



Guide to Implementing International Numbers

TDC Erhverv Teams

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About this document – and things that are nice to know.

This document details the technical steps that need to be completed for you to contribute to a successful deployment of telephony for Microsoft Teams.

The document refers to a TeleID. This is a unique number linked to your telephony solution that identifies your telephony connection with TDC Erhverv.

TDC Erhverv will inform you of this number in connection with your implementation.

1 Domains in Office 365

You can start the domain registration right away. You must have an account with Global Admin privileges in your Office 365 to configure the settings below.

1.1 Registering domains for users

The domain you want to use for Teams (end users, call groups and IVR workflows) must be registered and activated in Office 365.

**Contact your TDC Erhverv Project Manager
if you use Skype for Business
elsewhere than Office 365.**

1.2 Domain for SIP trunk in different regions – registering TeleID

Here you must use your TeleID which TDC Erhverv has created for you. If you do not already know your TeleID, you or your project manager can see it in the GoLive portal under 'Overview'.

The TeleID is usually a 5-digit number.

US Numbers:

Two domains need to be added and registered:

<teleid>.useast1.international.supertrunk.net
<teleid>.uswest1.international.supertrunk.net
<teleid> being your TeleID number.

European Numbers:

Two domains need to be added and registered:

<teleid>.eun1.international.supertrunk.net
<teleid>.euw1.international.supertrunk.net
<teleid> being your TeleID number.

Asia and Australian numbers:

Two domains need to be added and registered:

<teleid>.asiae1.international.supertrunk.net
<teleid>.ause1.international.supertrunk.net
<teleid> being your TeleID number.

**Contact your TDC Erhverv Project Manager
if you need guidance for this setup.**

**Optional TDC Erhverv can create and send
Powershell scripts for further execution.**

DNS is handled by TDC Business for this domain. On this domain, TDC Business's programming and self service account will be created later.

The process is – in the Office 365 Admin Center:

- **Settings > Domains > Add Domain**
- Enter the domain and click **Use this domain**
- Choose **Add a TXT post to the domain DNS posts** and click **Proceed**
- Copy and send TXT name and TXT value to your TDC Erhverv Project Manager
- Click **Confirm** – this will fail until TDC Erhverv has created this for approval
- Please send the TXT Value as TEXT, instead of a picture.

**Inform your TDC Erhverv Project Manager
about
DNS TXT record for DNS-validate**

- Once TDC Erhverv has created this record, head on over to **Settings > Domains** once again and complete the process.
- Remember to remove/deselect the service “Microsoft Exchange”.
- **Don’t** select any services.

2 Creating User Accounts in Office 365

After validation and confirmation of the <teleid>.<region>.international.supertrunk.net domain, user accounts must be created – one account for activating each regional trunk for telephony.

2.1 Nuuday-DirectRouting Trunk User Account

A so-called DirectRouting user account must be created in Office365. Creating this user account ensures the addition of telephony to your Office 365 Tenant and Microsoft Teams.

The user's primary address must be:

US numbers:

Nuuday-Directrouting-<TeleID>-
useast1@<TeleID>.useast1.international.supertrunk.net

Nuuday-Directrouting-<TeleID>-
uswest1@<TeleID>.uswest1.international.supertrunk.net

European numbers:

Nuuday-Directrouting-<TeleID>-eun1@<TeleID>.eun1.international.supertrunk.net

Nuuday-Directrouting-<TeleID>-euw1@<TeleID>.euw1.international.supertrunk.net

Asia and Australian numbers:

Nuuday-Directrouting-<TeleID>-asiae1@<TeleID>.asiae1.international.supertrunk.net

Nuuday-Directrouting-<TeleID>-ause1@<TeleID>.ause1.international.supertrunk.net

The user accounts must have been assigned an E1 / E3 / E5 or a Business Basic/Standard/Premium license.

When step 3.5 is done, and the user accounts are created and trunks are validated, the Licenses can be removed from the Nuuday-Directrouting users, but don't delete the Nuuday-Directrouting users.

Give the username and password to your TDC Erhverv Project Manager

Please note: If you use MFA – Multi Factor Authentication – you must decide how TDC Erhverv can access your Office 365 with this user when your solution is programmed.

Please coordinate further with your Project Manager or the consultant with TDC Erhverv.

3 Preparing telephony in Teams

The following can only be configured when TDC Erhverv has set up the configuration on TDC Erhverv's systems (we need to establish a telephony connection with your Teams). Additionally, there may be a need to wait up to 24 hours for backend replication in Office 365.

Contact TDC Erhverv if the following fails, even after you have waited 24 hours.

You can safely make the following changes, even if you use a different solution for telephony in Teams; just a few policies are created and they are only assigned to your users later in the process. Existing telephony will therefore not be disturbed.

3.1 PowerShell and connection to Office 365 with PowerShell

(To save on space, we've split the below commands over more than one line)

To complete the configuration, you need to install PowerShell 5.1 or later, as well as the "Microsoftteams" PowerShell module version 1.1.6 or later..

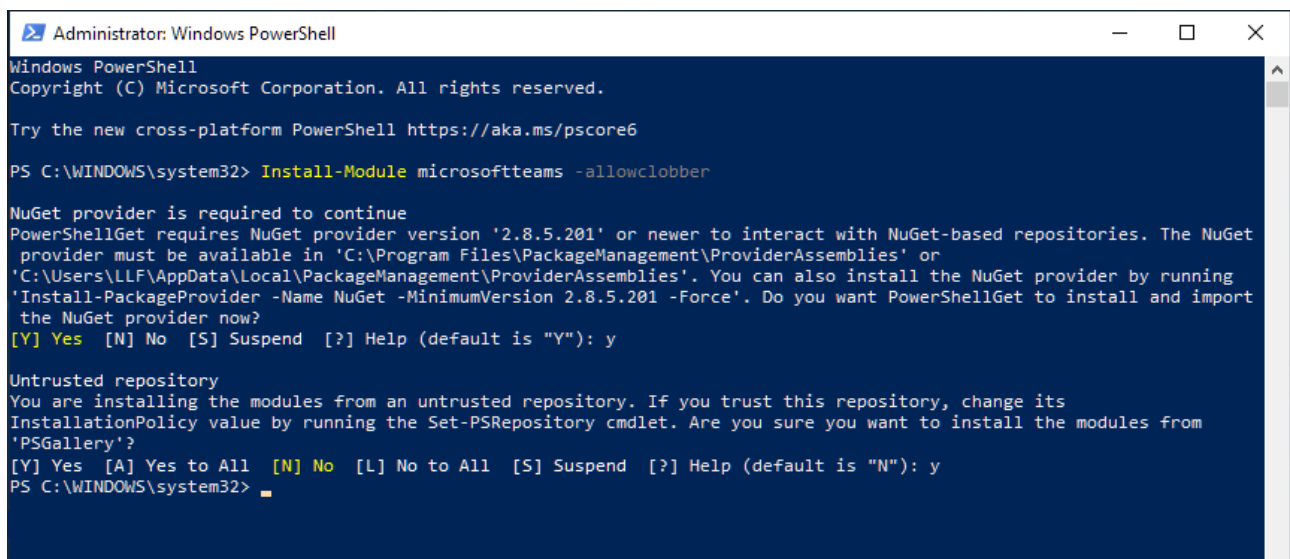
Please install the module like this:

Start a PowerShell window as administrator and run:

```
Install-Module microsoftteams -allowclobber
```

If asked to install or update your NuGet provider, please accept.

If asked to install components from PSGallery, please accept.



```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\WINDOWS\system32> Install-Module microsoftteams -allowclobber

NuGet provider is required to continue
PowerShellGet requires NuGet provider version '2.8.5.201' or newer to interact with NuGet-based repositories. The NuGet
provider must be available in 'C:\Program Files\PackageManagement\ProviderAssemblies' or
'C:\Users\LLF\AppData\Local\PackageManagement\ProviderAssemblies'. You can also install the NuGet provider by running
'Install-PackageProvider -Name NuGet -MinimumVersion 2.8.5.201 -Force'. Do you want PowerShellGet to install and import
the NuGet provider now?
[Y] Yes [N] No [S] Suspend [?] Help (default is "Y"): y

Untrusted repository
You are installing the modules from an untrusted repository. If you trust this repository, change its
InstallationPolicy value by running the Set-PSRepository cmdlet. Are you sure you want to install the modules from
'PSGallery'?
[Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default is "N"): y
PS C:\WINDOWS\system32>
```

To connect, first make sure that PowerShell allows you to run scripts. This can be done in two ways (the first method does not make lasting changes to your system):

1) For example, from the Windows start menu, run

```
Powershell -ExecutionPolicy RemoteSigned
```

or

2) Start PowerShell as Administrator and run

```
Set-ExecutionPolicy RemoteSigned -Force
```

Next, run the following commands (it is a prerequisite that the account is on a domain in 365 where Skype is enabled).

```
Connect-MicrosoftTeams
```

You will now be prompted to log in. Enter an account that has the role of Skype for Business Administrator or Global Administrator.

If this fails, check

- Whether Skype is enabled for the user's domain
- Whether the user has a Skype license assigned

If the above is set up, wait 15 minutes and try again.

3.2 Create Teams Policies with PowerShell

Situations may arise in the below where changes are not implemented immediately. If commands fail, e.g. with "object does not exist", try again later – backend replication in Office 365 may take time.

3.3 Create Online Pstn Usage:

Each powershell script needs to be run in a single line.

```
$TeleID = "Write your TeleID here"

Set-CsOnlinePstnUsage -Identity Global -Usage
@{Add="$TeleID.useast1.international.supertrunk.net", "$TeleID.uswest1.international
.supertrunk.net", "$TeleID.eun1.international.supertrunk.net", "$TeleID.euw1.internat
ional.supertrunk.net", "$TeleID.ausel.international.supertrunk.net", "$TeleID.asiael.
international.supertrunk.net"}
```

3.4 Create CsOnlineVoiceRoute:

Each powershell script needs to be run in a single line.

CsOnlineVoiceRouting for US:

```
$TeleID = "Write your TeleID here"

New-CsOnlineVoiceRoute -Identity "$TeleID.useast1.international.supertrunk.net" -
Description 'US East' -NumberPattern '.*' -OnlinePstnGatewayList
@{Add="$TeleID.useast1.international.supertrunk.net", "$TeleID.uswest1.international
.supertrunk.net"} -OnlinePstnUsages "$TeleID.useast1.international.supertrunk.net"

New-CsOnlineVoiceRoute -Identity "$TeleID.uswest1.international.supertrunk.net" -
Description 'US West' -NumberPattern '.*' -OnlinePstnGatewayList
@{Add="$TeleID.uswest1.international.supertrunk.net", "$TeleID.useast1.international
.supertrunk.net"} -OnlinePstnUsages "$TeleID.uswest1.international.supertrunk.net"
```

CsOnlineVoiceRouting for Europe:

```
$TeleID = "Write your TeleID here"

New-CsOnlineVoiceRoute -Identity "$TeleID.eun1.international.supertrunk.net" -
Description 'EU North' -NumberPattern '.*' -OnlinePstnGatewayList
@{Add="$TeleID.eun1.international.supertrunk.net", "$TeleID.euw1.international.super
trunk.net"} -OnlinePstnUsages "$TeleID.eun1.international.supertrunk.net"

New-CsOnlineVoiceRoute -Identity "$TeleID.euw1.international.supertrunk.net" -
Description 'EU West' -NumberPattern '.*' -OnlinePstnGatewayList
@{Add="$TeleID.euw1.international.supertrunk.net", "$TeleID.eun1.international.super
trunk.net"} -OnlinePstnUsages "$TeleID.euw1.international.supertrunk.net"
```

CsOnlineVoiceRouting for Asian-Australia:

```
$TeleID = "Write your TeleID here"
```

```
New-CsOnlineVoiceRoute -Identity "$TeleID.ause1.international.supertrunk.net" -
Description 'Australia East' -NumberPattern '.*' -OnlinePstnGatewayList
@{Add="$TeleID.ause1.international.supertrunk.net","$TeleID.asiae1.international.su
pertrunk.net"} -OnlinePstnUsages "$TeleID.ause1.international.supertrunk.net"
```

```
New-CsOnlineVoiceRoute -Identity "$TeleID.asiae1.international.supertrunk.net" -
Description 'Asia East' -NumberPattern '.*' -OnlinePstnGatewayList
@{Add="$TeleID.asiae1.international.supertrunk.net","$TeleID.ause1.international.su
pertrunk.net"} -OnlinePstnUsages "$TeleID.asiae1.international.supertrunk.net"
```

3.5 Create CsOnlineVoiceRouting Policy:

Each powershell script needs to be run in a single line.

CsOnlineVoiceRouting Policy for US:

```
$TeleID = "Write your TeleID here"
```

```
New-CsOnlineVoiceRoutingPolicy "$TeleID.useast1.international.supertrunk.net" -
OnlinePstnUsages "TeleID.useast1.international.supertrunk.net"
```

```
New-CsOnlineVoiceRoutingPolicy "$TeleID.uswest1.international.supertrunk.net" -
OnlinePstnUsages "TeleID.uswest1.international.supertrunk.net"
```

CsOnlineVoiceRouting Policy for EU:

```
$TeleID = "Write your TeleID here"
```

```
New-CsOnlineVoiceRoutingPolicy "$TeleID.eun1.international.supertrunk.net" -
OnlinePstnUsages "TeleID.eun1.international.supertrunk.net"
```

```
New-CsOnlineVoiceRoutingPolicy "$TeleID.euw1.international.supertrunk.net" -
OnlinePstnUsages "TeleID.euw1.international.supertrunk.net"
```

CsOnlineVoiceRouting Policy for Australia-Asia:

```
$TeleID = "Write your TeleID here"
```

```
New-CsOnlineVoiceRoutingPolicy "$TeleID.ause1.international.supertrunk.net" -
OnlinePstnUsages "TeleID.ause1.international.supertrunk.net"
```

```
New-CsOnlineVoiceRoutingPolicy "$TeleID.asiae1.international.supertrunk.net" -
OnlinePstnUsages "TeleID.asiae1.international.supertrunk.net"
```

3.6 Create Teams Calling Policy:

Each powershell script needs to be run in a single line.

Teams Calling Policy for US:

```
$TeleID = "Write your TeleID here"
```

```
New-CsTeamsCallingPolicy -Identity "$TeleID.useast1.international.supertrunk.net" -
AllowPrivateCalling $True -AllowVoicemail 'UserOverride' -AllowCallGroups $True -
AllowCallForwardingToUser $True -AllowCallForwardingToPhone $True -
PreventTollBypass $False -BusyOnBusyEnabledType Disabled -AllowDelegation $True -
Description 'Policy for Nuuday telephony in useast1.international.supertrunk.net'
```

```
New-CsTeamsCallingPolicy -Identity "$TeleID.uswest1.international.supertrunk.net" -
AllowPrivateCalling $True -AllowVoicemail 'UserOverride' -AllowCallGroups $True -
AllowCallForwardingToUser $True -AllowCallForwardingToPhone $True -
PreventTollBypass $False -BusyOnBusyEnabledType Disabled -AllowDelegation $True -
Description 'Policy for Nuuday telephony in uswest1.international.supertrunk.net'
```

Teams Calling Policy EU:

```
$TeleID = "Write your TeleID here"
```

```
New-CsTeamsCallingPolicy -Identity "$TeleID.eun1.international.supertrunk.net" -
AllowPrivateCalling $True -AllowVoicemail 'UserOverride' -AllowCallGroups $True -
AllowCallForwardingToUser $True -AllowCallForwardingToPhone $True -
PreventTollBypass $False -BusyOnBusyEnabledType Disabled -AllowDelegation $True -
Description 'Policy for Nuuday telephony in eun1.international.supertrunk.net'
```

```
New-CsTeamsCallingPolicy -Identity "$TeleID.euw1.international.supertrunk.net" -
AllowPrivateCalling $True -AllowVoicemail 'UserOverride' -AllowCallGroups $True -
AllowCallForwardingToUser $True -AllowCallForwardingToPhone $True -
PreventTollBypass $False -BusyOnBusyEnabledType Disabled -AllowDelegation $True -
Description 'Policy for Nuuday telephony in euw1.international.supertrunk.net'
```

Teams Calling Policy Australia-Asia:

```
$TeleID = "Write your TeleID here"
```

```
New-CsTeamsCallingPolicy -Identity "$TeleID.ause1.international.supertrunk.net" -  
AllowPrivateCalling $True -AllowVoicemail 'UserOverride' -AllowCallGroups $True -  
AllowCallForwardingToUser $True -AllowCallForwardingToPhone $True -  
PreventTollBypass $False -BusyOnBusyEnabledType Disabled -AllowDelegation $True -  
Description 'Policy for Nuuday telephony in ause1.international.supertrunk.net'
```

```
New-CsTeamsCallingPolicy -Identity "$TeleID.asiae1.international.supertrunk.net" -  
AllowPrivateCalling $True -AllowVoicemail 'UserOverride' -AllowCallGroups $True -  
AllowCallForwardingToUser $True -AllowCallForwardingToPhone $True -  
PreventTollBypass $False -BusyOnBusyEnabledType Disabled -AllowDelegation $True -  
Description 'Policy for Nuuday telephony in asiae1.international.supertrunk.net'
```