

The top half of the page features a black background on the left and a grayscale photograph of modern skyscrapers on the right. A bright yellow line starts from the 'Lightpath' logo, extends horizontally to the right, then turns vertically down, then horizontally right again, then vertically up, and finally horizontally right to end at the top of the page. The word 'Lightpath' is written in a bold, yellow, sans-serif font.

# Lightpath

## Lightpath Teams Direct Routing

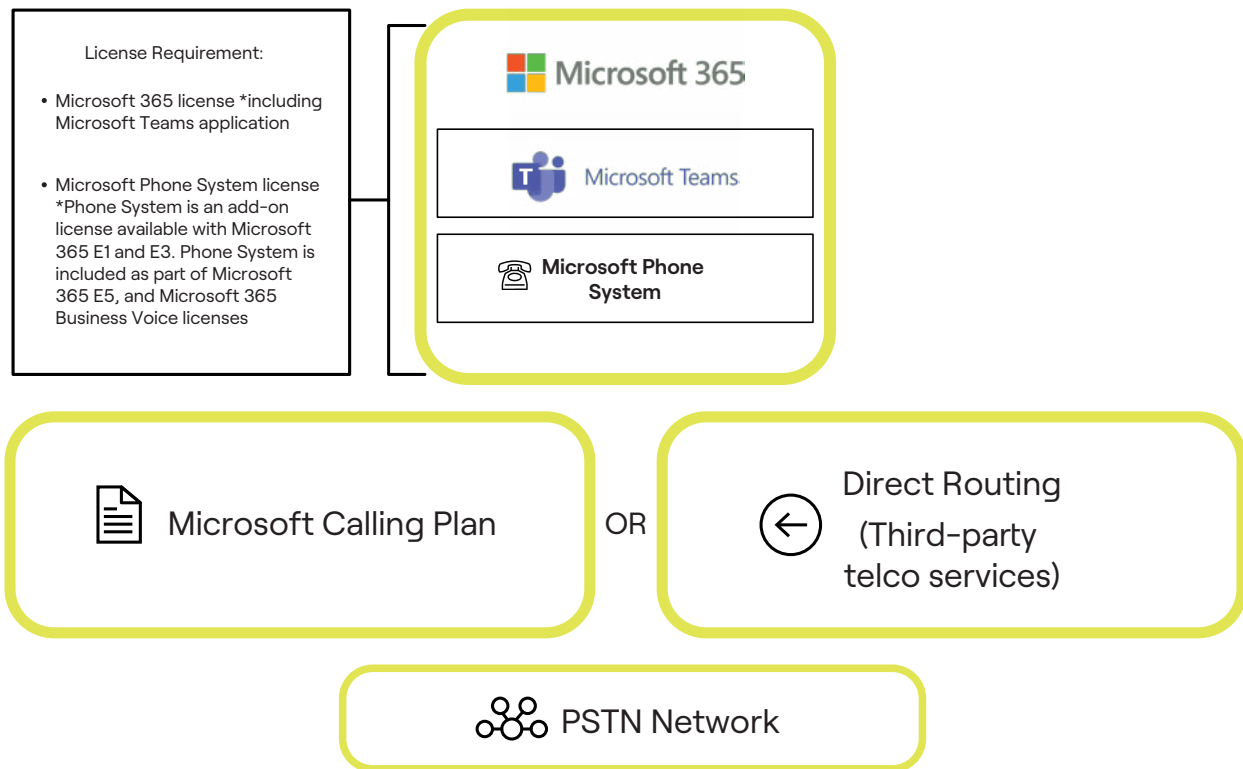
### Getting Started Guide

Thank you for choosing Lightpath's Teams Direct Routing. This service enables our customers to use their existing Microsoft Teams Client and phone system to complete calls to/from the Public Switch Telephone Network (PSTN). The Teams Direct service will help reduce costs for customers by taking advantage of Lightpath's competitive calling plans and unlimited US domestic minutes.

### How it Works

Lightpath utilizes existing voice Trunk(s) over the internet between the Lightpath SBCs and the Microsoft Teams Cloud-Based PBX. This allows customers to establish calls from their Microsoft Teams application to the PSTN (Public Switched Telephone Network).

Call 877-544-4872 or visit [lightpathfiber.com](https://lightpathfiber.com)



## Getting Started

- Customers must own a Teams and Phone System License from Microsoft (The Teams Phone system is a Cloud-based phone system with advanced features including call transfer, multilevel auto attendants, and call queues.)
- Customers are responsible for the administration of their Microsoft Teams with PowerShell skills (provision the numbers and configure Teams tenants). There are some third-party options like TeamMate, Call2Teams, or iPilot from Nuwave that offer configuration services.
- Teams Direct configuration reference from Microsoft: <https://docs.microsoft.com/en-us/microsoftteams/direct-routing-configure>
- Your Lightpath Service Delivery Project Manager will work with you for DIDs acquisition/port in, DNS verification.
- How to make Teams Call reference from Microsoft: <https://support.microsoft.com/en-us/office/first-things-to-know-about-calls-in-microsoft-teams-2b883a81-dd15-41bd-a6ba-39deef141027>
- Teams Phone features from Microsoft: <https://learn.microsoft.com/en-us/microsoftteams/here-s-what-you-get-with-phone-system>

## Support FAQs

Q: What do I do if Teams failed validation in the Office 365 portal (DNS Issue)?

A: Work with your Lightpath Service Delivery Project Manager to resend the DNS verification code.

Q: How do I know if Lightpath Teams DR Customer DNS Subdomain is set up?

A: Go to <https://dnschecker.org/all-dns-records-of-domain.php> or any dns lookup website, type your DNS subdomain: <CustomerID>.<SwitchDomain>.teamssbc.lightpathhostedvoice.com, if the result has resolved IP address, you are good. Otherwise, contact SDPM to get it setup with Lightpath.

Q: How do I handle termination issues such as inability to place outbound calls or receive inbound calls?

A: - If MS Teams to MS Teams calls (non-PSTN) are also affected, refer to your MS Teams administrator.

- If only PSTN calls are affected, refer to your administrator to check the Teams Direct configuration in the Office 365 portal.

- If no issues are found in the portal, contact Lightpath Customer Support (1-866-611-3434) to check if calls are completing to/from our network.

Q: What if I have Quality of Service (QoS) Issues such as choppy/garbled audio or dropped calls?

A: - If only some users are reporting QoS issues, check LAN connectivity to those workstations.

- If all users at one site, and/or if Teams calls are also affected, check WAN/ internet connectivity.

- If only PSTN-related calls are affected, and all users are experiencing the same issue, contact Lightpath Support to check our SIP trunk to Microsoft for any QoS issues.

## Appendix:

### Configuration summary for customer tenant

#### Information Needed by the Customer:

- Lightpath Teams DR Customer ID - XXXX
- Lightpath Teams DR Customer Subdomain
  - o <CustomerID>.<SwitchDomain>.teamssbc.lightpathhostedvoice.com
- Customer ID is in formst of "tenXXXX"
- Switch Domain is SSCH-01 (DS9) or SSCH-02 (DS5)
- Assigned telephone numbers

#### Configuration Process:

1. Add customer subdomain to O365 and verify it:

- Customer will need to provide Lightpath the TXT Domain verification key to be entered into DNS before they can validate the domain in M365 Admin Panel.

2. Add O365 Users to activate subdomain:

3. Assign licenses to users created on step 2 to activate subdomain:

- Teams
- Phone System
- E5 (incl. Phone System)
- E3 + Phone System Add On
- Wait 24 hrs (recommended) after that, licenses can be revoked.
- **Each Teams DR user must have Phone System Licenses** (those licenses can't be revoked)

4. Teams Direct Routing (PowerShell commands):

- |   |                               |
|---|-------------------------------|
| - Teams User -> Phone number            | - Voice routing:              |
| - user@companyA.com - tel: +15102172000 | - <tenXXXX>.ssch-01.teamssbc. |
| - Routing                               | lightpathhostedvoice.com      |
| - PSTN Usage                            | - Create VRP                  |
| - Voice Routing Profile                 | - Assign VRP to user          |
|   | - Assign Calling Policy       |

Register the subdomain into **customer** Microsoft 635 admin center using a **customer** account with Global Administrator permissions.

Process is described here:

<https://docs.microsoft.com/en-us/microsoftteams/direct-routing-sbc-multiple-tenants#register-a-subdomain-name-in-a-customer-tenant>

### 1. Activate the subdomain name for your customer creating users

Process is described here:

<https://docs.microsoft.com/en-us/microsoftteams/direct-routing-sbc-multiple-tenants#activate-the-subdomain-name>

### 2. Activate the subdomain name for your customer creating users

### 3. Routing configuration using PowerShell commands.

Open Powershell and connect to the MSTEams. All this command should be issued under a global Admin account (customer account).

#### a. Install Microsoft Teams

Install Microsoft Teams PowerShell

[\(Documentation here\)](#)

- Start the PowerShell session using Run as administrator in Windows

Install-Module MicrosoftTeams

- Sign in

#If MFA then connect to Microsoft Teams

Connect-MicrosoftTeams

#### b. Enabling Teams users

1. Teams Phone System License needs to be assigned to the user prior to running below command, otherwise you can get the error

“Cannot modify parameter “OnPremLineURI” because it is restricted for the user service plan: MCOProfessional”

Activation of the subdomain  
test@sb1.customers.adatum.biz

AC

First name: test  
Last name:

Display name \*: Activation of the subdomain

Username \*: test  
Domain: sb1.customers.adatum.biz

Location: United States

▼ Contact information

▼ Password: Auto-generated

▼ Roles: User (no administrator access)

▼ Product licenses \*: Office 365 Enterprise E5

Add Cancel

2. Configure the phone number and enable enterprise voice and voicemail.

```
Set-CsUser -Identity "spencer.low@contoso.com" -OnPremLineURI tel:+14255388797  
-EnterpriseVoiceEnabled $true -HostedVoiceMail $true
```

3. Assign Teams Only mode to users to ensure calls land in Microsoft Teams.

Documentation [here](#)

```
Grant-CsTeamsUpgradePolicy -PolicyName UpgradeToTeams -Identity spencer.low@  
contoso.com
```

### c. Configure Voice routing for Direct Routing and assign to users

1. Create an unrestricted PSTN Usage

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

2. Create Voice Routes

```
New-CsOnlineVoiceRoute -Identity "Unrestricted" -NumberPattern ".*"  
-OnlinePstnGatewayList <CustomerID>.<SwitchDomain>.teamsbc.lightpathhostedvoice.  
com -Priority 1 -OnlinePstnUsages "Unrestricted"
```

3. Create Voice Routing Policy

Wait until the information created in the previous command appears on the portal, otherwise, this command can fail.

```
New-CsOnlineVoiceRoutingPolicy "Unrestricted" -OnlinePstnUsages "Unrestricted"
```

4. Assign the voice routing policy to users

```
Grant-CsOnlineVoiceRoutingPolicy -Identity spencer.low@contoso.com -PolicyName  
"Unrestricted"
```

5. Assign the Teams Calling policy to users

```
Grant-CsTeamsCallingPolicy -Identity spencer.low@contoso.com -PolicyName  
AllowCalling
```

Please note that commands 4-b-2), 4-b-3), 4-c-4), 4-c-5) should be issued for each username that needs to be configured in the customer tenant.

For more information, please go to:

- [Enable Team users](#)
- [Configure Voice routing for Direct Routing and assign to users](#)