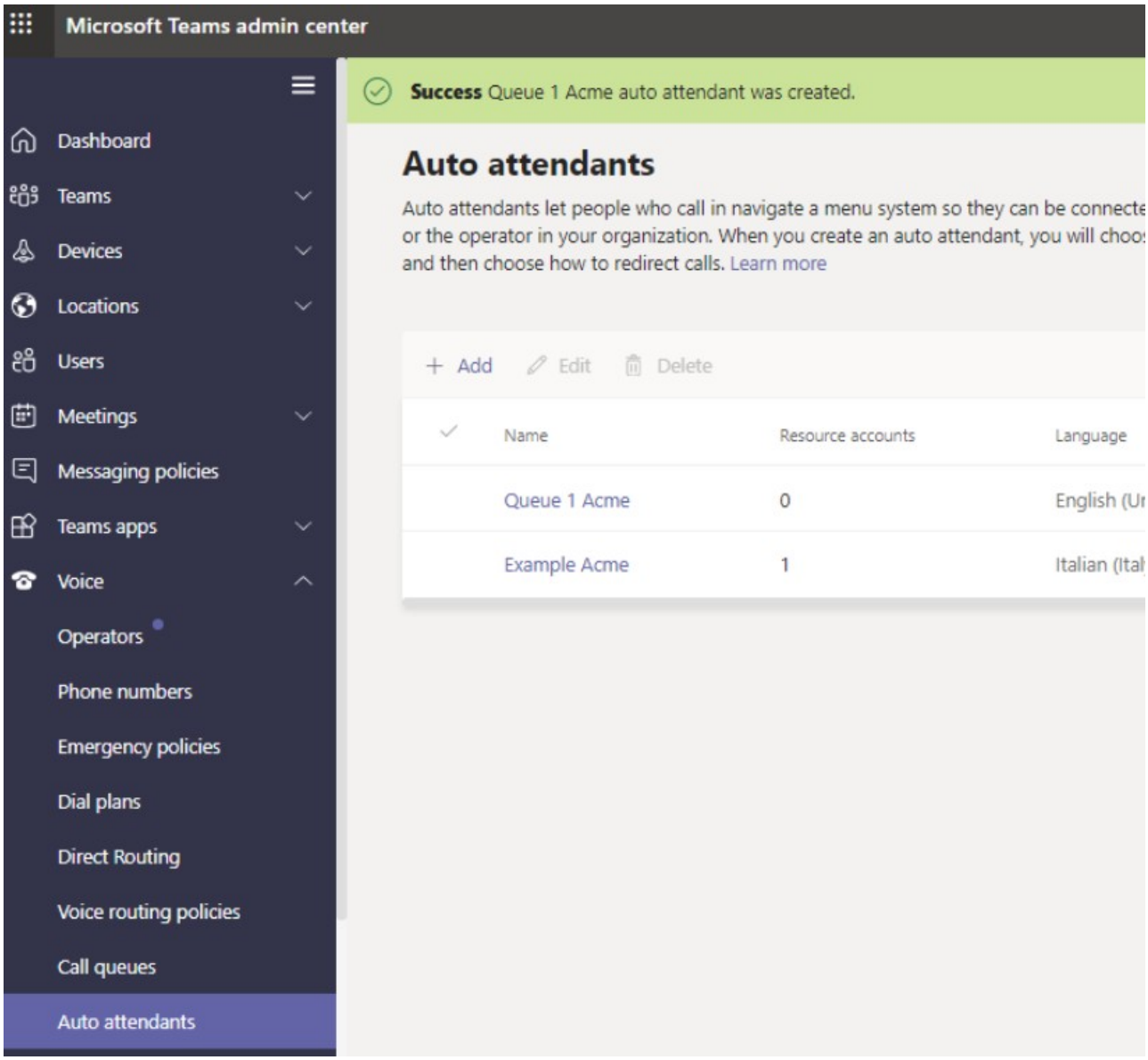
Hit Next to display "Call flow" window. Select "No greeting" and "Redirect call" options. In "Redirect to" fields, select "External phone number" and add a queue (or autoattendant) service number of your choice in +E.164 format. Make sure that phone number does not match any existing user extension or other services numbers.

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



Now hit "Submit" to save the Auto attendant and go back to Auto Attendants list. Verify that new Auto attendant shows up in the list, as per below sample:

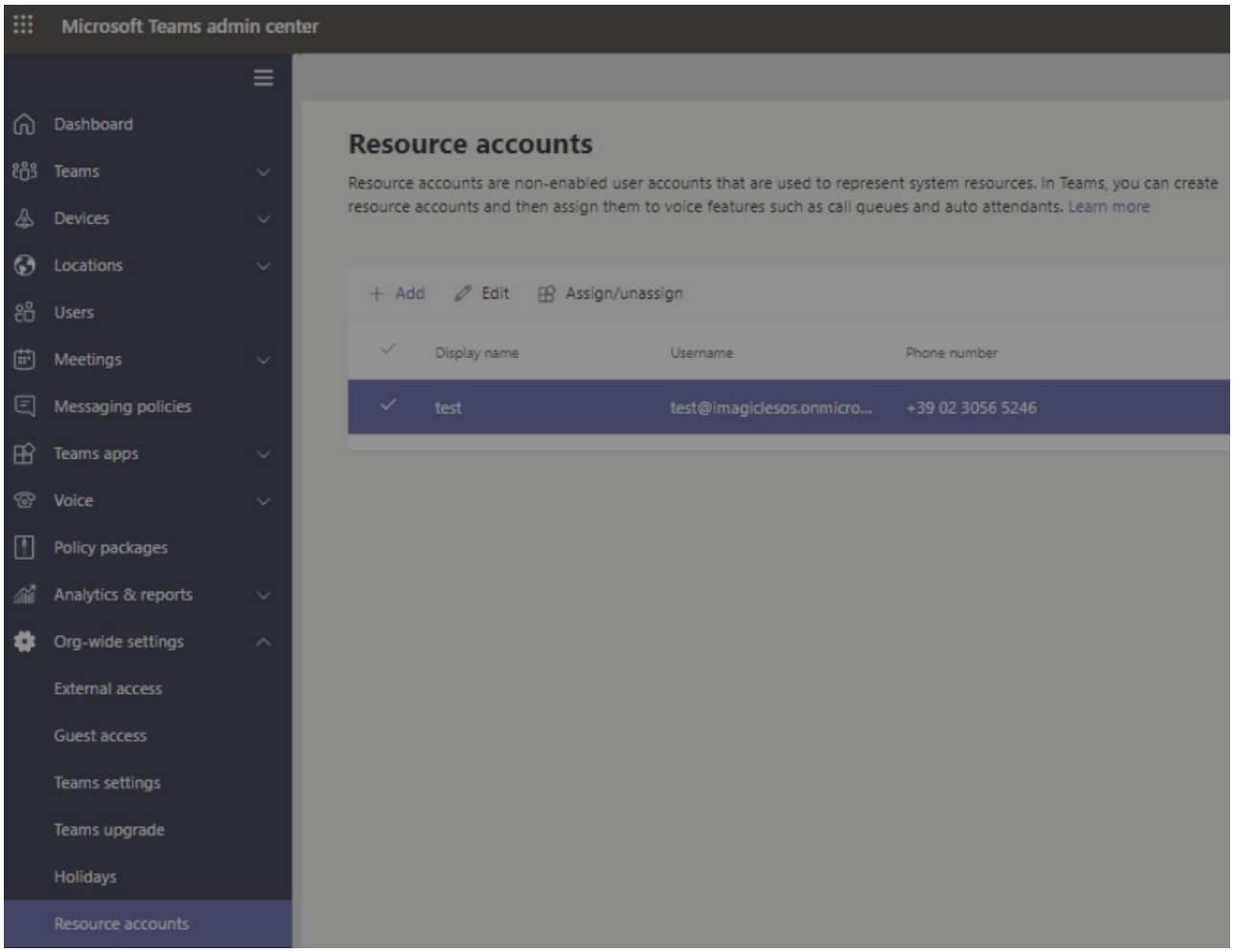
Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



Resource Account creation

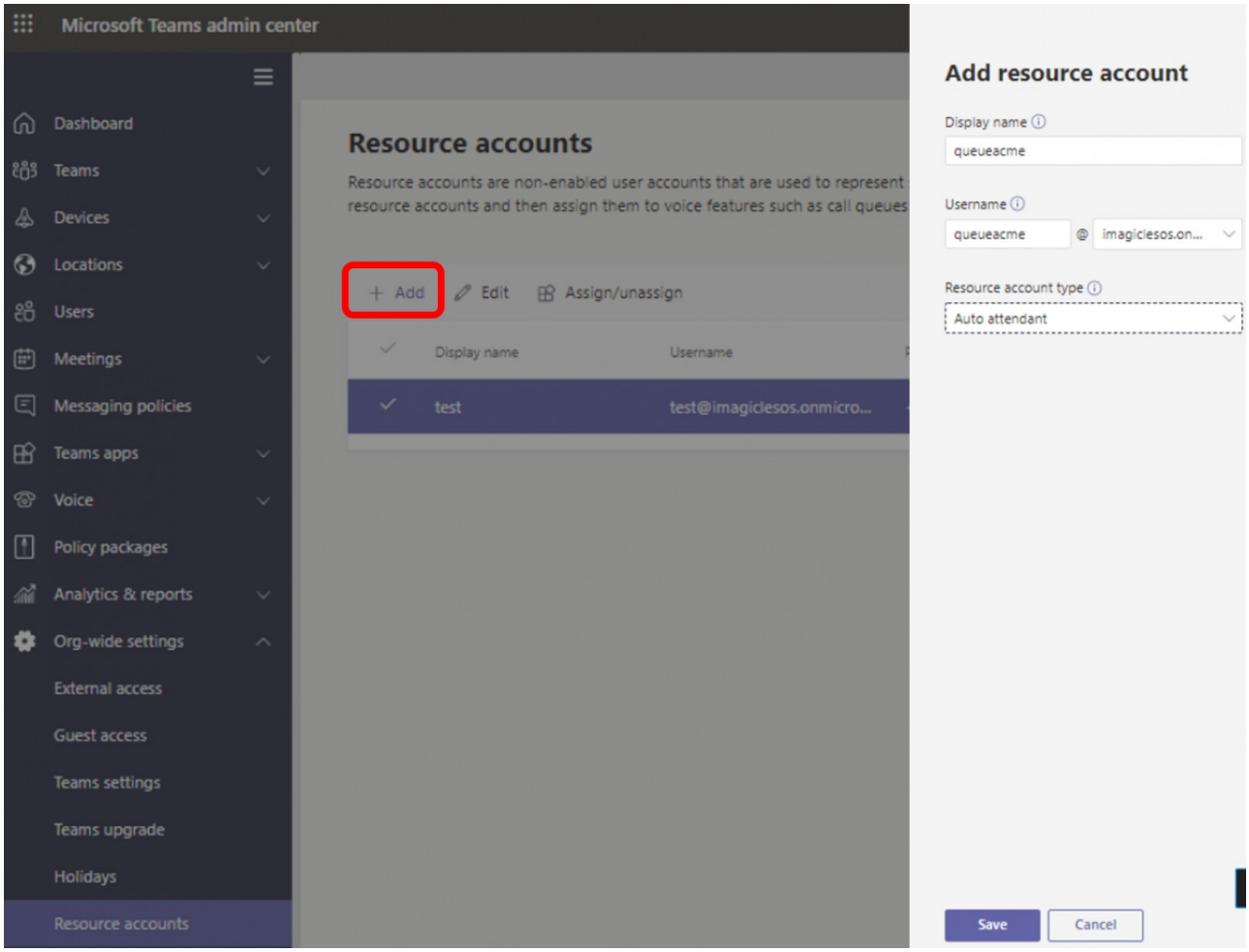
Please remain logged in to MS-Teams admin center and, under "Org-wide settings" menu, locate and select "Resource accounts". See below:

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



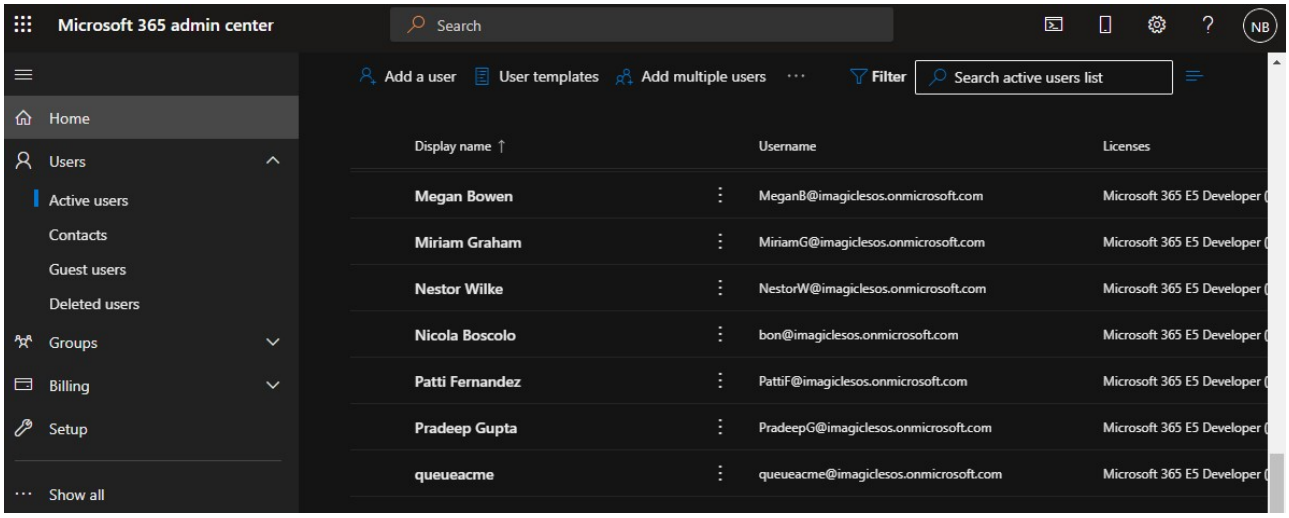
Hit "Add" button and fill the rightmost form. See below:

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



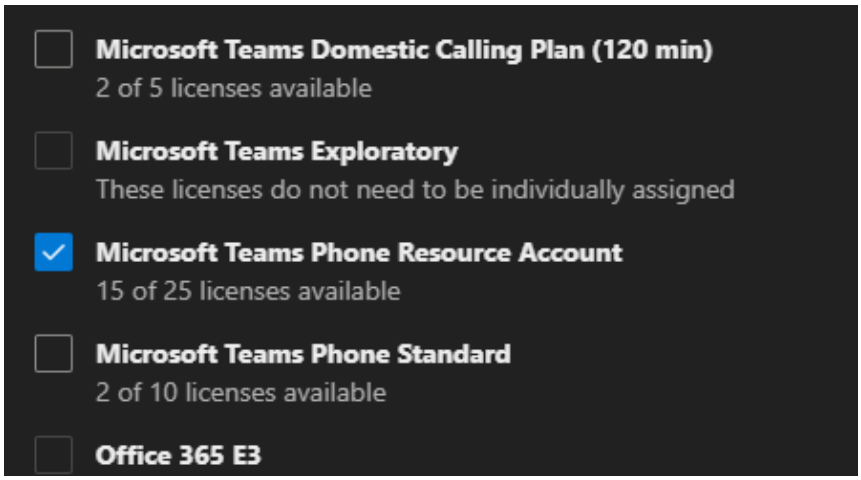
- **Display name**: A name identifying the specific Imagicle queue or auto attendant service
- **Username**: can be the same as display name @<company_domain>
- **Resource account type**: Select "Auto attendant"

Hit "Save and go back to Microsoft admin portal's Home page. New Resource account should appear in overall MS Users' list. See below sample:

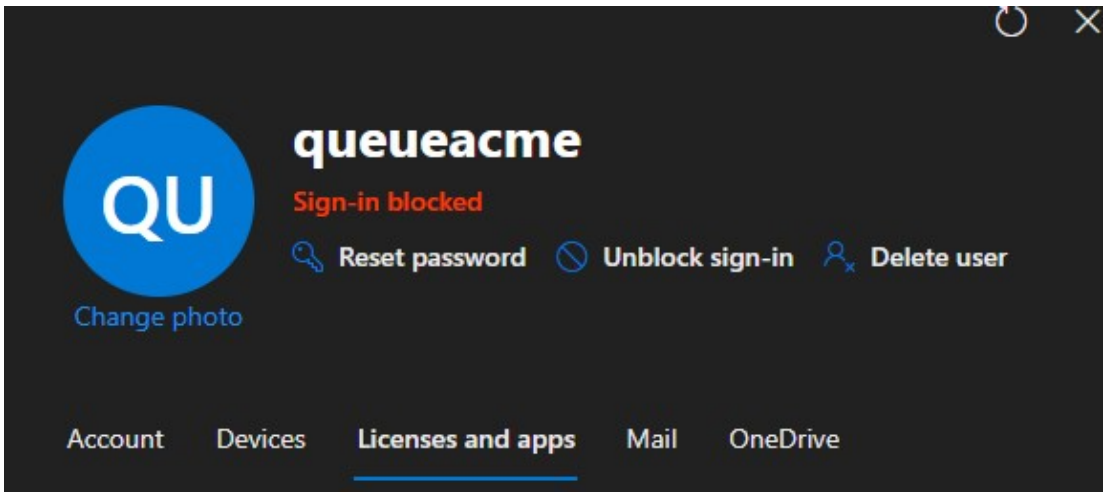


Now select new Resource account user from above list and assign it to Microsoft Teams Phone Resource Account license:

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



This Resource account virtual user has, by default, sign-in feature disabled. This is fine. No need to enable it:



Please launch once again the PowerShell as administrator and enter the following command to check the status of the newly created Resource account user:

```
Get-CsOnlineUser -Identity <resourceAccount> | Select-Object displa*,userprin*,HostingProvider,EnterpriseVoiceEnable
```

- **<resourceAccount>**: it is the newly created Resource account (e.g., queueacme@imagiclesos.onmicrosoft.com)

If the command fails, please wait few minutes and try again. Eventually the result should be similar to below sample. Please, note that:

- EnterpriseVoiceEnabled is True, since we have just associated the Microsoft Teams Phone Resource Account license to the user
- OnlineVoiceRoutingPolicy is correctly empty

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS

```
PS C:\Users\nicola.boscolo> Get-CsOnlineUser -Identity "queueacme@imagiclesos.onmicrosoft.com" | Select-Object displa*,
serprin*,HostingProvider,EnterpriseVoiceEnabled,HostedVoiceMail,OnPremLineURI,*dialplan*,OnlineVoiceRoutingPolicy,Teams
pgradeEffectiveMode,TeamsCallingPolicy


DisplayName                : queueacme
UserPrincipalName          : queueacme@imagiclesos.onmicrosoft.com
HostingProvider            : sipfed.online.lync.com
EnterpriseVoiceEnabled     : True
HostedVoiceMail            :
OnPremLineURI              : tel:+390230565246
DialPlan                   :
TenantDialPlan             :
OnlineVoiceRoutingPolicy   :
TeamsUpgradeEffectiveMode  : TeamsOnly
TeamsCallingPolicy         :
```

Now enter the following additional command to associate Resource account user to previously defined Voice Routing Policy:

```
Grant-CsOnlineVoiceRoutingPolicy -Identity <resourceAccount> -PolicyName "Imagicle"
```

- **<resourceAccount>**: it is the newly created Resource account (e.g., queueacme@imagiclesos.onmicrosoft.com)

Wait few seconds and then repeat above `Get-CsOnlineUser` command until you get a result similar to below sample, where OnlineVoiceRoutingPolicy is populated:

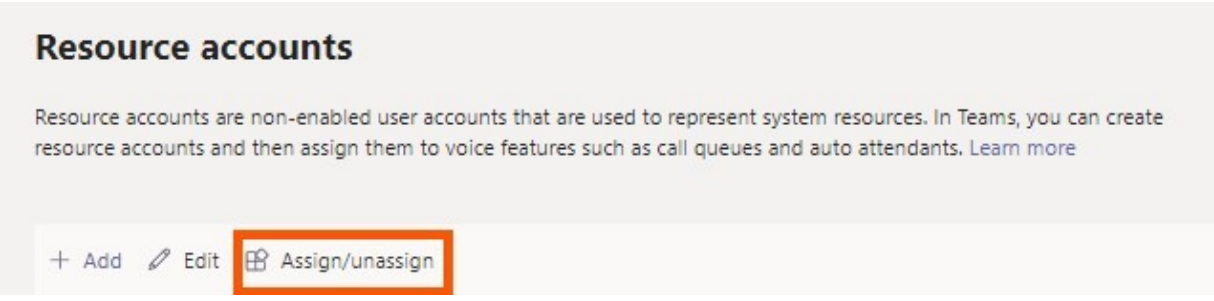
```
PS C:\Users\nicola.boscolo> Get-CsOnlineUser -Identity "queueacme@imagiclesos.onmicrosoft.com" | Select-Object displa*,u
serprin*,HostingProvider,EnterpriseVoiceEnabled,HostedVoiceMail,OnPremLineURI,*dialplan*,OnlineVoiceRoutingPolicy,TeamsU
pgradeEffectiveMode,TeamsCallingPolicy


DisplayName                : queueacme
UserPrincipalName          : queueacme@imagiclesos.onmicrosoft.com
HostingProvider            : sipfed.online.lync.com
EnterpriseVoiceEnabled     : True
HostedVoiceMail            :
OnPremLineURI              : tel:+390230565246
DialPlan                   :
TenantDialPlan             :
OnlineVoiceRoutingPolicy   : Imagicle
TeamsUpgradeEffectiveMode  : TeamsOnly
TeamsCallingPolicy         :
```

If you use **Direct Routing**, launch this command on PowerShell:

```
Set-CsPhoneNumberAssignment -Identity <resourceAccount> -PhoneNumber <phoneNumber> -PhoneNumberType DirectRouting
```

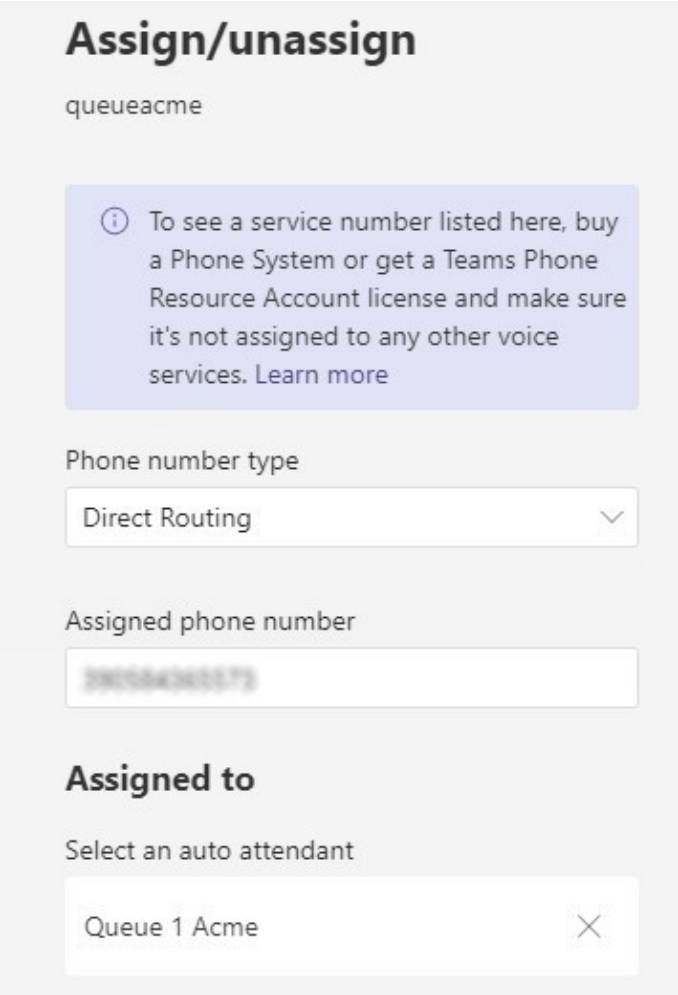
- **<resourceAccount>**: it is the newly created Resource account (e.g., queueacme@imagiclesos.onmicrosoft.com)
- **<phoneNumber>**: a licensed phone number, reachable from PSTN. This is the phone number you can dial to reach the Imagicle queue

Then, go back to MS-Teams admin center and, under "Org-wide settings" â "Resource accounts", please select newly defined Resource account and hit "Assign/unassign" option. See below:



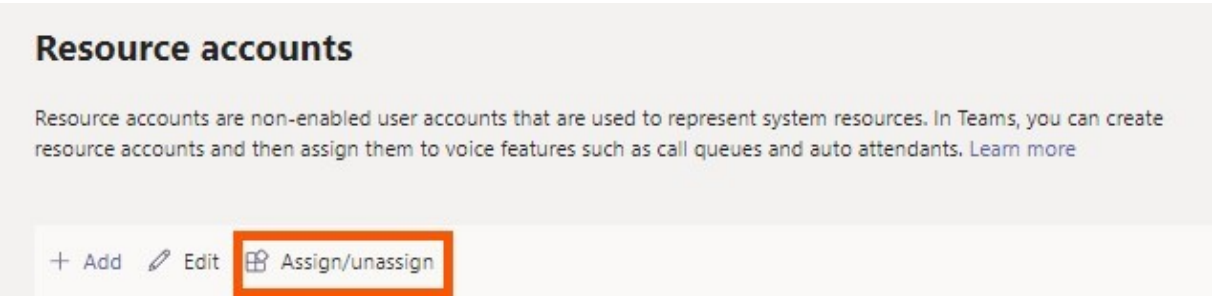
here the "Phone number type" should be "Direct Routing" and the "Assigned phone number" should be already filled out with number assigned via PowerShell command above. The only thing to do is to assign the previously defined auto attendant:

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



then, click on Save.

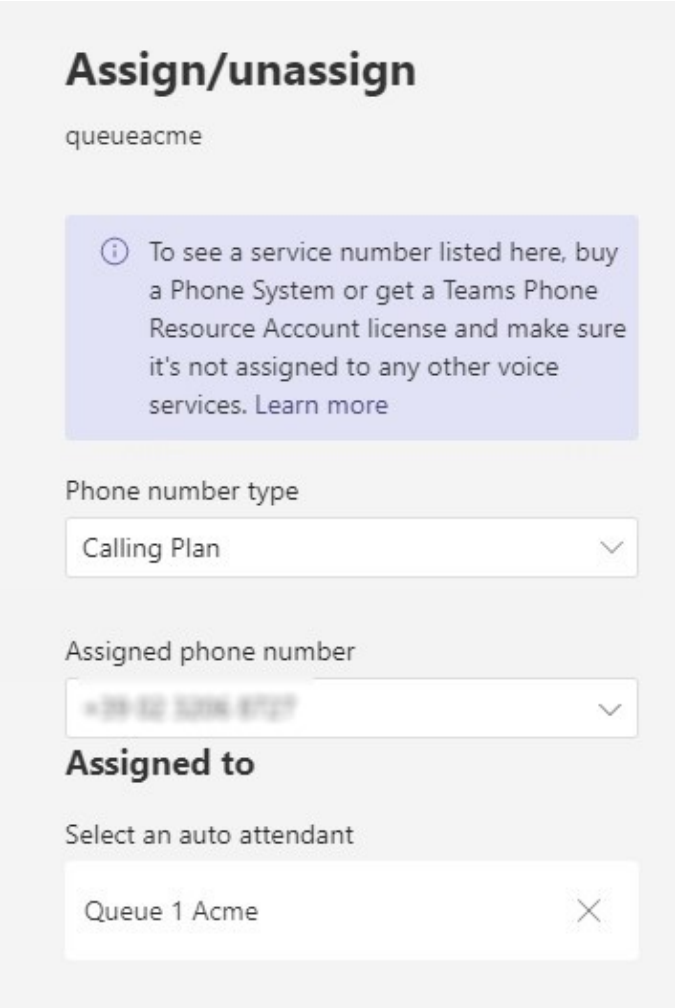
Instead, if you use **Microsoft Cloud PSTN**, go back to MS-Teams admin center and, under "Org-wide settings" â "Resource accounts", please select newly defined Resource account and hit "Assign/unassign" option. See below:



Fill the rightmost form with the following data:

- **Phone number type**: "Calling Plan" (Microsoft Cloud PSTN)
- **Assigned phone number**: a licensed phone number, reachable from PSTN. This is the phone number you can dial to reach the Imagicle queue.
- **Assigned to**: select the previously defined auto attendant

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS



then, click on Save.

At this point, the configuration is completed. Please, be sure that an Imagicle queue/auto attendant is already defined in the Imagicle UCCS. The number of the Imagicle queue/auto attendant must match that one configured in the "Then route the call --> Redirect call" setting under the MS Teams auto attendant configuration (refer to section "Microsoft Auto attendant creation").

In order to check that everything is properly configured, you can try to call the PSTN number assigned to the MS Teams auto attendant. If you hear the Welcome Message configured on the Imagicle queue/auto attendant, it means that the call routing is working fine.

Please note that MS-Teams operators/agents configured in Imagicle queues should have a **Microsoft 365 "E3" + Microsoft Teams Phone Standard** OR a **Microsoft 365 "E5"** (it already includes the Phone Standard) user's license.

To assign phone numbers to additional Imagicle queues/auto attendants, you need to repeat the procedure from "Microsoft Auto attendant creation" onward. Voice Route and Voice Routing Policy remain the same for your Tenant.

Microsoft Teams Native Attendant Console integration to Imagicle UC Cloud Suite - ACS