

Teams Setup Guide

Configuring Users for Teams PSTN Calling

1 BEFORE YOU BEGIN

Before you begin the Teams admin setup you will need:

- ✓ Access to your DNS registrar to add records to your domain name.
- ✓ A user/login to your Office 365 account with Global Admin rights
- ✓ Microsoft Phone System licence add-ons (or E5 licences) for the end users of the service
- ✓ Access to the PBX to create/manage SIP credentials.

2 Overview

To enable the Teams Calling service the following steps are required:

- Gather SIP Credentials from the PBX
- Purchase and assign Microsoft Phone System (or E5) licences
- Set up the PBX service
- Set up the Teams service
- Create users in the service portal and connect them to your PBX service.

2.1 Gathering SIP credentials from the PBX

Note: All PBX systems are different, the example here is for illustration only. Contact the PBX administrator for accessing the settings relevant to the PBX being connected.

There are up to 5 pieces of information required to add a user:

1. User DiD
2. SIP Username
3. SIP Password
4. SIP Realm
5. Registrar / Proxy

This information can typically be found in the user's PBX account settings on the existing PBX.

Teams Admin Setup Guide

The screenshot shows the Teams Admin Center dashboard. On the left is a navigation menu with options: Dashboard, Numbers, Users (selected), Groups, Main Number, Call Logs, Devices, Voicemail Boxes, and Feature Codes. The main area displays a table of users with columns: Users Settings, Extensions, Phone Numbers, Devices, and User Features. The table contains three users: Christie Cline, Brian Johnson, and Adele Vance. The phone number for Adele Vance, +443303452643, is highlighted with a red box.

Users Settings	Extensions	Phone Numbers	Devices	User Features
Christie Cline Silver	202	+443303452642	[Device Icon]	[Features]
Brian Johnson Silver	201	+443303452641	[Device Icon]	[Features]
Adele Vance Silver	203	+443303452643	[Device Icon]	[Features]

Here the User DiD is available under the **user** menu

Next, go to the **Devices** menu. Here the customer's existing phone is likely to be listed. We recommend setting up a new device for Teams calling.

The screenshot shows the 'Editing Softphone: Call2Teams' dialog box. The dialog has a title bar with a close button. Below the title bar is a header with a phone icon, the name 'Call2Teams', and two tabs: 'Basic Settings' (selected) and 'Advanced'. The main area contains four input fields: 'Device Name' (Call2Teams), 'SIP Username' (user_cb9z4fvks9), 'SIP Password' (masked with dots), and 'Realm' (gadgetgloves.uk). The SIP Username, SIP Password, and Realm fields are highlighted with red boxes. At the bottom, there are three buttons: 'Delete Device', 'Cancel', and 'Save Changes'.

From the device config, menu, copy the **SIP Username** and keep a copy of the **password** created. Also copy the **Realm setting**.

The password is not visible once set so needs to be logged at the point of creation.

It's a good idea to compile a table for all users to be set up like this:

Teams Admin Setup Guide

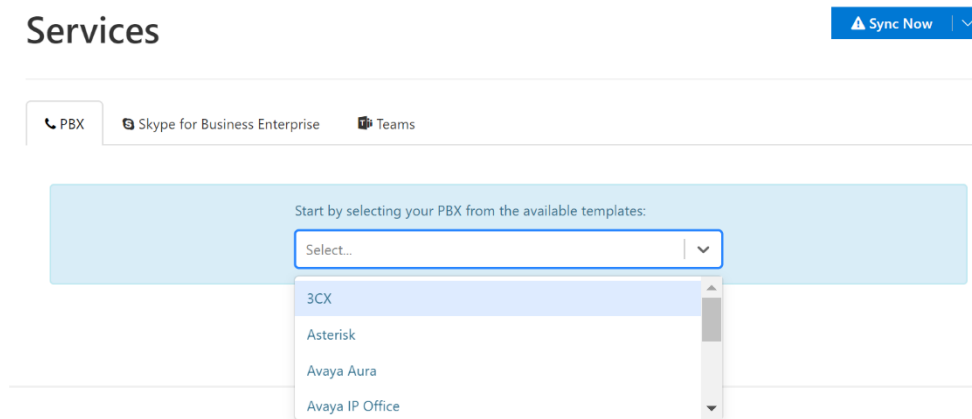
User	Phone Number	SIP username	SIP Password	Realm	Proxy
Adele Vance	+443303452642	user_cb9z4fvks9		gadgetgloves.uk	sip.qunifi.one
Brian Johnson	+443303452641	user_sde7e645n2		gadgetgloves.uk	sip.qunifi.one
Christie Cline	+443303452643	user_9kmxt7bch9		gadgetgloves.uk	sip.qunifi.one

Note that the Realm and Proxy setting is likely to be the same across each customer. If you are connecting two or more customer accounts to one account on this service, be aware of storing the different Realm and Proxy settings for each group of users.

2.2 Set up the PBX service

The set-up is split into two stages: **Services** and **Users**. Services are Customer-wide settings such as the set-up of the connection to the existing PBX and the set-up of the Office 365 tenant.

In the **Customer Portal**, select the **Services** tab. Choose the desired PBX from the list, or select 'Custom' if your PBX is not listed.



Settings appropriate to this PBX type are shown. For example, with the 'Kazoo' PBX, the settings required are the SIP Domain and SIP Proxy.

Services

[Sync Now](#) |

Start by selecting your PBX from the available templates:

ServiceName	<input type="text" value="Kazoo PBX 2"/>	Country *	<input type="text" value="United Kingdom"/>
SIP Domain *	<input type="text"/>	SIP Proxy	<input type="text"/>
Expiry (seconds) 	<input type="text"/>	Protocol	<input type="text" value="UDP"/>
Registration Enabled *	<input type="text" value="Yes"/>	Encrypt Media *	<input type="text" value="No"/>

Enter the required information into the page. The information will be shown as will the option to add another PBX; an additional PBX entry would be used if you have more than one PBX.

2.3 Set up the Teams service

In the Services area, the **Teams** tab will allow the creation of the Teams configuration. Enter the country and the primary domain of the Office 365 account. The **Enable Sync** function allows the portal to automatically configure the service and set phone numbers directly into your Office 365 tenant.

Customers wishing to configure their tenant manually should untick the **Enable Sync** option. Information for manual config is available in section 5

Services

Complete the form below to activate the Teams integration on your Microsoft tenant.

Country United Kingdom

Domains startupworld.com

Office 365 Sync **Enable Sync**
After the service has been enabled we will start syncing data between Call2Teams and Microsoft Office 365.

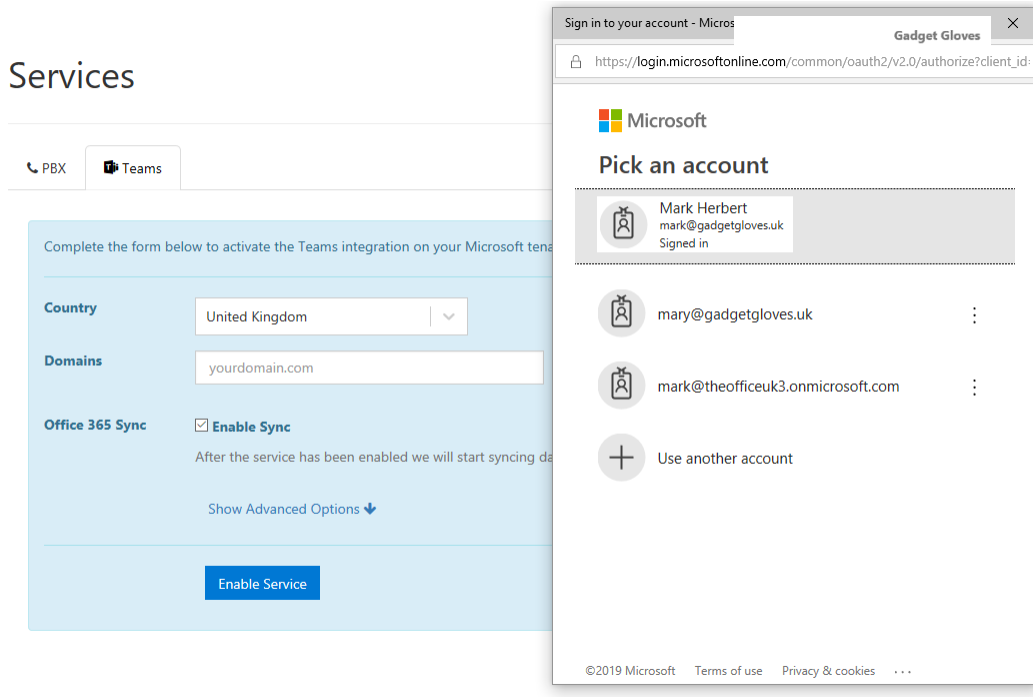
Show Advanced Options ↓

Enable Service

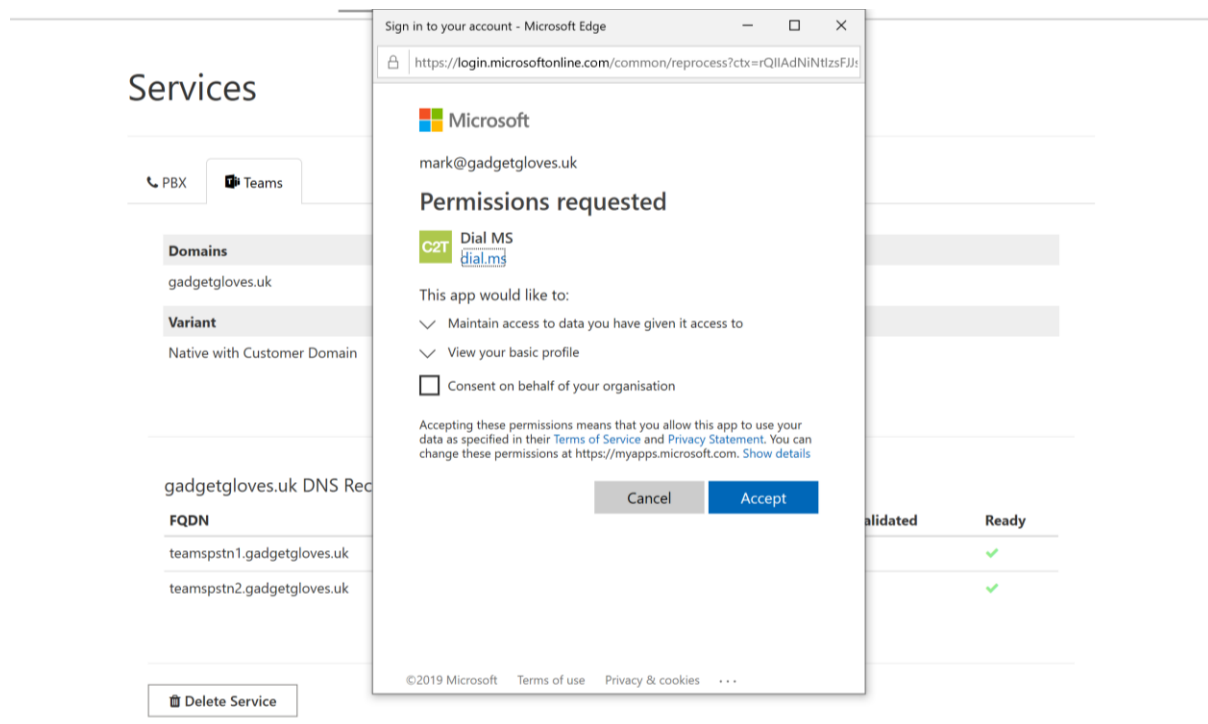
At the point the service is enabled, the portal will request permission to make changes to the voice configuration in Office 365

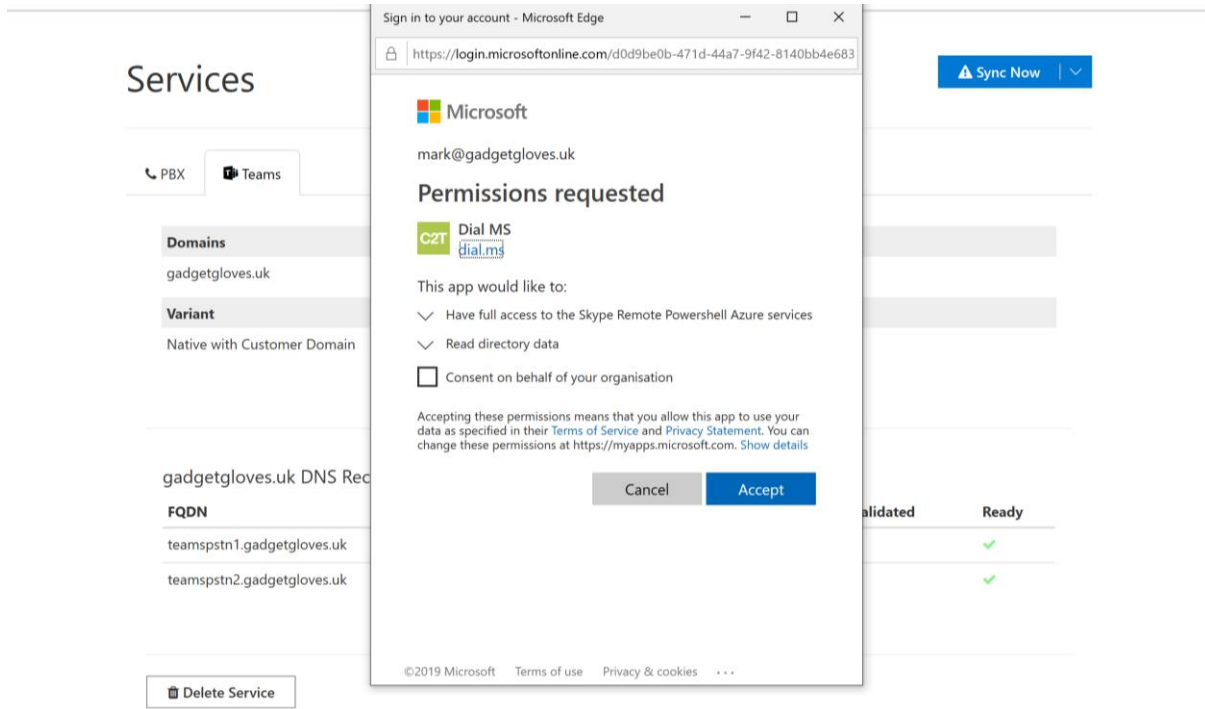
A request to log-in and two separate permissions windows will appear.

IT IS IMPORTANT TO LOGIN WITH THE CREDENTIALS FOR THE OFFICE 365 ACCOUNT BEING SET-UP. LOGGING IN WITH THE CREDENTIALS TO A DIFFERENT OFFICE 365 ACCOUNT WILL AUTHORIZE CHANGES TO AN OFFICE 365 TENANT OTHER THAN THE ONE THAT SHOULD BE CONFIGURED.

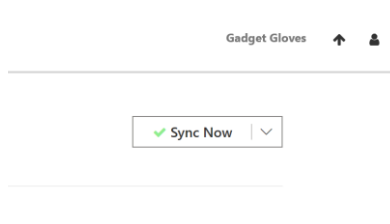


There will be two or three pop ups requesting permission to enable the administration activities to configure the Office 365 account.



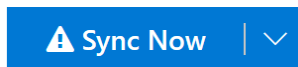


When the initial configuration is complete, the Sync button will show a green checkmark.



Note: the portal normally requires authorization to an Office 365 account just once, and this access authority is stored in Office 365. Access can be revoked at any time (see section 5 to revoke access if needed)

Occasionally through the configuration process, the **Sync Now** button will change to the blue button, this means that there are updates pending to be applied to the Office 365 tenant.



2.4 Set-up Domain name

Following the initial sync of the Teams set-up, it is necessary to configure two DNS records.

Two DNS records are shown that are to be added to the domain associated with the Office 365 tenant. These are CNAME records and are in addition to any existing records on your domain so there should be no disruption to any of your other services.

Services Sync Now

PBX **Teams**

Domains	Primary Country
gadgetgloves.uk	United States

Variant	Sync Enabled
Native with Customer Domain	gadgetgloves.uk Disable Sync

gadgetgloves.uk DNS Records

FQDN	DNS Type	Target	DNS Validated	Ready
teamspstn1.gadgetgloves.uk	CNAME	23TT-3HX5.c.dial.ms 🔗	✘ Check Now 🔗	✘
teamspstn2.gadgetgloves.uk	CNAME	23TT-GHX5.c.dial.ms 🔗	✘ Check Now 🔗	✘

[Delete Service](#)

Most DNS providers need just the prepend part of the FQDN (the part before the domain name e.g. teamspstn1 in this case).

Access to the your DNS control panel is needed to add these records. All DNS providers have different ways of managing DNS records, but all will allow the creation of CNAME records. An example of a DNS control panel is shown here:

[Control Panel Home](#)

Add/Modify DNS Zone: gadgetgloves.uk



Domains & Hosting

Domain Names

- Domains On Account
- Summary Info
- Registrant Details
- Upgrade Options
- Email & Web Forwarding
- Activate Free Email
- MX Protect/Standby
- DNS & Transfer Options
- DNS Settings
- Change Nameservers
- Transfer Domain

- + Add Domain
- + Modify Multiple Domains
- + Domain Back-orders

DNS Administration

Service Folders

Managed Servers

Unmanaged Servers

Security Products

Manage Account

Billing Options

Account Settings

Other Services

Affiliate Scheme

Support

Technical Support

Tell The Boss



Namesco will not be held liable for loss of service due to incorrect use of this facility. DO NOT modify your DNS settings if you are unsure how to use this facility.

Domain names

Domain(s)*

Templates

Apply template

A, CNAME records etc

#	Host name	Type	Result
1	<input type="text" value=""/> .domain	A	85.233.160.22
2	autodiscover.domain	CNAME	autodiscover.outlook.com
3	enterpriseenrollment.domain	CNAME	enterpriseenrollment-s.manage.microsoft.com
4	enterpriseregistration.domain	CNAME	enterpriseregistration.windows.net
5	lyncdiscover.domain	CNAME	webdir.online.lync.com
6	msoid.domain	CNAME	clientconfig.microsoftonline-p.net
7	sip.domain	CNAME	sipdir.online.lync.com
8	teamspsn1.domain	CNAME	23tt-3hx5.c.dial.ms
9	teamspsn2.domain	CNAME	23tt-ghx5.c.dial.ms
10	www.domain	CNAME	fwd3.hosts.co.uk
11	<input type="text" value=""/> .domain	TXT	MS=ms34035415
12	<input type="text" value=""/> .domain	A	
13	<input type="text" value=""/> .domain	A	

ADD RECORDS

The domain is likely to have several DNS records already configured for Office 365 and other services, there is no requirement to alter any existing DNS records.

There is a DNS **Check Now** link in the service portal against the domain record to allow a confidence check of the CNAME created against the domain using a third-party DNS checking tool.

Providing all is well with the DNS configuration, the service portal will show green checkmarks against the DNS records after a short delay (10 minutes+)

If the DNS checkmarks are not appearing within an hour, please refer to the troubleshooting document

Services

✓ Sync Now | ▾

- PBX
- Teams

Domains	Primary Country
gadgetgloves.uk	United States
Variant	Sync Enabled
Native with Customer Domain	gadgetgloves.uk Disable Sync

gadgetgloves.uk DNS Records

FQDN	DNS Type	Target	DNS Validated	Ready
teamspstn1.gadgetgloves.uk	CNAME	23TT-3HX5.c.dial.ms 🔗	✓	✓
teamspstn2.gadgetgloves.uk	CNAME	23TT-GHX5.c.dial.ms 🔗	✓	✓

[🗑 Delete Service](#)

Once the checkmarks are shown in the Teams setup area, the **Services** configuration is complete.

2.5 Create the Users in the service portal

Selecting the **Users** tab will display the list of configured users along with their Registration status.

The screenshot shows the 'Users' tab selected in the navigation menu. Below the navigation, there is a 'Sync Now' button. The main content area is titled 'Users' and shows '22 of 25 licences available'. A table lists users with columns for User, Service, SIP Username, Registration, and Calls. The 'Add User' button is highlighted with a red box.

User	Service	SIP Username	Registration	Calls
▶ Adele Vance	Teams	VH5684357	●	●
▶ Brian Johnson (TAILSPIN)	Teams	VH5694457	●	●
▶ Christie Cline	Teams	VH5694431	●	●

In this section, new users can be created using the Add User function.

The screenshot shows the 'Add User' form. It includes a 'Service' dropdown menu set to 'Teams'. Below that is a 'Select a User' dropdown menu and a 'Phone Number' field. The form is titled 'Vonage PBX' and includes fields for 'SIP Username', 'Auth Username', and 'Password'. The 'Add' button is highlighted in blue.

There are some important features of the Add User function to note:

A list of users will be displayed that are applicable for PBX Voice calls that will have at least one of the following:

- A phone system license
- An E5 license
- A phone number assigned in the Office 365 admin center

If a user has a phone number assigned in Office 365, this will show when the user is selected:

Teams Admin Setup Guide

👤 Add User ↻

Teams

Select a User **Phone Number** 🔒

Brian Johnson (TAILSPIN) | v

Kazoo PBX

SIP Username **Auth Username**

Password

Note: The padlock symbol above the phone number. If a user has a number already assigned in Office 365 then the number will be shown here with the padlock closed. If it is necessary to change the user's phone number, then click the padlock to unlock the field to enter a new phone number.

👤 Add User ↻

Teams

Select a User **Phone Number** 🔒

Brian Johnson (TAILSPIN) | v

Kazoo PBX

When this is unlocked, a new phone number can be added or edited for the user.

This will also be the behavior for users being set-up that do not have phone numbers set in Office 365.

A phone number entered for a user will be pushed into the customer's Office 365 configuration by the next **Sync Now** activity.

The remaining information to be entered for each user is the SIP Username and Password as set in the PBX portal for the user's device.

Teams Admin Setup Guide

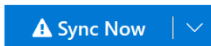
Kazoo PBX

SIP Username

Auth Username

Password

Remember to start a Sync Now activity after updating users, the Sync Now button will show blue to alert that a sync is required.



2.6 Editing Users

In the user list, the user detail can be expanded using the small arrowhead next to the username:

Add User

User	Service
<input type="text"/>	All
Adele Vance	
Brian Johnson (TAILSPIN)	
Christie Cline	

Page 1 of 1

Click this element to expand the user detail:

Adele Vance user_cb9z4fvks9

Teams

Select a User **Phone Number**

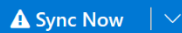
Kazoo PBX

SIP Username **Auth Username**

Password

[Set new password](#)

At this stage the user information can be amended, or the user deleted. After changes to a user, a **Sync Now** activity is required.

 Sync Now | ▾

This completes the set-up process.

3 Configuration delays

Some elements of the configuration within Microsoft Office365 can be subject to delays as information propagates between different parts of the Microsoft system. This can vary from day to day, so we recommend that you aim to carry out these steps at least 48 hours prior to your go-live date to allow for this. If you get an unexpected error on any step, then we suggest waiting 24 hours and trying again before reporting a problem to Microsoft.

4 Troubleshooting

If you encounter problems with these set-up steps for DNS or Teams dial-pad, please refer to the separate Troubleshooting guide in the Downloads area of the portal.

5 Configuring Office 365 without the Sync Now feature

This section outlines the process required and is aimed at qualified Office 365 administrators with in-depth understanding of the Skype for Business PowerShell commands.

Certain enterprises and customers with complex pre-existing Office 365 voice configurations may wish to perform the Office 365 tenant configuration manually through PowerShell. Customers wishing to configure their tenant manually should untick the **Enable Sync** option detailed in 2.3

The commands below are those run by the automated sync agent. These can be used as a starting point for a customer to design their own changes to their Office 365 tenant. The elements highlighted in yellow should be substituted for the real values to match what is shown in the service portal

5.1 Tenant Setup Commands

Run once for each tenant.

```
Set-CsOnlinePstnUsage `
  -Identity Global `
  -Usage @{add='PBX'}
New-CsOnlineVoiceRoutingPolicy `
  -Identity PBX `
  -OnlinePstnUsages PBX
New-CsOnlinePSTNGateway `
  -Fqdn teamspstn1.gadgetloves.uk `
  -SipSignallingPort 29670 `
  -Enabled $true `
  -MaxConcurrentSessions 10000 `
  -ForwardCallHistory $false `
  -ForwardPai $true `
  -SendSipOptions $true `
  -MediaBypass $false `
  -FailoverTimeSeconds 15
New-CsOnlinePSTNGateway `
  -Fqdn teamspstn2.gadgetloves.uk `
  -SipSignallingPort 29670 `
  -Enabled $true `
  -MaxConcurrentSessions 10000 `
  -ForwardCallHistory $false `
  -ForwardPai $true `
  -SendSipOptions $true `
  -MediaBypass $false
```

```

-FailoverTimeSeconds 15
New-CsOnlineVoiceRoute
-Name teamspstn1.gadgetgloves.uk
-Description PBX
-Priority 0
-OnlinePstnGatewayList teamspstn1.gadgetgloves.uk
-OnlinePstnUsages PBX
-NumberPattern .*
New-CsOnlineVoiceRoute
-Name teamspstn2.gadgetgloves.uk
-Description PBX
-Priority 1
-OnlinePstnGatewayList teamspstn2.gadgetgloves.uk
-OnlinePstnUsages PBX
-NumberPattern .*
$rule = New-CsVoiceNormalizationRule
-Parent Global
-Name PBX
-Description PBX
-InMemory
-Pattern '^(\*[\*\d]+|[1-9]\d{0,5})$'
-Translation "$1"
-IsInternalExtension $false
Set-CsTenantDialPlan
-Identity Global
-NormalizationRules @{ "add" => $rule }

```

5.2 User Setup Commands

Run for each user.

```
Grant-CsOnlineVoiceRoutingPolicy
  -Identity mary@gadgetgloves.uk
  -PolicyName PBX
Set-CsUserPstnSettings
  -Identity mary@gadgetgloves.uk
  -AllowInternationalCalls $true
Set-CsUser
  -Identity mary@gadgetgloves.uk
  -OnPremLineURI 'tel:+441234567890'
  -EnterpriseVoiceEnabled $true
```