THE ULTIMATE GUIDE OF MICROSOFT TEAMS
# Table of Contents

## Contents

Overview of Microsoft Teams .................................................................................................................. 9
Microsoft Teams infrastructure .................................................................................................................. 9
Microsoft Teams and Office 365 ............................................................................................................ 10
Check your environment’s readiness for Microsoft Teams ....................................................................... 12
Office 365 licensing for Microsoft Teams .............................................................................................. 13
  NOTE .................................................................................................................................................. 13
Teams license ........................................................................................................................................... 13
Overview of teams and channels in Microsoft Teams................................................................................ 16
  Sample Team Set up ............................................................................................................................. 17
Best practices for organizing teams in Microsoft Teams ........................................................................... 19
Office 365 groups and Microsoft Teams ............................................................................................... 19
  How Office 365 groups work .............................................................................................................. 20
  NOTE .................................................................................................................................................. 20
Group membership .................................................................................................................................... 20
How Exchange and Microsoft Teams interact.......................................................................................... 21
How SharePoint Online and OneDrive for Business interact with Microsoft Teams............................. 24
Microsoft Teams and Skype for Business interoperability ...................................................................... 27
  IMPORTANT ......................................................................................................................................... 27
  NOTE .................................................................................................................................................. 27
What interoperability means .................................................................................................................... 28
  NOTE .................................................................................................................................................. 29
  IMPORTANT ......................................................................................................................................... 29
Interop requirements ............................................................................................................................... 29
Supported topologies for interop .............................................................................................................. 29
  IMPORTANT ......................................................................................................................................... 30
Managing interoperability ......................................................................................................................... 31
Teams interop policy special cases .......................................................................................................... 33
  IMPORTANT ......................................................................................................................................... 34
Quick start guides for Microsoft Teams admins ................................................................. 34

Quick start - Microsoft Teams planning guide ............................................................... 36
  Step 1: Get your people together .................................................................................. 36
  Step 2: Prioritize your business scenarios .................................................................... 36
  Step 3: Complete technical planning .......................................................................... 37
  Step 4: Conduct pilots and deploy Teams .................................................................... 37
  Step 5: Measure usage, manage satisfaction, and drive adoption ............................... 39
  Next steps .................................................................................................................... 39

Quick start guide: Configuring Calling Plans in Microsoft Teams ............................... 39
  NOTE ............................................................................................................................ 40
  Prerequisites for enabling the Calls tab in Teams ......................................................... 40
  Teams interop policy configuration .............................................................................. 40
  Configuring Teams to receive inbound PSTN calls ...................................................... 42
  Configuring Teams to allow users to change their preferred calling experience ...... 43
  See also ....................................................................................................................... 44

Overview of a Microsoft Teams deployment .................................................................... 45

Plan for Office 365 groups when creating teams in Microsoft Teams ....................... 47
  Teams respects Office 365 Groups naming policy (in private preview) .................... 47

Prepare your organization's network for Microsoft Teams ........................................... 48
  IMPORTANT ............................................................................................................... 48
  Bandwidth requirements ............................................................................................. 49
  Additional network considerations ............................................................................. 50
  Network health determination ..................................................................................... 50

Office 365 URLs and IP address ranges .......................................................................... 51

Tools and workshops: Plan, deliver, and operate Microsoft Teams ............................. 53

Create a change management strategy for Microsoft Teams ......................................... 53
  Identify key stakeholders, users, and champions ......................................................... 54
  User profiles ............................................................................................................... 55
  Champions .................................................................................................................... 55
  Identify and select your business outcomes and success measures ........................ 56
  Design, launch, and manage your adoption campaign .............................................. 56

Best practices for user feedback methods in Microsoft Teams ...................................... 57
  Showcases .................................................................................................................... 58

Get tools to support a rollout of Microsoft Teams ........................................................ 58

Use T-Bot to help users with Microsoft Teams .............................................................. 59

Get clients for Microsoft Teams .................................................................................... 61
Web client ............................................................................................................. 61
Internet browser support .................................................................................. 62
Desktop clients ................................................................................................. 62
Mobile clients .................................................................................................. 63
Client update management .............................................................................. 64
Client-side configurations ............................................................................... 64
Notification settings ....................................................................................... 65
Set up Microsoft Teams in your Office 365 organization .................................. 67
  Turn Teams on or off for your entire organization ............................................ 67
Assign roles and permissions in Microsoft Teams ........................................... 68
  NOTE ............................................................................................................. 69
  Permissions to create teams .......................................................................... 69
Turn on Microsoft Teams features in your Office 365 organization .................... 71
  NOTE ............................................................................................................. 71
  IMPORTANT ................................................................................................. 71
  Office 365 tenant-wide settings .................................................................... 71
Email integration .............................................................................................. 73
Apps .................................................................................................................. 74
Custom cloud storage .................................................................................... 75
User settings by license ................................................................................... 75
Teams and channels ......................................................................................... 76
Calls and meetings .......................................................................................... 76
Messaging ......................................................................................................... 77
Manage user access to Microsoft Teams .......................................................... 78
  NOTE ............................................................................................................. 78
Enhance Existing Office 365 groups with Microsoft Teams ................................. 82
  IMPORTANT ................................................................................................. 82
Configure an Exchange hybrid organization for use with Microsoft Teams .......... 84
Use the Teams Meeting add-in in Outlook ......................................................... 85
  Authentication requirements ......................................................................... 85
  Enable private meetings .............................................................................. 86
  Other considerations ................................................................................... 86
Add the Microsoft Teams SMTP domain as an accepted domain in Exchange Online ........................................................................................................... 86
Use built-in and custom tabs in Microsoft Teams .............................................. 87
  Develop custom tabs ................................................................................... 89
Step Four: Create your Communications

Step Three: Design your Test Plan and Feedback Survey

Step Two: Select your Pilot Participants

Step One: Define your Pilot Program Logistics

Journey from Skype for Business to Microsoft Teams

Optimize your current Skype for Business environment for Microsoft Teams

Environmental readiness

Environmental dependencies

Pilot Microsoft Teams alongside Skype for Business

Videos: Audio Conferencing in Microsoft Teams

Drive Value

See also

Practical Guidance for Phone System with Calling Plans in Microsoft Teams

Envision

Define business use cases for Phone System with Calling Plans

Identify key stakeholders

Define objectives and key results, key success indicators, and risks

Assess environment and evaluate adoption readiness

Map operational roles

Document success plan

Technical planning for Phone System with Calling Plans

Availability of Calling Plans

Licensing for Calling Plans

Phone Numbers and Emergency Locations

Voicemail

Calling identity

Dial plans

Document technical implementation plan

Drive Value

See also

Quick start guide: Configuring Calling Plans in Microsoft Teams
Enable Microsoft Teams side-by-side with Skype for Business .................................................. 261
  Side-by-side benefits and considerations ................................................................................. 262
  Unmanaged side-by-side customer journey ............................................................................. 264
  Managed side-by-side customer journey .................................................................................. 265
  Managing side-by-side experience ........................................................................................... 266

Drive value with Microsoft Teams through user adoption ...................................................... 269
  Promote adoption of Teams alongside Skype for Business ....................................................... 270
  Get your organization ready for your future move to Teams .................................................. 270

FAQ - Journey from Skype for Business to Microsoft Teams .................................................. 270
  Intelligent Communications Vision .......................................................................................... 270
  Skype to Teams Roadmap .......................................................................................................... 272
  Calling capabilities .................................................................................................................. 273
  Messaging capabilities .............................................................................................................. 273
  Meeting capabilities ................................................................................................................. 274
  Management capabilities .......................................................................................................... 274
  Device compatibility .................................................................................................................. 275

Compare Skype for Business features with Teams ................................................................. 275
  Enhanced Presence support ..................................................................................................... 275
  Contacts and Contact Groups support ..................................................................................... 276
  IM support ............................................................................................................................... 277
  Meetings support ..................................................................................................................... 279
  Voice (Telephony) support ........................................................................................................ 282
  External users support ............................................................................................................. 283
  Recording support .................................................................................................................... 283
  Modern Authentication .............................................................................................................. 284
  Archiving, compliance, and logging support ............................................................................ 285
  Admin training for Microsoft Teams .......................................................................................... 287

End user training for Microsoft Teams ..................................................................................... 289
  Overview of security and compliance in Microsoft Teams ....................................................... 289
    IMPORTANT ............................................................................................................................... 291
  Licensing ................................................................................................................................... 292
  Location of data in Microsoft Teams ......................................................................................... 293
Privacy in Microsoft Teams .................................................................................................................. 294
Identity models and authentication in Microsoft Teams ................................................................. 295
Configurations .................................................................................................................................. 295
Multi-Factor Authentication .............................................................................................................. 297
Search the audit log for events in Microsoft Teams ....................................................................... 299
  Turn on auditing in Teams ................................................................................................................ 299
  Retrieve Teams data from the audit log ........................................................................................... 299
  Video: TechTip: Using Audit Log Search in Teams ........................................................................ 300
Conduct an eDiscovery investigation of content in Microsoft Teams ............................................ 301
Use Content Search in Microsoft Teams .......................................................................................... 301
Place a Microsoft Teams user or team on legal hold ...................................................................... 303
IMPORTANT ..................................................................................................................................... 303
Known issues for Microsoft Teams .................................................................................................. 304
Support resources for Microsoft Teams .......................................................................................... 314
  Help, practical guidance, and tools .................................................................................................. 315
  Feedback and support options ........................................................................................................ 315
Verify service health for Microsoft Teams ....................................................................................... 315
Troubleshoot connectivity issues with the Microsoft Teams client ................................................. 316
Use log files in troubleshooting Microsoft Teams ............................................................................. 317
  Debug logs ..................................................................................................................................... 317
  Media Logs ..................................................................................................................................... 318
  Desktop logs ................................................................................................................................... 318
Microsoft Teams brings together the full breadth and depth of Office 365, to provide a true chat-based hub for teamwork and give customers the opportunity to create a more open, fluid, and digital environment. Microsoft Teams is built on existing Microsoft technologies woven together by Office 365 Groups.

Out of the box, Teams leverages identities stored in Azure Active Directory (Azure AD) and integrates with the other services within Office 365, to create a SharePoint online site and an Exchange Online group mailbox for each team created.

The Teams persistent chat capability is provided by a chat service that interacts with the Office 365 substrate, surfacing many of the built-in Office 365 capabilities, such as archiving and eDiscovery to the data being exchanged in Teams.

Teams also provides a calling and meetings experience that is built on the next generation cloud-based infrastructure that is also used by Skype and Skype for Business. These technology investments include Azure-based cloud services for media processing and signaling, H.264 video codec, SILK and Opus audio codec, network resiliency, telemetry, and quality diagnostics.

To extend Teams capabilities, use Connectors, Tabs, and Bots - available as Apps, to bring external information, content, and intelligent bot interactions to Teams.

**Microsoft Teams infrastructure**

Teams is built on existing Microsoft technologies, woven together by Office 365 Groups. Powered by the Microsoft cloud, organizations can expect excellent performance and reliability when leveraging Teams as part of their collaboration story.

Out of the box, a team created in Teams will create an Office 365 Group, a SharePoint Online site (complete with a document library), and an Exchange Online group mailbox, which will be used by Teams to store information such as meeting invites. A team can be created using existing Office 365 Groups, allowing existing group memberships, and contents stored in SharePoint Online and Exchange Online to be ported to Teams.

Teams persistent chat is provided by a chat service that interacts with Office 365, surfacing many of the built-in Office 365 capabilities such as archiving and eDiscovery to the data being exchanged in Teams.
To complement the Teams capability as a persistent chat board where informal, real-time conversations take place, Teams also provides a meeting experience built on the next generation cloud-based infrastructure that is also used by Skype and Skype for Business. These technology investments include Azure-based cloud services for media processing and signaling, H.264 video codec, SILK and Opus audio codec, network resiliency, telemetry, and quality diagnostics.

Office 365 Groups leverage identities stored in Azure Active Directory (Azure AD) and as such, all authentication and authorization capabilities in Azure AD, such as support for multi-factor authentication (MFA), are readily available for use by Teams.

**Microsoft Teams and Office 365**

Different groups have various needs, based on their functional role and workstyle. Office 365 is designed for the unique workstyle of every group and includes purpose-built, integrated applications, including:

- Outlook for enterprise-grade email, now with groups functionality
- SharePoint for sites and portals, intelligent content services, business process automation and enterprise search
- Yammer for driving company-wide connections
- Skype for Business as the backbone for enterprise voice and video
- And now, Microsoft Teams, the new chat-based workspace in Office 365

Here are common use cases for each application in Office 365. For detailed usage guidance, visit the [FastTrack Productivity Library](https://www.microsoft.com/en-us/microsoft-365/fasttrack).

**Microsoft Teams**

- Leveraged by users and teams who are looking to collaborate in real-time with the same group of people.

  Helps teams looking to iterate quickly on a project while sharing files and collaborating on shared deliverables.

- Allows Users looking to connect a wide range of tools into their workspace (such as Planner, Power BI, GitHub).

**Outlook**

- Leveraged by users who prefer to collaborate in the familiar environment of email and/or a more formal, structured manner.

- Provides specific business processes that require email usage to transmit documents and information inside and outside corporate boundaries.

  Communicates and connects with users who are outside of immediate workgroups or organizations.
Leveraged to help connect users across the organization to organize around communities of practice and share best practices.

Improves cross-functional workflows through an open and transparent feed-based platform.

Fosters executive-employee engagement with two-way conversations between leadership and the wider employee base.

Ignites your frontline workforce to share and receive knowledge and expertise.

**Yammer**

Leveraged for real-time communication and collaboration both internally and externally with customers/partners.

Provides meetings with audio, video and content with small or large teams (including Town Halls with up to 10,000 participants).

Offers enterprise telephony functionality.

**Skype for Business**

Leveraged for sites and portals (e.g. company news & announcements, search, and document collaboration).

- Implements business process automation on document libraries and lists of information by integrating Microsoft Flow and PowerApps.
- Full-powered SharePoint team site automatically provisioned for every Microsoft Team for file storage, team news, pages, lists and more.

See How SharePoint Online and OneDrive for Business interact with Teams.

**Teams known issues**

**Teams client release notes**

**What happened to the Teams admin FAQ?**

While the Teams Admin FAQ was handy when we first released Teams, it quickly became a "junk drawer" that made it hard to find anything specific. So we busted apart the FAQ and incorporated its valuable information into the Teams documentation that you're looking at right now. You'll find all the information that was in the FAQ in this documentation, in context.

If you're looking for something that you can't find here, please tell us about it in the Comments section below. We try to respond to your comments within 24 hours.

By the way, we do still have an FAQ for the Journey from Skype for Business to Microsoft Teams.
The transition to the cloud will vary by each organization, and current state may have an impact on how Microsoft Teams will function.

To get the best experience on Microsoft Teams, your organization must have deployed Exchange Online and SharePoint Online. If not, or you have a different setup, refer to the following links for help:

- If your organization has not deployed any Office 365 workloads, see [Getting Started with Office 365 for business](#).
- If your organization has not added or configured a verified domain for Office 365, see [Verify your Office 365 domain](#).
- If your organization has not synchronized identities to Azure Active Directory, see [Identity models and authentication in Microsoft Teams](#).
- If your organization does not have Exchange Online, see [Understand how Exchange and Microsoft Teams interact](#).
- If your organization does not have SharePoint Online, see [Understand how SharePoint Online and OneDrive for Business interact with Microsoft Teams](#).
The following Office 365 subscriptions enable users for Teams:

<table>
<thead>
<tr>
<th>SMALL BUSINESS PLANS</th>
<th>ENTERPRISE PLANS</th>
<th>EDUCATION PLANS</th>
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<tbody>
<tr>
<td>Office 365 Business Essentials</td>
<td>Office 365 Enterprise E1</td>
<td>Office 365 Education</td>
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<tr>
<td>Office 365 Business Premium</td>
<td>Office 365 Enterprise E3</td>
<td>Office 365 Education Plus</td>
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<td>Office 365 Enterprise E4 (retired)</td>
<td>Office 365 Education E3 (retired)</td>
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<td>Office 365 Enterprise E5</td>
<td>Office 365 Education E5</td>
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Office 365 Enterprise F1

**NOTE**
Teams is also available for non-profit organizations. Government licensing is not currently supported but is being investigated for future support.

In terms of Teams core functionalities, there are no differences between the different Office 365 subscriptions, the availability of the compliance capabilities does rely on the correct subscription level. (See Information Protection Licensing for more information.)

All supported subscription plans are eligible for access to the Teams web client, desktop clients, and mobile apps.

Teams is not available as a standalone service.

**Teams license**
By default, the Teams license is enabled for all users with eligible Office 365 subscriptions.
Teams can be turned on or off for an entire license type within an organization and is turned on by default for all licenses types except guest users. **You can’t turn on Teams for only part of a license type by using the Teams switch in the Office 365 Admin center.** If you want to turn on Teams for some of your organization and turn it off for others (for example, if you’re planning a Teams pilot with a select set of users), turn on the Teams license switch for everyone, then turn it off for individual users.

---

**Settings by user/license type**

Select the user/license type you want to configure: Business & Enterprise

Turn Microsoft Teams on or off for all users of this type: On

---

**Tip:** Enabling and disabling Teams as a workload license through PowerShell is done just as any other workload. The service plan name is TEAMS1 for Microsoft Teams. (See Disable access to services with Office 365 PowerShell for more information.)

**Sample:** Below is just a quick sample on how you would disable Microsoft Teams for everyone in a particular license type. You’ll need to do this first, then individually enable it for the users who should have access for piloting purposes.

*To display the subscription types you have within your organization, use the following command:*

```bash
Get-MsolAccountSku
```
Fill in the name of your plan that includes your organization name and the plan for your school (such as ContosoSchool:ENTERPRISEPACK_STUDENT), and then run the following commands:

```bash
$acctSKU="<plan name>
$x = New-MsolLicenseOptions -AccountSkuId $acctSKU -DisabledPlans "TEAMS1"
```

To disable Microsoft Teams for all users with an active license for your named plan, run the following command:

```bash
Get-MsolUser | Where-Object {$_._licenses[0].AccountSku.SkuPartNumber -eq (SacctSKU).Substring(SacctSKU.IndexOf("-"), -1) -and $_.IsLicensed -eq $True} | Set-MsolUserLicense -LicenseOptions $x
```
Let’s get started by thinking about how Microsoft Teams allows individual teams to self-organize:

- **Teams** are a collection of people, content, and tools surrounding different projects and jobs within an organization.
  - Teams can be created to be private to only invited users.
  - Teams can also be created to be public and open and anyone within the organization can join (up to 2500 members).
- **Channels** are dedicated sections within a team to keep conversations organized by specific topics, projects, disciplines—whatever works for your team!
  - Team channels are places where everyone on the team can openly have conversations. Private chats are only visible to those people in the chat.

Channels can be extended with Apps that include Tabs, Connectors, and Bots.

One key early planning activity to engage users with Microsoft Teams, is to help people think and understand how Microsoft Teams can enhance collaboration in their day to day lives.
By default, all users have permissions to create a team within Microsoft Teams (to modify this, see Assign roles and permissions in Teams). Users of an existing Office 365 Group can also enhance them with Microsoft Teams functionality.

### Sample Team Set up

Below are a few functional examples of how different types of users may approach setting up their teams, channels and apps (tabs/connectors/bots) – this may be useful to help kick off a conversation about Microsoft Teams with your user community. As you think about how to implement Microsoft Teams in your organization, remember that you can provide guidance on how to structure their teams, however users have control of how they can selforganize. These are just examples to help get teams to start thinking through the possibilities.

Microsoft Teams is great at breaking down organizational silos and promoting cross-functional teams, so encourage your users to think about this as functional teams and not organizational silos.

<table>
<thead>
<tr>
<th>TYPES OF TEAMS</th>
<th>POTENTIAL CHANNELS</th>
<th>APPS (TABS/CONNECTORS/BOTS)</th>
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<tbody>
<tr>
<td>Sales</td>
<td>Annual Sales Meeting, Quarterly Business Review, Monthly Sales Pipeline Review, Sales Playbook</td>
<td>Power BI, Trello, CRM, Summarize Bot</td>
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<td>Public Relations</td>
<td>Press Releases, News and Updates, Fact Checking</td>
<td>RSS Feed, Twitter</td>
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<td>Event Planning</td>
<td>Marketing, Logistics and Scheduling, Venue, Budget</td>
<td>Twitter, Facebook, Planner, PDF</td>
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<td>Marketing/Go to Market</td>
<td>Market Research, Messaging Pillars, Communications Plan, Marketing Bill of Materials</td>
<td>YouTube, Microsoft Stream, Twitter, MailChimp</td>
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<td>Technical Operations</td>
<td>Incident Management</td>
<td>Team Services</td>
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<td>Sprint Planning</td>
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<td>Work Items</td>
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<td>External Job Posting Sites</td>
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<td>Performance Review</td>
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<td>Strategy</td>
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<td>Virtual Team</td>
<td>Workforce Development</td>
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<td>Compete &amp; Research</td>
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|                      | Power BI             |
|                      | Microsoft Stream     |
Before creating a team, it’s a good practice to think about a goal, project, or work item and the organization’s people or groups who can help deliver it collaboratively. Once created, add these people or groups to a team to start collaborating. It’s a good idea to designate more than one owner for each team - see Managing Teams.

You may start with a small number of team members to brainstorm as you move forward, and then add new people/groups as you go. The great thing with Microsoft Teams, is that when you add new people/groups, they can quickly get up to speed on what has already been discussed as the conversations and files are available to users regardless of when they join. Try to avoid creating different teams that have the same set of members, as this approach may not provide the desired focus to deliver the project or goal. Outlook is a great tool for sharing those types of group-wide communications.

Once you have created your team, it’s a good idea to start to think about the different areas of conversations that you want to have to drive towards your goal and create initial channels so that people know where to contribute and to find existing conversations. Be descriptive when naming channels to make it easier to understand what the conversation in the channel is there to achieve. You can add new Tabs to channels to add tools like OneNote, PowerBI or links to web pages and other content to make it easy for people to find content and share their thoughts.

The General channel is created for you when you create the team. You can use this to share an overview of what the team wants to achieve and other high-level information that a new team member would find useful. Currently, you cannot remove or unfavorite the General channel. The General channel is a great place to pin a project charter or welcome deck to your project. This ensures that as new people onboard your team, they have a single source of truth for your objectives. When naming channels, remember that the channels will be ordered alphabetically after the General channel.
Office 365 Groups is the cross-application membership service in Office 365. At the basic level, an Office 365 Group is an object in Azure Active Directory with a list of members and a loose coupling to related workloads including a SharePoint team site, Yammer Group, shared Exchange mailbox resources, Planner, PowerBI and OneNote. You can add or remove people to the Group just as you would any other group-based security object in Active Directory.

An Office 365 administrator can define an Office 365 Group, add members, and benefit from features such as an Exchange shared mailbox, SharePoint document library, Yammer Group, etc. For more information about Groups visit: Learn about Office 365 Groups.

How Office 365 groups work

When you create a Microsoft Team, on the backend, you’re creating an Office 365 Group along with the associated SharePoint document library, OneNote notebook, along with ties into other Office 365 cloud applications. If the person creating the Team is an owner of an existing Office 365 Public or Private Group, they can add Teams functionality to the Group. This creates one default “General” channel in which chat messages, documents, OneNote, and other objects reside. Viewing the document library for the channel will reveal the “General” folder representing the channel in the Team. More importantly, if you create your own folder structure within a document library it does not propagate to Teams as a channel; for now, it only flows from Teams into SharePoint.

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<td>Deleting an Office 365 Group will remove the mailbox alias for persistent Outlook/OWA conversations and Teams meeting invites, and mark the SharePoint site for deletion. It takes approximately 20 minutes between the removal of a Team and its effect on Outlook. Deleting a Team from the Teams client will remove it immediately from view to all who are members of the team. If you remove a member of an Office 365 Group which has had Teams functionality enabled on it, there could be a delay of approximately one hour before the Team is removed from view in the Teams client for the effected people who were removed.</td>
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Group membership

Depending on where you drive group membership from, depends on what features and capabilities your users will experience. For example, if you remove a member of a Team, they are removed from the Office 365 Group as well. Removal from the Group immediately removes the Team and channels from the Teams client. If you remove a person from a Group using the Office 365 Admin portal, they will no longer have access to the other collaborative aspects such as SharePoint Online document library, Yammer Group, or shared OneNote. However, they will still have access to the Team’s chat functionality for approximately one hour.

Our guidance with respect to Teams ‘member management’ is to drive the add/remove functionality through the Teams client to ensure the correct cascading access control
to other dependent cloud applications is applied. Additionally, you will avoid a disjointed experience leaving people with the impression they still have access to the resources they used to (until the next sync cycle either adds or revokes access to a particular component of the service).

How Exchange and Microsoft Teams interact

For the full Microsoft Teams experience, every user should be enabled for Exchange Online, SharePoint Online, and Office 365 Group creation.

Users’ Exchange mailboxes can be hosted online or on-premises. Users hosted on Exchange Online or Exchange Dedicated vNext can use all the features of Teams. They can create and join teams and channels, create and view meetings, call and chat, modify user profile pictures, add and configure connectors, tabs, and bots.

Users hosted on either Exchange Online Dedicated - Legacy, or Exchange on-premises, must be synchronized to Azure Active Directory for Office 365. They can create and join teams and channels, add and configure tabs and bots, and chat and call. However, they can’t modify user profile pictures, or add and configure connectors. They can receive messages from connectors configured by other users. For creating and viewing meetings, it’s a mixed bag: Creating and viewing meetings is supported for Exchange 2016 cumulative update 3 (CU3) and above, but not for versions prior to Exchange 2016 CU3.

The following table provides information for users with Exchange Online hosted in various environments.

**Actions supported:**

<table>
<thead>
<tr>
<th>USER’S MAILBOX IS HOSTED IN:</th>
<th>CREATE TEAMS</th>
<th>JOIN TEAMS</th>
<th>CREATE CHANNELS</th>
<th>CREATE AND VIEW MEETINGS</th>
<th>MODIFY USER PROFILE PICTURE</th>
<th>ADD AND CONFIGURE CONNECTORS</th>
<th>ADD AND CONFIGURE TABS</th>
<th>ADD AND CONFIGURE BOTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange Online</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Exchange Online Dedicated vNext</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Microsoft Teams doesn’t support SharePoint on-premises.

- SharePoint Online is required to share and store files in team conversations.
- OneDrive for Business is required to share and store files in private chats.
- If users aren’t assigned and enabled with SharePoint Online licenses, they don’t have OneDrive for Business storage in Office 365. File sharing will continue to work in Channels, but users are unable to share files in Chats without OneDrive for Business storage in Office 365.

- Users must be enabled for Office 365 group creation to create teams in Microsoft Teams.

In Microsoft Teams, security and compliance features like eDiscovery, Content Search, archiving, and legal hold work best in Exchange Online and SharePoint Online environments. For channel conversations, messages are journaled to the group mailbox in Exchange Online, where they’re available for eDiscovery. If SharePoint Online and OneDrive for Business (using work or school account) are enabled across the organization and for users, these compliance features are available for all files within Teams as well.

**Important:** Users who participate in conversations that are part of the Chat list in Microsoft Teams must have an Exchange Online (cloud-based) mailbox for an admin to search chat conversations. That’s because conversations that are part of the Chat list are stored in the cloud-based mailboxes of the chat participants. If a chat participant doesn’t have an Exchange Online mailbox, the admin won’t be able to search or place a hold on chat conversations. For example, in an Exchange hybrid deployment, users with on-premises mailboxes might be able to participate in conversations that are part of the Chat list in Microsoft Teams. However, in this case, content from these conversations isn’t searchable and can’t be placed on hold.
because the users don't have cloud-based mailboxes. For more details about Content Searches and Microsoft Teams, see *Microsoft Teams and Office 365 Groups*.

**Tip:** For information about how to use Azure AD Connect to synchronize with Azure Active Directory, see *Integrating your on-premises identities with Azure Active Directory*.
Each team in Microsoft Teams has a team site in SharePoint Online, and each channel in a team gets a folder within the default team site document library. Files shared within a conversation are automatically added to the document library, and permissions and file security options set in SharePoint are automatically reflected within Teams.

Private chat files are stored in the sender's OneDrive for Business folder, and permissions are automatically granted to all participants as part of the file sharing process.

If you don't have SharePoint Online enabled in your tenant, Microsoft Teams’ users can't share files in teams. Users in private chat also can't share files because OneDrive for Business (which is tied to the SharePoint license) is required for that functionality.

By storing the files in the SharePoint Online document library and OneDrive for Business, all compliance rules configured at the tenant level will be followed.

The following is the example of relationships between team, channel, and document library.

For every team, a SharePoint site is created, and the Shared Documents folder is the default folder created for the team. Each channel, including the General channel, the default channel for each team, has a folder under the Shared Documents folder.

```
Microsoft Teams

<table>
<thead>
<tr>
<th>Team1</th>
<th>SharePoint Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>.../sites/Team1/Shared Documents</td>
</tr>
<tr>
<td>Channel1</td>
<td>.../sites/Team1/Shared Documents/General</td>
</tr>
<tr>
<td>Channel2</td>
<td>.../sites/Team1/Shared Documents/Channel1</td>
</tr>
</tbody>
</table>
```
For every user, the OneDrive folder *Microsoft Teams Chat Files* is used to store all files shared within private chats with other users (1:1 or 1:many), with permissions configured automatically to restrict access to the intended user only.
If your organization uses Skype for Business today and you intend to start using Teams, it's important to understand how to configure the two applications to interoperate.

**IMPORTANT**

This document is provided for early evaluation of Calling Plans support for Teams. Teams interop policy details are expected to change in the future.

Interoperability (interop for short) enables Skype for Business and Teams users to chat and call with one another, ensuring that communications remain fluid across your organization. To help IT pros manage the adoption of Teams, we've added a new Teams interop policy, managed through a Skype for Business remote Windows PowerShell session using cmdlets. Use this policy to configure Teams the way you need it to work in your organization.

**TIP**

To find the PowerShell cmdlets you need for interop, type “CsTeamsInteropPolicy” in the Filter box in the Skype for Business PowerShell cmdlet documentation.

Teams interop policy enables an IT pro to designate a user’s preferred application for receiving chats and calls. It can be configured to keep communications in Teams and Skype for Business siloed, or it can be configured to enable users to communicate across application boundaries.

Teams interop policy can be defined at the tenant or per-user level, and can even be configured to enable users to choose what application they would like to use to receive their chats and calls.

This built-in flexibility is intended to help your organization trial, evaluate, and migrate to Teams at the pace and in the manner that is best suited to your organization.

**NOTE**

Interoperability between Teams and Skype for Business is supported between users who are purely online (Skype for Business Online and Teams), and users homed in a Skype for Business on-premises deployment in a mixed (Hybrid) deployment topology.
What interoperability means

Interop is the ability for Teams and Skype for Business users to chat (IM) and call each other across Teams and Skype for Business.

As organizations begin the journey from Skype for Business to Teams, the expectation is that there will be a mix of users using different clients in the organization.

To ensure continued productivity, Teams provides the ability for users to communicate with one another regardless of the application they use (Teams or Skype for Business).

Supported interop experiences include the following:

- Skype for Business users can call Teams users over voice and video, vice versa. Advanced calling options, such as call transfer and call forwarding will continue to work, even for interop calls.

Skype for Business users that do not use Teams can chat with Teams users, vice versa.
**NOTE**
From a Skype for Business user point of view, chats and calls from/to Teams will appear as basic Skype for Business chats and calls. Please review the *Interop experiences limitations* section for details.

**IMPORTANT**
Unified presence between Teams and Skype for Business is currently not supported, which means Teams and Skype for Business will show their own independent presence states. To find out when support for unified presence is going to be available, review *Skype for Business to Microsoft Teams Capabilities Roadmap*.

### Interop requirements
For interop capabilities to be enabled, users must meet the following criteria:

- Users must be enabled (and/or licensed) for Teams
- Users must be enabled (and/or licensed) for Skype for Business Online
  - This is applicable to users that are planning to use Teams only or Teams as their primary chat and calling application
- In a hybrid Skype for Business deployment,
  - Users homed at on-premises Skype for Business (or any Lync Server version currently supported for Skype for Business Hybrid deployment), can interop with cloud users using Teams

Cloud users that are planning to use Teams as their primary chat and calling application must be enabled (and/or licensed) for Skype for Business Online

### Supported topologies for interop
Interop between Teams and Skype for Business is primarily supported for the following Skype for Business deployment topologies:

- Skype for Business Online only
- Skype for Business Hybrid (mixed deployment of Skype for Business Online and Skype for Business onpremises)

**Skype for Business Online only topology**
Organizations with Skype for Business Online deployment only can benefit from interop chat and calling support between Skype for Business Online users and Teams users.

In this topology, users configured with Teams as the primary chat and calling application must also be enabled for Skype for Business Online for interop to function.
**Skype for Business Hybrid deployment topology**

Organizations with a deployment that consists of mixed deployment of Skype for Business Online and Skype for Business server (on-premises) in a Hybrid deployment topology, can benefit from interop chat and calling support between Skype for Business users (homed at either online and on-premises) and Teams users.

Like Skype for Business Online only deployment topology, users configured with Teams as the primary chat and calling application must also be enabled for and homed at Skype for Business Online for interop to function.

**IMPORTANT**

Interop support for Skype for Business Hybrid does not include Hybrid Voice capabilities delivered through CCE (Cloud Connector Edition) or on-premises PSTN connectivity using existing deployment--or commonly called as OPCH (On Prem Config Hybrid). Teams users cannot be enabled for PSTN calling capabilities using CCE or OPCH.

**Interop experiences limitations**

Currently, in addition to the absence of unified presence between Teams and Skype for Business, which leads to Teams and Skype for Business having their own independent presence states, there are features that are not available for interop chat and interop calling experiences between Teams and Skype for Business.

For chat interop, the following are the current list of limitations:
• Multi-party (group) conversation (chat) in Teams can only include participants using Teams
• Multi-party IM conversation (chat) in Skype for Business can only include participants using Skype for Business
• File transfer for two-party chat conversation or file attachment in multi-party conversation across Teams and Skype for Business, vice versa, are not supported
• Interop chat is not persisted in Teams
• Markdown, rich text, full emoticon set, etc. in Teams are not supported for interop chat

For calling interop, the following are the current list of limitations:
• Screen sharing (desktop or app sharing) between Teams and Skype for Business is not supported
• Escalation of ongoing peer to peer (P2P) voice and video call to multi-party call involving Teams and Skype for Business users is not supported

Managing interoperability
To manage the interoperability between Teams and Skype for Business, a new policy called Teams interop policy can be utilized to control where to send chats and route calls, Teams or Skype for Business, and this policy can be configured for all users in the organization (global policy) or applied at the per user basis, manageable through Skype for Business remote Windows PowerShell cmdlets.

By default, this policy is configured to ensure that Teams and Skype for Business can be used side-by-side with minimal interop between them. This approach is intended to ensure that current business processes and communications within your organizations are not disrupted as a result of Teams adoption.

Interop policy overview
Teams interop policy consists of the following parameters:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>POSSIBLE VALUES</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChatDefaultClient</td>
<td>Default, SfB, Teams</td>
<td>This parameter specifies the default Chat app</td>
</tr>
<tr>
<td>CallingDefaultClient</td>
<td>Default, SfB, Teams</td>
<td>This parameter specifies the default Calling app</td>
</tr>
<tr>
<td>AllowEndUserClientOverride</td>
<td>True, False</td>
<td>This parameter specifies whether users can override the default Chat and Calling app</td>
</tr>
</tbody>
</table>
WARNING

While it is currently possible to create interop policy with independent values for parameters, we expect this to change in the future. At this time, please ensure that you are using the same value for both parameters.

Chat default client

The `ChatDefaultClient` parameter defines how chats are routed between Teams and Skype for Business, and the default global value of this parameter is set to Default.

IMPORTANT

At the present time, the `ChatDefaultClient` parameter is not respected by Teams. We will update this documentation to describe the expected behavior once the parameter is respected by Teams. Existing chat interop capabilities between Teams and Skype for Business controlled at the tenant level will continue to work as is.

Calling default client

The `CallingDefaultClient` parameter defines how calls are routed between Teams and Skype for Business, and the default global value of this parameter is set to Default.

Below is the detailed explanation of how each setting of this parameter influences Teams and Skype for Business client behavior.

<table>
<thead>
<tr>
<th>Caller Calling From</th>
<th>Setting: Default; Call Received On</th>
<th>Setting: Teams; Call Received On</th>
<th>Setting: SFB; Call Received On</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skype for Business</td>
<td>Skype for Business</td>
<td>Teams</td>
<td>Skype for Business</td>
</tr>
<tr>
<td>Teams</td>
<td>Teams</td>
<td>Teams</td>
<td>Skype for Business</td>
</tr>
<tr>
<td>PSTN</td>
<td>Skype for Business</td>
<td>Teams</td>
<td>Skype for Business</td>
</tr>
<tr>
<td>Federated Skype for Business</td>
<td>Skype for Business</td>
<td>Skype for Business</td>
<td>Skype for Business</td>
</tr>
</tbody>
</table>

IMPORTANT

Currently, changing `CallingDefaultClient` to Teams will also affect calls to Skype for Business IP phones. Incoming calls will not be received on the phones and will only ring Teams clients. Please consult the Skype for Business to Microsoft Teams Capabilities Roadmap for information about support for existing certified SIP phones.

Allowing user choice

The `AllowEndUserClientOverride` parameter accepts Boolean value (TRUE or FALSE), and when it is set to TRUE, Teams will allow users to select where they want to receive their calls—Teams or Skype for Business, and users will be able to change their primary application at any time.
The global default value for this parameter is **FALSE**, thereby users will not be allowed to choose their primary application without intervention from administrator.

**Teams interop policy special cases**

When assigning Teams interop policy, users that remain homed at Skype for Business on-premises—in a mixed (Hybrid) deployment topology, users with Hybrid Voice (both through CCE or OPCH), and users with specialized Skype for Business workflows are considered special cases, and they require special attention on the policy assigned to them.

**Policy for Skype for Business on-premises users**

In a mixed (Hybrid) deployment topology, users homed at Skype for Business on-premises should never have their policy set to Teams for either parameters. If they do, they will be unable to receive chats and calls. Use the following definition for on-prem users:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChatDefaultClient</td>
<td>Default or SfB</td>
</tr>
<tr>
<td>CallingDefaultClient</td>
<td></td>
</tr>
</tbody>
</table>
CallingDefaultClient | Default or SfB
---|---
AllowEndUserClientOverride | False

**IMPORTANT**
When moving users from Skype for Business Online to Skype for Business on-premises, or vice versa, you need to make sure the Teams interop policy assigned to the user is aligned with the behavior that needs to be enforced. Remember that on-premises users cannot be configured to use Teams as primary chat and calling application.

### Policy for Hybrid Voice users (CCE or OPCH)
Skype for Business Online users enabled for Phone System with Hybrid Voice (through CCE or OPCH) cannot receive PSTN calls in Teams. When assigning Teams interop policy for Hybrid Voice users, use the following policy definition:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChatDefaultClient</td>
<td>Default or SfB or Teams</td>
</tr>
<tr>
<td>CallingDefaultClient</td>
<td>Default or SfB</td>
</tr>
<tr>
<td>AllowEndUserClientOverride</td>
<td>False</td>
</tr>
</tbody>
</table>

### Policy for users with specialized Skype for Business workflows
In some cases, a group of users may be using third party applications that rely on Skype for Business (e.g.: call centers, front desk attendants, etc.). In these cases, you will want to ensure that they remain on Skype for Business until they have equivalent capabilities in Teams. For these users, use the following policy definition:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChatDefaultClient</td>
<td>Default or SfB</td>
</tr>
<tr>
<td>CallingDefaultClient</td>
<td>Default or SfB</td>
</tr>
<tr>
<td>AllowEndUserClientOverride</td>
<td>False</td>
</tr>
</tbody>
</table>

Use these quick start guides to help you get your organization up and running quickly on Teams.
Quick start: Successfully enable Teams

Configuring Calling Plans

Quick start: Teams for Education

What other quick start guides should we create for you? Tell us in the Comments below.
Use this guide to help you plan, implement, and adopt Microsoft Teams in your organization. This guide focuses on enabling collaboration and team communications scenarios. To implement Teams enterprise voice features, check out our Cloud voice documentation.

Figure 1: Implementation phases of Office 365 and Teams

Step 1: Get your people together
Assemble a group of individuals from your business, IT, and user communities to act as the stakeholder and decision-making group for your Teams deployment. In smaller organizations, this may be two or three people. Be sure to include individuals from all three communities to ensure a successful journey.

Step 2: Prioritize your business scenarios
Collaboration and communication is about people! Pick the most relevant business scenarios for your organization instead of talking about features and functions. Check out the Microsoft 365 FastTrack Productivity Library for examples to help you define scenarios for your company. Successful Teams deployments often center around highvelocity teams that work closely together, such as product development, marketing event teams, finance groups, or support organizations. Select one of these
scenarios and complete a quick inventory of how these users work today so you can effectively design the Teams experience in a meaningful way for these people.

**Best practice:**

**Plan Teams with Teams!** Customers who use Teams to plan their deployment ease the change curve for key stakeholders. Consider creating a team called Microsoft 365 Deployment and creating channels for the various workloads you want to deploy. Your team might look something like this:

```
+ Microsoft 365 Deployment
  - General
  - Exchange
  - Microsoft Teams
  - Pilot Feedback
  - SharePoint
  - Training and Adoption
```

**Step 3: Complete technical planning**

Efficient technical planning is the foundation of a great user experience. If your organization has more than 50 seats and is participating in an eligible plan, you can use FastTrack benefits, available at no additional cost to guide you through planning, deployment and service adoption. Or, you can complete this work yourself using our FastTrack Onboarding Wizards, available from FastTrack once you sign in with your Office 365 account. The information below will help you complete this step for Teams. At a minimum, you’ll want to review these four articles:

1. **Check your environment’s readiness for Teams**
2. **Prepare your network for Teams**
3. **Office 365 URLs and IP address ranges**
4. **Guest access in Teams**

In addition, certain organizations may want to review **Overview of security and compliance in Teams**.

**Step 4: Conduct pilots and deploy Teams**

In most organizations, you’ll want to conduct an initial Teams pilot with your stakeholders, champions, and early adopters for one or more of the scenarios you selected above. A pilot gives you valuable information about how Office 365 and Teams are received in your organization. Select an interested group of users and a prioritized business scenario to get started. Figure 2 shows some example scenarios.
Once your pilots are complete, you'll have the feedback you need to plan your broad Teams deployment. Large organizations often deploy in phases to manage the onboarding and training work required to implement a quality employee experience. Be sure your deployment plan integrates your prioritized business scenarios to ensure your employees are getting the most from Office 365 and Teams.

When you're ready to turn on Teams, read Office 365 licensing for Teams to find out how.

**Best practice:**
In smaller organizations (currently fewer than 2500 users), consider enabling Teams for the entire organization, then add all users to a single, company-wide team. Add common reference items and tasks to this team to simplify the collaboration and productivity experience for everyone.

If you use Yammer for broad company collaboration, consider integrating Yammer into the Teams experience. This doesn't replace the native browser or mobile experience for Yammer but provides an integrated way to stay up-to-date on topics of broad interest across your organization. To learn more, watch Tech Tip: Community management for Yammer with Microsoft Teams.

**Don't forget mobile!**
As you're deploying Teams, don't forget to turn on the mobile experience. Enabling your users to run Office 365 mobile applications can dramatically increase usage and satisfaction. Office, Outlook, SharePoint, Teams, Planner, Yammer, and other popular Office 365 services all offer mobile experiences. As a best practice, turn on the Teams mobile experience at the same time as you deploy the desktop and browser clients.
Step 5: Measure usage, manage satisfaction, and drive adoption

Deploying software is not the only thing required to drive change in your organization. Empowering collaboration is more about people than technology. To successfully drive adoption of Office 365 and Teams, stay focused on your employees’ experience. Here’s a quick checklist of our best practices to get you started. Microsoft partners can also help you design the right adoption plan for your organization.

1. **Read** [Office 365 Adoption Guidance](#) for best practices. Use our article on creating a change management strategy for Microsoft Teams to document your approach.
2. **Study** [Office 365 activity reports](#) to understand usage across your environment. If you aren’t an Office 365 admin for your company, ask your admin to give you Reports Reader permissions so you can access activity reports.
3. **Capture feedback from your employees** on their experience with Office 365 and Teams. Use a public channel in Teams when your organization has fewer than 2500 individuals. Use a public group in Yammer when your organization is larger than this current membership limit in Teams.
4. **Nurture your champions and highlight your wins.** Reward employees for embracing these new tools and using them in innovative ways that relate to business outcomes for your company. This, above anything, will ensure continued adoption of Office 365 and Teams.

Next steps

1. Head over to the [Workshop kit: Plan, deliver, and operate Teams](#)
2. Download and fill out the technical planning questionnaire in the [Quick start guide: Successfully enable Teams](#).
3. Download the workshop for launching Teams in your organization: [Plan, Deliver, & Operate Teams](#)

**Quick start guide: Configuring Calling Plans in Microsoft Teams**

This guide will help you get a set of users up and running so they can explore Calling Plans in Teams.

Read the December 12, 2017, announcement of Calling Plans in Teams: [Intelligent Communications takes the next step with calling in Teams](#)
NOTE

We recommend that, in parallel with this quick-start guide, you use our [practical guidance and FastTrack](#) to plan and drive a successful rollout.

By adding Calling Plans - an Office 365 feature powered by Skype for Business - you can now use Teams to make and receive phone calls to or from land lines and mobile phones via the public switched telephone network (PSTN).

Prerequisites for enabling the **Calls** tab in Teams

To enable the **Calls** tab in Teams and allow your users to make and receive PSTN calls, you will need provision users for Phone System and Calling Plans. To learn how to set this up, read [Set up Calling Plans](#).

**IMPORTANT**

Before configuring Calling Plans in Teams, please be aware of the following limitations:

- **Hybrid Voice is not supported in Teams** - Hybrid Voice is currently not supported in Teams. Hybrid Voice customers are not advised to change any of the policies to receive calls in Teams, as this will cause service interruptions.

- **Federated calling is not supported in Teams** - Federated calling (calling between tenants/companies) is currently not supported in Teams. Federated calls will always be routed to Skype for Business regardless of how you configure calling, until it's supported in Teams.

**Teams interop policy configuration**

To enable Teams to begin receiving calls, you'll need to update Teams interop policy, using a remote Windows

```bash
CsTeamsInteropPolicy
```
PowerShell session with the Skype for Business cmdlets, to redirect calls to Teams. For more information about Teams interop policy, see Microsoft Teams and Skype for Business Interoperability.

**TIP**

To find the PowerShell cmdlets you need, type "CsTeamsInteropPolicy" in the Filter box in the Skype for Business PowerShell cmdlet documentation.

**Default Teams interop policy**

Teams has a default policy configuration designed to ensure that existing business workflows are not interrupted during a Teams deployment. By default, VoIP, PSTN, and federated calls to your users will continue to be routed to Skype for Business until you update the policy to enable inbound calling to Teams. This ensures that there are no unintended interruptions in voice services as you start to pilot and deploy Teams.

Teams interop policy has the following default configuration:

<table>
<thead>
<tr>
<th>Identity</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>AllowEndUserClientOverride</td>
<td>False</td>
</tr>
<tr>
<td>CallingDefaultClient</td>
<td>Default</td>
</tr>
<tr>
<td>ChatDefaultClient</td>
<td>Default</td>
</tr>
</tbody>
</table>

The behaviors of the default configuration are the following:

- **For existing Skype for Business customers**, this policy is designed to ensure that Skype for Business calls are directed to Skype for Business, and Teams calls are directed to Teams. PSTN and federated calls will be directed to Skype for Business when this policy is in effect.

- **For customers without Skype for Business**, when in effect, in addition to calls among Teams users, only outbound PSTN calling will be available in Teams. You will need to alter the Teams interop policy assigned to your users to receive PSTN calls in Teams.

**NOTE**

Users that have been provisioned with Phone System and Calling Plans licenses for use with Skype for Business Online, and configured with the default global Teams interop policy, will have the Calls tab enabled in Teams and can place outbound PSTN calls from Teams without administrators having to take any administrative action.

**How to configure Teams to use the default policy**

By default, global Teams interop policy is applied to all users in your tenant, and it is configured with the default settings as described above. If for some reason you have granted different policies to your users and would like to revert to the default setting, you will need to apply the global Teams interop policy via Skype for Business remote Windows PowerShell session:

```
Grant-CsTeamsInteropPolicy -PolicyName Global -Identity user@contoso.com
```
WARNING
While it is possible to modify the global Teams interop policy from the default values, we strongly advise against it.

Configuring Teams to receive inbound PSTN calls

To receive inbound PSTN calls in Teams, you will need to configure Teams as the default calling application by applying Teams interop policy with parameter set to Teams.

IMPORTANT
We recommend that you apply this configuration to an initial set of users to explore these exciting new calling capabilities in Teams prior to making wider or organization-level changes.

Consider using the following preconfigured Teams interop policy to route inbound PSTN calling to Teams:

<table>
<thead>
<tr>
<th>Identity</th>
<th>Tag:DisallowOverrideCallingTeamsChatTeams</th>
</tr>
</thead>
<tbody>
<tr>
<td>AllowEndUserClientOverride</td>
<td>False</td>
</tr>
<tr>
<td>CallingDefaultClient</td>
<td>Teams ChatDefaultClient : Teams</td>
</tr>
</tbody>
</table>

The behaviors of the policy above are the following:

- **For existing Skype for Business customers**, this policy is designed to redirect incoming calls to Teams. This includes both VoIP (from Teams and Skype for Business) and PSTN calls. Federated calls will continue to be received in Skype for Business.

- **For customers without Skype for Business**, when in effect, PSTN calls will be received in Teams. Federated calling is currently **not supported** in Teams.

WARNING
Currently, changing to Teams will also affect calls to Skype for Business IP phones. Incoming calls will not be received on the phones and will only ring Teams clients. Please consult the Skype for Business to Microsoft Teams Capabilities Roadmap for information about support for existing certified SIP phones.

How to configure Teams to receive PSTN calls

Apply the Teams interop policy as described above via Skype for Business remote Windows PowerShell session to redirect calls to Teams:

Grant-CsTeamsInteropPolicy -PolicyName tag:DisallowOverrideCallingTeamsChatTeams -Identity user@contoso.com
Configuring Teams to allow users to change their preferred calling experience

To let users to make their own decision over the preferred calling experience, whether to receive calls in Teams or Skype for Business, you need to create a custom Teams interop policy that enables parameter.

The following is the example of Teams interop policy to enable user choice of the preferred calling experience:

<table>
<thead>
<tr>
<th>Identity</th>
<th>: Tag:CustomPolicy</th>
</tr>
</thead>
<tbody>
<tr>
<td>AllowEndUserClientOverride</td>
<td>: True</td>
</tr>
<tr>
<td>CallingDefaultClient</td>
<td>: Default</td>
</tr>
<tr>
<td>ChatDefaultClient</td>
<td>: Default</td>
</tr>
</tbody>
</table>

Once this custom policy is applied to the users, the option to change the preferred calling application will be available in Teams client for users to make the changes themselves.

![Settings](image)

**Preferred calling application**

Choose a default app for incoming calls:

- Microsoft Teams

![Preferred calling application](image)
**IMPORTANT**

It is recommended that you apply this configuration to an initial set of users prior to making wider or organization level changes.

---

**How to create and apply the custom Teams interop policy**

To create the custom Teams interop policy as described above via Skype for Business remote Windows PowerShell session, perform the following:

```
New-CsTeamsInteropPolicy -Identity tag:CustomPolicy -AllowEndUserClientOverride:$True -CallingDefaultClient:Default ChatDefaultClient:Default

Grant-CsTeamsInteropPolicy -PolicyName tag:CustomPolicy -Identity user@contoso.com
```

**See also**

- Set up Calling Plans
- Microsoft Teams and Skype for Business Interoperability
- Practical Guidance for Phone System with Calling Plans in Microsoft Teams
- Skype for Business PowerShell cmdlet reference
- Teams PowerShell cmdlet reference
New to Microsoft Teams? Read the overview to get up to speed first.

A typical Microsoft Teams journey may take the following form:

1. Technical and legal assessment in the early stages to identify and define what controls are required to implement Microsoft Teams in your organization.

2. Undertake a network assessment and prepare for the rollout. At this point you can start to create the adoption and change management strategy and key user stories that drive user engagement during and after the rollout.

3. Test these change management and adoption strategies with an IT Pilot.

4. Refine and run a business pilot in one or two business units leveraging these strategies.

5. Refine and leverage the strategy and learnings for a wider rollout.

During the journey, one of the first uses of Microsoft Teams in your environment is the IT Pilot. Consider leveraging this pilot to help your team engage to plan, deliver, and operate Microsoft Teams and outreach to the business users.

Here’s an example of how you could set up a team / channel structure to help drive towards your goal of delighting your end users through the delivery of Microsoft Teams. To get your business units thinking of how to set up their own teams and channels, you could share how you set up your first team / channels to help them and perhaps encourage users to create a simple table like the one below to drive the conversation.
<table>
<thead>
<tr>
<th>TEAM NAME</th>
<th>CHANNELS</th>
<th>TABS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get teams deployed</td>
<td>Planning and Readiness</td>
<td>Link practical guidance for Microsoft Teams web page (<a href="https://docs.microsoft.com/MicrosoftTeams">https://docs.microsoft.com/MicrosoftTeams</a>)</td>
</tr>
<tr>
<td>Members:</td>
<td>Adoption</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rollout</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Support</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Insights</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lead</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Support</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owners:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Project Manager</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Collaboration IT Pro</td>
<td></td>
</tr>
</tbody>
</table>

This setup would look like this in Microsoft Teams:

![Microsoft Teams interface](image)

**Decision Point**
What initial teams and channels do you want to create for your IT pilot?

**Next Steps**
Document what your initial teams/channels will be for your IT Pilot.
When considering the use of Office 365 Groups or when creating teams, consider what the team will be used for, who should have access, and what outcome the team will expect to achieve. Pay special attention to the number of channels you create as people can quickly become overrun by content spread too thin (across too many channels).

There are two scenarios that warrant some discussion around planning of Office 365 Groups and their impact on (or by) Microsoft Teams:

- First, since customers could have existing investments in Groups, we currently support both Public and Private groups of less than 2500 members. As mentioned previously, you want to manage the membership of people to a Team using the Teams client rather than the Office 365 admin web console. Given this scenario, if people are used to threaded conversations in Office 365 Groups, it is worthwhile noting that a Groups conversation is essentially email and not the same as a chat message in a Team channel. Educate your people about this difference and suggest they adopt the more flexible chat message format in Teams versus emailing the Group using Outlook or OWA.

- Second, for customers who don’t have existing Groups defined in Office 365, you can either create them using the Office 365 admin portal, the Teams web, or desktop clients. As mentioned previously, manage all future membership to the Office 365 Group using the Teams client. Since membership to a Team is also defining membership to Office 365 Groups, you should prepare people for this change.

Teams respects Office 365 Groups naming policy (in private preview)

Any Office 365 Groups naming policy that has been set by your admin will be applied in Teams when users create or edit team names. This includes things like mandatory prefixes or suffixes and excluding banned words.

**NOTE**
This feature is in private preview, which means that if you’re not part of this preview, Teams doesn’t yet adhere to this Office 365 Groups naming policy.

To learn more, read Office 365 Groups naming policy in Teams.
The following articles are a good place to find readiness & adoption content for your Office 365 Groups:

- Get more with groups in Outlook
- Manage Group membership in the Office 365 admin center

Microsoft Teams combines three forms of traffic:

- Data traffic between the Office 365 online environment and the Microsoft Teams client (signaling, presence, chat, file upload and download, OneNote synchronization).
- Peer to peer real time communications traffic (audio, video, desktop sharing).
- Conferencing real time communications traffic (audio, video, desktop sharing).

This impacts the network on two levels: traffic will flow between the Microsoft Teams clients directly for peer to peer and traffic will flow between the Office 365 environment and the Microsoft Teams clients for meeting scenarios. To ensure optimal traffic flow, traffic must be allowed to flow both between the internal network segments (for example between sites over the WAN) as well as between the network sites and Office 365. Not opening the correct ports or actively blocking specific ports will lead to a degraded experience.

**IMPORTANT**
Currently, meetings are supported on iOS and Android mobile devices, but not on Windows Phone (support for Windows Phone is coming soon).

To get an optimal experience with real time media within Microsoft Teams, it is required to meet the Networking Requirements for Office 365 (please see the following source for more details: Media Quality and Network Connectivity Performance for Skype for Business Online )

The two defining network segments (Client to Microsoft Edge and Customer Edge to Microsoft Edge) must meet the following requirements:

<table>
<thead>
<tr>
<th>VALUE</th>
<th>CLIENT TO MICROSOFT EDGE</th>
<th>CUSTOMER EDGE TO MICROSOFT EDGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latency (one way)</td>
<td>&lt; 50ms</td>
<td>&lt; 30ms</td>
</tr>
<tr>
<td>Latency (RTT or Round-trip Time)</td>
<td>&lt; 100ms</td>
<td>&lt; 60ms</td>
</tr>
<tr>
<td>Burst packet loss</td>
<td>&lt;10% during any 200ms interval</td>
<td>&lt;1% during any 200 ms interval</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Packet loss</td>
<td>&lt;1% during any 15s interval</td>
<td>&lt;0.1% during any 15s interval</td>
</tr>
<tr>
<td>Packet inter-arrival Jitter</td>
<td>&lt;30ms during any 15s interval</td>
<td>&lt;15ms during any 15s interval</td>
</tr>
<tr>
<td>Packet reorder</td>
<td>&lt;0.05% out-of-order packets</td>
<td>&lt;0.01% out-of-order packets</td>
</tr>
</tbody>
</table>

To test both network segments a Network Assessment Tool can be used (source: [https://www.microsoft.com/enus/download/details.aspx?id=53885](https://www.microsoft.com/enus/download/details.aspx?id=53885)). This tool can be deployed on both the client PC directly, as well as a PC/laptop connected to the Customer Network Edge. The tool includes limited documentation, but a deeper documentation around the usage of the tool can be found here: Network Readiness Assessment. By running this Network Readiness Assessment, you can validate your network’s readiness to run real-time media applications, such as Microsoft Teams.

**NOTE**
This is the same Network Readiness Assessment that is recommended to be run for customers who are looking to successfully deploy Skype for Business.

## Bandwidth requirements

Bandwidth calculations for Microsoft Teams are complex and to help with this, a calculator has been created. To access the calculator, go here: [http://aka.ms/bwcalc/](http://aka.ms/bwcalc/).

The content you will find below can be used as supplemental background information, however it is recommended that customers use the Bandwidth Calculator to track their needs.

**IMPORTANT**
If the required bandwidth is not available, the media stack inside Microsoft Teams will degrade the quality of the audio/video session to accommodate for that lower amount of available bandwidth, impacting the quality of the call/meeting. The Microsoft Teams client will attempt to prioritize the quality of audio over the quality of video. It is therefore extremely important to have the expected bandwidth available.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>DOWNLOAD BANDWIDTH</th>
<th>UPLOAD BANDWIDTH</th>
<th>TRAFFIC FLOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer to peer Audio Call</td>
<td>0.1 Mb</td>
<td>0.1Mb</td>
<td>Client &lt;-&gt; Client</td>
</tr>
<tr>
<td>Peer to peer Video Call (full screen)</td>
<td>4 Mb</td>
<td>4Mb</td>
<td>Client &lt;-&gt; Client</td>
</tr>
</tbody>
</table>
### Peer to peer Desktop Sharing (1920*1080 resolution)

<table>
<thead>
<tr>
<th></th>
<th>4 Mb</th>
<th>4 Mb</th>
<th>Client &lt;&gt; Client</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>4 Mb</th>
<th>4 Mb</th>
<th>Client &lt;&gt; Office 365</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>8 Mb</th>
<th>6.5 Mb</th>
<th>Client &lt;&gt; Office 365</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>5.5 Mb</th>
<th>4 Mb</th>
<th>Client &lt;&gt; Office 365</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>6 Mb</th>
<th>1.5 Mb</th>
<th>Client &lt;&gt; Office 365</th>
</tr>
</thead>
</table>

### Additional network considerations

**External Name Resolution**

Ensure that all the client computers running Microsoft Teams client can resolve external DNS queries to discover the services provided by Office 365.

**NAT Pool Size**

When multiple users/devices access Office 365 using Network Address Translation (NAT) or Port Address Translation (PAT), you need to ensure that the devices hidden behind each publicly routable IP addresses do not exceed the supported number.

To mitigate this risk, ensure adequate Public IP addresses are assigned to the NAT pools to prevent port exhaustion.

Port exhaustion will cause internal end users and devices to face issues when connecting to the Office 365 services.

For more information, please refer to [NAT support with Office 365 guide](#).

**Intrusion Detection and Prevention Guidance**

If your environment has an Intrusion Detection and/or Prevention System (IDS/IPS) deployed for an extra layer of security for outbound connections, ensure that any traffic with destination to Office 365 URLs is whitelisted.

### Network health determination

When planning on the implementation of Microsoft Teams within your network, you must ensure to have the required bandwidth, access to all required IP addresses, the correct ports opened, and are meeting the performance requirements for real-time media.

If you know you will not meet these criteria, your end users will not get an optimal experience from Microsoft Teams due to bad quality during calls and meetings.

Should you not meet these criteria, this is the time to consider pausing the project to ensure you meet the criteria before continuing.
Decision Point

Have you evaluated your network capabilities for supporting real time media? If your network has not been properly assessed, or you know it will not support real time media, will you disable video and screen sharing capabilities to reduce network impact and poor Teams experiences?

Next Steps

Network Quality Unknown: Follow the Network Readiness Assessment guidance at skypeoperationsframework.com to determine if your network is ready for Real Time Media.

Network Quality Poor: Perform network remediation steps to provide a proper environment for high quality Real Time Media.

Network Satisfactory: Ensure all IP addresses and ports are properly accessible.

Office 365 URLs and IP address ranges

12/20/2017 • 1 min to read • Edit Online

Please review the following link for a detailed and up to date list of the exact IP’s and ports that must be correctly configured: Office 365 URLs and IP address ranges. Microsoft is continuously improving the Office 365 service and adding new functionalities, therefore the required ports, URLs and IP addresses may change over time. Please refer to Office 365 URLs and IP address ranges guide for the latest versions of ports and protocols. It is also highly recommended to subscribe via RSS to receive notifications when endpoints are updated or changed.

As mentioned, Microsoft Teams calling and meetings experience is built on the next generation cloud based infrastructure that is also used by Skype and Skype for Business. These technology investments include Azure-based cloud services for media processing and signaling, H.264 video codec, SILK and Opus audio codec, network resiliency, telemetry and quality diagnostics. As such, there are URLs and IPs that are required that may be associated with both Skype and Skype for Business.
For all Office 365 workloads, the recommended connection method to Microsoft Teams services is bypassing the forward proxy where possible. When a proxy server sits between a client and the Office 365 datacenters, media might be forced over TCP instead of UDP, that would impact media quality. A sample proxy PAC files that can be used to configure traffic bypass can be downloaded from Managing Office 365 endpoints guide.

If your networking and security policies require Office 365 traffic to flow through a proxy server, then make sure that the above requirements are already met before deploying Microsoft Teams into production (review Proxy Servers for Skype for Business Online for guidance.)
Download these tools to walk you through planning, delivering, and operating Teams in your organization.

- **Microsoft Teams getting started kit**
  
  In this guide, you’ll find tips to make the most of Teams for various functions in your organization, including Marketing, Sales, Finance, Human Resources, Information Technology, Engineering, and Project Management.

- **Quick start guide: Successfully enable Teams**
  
  This document walks you through the five implementation phases for successfully enabling Teams. It includes a technical planning questionnaire that captures information about your organization's current Office 365 environment. This information lets the workshop leader customize the workshop presentation. The questionnaire also captures your decisions and next steps from the workshop.

- **Workshop: Plan, deliver, & operate Teams**
  
  Use this PowerPoint deck to lead a workshop with your organization to plan your Teams rollout. The workshop introduces Teams and guides your team through decision points and next steps.

**See also**

IT admin readiness for Teams

Get tools to support a rollout of Teams

---

A change management strategy for end-user awareness and adoption of new technologies is critical to the successful rollout of any new technology in an organization. Successful completion of this phase of the deployment will ensure user adoption and satisfaction of the new experience.

We have identified core best practices in this area:

1. Identify your key stakeholders and user audiences
2. Identify & select your business outcomes
3. Design, launch and manage your adoption campaign including:
   a. Internal awareness materials such as posters, digital signage and events
   b. Incorporate self-help and training information in a single location
   c. Select success measures
4. Build a champion program
5. Provide a standard feedback method
6. Measure & share success
7. Adjust your messaging and methods based on feedback, repeat.

Identify key stakeholders, users, and champions
The first rule of a successful adoption, is to create a dynamic team comprised of key stakeholders and the right people that can drive and effect change in others. A successful adoption strategy starts with a team of committed individuals representing a cross-section of your organization. Key stakeholder roles include an Executive Sponsor, Service Owners, IT professionals and Champions.

Executive Sponsors are key leaders within the organization and their participation is essential in driving employee adoption. They have the greatest influence on company culture and can actively communicate the value and benefits of a new technology and way.

Service Owners are responsible for ensuring people use the service and get value from it. Setting Service Owners within your organization is important to ensure the business goals set for Office 365 are realized.

Gaining buy-in from every user across an organization can help alleviate this challenge. Champions play an important role in the adoption of Office 365. They are knowledgeable, committed to furthering their expertise and are willing to provide peer coaching and assistance. They translate Office 365 into the reality of their department.

We recommend a regular meeting of these stakeholders to keep them up to date on the progress of your program. Initiating a “collaboration council” to allow for feedback and discussion can be a useful tool depending on your corporate culture.
Those people who may be the biggest obstacles to change can become your best allies in a deployment of this kind. We encourage you to engage with these members of your organization early and often to hear their concerns and issues. Often, they have valuable feedback that will make your campaign more successful.

User profiles
It is equally important to understand the types of users in your environment. Do you have users who are primarily mobile? Some who are in constant meetings or giving presentations? Do you know which of your users have the most difficulty with your existing collaboration solutions? Segmenting your user community can help you find groups that are most open to change. They are often the best targets for your early business pilots and their feedback is extremely valuable.

Understanding the day in the life of your users will help you to prioritize your business outcomes, design adoption goals appropriate for your deployment and sustain usage over time.

Champions
Identifying the individuals who can become your collaboration champions provides you with an extended support team for your implementation. Create a community by providing them early insight and feedback to your plans. Any investment you make in this community whether it be time, attention or rewards will be returned to your implementation through their support and evangelism.

Champions will help to:

1. Create the groundswell and enthusiasm that grows adoption of improved ways of working.
2. Build a circle of influence amongst their teams.
3. Bring the new ways of working to life across teams.
4. Identify business challenges and possible solutions.
5. Provide feedback to the project team and sponsors.
To learn about building a champion program, get Build a champion program.

Identify and select your business outcomes and success measures

Once you have identified your key stakeholders and user segments, identifying your business outcomes will be that much easier. Here are a few examples of business outcomes:

- Empower your employees
- Transform your Products
- Engage your customers
- Optimize Operations

Are you sales people having trouble coordinating to provide a great experience? Do you need to have better coordination in delivering your product or service? What about HR related experiences for your own employees. Each organization will find their own priorities. We recommend selecting no more than 3 to address in your initial pilots.

It is also wise to consider the users who are embedded in these scenarios. Are they open to change? Are they mobile users or within your facility? How close are they to the hub of the executive sponsors and champions that will support them and do they have any existing community and communications methods you can use to evangelize this change?

Technology projects become challenged when little or no attention is paid to the human change management requirements. By following these recommendations, you will enhance your chances for success!

Design, launch, and manage your adoption campaign

For both your initial pilots and your eventual company-wide roll out, your internal communications should be a priority. They include:

- Internal awareness materials such as posters, digital signage and events.
- Incorporate self-help and training information in a single location.

For your pilot phases these are the minimum steps for success:

- Have a regular scheduled meeting with your project stakeholders for updates.
- Utilize a feedback method to gather information from people participating in the pilot. Companies can use a public channel within Microsoft Teams to allow users to join and provide feedback.
• Make self-help documentation available including product videos.

• Hold a kick off meeting with the pilot users to get them excited about their participation. Creating a sense of community with enthusiasm cannot be underrated.

Once you have worked through the initial pilot phases, the steps above can be expanded to reach your entire organization. Depending on your size this may take time and be approached in phases by region, user profile or organization. Within this larger scale roll out leveraging the professional talent of the communicators in your organization is extremely helpful. We recommend these individuals be involved early and often as you utilize the available adoption materials or design your own.

If your company has a central intranet portal for news, information or support you can utilize this as a hub for information on this roll out. Providing widely available self-help information, training and written guidance will enable users to quickly onboard to the product. Many users will simply jump in once it becomes available and we encourage this. We also know that each individual learns in different ways – so having a central information portal will support all styles of learning within your organization.

As with any communications & adoption campaign you will want to identify your success measures up front. Consider measures like:

• Active users in the product

• Views of your information webpages

• Questions in your user community

• Views of your training videos

• Attendance at learning events

Best practices for user feedback methods in Microsoft Teams

The adoption of a new collaboration experience is about changing the behavior of your users. Human change requires training, encouragement and positive examples. It is also critical for people to feel heard during the transition. If you have previously established successful feedback methods in your organization, consider expanding them to include your Teams implementation. If you have not done this before, consider one of the following approaches:

• Creating a public team within Microsoft Teams that any user can join to provide feedback on their experience (keeping in mind that public groups is limited to 2500 users).

• Using Yammer to provide an open community for best practices and support for the experience.
Community-driven feedback methods require champions and service owners to be engaged. We recommend creating a monitoring schedule that rotates amongst these members. One best practices, is to create a separate team within Microsoft Teams as a place where these champions can collaborate, share resources, and best practices before sharing these with the broader team. The champions perform an advisory role to users adopting the new service, provide a friendly, human face to the change and collaborate with other members of your deployment team to raise and resolve issues.

Showcases
As you continue along this journey, you will find showcases in your own environment of employees whose creativity with Microsoft Teams will surprise and delight you. We recommend that you share these showcases broadly. This will encourage others to be innovative, educate users who may be earlier in the adoption curve and reward those who’ve taken the time to think through how to best use Microsoft Teams in their environment. Setting a measurable goal of identifying a set number of showcases each quarter is helpful in maintaining your adoption momentum.

Get tools to support a rollout of Microsoft Teams
12/20/2017 • 1 min to read • Edit Online

The Microsoft Teams Customer Success Kit provides tools to assist your organization with the successful rollout of Microsoft Teams for your organization. The kit includes email templates for announcements, flyers, posters, and countdown and tips and tricks email. It also includes Getting Started Guides for team leaders and IT administrators. Download the Customer Success Kit today.

Learn, adjust, and repeat
As you go through the steps recommended here using the Customer Success Kit resources your stakeholders, champions and users will share feedback. These valuable insights can assist you in adjusting your approach, messaging and models to drive additional adoption and ultimately land your business outcomes. Flexibility in an agile service management model is critical in delivering success at the pace of business today. If you are reading this document, you are one of the core individuals responsible for the success of this deployment and your ability to adjust your plan based on current conditions will accelerate the adoption curve in your company.

Microsoft Teams is designed to foster collaboration while being a simple to use yet robust service. Periodically revisiting the business outcomes, you selected at the beginning of this journey will ensure that you are delivering measurable business impact within those priorities through the adoption of Microsoft Teams.
**Decision Point**

- What is your change management strategy?
- How has your organization handled change management for other technology rollouts?
- Who are your executive sponsors, champions, Service Owners/IT Admins that will influence how successful Teams is in your organization?
- Who will be your pilot group?

**Next Steps**

- Establish a change management and adoption strategy for Microsoft Teams using the best practices.
- Introduce the champions, team leaders to your strategy, the Customer Success Kit and the Getting Started Guides to begin building the internal team of champions for Microsoft Teams.

Use T-Bot to help users with Microsoft Teams

12/20/2017 • 1 min to read • Edit Online

For help while using Microsoft Teams, ensure your users and champions get familiar with T-Bot. T-Bot is a bot which users can interact with to ask it questions about how to use Microsoft Teams and get answers to a wide range of questions.
Microsoft Teams provides localized language support for T-Bot and help content. New languages are being added all the time. For the most current list of supported languages, see Microsoft Teams supported languages for help content.

T-Bot also provides alternative assistance methods for the users who will prefer browsing the content instead of asking questions to a bot.
Microsoft Teams has clients available for web, desktop (Windows and Mac), and mobile (Android, iOS, and Windows Phone). These clients all require an active internet connection and do not support an offline mode.

**Web client**

The web client ([https://teams.microsoft.com](https://teams.microsoft.com)) is a full, functional client that can be used from a variety of browsers. At this point, the web client does not support real-time communications (namely, joining meetings and having one-to-one calls). The browser must also be configured to allow 3rd-party cookies.

There is no plugin or download required to run Teams in a web browser.
The Web client performs browser version detection upon connecting to https://teams.microsoft.com and if an unsupported browser version is detected, it will block access to the Web interface and recommend that the user download the desktop client or mobile app.

**Internet browser support**

Teams supports the following internet browsers:

- Internet Explorer 11
- Microsoft Edge
- The latest version of Chrome, plus two previous versions
- The latest version of Firefox, plus two previous versions

**NOTE**

Safari isn’t currently supported. Check the Teams Roadmap for news about new features in Teams. Users who try to open Teams on Safari will be directed to download the Teams desktop client.

**Desktop clients**

Microsoft Teams desktop client is a standalone application and currently not part of Office Pro Plus. Microsoft Teams is available for both Windows (7+), both 32-bit and 64-bit versions, and MacOS (10.10+).

The desktop clients provide real-time communications support (audio, video, and content sharing) for team meetings, group calling and private one-on-one calls.

Desktop clients can be downloaded and installed by end users directly from https://teams.microsoft.com/downloads if they have the appropriate local permissions (admin rights are not required to install the Teams client on a PC but are required on a Mac).

IT admins can choose their preferred method to distribute the installation files to machines in their organization such as System Center Configuration Manager (Windows) or Casper Suite (MacOS).

**NOTE**

Distribution of the client via these mechanisms is only for the initial installation of Microsoft Team clients and not for future updates.

**Windows**

The Microsoft Teams installation for Windows provides downloadable installers in 32-bit and 64-bit architecture. The architecture should match that of the OS, which is what the online download defaults to.
The architecture (32-bit vs. 64-bit) of Microsoft Teams is agnostic to the architecture of Office that is installed.

The Windows client is deployed to the AppData folder located in the user’s profile. Deploying to the user’s local profile allows the client to be installed without requiring elevated rights. The Windows client is installed in the following locations:

- %appdata%\local\Microsoft\Teams
- %appdata%\roaming\Microsoft\Teams

When users initiate a call using the Microsoft Teams client for the first time, they might notice a warning with the Windows firewall settings that asks for users to allow communication. Users may be instructed to ignore this message because the call will work, even when the warning is dismissed.

![Windows Security Alert](image)

Windows Firewall configuration will be altered even when the prompt is dismissed by selecting “Cancel”. Two inbound rules for teams.exe will be created with Block action for both TCP and UDP protocols.

### Mac

Microsoft also provides a DMG installation file for Mac OSX computers. Administrative access is required to install the Mac client. The Mac OSX client is installed to the /Applications folder.

### Mobile clients

The Microsoft Teams mobile apps are available for Android, iOS, and Windows Phones, and are geared for on-the-go users participating in chat-based conversations.
and allow peer-to-peer audio calls. For mobile apps, go to the relevant mobile store for Google Play, Apple App Store, and Microsoft Store.

Supported mobile platforms for Microsoft Teams mobile

- apps are the following: **Android**: 4.4 or later  **iOS**: 10.0 or later
- **Windows Phone**: Windows 10 Mobile

Mobile apps are distributed and updated through the respective mobile platform’s app store only, and are not available to be distributed through MDM (mobile device management) solutions or side-loaded.

<table>
<thead>
<tr>
<th>Decision Point</th>
<th>Are there any restrictions preventing users from installing the appropriate Microsoft Teams client on their devices?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next Steps</td>
<td>If your organization restricts software installation, make sure that process is compatible with Microsoft Teams. Note: Admin rights are not required for PC client installation but are required for installation on a Mac.</td>
</tr>
</tbody>
</table>

**Client update management**

Clients are currently updated automatically by the Microsoft Teams service with no IT administrator intervention required. If an update is available, the client will automatically download the update and when the app has idled for a period of time, the update process will kick off.

**Client-side configurations**

Currently, there are no supported options available to configure the client either through the tenant admin, PowerShell, Group Policy Objects or the registry.
Notification settings

There are currently no options available for IT administrators to configure client-side notification settings. All notification options are set by the user. The figure below outlines the default client settings.
## Notifications settings

### Mentions
- **Personal mentions**: Banner and Email
- **Channel mentions**: Banner and Email
- **Team mentions**: Banner and Email

### Messages
- **Chat messages**: Banner and Email
- **Replies to conversations I started**: Banner
- **Replies to conversations I replied to**: Banner
- **Likes**: Banner
- **Followed channels**: Banner and Email

### Other
- **Team membership changes**: Banner
- **Team role changes**: Banner

### Sound
- **Sound**: Call, Mention and Chat

### Email frequency
- **Email frequency**: Once every hour

### Chat with Skype for Business
- **Chat with Skype for Business**: Enabled
By default, Teams is turned on for all organizations. If you used Teams during the preview period, the setting stays the same as what you set during your Teams preview.

As an administrator for your organization, you can assign user licenses to control individual access to Teams, and you can allow or block what content sources can be used in Teams. See Administrator settings for Microsoft Teams for more information.

To learn more about managing individual licenses, read Office 365 licensing for Microsoft Teams.

**Turn Teams on or off for your entire organization**

1. Sign in to the Office 365 Admin center with an account that has Global Administrator privileges.

2. Go to **Settings > Services & add-ins.**

3. On the Services & add-ins page, click **Microsoft Teams.**

4. To turn on Teams for the organization use the license picker and select each license then set the toggle to **On** and then click **Save.**
Tenant-level control of the on/off status for Teams is temporary and will be removed at some point in the future. At that time, access to Teams will be controlled via user-level licensing only.

Assign roles and permissions in Microsoft Teams

12/20/2017 • 2 min to read • Edit Online
Within Microsoft Teams there are two roles: **Owner** and **Member**. By default, a user that creates a new team is granted the Owner status. If a team is created from an existing Office 365 Group, permissions are inherited.

The table below shows the difference in permissions between an owner and a member:

<table>
<thead>
<tr>
<th></th>
<th>TEAM OWNER</th>
<th>TEAM MEMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Create team</strong></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Leave team</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Edit team name/description</strong></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Delete team</strong></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Add channel</strong></td>
<td>Yes</td>
<td>Yes*</td>
</tr>
<tr>
<td><strong>Edit channel name/description</strong></td>
<td>Yes</td>
<td>Yes*</td>
</tr>
<tr>
<td><strong>Delete channel</strong></td>
<td>Yes</td>
<td>Yes*</td>
</tr>
<tr>
<td><strong>Add members</strong></td>
<td>Yes**</td>
<td>No</td>
</tr>
<tr>
<td><strong>Add tabs</strong></td>
<td>Yes</td>
<td>Yes*</td>
</tr>
<tr>
<td><strong>Add connectors</strong></td>
<td>Yes</td>
<td>Yes*</td>
</tr>
<tr>
<td><strong>Add bots</strong></td>
<td>Yes</td>
<td>Yes*</td>
</tr>
</tbody>
</table>

* These items can be turned off by an owner at a team level, in which case members would not have access to that.

**After adding a member to a team, an Owner can also promote a Member to Owner status. It is also possible for an Owner to demote their own status to a Member.

**NOTE**

Owners can make other members owners in the View teams option. A team can have up to 100 owners. It's recommended to have at least a few owners to help manage the team; this will also prevent orphaned groups if the sole owner leaves your organization. For more information about orphaned groups, see [Assign a new owner to an orphaned group](#).

**Permissions to create teams**

By default, all users with a mailbox in Exchange Online have permissions to create Office 365 groups and therefore a team within Microsoft Teams. You can have tighter control and restrict the creation of new teams and thus the creation of new Office 365 groups by delegating group creation and management rights to a set of users.
If your organization is interested in doing this, the instructions below outlines the tasks required to do so.

1. Identify or create a security group (SG) of users who will have delegated permissions to create Office 365 groups.
   a. **Action:** Set up a security group in Office 365 so you can add your users who can create Office 365 groups.
   b. For more information, see [Create, edit, or delete a security group in the Office 365 admin center](#).

2. Verify that the company-wide control for users to create groups is enabled.
   a. **Action:** Run the following PowerShell script and verify UsersPermissiontoCreateGroupsEnabled parameter is set to **True**.

   ```powershell
   Connect-MsolService
   Get-MsolCompanyInformation
   
   b. If this is not true, run the Set-MsolCompanySettings cmdlet to set it to **True**.
      Set-MsolCompanySettings -UsersPermissionToCreateGroupsEnabled $True
   
   c. For more information, see: [Manage Office 365 Group Creation](#).

3. Configure Office 365 Group settings to allow only identified security group has permissions to create groups
   a. **Action:** Create a group settings object that contains the configuration settings of the group that will be assigned delegated permissions to create groups.

   ```powershell
   Connect-AzureAD
   
   $Template = Get-AzureADDirectorySettingTemplate -Id 62375ab9-6b52-47ed-826b-58e47e0e304b
   
   $Setting = $template.CreateDirectorySetting()
   
   $setting["EnableGroupCreation"] = "false"
   
   $setting["GroupCreationAllowedGroupId"] = "<ObjectId of Group Allowed to Create Groups>"
   
   New-AzureADDirectorySetting -DirectorySetting $settings
   
   b. For more information, see: [Manage Office 365 Group Creation](#)

---

<table>
<thead>
<tr>
<th>Decision Point</th>
<th>Will all Microsoft Teams users be able to create Teams (recommended)?</th>
</tr>
</thead>
</table>
Teams has multiple settings that can be turned on or turned off at the Office 365 tenant level. With Teams turned on for a tenant, any user that is also enabled for Teams will inherit the settings from the tenant level.

Below is the list of features an Office 365 administrator can turn on or turn off in Teams. Unless otherwise noted, the default value for an option is On.

**NOTE**
To manage admin settings for Teams, go to the Office 365 admin center and open Settings > Services & add-ins, then choose Microsoft Teams. If you’re signed in as an Office 365 admin, this link should take you there: https://portal.office.com/adminportal/home#/Settings/ServicesAndAddIns

**IMPORTANT**
An Office 365 admin can turn off Microsoft Teams at any time in the Office 365 admin center. Be aware that users with active Microsoft Teams licenses will continue to see the Teams app tile even if you turn off Teams. For details about how to remove licenses from users, see Manage user access to Microsoft Teams. After Teams is disabled, access from the Teams client is blocked, but data available through other clients and services is still available, such as files via SharePoint and OneDrive. All data remains in place unless the teams are explicitly deleted.

**Office 365 tenant-wide settings**
In Tenant-wide settings, you can turn on or turn off options in General, Email integration, Apps, and Custom cloud storage.

To edit Tenant-wide settings for Teams, go to the Office 365 admin center. Choose Settings > Services & addins > Microsoft Teams.

**General**
The General section lets you configure the following settings for your organization:
• **Show organizational chart in personal profile:** When this setting is turned on, it shows the organizational chart icon in the user’s contact card, and when clicked, it displays the detailed organizational chart.

![Organizational Chart Icon](image)

• **Use Skype for Business for recipients who don’t have Teams:** When this setting is turned on, Teams conversations automatically show up in Skype for Business for users that aren’t enabled for Teams.

![Conversation in Skype for Business](image)
Allow T-bot proactive help messages: When this setting is turned on, T-bot will initiate a private chat session with users to help them use Teams.

Email integration

Turn on this feature so users can send email to a channel in Teams, using the channel email address. Users can do this for any channel belonging to a team they own. Users can also send emails to any channel in a team that has adding connectors enabled for team members. And, even if a user doesn’t have permission to create a channel email address, if someone who does have permission creates that address, the user can access it from the More options menu for that channel.

Configure the following Email integration settings for your organization:
• **Allow users to send emails to channels:** When turned on, mail hooks are enabled, and users can post messages to a channel by sending an email to the email address of a Teams channel.

• **Allow users to send emails to channels:** When turned on, mail hooks are enabled, and users can post messages to a channel by sending an email to the email address of a Teams channel.

To find the email address for a channel, click the More options menu for the channel and then select Get email address.

• **Restricted Senders List:** Senders domains can be further restricted to ensure that only allowed SMTP domains can send emails to the Teams channels.

**Apps**

Apps are tabs, connectors, bots, or any combination of these three, provided by a third-party service. There are Teams admin policies that can be configured in the Office 365 admin center to control which external third-party apps are allowed. These policies let you specify which apps are allowed and disallowed, new external App behavior, and whether side-loading apps is allowed.

**Under Apps, you can configure the following settings for your organization:**

• **Allow external apps in Microsoft Teams:** When this switch is turned on, users can add tabs and bots are available to the Office 365 tenant.
- **Enable new external apps by default**: When this switch is turned on, users can activate new apps as they're added to the Teams app catalog. Turn off this switch if you want to control new apps. Of course, if you turn it off, you have to remember to review new apps periodically so your organization doesn't miss out on cool new apps.

- **Allow sideloading of external apps**: When this switch is turned on, users can install and enable custom bots and tabs.

To learn more, read [Admin settings for apps in Teams](#).

### Custom cloud storage

Cloud storage options in Teams currently include Box, Dropbox, Google Drive, and ShareFile. Users can upload and share files from cloud storage services in Teams channels and chats. Turn on the switch for the cloud storage providers that your organization wants to use.

### User settings by license

In **User settings by license**, you can turn on or turn off options in Teams and channels, Calls and meetings, and Messaging.
Teams and channels
A team is designed to bring together a group of people who work closely to get things done. Teams can be dynamic for project-based work (for example, launching a product or creating a digital war room). Or, teams can be ongoing, to reflect the internal structure of your organization.

The maximum number of teams that an Office 365 tenant can have is currently 500,000. A global admin can create an unlimited number of teams. A user can create 250 teams. A team owner can add 2500 members to a team.

As an admin, you can manage team owners and members by using the Groups dashboard in the Office 365 admin center. To learn more, click Use the Groups dashboard in the Office 365 admin center to manage teams under Teams and channels.

You can control which users in your organization can create teams in Teams. The same creation settings defined by Office 365 groups apply to Teams. For more information about managing Office 365 groups, see Create Office 365 groups and Control who can create Office 365 Groups.

NOTE
You can't create teams from the Groups dashboard. Teams must be created by using the Teams desktop client or web app.

By default, every user can create a team or group. Choose Teams on the left side in the Teams client (desktop client or web app), then choose Create and join team at the bottom of the client, below the team list.

Channels are subcategories of teams. Anyone on the team can add a channel and participate in the conversations in a channel. You might create a channel for an activity or for a department. Conversations, files, and wikis are specific to each channel, but all members of the team can see them.

Calls and meetings
Configure the following Calls and meetings settings for your organization:
The maximum number of people in a meeting is 80. There can be 20 members in a private chat, including the user who created the chat.

- **Allow scheduling for private meetings**: When turned on, users can schedule private meetings that are not listed in any channel.
- **Allow ad-hoc channel meetup**
- **Allow scheduling for channel meetings**: When turned on, users can schedule a meeting for a channel that all channel members can easily join with a single click.
- **Allow videos in meetings**: Specifies whether the use of video is allowed in meetings.
- **Allow screen sharing in meetings**: Specifies whether screen sharing is allowed in meetings.

**Allow private calling**: When turned on, users can make private calls.

**Messaging**

The Messaging section lets you configure the following settings for your organization:

- **Enable Giphy so users can add gifs to conversations**: When turned on, users can use animated pictures within the conversations.
- **Content Rating**: When animated images are turned on, content rating can be applied to restrict the type of animated images that can be displayed in conversations. Available content rating options are:
- No restriction
- Moderate (the default value)
- Strict

- **Enable memes that users can edit and add to conversations**: When turned on, users can use internet memes to make humorous posts.

- **Enable stickers that users can edit and add to conversations**: When turned on, users can post images with editable text to get channel members attention.

- **Allow owners to delete all messages**: When turned on, channel owners can remove all messages in a channel.

- **Allow users to edit their own messages**: When turned on, users can edit their own messages.

- **Allow users to delete their own messages**: When turned on, users can delete their own messages.

**Allow users to chat privately**: When turned on, users can engage in private chats that are visible only to the people in the chat, instead of everyone on the team.

<table>
<thead>
<tr>
<th>Decision Point</th>
<th>What settings for Microsoft Teams will your organization enable?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next Steps</td>
<td>Document these decisions in the table in Assign roles and permissions in Microsoft Teams.</td>
</tr>
</tbody>
</table>

**Manage user access to Microsoft Teams**

12/20/2017 • 2 min to read • Edit Online

At the user-level, access to Microsoft Teams can be enabled or disabled on a per-user basis by assigning or removing the Microsoft Teams product license.

Currently, there are no policy options for turning Microsoft Teams, or a subset of Microsoft Teams features on or off at an individual user level outside of licensing.

**NOTE**

Microsoft recommends that Microsoft Teams is enabled for all users in a company so that teams can be formed organically for projects and other dynamic initiatives. Even if you are deciding to pilot, it may still be helpful to keep Microsoft Teams enabled for all users, but only target communications to the pilot group of users.
Microsoft Teams user-level licenses are managed directly through the Office 365 admin center user management interfaces. An administrator can assign licenses to new users when new user accounts are created, or to users with existing accounts. The administrator must have Office 365 Global Administrator or User Management Administrator privileges to manage Microsoft Teams licenses.

When a license SKU like E3 or E5 is assigned to a user, a Microsoft Teams license is automatically assigned, and the user is enabled for Microsoft Teams. Administrators can have a granular control over all the Office 365 services and licenses, and the Microsoft Teams license for a specific user or a group of users can be enabled or disabled.

A Microsoft Teams user license can be disabled at any time. Once the license is disabled, the users access to Microsoft Teams will be prevented and the user will no longer be able to see Microsoft Teams in the Office 365 app launcher and homepage.
In addition to using the Office 365 admin center, Office 365 admins can also use Office 365 PowerShell to assign and remove licenses. To assign a license to a user, use the following syntax:

```
Set-MsolUserLicense -UserPrincipalName "<Account>" -AddLicenses "<AccountSkulId>"
```

The following example assigns a license from the litwareinc:ENTERPRISEPACK (Office 365 Enterprise E3) licensing plan to the unlicensed user belindan@litwareinc.com.

Set-MsolUserLicense -UserPrincipalName "belindan@litwareinc.com" -AddLicenses "litwareinc:ENTERPRISEPACK" For more details and examples, see Assign licenses to user accounts with Office 365 PowerShell.

To remove licenses from an existing user account, use the following syntax:

```
Set-MsolUserLicense -UserPrincipalName <Account> -RemoveLicenses "<AccountSkulId1>", "<AccountSkulId2>"
```

The following example removes the litwareinc:ENTERPRISEPACK (Office 365 Enterprise E3) license from the user account BelindaN@litwareinc.com.

Set-MsolUserLicense -UserPrincipalName belindan@litwareinc.com -RemoveLicenses "litwareinc:ENTERPRISEPACK"

For more details and examples, see Remove licenses from user accounts with office 365 PowerShell.
Decision

• What is your organization's plan for Microsoft Teams across the organization? (Pilot or Open)

Next

• If onboarding via a closed Pilot, decide if you would like to do so via licensing, or targeted communication.
• Depending on decision, take steps to make sure only Pilot users who are allowed to access Microsoft Teams (if needed).
• Document the guidelines which users who will (or will not) have access to Microsoft Teams below.
Microsoft Teams users can enhance an existing Office 365 Group with Microsoft Teams functionality. When looking at enhancing a public Office 365 Group, users can do that if the number of members is equal to or less than 2500.

To do this, users should go through the flow of creating a new team from the Microsoft Teams client. Select “Yes, add Microsoft Teams functionality” at the bottom of the screen and then choose the existing group that they want to enhance with Microsoft Teams. Existing group members will be added as members to the team automatically.

**IMPORTANT**
Only Office 365 Group owners have permission to enhance an existing group with Microsoft Teams.

Users can also invite a distribution list to a team, and the members of that distribution list will be added to the team. This is a one-time sync, and later changes in group membership in the distribution list will not be replicated to Teams.

You can also add mail-enabled security groups as members of a team. But, if you later add more members to the security group, those members are not automatically added to the team. You must add the new members separately or re-add the security group to the team. (If you re-add the security group, deduplication makes sure members are added only once.)
There are two types of privacy settings with Office 365 groups, **public and private**. Whereas both group types can be enabled for Microsoft Teams, there is a slight difference when it comes to self-service.

- Users can search for public groups and can join by themselves without a need for team owner’s approval.

Private groups are not searchable, and users cannot join unless a team owner add them as a member.

When creating a new team in Microsoft Teams, an owner of an existing private Office 365 group has an option to use the membership in the Office 365 group to create the team. Users can add their existing SharePoint and OneNote files by adding a tab for SharePoint and merging OneNote files.
Generally, you should not have to configure any Exchange Online functionality for use with Microsoft Teams. However, for Exchange Hybrid scenarios, there are steps necessary to ensure Group memberships are synchronized between Exchange Server (on-premises) and Exchange Online. This involves enablement of Group Writeback functionality in Azure AD Connect along with various initialization scripts: Configure Office 365 Groups with onpremises Exchange hybrid
Use the Teams Meeting add-in in Outlook

The Teams Meeting add-in is automatically installed for users who have Microsoft Teams and either Office 2013 or Office 2016 installed on their Windows PC. Users will see the Teams Meeting add-in on the Outlook Calendar ribbon.

If users do not see the Teams Meeting add-in, instruct them to close Outlook and Teams, then restart the Teams client first, then sign in to Teams, and then restart the Outlook client, in that specific order.

If you do not want the add-in to appear for users, you can remove it. To learn more, see View, manage, and install add-ins in Office programs.

NOTE
The Teams Meeting add-in for Outlook is currently not available for Mac users.

Authentication requirements

The Teams Meeting add-in requires users to sign in to Teams using Modern Authentication. If users do not use this method to sign in, they’ll still be able to use the Teams client, but will be unable to schedule Teams online meetings using the Outlook add-in. You can fix this by doing one of the following:

• If Modern Authentication is not configured for your organization, you should configure Modern Authentication. If Modern Authentication is configured, but they cancelled out on the dialog box, you should instruct users to sign in again using multi-factor authentication.

To learn more about how to configure authentication, see Identity models and authentication in Microsoft Teams.
Enable private meetings

Allow scheduling for private meetings must be enabled from the Office 365 admin center for the plug-in to get deployed.

The Teams client installs the correct add-in by determining if users need the 32-bit or 64-bit version.

NOTE

Users might need to restart Outlook after an installation or upgrade of Teams to get the latest add-in.

Other considerations

The Teams Meeting add-in is still building functionality, so be aware of the following:

- Some online meeting features, such as recording, polling, and whiteboarding are not yet available.
- Meeting options are currently not available.
  - Currently, you can only invite people from within your company, as it is not yet possible for external users to join meetings.
- The add-in is for scheduled meetings with specific participants, not for meetings in a channel. Channel meetings must be scheduled from within Teams. Currently, the Teams Meeting add-in in Outlook is only available for Windows users, but support for Mac is coming.
- The add-in will not work if an Authentication Proxy is in the network path of user's PC and Teams Services.

Learn more about meetings and calling in Microsoft Teams.

Add the Microsoft Teams SMTP domain as an accepted domain in Exchange Online

12/20/2017 • 1 min to read • Edit Online
Whether you create an Office 365 Group in the admin console or by using Outlook, Exchange Online is used to send notifications of a team member being added to a Group. These messages are generated from your tenant as they represent your default domain SMTP FQDN.

Teams uses Microsoft Exchange Online as well to send notifications to team members when they've been added. The difference being the domain FQDN of the SMTP message is “@email.teams.microsoft.com” and could be caught by spam filtering. As you can see from the image below, Outlook considers this message as an external sender which is subject to standard security features such as blocking images and certain content.

For best result and seamless operation, consider adding the Microsoft Teams SMTP domain to your “accepted domains” list in your Exchange Online spam configuration:

Use built-in and custom tabs in Microsoft Teams

12/20/2017 • 1 min to read • Edit Online
Tabs allow team members to access services on a dedicated canvas within a channel. This lets the team work directly with the tools and data you provide, and to have conversations about them, in the channel’s context. With every new channel, two tabs are provisioned by default, as listed and shown in the image, below:

- Conversations
- Files

1. Owners and team members can add additional tabs, to each channel, to help integrate their cloud services.

2. Excel, PowerPoint, Word and PDF files must be uploaded to the Files tab before they can be converted to tabs. Alternatively, any existing uploaded, files can be converted into tabs with a single click, as shown below.

3. To add a website, the URL must start with an https prefix, so that any information exchanged remains secure.

4. Detailed instructions are provided when a team member attempts to add a custom tab into their channel.
5. When a Custom tab is added into a channel, a Tab conversation is created that allows team members to have focused discussions about the content.

6. Additional tabs can be added to channels to help users easily access and manage the data they need or interact with the most. This can be a Power BI report, a dashboard, or even a Microsoft Stream video channel where you publish training videos.

Develop custom tabs

In addition to the built-in tabs, organizations can easily design and develop their own tabs, that can be integrated into Microsoft Teams, or shared with the rest of the community.

The Microsoft Developer Network provides detailed instructions to design and build your own tabs; and download and deploy sample tabs developed by Microsoft.
Connectors keep your team current by delivering content and updates from services you frequently use directly into a channel. With connectors, your Microsoft Teams users can receive updates from popular services such as Twitter, Trello, Wunderlist, GitHub, and VSTS within the chat stream in their team.

Any member of a team can connect their team to popular cloud services with the connectors, and all team members are notified of activities from that service. If a user is removed from a team, any connectors added to the team by the removed user do stop working. Scheduled meetings continue to work because they're on the group calendar.

Office 365 connectors can be used with both Microsoft Teams and Office 365 groups, making it easier for all members stay in sync and receive relevant information quickly. Both Microsoft Teams and Exchange use the same connector model, which allows you to use the same connectors within both platforms.

Currently, connectors can be added by using Microsoft Teams desktop and web clients. However, information posted by these connectors can be viewed using all clients including mobile.

1. To add a connector to a channel, click the ellipses (...), on the right of a channel name, then click Connectors.
2. Users can select from a variety of available connectors, then click **Add**.

3. Fill in the required information of the selected connector and click **Save**. Each connector requires a diverse set of information to function properly, and some may require you to sign in to the service using the links provided on the connector configuration page.

4. Data provided by the connector is automatically posted to the channel.
Develop custom connectors

It is very easy to develop custom connectors that can integrate into your Line-of-Business (LOB) applications. You can use the built-in **Incoming Webhook** connector to create an endpoint for a channel, that pulls data from any application using HTTP post methods.

1. Add the **Incoming Webhook** like any other connector.

2. To create a Webhook, specify a **name**, update the Webhook image, if necessary, and click **Create**.
3. Applications that push data to this channel, require the Webhook connector URL. A **unique URL** is created when you created the **Webhook**. Share this URL with your developers, so that they can configure their applications to push data, as needed.

Copy the URL below to save it to the clipboard, then select Save. You’ll need this URL when you go to the service that you want to send data to your group.

```
https://outlook.office.com/webhook/f452
```

4. When an external application pushes data to a connector, the message is shown in the channel conversation list as a special message called a **Connector Card** message.
Developers can configure their applications to create these cards, by sending an HTTP request with a simple JSON payload to a Microsoft Team’s Webhook address, that is a unique URL of that endpoint provided by the wizard. Have your developers refer to *Getting started with Office 365 Connectors for Microsoft Teams*, on the Microsoft Developer Network, with detailed instructions and connector samples. Other resources include Connect apps to your groups in Outlook and the Office Dev Center – Microsoft Teams.

**Add bots for private chats and channels in Microsoft Teams**

1/30/2018 • 1 min to read • Edit Online

Bots are automated programs that respond to queries or give updates and notifications about details users find interesting or want to stay informed about. Bots allow users to interact with cloud services like task management, scheduling, and polling, through chat conversations in Microsoft Teams. Bots for Microsoft Teams are built on the Microsoft Bot Framework. The bots that are developed using this framework can be enabled easily for Microsoft Teams. For more information, see Enable Microsoft Teams features in your Office 365 organization.

Currently, Microsoft Teams support bots in private chats and channels within a team. Administrators can control whether the use of bots is allowed or prohibited within the Office 365 tenant.

Bots developed by the community can be leveraged within Microsoft Teams. The bot’s functionality and bot’s side loading must be enabled on the tenant level for custom bots to be functional. Bots can be used in private chats or in channels. For channels, team owners or members can add bots.

For more information, see the section "Using bots" in Apps and services.

**Create custom bots for Microsoft Teams**

You can easily create a bot that integrates in to your LOB applications, using the Microsoft Bot Framework. Please refer to Creating and Testing a bot for Microsoft Teams guidance to learn how you can develop and publish your own bots.

When you create a bot and register it with the Bot Framework, you can choose to publish it. If you don’t publish it, the bot remains private. You can also require your users to log in before using the bot. Requiring login makes sure only employees of your organization can access the bot, even if the bot’s application ID becomes known. See AuthBot on GitHub for a code example of how to authenticate users against your Active Directory using bots.

Bots can be tested using the Bot Framework Emulator before they are deployed into your Teams.
Side load your own bot for private chat

1. After you have created your bot, go to the Bot Dashboard page for the bot you developed, and then under Details, copy the Microsoft App ID.

2. From within Microsoft Teams, on the Chat pane, select the Add chat icon. For To, paste your bot's Microsoft app ID.

3. The app ID will resolve to your bot name, and then you can initiate a chat conversation with that bot.
Apps are tabs, connectors, bots, or any combination of these three, provided by a third-party service. There are Teams admin policies that can be configured in the Office 365 admin center to control which external third-party apps are allowed. These policies let you specify which apps are allowed and disallowed, new external App behavior, and whether side-loading apps is allowed.

**NOTE**
To manage admin settings for apps in Teams, go to the Office 365 admin center and open **Settings > Services & add-ins**, then choose **Microsoft Teams**. If you’re signed in as an Office 365 admin, this link should take you there:
https://portal.office.com/adminportal/home#/Settings/ServicesAndAddIns

### Allow external apps in Teams
By default, **Allow external apps in Microsoft Teams** is turned on, with all apps selected. If you turn off this switch, all external third-party apps are disabled.

### Enable new external apps by default
**Best practice: Manage external apps individually**
To turn on some apps (and turn off others), turn off **Allow sideloading of external apps**. Then turn off any apps you don’t want your users to use. Optional: Turn off **Enable new external apps by default** (if you want to control new apps).

When this switch is turned on, users can activate new apps as soon as they’re added to the Teams app catalog. To open the Teams app catalog, click **Store** at the bottom of Teams, then click **Apps**. If you want to control which apps are available, turn this switch off. Of course, if you turn it off, you have to remember to review new apps periodically so your organization doesn’t miss out on cool new apps.

Sideload is how you add an app to Teams by uploading a zip file directly to a team. Sideload lets you test an app as it’s being developed. It also lets you build an app for internal use only and share it with your team without submitting it to the Teams app catalog in the Office Store.

Only team owners, or members who are granted permissions, can sideload apps into Teams.
Creating and uploading app packages
To learn more about apps, read Develop apps for Teams.
Guest Access is new in Teams. It’s one of the features customers asked for the most. We’re still working on it, enhancing its capabilities. Here’s how you can keep up with our progress on Guest Access and tell us your thoughts:

- If you’re having trouble with Guest Access, check out Known issues for Microsoft Teams.
- Find out about upcoming new or updated features in the Teams Roadmap.

Share your experience in the Comments section below.

Guest access in Microsoft Teams allows teams in your organization to collaborate with people outside your organization by granting them access to teams and channels.

Guest access is included with all Office 365 Business Premium, Office 365 Enterprise, and Office 365 Education subscriptions. No additional Office 365 license is necessary. Guest access is a tenant-level setting in Microsoft Teams and is turned off by default.

A guest is someone who isn’t an employee, student, or member of your organization. They don’t have a school or work account with your organization. For example, guests may include partners, vendors, suppliers, or consultants. Only users who have an email address corresponding to an Azure Active Directory or Office 365 work or school account can be added as a guest user.

Organizations using Teams can provide external access to teams, documents in channels, resources, chats, and applications to their partners, while maintaining complete control over their own corporate data.

Teams is built upon Office 365 Groups and provides a new way to access shared assets for an Office 365 group. Teams is the best solution for persistent chat among group/team members. Office 365 Groups is a service that provides cross-application membership for a set of shared team assets, like a SharePoint site or a Power BI dashboard, so that the team can collaborate effectively and securely.

More information
Support resources for Microsoft Teams
Deep Dive into Guest Access

Enabling Guest Access in Microsoft Teams

Adding Guests in Microsoft Teams
A team owner in Microsoft Teams can add and manage guests in their teams via the web or desktop. Only users who have an email address corresponding to an Azure Active Directory or Office 365 work or school account can be added as a guest user. Only people who are outside of your organization, such as partners or consultants, can be added as guests. People from within your organization can join as regular team members.

**NOTE**
Before guests can join a team, an admin must enable guest access in Teams. To do that, sign in with your Office 365 global admin account. Then, choose Settings > Services & add-ins > Microsoft Teams. Select Guest in Select the user/license type you want to configure, and select On in Turn Microsoft Teams on or off for all users of this type. It can take up to an hour for the settings to take effect. For more details, see "Turn on or off guest access for Microsoft Teams."

Here’s how a guest becomes a member of a team:

- **Step 1** A team owner or an Office 365 admin adds a guest to a team.
- **Step 2** The Office 365 admin or the team owner can manage a guest's capabilities as necessary. For example, allowing a guest to add or delete channels or disabling access to files.
- **Step 3** The guest receives a welcome email from the team owner, inviting them to join the team. After accepting the invitation, the guest can participate in teams and channels, receive and respond to channel messages, access files in channels, and participate in chat. While using Teams, a combination of text and icons gives all team members clear indication of guest participation in a team. For more details, see What the guest experience is like.

Guests can leave the team at any time via Teams web and desktop clients. For details, see How do I leave a team?

**NOTE**
Although users can leave a team on their own, only an admin can remove users from the tenant.

---

**What the guest experience is like**

12/20/2017 • 1 min to read • Edit Online
When a guest is invited to join a team, they receive a welcome email message that includes some information about the team and what to expect now that they're a member. The guest must redeem the invitation in the email message before they can access the team and its channels.

All team members see a message in the channel thread announcing that the team owner has added a guest and providing the guest's name. Everyone on the team can
identify easily who is a guest. As shown in the following screenshot of a sample team, a banner indicates "This team has guests" and a "GUEST" label appears next to each guest's name.
The following table compares the Microsoft Teams functionality available for an organization’s team members to the functionality available for a guest user on the team.

<table>
<thead>
<tr>
<th>CAPABILITY IN TEAMS</th>
<th>TEAMS USER IN THE ORGANIZATION</th>
<th>GUEST USER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a channel</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td><em>Team owners control this setting.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participate in a private chat</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>Participate in a channel conversation</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>Post, delete, and edit messages</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>Share a channel file</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Share a chat file</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Add apps (tabs, bots, or connectors)</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Create tenant-wide and teams/channels guest access policies</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Invite a user outside the Office 365 tenant’s domain</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td><em>Team owners control this setting.</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To satisfy your organization's requirements, you can manage Microsoft Teams guest access features and capabilities through four different levels of authorization. All the authorization levels apply to your Office 365 tenant. Each authorization level controls the guest experience as shown below:

- **Azure Active Directory**: Guest access in Microsoft Teams relies on the Azure AD business-to-business (B2B) platform. Controls the guest experience at the directory, tenant, and application level.
- **Microsoft Teams**: Controls Microsoft Teams only.
- **Office 365 Groups**: Controls the guest experience in Office 365 Groups and Microsoft Teams. **SharePoint Online and OneDrive for Business**: Controls the guest experience in SharePoint Online, OneDrive for Business, Office 365 Groups, and Microsoft Teams.

These different authorization levels provide you with flexibility in how you set up guest access for your organization. For example, if you don't want to allow guest users in your Microsoft Teams organization, just turn off guest access in Microsoft Teams. Another example: You could enable guest access at the AAD, Teams, and Groups levels, but then disable guest users' addition on selected teams that match one or more criteria such as data classification equals confidential. And, perhaps you don’t use Office 365 Groups. SharePoint Online and OneDrive for Business have their own guest access settings that don’t rely on Office 365 Groups.

**NOTE**

Guests are subject to Office 365 and Azure Active Directory service limits.

The following diagram shows how guest access authorization dependency is granted and integrated between Azure Active Directory, Microsoft Teams, and Office 365.
Azure Active Directory

With Azure AD business-to-business (B2B) collaboration, sending invitations to potential guest users isn’t restricted to tenant admins. Instead, you can use policies to delegate sending invitations to users whose roles allow them to send invitations.

The settings for invitations apply at the tenant level and control the guest experience at the directory, tenant, and application level.

You can set the following invitation policies:
• Turn off invitations.
• Only admins and users in the guest inviter role can invite.
• Admins, the guest inviter role, and members can invite.
• All users, including guests, can invite. (This is the default policy for tenants.)

Microsoft Teams

In Microsoft Teams, you can control whether the guest experience is enabled or disabled for your organization. The setting is disabled by default and applies at the tenant level for Microsoft Teams only.

You can manage Microsoft Teams guest access settings from the Office 365 admin center. For more information, see Turn on or off guest access to Microsoft Teams.

Office 365 Groups

From Office 365 Groups, you can control adding guest users and guest access to all Office 365 groups and Microsoft Teams in your organization.

2. In the navigation menu, choose Settings and then select Services & add-ins.

4. On the Office 365 Groups page, set the toggle to On or Off, depending if you want to let team and group owners outside your organization access Office 365 groups. Click or tap the toggle to On next to Let group owners add people outside the organization to groups. If you turn this toggle to On, you'll see another option to control whether you want to let group and team owners add people outside your organization to Office 365 groups and Microsoft teams. Set this toggle to On if you...
want to let group and team owners add guest users.

The above settings apply at the tenant level and control the guest experience in Office 365 Groups and Microsoft Teams.

SharePoint Online and OneDrive for Business

Teams relies on SharePoint Online and OneDrive for Business to store files and documents for channels and chat conversations.

To enable the full Teams guest access experience, Office 365 admins need to select **On** for the following settings:

- In SharePoint Online: **Only allow sharing with external users already in the directory**
  
  For more information, see [Manage external sharing for your SharePoint Online environment](#).

- In Office 365 groups: **Let group owners add people outside the organization to groups**
  
  For more information, see [Control guest access to Microsoft Teams](#).

The above settings apply at the tenant level and control the guest experience at SharePoint Online, OneDrive for Business, Office 365 Groups and Microsoft Teams.

You can manage SharePoint Online external user settings for the Teams connected team site. For more details, see [Manage your SharePoint team site settings](#).
As the Office 365 admin, you must enable the guest feature before you or your organization's users (specifically, team owners) can add guests.

The guest settings are set in Azure Active Directory. It takes 2 hours to 24 hours for the changes to be effective across your Office 365 organization. If a user sees the message “Contact your administrator” when they try to add a guest to their team, it's likely that either the guest feature hasn’t been enabled or the settings haven’t become effective yet.

**IMPORTANT**
To enable the full experience of the guest access feature, it's important to understand the core authorization dependency between Microsoft Teams, Azure Active Directory, and Office 365. For more information, see [Authorize guest access in Microsoft Teams](#).

2. In the navigation menu, choose **Settings** and then select **Services & add-ins**.

3. Select **Microsoft Teams**.

4. In **Select the user/license type you want to configure**, select **Guest**.

5. Click or tap the toggle next to **Turn Microsoft Teams on or off for all users of this type** to **On** to turn on Teams and guest access for your organization, and then choose **Save**.
Watch the following videos for more details about guest access:

Enabling Guest Access in Microsoft Teams

Adding Guests in Microsoft Teams
Guest access is included with all Office 365 Business Premium, Office 365 Enterprise, and Office 365 Education subscriptions. No additional Office 365 license is necessary.

Teams guest access is a tenant-level setting and is turned off by default. IT admins can add guests at the tenant level, set and manage guest user policies and permissions, determine which users can invite guests, and pull reports on guest user activity. These controls are available through the Office 365 admin center. Guest user content and activities are under the same compliance and auditing protection as the rest of Office 365.

**NOTE**
The Teams guest access tenant setting only prevents guest sign-in. Team owners will be able to invite new guests and add existing directory guest users to their respective teams. As a reminder, Teams always honors Azure Active Directory external settings to allow or prevent guest user addition to the tenant.

In addition, you can use the Azure Active Directory portal to manage guests and their access to Office 365 and Teams resources. Teams guest access makes use of Azure Active Directory business-to-business (B2B) collaboration capabilities as the underlying infrastructure to store security principles information such as identity properties, memberships, and multi-factor authentication settings. To learn more about Azure Active Directory B2B, see What is Azure AD B2B collaboration? and Azure Active Directory B2B collaboration FAQs.
Add a guest to a team

Only users who have an email address corresponding to an Azure Active Directory or Office 365 work or school account can be added as a guest user.

As an admin, you can add a new guest user to the organization in a couple ways:

- Global admins who are owners of a team and owners of a team can add a guest to a team through either the Microsoft Teams desktop or the web clients.
- Add guests to your organization through Azure Active Directory B2B collaboration. Azure Active Directory B2B collaboration allows a global admin to invite and authorize a set of external users by uploading a comma-separated values (CSV) file of no more than 2,000 lines to the B2B collaboration portal. For more details, check out Azure Active Directory B2B collaboration.

With Azure Active Directory B2B collaboration, organizations can enforce conditional access and multi-factor authentication (MFA) policies for B2B users. These policies can be enforced at the tenant, app, or individual user level, the same way that they are enabled for full-time employees and members of the organization. Such policies are enforced at the resource organization. For more information, see Conditional access for B2B collaboration users. Individual guest users can't be blocked.

Guest users you have already added via Azure Active Directory B2B, Office 365 Groups or SharePoint Online are ready to go. The Office 365 admin or a team owner can add those guests to their respective teams. If a team is already with an Office 365 group, and a guest is added to the group, the guest will get access to the team. Adding a guest via the Office 365 group doesn't generate an invitation email to the guest, so someone on the team should notify the guest.

NOTE
Guests are subject to Office 365 and Azure Active Directory service limits.

You can track guest additions in Azure Active Directory or the Office 365 Security & Compliance Center. Adding a guest in Microsoft Teams is audited and logged as an Azure AD group administration activity "Added member to group". For more details, see Auditing and reporting a B2B collaboration user and Search the audit log in the Office 365 Security & Compliance Center.

View guest users in a team

2. Go to **Users > Guest users.**

<table>
<thead>
<tr>
<th>Office 365</th>
<th>Admin center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td></td>
</tr>
<tr>
<td>Users</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Active users</td>
</tr>
<tr>
<td></td>
<td>Contacts</td>
</tr>
<tr>
<td></td>
<td>Guest users</td>
</tr>
<tr>
<td></td>
<td>Deleted users</td>
</tr>
</tbody>
</table>
To edit guest accounts (such as display name or profile photo), go to your Azure Active Directory portal. For more information, see Understanding Office 365 identity and Azure Active Directory.

Currently, you can't edit guest information from the Office 365 admin center or the Exchange admin center.
In addition to using the Office 365 admin center and the Azure Active Directory portal, you can use Windows PowerShell to control guest access. With PowerShell, you can do the following:

- Allow or block guest access to all teams and Office 365 groups
- Allow guests to be added to all teams and Office 365 groups
- Allow or block guest users from a specific team or Office 365 group

For more details, see the section "Use PowerShell to control guest access" on the Manage tab of Guest access in Office 365 Groups.

You can also use PowerShell to allow or block a guest user based on their domain. For example, let's say your business (Contoso) has a partnership with another business (Fabrikam). You can add Fabrikam to your Allow list so your users can add those guests to their groups. For more information, see Allow/Block guest access to Office 365 groups.

If you want to block guests in teams and still allow guests to access SharePoint sites, you can use Azure Active Directory Powershell cmdlets to disable the AllowGuestAccessToGroups parameter on the Company object, assuming external sharing is turned on for SharePoint sites.
Microsoft Teams, the hub for teamwork and communications in Office 365, now provides Audio Conferencing and Phone System with Calling Plans capabilities to meet additional business requirements by extending the Teams meeting and calling experience to include external parties connected via the Public Switched Telephone Network (PSTN).

Use the practical guidance for Audio Conferencing to help you plan the deployment of Audio Conferencing in Teams.

Use the practical guidance for Phone System with Calling Plans to help you plan the deployment of Phone System with Calling Plans in Teams.

We'll update this page as additional cloud voice features for Teams are released over time.
Audio Conferencing in Office 365 allows participants to join your Teams meetings from any telephone.

Here's what you get with **Audio Conferencing** in Office 365.

This practical guidance takes you through the Office 365 FastTrack customer journey framework and its three phases, Envision, Onboard, and Drive Value, to help you plan, deliver, and operate an Audio Conferencing implementation towards successful business outcomes.

**TIP**

In this practical guidance, we are providing example outputs for each activity and key discussion. The examples throughout this document are enclosed inside TIP callouts and they serve as a template that you can reuse. You'll see "TBA" (to be added) for information that you need to complete as part of your planning process.

**Envision**

The Envision phase provides the foundation for the Office 365 customer journey and is applicable to all workloads such as Audio Conferencing.

In this phase, business goals are captured, with relevant project stakeholders assembled, to ultimately deliver:

- A high-level success plan that contains business use cases, key stakeholders, objectives and key results (OKRs), key success indicators (KSIIs), risks, environmental assessment, adoption readiness, and operational plan.

- A detailed Audio Conferencing technical implementation plan to achieve the desired end state.

**Define business use cases for Audio Conferencing**

Audio Conferencing provides organizations with additional entry points to any meetings (adhoc and scheduled) by allowing meeting participants to join via PSTN (public switched telephone network) by dialing in using traditional land line, PBX, or mobile phones.

This is useful when the organizer or participants are not in front of a computer, or when data connections are unavailable or unreliable to support voice communications—such as when in a remote area with spotty mobile data coverage, or if connected to a free, public Wi-Fi service with limited bandwidth, or when meeting
participants prefer to dial in to the meeting using telephony endpoint readily accessible to them.

In this step, core project stakeholders will define business use cases that support the implementation of Audio Conferencing.

Business use cases are meant to define and document the expected and measurable business outcomes, and include the following:

- Description of current business process
- Challenges with existing business process defined
- How technology can help overcome these challenges

The expected and measurable business outcomes if these challenges are overcome

TIP

The following is an example of a completed business use case:

**Description of current business process**
Contoso currently relies on PSTN conferencing services provided by the incumbent local telephony provider chargeable by meeting minutes for internal meetings and meetings involving external parties.

**Challenges with existing business process**
Contoso spends roughly USD 1 million per year for the current PSTN conferencing service, with 75% of the cost incurred for internal meetings.
The use of traditional telephony endpoints to join the meetings hosted by the PSTN conferencing service is not aligned with the plan for the organization to adopt Teams as modern communications and collaboration platform.

**How technology can overcome these challenges**
With the adoption of Microsoft Teams as modern communications and collaboration platform, internal users are expected to primarily join meetings using their PCs equipped with optimized headsets and meeting room devices. Audio Conferencing service will be available to support external participants or to support situations where the use of PC audio is not favorable for the internal participants.

**Expected, measurable, business outcomes**
The move to Teams as modern communications and collaboration platform, combined with Audio Conferencing service, will greatly reduce the cost to deliver the PSTN conferencing service to the point that Contoso is expected to only spend approximately 20% of the annual cost of the existing PSTN conferencing service.

In addition to defining your business use cases, as you move into the next step of the Envision phase, you should also get clarity around:

- organizational scope,
- and project timelines

**Identify key stakeholders**
The business use cases defined in the previous step will include organizational scope of Audio Conferencing implementation, and based on that, the comprehensive
stakeholder matrix can be completed to include the right people to be involved in the project.

<table>
<thead>
<tr>
<th>ROLE</th>
<th>DESCRIPTION</th>
<th>NAME, CONTACT INFORMATION, LOCATION</th>
</tr>
</thead>
</table>
| Project Executive Sponsor   | • Ultimate authority and accountability for the project and delivery on project objectives  
• Help resolve issues escalated by Project Lead  
• Sponsors communication within the company about project goals  
• Responsible for making key strategic decisions  
• Responsible for availability of required resources and budget  
Leading Quarterly Business Reviews (QBR)  
Buy-In and support of awareness campaign effort  
Serving as the Project Sponsor to the program rollout | TBA                                  |
<table>
<thead>
<tr>
<th>Role</th>
<th>Tasks</th>
<th>Expected Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Lead</td>
<td>- Managing and leading project team</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>- Coordinates partners and working teams engaged in the project</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Accountable for creating and managing project plans to meet quarterly key results</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Resolving cross-functional issues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Providing regular updates to the project sponsors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Incorporating Adoption aspects into the all-up project plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Leading Monthly Business and Operational Reviews (MBR), contributing to Quarterly Business Reviews</td>
<td></td>
</tr>
<tr>
<td>Collaboration Lead/Architect</td>
<td>- Responsible for execution on collaboration strategy defined by company executives</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>- Analyzing and choosing collaboration products for the company that meets business goals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Responsible for the design of the operations for collaboration products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Defines operation and support model</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Contributing to Monthly and Quarterly Business Reviews</td>
<td></td>
</tr>
<tr>
<td>Consultant</td>
<td>- Responsible for configuration services</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>- Contributes in overall solution architecture</td>
<td></td>
</tr>
<tr>
<td>ROLE</td>
<td>DESCRIPTION</td>
<td>NAME, CONTACT INFORMATION, LOCATION</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------</td>
</tr>
</tbody>
</table>
| Project Manager             | • Developing and maintaining project plan  
• Managing project deliverables in line with project plan and budget  
• Recording and managing project issues, including escalations  
• Conducting weekly stand up calls  
• Liaises with, and provides updates to project executive sponsors  
• Working with the Architect to define the Change Management approach and Communication Plans | TBA                                 |
| Change Management/Adoption Specialist | • Provide input on Discovery phase into adoption and training processes  
• Participate in adoption strategy workshop  
• Developing and responsible for adoption strategy  
• Developing and executing communication plan  
• Responsible for delivering trainings to end users  
• Collect feedback and conduct surveys | TBA                                 |
| Network Lead                | • Providing input on Discovery phase into network design  
• Participating in planning during Envisioning workshop  
• Coordinates work of networking team during the project execution | TBA                                 |
<table>
<thead>
<tr>
<th>ROLE</th>
<th>DESCRIPTION</th>
<th>NAME, CONTACT INFORMATION, LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security Lead</td>
<td>• Providing input on Discovery phase into security design and processes</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>• Participating in planning during Envisioning workshop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coordinates work of security team during the project execution</td>
<td></td>
</tr>
<tr>
<td>Telephony Lead</td>
<td>• Providing input on Discovery phase into telephony design Participating in planning during envisioning workshop</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>Coordinates work of telephony team during the project execution</td>
<td></td>
</tr>
<tr>
<td>Desktop Lead</td>
<td>• Providing input on Discovery phase into clients and update process</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>• Participating in planning during envisioning workshop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coordinates work of desktop team during the project execution</td>
<td></td>
</tr>
<tr>
<td>Support/Help Desk Lead</td>
<td>• Providing input on Discovery phase into operational and support model</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>• Participating in planning during envisioning workshop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Participating into support model planning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coordinates work of support teams/resources during the project execution</td>
<td></td>
</tr>
<tr>
<td>Business Unit Representatives</td>
<td>• Contribute in End User based adoption guides and materials</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>Contribute to and review Business</td>
<td></td>
</tr>
</tbody>
</table>
Define objectives and key results, key success indicators, and risks

With the project stakeholders assembled, business use cases, organizational scope and project timelines can be translated into objectives and key results (OKRs) and the measures of project success can be defined into a list of key success indicators (KSIs).

Full participation from project stakeholders when defining the OKRs and KSIs will ensure sense of ownership and they are aligned to organizational business requirements.
OKRs will contain the list of objectives set in the beginning of the project, with measurable key results defined in a quarterly basis. The key results are reviewed monthly to track status of the overall project, and based on progress, adjustment to the quarterly plans can be made as needed.

TIP
Example of OKRs relevant to Audio Conferencing implementation can be referenced below:

**Vision: Increase productivity by maximizing Office 365 investments**

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>KEY RESULTS</th>
<th>TO DO</th>
</tr>
</thead>
</table>
| Deploy Audio Conferencing in Teams by end of fiscal year 2018 | FY18Q1: Deploy Audio Conferencing in Teams globally | Envision
- Create success plan
- Create detailed technical implementation plan |
| | | Onboard
- Execute success plan
- Execute technical implementation plan |
| Decommission legacy PSTN Conferencing service globally by mid of fiscal year 2018 | FY18Q2: Decommission legacy PSTN Conferencing service globally | Drive Value
- Boost user engagement and drive adoption
- Manage and prepare
- change Measure, share success, and iterate |

KSIs measure quality and success of the key results and complement the binary nature of OKRs (achieved or not achieved), by detailing the good and/or bad results. When defining KSIs, we recommend leveraging the "specific, measurable, assignable, realistic, time-related" or SMART criteria.
The following is an example of KSI relevant to this project:

<table>
<thead>
<tr>
<th>TYPE</th>
<th>KSI QUESTION &amp; CRITERIA</th>
<th>HOW MEASURED</th>
<th>SUCCESS CRITERIA</th>
<th>MEASURED</th>
<th>RESPONSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage/ adoption</td>
<td>Call quality is equal to or better than the previous solution</td>
<td>Survey</td>
<td>80% of users agree or strongly agree</td>
<td>After enablement and quarterly</td>
<td>Information Technology team</td>
</tr>
<tr>
<td>Usage/ adoption</td>
<td>Microsoft Teams made the communication process easier</td>
<td>Survey</td>
<td>80% of users agree or strongly agree</td>
<td>After enablement and quarterly</td>
<td>Change Management team</td>
</tr>
<tr>
<td>Usage/ adoption</td>
<td>Users actively use the solution</td>
<td>Office 365 reports, Call Quality Dashboard</td>
<td>80% of users are active daily users</td>
<td>Daily</td>
<td>Change Management team</td>
</tr>
<tr>
<td>Usage/ quality</td>
<td>Percentage of poor calls/conferences should be minimal</td>
<td>Call Quality Dashboard</td>
<td>&lt; 5% of poor calls per month</td>
<td>Daily</td>
<td>Information Technology team</td>
</tr>
<tr>
<td>Usage/ support</td>
<td>I know how to get technical support</td>
<td>Survey</td>
<td>90% of users agree or strongly agree</td>
<td>After enablement and quarterly</td>
<td>Change Management team</td>
</tr>
<tr>
<td>Usage/ support</td>
<td>I am satisfied with the quality of technical support</td>
<td>Survey</td>
<td>80% of users agree or strongly agree</td>
<td>After each incident</td>
<td>Information Technology team</td>
</tr>
<tr>
<td>Financial</td>
<td>Reduction of legacy conferencing minutes</td>
<td>Financial system</td>
<td>Meet defined ROI</td>
<td>Based on ROI</td>
<td>Change Management team</td>
</tr>
</tbody>
</table>

You need to identify business risks as part of this exercise and define a mitigation plan for each identified risk. This information can be captured into a risk plan.
TIP

Your risk plan can be documented as the example below:

<table>
<thead>
<tr>
<th>RISK</th>
<th>LIKELIHOOD</th>
<th>IMPACT</th>
<th>OVERALL</th>
<th>MITIGATION PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upcoming merger will add up to 1,000 people</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>- For merged companies, separate OKR with own process (Envision, Onboard, Drive Value)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Do not include them in existing OKRs</td>
</tr>
<tr>
<td>Telephone number porting will delay project completion</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>- Prepare all the required information to support telephone number porting ahead of time (i.e.: customer service record, billing details, Letter of Authorization)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Adjust project timeline to accommodate turnaround time of telephone number porting execution</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Communicate the use of new dial-in conferencing numbers to external participants</td>
</tr>
<tr>
<td>Planned network redesign</td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
<td>- Before implementing Teams as modern communication and collaboration platform, run network readiness assessment for</td>
</tr>
</tbody>
</table>
sites in scope of the project
Assess environment and evaluate adoption readiness

To achieve the intended OKRs, you may have to define the high-level architecture of the solution. It takes environmental discovery to evaluate all aspects relating to IT and telephony infrastructure, networking, and operations.

All matters related to end-user computing, such as readiness assessment of the personal computers and mobile devices to support Audio Conferencing business use cases, from hardware requirements to software requirements, will be included as part of the environmental discovery.

Environmental discovery can also uncover if there are requirements to transfer phone numbers to Microsoft. This will help your organization to adjust the project plan accordingly and prepare the necessary information required for number porting. You can perform environmental discovery by leveraging the following questionnaire.

Environmental discovery must include network readiness assessment to ensure the network is ready to support the implementation of the Audio Conferencing service.

Network readiness to support Audio Conferencing can be determined by leveraging the information captured through the environmental discovery (such as details of internet connectivity and WAN topology, site links and available bandwidth) and persona analysis data (that can be translated into an expected usage of each workload) into the My Advisor Network Planning tool. To further confirm network readiness, real-time media traffic simulation can be performed using the solutions provided by Microsoft or by Network Readiness Assessment tools partners.

The results of the Network Readiness Assessment will paint a clearer picture of the required network optimization or remediation required for the success of Audio Conferencing implementation.

Adoption readiness can be evaluated by executing persona analysis to come up with a list of personas in the organization who can be targeted for the implementation of Audio Conferencing service. The persona analysis includes the identification of additional peripherals or devices required to realize the intended business outcomes.

To perform persona analysis, you can conduct a workshop by involving relevant project stakeholders, leveraging the Persona Alignment workshop deck and Persona Feature Matrix. The result of persona analysis workshop can be summarized into a report using the Persona Analysis Report template.

NOTE
While the Discovery Questionnaire and Persona Analysis examples were initially written for Skype for Business Online, a majority of the content is relevant to Teams. Feel free to modify and remove items that are not relevant to your project goals.
You can identify technical risks as part of an environmental assessment and adoption readiness evaluation and develop a mitigation plan for each identified risk. This information should be incorporated as part of the risk plan.

**Map operational roles**

Planning for operations and identifying the teams that will operate the Audio Conferencing service is an important step, as operations must start when the first pilot users are enabled. Each identified team must review and agree on the tasks and responsibilities identified and start the preparation to operate the Audio Conferencing service. The preparation might include training and readiness, additional staffing, or ensuring external providers are set up to deliver the service.

<table>
<thead>
<tr>
<th>OPERATIONAL ROLE</th>
<th>DESCRIPTION</th>
<th>TEAM</th>
<th>CONTACT DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Owner</td>
<td>Service owner, interface to business divisions, strategy</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Audio Conferencing Operations</td>
<td>Daily operations, user and device account move/add/change, monitoring</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Tenant Admin</td>
<td>Change tenant-wide settings, enable new features</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Help Desk</td>
<td>Interface for end-users to get support</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Network Operations</td>
<td>Runs LAN, WAN, Wi-Fi, and Internet Access</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Client &amp; Endpoints Team</td>
<td>Manage desktop deployments</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Identity Operations</td>
<td>Manage identity infrastructure (AD, ADFS, Azure AD)</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Adoption/change management</td>
<td>Manage awareness, training and adoption for the solution</td>
<td>TBA</td>
<td>TBA</td>
</tr>
</tbody>
</table>
To facilitate a more detailed operational roles mapping, including the tasks associated with each operational role, you can use the Operational Role Mapping Workbook to capture the details that will provide the clarity around roles and responsibilities to support Audio Conferencing service.

**Document success plan**

A success plan is the documentation created in the Envision phase that consists of business case, service readiness, adoption plan, and operational plan.

The success plan will provide the project team, which can include FastTrack or deployment partner, with sufficient information to realize the organization’s goals with Audio Conferencing service.

In general, a success plan will contain the following main sections:
• Business case
• Service readiness
• Adoption plan
• Operational plan

**Business case**
Business use cases, stakeholders, OKRs and KSIs, risks, and project timelines typically make up the bulk of information required for a business case. You need to document them as part of the success plan.

**Service readiness**
Environmental assessment provides the initial information required to determine technical readiness for the organization to implement Audio Conferencing.

Included here is the plan to address areas needing remediation discovered through environmental assessment. You need to include the service readiness assessment and remediation plan as part of the success plan.

**Adoption plan**
Following an adoption readiness assessment, further detailed planning must be completed for the project team to come up with a comprehensive set of communication plans, training plan, and pre-launch, at-launch, and postlaunch adoption activities.

Resources to support adoption activities such as flyers, welcome emails, and training materials are identified at this step, along with any customizations needed to meet organizational requirements.

The templates for adoption activities are available [here](#).

**Operational plan**
Operational roles mapping exercise will establish the roles and responsibilities, and the teams assigned to each operational role to support the implementation of Audio Conferencing.

You need to complete this and include the operational plan as part of the success plan to ensure operational readiness of the solution.

**Technical Planning for Audio Conferencing**
To plan for the technical implementation of Audio Conferencing, a series of decisions must be made ahead of time to better prepare your organization to implement a solution that meets business requirements. These decisions will be documented into a technical implementation plan.

**Availability of Audio Conferencing**
Audio Conferencing is available in these [countries and regions](#).
IMPORTANT

Due to legal constraints, for Audio Conferencing to be available to multinational organizations, the contract for Office 365 subscriptions must be sourced from countries and regions covered by Audio Conferencing service, or where Audio Conferencing service is commercially available from.

After confirming your organization’s eligibility for obtaining the Audio Conferencing service, compile the list of user locations or offices where Audio Conferencing service will be implemented based on the list of available countries and regions.

<table>
<thead>
<tr>
<th>OFFICE LOCATION</th>
<th>PSTN CONFERENCE SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Epping Road</td>
<td>Australia</td>
</tr>
<tr>
<td>100 Cyberport Road</td>
<td>Hong Kong SAR</td>
</tr>
<tr>
<td>One Marina Boulevard</td>
<td>Singapore</td>
</tr>
<tr>
<td>32 London Bridge Street</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>39 quai du Président Roosevelt</td>
<td>France</td>
</tr>
</tbody>
</table>

**TIP**

Below is an example of a Phone System with Calling Plans site enablement list template:

**Licensing for Audio Conferencing**

Audio Conferencing license is available as part of Office 365 E5 subscription plans, or as an add-on to Office 365 E1 or Office 365 E3 subscription plans.

**NOTE**

PSTN or dial-in conferencing in Teams does not support 3<sup>rd</sup>-party Audio Conferencing Providers (ACPs).

If you already use Skype for Business Online PSTN Conferencing today, you can immediately take advantage of Audio Conferencing in Teams.
To provide toll-free conference bridge phone numbers and to support conferencing dial-out to International phone numbers, you need to setup Communications Credits for your organization.

**IMPORTANT**

Some countries are serviced by toll-free conference bridge phone numbers only, and in this case the use of Communications Credits is a mandatory requirement to support dial in for such countries.

The first consideration to make when implementing Communications Credits is to decide the initial amount of funds to be purchased. Recommended funding amounts can be referenced from Communications Credits article.

If your organization choose to use auto-recharge, a recommendation on the trigger (lowest amount of funds) is also included in the Communications Credits article. Auto-recharge amount needs to be determined by the actual usage. Communications Credits usage should be monitored over time and recharge amount needs to be adjusted as required.

---

**Decision Points**

- If your organization has not already purchased the required Audio Conferencing licensing, decide whether Audio Conferencing licenses will be acquired by stepping up existing Office 365 subscriptions or by acquiring Audio Conferencing add-ons.
- Decide if Communications Credits is required for Audio Conferencing implementation. If so, decide the initial amount of funds to be purchased. Where applicable, decide the trigger amount and auto-recharge amount.
Next Steps

- Document the users that will be assigned Audio Conferencing license
- Document the Communications Credits plan (initial amount, trigger amount, auto-recharge amount)
TIP
You can document the license assignment list for Audio Conferencing users using the following example:

<table>
<thead>
<tr>
<th>USER</th>
<th>OFFICE</th>
<th>OFFICE 365 LICENSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adele Vance</td>
<td>One Epping Road</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Alex Wilber</td>
<td>One Epping Road</td>
<td>Office 365 E3, Audio Conferencing addon</td>
</tr>
<tr>
<td>Ben Walters</td>
<td>One Epping Road</td>
<td>Office 365 E3, Audio Conferencing addon</td>
</tr>
<tr>
<td>Christie Cline</td>
<td>One Marina Boulevard</td>
<td>Office 365 E3, Audio Conferencing addon</td>
</tr>
<tr>
<td>Debra Berger</td>
<td>One Marina Boulevard</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Lee Gu</td>
<td>One Marina Boulevard</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Emily Braun</td>
<td>32 London Bridge Street</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>32 London Bridge Street</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>32 London Bridge Street</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>39 quai du Président Roosevelt</td>
<td>Office 365 E3, Audio Conferencing addon</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>39 quai du Président Roosevelt</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>39 quai du Président Roosevelt</td>
<td>Office 365 E3, Audio Conferencing addon</td>
</tr>
</tbody>
</table>

TIP
Your Communications Credits planning numbers can be documented as the following:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial amount</td>
<td>$ 1,000</td>
</tr>
<tr>
<td>Trigger amount</td>
<td>$ 400</td>
</tr>
<tr>
<td>Auto-recharge amount</td>
<td>TBA</td>
</tr>
</tbody>
</table>
Conference bridge phone numbers

The Audio Conferencing service in Office 365 includes:

- Multiple types of conference bridge phone numbers (Toll and Toll-Free)
- Multiple categories of the phone number (dedicated and shared)
- Support for multiple languages for the conference bridge
- (primary and secondary) A default phone number for the tenant.

Full description of the included capabilities can be referenced from Set up Audio Conferencing for Skype for Business and Microsoft Teams and Phone numbers for Audio Conferencing.

**NOTE**

Dedicated conference bridge phone numbers are counted towards the limit of phone numbers that can be acquired per tenant, based on the number of applicable licenses as described in Getting service phone numbers for Skype for Business and Microsoft Teams. Toll-free conference bridge phone numbers require Communications Credits.

If there are existing conference bridge phone numbers that must be transferred to the Audio Conferencing service, assuming they are meeting the country-specific requirements, then the existing conference bridge phone numbers can be transferred to Microsoft.

**NOTE**

Complexity of transferring phone numbers to Microsoft varies greatly based on the countries or regions, carriers, the number of circuits involved, and many other contributing factors. To plan for phone number porting, check out the Number Porting Guide.

Additional details on transferring phone numbers to Audio Conferencing service can be found in Transfer phone numbers to Office 365.
Decision

- Decide whether the organization requires dedicated conference bridge phone numbers.
- Decide how the dedicated conference bridge phone numbers will be obtained for the Audio Conferencing implementation (obtain from Microsoft or transfer existing phone numbers).
- If you choose to obtain phone numbers from Microsoft, decide the method to obtain phone numbers (form submission or automated).
- Decide the language preferences to be set up for each dedicated conference bridge number.
- Decide the tenant default conference bridge number.

Next

- Document the master plan for phone numbers acquisition, detailing how phone numbers will be obtained for each user location or office in-scope for the Audio Conferencing implementation.
- If applicable, complete the new Telephone Number Request form one form for each location or office.
- If you choose to transfer existing phone numbers, check out Number Porting to plan and adjust Audio implementation accordingly.
- Document the conference bridge number configurations and dedicated conference phone numbers, preferences for each conference bridge number, tenant conference bridge number.
Conference bridge settings

Organization-wide configuration options around Audio Conferencing meeting join experience (meeting entry and exit notification and caller name recording), meeting organizer’s PIN length, and email notification are available to further tailor the end-user experience.

- Meeting entry and exit notifications are available in the form of recorded name, phone number, and tones.
- PIN length is configurable from 4 to 12 digits, with a 5-digit PIN as the default. Notification emails upon enablement of Audio Conferencing license or any other admin-driven changes are enabled by default. You can disable this feature and take control of your organization’s end-user communications.

For users who are assigned an Audio Conferencing license, the default toll/toll-free numbers, shown in the Audio Conferencing coordinates, are configurable to use:

- the tenant-level default, or the automatically-assigned conference bridge phone numbers, or
- manually defined conference bridge phone numbers for each user.

User-specific conference bridge phone numbers are typically useful in global or nationwide organizations where users are distributed and must provide local numbers as the default conference bridge phone numbers in the meeting invites.

Participants joining from different cities or overseas can look up additional numbers configured at the tenant-level, but these numbers do not appear directly in the meeting invites. The meeting invites provide a link that will take participants to the Teams
Conference Dial-in Numbers page for them to lookup the closest conference bridge phone numbers available from their location.

You can also configure how unauthenticated callers are handled by each individual meeting organizer, whether to require meeting organizer to start the meeting before unauthenticated callers are admitted, or to allow unauthenticated callers to start a meeting.

Additional configurations that can be applied for each user are available to control the use of toll-free conference bridge phone numbers and dial-out from a conference.

**NOTE**

These cost-related controls are currently available for preview customers only. You can enroll your organization in the preview program from https://www.skypepreview.com.

With these controls, you can decide whether meeting organizers can provide toll-free conference bridge phone numbers for meetings organized by them, and to control whether participants can dial out from the meetings organized by them. The level of dial-out control spans from disallowing dial out, only allowing dial out to domestic numbers, to allowing dial out to both domestic and international numbers.
Decision Points

- Decide whether the organization requires entry and exit notifications, and if yes, the type of notification to be implemented (tones, phone number, or recorded name).
- Decide the Audio Conferencing PIN length that meets the organizational security requirements.
- Decide if the organization wants to take control of end-user communications related to Audio Conferencing service.
- Decide the conference bridge phone numbers to be assigned to each meeting organizer.
- Decide whether some meeting organizers require the ability to use toll-free conference bridge phone numbers for their meetings.
- Decide whether some meeting organizers require the ability to allow unauthenticated callers to start a meeting.
- Decide whether some meeting organizers require conference dial out to be controlled.
Next Steps

- Document the detailed conference bridge settings (entry and exit notifications, PIN length, configuration change email notification)
- Document the conference bridge phone numbers to be assigned to each meeting organizer and the corresponding setting to control unauthenticated caller’s policy, and toll-free and dial out controls

TIP
Your conference bridge settings can be documented as the following:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable meeting entry and exit notifications</td>
<td>Enabled</td>
</tr>
<tr>
<td>Entry/exit announcement type</td>
<td>Tones</td>
</tr>
<tr>
<td>Ask callers to record their name before joining the meeting</td>
<td>Disabled</td>
</tr>
<tr>
<td>PIN length</td>
<td>5</td>
</tr>
<tr>
<td>Automatically send emails to users if their dial-in settings change</td>
<td>Disabled</td>
</tr>
</tbody>
</table>
TIP
You can document the conference bridge settings assignment list for Audio Conferencing users using the following example:

<table>
<thead>
<tr>
<th>USER</th>
<th>OFFICE</th>
<th>DEFAULT TOLL NUMBER</th>
<th>DEFAULT TOLLFREE NUMBER</th>
<th>ALLOW TOLL-FREE</th>
<th>UNAUTHENTICATED CALLERS BYPASS LOBBY</th>
<th>CONFERENCE DIAL OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adele Vance</td>
<td>One Epping Road</td>
<td>TBA</td>
<td>TBA</td>
<td>Yes</td>
<td>Enabled</td>
<td>International and domestic</td>
</tr>
<tr>
<td>Alex Wilber</td>
<td>One Epping Road</td>
<td>TBA</td>
<td>TBA</td>
<td>No</td>
<td>Disabled</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Ben Walters</td>
<td>One Epping Road</td>
<td>TBA</td>
<td>TBA</td>
<td>No</td>
<td>Disabled</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Christie Cline</td>
<td>One Marina Boulevard</td>
<td>TBA</td>
<td>TBA</td>
<td>Yes</td>
<td>Disabled</td>
<td>Domestic</td>
</tr>
<tr>
<td>Debra Berger</td>
<td>One Marina Boulevard</td>
<td>TBA</td>
<td>TBA</td>
<td>Yes</td>
<td>Enabled</td>
<td>Domestic</td>
</tr>
<tr>
<td>Lee Gu</td>
<td>One Marina Boulevard</td>
<td>TBA</td>
<td>TBA</td>
<td>Yes</td>
<td>Enabled</td>
<td>Domestic</td>
</tr>
<tr>
<td>Emily Braun</td>
<td>32 London Bridge Street</td>
<td>+44 20 7946 0001</td>
<td>TBA</td>
<td>Yes</td>
<td>Enabled</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>32 London Bridge Street</td>
<td>+44 20 7946 0001</td>
<td>TBA</td>
<td>Yes</td>
<td>Disabled</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>32 London Bridge Street</td>
<td>+44 20 7946 0001</td>
<td>TBA</td>
<td>Yes</td>
<td>Disabled</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>39 quai du Président Roosevelt</td>
<td>TBA</td>
<td>TBA</td>
<td>No</td>
<td>Disabled</td>
<td>Domestic</td>
</tr>
<tr>
<td>Name</td>
<td>Address</td>
<td>Dial Plan 1</td>
<td>Dial Plan 2</td>
<td>Enabled</td>
<td>Type</td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------------</td>
<td>-------------</td>
<td>-------------</td>
<td>----------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>39 quai du Président Roosevelt</td>
<td>TBA</td>
<td>TBA</td>
<td>Yes</td>
<td>Enabled</td>
<td></td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>39 quai du Président Roosevelt</td>
<td>TBA</td>
<td>TBA</td>
<td>No</td>
<td>Disabled</td>
<td></td>
</tr>
</tbody>
</table>

**Dial plans**

A **Dial Plan**, in the Phone System feature of Office 365, is a set of normalization rules that translates dialed phone numbers into an alternate format (typically E.164 format) for call authorization and call routing. Audio Conferencing service leverages the same capabilities used by Phone System to translate dialed phone numbers in conference dial out scenarios.
A dial plan allows users to dial phone numbers the way they are accustomed to, such as omitting area code for local calls, omitting country code for domestic calls, or even using short digit dialing when performing conference dial out.

Within the Phone System feature of Office 365, there are two types of dial plans:

- **Service dial plan.** This is the default dial plan and applied to users based on Office 365 usage location, and it cannot be modified.
- **Tenant dial plan.** This is a customizable dial plan within a tenant, and further divided into two types:
  - Tenant-global dial plan—the dial plan applies to all users within the tenant. Tenant-user dial plan—the dial plan applies only to specific users.

_{NOTE}_
Check out the What are dial plans? documentation for further details and examples.

The effective dial plan assigned to users is the combination of service dial plan (based on user’s Office 365 usage location) and tenant dial plan (can be either tenant-global dial plan or tenant-user dial plan).

There is a maximum of 25 normalization rules in each tenant dial plan, and thus duplication with normalization rules already available as part of service dial plan needs to be avoided.
<table>
<thead>
<tr>
<th>Decision</th>
</tr>
</thead>
</table>
| • Decide if your organization requires customized dial plans (business requirements, adoption requirements, etc.).  
• If applicable, decide the scope of tenant dial plan (tenant-user) to support requirements for customized plan.  
• If applicable, decide the tenant dial plans that will be created to support user locations or offices in-scope for the Audio Conferencing implementation.  
• If applicable, decide which users require customized dial plan and the tenant dial plan to be assigned for each. |

<table>
<thead>
<tr>
<th>Next</th>
</tr>
</thead>
</table>
| • Document the customized plans and the normalization rules to be configured as part of Audio Conferencing implementation.  
• Document the users to be assigned with customized plan and the tenant dial plan to be assigned for each. |
If it is applicable to your project, you can use the following template to document the tenant dial plans configurations:

<table>
<thead>
<tr>
<th>Tenant Dial Plan Name</th>
<th>Normalization Rules Name</th>
<th>Pattern Translation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AU-NSW-NorthRyde-OER</td>
<td>AU-NSW-NorthRyde-OER-Internal</td>
<td>^(7\d(3))$</td>
<td>One Epping Road North Ryde, NSW, AU Dial Plan Internal number (x7000 - x7999) for One Epping Road office, North Ryde, NSW, Australia +6125550$1 True</td>
</tr>
<tr>
<td>AU-NSW-Local</td>
<td></td>
<td>^((2-9)\d(7))$</td>
<td>Local number normalization for NSW, Australia +612$1 False</td>
</tr>
<tr>
<td>AU-TollFree</td>
<td></td>
<td>^(1[38]\d(4,8))\d*$</td>
<td>Toll Free number normalization for Australia +61$1 False</td>
</tr>
<tr>
<td>AU-Service</td>
<td></td>
<td>^(000</td>
<td>1\d(1,8))$</td>
</tr>
<tr>
<td>SG-Singapore-OMB</td>
<td>SG-OMB-Internal</td>
<td>^(8\d(3))$</td>
<td>OMB Singapore, SG Dial Plan Internal number (x8000 - x8999) for OMB office, Singapore +6568888$1 True</td>
</tr>
<tr>
<td>SG-TollFree</td>
<td></td>
<td>^((1?800)\d(7))\d*$</td>
<td>Toll Free number normalization for Singapore +65$1 False</td>
</tr>
<tr>
<td>SG-Service</td>
<td></td>
<td>^((1\d(3,4)</td>
<td>9)\d(2))$</td>
</tr>
<tr>
<td>FR-Paris-Issy-39qdPR</td>
<td>FR-39qdPR-Internal</td>
<td>^((7\d(3))$</td>
<td>39 quai du Président Roosevelt Issy-lesMoulineaux, France Dial Plan Internal number (x7000 - x7999) for 39 quai du Président Roosevelt office, Issy-lesMoulineaux, France +3319999$1 True</td>
</tr>
<tr>
<td>Domain</td>
<td>Pattern</td>
<td>Country Code</td>
<td>Validation</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------------------------------------------</td>
<td>--------------</td>
<td>------------</td>
</tr>
<tr>
<td>FR-TollFree</td>
<td>^0?(80\d(7))\d+$</td>
<td>+33</td>
<td>False</td>
</tr>
<tr>
<td>FR-Service</td>
<td>^\d(1,2)</td>
<td>11[68]</td>
<td>d(3)</td>
</tr>
</tbody>
</table>
The example template below can be leveraged to document dial plan assignments to support your project:

<table>
<thead>
<tr>
<th>USER</th>
<th>OFFICE</th>
<th>DIAL PLAN TYPE</th>
<th>DIAL PLAN NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adele Vance</td>
<td>One Epping Road</td>
<td>Tenant dial plan</td>
<td>AU-NSW-NorthRyde-OER</td>
</tr>
<tr>
<td>Alex Wilber</td>
<td>One Epping Road</td>
<td>Tenant dial plan</td>
<td>AU-NSW-NorthRyde-OER</td>
</tr>
<tr>
<td>Ben Walters</td>
<td>One Epping Road</td>
<td>Tenant dial plan</td>
<td>AU-NSW-NorthRyde-OER</td>
</tr>
<tr>
<td>Christie Cline</td>
<td>One Marina Boulevard</td>
<td>Tenant dial plan</td>
<td>SG-Singapore-OMB</td>
</tr>
<tr>
<td>Debra Berger</td>
<td>One Marina Boulevard</td>
<td>Tenant dial plan</td>
<td>SG-Singapore-OMB</td>
</tr>
<tr>
<td>Lee Gu</td>
<td>One Marina Boulevard</td>
<td>Tenant dial plan</td>
<td>SG-Singapore-OMB</td>
</tr>
<tr>
<td>Emily Braun</td>
<td>32 London Bridge Street</td>
<td>Service dial plan</td>
<td>N/A</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>32 London Bridge Street</td>
<td>Service dial plan</td>
<td>N/A</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>32 London Bridge Street</td>
<td>Service dial plan</td>
<td>N/A</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>39 quai du Président Roosevelt</td>
<td>Tenant dial plan</td>
<td>FR-Paris-Issy-30qdPR</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>39 quai du Président Roosevelt</td>
<td>Tenant dial plan</td>
<td>FR-Paris-Issy-30qdPR</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>39 quai du Président Roosevelt</td>
<td>Tenant dial plan</td>
<td>FR-Paris-Issy-30qdPR</td>
</tr>
</tbody>
</table>

Microsoft Teams configurations

Support for Audio Conferencing is available for ad-hoc and scheduled meetings. For scheduled meetings, tenant-level configurations that govern meeting scheduling (private and channel meetings) must be enabled.

NOTE
Currently, if your organization has compliance requirements to ensure all meeting discussions are discoverable, you should disable private meetings if the organizer has an Exchange on-premises mailbox.
In another use case, if all meetings in the organization must be visible to invited parties only, to avoid disclosing meeting information to uninvited parties, we recommend that you disable the ability to schedule meetings in channels.

The settings, available as tenant-level configurations, are applicable to all users in the organization, and will impact all meeting scheduling in Teams, not specific to Teams meetings with Audio Conferencing.

- **Decision Points**
  - Decide if the organization requires to enable or disable scheduling of private meetings
  - Decide if the organization requires to enable or disable scheduling of channel meetings

- **Next Steps**
  - Document the meeting scheduling configurations for Teams

**TIP**
Your Teams meetings configurations can be documented as the following:

<table>
<thead>
<tr>
<th>Configuration</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow scheduling for private meetings</td>
<td>Enabled</td>
</tr>
<tr>
<td>Allow scheduling for channel meetings</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

**Document technical implementation plan**

Use the decision points above to document your technical implementation plan. This technical implementation plan will provide the project team, which can include FastTrack or a deployment partner, with the information required to execute the technical onboarding for the implementation of Audio Conferencing.

In general, a technical implementation plan will contain the following main sections:
- Audio Conferencing service site enablement list
- License assignment list for Audio Conferencing meeting organizers
- Communications Credits planning numbers
- Conference bridge details
- Conference bridge settings
- Conference bridge settings assignments
- Tenant dial plans
- Dial plan assignments
- Microsoft Teams meetings configurations

With the completion of success plan and technical implementation plan, you are now ready to take your organization to the next steps along the Office 365 customer journey.

**Onboard**

*Coming soon.*

**Drive Value**

*Coming soon.*

**See also**

*Set up Audio Conferencing for Skype for Business and Microsoft Teams*
Audio Conferencing in Office 365 allows participants to join your Teams meetings from any telephone.

Here's what you get with Audio Conferencing in Office 365.

This practical guidance takes you through the Office 365 FastTrack customer journey framework and its three phases, Envision, Onboard, and Drive Value, to help you plan, deliver, and operate an Audio Conferencing implementation towards successful business outcomes.

**TIP**

In this practical guidance, we are providing example outputs for each activity and key discussion. The examples throughout this document are enclosed inside TIP callouts and they serve as a template that you can reuse. You’ll see "TBA" (to be added) for information that you need to complete as part of your planning process.

**Envision**

The Envision phase provides the foundation for the Office 365 customer journey and is applicable to all workloads such as Audio Conferencing.

In this phase, business goals are captured, with relevant project stakeholders assembled, to ultimately deliver:

- A high-level success plan that contains business use cases, key stakeholders, objectives and key results (OKRs), key success indicators (KSIs), risks, environmental assessment, adoption readiness, and operational plan.
- A detailed Audio Conferencing technical implementation plan to achieve the desired end state.

**Define business use cases for Audio Conferencing**

Audio Conferencing provides organizations with additional entry points to any meetings (adhoc and scheduled) by allowing meeting participants to join via PSTN (public switched telephone network) by dialing in using traditional land line, PBX, or mobile phones.

This is useful when the organizer or participants are not in front of a computer, or when data connections are unavailable or unreliable to support voice communications—such as when in a remote area with spotty mobile data coverage, or if connected to a free, public Wi-Fi service with limited bandwidth, or when meeting
participants prefer to dial in to the meeting using telephony endpoint readily accessible to them.

In this step, core project stakeholders will define business use cases that support the implementation of Audio Conferencing.

Business use cases are meant to define and document the expected and measurable business outcomes, and include the following:

- Description of current business process
- Challenges with existing business process defined
- How technology can help overcome these challenges

The expected and measurable business outcomes if these challenges are overcome

**TIP**

The following is an example of a completed business use case:

<table>
<thead>
<tr>
<th>Description of current business process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contoso currently relies on PSTN conferencing services provided by the incumbent local telephony provider chargeable by meeting minutes for internal meetings and meetings involving external parties.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Challenges with existing business process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contoso spends roughly USD 1 million per year for the current PSTN conferencing service, with 75% of the cost incurred for internal meetings. The use of traditional telephony endpoints to join the meetings hosted by the PSTN conferencing service is not aligned with the plan for the organization to adopt Teams as modern communications and collaboration platform.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How technology can overcome these challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>With the adoption of Microsoft Teams as modern communications and collaboration platform, internal users are expected to primarily join meetings using their PCs equipped with optimized headsets and meeting room devices. Audio Conferencing service will be available to support external participants or to support situations where the use of PC audio is not favorable for the internal participants.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expected, measurable, business outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>The move to Teams as modern communications and collaboration platform, combined with Audio Conferencing service, will greatly reduce the cost to deliver the PSTN conferencing service to the point that Contoso is expected to only spend approximately 20% of the annual cost of the existing PSTN conferencing service.</td>
</tr>
</tbody>
</table>

In addition to defining your business use cases, as you move into the next step of the Envision phase, you should also get clarity around:

- organizational scope,
- and project timelines

**Identify key stakeholders**

The business use cases defined in the previous step will include organizational scope of Audio Conferencing implementation, and based on that, the comprehensive
stakeholder matrix can be completed to include the right people to be involved in the project.

<table>
<thead>
<tr>
<th>ROLE</th>
<th>DESCRIPTION</th>
<th>NAME, CONTACT INFORMATION, LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Executive Sponsor</td>
<td>Ultimate authority and accountability for the project and delivery on</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>• project objectives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Help resolve issues escalated by Project Lead</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sponsors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• communication within the company</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• about project goals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Responsible for making key strategic decisions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Responsible for availability of required resources and budget</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leading Quarterly Business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Buy-In and support of awareness campaign effort</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Serving as the Project Sponsor to the program rollout</td>
<td></td>
</tr>
<tr>
<td>Role</td>
<td>Responsibilities</td>
<td>TBA</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----</td>
</tr>
</tbody>
</table>
| Project Lead       | * Managing and leading project team  
* Coordinates partners and working teams engaged in the project  
* Accountable for creating and managing project plans to meet quarterly key results  
* Resolving cross-functional issues  
* Providing regular updates to the project sponsors  
* Incorporating Adoption aspects into the all-up project plan  
Leading Monthly Business and Operational Reviews (MBR), contributing to Quarterly Business Reviews |     |
| Collaboration Lead/Architect | * Responsible for execution on collaboration strategy defined by company executives  
* Analyzing and choosing collaboration products for the company that meets business goals  
* Responsible for the design of the operations for collaboration products  
* Defines operation and support model  
* Contributing to Monthly and Quarterly Business Reviews | TBA |
| Consultant          | * Responsible for configuration services  
* Contributes in overall solution architecture                                                                                                                        | TBA |
<table>
<thead>
<tr>
<th>ROLE</th>
<th>DESCRIPTION</th>
<th>NAME, CONTACT INFORMATION, LOCATION</th>
</tr>
</thead>
</table>
| Project Manager               | • Developing and maintaining project plan  
• Managing project deliverables in line with project plan and budget  
• Recording and managing project issues, including escalations  
• Conducting weekly stand up calls  
• Liaises with, and provides updates to project executive sponsors  
• Working with the Architect to define the Change Management approach and Communication Plans | TBA                                  |
| Change Management/Adoption Specialist | • Provide input on Discovery phase into adoption and training processes  
• Participate in adoption strategy workshop  
• Developing and responsible for adoption strategy  
• Developing and executing communication plan  
• Responsible for delivering trainings to end users  
• Collect feedback and conduct surveys | TBA                                  |
| Network Lead                  | • Providing input on Discovery phase into network design  
• Participating in planning during Envisioning workshop  
• Coordinates work of networking team during the project execution | TBA                                  |
<table>
<thead>
<tr>
<th>ROLE</th>
<th>DESCRIPTION</th>
<th>NAME, CONTACT INFORMATION, LOCATION</th>
</tr>
</thead>
</table>
| Security Lead              | • Providing input on Discovery phase into security design and processes  
  • Participating in planning during Envisioning workshop  
  Coordinates work of security team during the project execution | TBA                                 |
| Telephony Lead             | • Providing input on Discovery phase into telephony design  
  • Participating in planning during envisioning workshop  
  Coordinates work of telephony team during the project execution | TBA                                 |
| Desktop Lead               | • Providing input on Discovery phase into clients and update process  
  • Participating in planning during envisioning workshop  
  Coordinates work of desktop team during the project execution | TBA                                 |
| Support/Help Desk Lead     | • Providing input on Discovery phase into operational and support model  
  • Participating in planning during envisioning workshop  
  Participating into support model planning  
  Coordinates work of support teams/resources during the project execution | TBA                                 |
| Business Unit Representatives | • Contribute in End User based adoption, guides and materials  
  Contribute to and review Business | TBA                                 |
## Define objectives and key results, key success indicators, and risks

With the project stakeholders assembled, business use cases, organizational scope and project timelines can be translated into objectives and key results (OKRs) and the measures of project success can be defined into a list of key success indicators (KSIs).

Full participation from project stakeholders when defining the OKRs and KSIs will ensure sense of ownership and they are aligned to organizational business requirements.
OKRs will contain the list of objectives set in the beginning of the project, with measurable key results defined in a quarterly basis. The key results are reviewed monthly to track status of the overall project, and based on progress, adjustment to the quarterly plans can be made as needed.

**TIP**

Example of OKRs relevant to Audio Conferencing implementation can be referenced below:

**Vision: Increase productivity by maximizing Office 365 investments**

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>KEY RESULTS</th>
<th>TO DO</th>
</tr>
</thead>
</table>
| Deploy Audio Conferencing in Teams by end of fiscal year 2018 | FY18Q1: Deploy Audio Conferencing in Teams globally | **Envision**
  - Create success plan
  - Create detailed technical implementation plan
  **Onboard**
  - Execute success plan
  - Execute technical implementation plan |
| Decommission legacy PSTN Conferencing service globally by mid of fiscal year 2018 | FY18Q2: Decommission legacy PSTN Conferencing service globally | **Drive Value**
  - Boost user engagement and drive adoption
  - Manage and prepare change
  - Measure, share success, and iterate |

KSIs measure quality and success of the key results and complement the binary nature of OKRs (achieved or not achieved), by detailing the good and/or bad results. When defining KSIs, we recommend leveraging the "specific, measurable, assignable, realistic, time-related" or SMART criteria.
The following is an example of KSI relevant to this project:

<table>
<thead>
<tr>
<th>TYPE</th>
<th>KSI QUESTION &amp; CRITERIA</th>
<th>HOW MEASURED</th>
<th>SUCCESS CRITERIA</th>
<th>MEASURED</th>
<th>RESPONSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage/adoption</td>
<td>Call quality is equal to or better than the previous solution</td>
<td>Survey</td>
<td>80% of users agree or strongly agree</td>
<td>After enablement and quarterly</td>
<td>Information Technology team</td>
</tr>
<tr>
<td>Usage/adoption</td>
<td>Microsoft Teams made the communication process easier</td>
<td>Survey</td>
<td>80% of users agree or strongly agree</td>
<td>After enablement and quarterly</td>
<td>Change Management team</td>
</tr>
<tr>
<td>Usage/adoption</td>
<td>Users actively use the solution</td>
<td>Office 365 reports, Call Quality Dashboard</td>
<td>80% of users are active daily users</td>
<td>Daily</td>
<td>Change Management team</td>
</tr>
<tr>
<td>Usage/quality</td>
<td>Percentage of poor calls/conferences should be minimal</td>
<td>Call Quality Dashboard</td>
<td>&lt; 5% of poor calls per month</td>
<td>Daily</td>
<td>Information Technology team</td>
</tr>
<tr>
<td>Usage/support</td>
<td>I know how to get technical support</td>
<td>Survey</td>
<td>90% of users agree or strongly agree</td>
<td>After enablement and quarterly</td>
<td>Change Management team</td>
</tr>
<tr>
<td>Usage/support</td>
<td>I am satisfied with the quality of technical support</td>
<td>Survey</td>
<td>80% of users agree or strongly agree</td>
<td>After each incident</td>
<td>Information Technology team</td>
</tr>
<tr>
<td>Financial</td>
<td>Reduction of legacy conferencing minutes</td>
<td>Financial system</td>
<td>Meet defined ROI</td>
<td>Based on ROI</td>
<td>Change Management team</td>
</tr>
</tbody>
</table>

You need to identify business risks as part of this exercise and define a mitigation plan for each identified risk. This information can be captured into a risk plan.
### TIP

Your risk plan can be documented as the example below:

<table>
<thead>
<tr>
<th>RISK</th>
<th>LIKELIHOOD</th>
<th>IMPACT</th>
<th>OVERALL</th>
<th>MITIGATION PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upcoming merger will add up to 1,000 people</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>• For merged companies, separate OKR with own process (Envision, Onboard, Drive Value)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Do not include them in existing OKRs</td>
</tr>
<tr>
<td>Telephone number porting will delay project completion</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>• Prepare all the required information to support telephone number porting ahead of time (i.e.: customer service record, billing details, Letter of Authorization)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Adjust project timeline to accommodate turnaround time of telephone number porting execution</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Communicate the use of new dial-in conferencing numbers to external participants</td>
</tr>
<tr>
<td>Planned network redesign</td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
<td>• Before implementing Teams as modern communication and collaboration platform, run network readiness assessment for</td>
</tr>
</tbody>
</table>
sites in scope of the project
Assess environment and evaluate adoption readiness

To achieve the intended OKRs, you may have to define the high-level architecture of the solution. It takes environmental discovery to evaluate all aspects relating to IT and telephony infrastructure, networking, and operations.

All matters related to end-user computing, such as readiness assessment of the personal computers and mobile devices to support Audio Conferencing business use cases, from hardware requirements to software requirements, will be included as part of the environmental discovery.

Environmental discovery can also uncover if there are requirements to transfer phone numbers to Microsoft. This will help your organization to adjust the project plan accordingly and prepare the necessary information required for number porting. You can perform environmental discovery by leveraging the following questionnaire.

Environmental discovery must include network readiness assessment to ensure the network is ready to support the implementation of the Audio Conferencing service.

Network readiness to support Audio Conferencing can be determined by leveraging the information captured through the environmental discovery (such as details of internet connectivity and WAN topology, site links and available bandwidth) and persona analysis data (that can be translated into an expected usage of each workload) into the My Advisor Network Planning tool. To further confirm network readiness, real-time media traffic simulation can be performed using the solutions provided by Microsoft or by Network Readiness Assessment tools partners.

The results of the Network Readiness Assessment will paint a clearer picture of the required network optimization or remediation required for the success of Audio Conferencing implementation.

Adoption readiness can be evaluated by executing persona analysis to come up with a list of personas in the organization who can be targeted for the implementation of Audio Conferencing service. The persona analysis includes the identification of additional peripherals or devices required to realize the intended business outcomes.

To perform persona analysis, you can conduct a workshop by involving relevant project stakeholders, leveraging the Persona Alignment workshop deck and Persona Feature Matrix. The result of persona analysis workshop can be summarized into a report using the Persona Analysis Report template.

**NOTE**

While the Discovery Questionnaire and Persona Analysis examples were initially written for Skype for Business Online, a majority of the content is relevant to Teams. Feel free to modify and remove items that are not relevant to your project goals.
You can identify technical risks as part of an environmental assessment and adoption readiness evaluation and develop a mitigation plan for each identified risk. This information should be incorporated as part of the risk plan.

## Map operational roles
Planning for operations and identifying the teams that will operate the Audio Conferencing service is an important step, as operations must start when the first pilot users are enabled. Each identified team must review and agree on the tasks and responsibilities identified and start the preparation to operate the Audio Conferencing service. The preparation might include training and readiness, additional staffing, or ensuring external providers are set up to deliver the service.

### TIP
The following is an example of a template to document the result of operational roles mapping exercise that you performed to support this project:

<table>
<thead>
<tr>
<th>OPERATIONAL ROLE</th>
<th>DESCRIPTION</th>
<th>TEAM</th>
<th>CONTACT DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Owner</td>
<td>Service owner, interface to business divisions, strategy</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Audio Conferencing Operations</td>
<td>Daily operations, user and device account move/add/change, monitoring</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Tenant Admin</td>
<td>Change tenant-wide settings, enable new features</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Help Desk</td>
<td>Interface for end-users to get support</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Network Operations</td>
<td>Runs LAN, WAN, Wi-Fi, and Internet Access</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Client &amp; Endpoints Team</td>
<td>Manage desktop deployments</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Identity Operations</td>
<td>Manage identity infrastructure (AD, ADFS, Azure AD)</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Adoption/change management</td>
<td>Manage awareness, training and adoption for the solution</td>
<td>TBA</td>
<td>TBA</td>
</tr>
</tbody>
</table>
To facilitate a more detailed operational roles mapping, including the tasks associated with each operational role, you can use the Operational Role Mapping Workbook to capture the details that will provide the clarity around roles and responsibilities to support Audio Conferencing service.

**Document success plan**

A success plan is the documentation created in the Envision phase that consists of business case, service readiness, adoption plan, and operational plan.

The success plan will provide the project team, which can include FastTrack or deployment partner, with sufficient information to realize the organization’s goals with Audio Conferencing service.

In general, a success plan will contain the following main sections:
Business case

Business use cases, stakeholders, OKRs and KSIs, risks, and project timelines typically make up the bulk of information required for a business case. You need to document them as part of the success plan.

Service readiness

Environmental assessment provides the initial information required to determine technical readiness for the organization to implement Audio Conferencing.

Included here is the plan to address areas needing remediation discovered through environmental assessment. You need to include the service readiness assessment and remediation plan as part of the success plan.

Adoption plan

Following an adoption readiness assessment, further detailed planning must be completed for the project team to come up with a comprehensive set of communication plans, training plan, and pre-launch, at-launch, and postlaunch adoption activities.

Resources to support adoption activities such as flyers, welcome emails, and training materials are identified at this step, along with any customizations needed to meet organizational requirements.

The templates for adoption activities are available here.

Operational plan

Operational roles mapping exercise will establish the roles and responsibilities, and the teams assigned to each operational role to support the implementation of Audio Conferencing.

You need to complete this and include the operational plan as part of the success plan to ensure operational readiness of the solution.

Technical Planning for Audio Conferencing

To plan for the technical implementation of Audio Conferencing, a series of decisions must be made ahead of time to better prepare your organization to implement a solution that meets business requirements. These decisions will be documented into a technical implementation plan.

Availability of Audio Conferencing

Audio Conferencing is available in these countries and regions.
IMPORTANT
Due to legal constraints, for Audio Conferencing to be available to multinational organizations, the contract for Office 365 subscriptions must be sourced from countries and regions covered by Audio Conferencing service, or where Audio Conferencing service is commercially available from.

After confirming your organization’s eligibility for obtaining the Audio Conferencing service, compile the list of user locations or offices where Audio Conferencing service will be implemented based on the list of available countries and regions.

TIP
Below is an example of a Phone System with Calling Plans site enablement list template:

<table>
<thead>
<tr>
<th>OFFICE</th>
<th>LOCATION</th>
<th>PSTN CONFERENCE SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Epping Road</td>
<td>Australia</td>
<td>Audio Conferencing</td>
</tr>
<tr>
<td>100 Cyberport Road</td>
<td>Hong Kong SAR</td>
<td>Legacy PSTN Conferencing</td>
</tr>
<tr>
<td>One Marina Boulevard</td>
<td>Singapore</td>
<td>Audio Conferencing</td>
</tr>
<tr>
<td>32 London Bridge Street</td>
<td>United Kingdom</td>
<td>Audio Conferencing</td>
</tr>
<tr>
<td>39 quai du Président Roosevelt</td>
<td>France</td>
<td>Audio Conferencing</td>
</tr>
</tbody>
</table>

Licensing for Audio Conferencing

Audio Conferencing license is available as part of Office 365 E5 subscription plans, or as an add-on to Office 365 E1 or Office 365 E3 subscription plans.

NOTE
PSTN or dial-in conferencing in Teams does not support 3rd-party Audio Conferencing Providers (ACPs).
If you already use Skype for Business Online PSTN Conferencing today, you can immediately take advantage of Audio Conferencing in Teams.
To provide toll-free conference bridge phone numbers and to support conferencing dial-out to International phone numbers, you need to setup [Communications Credits](#) for your organization.

**IMPORTANT**

Some countries are serviced by toll-free conference bridge phone numbers only, and in this case the use of Communications Credits is a mandatory requirement to support dial in for such countries.

The first consideration to make when implementing Communications Credits is to decide the initial amount of funds to be purchased. Recommended funding amounts can be referenced from [Communications Credits](#) article.

If your organization choose to use auto-recharge, a recommendation on the trigger (lowest amount of funds) is also included in the [Communications Credits](#) article. Auto-recharge amount needs to be determined by the actual usage. Communications Credits usage should be monitored over time and recharge amount needs to be adjusted as required.

<table>
<thead>
<tr>
<th>Decision Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>• If your organization has not already purchased the required Audio Conferencing licensing, decide whether Audio Conferencing licenses will be acquired by stepping up existing Office 365 subscriptions or by acquiring Audio Conferencing add-ons</td>
</tr>
<tr>
<td>• Decide if Communications Credits is required for Audio Conferencing implementation. If so, decide the initial amount of funds to be purchased. Where applicable, decide the trigger amount and auto-recharge amount.</td>
</tr>
</tbody>
</table>
Next Steps

- Document the users that will be assigned Audio Conferencing license
- Document the Communications Credits plan (initial amount, trigger amount, auto-recharge amount)
TIP
You can document the license assignment list for Audio Conferencing users using the following example:

<table>
<thead>
<tr>
<th>USER</th>
<th>OFFICE</th>
<th>OFFICE 365 LICENSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adele Vance</td>
<td>One Epping Road</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Alex Wilber</td>
<td>One Epping Road</td>
<td>Office 365 E3, Audio Conferencing addon</td>
</tr>
<tr>
<td>Ben Walters</td>
<td>One Epping Road</td>
<td>Office 365 E3, Audio Conferencing addon</td>
</tr>
<tr>
<td>Christie Cline</td>
<td>One Marina Boulevard</td>
<td>Office 365 E3, Audio Conferencing addon</td>
</tr>
<tr>
<td>Debra Berger</td>
<td>One Marina Boulevard</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Lee Gu</td>
<td>One Marina Boulevard</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Emily Braun</td>
<td>32 London Bridge Street</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>32 London Bridge Street</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>32 London Bridge Street</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>39 quai du Président Roosevelt</td>
<td>Office 365 E3, Audio Conferencing addon</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>39 quai du Président Roosevelt</td>
<td>Office 365 E5</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>39 quai du Président Roosevelt</td>
<td>Office 365 E3, Audio Conferencing addon</td>
</tr>
</tbody>
</table>

TIP
Your Communications Credits planning numbers can be documented as the following:

- Initial amount: $1,000
- Trigger amount: $400
- Auto-recharge amount: TBA
Conference bridge phone numbers

The Audio Conferencing service in Office 365 includes:

- Multiple types of conference bridge phone numbers (Toll and Toll-Free)
- Multiple categories of the phone number (dedicated and shared)
- Support for multiple languages for the conference bridge
- (primary and secondary) A default phone number for the tenant.

Full description of the included capabilities can be referenced from Set up Audio Conferencing for Skype for Business and Microsoft Teams and Phone numbers for Audio Conferencing.

**NOTE**

Dedicated conference bridge phone numbers are counted towards the limit of phone numbers that can be acquired per tenant, based on the number of applicable licenses as described in Getting service phone numbers for Skype for Business and Microsoft Teams. Toll-free conference bridge phone numbers require Communications Credits.

If there are existing conference bridge phone numbers that must be transferred to the Audio Conferencing service, assuming they are meeting the country-specific requirements, then the existing conference bridge phone numbers can be transferred to Microsoft.

**NOTE**

Complexity of transferring phone numbers to Microsoft varies greatly based on the countries or regions, carriers, the number of circuits involved, and many other contributing factors. To plan for phone number porting, check out the Number Porting Guide.

Additional details on transferring phone numbers to Audio Conferencing service can be found in Transfer phone numbers to Office 365.
**Decision**

- Decide whether the organization requires dedicated conference bridge phone numbers.
- Decide how the conference bridge phone numbers will be obtained for the Audio conferencing implementation (obtain from Microsoft or transfer existing numbers).
- If you choose to obtain phone numbers from Microsoft, decide the method to obtain phone numbers (form submission or automated). 
- Decide the language preferences to be set up for each dedicated conference bridge phone number.
- Decide the tenant default conference bridge phone number.

**Next**

- Document the master plan for phone numbers, detailing how phone numbers will be obtained for each location or office in-scope for the Audio conferencing implementation.
- If applicable, complete the New Telephone Number Request forms, one form for each location or office.
- If you choose to transfer phone numbers, check out Number Porting to plan and adjust Audio implementation accordingly.
- Document the conference bridge number configurations and dedicated conference bridge phone numbers, preferences for each conference bridge number, tenant conference bridge number.
Conference bridge settings

Organization-wide configuration options around Audio Conferencing meeting join experience (meeting entry and exit notification and caller name recording), meeting organizer’s PIN length, and email notification are available to further tailor the end-user experience.

- Meeting entry and exit notifications are available in the form of recorded name, phone number, and tones.
- PIN length is configurable from 4 to 12 digits, with a 5-digit PIN as the default. Notification emails upon enablement of Audio Conferencing license or any other admin-driven changes are enabled by default. You can disable this feature and take control of your organization’s end-user communications.

For users who are assigned an Audio Conferencing license, the default toll/toll-free numbers, shown in the Audio Conferencing coordinates, are configurable to use:

- the tenant-level default, or the automatically-assigned conference bridge phone numbers, or
- manually defined conference bridge phone numbers for each user.

User-specific conference bridge phone numbers are typically useful in global or nationwide organizations where users are distributed and must provide local numbers as the default conference bridge phone numbers in the meeting invites.

Participants joining from different cities or overseas can look up additional numbers configured at the tenant-level, but these numbers do not appear directly in the meeting invites. The meeting invites provide a link that will take participants to the Teams
Conference Dial-in Numbers page for them to lookup the closest conference bridge phone numbers available from their location.

You can also configure how unauthenticated callers are handled by each individual meeting organizer, whether to require meeting organizer to start the meeting before unauthenticated callers are admitted, or to allow unauthenticated callers to start a meeting.

Additional configurations that can be applied for each user are available to control the use of toll-free conference bridge phone numbers and dial-out from a conference.

**NOTE**
These cost-related controls are currently available for preview customers only. You can enroll your organization in the preview program from [https://www.skypepreview.com](https://www.skypepreview.com).

With these controls, you can decide whether meeting organizers can provide toll-free conference bridge phone numbers for meetings organized by them, and to control whether participants can dial out from the meetings organized by them. The level of dial-out control spans from disallowing dial out, only allowing dial out to domestic numbers, to allowing dial out to both domestic and international numbers.
Decision Points

- Decide whether the organization requires entry and exit notifications, and if yes, the type of notification to be implemented (tones, phone number, or recorded name)
- Decide the Audio Conferencing PIN length that meets the organizational security requirements
- Decide if the organization wants to take control of end-user communications related to Audio Conferencing service
- Decide the conference bridge phone numbers to be assigned to each meeting organizer
- Decide whether some meeting organizers require the ability to use toll-free conference bridge phone numbers for their meetings
- Decide whether some meeting organizers require the ability to allow unauthenticated callers to start a meeting
- Decide whether some meeting organizers require conference dial out to be controlled
Next Steps

- Document the detailed conference bridge settings (entry and exit notifications, PIN length, configuration change email notification)
- Document the conference bridge phone numbers to be assigned to each meeting organizer and the corresponding setting to control unauthenticated caller’s policy, and toll-free and dial out controls

TIP

Your conference bridge settings can be documented as the following:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Setting Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable meeting entry and exit notifications</td>
<td>Enabled</td>
</tr>
<tr>
<td>Entry/exit announcement type</td>
<td>Tones</td>
</tr>
<tr>
<td>Ask callers to record their name before joining the meeting</td>
<td>Disabled</td>
</tr>
<tr>
<td>PIN length</td>
<td>5</td>
</tr>
<tr>
<td>Automatically send emails to users if their dial-in settings change</td>
<td>Disabled</td>
</tr>
</tbody>
</table>
You can document the conference bridge settings assignment list for Audio Conferencing users using the following example:

<table>
<thead>
<tr>
<th>USER</th>
<th>OFFICE</th>
<th>DEFAULT TOLL NUMBER</th>
<th>DEFAULT TOLLFREE NUMBER</th>
<th>ALLOW TOLLFREE</th>
<th>UNAUTHENTICATED CALLERS BYPASS LOBBY</th>
<th>CONFERENCE DIAL OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adele Vance</td>
<td>One Epping Road</td>
<td>TBA</td>
<td>TBA</td>
<td>Yes</td>
<td>Enabled</td>
<td>International and domestic</td>
</tr>
<tr>
<td>Alex Wilber</td>
<td>One Epping Road</td>
<td>TBA</td>
<td>TBA</td>
<td>No</td>
<td>Disabled</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Ben Walters</td>
<td>One Epping Road</td>
<td>TBA</td>
<td>TBA</td>
<td>No</td>
<td>Disabled</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Christie Cline</td>
<td>One Marina Boulevard</td>
<td>TBA</td>
<td>TBA</td>
<td>Yes</td>
<td>Disabled</td>
<td>Domestic</td>
</tr>
<tr>
<td>Debra Berger</td>
<td>One Marina Boulevard</td>
<td>TBA</td>
<td>TBA</td>
<td>Yes</td>
<td>Enabled</td>
<td>Domestic</td>
</tr>
<tr>
<td>Lee Gu</td>
<td>One Marina Boulevard</td>
<td>TBA</td>
<td>TBA</td>
<td>Yes</td>
<td>Enabled</td>
<td>Domestic</td>
</tr>
<tr>
<td>Emily Braun</td>
<td>32 London Bridge Street</td>
<td>+44 20 7946 0001</td>
<td>TBA</td>
<td>Yes</td>
<td>Enabled</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>32 London Bridge Street</td>
<td>+44 20 7946 0001</td>
<td>TBA</td>
<td>Yes</td>
<td>Disabled</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>32 London Bridge Street</td>
<td>+44 20 7946 0001</td>
<td>TBA</td>
<td>Yes</td>
<td>Disabled</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>39 quai du Président Roosevelt</td>
<td>TBA</td>
<td>TBA</td>
<td>No</td>
<td>Disabled</td>
<td>Domestic</td>
</tr>
</tbody>
</table>
Dial plans

A Dial Plan, in the Phone System feature of Office 365, is a set of normalization rules that translates dialed phone numbers into an alternate format (typically E.164 format) for call authorization and call routing. Audio Conferencing service leverages the same capabilities used by Phone System to translate dialed phone numbers in conference dial out scenarios.
A dial plan allows users to dial phone numbers the way they are accustomed to, such as omitting area code for local calls, omitting country code for domestic calls, or even using short digit dialing when performing conference dial out.

Within the Phone System feature of Office 365, there are two types of dial plans:

- **Service dial plan.** This is the default dial plan and applied to users based on Office 365 usage location, and it cannot be modified.
- **Tenant dial plan.** This is a customizable dial plan within a tenant, and further divided into two types:
  - **Tenant-global dial plan**—the dial plan applies to all users within the tenant.
  - **Tenant-user dial plan**—the dial plan applies only to specific users.

**NOTE**
Check out the [What are dial plans?](#) documentation for further details and examples.

The effective dial plan assigned to users is the combination of service dial plan (based on user’s Office 365 usage location) and tenant dial plan (can be either tenant-global dial plan or tenant-user dial plan).

![Diagram showing dial plans combination]

There is a maximum of 25 normalization rules in each tenant dial plan, and thus duplication with normalization rules already available as part of service dial plan needs to be avoided.
**Decision**

- Decide if your organization requires customized dial plans (business requirements, adoption requirements, etc.)
- If applicable, decide the scope of tenant dial plan (tenant- or tenant-user) to support requirements for customized plan
- If applicable, decide the tenant dial plans that will be created to support user locations or in-scope for the Audio Conferencing
- If applicable, decide which user requires customized dial plan and the tenant dial plan to be assigned for each

**Next**

- Document the customized plans and the normalization rules to be configured as part of Audio Conferencing
- Document the users to be assigned with customized plan and the tenant dial plan be assigned for each
TIP
If it is applicable to your project, you can use the following template to document the tenant
dial plans configurations:

<table>
<thead>
<tr>
<th>TENANT DIAL PLAN NAME</th>
<th>NORMALIZATION RULES NAME</th>
<th>PATTERN TRANSLATION ISINTERNALEXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AU-NSW-NorthRyde-OER</td>
<td>Internal</td>
<td>^7(d(3))$</td>
</tr>
<tr>
<td>One Epping Road North Ryde, NSW, AU Dial Plan</td>
<td></td>
<td>+6125550$1 True</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AU-NSW-Local</td>
<td></td>
<td>^(2-9)(d(7))$</td>
</tr>
<tr>
<td>Internal</td>
<td></td>
<td>+612$1 True</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AU-TollFree</td>
<td></td>
<td>^1(38)(d(4,8))\d*</td>
</tr>
<tr>
<td>Toll Free number</td>
<td></td>
<td>+61$1 False</td>
</tr>
<tr>
<td>normalization for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AU-Service</td>
<td></td>
<td>^000(1[0125](d(1,8))$</td>
</tr>
<tr>
<td>Service number</td>
<td></td>
<td>$1 False</td>
</tr>
<tr>
<td>normalization for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SG-Singapore-OMB</td>
<td>Internal</td>
<td>^8(d(3))$</td>
</tr>
<tr>
<td>OMB Singapore, SG Dial Plan</td>
<td></td>
<td>+656888$1 True</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SG-OBB-39qdPR</td>
<td></td>
<td>^1?800(d(7))\d*</td>
</tr>
<tr>
<td>Toll Free number</td>
<td></td>
<td>+65$1 False</td>
</tr>
<tr>
<td>normalization for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SG-Service</td>
<td></td>
<td>^1(d(3,4))\d(2)$\d*</td>
</tr>
<tr>
<td>Service number</td>
<td></td>
<td>$1 False</td>
</tr>
<tr>
<td>normalization for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FR-Paris-Issy-39qdPR</td>
<td>Internal</td>
<td>^7(d(3))$</td>
</tr>
<tr>
<td>39 quai du Président</td>
<td></td>
<td>+3319999$1 True</td>
</tr>
<tr>
<td>Roosevelt Issy-lesMoulineaux, France Dial Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FR-TollFree</td>
<td>^0?(80\d(7))\d*$</td>
<td>+33$1</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>False</td>
<td></td>
</tr>
</tbody>
</table>

| FR-Service  | ^(1\d(1,2)[1-6]\d(3)|10\d(3)|2\d(3))$ | $1 |
|-------------|------------------|--------|
|             | False            |        |
**TIP**

The example template below can be leveraged to document dial plan assignments to support your project:

<table>
<thead>
<tr>
<th>USER</th>
<th>OFFICE</th>
<th>DIAL PLAN TYPE</th>
<th>DIAL PLAN NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adele Vance</td>
<td>One Epping Road</td>
<td>Tenant dial plan</td>
<td>AU-NSW-NorthRyde-OER</td>
</tr>
<tr>
<td>Alex Wilber</td>
<td>One Epping Road</td>
<td>Tenant dial plan</td>
<td>AU-NSW-NorthRyde-OER</td>
</tr>
<tr>
<td>Ben Walters</td>
<td>One Epping Road</td>
<td>Tenant dial plan</td>
<td>AU-NSW-NorthRyde-OER</td>
</tr>
<tr>
<td>Christie Cline</td>
<td>One Marina Boulevard</td>
<td>Tenant dial plan</td>
<td>SG-Singapore-OMB</td>
</tr>
<tr>
<td>Debra Berger</td>
<td>One Marina Boulevard</td>
<td>Tenant dial plan</td>
<td>SG-Singapore-OMB</td>
</tr>
<tr>
<td>Lee Gu</td>
<td>One Marina Boulevard</td>
<td>Tenant dial plan</td>
<td>SG-Singapore-OMB</td>
</tr>
<tr>
<td>Emily Braun</td>
<td>32 London Bridge Street</td>
<td>Service dial plan</td>
<td>N/A</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>32 London Bridge Street</td>
<td>Service dial plan</td>
<td>N/A</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>32 London Bridge Street</td>
<td>Service dial plan</td>
<td>N/A</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>39 quai du Président Roosevelt</td>
<td>Tenant dial plan</td>
<td>FR-Paris-Issy-30qdPR</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>39 quai du Président Roosevelt</td>
<td>Tenant dial plan</td>
<td>FR-Paris-Issy-30qdPR</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>39 quai du Président Roosevelt</td>
<td>Tenant dial plan</td>
<td>FR-Paris-Issy-30qdPR</td>
</tr>
</tbody>
</table>

**Microsoft Teams configurations**

Support for Audio Conferencing is available for ad-hoc and scheduled meetings. For scheduled meetings, tenant level configurations that govern meeting scheduling (private and channel meetings) must be enabled.

**NOTE**

Currently, if your organization has compliance requirements to ensure all meeting discussions are discoverable, you should disable private meetings if the organizer has an Exchange on-premises mailbox.
In another use case, if all meetings in the organization must be visible to invited parties only, to avoid disclosing meeting information to uninvited parties, we recommend that you disable the ability to schedule meetings in channels.

The settings, available as tenant-level configurations, are applicable to all users in the organization, and will impact all meeting scheduling in Teams, not specific to Teams meetings with Audio Conferencing.

Decision Points

- Decide if the organization requires to enable or disable scheduling of private meetings
- Decide if the organization requires to enable or disable scheduling of channel meetings

Next Steps

- Document the meeting scheduling configurations for Teams

TIP

Your Teams meetings configurations can be documented as the following:

- Allow scheduling for private meetings: Enabled
- Allow scheduling for channel meetings: Disabled

Document technical implementation plan

Use the decision points above to document your technical implementation plan. This technical implementation plan will provide the project team, which can include FastTrack or a deployment partner, with the information required to execute the technical onboarding for the implementation of Audio Conferencing.

In general, a technical implementation plan will contain the following main sections:
• Audio Conferencing service site enablement list
• License assignment list for Audio Conferencing meeting organizers
• Communications Credits planning numbers
• Conference bridge details
• Conference bridge settings
• Conference bridge settings assignments
• Tenant dial plans
• Dial plan assignments
• Microsoft Teams meetings configurations

With the completion of success plan and technical implementation plan, you are now ready to take your organization to the next steps along the Office 365 customer journey.

Onboard

Coming soon.

Drive Value

Coming soon.

See also

Set up Audio Conferencing for Skype for Business and Microsoft Teams
Phone System is an Office 365 feature that provides the ability to manage call routing, policies, and user provisioning. This includes phone calling management system, call routing, and call control.

Office 365 Calling Plans is an add-on service for the Phone System feature, delivered through Teams and Skype for Business Online. Calling Plans provide the people in your business with a primary phone number and lets them make and receive phone calls outside of your organization over the public switched telephone network (PSTN).

To learn more, read Here's what you get with Phone System in Office 365 and What are Calling Plans in Office 365?

This practical guidance takes you through the Office 365 FastTrack customer journey framework and its three phases - Envision, Onboard, and Drive Value - to help you plan, deliver, and operate a successful Phone System with Calling Plans implementation.

**TIP**
In this practical guidance, we are providing example outputs for each activity and key discussion. The examples throughout this document are enclosed inside TIP callouts and they serve as a template that you can reuse. You'll see "TBA" (to be added) for information that you need to complete as part of your planning process.

**Envision**

The Envision phase provides the foundation for the Office 365 customer journey and is applicable to all workloads, including Phone System with Calling Plans.

In this phase, business goals are captured, with relevant project stakeholders assembled, to ultimately deliver:

- A high-level success plan that contains business use cases, key stakeholders, objectives and key results (OKRs), key success indicators (KSI), risks, environmental assessment, adoption readiness, and operational plan.

- A detailed Phone System with Calling Plans technical implementation plan to achieve the desired end state.
Define business use cases for Phone System with Calling Plans

Phone System with Calling Plans allows organizations to modernize their workplace by enabling users to make business-related phone calls from their computers and mobile devices.

Workplace modernization can be part of activity-based working implementation, office moves, office fit-out refresh, retirement of legacy private branch exchange (PBX) solutions, conclusion of a PSTN service provider contract, etc.

In this step, core project stakeholders will define business use cases that support the implementation of Phone System with Calling Plans.

Business use cases are meant to document expected, measurable business outcomes, and include the following:

- Description of current business process
- Challenges with existing business process defined
- How technology can help overcome these challenges

The expected, measurable business outcomes if these challenges are overcome

**TIP**

The following is an example of a completed business use case:

<table>
<thead>
<tr>
<th>Description of current business process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard configuration of Contoso’s office workspaces includes a desktop phone for every desk. Each employee will be provided with a direct inward dialing (DID) phone number. The desktop phones are connected to a PBX system and connected to PSTN via session initiation protocol (SIP) trunk. Employees can only make and receive phone calls at their assigned desktop phones.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Challenges with existing business process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage analysis of the desktop phones shows that only 10% of the desktop phones are actively used, with the rest either configured to forward calls to mobile phones, or configured to simultaneously ring to mobile phones. Maintenance of existing PBX system and the associated desktop phones contributes to 20% of monthly telephony service cost.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How technology can overcome these challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone System with Calling Plans will allow end user’s personal computer to receive and place phone calls over data network by leveraging the native Microsoft Teams app, removing the necessity to roll out and maintain desktop phones, and opens the opportunity to decommission the existing PBX system, as the phone service can be delivered via the cloud over the network with no dependency on traditional phone system.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expected, measurable, business outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removing requirements to maintain and decommission existing legacy PBX and desktop phones, will deliver a 20% reduction of monthly telephony service expense. Phone System with Calling Plans will simplify office workspaces, allowing Contoso to expand its operations by establishing new offices with minimal upfront telephony costs.</td>
</tr>
</tbody>
</table>
During the Envision phase, in addition to defining your business use cases, you should also get clarity around these items:

- Organizational scope
- Project timelines

**Identify key stakeholders**

The business use cases defined in the previous step will include organizational scope of Phone System with Calling Plans implementation. Based on that, you can complete the comprehensive stakeholder matrix to include the right people to be involved in the project.

---

**TIP**

Below is an example of stakeholder matrix template that you can use to document the project stakeholder:

<table>
<thead>
<tr>
<th>ROLE</th>
<th>DESCRIPTION</th>
<th>NAME, CONTACT INFORMATION, LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Executive Sponsor</td>
<td>Ultimate authority and accountability for the project and delivery on project objectives • Help resolve issues escalated by Project Lead • Sponsors communication within the company • about project goals Responsible for making key strategic decisions • Responsible for availability of required resources and budget • Leading Quarterly Business Reviews (QBR) • Buy-In and support of awareness campaign effort</td>
<td>TBA</td>
</tr>
<tr>
<td>Role</td>
<td>Responsibilities</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| **Project Lead**            | • Managing and leading project team  
• Coordinates partners and working teams engaged in the project  
• Accountable for creating and managing project plans to meet quarterly key results  
• Resolving cross-functional issues  
• Providing regular updates to the project sponsors  
• Incorporating Adoption aspects into the all-up project plan  
Leading Monthly Business and Operational Reviews (MBR), contributing to Quarterly Business Reviews |
| **Collaboration Lead/Architect** | • Responsible for execution on collaboration strategy defined by company executives  
• Analyzing and choosing collaboration products for the company that meets business goals  
• Responsible for the design of the operations for collaboration products  
• Defines operation and support model  
• Contributing to Monthly and |
### Consultant

- Responsible for configuration services
- Contributes in overall solution architecture

### Project Manager

<table>
<thead>
<tr>
<th>ROLE</th>
<th>DESCRIPTION</th>
<th>NAME, CONTACT INFORMATION, LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>• Developing and maintaining project plan&lt;br&gt; • Managing project deliverables in line with project plan and budget&lt;br&gt; • Recording and managing project issues, including escalations&lt;br&gt; • Conducting weekly stand up calls&lt;br&gt; • Liaises with, and provides updates to project executive sponsors&lt;br&gt; • Working with the Architect to define the Change Management approach and Communication Plans</td>
<td>TBA</td>
</tr>
<tr>
<td>Role</td>
<td>Responsibilities</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| Change Management/Adoption Specialist | • Provide input on Discovery phase into adoption and training processes  
• Participate in adoption strategy  
• workshop  
• Developing and responsible for adoption strategy  
• Developing and executing communication plan  
• Responsible for delivering trainings to end users  
• Collect feedback and conduct surveys   |
| Network Lead              | • Providing input on Discovery phase into network design  
• Participating in planning during Envisioning workshop  
• Coordinates work of networking team during the project execution |
| Security Lead             | • Providing input on Discovery phase into security design and processes  
• Participating in planning during Envisioning workshop  
• Coordinates work of security team during the project execution |
| Telephony Lead            | • Providing input on Discovery phase into telephony design  
• Participating in planning during envisioning workshop  
• Coordinates work of telephony team during the project execution |
| Desktop Lead              | • Providing input on Discovery phase into clients and update process  
• Participating in planning during envisioning workshop |

TBA: To Be Announced
<table>
<thead>
<tr>
<th>ROLE</th>
<th>DESCRIPTION</th>
<th>NAME, CONTACT INFORMATION, LOCATION</th>
</tr>
</thead>
</table>
| Support/Help Desk Lead      | • Providing input on Discovery phase into operational and support model  
• Participating in planning during envisioning workshop  
• Participating into support model planning  
• Coordinates work of support teams/resources during the project execution | TBA                                 |
| Business Unit Representatives | • Contribute in End User based adoption guides and materials  
• Contribute to and review Business Use Cases | TBA                                 |
| Deployment Lead             | • Ensure that deployment prerequisites are met  
• Engage customer resources to engage on prepare and deploy stage activities  
• Participate in meetings to review prepare and deploy status | TBA                                 |
| IT Admins                   | • IT Pros responsible for assistance with test planning and execution | TBA                                 |
| Service Owner               | • Is responsible for the operation of the Phone System with Calling Plans service all up  
• Owner of Phone System with | TBA                                 |
### Quality Champions

- Drives quality, reliability and user feedback
- Identifies the quality trends and drive remediation with the respective teams
- Reports through the steering committee back to leadership
- Reports on quality, reliability, and user sentiment through Rate My Call and Net Promoter Score

### Define objectives and key results, key success indicators, and risks

With the project stakeholders assembled, business use cases, organizational scope and project timelines can be translated into your objectives and key results (OKRs) and the measures of project success can be defined into a list of key success indicators (KSIs).

Full participation from project stakeholders when defining the OKRs and KSIs will ensure sense of ownership and they are aligned to organizational business requirements.

OKRs will contain the list of objectives set in the beginning of the project, with measurable key results defined in a quarterly basis. The key results are reviewed monthly to track status of the overall project, and based on progress, adjustment to the quarterly plans can be made as needed.
Example of OKRs relevant to Phone System with Calling Plans implementation can be referenced below:

**Vision: Increase productivity by maximizing Office 365 investments**

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>KEY RESULTS</th>
<th>TO DO</th>
</tr>
</thead>
</table>
| Deploy Phone System with Calling Plans in European branch offices by end of fiscal year 2018 | FY18Q3: Deploy Phone System with Calling Plans in London office | Envision  
  • Create success plan  
  • Create detailed technical implementation plan |
| Decommission legacy PBX in London office by end of fiscal year 2018 | FY18Q4: Decommission legacy PBX in London office | Drive Value  
  • Boost user engagement and drive adoption  
  • Manage and prepare  
  • change Measure, share success, and iterate |

KSIs measure quality and success of the key results and complement the binary nature of OKRs (achieved or not achieved), by detailing the good and/or bad results. When defining KSIs, we recommend leveraging the “specific, measurable, assignable, realistic, time-related” or SMART criteria.
<table>
<thead>
<tr>
<th>TYPE</th>
<th>KSI QUESTION &amp; CRITERIA</th>
<th>HOW MEASURED</th>
<th>SUCCESS CRITERIA</th>
<th>MEASURED</th>
<th>RESPONSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage/adoption</td>
<td>Call quality is equal to or better than the previous solution</td>
<td>Survey</td>
<td>80% of users agree or strongly agree</td>
<td>After enablement and quarterly</td>
<td>Information Technology team</td>
</tr>
<tr>
<td>Usage/adoption</td>
<td>Microsoft Teams made the communication process easier</td>
<td>Survey</td>
<td>80% of users agree or strongly agree</td>
<td>After enablement and quarterly</td>
<td>Change Management team</td>
</tr>
<tr>
<td>Usage/adoption</td>
<td>Users actively use the solution</td>
<td>Office 365 reports, Call Quality Dashboard</td>
<td>80% of users are active daily users</td>
<td>Daily</td>
<td>Change Management team</td>
</tr>
<tr>
<td>Usage/quality</td>
<td>Percentage of poor calls/conferences should be minimal</td>
<td>Call Quality Dashboard</td>
<td>&lt; 5% of poor calls per month</td>
<td>Daily</td>
<td>Information Technology team</td>
</tr>
<tr>
<td>Usage/support</td>
<td>I know how to get technical support</td>
<td>Survey</td>
<td>90% of users agree or strongly agree</td>
<td>After enablement and quarterly</td>
<td>Change Management team</td>
</tr>
<tr>
<td>Usage/support</td>
<td>I am satisfied with the quality of technical support</td>
<td>Survey</td>
<td>80% of users agree or strongly agree</td>
<td>After each incident</td>
<td>Information Technology team</td>
</tr>
<tr>
<td>Financial</td>
<td>Reduction of monthly telephony service expense</td>
<td>Financial system</td>
<td>Meet defined ROI</td>
<td>Based on ROI</td>
<td>Change Management team</td>
</tr>
</tbody>
</table>

You need to identify business risks as part of this exercise and define a mitigation plan for each identified risk. Capture this information in a risk plan.
### TIP

Your risk plan can be documented as the example below:

<table>
<thead>
<tr>
<th>RISK</th>
<th>LIKELIHOOD</th>
<th>IMPACT</th>
<th>OVERALL</th>
<th>MITIGATION PLAN</th>
</tr>
</thead>
</table>
| Upcoming merger will add up to 1,000 people | High       | High   | High    | • For merged companies, separate OKR with own process (Envision, Onboard, Drive Value)  
• Do not include them in existing OKRs |
| Telephone number porting will delay project completion | High       | High   | High    | • Prepare all the required information to support telephone number porting ahead of time (i.e.: customer service record, billing details, Letter of Authorization)  
• Adjust project timeline to accommodate turnaround time of telephone number porting execution  
• Use temporary telephone numbers with Caller ID manipulation |
| Planned network redesign                  | High       | Medium | Medium  | • Before implementing Teams as modern communication and collaboration platform, run network readiness assessment for |
sites in scope of the project
Assess environment and evaluate adoption readiness

To achieve the intended OKRs, you may have to define the high-level architecture of the solution. It takes environmental discovery to evaluate all aspects relating to IT and telephony infrastructure, networking, and operations. All matters related to end-user computing, such as readiness assessment of the personal computers and mobile devices to support Phone System with Calling Plans business use cases, from hardware requirements to software requirements, will be included as part of the environmental discovery.

Environmental discovery can also reveal whether you need to transfer phone numbers to Microsoft. This will help your organization adjust the project plan accordingly and prepare the necessary information required for number porting. To perform environmental discovery, use the Discovery Questionnaire.

Environmental discovery must include network readiness assessment to ensure the network is ready to support the implementation of Phone System with Calling Plans.

Network readiness to support Phone System with Calling Plans can be determined by leveraging the information captured through the environmental discovery (such as details of internet connectivity and WAN topology, site links and available bandwidth) and persona analysis data (that can be translated into an expected usage of each workload) into the My Advisor Network Planning tool. To further confirm network readiness, perform a real-time media traffic simulation using these solutions:

- From Microsoft: Skype for Business Network Assessment Tool
- Assessment Tool From partners: Network Readiness Assessment tools partners

The results of network readiness assessment will paint a clearer picture of the required network optimization or remediation required for successful implementation of Phone System with Calling Plans.

Adoption readiness can be evaluated by executing persona analysis to come up with a list of personas in the organization who can be targeted for the implementation of the Phone System with Calling Plans. The persona analysis includes the identification of additional peripherals or devices required to realize the intended business outcomes.

To perform persona analysis, you can conduct a workshop by involving relevant project stakeholders, leveraging the Persona Alignment workshop deck and Persona Feature Matrix. The result of persona analysis workshop can be summarized into a report using the Persona Analysis Report template.

NOTE
While the Discovery Questionnaire and Persona Analysis examples were initially written for Skype for Business Online, a majority of the content is relevant to Teams. Feel free to modify and remove items that are not relevant to your project goals.
You can identify technical risks as part of an environmental assessment and adoption readiness evaluation and develop a mitigation plan for each identified risk. This information should be incorporated as part of the risk plan.

Map operational roles

Planning for operations and identifying the teams that will operate the Phone System with Calling Plans service is an important step, as operations must start when the first pilot users are enabled. Each identified team must review and agree on the tasks and responsibilities identified and start the preparation to operate Phone System with Calling Plans service. The preparation might include training and readiness, additional staffing, or ensuring external providers are set up to deliver the service.

<table>
<thead>
<tr>
<th>OPERATIONAL ROLE</th>
<th>DESCRIPTION</th>
<th>TEAM</th>
<th>CONTACT DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Owner</td>
<td>Service owner, interface to business divisions, strategy</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Phone System with Calling Plans</td>
<td>Daily operations, user and device account move/add/change, monitoring</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Operations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenant Admin</td>
<td>Change tenant-wide settings, enable new features</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Help Desk</td>
<td>Interface for end-users to get support</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Network Operations</td>
<td>Runs LAN, WAN, Wi-Fi, and Internet Access</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Client &amp; Endpoints Team</td>
<td>Manage desktop deployments</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Identity Operations</td>
<td>Manage identity infrastructure (AD, ADFS, Azure AD)</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Adoption/change management</td>
<td>Manage awareness, training and adoption for the solution</td>
<td>TBA</td>
<td>TBA</td>
</tr>
</tbody>
</table>

TIP

The following is an example of a template to document the result of operational roles mapping exercise that you performed to support this project:
To facilitate a more detailed operational roles mapping, including the tasks associated with each operational role, you can use the *Operational Role Mapping Workbook* to capture the details that will provide the clarity around roles and responsibilities to support Phone System with Calling Plans service.

**Document success plan**

A success plan is the documentation created in the Envision phase that consists of business case, service readiness, adoption plan, and operational plan.

The success plan will provide the project team, which can include FastTrack or deployment partner, with sufficient information to realize the organization’s goals with Phone System with Calling Plans.

In general, a success plan will contain the following main sections:
• Business case
• Service readiness
• Adoption plan
• Operational plan

**Business case**
Business use cases, stakeholders, OKRs and KSIs, risks, and project timelines typically make up the bulk of information required for a business case. You need to document them as part of the success plan.

**Service readiness**
Environmental assessment provides the initial information required to determine technical readiness for the organization to implement Phone System with Calling Plans. Included here is the plan to address areas needing remediation discovered through environmental assessment. You need to include the service readiness assessment and remediation plan as part of the success plan.

**Adoption plan**
Following an adoption readiness assessment, further detailed planning must be completed for the project team to come up with a comprehensive set of communication plans, training plan, and pre-launch, at-launch, and postlaunch adoption activities.

Resources to support adoption activities such as flyers, welcome emails, and training materials are identified at this step, along with any customizations needed to meet organizational requirements.

The templates for adoption activities are available [here](#).

**Operational plan**
Operational roles mapping exercise will establish the roles and responsibilities, and the teams assigned to each operational role to support the implementation of Phone System with Calling Plans.

You need to complete this and include the operational plan as part of the success plan to ensure operational readiness of the solution.

**Technical planning for Phone System with Calling Plans**
To plan for the technical implementation of Phone System with Calling Plans, a series of decisions must be made ahead of time to better prepare your organization to implement a solution that meets business requirements. These decisions will be documented into a technical implementation plan.
Availability of Calling Plans
To find out where the Calling Plans service is available, read Countries and region availability for Audio Conferencing and Calling Plans.

**IMPORTANT**
Due to legal constraints, for Calling Plans to be available to multinational organizations, the contract for Office 365 subscriptions must be sourced from countries and regions covered by Calling Plans service, or where Calling Plans service is commercially available from.

After confirming your organization’s eligibility for obtaining the Calling Plans add-on, compile the list of user locations or offices where Calling Plans service will be implemented based on the list of available countries and regions.

**TIP**
Below is an example of a Phone System with Calling Plans site enablement list template:

<table>
<thead>
<tr>
<th>OFFICE</th>
<th>LOCATION</th>
<th>PHONE SYSTEM SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Epping Road</td>
<td>Australia</td>
<td>Legacy PSTN service</td>
</tr>
<tr>
<td>100 Cyberport Road</td>
<td>Hong Kong SAR</td>
<td>Legacy PSTN service</td>
</tr>
<tr>
<td>One Marina Boulevard</td>
<td>Singapore</td>
<td>Legacy PSTN service</td>
</tr>
<tr>
<td>32 London Bridge Street</td>
<td>United Kingdom</td>
<td>Phone System with Calling Plans</td>
</tr>
<tr>
<td>39 quai du Président Roosevelt</td>
<td>France</td>
<td>Phone System with Calling Plans</td>
</tr>
</tbody>
</table>

**Licensing for Calling Plans**
Calling Plan is an add-on to the Phone System feature in Office 365, so you must have a Phone System license enabled in order to use Calling Plans.
Phone System license is available as part of Office 365 E5 subscription plans, or as an add-on to Office 365 E1 or Office 365 E3 subscription plans. There are two types of Calling Plan licenses:

- Domestic Calling Plan
- International and Domestic Calling Plan

**NOTE**
What is considered “domestic” for a specific user is determined by the user’s assigned Office 365 usage location.

Each Calling Plan type provides an allocation of calling minutes that users can use per month, either to make domestic calls or international calls. Domestic Calling Plan costs less compared to International and Domestic Calling Plan. To find out how many minutes are available for each country/region, see the "Calling Plans" section of Countries and region availability for Audio Conferencing and Calling Plans.

Typically, not everybody in an organization requires the ability to make international calls. The flexibility of subscribing and assigning the most appropriate Calling Plan type for individual user's business requirements allows your organization to control the costs of Calling Plans implementation.

For each Office 365 tenant, the combined number of calling minutes are pooled by country or region, and per Calling Plan type. When the monthly calling minutes cap for the tenant is reached, Calling Plans service (except for emergency calling) will be suspended for the remainder of the month. Calling Plans services will resume automatically on the first day of the next calendar month.

To enable users to make outbound calls after the calling minutes are exhausted without having to wait until the next month billing cycle, you can setup Communications Credits for your organization. Communications Credits also gives the ability for users assigned with Domestic Calling Plan to make international calls charged by a "pay-per-minute" model.

The first consideration to make when implementing Communications Credits is to decide the initial amount of funds to be purchased. Recommended funding amounts can be referenced from Communications Credits article.

If your organization chooses to use auto-recharge, a recommendation on the trigger (lowest amount of funds) is also included in the Communications Credits article. Auto-recharge amount needs to be determined by the actual usage. Communications Credits usage should be monitored over time and recharge amount needs to be adjusted as required.

The use of Communications Credits can be controlled at per user basis, allowing you to ensure the capability is assigned to individuals in the organization that have proper business needs.
**Decision Points**

- If your organization does not have the required Phone System license, decide whether Phone System license will be acquired by stepping up existing Office 365 subscriptions or by acquiring Phone System add-ons.
- Decide which users require Domestic Calling Plan license and which users require Domestic and International Calling Plan license.
- Decide if Communications Credits is required for Calling Plans implementation. If so, decide the initial amount of funds to be purchased. Where applicable, decide the trigger amount and auto-recharge amount.
- Decide which users require the use of Communications Credits license.

**Next Steps**

- Document the users to be assigned with Phone System license along with Domestic Calling Plan license, and users to be assigned with Phone System license with Domestic and International Calling Plan license.
- Document the Communications Credits plan (initial amount, trigger amount, auto-recharge amount).
- Document the users to be enabled for Communications Credits license.
**TIP**

You can document the license assignment list for Phone System with Calling Plans users using the following example:

<table>
<thead>
<tr>
<th>USER</th>
<th>OFFICE</th>
<th>OFFICE 365 LICENSE</th>
<th>COMMUNICATIONS CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emily Braun</td>
<td>32 London Bridge Street</td>
<td>Office 365 E5, International and Domestic Calling Plan</td>
<td>Enabled</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>32 London Bridge Street</td>
<td>Office 365 E5, Domestic Calling Plan</td>
<td>Disabled</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>32 London Bridge Street</td>
<td>Office 365 E5, Domestic Calling Plan</td>
<td>Enabled</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>39 quai du Président Roosevelt</td>
<td>Office 365 E3, Phone System add-on, Domestic Calling Plan</td>
<td>Disabled</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>39 quai du Président Roosevelt</td>
<td>Office 365 E5, International and Domestic Calling Plan</td>
<td>Enabled</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>39 quai du Président Roosevelt</td>
<td>Office 365 E3, Phone System add-on, Domestic Calling Plan</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

**TIP**

Your Communications Credits planning numbers can be documented as the following:

- **Initial amount**: $1,000
- **Trigger amount**: $400
- **Auto-recharge amount**: TBA

---

**Phone Numbers and Emergency Locations**

With Calling Plans in Office 365, every user in your organization needs to have a unique Direct Inward Dialing (DID) phone number and a corresponding validated emergency address.

Phone numbers can be obtained directly from Microsoft, or existing phone numbers can be transferred (ported) to Microsoft.
NOTE
Complexity of transferring phone numbers to Microsoft varies greatly based on the countries or regions, carriers, the number of circuits involved, and many other contributing factors. To plan for phone number porting, check out the Number Porting Guide for the details.

To obtain phone numbers from Microsoft directly, use any of these options:

- Skype for Business admin center
- Remote Windows PowerShell cmdlets

[Submit a New Telephone Number Request form](https://support.office.com/article/Manage-phone-numbers-for-your-organization-6b61cb3c-361c-48a8-a9ef-d81bdddde27bb).

The New Telephone Number Request form works best for a planned phone number acquisition, because you can request a contiguous block of phone numbers. Obtaining phone numbers using Skype for Business admin center or remote Windows PowerShell are not available in every country or region.

The first two methods - using Skype for Business admin center or remote Windows PowerShell - will work for oneoff, instantaneous, phone number acquisition, and when contiguous blocks of phone numbers are not required.

NOTE
There is a limit on the number of the phone numbers that can be acquired from Microsoft based on the number of Calling Plan licenses subscribed by your organization. For user (subscriber) phone numbers, the formula is (Number of Domestic Calling Plan + Domestic and International Calling Plan licenses) \( \times 1.1 + 10 \). For example, if you have 50 users with Calling Plan licenses, you can acquire 65 phone numbers \(((50 \times 1.1) + 10)\).

When you are configuring phone numbers for Calling Plans, it is required that an emergency address be assigned to each telephone number prior to assignment to a user. This is required to support emergency calling. The emergency address must be validated to ensure the emergency address is recognized that it is in a correct format that can be used by emergency response services.

IMPORTANT
Emergency Services Calling operates differently with Calling Plans service than on traditional telephone services. It is important that you understand these differences and communicate them to all users. Check Emergency calling terms and conditions for further details.

In addition to validated emergency address, emergency locations can be defined and associated with validated emergency address to give a more exact location within an address. An emergency location is typically building number, floor, building wing, or office number where the user is located.
**Decision**

- Decide how phone numbers be obtained for user locations offices in-scope for the Plans implementation from Microsoft or existing phone
- If you choose to obtain Microsoft, decide the method obtain phone numbers submission or automated) user locations or offices in-for the Calling implementation
- Decide the granularity emergency locations to be collected for user or offices in-scope for the Plans

**Next**

- Document the master plan phone numbers detailing how phone will be obtained for each location or office in-scope for Calling Plans
- If applicable, check out the Telephone Number Request form one form for each
- If you choose to transfer phone numbers, check out Number Porting to plan and adjust Calling implementation accordingly
- Document the emergency address emergency locations for user location or office in-for the Calling implementation
### TIP

The details of phone number acquisition, phone numbers, and emergency location details can be documented using the following template:

<table>
<thead>
<tr>
<th>USER</th>
<th>EMERGENCY LOCATION AND ADDRESS</th>
<th>PHONE NUMBER ACQUISITION</th>
<th>PHONE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emily Braun</td>
<td>1034/32 London Bridge Street, London, SE1, United Kingdom</td>
<td>Port existing</td>
<td>+44 20 7946 0034</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>1023/32 London Bridge Street, London, SE1, United Kingdom</td>
<td>Port existing</td>
<td>+44 20 7946 0065</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>1023/32 London Bridge Street, London, SE1, United Kingdom</td>
<td>Port existing</td>
<td>+44 20 7946 0023</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>07E15D/39 quai du Président Roosevelt, 92130 Issy-lesMoulineaux, France</td>
<td>Acquire new</td>
<td>TBA</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>07E15D/39 quai du Président Roosevelt, 92130 Issy-lesMoulineaux, France</td>
<td>Acquire new</td>
<td>TBA</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>07E15D/39 quai du Président Roosevelt, 92130 Issy-lesMoulineaux, France</td>
<td>Acquire new</td>
<td>TBA</td>
</tr>
</tbody>
</table>

### Voicemail

Phone System voicemail, powered by Azure Voicemail Services, supports voicemail deposits to Exchange mailbox only and does not support third-party email systems.

Phone System voicemail by default will work with Exchange Online, however it has a minimum supported Exchange on-premises version and deployment model to allow delivery of voicemail messages to user mailboxes in the on-premises Exchange deployment.

Phone System voicemail features voicemail transcription and by default it is enabled for all users in your organization. In some cases, your business may have requirements to disable voicemail transcription for specific users or throughout the organization.
A fallback mechanism has been implemented so that Phone System voicemail can resend messages using SMTP, which means users with a mailbox on a third-party email system will receive their voicemail messages. There is no guaranteed service uptime or other voicemail features, such as changing voicemail greetings and other settings.

<table>
<thead>
<tr>
<th>Decision Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Decide whether Phone System voicemail will be enabled for the Calling Plans implementation</td>
</tr>
<tr>
<td>- If using Exchange On-premises and existing deployment does not meet the requirements to support Phone System voicemail, decide the available options (upgrade and setup for Phone System voicemail support, or migrate to Exchange Online, leverage fallback mechanism)</td>
</tr>
<tr>
<td>- Decide if voicemail transcription is to be enabled/disabled throughout the organization or to specific users</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Next Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>- If applicable, document the Exchange decision points to support Phone System voicemail</td>
</tr>
<tr>
<td>- If voicemail and voicemail transcription are not going to be enabled for all users, document the users to be enabled for voicemail and voicemail transcription</td>
</tr>
</tbody>
</table>
TIP

Phone System voicemail details for the Phone System with Calling Plans implementation can be documented as the following:

<table>
<thead>
<tr>
<th>USER</th>
<th>EXCHANGE MAILBOX</th>
<th>ENABLE VOICEMAIL</th>
<th>VOICEMAIL TRANSCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emily Braun</td>
<td>Online</td>
<td>Yes</td>
<td>Enabled</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>Online</td>
<td>Yes</td>
<td>Enabled</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>On-premises</td>
<td>Yes</td>
<td>Enabled</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>On-premises</td>
<td>Yes</td>
<td>Disabled</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>Online</td>
<td>Yes</td>
<td>Disabled</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>On-premises</td>
<td>Yes</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

Calling identity

By default, all outbound calls use the assigned phone number as calling identity (Caller ID). The recipient of the call can quickly identify the caller and decide whether to accept or reject the call. In some cases, there are legitimate business requirements to mask the Caller ID to protect the identity of callers by using the office main line number—this is typically a service number serviced by Auto Attendant configuration—as Caller ID, or to block Caller ID presentation altogether.

Decision Points

- Decide whether Caller ID manipulation is required for Calling Plans implementation
- If applicable, decide the types of Caller ID manipulation (mask with service number or anonymize) to be implemented
- If applicable, decide which user require Caller ID manipulation, and the type of Caller ID manipulation to be assigned to each user
Next Steps

- Document the users to be assigned with Caller ID manipulation and Caller ID manipulation type applicable for each user

### TIP

The following is an example of Caller ID masking details documentation template:

<table>
<thead>
<tr>
<th>USER</th>
<th>ENABLE OUTBOUND CALLER ID MASKING</th>
<th>CALLER ID MASKING TYPE</th>
<th>ALLOW USER OVERRIDE</th>
<th>ENABLE INBOUND CALLER ID MASKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emily Braun</td>
<td>No</td>
<td>N/A</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>Yes</td>
<td>Service number (OrgAA, +44 20 7946 0000)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>No</td>
<td>N/A</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>Yes</td>
<td>Service number (OrgAA, TBA)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>Yes</td>
<td>Anonymize</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>Yes</td>
<td>Service number (OrgAA, TBA)</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Dial plans

A Dial Plan, in the Phone System feature of Office 365, is a set of normalization rules that translates dialed phone numbers into an alternate format (typically E.164 format) for call authorization and call routing.

A dial plan allows users to dial phone numbers the way they are accustomed to, such as omitting area code for local calls, omitting country code for domestic calls, or even using short digit dialing when placing a phone call.

Within the Phone System feature of Office 365, there are two types of dial plans:

- **Service dial plan.** This is the default dial plan and applied to users based on Office 365 usage location, and it cannot be modified.
- **Tenant dial plan.** This is a customizable dial plan within a tenant, and further divided into two types:
**Tenant-global dial plan**—the dial plan applies to all users within the tenant. **Tenant-user dial plan**—the dial plan applies only to specific users.

**NOTE**
Check out What are dial plans? for further details and examples.

The effective dial plan assigned to users is the combination of service dial plan (based on user’s Office 365 usage location) and tenant dial plan (can be either tenant-global dial plan or tenant-user dial plan).

There is a maximum of 25 normalization rules in each tenant dial plan, and thus duplication with normalization rules already available as part of service dial plan needs to be avoided.

---

<table>
<thead>
<tr>
<th>Decision Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Decide if your organization requires customized dial plans (business requirements, adoption requirements, etc.)</td>
</tr>
<tr>
<td>- If applicable, decide the scope of tenant dial plan (tenant-global or tenant-user) to support the requirements for customized dial plans</td>
</tr>
<tr>
<td>- If applicable, decide the tenant dial plans that will be created to support user locations or offices in-scope for the Calling Plans implementation</td>
</tr>
<tr>
<td>- If applicable, decide which user require customized dial plan and the tenant dial plan to be assigned for each user</td>
</tr>
</tbody>
</table>
Next Steps

- Document the customized dial plans and the associated normalization rules to be configured as part of Calling Plans implementation
- Document the users to be assigned with customized dial plan and the tenant dial plan to be assigned for each user

**TIP**

If it is applicable to your project, you can use the following template to document the tenant dial plans configurations:

<table>
<thead>
<tr>
<th>TENANT DIAL PLAN NAME DESCRIPTION</th>
<th>NORMALIZATION RULES NAME DESCRIPTION</th>
<th>PATTERN</th>
<th>TRANSLATION</th>
<th>ISINTERNAL</th>
<th>EXTESNION</th>
</tr>
</thead>
<tbody>
<tr>
<td>FR-Paris-Issy-39qdPR 39 quai du Président Roosevelt Issy-lesMoulineaux, France Dial Plan</td>
<td>FR-39qdPR-Internal Internal number (x7000 – x7999) for 39 quai du Président Roosevelt office, Issy-lesMoulineaux, France</td>
<td>^(?d(3))$</td>
<td>+33199999$1</td>
<td>True</td>
<td></td>
</tr>
<tr>
<td>FR-TollFree Toll Free number normalization for France</td>
<td></td>
<td>^0?(80\d(7))\d*$</td>
<td>+33$1</td>
<td>False</td>
<td></td>
</tr>
<tr>
<td>FR-Service Service number normalization for France</td>
<td></td>
<td>^\d(1,2)[11\d(3)[10\d(2)[3\d(3)]$1</td>
<td>False</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TIP
The example template below can be leveraged to document dial plan assignments to support your project:

<table>
<thead>
<tr>
<th>USER</th>
<th>OFFICE</th>
<th>DIAL PLAN TYPE</th>
<th>DIAL PLAN NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emily Braun</td>
<td>32 London Bridge Street</td>
<td>Service dial plan</td>
<td>N/A</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>32 London Bridge Street</td>
<td>Service dial plan</td>
<td>N/A</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>32 London Bridge Street</td>
<td>Service dial plan</td>
<td>N/A</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>39 quai du Président Roosevelt</td>
<td>Tenant dial plan</td>
<td>FR-Paris-Issy-39qdPR</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>39 quai du Président Roosevelt</td>
<td>Tenant dial plan</td>
<td>FR-Paris-Issy-39qdPR</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>39 quai du Président Roosevelt</td>
<td>Tenant dial plan</td>
<td>FR-Paris-Issy-39qdPR</td>
</tr>
</tbody>
</table>

Document technical implementation plan

Use the decision points above to document your technical implementation plan. This technical implementation plan will provide the project team, which can include FastTrack or deployment partner, with the information required to execute the technical onboarding for the implementation of Phone System with Calling Plans.

In general, a technical implementation plan will contain the following main sections:

- Phone System with Calling Plans site enablement list
- License assignment for Phone System with Calling Plans users
- Communications Credits planning numbers
- Phone number acquisition, phone numbers, and emergency location details
- Voicemail configuration details
- Caller ID masking configuration details
- Tenant dial plans
- Dial plan assignments

With the completion of success plan and technical implementation plan, you are now ready to take your organization to the next steps along the Office 365 customer journey.
Onboard
Coming soon.

Drive Value
Coming soon.

See also
Set up Calling Plans
Quick start guide: Configuring Calling Plans in Microsoft Teams
Phone System is an Office 365 feature that provides the ability to manage call routing, policies, and user provisioning. This includes phone calling management system, call routing, and call control.

Office 365 Calling Plans is an add-on service for the Phone System feature, delivered through Teams and Skype for Business Online. Calling Plans provide the people in your business with a primary phone number and lets them make and receive phone calls outside of your organization over the public switched telephone network (PSTN).

To learn more, read Here’s what you get with Phone System in Office 365 and What are Calling Plans in Office 365?

This practical guidance takes you through the Office 365 FastTrack customer journey framework and its three phases - Envision, Onboard, and Drive Value - to help you plan, deliver, and operate a successful Phone System with Calling Plans implementation.

**TIP**

In this practical guidance, we are providing example outputs for each activity and key discussion. The examples throughout this document are enclosed inside TIP callouts and they serve as a template that you can reuse. You'll see "TBA" (to be added) for information that you need to complete as part of your planning process.

**Envision**

The Envision phase provides the foundation for the Office 365 customer journey and is applicable to all workloads, including Phone System with Calling Plans.

In this phase, business goals are captured, with relevant project stakeholders assembled, to ultimately deliver:

- A high-level success plan that contains business use cases, key stakeholders, objectives and key results (OKRs), key success indicators (KSIs), risks, environmental assessment, adoption readiness, and operational plan.

- A detailed Phone System with Calling Plans technical implementation plan to achieve the desired end state.
Define business use cases for Phone System with Calling Plans

Phone System with Calling Plans allows organizations to modernize their workplace by enabling users to make business-related phone calls from their computers and mobile devices.

Workplace modernization can be part of activity-based working implementation, office moves, office fit-out refresh, retirement of legacy private branch exchange (PBX) solutions, conclusion of a PSTN service provider contract, etc.

In this step, core project stakeholders will define business use cases that support the implementation of Phone System with Calling Plans.

Business use cases are meant to document expected, measurable business outcomes, and include the following:

- Description of current business process
- Challenges with existing business process defined
- How technology can help overcome these challenges

The expected, measurable business outcomes if these challenges are overcome

The following is an example of a completed business use case:

**Description of current business process**
Standard configuration of Contoso’s office workspaces includes a desktop phone for every desk. Each employee will be provided with a direct inward dialing (DID) phone number. The desktop phones are connected to a PBX system and connected to PSTN via session initiation protocol (SIP) trunk. Employees can only make and receive phone calls at their assigned desktop phones.

**Challenges with existing business process**
Usage analysis of the desktop phones shows that only 10% of the desktop phones are actively used, with the rest either configured to forward calls to mobile phones, or configured to simultaneously ring to mobile phones. Maintenance of existing PBX system and the associated desktop phones contributes to 20% of monthly telephony service cost.

**How technology can overcome these challenges**
Phone System with Calling Plans will allow end user’s personal computer to receive and place phone calls over data network by leveraging the native Microsoft Teams app, removing the necessity to roll out and maintain desktop phones, and opens the opportunity to decommission the existing PBX system, as the phone service can be delivered via the cloud over the network with no dependency on traditional phone system.

**Expected, measurable, business outcomes**
Removing requirements to maintain and decommissioning existing legacy PBX and desktop phones, will deliver a 20% reduction of monthly telephony service expense. Phone System with Calling Plans will simplify office workspaces, allowing Contoso to expand its operations by establishing new offices with minimal upfront telephony costs.
During the Envision phase, in addition to defining your business use cases, you should also get clarity around these items:

- Organizational scope
- Project timelines

**Identify key stakeholders**

The business use cases defined in the previous step will include organizational scope of Phone System with Calling Plans implementation. Based on that, you can complete the comprehensive stakeholder matrix to include the right people to be involved in the project.

<table>
<thead>
<tr>
<th>ROLE</th>
<th>DESCRIPTION</th>
<th>NAME, CONTACT INFORMATION, LOCATION</th>
</tr>
</thead>
</table>
| Project Executive Sponsor   | Ultimate authority and accountability for the project and delivery on project objectives  
   - Help resolve issues escalated by Project  
   - Lead  
   - Sponsors communication within the company  
   - Responsible for making key strategic decisions  
   - Responsible for availability of required resources and budget  
   - Leading Quarterly Business Reviews (QBR)  
   - Buy-In and support of awareness campaign effort | TBA                                  |
Serving as the Project Sponsor to the program rollout

**Project Lead**

- Managing and leading project team
- Coordinates partners and working teams engaged in the project
- Accountable for creating and managing project plans to meet quarterly key results
- Resolving cross-functional issues
- Providing regular updates to the project sponsors
- Incorporating Adoption aspects into the all-up project plan
- Leading Monthly Business and Operational Reviews (MBR), contributing to Quarterly Business Reviews

**Collaboration Lead/Architect**

- Responsible for execution on collaboration strategy defined by company executives
- Analyzing and choosing collaboration products for the company that meets business goals
- Responsible for the design of the operations for collaboration products
- Defines operation and support model
- Contributing to Monthly and
Quarterly Business Reviews

Consultant

- Responsible for configuration services
- Contributes in overall solution architecture

Project Manager

- Developing and maintaining project plan
- Managing project deliverables in line with project plan and budget
- Recording and managing project issues, including escalations
- Conducting weekly stand up calls
- Liaises with, and provides updates to project executive sponsors
- Working with the Architect to define the Change Management approach and Communication Plans

NAME, CONTACT INFORMATION, LOCATION

TBA
| Change Management/Adoption Specialist | • Provide input on Discovery phase into adoption and training processes  
• Participate in adoption strategy  
• workshop  
• Developing and responsible for adoption strategy  
• Developing and executing communication plan  
Responsible for delivering trainings to end users  
Collect feedback and conduct surveys |
| Network Lead | • Providing input on Discovery phase into network design  
• Participating in planning during Envisioning workshop  
Coordinates work of networking team during the project execution |
| Security Lead | • Providing input on Discovery phase into security design and processes  
• Participating in planning during Envisioning workshop  
Coordinates work of security team during the project execution |
| Telephony Lead | • Providing input on Discovery phase into telephony design  
• Participating in planning during envisioning workshop  
Coordinates work of telephony team during the project execution |
| Desktop Lead | • Providing input on Discovery phase into clients and update process  
• Participating in planning during envisioning workshop |
<table>
<thead>
<tr>
<th>ROLE</th>
<th>DESCRIPTION</th>
<th>NAME, CONTACT INFORMATION, LOCATION</th>
</tr>
</thead>
</table>
| Support/Help Desk Lead            | • Providing input on Discovery phase into operational and support model  
• Participating in planning during envisioning workshop  
• Participating into support model planning  
• Coordinates work of support teams/resources during the project execution | TBA                                 |
| Business Unit Representatives      | • Contribute in End User based adoption  
• guides and materials  
Contribute to and review Business Use Cases | TBA                                 |
| Deployment Lead                   | • Ensure that deployment prerequisites are met  
Engage customer resources to engage on prepare and deploy stage activities  
Participate in meetings to review prepare and deploy status | TBA                                 |
| IT Admins                          | • IT Pros responsible for assistance with test planning and execution | TBA                                 |
| Service Owner                      | • Is responsible for the operation of the Phone System with Calling Plans service all up  
• Owner of Phone System with | TBA                                 |
Define objectives and key results, key success indicators, and risks

With the project stakeholders assembled, business use cases, organizational scope and project timelines can be translated into your objectives and key results (OKRs) and the measures of project success can be defined into a list of key success indicators (KSIs).

Full participation from project stakeholders when defining the OKRs and KSIs will ensure sense of ownership and they are aligned to organizational business requirements.

OKRs will contain the list of objectives set in the beginning of the project, with measurable key results defined in a quarterly basis. The key results are reviewed monthly to track status of the overall project, and based on progress, adjustment to the quarterly plans can be made as needed.
TIP

Example of OKRs relevant to Phone System with Calling Plans implementation can be referenced below:

**Vision: Increase productivity by maximizing Office 365 investments**

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>KEY RESULTS</th>
<th>TO DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deploy Phone System with Calling Plans in European branch offices by end of fiscal year 2018</td>
<td>FY18Q3: Deploy Phone System with Calling Plans in London office</td>
<td>Envision</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Create success plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Create detailed technical implementation plan</td>
</tr>
<tr>
<td>Decommission legacy PBX in London office by end of fiscal year 2018</td>
<td>FY18Q4: Decommission legacy PBX in London office</td>
<td>Onboard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Execute success plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Execute technical implementation plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Drive Value</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Boost user engagement and drive adoption</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Manage and prepare</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• change Measure, share success, and iterate</td>
</tr>
</tbody>
</table>

KSIs measure quality and success of the key results and complement the binary nature of OKRs (achieved or not achieved), by detailing the good and/or bad results. When defining KSIs, we recommend leveraging the “specific, measurable, assignable, realistic, time-related” or SMART criteria.
You need to identify business risks as part of this exercise and define a mitigation plan for each identified risk. Capture this information in a risk plan.
TIP

Your risk plan can be documented as the example below:

<table>
<thead>
<tr>
<th>RISK</th>
<th>LIKELIHOOD</th>
<th>IMPACT</th>
<th>OVERALL</th>
<th>MITIGATION PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upcoming merger will add up to 1,000 people</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>• For merged companies, separate OKR with own process (Envision, Onboard, Drive Value)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Do not include them in existing OKRs</td>
</tr>
<tr>
<td>Telephone number porting will delay project completion</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>• Prepare all the required information to support telephone number porting ahead of time (i.e.: customer service record, billing details, Letter of Authorization)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Adjust project timeline to accommodate turnaround time of telephone number porting execution</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Use temporary telephone numbers with Caller ID manipulation</td>
</tr>
<tr>
<td>Planned network redesign</td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
<td>• Before implementing Teams as modern communication and collaboration platform, run network readiness assessment for</td>
</tr>
</tbody>
</table>
sites in scope of the project
Assess environment and evaluate adoption readiness

To achieve the intended OKRs, you may have to define the high-level architecture of the solution. It takes environmental discovery to evaluate all aspects relating to IT and telephony infrastructure, networking, and operations. All matters related to end-user computing, such as readiness assessment of the personal computers and mobile devices to support Phone System with Calling Plans business use cases, from hardware requirements to software requirements, will be included as part of the environmental discovery.

Environmental discovery can also reveal whether you need to transfer phone numbers to Microsoft. This will help your organization adjust the project plan accordingly and prepare the necessary information required for number porting. To perform environmental discovery, use the Discovery Questionnaire.

Environmental discovery must include network readiness assessment to ensure the network is ready to support the implementation of Phone System with Calling Plans. Network readiness to support Phone System with Calling Plans can be determined by leveraging the information captured through the environmental discovery (such as details of internet connectivity and WAN topology, site links and available bandwidth) and persona analysis data (that can be translated into an expected usage of each workload) into the My Advisor Network Planning tool. To further confirm network readiness, perform a real-time media traffic simulation using these solutions:

- From Microsoft: Skype for Business Network Assessment Tool
- Assessment Tool From partners: Network Readiness Assessment tools partners

The results of network readiness assessment will paint a clearer picture of the required network optimization or remediation required for successful implementation of Phone System with Calling Plans.

Adoption readiness can be evaluated by executing persona analysis to come up with a list of personas in the organization who can be targeted for the implementation of the Phone System with Calling Plans. The persona analysis includes the identification of additional peripherals or devices required to realize the intended business outcomes.

To perform persona analysis, you can conduct a workshop by involving relevant project stakeholders, leveraging the Persona Alignment workshop deck and Persona Feature Matrix. The result of persona analysis workshop can be summarized into a report using the Persona Analysis Report template.

NOTE
While the Discovery Questionnaire and Persona Analysis examples were initially written for Skype for Business Online, a majority of the content is relevant to Teams. Feel free to modify and remove items that are not relevant to your project goals.
You can identify technical risks as part of an environmental assessment and adoption readiness evaluation and develop a mitigation plan for each identified risk. This information should be incorporated as part of the risk plan.

### Map operational roles

Planning for operations and identifying the teams that will operate the Phone System with Calling Plans service is an important step, as operations must start when the first pilot users are enabled. Each identified team must review and agree on the tasks and responsibilities identified and start the preparation to operate Phone System with Calling Plans service. The preparation might include training and readiness, additional staffing, or ensuring external providers are set up to deliver the service.

<table>
<thead>
<tr>
<th>OPERATIONAL ROLE</th>
<th>DESCRIPTION</th>
<th>TEAM</th>
<th>CONTACT DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Owner</td>
<td>Service owner, interface to business divisions, strategy</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Phone System with Calling Plans</td>
<td>Daily operations, user and device account move/add/change, monitoring</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Operations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenant Admin</td>
<td>Change tenant-wide settings, enable new features</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Help Desk</td>
<td>Interface for end-users to get support</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Network Operations</td>
<td>Runs LAN, WAN, Wi-Fi, and Internet Access</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Client &amp; Endpoints Team</td>
<td>Manage desktop deployments</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Identity Operations</td>
<td>Manage identity infrastructure (AD, ADFS, Azure AD)</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>Adoption/change management</td>
<td>Manage awareness, training and adoption for the solution</td>
<td>TBA</td>
<td>TBA</td>
</tr>
</tbody>
</table>

**TIP**

The following is an example of a template to document the result of operational roles mapping exercise that you performed to support this project:
To facilitate a more detailed operational roles mapping, including the tasks associated with each operational role, you can use the Operational Role Mapping Workbook to capture the details that will provide the clarity around roles and responsibilities to support Phone System with Calling Plans service.

**Document success plan**

A success plan is the documentation created in the Envision phase that consists of business case, service readiness, adoption plan, and operational plan.

The success plan will provide the project team, which can include FastTrack or deployment partner, with sufficient information to realize the organization’s goals with Phone System with Calling Plans.

In general, a success plan will contain the following main sections:
• Business case
• Service readiness
• Adoption plan
• Operational plan

**Business case**
Business use cases, stakeholders, OKRs and KSIs, risks, and project timelines typically make up the bulk of information required for a business case. You need to document them as part of the success plan.

**Service readiness**
Environmental assessment provides the initial information required to determine technical readiness for the organization to implement Phone System with Calling Plans.

Included here is the plan to address areas needing remediation discovered through environmental assessment. You need to include the service readiness assessment and remediation plan as part of the success plan.

**Adoption plan**
Following an adoption readiness assessment, further detailed planning must be completed for the project team to come up with a comprehensive set of communication plans, training plan, and pre-launch, at-launch, and postlaunch adoption activities.

Resources to support adoption activities such as flyers, welcome emails, and training materials are identified at this step, along with any customizations needed to meet organizational requirements.

The templates for adoption activities are available [here](#).

**Operational plan**
Operational roles mapping exercise will establish the roles and responsibilities, and the teams assigned to each operational role to support the implementation of Phone System with Calling Plans.

You need to complete this and include the operational plan as part of the success plan to ensure operational readiness of the solution.

---

**Technical planning for Phone System with Calling Plans**
To plan for the technical implementation of Phone System with Calling Plans, a series of decisions must be made ahead of time to better prepare your organization to implement a solution that meets business requirements. These decisions will be documented into a technical implementation plan.
Availability of Calling Plans

To find out where the Calling Plans service is available, read Countries and region availability for Audio Conferencing and Calling Plans.

**IMPORTANT**
Due to legal constraints, for Calling Plans to be available to multinational organizations, the contract for Office 365 subscriptions must be sourced from countries and regions covered by Calling Plans service, or where Calling Plans service is commercially available from.

After confirming your organization’s eligibility for obtaining the Calling Plans add-on, compile the list of user locations or offices where Calling Plans service will be implemented based on the list of available countries and regions.

<table>
<thead>
<tr>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Decide which user locations offices where Calling service will be</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Next</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Document the user locations offices to be enabled for Plans</td>
</tr>
</tbody>
</table>

**TIP**
Below is an example of a Phone System with Calling Plans site enablement list template:

<table>
<thead>
<tr>
<th>OFFICE</th>
<th>LOCATION</th>
<th>PHONE SYSTEM SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Epping Road</td>
<td>Australia</td>
<td>Legacy PSTN service</td>
</tr>
<tr>
<td>100 Cyberport Road</td>
<td>Hong Kong SAR</td>
<td>Legacy PSTN service</td>
</tr>
<tr>
<td>One Marina Boulevard</td>
<td>Singapore</td>
<td>Legacy PSTN service</td>
</tr>
<tr>
<td>32 London Bridge Street</td>
<td>United Kingdom</td>
<td>Phone System with Calling Plans</td>
</tr>
<tr>
<td>39 quai du Président Roosevelt</td>
<td>France</td>
<td>Phone System with Calling Plans</td>
</tr>
</tbody>
</table>

**Licensing for Calling Plans**

Calling Plan is an add-on to the Phone System feature in Office 365, so you must have a Phone System license enabled in order to use Calling Plans.
Phone System license is available as part of Office 365 E5 subscription plans, or as an add-on to Office 365 E1 or Office 365 E3 subscription plans. There are two types of Calling Plan licenses:

- Domestic Calling Plan
- International and Domestic Calling Plan

**NOTE**
What is considered “domestic” for a specific user is determined by the user's assigned Office 365 usage location.

Each Calling Plan type provides an allocation of calling minutes that users can use per month, either to make domestic calls or international calls. Domestic Calling Plan costs less compared to International and Domestic Calling Plan. To find out how many minutes are available for each country/region, see the "Calling Plans" section of Countries and region availability for Audio Conferencing and Calling Plans.

Typically, not everybody in an organization requires the ability to make international calls. The flexibility of subscribing and assigning the most appropriate Calling Plan type for individual user’s business requirements allows your organization to control the costs of Calling Plans implementation.

For each Office 365 tenant, the combined number of calling minutes are pooled by country or region, and per Calling Plan type. When the monthly calling minutes cap for the tenant is reached, Calling Plans service (except for emergency calling) will be suspended for the remainder of the month. Calling Plans services will resume automatically on the first day of the next calendar month.

To enable users to make outbound calls after the calling minutes are exhausted without having to wait until the next month billing cycle, you can setup Communications Credits for your organization. Communications Credits also gives the ability for users assigned with Domestic Calling Plan to make international calls charged by a “payper-minute” model.

The first consideration to make when implementing Communications Credits is to decide the initial amount of funds to be purchased. Recommended funding amounts can be referenced from Communications Credits article.

If your organization chooses to use auto-recharge, a recommendation on the trigger (lowest amount of funds) is also included in the Communications Credits article. Auto-recharge amount needs to be determined by the actual usage. Communications Credits usage should be monitored over time and recharge amount needs to be adjusted as required.

The use of Communications Credits can be controlled at per user basis, allowing you to ensure the capability is assigned to individuals in the organization that have proper business needs.
Decision Points

- If your organization does not have the required Phone System license, decide whether Phone System license will be acquired by stepping up existing Office 365 subscriptions or by acquiring Phone System addons.
- Decide which users require Domestic Calling Plan license and which users require Domestic and International Calling Plan license.
- Decide if Communications Credits is required for Calling Plans implementation. If so, decide the initial amount of funds to be purchased. Where applicable, decide the trigger amount and auto-recharge amount.
- Decide which users require the use of Communications Credits license.

Next Steps

- Document the users to be assigned with Phone System license along with Domestic Calling Plan license, and users to be assigned with Phone System license with Domestic and International Calling Plan license.
- Document the Communications Credits plan (initial amount, trigger amount, auto-recharge amount).
- Document the users to be enabled for Communications Credits license.
You can document the license assignment list for Phone System with Calling Plans users using the following example:

<table>
<thead>
<tr>
<th>USER</th>
<th>OFFICE</th>
<th>OFFICE 365 LICENSE</th>
<th>COMMUNICATIONS CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emily Braun</td>
<td>32 London Bridge Street</td>
<td>Office 365 E5, International and Domestic Calling Plan</td>
<td>Enabled</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>32 London Bridge Street</td>
<td>Office 365 E5, Domestic Calling Plan</td>
<td>Disabled</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>32 London Bridge Street</td>
<td>Office 365 E5, Domestic Calling Plan</td>
<td>Enabled</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>39 quai du Président Roosevelt</td>
<td>Office 365 E3, Phone System add-on, Domestic Calling Plan</td>
<td>Disabled</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>39 quai du Président Roosevelt</td>
<td>Office 365 E5, International and Domestic Calling Plan</td>
<td>Enabled</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>39 quai du Président Roosevelt</td>
<td>Office 365 E3, Phone System add-on, Domestic Calling Plan</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

Your Communications Credits planning numbers can be documented as the following:

- Initial amount: $1,000
- Trigger amount: $400
- Auto-recharge amount: TBA

Phone Numbers and Emergency Locations

With Calling Plans in Office 365, every user in your organization needs to have a unique Direct Inward Dialing (DID) phone number and a corresponding validated emergency address.

Phone numbers can be obtained directly from Microsoft, or existing phone numbers can be transferred (ported) to Microsoft.
Complexity of transferring phone numbers to Microsoft varies greatly based on the countries or regions, carriers, the number of circuits involved, and many other contributing factors. To plan for phone number porting, check out the Number Porting Guide for the details.

To obtain phone numbers from Microsoft directly, use any of these options:

- Skype for Business admin center
- Remote Windows PowerShell cmdlets
- [Submit a New Telephone Number Request form](https://support.office.com/article/Manage-phone-numbersfor-your-organization-6b61cb3c-361c-48a8-a9ef-d81bddd27bb).

The New Telephone Number Request form works best for a planned phone number acquisition, because you can request a contiguous block of phone numbers. Obtaining phone numbers using Skype for Business admin center or remote Windows PowerShell are not available in every country or region.

The first two methods - using Skype for Business admin center or remote Windows PowerShell - will work for oneoff, instantaneous, phone number acquisition, and when contiguous blocks of phone numbers are not required.

There is a limit on the number of the phone numbers that can be acquired from Microsoft based on the number of Calling Plan licenses subscribed by your organization. For user (subscriber) phone numbers, the formula is (Number of Domestic Calling Plan + Domestic and International Calling Plan licenses) x 1.1 +10. For example, if you have 50 users with Calling Plan licenses, you can acquire 65 phone numbers ((50 x 1.1) + 10).

When you are configuring phone numbers for Calling Plans, it is required that an emergency address be assigned to each telephone number prior to assignment to a user. This is required to support emergency calling. The emergency address must be validated to ensure the emergency address is recognized that it is in a correct format that can be used by emergency response services.

Emergency Services Calling operates differently with Calling Plans service than on traditional telephone services. It is important that you understand these differences and communicate them to all users. Check Emergency calling terms and conditions for further details.

In addition to validated emergency address, emergency locations can be defined and associated with validated emergency address to give a more exact location within an address. An emergency location is typically building number, floor, building wing, or office number where the user is located.
Decision

- Decide how phone numbers be obtained for user locations offices in-scope for the Plans implementation from Microsoft or existing phone
- If you choose to obtain Microsoft, decide the method obtain phone numbers submission or automated) user locations or offices in- for the Calling implementatio
- Decide the granularity emergency locations to be collected for user or offices in-scope for the Plans

Next

- Document the master plan phone numbers detailing how phone will be obtained for each location or office in-scope the Calling Plans
- If applicable, the Telephone Number Request one form for eachn or
- If you choose to transfer phone numbers, check out Number Porting to plan and adjust Calling implementation accordingly
- Document the emergency address emergency locations for user location or office in- for the Calling implementatio
TIP
The details of phone number acquisition, phone numbers, and emergency location details can be documented using the following template:

<table>
<thead>
<tr>
<th>USER</th>
<th>EMERGENCY LOCATION AND ADDRESS</th>
<th>PHONE NUMBER ACQUISITION</th>
<th>PHONE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emily Braun</td>
<td>1034/32 London Bridge Street, London, SE1, United Kingdom</td>
<td>Port existing</td>
<td>+44 20 7946 0034</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>1023/32 London Bridge Street, London, SE1, United Kingdom</td>
<td>Port existing</td>
<td>+44 20 7946 0065</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>1023/32 London Bridge Street, London, SE1, United Kingdom</td>
<td>Port existing</td>
<td>+44 20 7946 0023</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>07E15D/39 quai du Président Roosevelt, 92130 Issy-IlesMoulineaux, France</td>
<td>Acquire new</td>
<td>TBA</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>07E15D/39 quai du Président Roosevelt, 92130 Issy-IlesMoulineaux, France</td>
<td>Acquire new</td>
<td>TBA</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>07E15D/39 quai du Président Roosevelt, 92130 Issy-IlesMoulineaux, France</td>
<td>Acquire new</td>
<td>TBA</td>
</tr>
</tbody>
</table>

Voicemail
Phone System voicemail, powered by Azure Voicemail Services, supports voicemail deposits to Exchange mailbox only and does not support third-party email systems.

Phone System voicemail by default will work with Exchange Online, however it has a minimum supported Exchange on-premises version and deployment model to allow delivery of voicemail messages to user mailboxes in the on-premises Exchange deployment.

Phone System voicemail features voicemail transcription and by default it is enabled for all users in your organization. In some cases, your business may have requirements to disable voicemail transcription for specific users or throughout the organization.
NOTE
A fallback mechanism has been implemented so that Phone System voicemail can resend messages using SMTP, which means users with a mailbox on a third-party email system will receive their voicemail messages. There is no guaranteed service uptime or other voicemail features, such as changing voicemail greetings and other settings.

Decision Points

- Decide whether Phone System voicemail will be enabled for the Calling Plans implementation
- If using Exchange On-premises and existing deployment does not meet the requirements to support Phone System voicemail, decide the available options (upgrade and setup for Phone System voicemail support, or migrate to Exchange Online, leverage fallback mechanism)
- Decide if voicemail transcription is to be enabled/disabled throughout the organization or to specific users

Next Steps

- If applicable, document the Exchange decision points to support Phone System voicemail
- If voicemail and voicemail transcription are not going to be enabled for all users, document the users to be enabled for voicemail and voicemail transcription
Phone System voicemail details for the Phone System with Calling Plans implementation can be documented as the following:

<table>
<thead>
<tr>
<th>USER</th>
<th>EXCHANGE MAILBOX</th>
<th>ENABLE VOICEMAIL</th>
<th>VOICEMAIL TRANSCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emily Braun</td>
<td>Online</td>
<td>Yes</td>
<td>Enabled</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>Online</td>
<td>Yes</td>
<td>Enabled</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>On-premises</td>
<td>Yes</td>
<td>Enabled</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>On-premises</td>
<td>Yes</td>
<td>Disabled</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>Online</td>
<td>Yes</td>
<td>Disabled</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>On-premises</td>
<td>Yes</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

Calling identity

By default, all outbound calls use the assigned phone number as calling identity (Caller ID). The recipient of the call can quickly identify the caller and decide whether to accept or reject the call. In some cases, there are legitimate business requirements to mask the Caller ID to protect the identity of callers by using the office main line number — this is typically a service number serviced by Auto Attendant configuration—as Caller ID, or to block Caller ID presentation altogether.

Decision Points

- Decide whether Caller ID manipulation is required for Calling Plans implementation
- If applicable, decide the types of Caller ID manipulation (mask with service number or anonymize) to be implemented
- If applicable, decide which user require Caller ID manipulation, and the type of Caller ID manipulation to be assigned to each user
Next Steps

Document the users to be assigned with Caller ID manipulation and Caller ID manipulation type applicable for each user.

TIP

The following is an example of Caller ID masking details documentation template:

<table>
<thead>
<tr>
<th>USER</th>
<th>ENABLE OUTBOUND CALLER ID MASKING</th>
<th>CALLER ID MASKING TYPE</th>
<th>ALLOW USER OVERRIDE</th>
<th>ENABLE INBOUND CALLER ID MASKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emily Braun</td>
<td>No</td>
<td>N/A</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>Yes</td>
<td>Service number (OrgAA, +44 20 7946 0000)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>No</td>
<td>N/A</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>Yes</td>
<td>Service number (OrgAA, TBA)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>Yes</td>
<td>Anonymize</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>Yes</td>
<td>Service number (OrgAA, TBA)</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Dial plans

A Dial Plan, in the Phone System feature of Office 365, is a set of normalization rules that translates dialed phone numbers into an alternate format (typically E.164 format) for call authorization and call routing.

A dial plan allows users to dial phone numbers the way they are accustomed to, such as omitting area code for local calls, omitting country code for domestic calls, or even using short digit dialing when placing a phone call.

Within the Phone System feature of Office 365, there are two types of dial plans:

- **Service dial plan.** This is the default dial plan and applied to users based on Office 365 usage location, and it cannot be modified.
- **Tenant dial plan.** This is a customizable dial plan within a tenant, and further divided into two types:
**Tenant-global dial plan**—the dial plan applies to all users within the tenant. **Tenant-user dial plan**—the dial plan applies only to specific users.

**NOTE**
Check out What are dial plans? for further details and examples.

The effective dial plan assigned to users is the combination of service dial plan (based on user’s Office 365 usage location) and tenant dial plan (can be either tenant-global dial plan or tenant-user dial plan).

There is a maximum of 25 normalization rules in each tenant dial plan, and thus duplication with normalization rules already available as part of service dial plan needs to be avoided.

<table>
<thead>
<tr>
<th>No tenant global dial plan and no tenant user dial plan assigned</th>
<th>Tenant global dial plan but no tenant user dial plan assigned</th>
<th>Tenant user dial plan assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Country</td>
<td>Service Country</td>
<td>Tenant - Global</td>
</tr>
<tr>
<td>Tenant - Global</td>
<td></td>
<td>Tenant - User</td>
</tr>
</tbody>
</table>

**Decision Points**

- Decide if your organization requires customized dial plans (business requirements, adoption requirements, etc.)
- If applicable, decide the scope of tenant dial plan (tenant-global or tenant-user) to support the requirements for customized dial plans
- If applicable, decide the tenant dial plans that will be created to support user locations or offices in-scope for the Calling Plans implementation
- If applicable, decide which user require customized dial plan and the tenant dial plan to be assigned for each user
Next Steps

- Document the customized dial plans and the associated normalization rules to be configured as part of Calling Plans implementation
- Document the users to be assigned with customized dial plan and the tenant dial plan to be assigned for each user

TIP
If it is applicable to your project, you can use the following template to document the tenant dial plans configurations:

<table>
<thead>
<tr>
<th>TENANT DIAL PLAN NAME</th>
<th>DESCRIPTION</th>
<th>NORMALIZATION RULES NAME</th>
<th>DESCRIPTION</th>
<th>PATTERN</th>
<th>TRANSLATION</th>
<th>ISINTERNAL</th>
<th>EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>FR-Paris-Issy-39qdPR</td>
<td>39 quai du Président Roosevelt Issy-lesMoulineaux, France Dial Plan</td>
<td>FR-39qdPR-Internal</td>
<td>Internal number (x7000 – x7999) for 39 quai du Président Roosevelt office, Issy-lesMoulineaux, France</td>
<td>^(7\d{3})$</td>
<td>+3319999$1</td>
<td>True</td>
<td></td>
</tr>
<tr>
<td>FR-TollFree</td>
<td>Toll Free number normalization for France</td>
<td>FR-TollFree</td>
<td>^0?(80\d7)d*$</td>
<td>+33$1</td>
<td>False</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FR-Service</td>
<td>Service number normalization for France</td>
<td>FR-Service</td>
<td>^(1\d{1,2}</td>
<td>11[68]</td>
<td>d{3}</td>
<td>10\d2</td>
<td>3\d3)$</td>
</tr>
</tbody>
</table>
The example template below can be leveraged to document dial plan assignments to support your project:

<table>
<thead>
<tr>
<th>USER</th>
<th>OFFICE</th>
<th>DIAL PLAN TYPE</th>
<th>DIAL PLAN NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emily Braun</td>
<td>32 London Bridge Street</td>
<td>Service dial plan</td>
<td>N/A</td>
</tr>
<tr>
<td>Lidia Holloway</td>
<td>32 London Bridge Street</td>
<td>Service dial plan</td>
<td>N/A</td>
</tr>
<tr>
<td>Pradeep Gupta</td>
<td>32 London Bridge Street</td>
<td>Service dial plan</td>
<td>N/A</td>
</tr>
<tr>
<td>Marcel Beauchamp</td>
<td>39 quai du Président Roosevelt</td>
<td>Tenant dial plan</td>
<td>FR-Paris-Issy-39qdPR</td>
</tr>
<tr>
<td>Rachelle Cormier</td>
<td>39 quai du Président Roosevelt</td>
<td>Tenant dial plan</td>
<td>FR-Paris-Issy-39qdPR</td>
</tr>
<tr>
<td>Isabell Potvin</td>
<td>39 quai du Président Roosevelt</td>
<td>Tenant dial plan</td>
<td>FR-Paris-Issy-39qdPR</td>
</tr>
</tbody>
</table>

Document technical implementation plan

Use the decision points above to document your technical implementation plan. This technical implementation plan will provide the project team, which can include FastTrack or deployment partner, with the information required to execute the technical onboarding for the implementation of Phone System with Calling Plans.

In general, a technical implementation plan will contain the following main sections:

- Phone System with Calling Plans site enablement list
- License assignment for Phone System with Calling Plans users
- Communications Credits planning numbers
- Phone number acquisition, phone numbers, and emergency location details
- Voicemail configuration details
- Caller ID masking configuration details
- Tenant dial plans
- Dial plan assignments

With the completion of success plan and technical implementation plan, you are now ready to take your organization to the next steps along the Office 365 customer journey.
Onboard

Coming soon.

Drive Value

Coming soon.

See also

Set up Calling Plans

Quick start guide: Configuring Calling Plans in Microsoft Teams
Quick start guide: Configuring Calling Plans in Microsoft Teams
12/20/2017 • 5 min to read • Edit Online

This guide will help you get a set of users up and running so they can explore Calling Plans in Teams.

Read the December 12, 2017, announcement of Calling Plans in Teams: Intelligent Communications takes the next step with calling in Teams

NOTE
We recommend that, in parallel with this quick-start guide, you use our practical guidance and FastTrack to plan and drive a successful rollout.

By adding Calling Plans - an Office 365 feature powered by Skype for Business - you can now use Teams to make and receive phone calls to or from land lines and mobile phones via the public switched telephone network (PSTN).

Prerequisites for enabling the **Calls** tab in Teams
To enable the **Calls** tab in Teams and allow your users to make and receive PSTN calls, you will need provision users for Phone System and Calling Plans. To learn how to set this up, read **Set up Calling Plans**.
IMPORTANT

Before configuring Calling Plans in Teams, please be aware of the following limitations:

* **Hybrid Voice is not supported in Teams** - Hybrid Voice is currently not supported in Teams. Hybrid Voice customers are not advised to change any of the policies to receive calls in Teams, as this will cause service interruptions.

* **Federated calling is not supported in Teams** - Federated calling (calling between tenants/companies) is currently not supported in Teams. Federated calls will always be routed to Skype for Business regardless of how you configure calling, until it’s supported in Teams.

Teams interop policy configuration

To enable Teams to begin receiving calls, you’ll need to update Teams interop policy, using a remote Windows PowerShell session with the Skype for Business cmdlets, to redirect calls to Teams. For more information about Teams interop policy, see Microsoft Teams and Skype for Business Interoperability.

**TIP**
To find the PowerShell cmdlets you need, type "CsTeamsInteropPolicy" in the Filter box in the Skype for Business PowerShell cmdlet documentation.

Default Teams interop policy

Teams has a default policy configuration designed to ensure that existing business workflows are not interrupted during a Teams deployment. By default, VoIP, PSTN, and federated calls to your users will continue to be routed to Skype for Business until you update the policy to enable inbound calling to Teams. This ensures that there are no unintended interruptions in voice services as you start to pilot and deploy Teams.

Teams interop policy has the following default configuration:

```
Identity                   : Global
AllowEndUserClientOverride : False
CallingDefaultClient       : Default
ChatDefaultClient          : Default
```

The behaviors of the default configuration are the following:

* **For existing Skype for Business customers**, this policy is designed to ensure that Skype for Business calls are directed to Skype for Business, and Teams calls are directed to Teams. PSTN and federated calls will be directed to Skype for Business when this policy is in effect.

* **For customers without Skype for Business**, when in effect, in addition to calls among Teams users, only outbound PSTN calling will be available in Teams. You will need to alter the Teams interop policy assigned to your users to receive PSTN calls in Teams.
NOTE
Users that have been provisioned with Phone System and Calling Plans licenses for use with Skype for Business Online, and configured with the default global Teams interop policy, will have the Calls tab enabled in Teams and can place outbound PSTN calls from Teams without administrators having to take any administrative action.

How to configure Teams to use the default policy
By default, global Teams interop policy is applied to all users in your tenant, and it is configured with the default settings as described above. If for some reason you have granted different policies to your users and would like to revert to the default setting, you will need to apply the global Teams interop policy via Skype for Business remote Windows PowerShel session:

```
Grant-CsTeamsInteropPolicy -PolicyName Global -Identity user@contoso.com
```

WARNING
While it is possible to modify the global Teams interop policy from the default values, we strongly advise against it.

Configuring Teams to receive inbound PSTN calls
To receive inbound PSTN calls in Teams, you will need to configure Teams as the default calling application by applying Teams interop policy with parameter set to Teams.

IMPORTANT
We recommend that you apply this configuration to an initial set of users to explore these exciting new calling capabilities in Teams prior to making wider or organization-level changes.

Consider using the following preconfigured Teams interop policy to route inbound PSTN calling to Teams:

```
Identity                   : Tag:DisallowOverrideCallingTeamsChatTeams
AllowEndUserClientOverride : False
CallingDefaultClient       : Teams ChatDefaultClient          : Teams
```

The behaviors of the policy above are the following:

- **For existing Skype for Business customers**, this policy is designed to redirect incoming calls to Teams. This includes both VoIP (from Teams and Skype for Business) and PSTN calls. Federated calls will continue to be received in Skype for Business.
For customers without Skype for Business, when in effect, PSTN calls will be received in Teams. Federated calling is currently not supported in Teams.

WARNING
Currently, changing to Teams will also affect calls to Skype for Business IP phones. Incoming calls will not be received on the phones and will only ring Teams clients. Please consult the Skype for Business to Microsoft Teams Capabilities Roadmap for information about support for existing certified SIP phones.

How to configure Teams to receive PSTN calls

Apply the Teams interop policy as described above via Skype for Business remote Windows PowerShell session to redirect calls to Teams:

```
Grant-CsTeamsInteropPolicy -PolicyName tag:DisallowOverrideCallingTeamsChatTeams -Identity user@contoso.com
```

Configuring Teams to allow users to change their preferred calling experience

To let users to make their own decision over the preferred calling experience, whether to receive calls in Teams or Skype for Business, you need to create a custom Teams interop policy that enables parameter.

The following is the example of Teams interop policy to enable user choice of the preferred calling experience:

```
Identity : Tag:CustomPolicy
AllowEndUserClientOverride : True
CallingDefaultClient : Default
ChatDefaultClient : Default
```

Once this custom policy is applied to the users, the option to change the preferred calling application will be available in Teams client for users to make the changes themselves.
IMPORTANT
It is recommended that you apply this configuration to an initial set of users prior to making wider or organization level changes.

How to create and apply the custom Teams interop policy
To create the custom Teams interop policy as described above via Skype for Business remote Windows PowerShell session, perform the following:

```
New-CsTeamsInteropPolicy -Identity tag:CustomPolicy -AllowEndUserClientOverride:$True -CallingDefaultClient:Default
ChatDefaultClient:Default
```

```
Grant-CsTeamsInteropPolicy -PolicyName tag:CustomPolicy -Identity user@contoso.com
```

See also
Set up Calling Plans
Microsoft Teams and Skype for Business Interoperability
Practical Guidance for Phone System with Calling Plans in Microsoft Teams
Skype for Business PowerShell cmdlet reference
Don’t miss Audio Conferencing in Microsoft Teams.

**NOTE**
Audio Conferencing was formerly known as PSTN Conferencing

**Introduction to Audio Conferencing**

**Plan for Audio Conferencing**

**Number porting for Audio Conferencing**

Journey from Skype for Business to Microsoft Teams

1/9/2018 • 1 min to read • Edit Online

As part of the Microsoft intelligent communications vision to deliver smarter calling and meeting experiences, we’re building Skype for Business capabilities into Teams. This will happen over time, and ultimately Teams will become the single client experience. As a valued Skype for Business customer, Microsoft is here to support you every step of the way on your journey to Teams. We understand that change takes time, so we invite you to begin exploring Teams today to understand the value it can offer to your organization, while you continue to run Skype for Business.

Visit the Teams product roadmap to stay on top of what’s coming next in Teams and decide the best time for your organization to move to Teams.
Another great way to stay on top of news about the journey from Skype for Business to Teams is the *Skype for Business to Microsoft Teams Capabilities Roadmap* - a downloadable PDF (in English only, at least for now) that gives Microsoft's current expectations about Skype for Business capabilities coming to Teams.

For best results, we recommend that you follow this guidance in order:

1. Optimize your current Skype for Business environment for Teams
2. Pilot Teams alongside Skype for Business
3. Enable Teams side-by-side with Skype for Business
4. Drive value through user adoption

**See also**

Tutorial: Journey from Skype for Business to Teams

FAQ - Skype for Business & Teams vision

Skype for Business to Microsoft Teams: Capabilities Roadmap

Optimize your current Skype for Business environment for Microsoft Teams

12/20/2017 • 3 min to read • Edit Online

Change takes time. Your organization has deployment lifecycles, resource planning, technical readiness and change management to consider. We are working hard to ensure Microsoft Teams meets your needs for long-term success. While we work to get things ready for you, here are a few ways you can get started with your preparations today. By completing this guidance, you can drive a successful Teams implementation within your organization.

**Environmental readiness**

The guidance below should be used to ensure a successful and healthy Teams implementation. This guidance will help validate your current Skype for Business environment to prepare for your Teams deployment.

**Network readiness assessment**

You should perform a *Network Readiness Assessment* before implementing any real-time communications product such as Teams. A *Network Readiness Assessment* focuses on network performance, network planning, and other general networking aspects such as ports and protocols that must be opened. Even if you are currently using a real-time communications product, such as Skype for Business, the *Network Readiness Assessment* will help validate your network readiness.
Get the Network Readiness Assessment guide.

**My Advisor**
Throughout your journey, we recommend the practical guidance you'll find in My Advisor. My Advisor is a comprehensive, self-service guide and toolset for planning and managing Teams and Skype for Business Online for operational success.

**Quality assessment**
Before you start onboarding your users to Teams, make sure that your current Skype for Business deployment meets the quality bar when it comes to real-time media. Use Call Quality Dashboard (CQD) to monitor usage and identify quality trends and Call Analytics to troubleshoot or look at quality indicators of individual calls.

Watch the [CQD videos](https://aka.ms/Teams-CQD) for guidance on how to use Call Quality Dashboard to investigate media quality.

To learn more about Call Analytics, go to [Skype for Business Call Analytics](https://aka.ms/Teams-SFB-CA).

**Quality champion role**
Organizations should identify a person, or group of people, for the role of Quality Champion. The quality champion reviews quality metrics against usage, identifying quality trends and areas for improvement.

The quality champion is the go-to person for any call quality related issues and should act as the subject matter expert (SME) for the identification of quality issues by reviewing ongoing usage and quality trends and identifying action items. The quality champion should work with the respective teams to drive remediation actions, reporting to a steering committee on the progress and open issues. The best candidate for the quality champion is typically the customer service owner. Depending on the organization size and complexity, any person who is passionate about user experience and has the skills to identify trends can act as a quality champion, supported by the right level of sponsorship to work with other teams to drive remediation.

Get information on the quality champion concept and the quality review tools and techniques from [Manage a quality and reliable service delivery workshop](https://aka.ms/Teams-System-QA).

**Environmental dependencies**
Teams combines multiple Office 365 services and is therefore dependent on the correct implementation and operation of these services. These services include but are not limited to SharePoint Online, Exchange Online, and OneDrive for Business.

While not all services are required it is highly recommended to implement them. If you choose to not implement certain services, this will impact the functionality that Teams can offer your organization. For example, while you are not required to implement SharePoint Online, Teams does rely on SharePoint Online for certain functionality such as file sharing in groups. Not implementing SharePoint Online will affect functionality offered through the client.

Go to the following articles to learn about the requirements:
- Office 365 groups and Microsoft Teams
- How SharePoint Online and OneDrive for Business interact with Microsoft Teams
- How Exchange and Teams interact
Pilot Microsoft Teams alongside Skype for Business

12/20/2017 • 8 min to read • Edit Online

As an existing Skype for Business and Office 365 customer, your organization is already a part of the modern workplace movement, empowering your users to be more creative, innovative, and productive. Microsoft Teams further expands what’s possible, with added functionality, such as collaboration hubs for teamwork, app integration, and file storage. When you bring the current functionality of Skype for Business together with the value-add of Teams, you have a powerful communication and collaboration solution that can revolutionize how users work.

Your Teams journey, as well as go-forward recommendations, is based on the outcome of your pilot. While you continue to utilize Skype for Business, we encourage you explore all that Teams can offer to your organization. Since there is some overlapping functionality between Teams and Skype for Business, it is important to begin with a user pilot. The pilot is a small-scale deployment that enables you to validate the interoperability with Skype for Business in your environment as well as understand how your endusers can maximize their productivity while minimizing confusion with both products running side-by-side.

Tailored for current Skype for Business customers, this resource provides guidance and best practices to start you on your journey to:

- Personalize the action steps and recommendations to best meet your organizational profile.

  Download and customize the communication and feedback templates found in the Pilot Essentials Resources to ensure your message resonates with your endusers.

Get started

Designed to confirm organizational readiness, a pilot is a realistic validation of the resources and procedures needed on a larger scale prior to your organization-wide rollout. To achieve the most realistic results, the pilot program should mimic how users communicate and collaborate today, verifying the ideal deployment scenario with Skype for Business and Microsoft Teams. Whether your organization is considering running Skype for Business and Teams side-by-side or transitioning to Teams at a future point in time, a pilot can help identify the right path forward for your organization. Let's get started!
Step One: Define your Pilot Program Logistics

A formal pilot should define your targeted path forward and include a project team, SMART goals, a set timeline, an articulated test plan, and feedback mechanisms. Take time to address these questions to help outline your pilot program logistics:

- Who are the project stakeholders for your pilot?
  - Stakeholders should include representatives with accountability for pilot success. Here are a few examples:
    - **Executive Sponsor**: Overall accountability for collaboration and communications solutions’ success in your organization.
    - **Project (Pilot) Lead**: Manages logistics for the pilot, coordinating stakeholders.
    - **IT Pro**: Ensures network readiness for your Teams pilot.
    - **Support Lead**: Accountable for readying the helpdesk for Teams.
    - **Marketing/Communications Lead**: Responsible for all awareness and training communications.

- What are your business scenarios for Teams and Skype for Business?
  - Usage and use cases will help inform your test plan. Review your current usage reports for Skype for Business and/or conduct a focus group with your top Skype for Business users to better understand their current collaboration and communication scenarios. Are you familiar with the Teams Roadmap?
  - Take time to understand the Teams roadmap, to help inform your scope and timing for your pilot. Time your pilot and feature/scenario testing accordingly to ensure realistic validation of applicability within your organization.

- What are your goals and success criteria for your Teams pilot?
  - Setting clear goals will provide a mechanism from which to measure success and define your best path forward. Sample goals and success criteria are provided in the Pilot Essentials Resources. What is your pilot timeline?
  - Define a clear start and end-date for your pilot to maintain momentum and allow time to assess impact. A minimum 30-day pilot is recommended. Start small and add to your pilot as appropriate – whether additional workloads/features or additional users, making time to assess results and adjust your pilot as you iterate. You may even opt to run subsequent pilots as new Teams’ features are released per the roadmap.

**TIP**

Your pilot should be conducted in your production environment for optimal results. Confirm all technical prerequisites are completed prior to beginning your pilot such as ensuring your pilot users have the ability to create new teams and channels.
Step Two: Select your Pilot Participants

One of the most important tasks of pilot planning is thoughtful participant selection. An ideal pilot group includes representative users of all usage scenarios designed to validate the organization's requirements and intended use of feature sets. This includes representatives from a variety of roles within your organization (exec admin, management, project manager, conferencing power users), different departments/business units, multiple regions (if applicable). The pilot should extend to key people in IT, training and helpdesk. This allows a thorough validation while fully optimizing project management resources.

For optimal validation, look to include approximately 2-5% of your user base, or a minimum of 50 users, whichever is most representative of your organization. Depending on your pilot timeline, you may opt to start small and expand to additional pilot users over time.

**TIP**

When selecting your Teams pilot group participants, be sure to include both high-adopters of Skype for Business as well as users/groups who would benefit from the teamwork hub capabilities of Teams. Consider using a current cross-team project workstream for pilot user selection as well as a realistic use case for your test plan.

Step Three: Design your Test Plan and Feedback Survey

A successful pilot experience provides your participants with clearly defined tasks to complete, along with a feedback loop. Group tasks together to present real-world scenarios to your users, demonstrating relevancy to their daily activities. Your organization may opt to pilot all functionality at once, or leverage a gradual approach (for example, first pilot collaboration, then meetings, then chat and calling). Ensure you have an open feedback channel to track progress and measure outcomes. A pre-defined survey is an easy way to capture and assess pilot results and should be designed based on the scenarios and features in your test plan.
Step Four: Create your Communications

Educating your pilot participants on what is happening, when and why, as well as what is expected of them, is crucial to the success of your pilot. To drive excitement and maximum participation, be sure to include end-user value messaging when communicating with your pilot participants. In addition, be sure your communications include links to training and support where users can get additional information as they progress through the pilot.

Next: Customize the sample email templates found in the Pilot Essentials resources based on the use cases features you will be testing.

Step Five: Conduct your Pilot

With all the logistics in place, you are now ready to begin your pilot. Conducting your pilot includes communicating to your pilot users, monitoring your network/usage to ensure your network and quality remains healthy, gathering feedback from participants, and reviewing help desk tickets for questions related to Teams.

IMPORTANT

Teams is turned on by default, but before you begin your pilot, check to be sure all your pilot users are enabled for Teams. For help doing this, read Enable Microsoft Teams features in your Office 365 organization.

Here's a suggested timeline for a 30-day pilot:

• One week prior to Pilot kick off: Send initial communication to pilot users
• Day 1: Send kick-off communication to pilot users
• Day 7: Weekly project team check-point (Meet with your pilot project team and review user feedback, usage data, network data and help desk tickets to ensure your pilot is running smoothly. Make any adjustments as needed
• Day 14: Send mid-point communication to your pilot users, weekly project team check-point
• Day 21: Weekly project team check-
• Day 30: Send final communication to your pilot users

Next: Tailor the timeline actions based on pilot
Step Six: Assess Learnings and Evaluate Go-Forward Plan

Once your pilot is complete, it’s time to gather all feedback surveys, final network stats and support tickets for analysis against your goals and determination of your go-forward plan.

Based on your outcomes, here are a few recommended paths your organization may take as you continue your journey from Skype for Business to Teams:

**GO FORWARD RECOMMENDATIONS**

<table>
<thead>
<tr>
<th><strong>IF</strong> your pilot results indicate</th>
<th><strong>THEN</strong> you might consider</th>
</tr>
</thead>
</table>
| • 80% or higher agree that Teams can be easily utilized alongside Skype for Business  
- and -  
• Less than 80% user agreement that Teams can replace Skype for Business based on current use cases and scenarios | Deploying Teams and Skype for Business side-by-side for some/all available scenarios. To facilitate the learning curve, we strongly encourage rolling out features over time, in lieu of an all-at-once approach.  
Learn more about running Skype for Business and Teams side-by-side.  
Download user readiness templates to facilitate communication with your end-users about their new side-by-side experience. |
| • Satisfactory network health | |
| • 80% or higher user agreement that Teams can replace Skype for Business based on current use cases and scenarios  
- and -  
• Satisfactory network health | Deploying Teams and Skype for Business side-by-side for all scenarios, encouraging users to lead with Teams where feasible. In addition, reach out to your account team or Microsoft Support to let them know your organization may be ready to go to Teams.  
Learn more about running Skype for Business and Teams side-by-side.  
Download user readiness templates to facilitate communication with your users about their new side-byside experience. |
| • Less than 80% agree that Teams can be easily utilized alongside Skype for Business  
- and -  
• Less than 80% user agreement that Teams can replace Skype for Business based on current use cases and scenarios | Continuing with Skype for Business for communication (e.g. IM, Meetings, Calling) while utilizing the modern collaboration functionality (e.g., Teams/Channels) of Teams. Revisit a Teams pilot to verify communications functionality as new features are released per roadmap. |
NOTE
Be sure to leverage your pilot participants as Champions to help evangelize and onboard new users to Teams.

Next

• Analyze your pilot learnings and determine your forward. If you opt to deploy Teams alongside for Business, be sure to leverage templates to help get your.
• View and bookmark Teams.
• Once your pilot results indicate users are ready, enable Teams side-by-side for organization.
For organizations with existing deployments of Skype for Business Online, the recent introduction of Microsoft Teams presents an opportunity to evaluate the potential of Teams as a sole, communications and collaboration solution, and a challenge to tip the scale between the two solutions and how they can coexist in your environment.

If Teams can meet your business requirements today, you can start adopting Teams to become your single communications and collaboration solution for your organization.

Teams is enabled by default, on all eligible tenants. Therefore, you need to decide on how to manage Teams side-by-side with Skype for Business, and continue to meet user expectations.

In general, there are two major side-by-side customer journeys. They are:

**Option 1:** Unmanaged side-by-side customer journey.

IT does not actively control the side-by-side experience, and users are empowered to make the choice of preferred app.

**Option 2:** Managed side-by-side customer journey.

IT controls the side-by-side experience, taking users through a journey of gradually introducing Teams to first introduce a new chat-based collaboration workspace with private chat, then meeting experiences, and finally the calling experiences in Teams.
Side-by-side benefits and considerations

Each journey has benefits and considerations to evaluate when determining the right path forward based on your organization’s profile. The table below provides the comparisons between managed and unmanaged side-by-side customer journeys.

<table>
<thead>
<tr>
<th>MIGRATION PATHS</th>
<th>UNMANAGED SIDE-BY-SIDE</th>
<th>MANAGED SIDE-BY-SIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization profile</td>
<td>• Typically, smaller organizations with no dedicated IT resources IT allows user discretion in selecting right tools for their work • Primary Skype for Business usage is IM/P and meetings</td>
<td>• Typically, mid-size to larger organizations • IT wants to control roll out of new tools more rigorously • Deeper adoption of Skype for Business today • Increased complexity in network and infrastructure Multiple locations • Preference for single app with unique UC capabilities</td>
</tr>
</tbody>
</table>
**Benefits**

- Leverage capabilities in Teams that are not available in Skype for Business
- Enhanced modern workplace within Office 365
- Increased user flexibility
- Enable all capabilities at once

**Considerations**

- Multiple apps with similar, overlapping capabilities
- Increased potential for user confusion which can lead to increased support calls, shadow IT, impacted productivity
- Network planning and monitoring must take usage of two services into consideration
- Increased and immediate change management efforts required: awareness, training, and support
- Users may experience interoperability limitations between apps

- Leverage capabilities in Teams that are not available in Skype for Business
- Enhanced modern workplace within Office 365
- Minimize user productivity impact
- Reduce capability overlap
- Streamline tool choice for UC scenarios
- Empower IT and business to enable capabilities as appropriate in organization
- Control the pace of change for users

- IT has granular control, from licensing to user experiences, requiring additional cycles of planning and implementation
- User education and action required to disable select capabilities in Teams
- Change management efforts required to disable select capabilities in Teams
- Network planning and monitoring must take usage of two services into consideration
- Users may experience interoperability limitations between apps
Unmanaged side-by-side customer journey

In an unmanaged side-by-side customer journey, Teams is introduced as a collaboration solution (chat-based workspace, channels, apps, integration with other Office 365 workloads, etc.) that involves client software and web client on desktop computers (PC or Mac) and mobile devices.

By default, Teams also presents overlapping capabilities with Skype for Business, these include private chat and calling, and scheduled meetings. This means Teams ends up providing complete communications and collaboration for the organization, while at the same time Skype for Business provides similar capabilities.

Teams supports interoperability with Skype for Business Online users, and users will be given an opportunity to choose their preferred chat and calling app when they launch Teams. If one user picks Teams as the preferred app, and another user hasn’t installed Teams or picked Skype for Business as the preferred chat and calling app, they can continue to chat and call each other through the interop capabilities that are part of Teams.

Microsoft is continuously improving the interop experiences. In the beginning, there may be some cases whereby the interop experiences are not meeting user expectations. Since Skype for Business is still available to users, they can switch to Skype for Business for the capabilities that currently cannot be served by Teams.

Scheduled meetings in Teams is another overlapping capability that lets users schedule Teams meetings, or Skype for Business meetings. Each has its own advantages, and over time, when Teams meeting experience meets business requirements or surpasses the functionalities of Skype for Business meetings, we expect users to naturally switch to Teams meetings.

In this unmanaged side-by-side customer journey, prepare your helpdesk team to handle support calls from users when facing issues with interop capabilities. Or advise users when to choose Teams meetings over Skype for Business meetings, and vice versa.

This side-by-side customer journey may be applicable to your organization, whereby the users are more receptive to the nature of the unmanaged side-by-side experience, and the organization openly allows the users to pick the best communications and collaboration tools that suit their requirements.
A managed side-by-side customer journey starts with organization wanting more control over how Teams is introduced.

- The **first step** of this journey is a limited pilot of Teams scoped to modern collaboration requirements (chat-based workspace, channels, apps, integration with other Office 365 workloads, etc.). Ad-hoc channel meetings and private chat in Teams is also enabled to provide a chance for pilot users to evaluate the Teams meetings experience and private chat experiences. Scheduled meetings and private calling capabilities in Teams are disabled at this stage. To get started with a pilot, go to **Pilot Teams with Skype for Business**.

- The **second step** of this journey is extending the rollout of Teams for modern collaboration with private chat throughout the organization. Scheduled meetings, and private calling continue to be disabled in Teams to reduce the overlap with with Skype for Business capabilities.

At this stage, you may need to consider whether preferred chat application should be set to Teams or Skype for Business for the entire organization.

- If set to Teams, prepare your users to handle early interoperability challenges when communicating with other parties within and across the organization.
If set to Skype for Business, private chats within Teams will remain in Teams, and end users can immediately take advantage of the cross-platform persistent nature of chat capabilities within Teams, and they will continue to use Skype for Business for private chats among Skype for Business users, within the organization and across the organization.

The third step of the managed side-by-side customer journey starts when the organization decides that Teams meeting experience and capabilities meet their business requirements. By enabling private and channel meetings in Teams, users are presented with options to schedule both Teams meetings and Skype for Business meetings. Therefore, it is expected that over time users will naturally switch to Teams meetings given the continued innovations in Teams. To be successful in steering usage from Skype for Business to Teams, implement a robust change management program inclusive of training, support and communications that explains the value-add that Teams offers to the user, with clear guidance on how to get started with Teams. Leverage our User Readiness resources to help design your awareness campaign.

The fourth step of the managed side-by-side customer journey begins with enabling calling in Teams. Teams interoperability capabilities will feature heavily in this step to ensure a seamless side-by-side experience. Ideally, to enforce the use of Teams for private calling, Teams is set as the default calling app.

Over time, potentially the whole organization can rely solely on Teams to meet communications and collaboration requirements and take the fifth step. To see when new features are coming in Teams, see the Office 365 Roadmap.

Managing side-by-side experience

By default, for organizations with eligible Office 365 subscriptions, Microsoft Teams is enabled. If your organization fits the profile for unmanaged side-by-side customer journey, we highly recommend you keep it as-is to foster organic adoption of Microsoft Teams.

Teams is accessible via modern Web browser desktop clients which require no IT administrative privilege (for installation, currently applicable to PC only) and mobile clients.

All capabilities in Teams, from private chat and calling, ad-hoc and scheduled meetings, and apps are enabled by default, allowing users to experiment and use the capabilities that suit their needs. A first-run experience in Teams guides users to pick their preferred chat and calling application (Microsoft Teams or Skype for Business).
Should your organization require a more controlled release of new tools such as Teams, the following options can be considered for your managed side-by-side customer journey, they are:

- Pilot and rollout of Teams for collaboration. See Pilot Teams with Skype for Business.
- Rollout of Teams for meetings
- Rollout of Teams for calling

**Teams pilot and rollout for collaboration**

At its core, Microsoft Teams was built around persistent chat and integration with Office 365 by enhancing Office 365 Groups.

Since by default users in your organization with an eligible Office 365 subscription license are enabled for Teams, a limited Teams pilot will involve disabling the Teams license for all users who are outside of the pilot group.

To focus the Teams release as a collaboration and private chat solution, and to reduce user confusion due to overlapping capabilities with Skype for Business, you can change the following settings at the Office 365 tenant level. To change these Office 365 settings, see Set up Microsoft Teams in your Office 365 organization.

<table>
<thead>
<tr>
<th>SECTION</th>
<th>SETTING</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calls and meetings</td>
<td>Allow scheduling for private meetings: <strong>Off</strong></td>
<td>Disabling this setting prevents users from scheduling private meetings</td>
</tr>
<tr>
<td></td>
<td>Allow scheduling for channel meetings: <strong>Off</strong></td>
<td>Disabling this setting prevents users from scheduling channel meetings</td>
</tr>
<tr>
<td></td>
<td>Allow private calling: <strong>Off</strong></td>
<td>Disabling this setting prevents users from making private calls (audio and video)</td>
</tr>
</tbody>
</table>
You must disable Private Calling to both Business and Enterprise users, and Guest users (if Guest Access is applicable to your organization).

With this configuration, users can be introduced to how meetings work in Teams by advocating the use of ad-hoc channel meetup, enabling the use of voice, video, and screen sharing as part of the modern collaboration experience. End users can also benefit from Teams persistent, cross-platform, private chat capabilities.

A successful Teams pilot for collaboration and private chat can be followed up with broad rollout throughout the organization by enabling Teams license for all users.

During the pilot, and in phase two when private chat enabled, a Teams user chatting with a Skype for Business user will not be able to do the following:
- Start video call from a chat
- Transfers
- Initiate a multiparty call from the chat
- Users will not be able to start a desktop sharing session

**Rollout of Teams for meetings**
As users are getting accustomed to collaborating using Microsoft Teams, scheduled meetings can be considered as the next capability to enable in the organization.

The organizers of scheduled meetings must have mailboxes in Exchange Online multi-tenant (or Exchange Online Dedicated).

The following settings can be configured at the tenant level to enable scheduled meetings in Teams, and the settings are applicable to Business and Enterprise users only.

<table>
<thead>
<tr>
<th>SECTION</th>
<th>SETTING</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calls and meetings</td>
<td>Allow scheduling for private meetings: <strong>On</strong></td>
<td>Enabling this setting allows users to schedule private meetings</td>
</tr>
<tr>
<td></td>
<td>Allow scheduling for channel meetings: <strong>On</strong></td>
<td>Enabling this setting allows users to schedule channel meetings</td>
</tr>
</tbody>
</table>

Scheduled meetings can be organized via the Teams desktop client, a browser, or via Microsoft Outlook using the meeting add-in for Microsoft Teams. Once scheduled
meetings in Teams is enabled, we recommend you start educating users to create new Teams meetings or update existing Skype for Business meetings to Teams meetings.

**Rollout of Teams for calling**

Private calling is the Teams capability that will be continuously developed, and over time provide a compelling replacement to Skype for Business. When your organization considers that Teams private calling capabilities meet key business requirements, the following settings can be configured at the tenant level to enable private calling in Teams.

<table>
<thead>
<tr>
<th>SECTION</th>
<th>SETTING</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calls and meetings</td>
<td>Allow private calling: <strong>On</strong></td>
<td>Enabling this setting allows users to place private calls (audio and video)</td>
</tr>
<tr>
<td></td>
<td>Allow users to chat privately: Enabling this setting allows users to chat with other users privately.</td>
<td></td>
</tr>
</tbody>
</table>

At this stage, all users must be instructed to choose Teams as the preferred calling app.

With the enablement of private calling, Teams will deliver all capabilities currently provided by Skype for Business, and users can start using Teams to fulfill their communications and collaboration requirements.

**Next** Once Teams is up and running side-by-side with Skype for Business, **Drive Value through adoption of**, while continuing your journey to Skype for Business to

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**Drive value with Microsoft Teams through user adoption**

12/20/2017 • 1 min to read • [Edit Online](#)
Change takes time, but you can start to realize value and benefit today. While you continue to use Skype for Business, we encourage you to progress along your organization’s journey to Teams, unlocking the value of intelligent communications with Office 365 and helping facilitate a successful move to Teams in the future.

Microsoft is working hard to bring you tailored practical guidance to ensure that you’re set up for long-term success. Leverage the resources below to continue your path to Teams and look for more resources to be released in the months ahead.

**Promote adoption of Teams alongside Skype for Business**

- Customize and share Skype and Teams side-by-side [User Readiness](#) resources
- Share Teams [Training](#) resources to facilitate the learning curve
- Provide Teams [Help](#) topics for users to accelerate their onboarding
- New to adoption and change management? Leverage the [Office 365 Adoption Guide](#)

**Get your organization ready for your future move to Teams**

- Use the [Roadmap](#) to navigate your journey to Teams
- Check out [Teams Resources](#) and [FastTrack](#) for assistance with deploying Teams
- Contact [Partners](#) if you need help with your Teams deployment or journey

**FAQ - Journey from Skype for Business to Microsoft Teams**

1/16/2018 • 10 min to read • [Edit Online](#)

**Intelligent Communications Vision**

**What is Microsoft’s new vision for Intelligent Communications (aka Unified Communications vision)?**

We’ve enjoyed great success across Office 365 with over 100M monthly commercial active users counting on Office 365 every day to get their work done. We are now aiming to bring the capabilities of Skype for Business in the cloud into Teams to deliver a single hub for teamwork, with built-in, fully integrated voice and video. By tightly weaving communications into the apps teams use to collaborate every day, alongside AI, Microsoft Graph, LinkedIn, and other data and cognitive services, we will enable Intelligent Communications, revolutionizing calling and meeting experiences.
Why are you planning on bringing Skype for Business and Teams together?
As users are working on more teams, we see the opportunity to more seamlessly integrate our communication capabilities into Teams so users can have a single place for their conversations, contacts and content. We believe Teams also provides a modern cloud infrastructure that enables us to take advantage of our assets for artificial intelligence such as AI, Microsoft Graph, LinkedIn to deliver intelligent communications. With Teams, we can create new experiences for meetings and calling including the prep, delivery and post follow-ups.

Is there a firm deadline by which customers need to move from Skype for Business Online to Teams?
We will make our roadmap for Teams available, so customers can assess the capabilities for Teams relative to their needs and plan their move to Teams. Customers can determine the timing for moving to Teams that best meets their needs. A great way to stay on top of news about the journey from Skype for Business to Teams is the Skype for Businesses to Microsoft Teams Capabilities Roadmap - a downloadable PDF (in English only, at least for now) that gives Microsoft’s current expectations about Skype for Business capabilities coming to Teams.

What is the future of Skype for Business Server?
We recognize that customers are using Skype for Business on-premises and many need to use Skype for Business on-premises for some users or geographies due to their requirements. We are targeting general availability of Skype for Business Server 2019 by the end of 2018 (dates subject to change).

What will happen to the Skype brand?
We remain committed to the overall Skype brand which represents a family of communications capabilities across our consumer and commercial segments. Skype remains the product name for our consumer offer and Skype for Business remains as the product name for the on-premises server. The Skype for Business brand will also surface in voice and video experiences within Teams.

Tell me about the benefits of the backend infrastructure
Supported by the new Skype back-end infrastructure, Teams is built for the cloud on a highly scalable microservices architecture that’s efficient in bandwidth consumption, provides a more robust telemetry, and enables maintenance and upgrades with minimal disruption. As a result, users will see faster meeting join times and a better browser experience without needing to download plug-ins. This modern infrastructure makes it easy to tap into Microsoft Cognitive Services, which include transcription, translation, speech recognition, and machine learning capabilities and have the power to make communication and collaboration easier and more effective.

What does this mean for existing Office 365 customers?
We will bring the key set of Skype for Business capabilities in Office 365 into Teams over time along with new voice, video and meetings innovation. Customers may choose to migrate Skype for Business users when the capabilities meet their requirements. We encourage all Office 365 customers to start using Teams independently or side-by-side with Skype for Business.

Will you continue to invest in improving Skype for Business in Office 365?
Our vision for bringing together Intelligent Communications and collaboration is focused on Teams. We plan to continue to support Skype for Business in Office 365. We plan to continue to support the Skype for Business service and client. We have no plan to remove Skype for Business from Office 365 subscriptions at this time. We plan to continue to support the Skype for Business clients to access on-premises server and online services. There is no end of support date at this time.

What do you recommend for customers who are currently in the process or planning to deploy Skype for Business?
Customers should evaluate the Teams roadmap to determine if capabilities will meet business needs and timing requirements. If so, they should adjust strategy to deploy Teams. Planning and infrastructure investments such as network assessments will accrue to Teams deployment. If not, customers should move forward with Skype for Business. We encourage all Office 365 customers to start using Teams, independently or in parallel with Skype for Business.

What support are you offering to customers who wish to move to Teams, especially those who have made significant investments in Skype for Business in Office 365?
Customers continue to use Skype for Business in Office 365 until Teams meets their business needs. We will assist customers who wish to move users to Teams with tools and guidance to control and manage the process. Prescriptive guidance and best practices will be available at https://aka.ms/skypeandteams. We will help ease the transition for users new to Teams with a specialized first run experience and in-product coach marks. FastTrack, customer support and partners will be available to help guide customers through the transition.

What does this mean from a licensing perspective? How will customers pay for Intelligent Communications services in Teams?
Teams is available in the Office 365 suites. Capabilities that are premium workloads in Skype for Business in Office 365 today will continue to be premium workloads in Teams. Existing licensing investments made by customers will carry forward to Teams. For example, if a customer has purchased Audio Conferencing standalone or E5 with Skype for Business, Audio Conferencing will be enabled in Teams as it is available today.

Is Microsoft planning scheduled upgrades?
Currently, we have no plans to schedule upgrades for enterprise customers. Customers can choose to move to Teams as the capabilities meet their business needs. We will empower administrators and users with tools and guidance to assist them in the transition to Teams.

Skype to Teams Roadmap
How can customers learn when Skype for Business capabilities will be available in Teams?
We will make information on upcoming Teams features available on the Office 365 Roadmap. The Skype to Teams roadmap is at http://aka.ms/skype2teamsroadmap.
What APIs and SDKs will be made available for Teams?
We expect to have more information to share regarding the extensibility offerings for Teams via APIs and SDKs at Build 2018 (Spring).

Will you support third-party development opportunities in Teams?
Yes. We currently support third-party bots, connectors, and extensions in Teams. In addition, we anticipate having third-party developer communication add-ons available in 2018.

Is Teams available in Office 365 Education and Government plans?
Teams is available in all Office 365 for Education suite licensing: Education, Education Plus and Education E5, as well as existing Education E3 customers who purchased E3 prior to its retirement. Teams is not available to Government customers at this time, but we expect to make it available to these customers in the future.

Do you have plans to offer Teams in the government community cloud (GCC)?
Teams is actively pursuing FedRAMP compliance and bringing a GCC offering to market.

Calling capabilities

What is the plan for Microsoft’s online voice capabilities?
We will be adding our currently available Phone System (formerly known as Cloud PBX) and calling capabilities to Teams. This will happen over time with key functionality slated for delivery during the fourth quarter of 2018 (dates subject to change).

What is the guidance for customers already deployed on Phone System (Cloud PBX) in Skype for Business Online?
Customers should evaluate the Teams roadmap to determine when capabilities will meet their business needs. We encourage all Office 365 customers to start using Teams, independently or in parallel with Skype for Business.

When will hybrid customers be able to move to Teams?
We are planning to simplify how customers connect trunks or 3rd party telephony systems to Office 365 based on customer feedback. The new approach is currently targeted to release in the second quarter of 2018. This date is subject to change - customers should refer to the latest roadmap information for Teams. Customers using hybrid voice or with needs for hybrid voice today can continue to use Skype for Business Online.

Messaging capabilities

Will people-centric conversations be available in the new client?
One of the many advantages of using Teams is that users gain access to new communication features. All chat is people-centric in Teams. Users can easily review their entire history of chat with other users easily from their client or browser. Searches are easier to execute.
Meeting capabilities

**Is Audio Conferencing coverage in Teams different in Skype for Business?**
There will be no change in the coverage for Audio Conferencing as a result of its availability in Teams. The coverage of 90+ countries and 400+ cities we have today will continue to persist in both products. For the current list of countries/regions where Audio Conferencing is available, please read here.

**Are 3rd party Audio Conferencing Providers (ACP) supported in Teams?**
There are no plans to support 3rd party audio conferencing providers (ACP) in Teams. We believe the best audio conferencing experience for customers using Teams and Skype for Business will be using our Audio Conferencing services in Office 365 (formerly PSTN Conferencing). Customers needing to leverage our ACP support in Skype for Business meetings can continue to use their Skype for Business client. Meetings scheduled within the Teams client will only support the Audio Conferencing services of Office 365.

**What is the plan for video interoperability support for Teams meetings?**
Meeting room devices are critical to our vision for the modern workplace. We announced on September 25 at Ignite that we are working with Blue Jeans and Pexip to deliver cloud video interoperability with Teams. Customers can continue to use Polycom Real Connect for Office 365 with Skype for Business Online. We will make our roadmap available, so customers can assess Teams for their business needs.

**Will the latest generation of Skype Room Systems (V2) support meetings in Teams?**
Meeting room devices are critical to our vision for the modern workplace and we continue our momentum with Skype Room Systems. Initially, Skype Room Systems will support single-click join to Teams meetings and most Skype Room Systems features except for dual screen support and panoramic video devices. Dual screens and panoramic devices are planned for later releases.

**Will Skype Room Systems V1 be updated to support Teams meetings?**
Meeting room devices are critical to our vision for the modern workplace. Skype Room Systems v1 (aka Lync Room Systems) will have an upgrade available which will allow these devices to join Teams Meetings. As part of that upgrade process, we will also upgrade these devices from Windows 7 to Windows 10 to further secure the devices. For those devices using touch screens, you will lose access to touch features and features such as inking, PowerPoint annotation, and Whiteboarding, and front of room touch to start a meeting will stop working.

Management capabilities

**What is planned for new Management experiences?**
Microsoft plans to launch a new administration portal for IT Pros within the Office 365 Admin Center. Like the Skype for Business Admin Console, this new portal will be a single place to administer our new experiences. The initial release of the portal, targeted for the first quarter of 2018, is designed to support Administration through
an enterprise-ready policy model for Teams-only customers, replacing the existing administration interface for Teams. With this portal, we will be able to create custom presence, chat, app, meeting and voice policies and assign those policies to Teams users.

Device compatibility

Can I use Teams on Surface Hub?
Many of the Teams experiences work on Surface Hub today through the Edge browser. Sign in from the Welcome screen on your Surface Hub, open Edge, and type teams.microsoft.com to access your teams, channels, documents, conversations, and meetings. Surface Hub supports Teams meetings, and we look forward to sharing more details in the future on additional integrated Teams experiences on Surface Hub.

Will certified Skype for Business online phones work with Teams?
For all questions related to phone compatibility, see the Certified Skype for Business Online Phones and what this means for Teams blog.

Compare Skype for Business features with Teams

The following tables show features that are available with clients homed on Skype for Business Server 2015 or Skype for Business Online, compared with the features available on Microsoft Teams.

Enhanced Presence support

This table covers the Enhanced Presence features that extend beyond a simple indication of whether a user is online, offline, busy, etc.

<table>
<thead>
<tr>
<th>FEATURE/CAPABILITY</th>
<th>SKYPE FOR BUSINESS 2015 OR 2016 CLIENT</th>
<th>SKYPE FOR BUSINESS ON MAC</th>
<th>TEAMS CLIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publish status</td>
<td>†</td>
<td></td>
<td></td>
</tr>
<tr>
<td>View status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>View status notes and Out of Office messages</td>
<td></td>
<td></td>
<td>Coming soon</td>
</tr>
</tbody>
</table>
Add a custom location

Add a custom note  Coming soon

Use a photo from any public site for My Picture (not available with Skype for Business Online)

† Does not support publishing status based on calendar free/busy information.

Contacts and Contact Groups support
This table covers the features relating to managing IM and Presence contacts.

<table>
<thead>
<tr>
<th>FEATURE/CAPABILITY</th>
<th>SKYPE FOR BUSINESS 2015 OR 2016 CLIENT</th>
<th>SKYPE FOR BUSINESS ON MAC</th>
<th>TEAMS CLIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-populated Contacts list</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>View and Modify Contacts list</td>
<td></td>
<td></td>
<td>Coming soon</td>
</tr>
<tr>
<td>Tag contacts for status change alerts</td>
<td></td>
<td></td>
<td>Coming soon</td>
</tr>
<tr>
<td>Control privacy relationships</td>
<td></td>
<td></td>
<td>Coming soon</td>
</tr>
<tr>
<td>Search the corporate address book</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEATURE/CAPABILITY</th>
<th>SKYPE FOR BUSINESS 2015 OR 2016 CLIENT</th>
<th>SKYPE FOR BUSINESS ON MAC</th>
<th>TEAMS CLIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search Microsoft Outlook contacts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>----------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage contact groups</td>
<td>Coming soon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expand distribution groups and Office 365 Groups</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search for Response Groups (not available in Skype for Business Online)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display recent contacts group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display current conversations group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display alternate contact views (for example, tile)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sort contacts by Group, Relationship, or New †</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sort by group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sort contacts by Status (availability)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search and add Exchange contacts †</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

† Search is supported. Adding contacts is not supported.

**IM support**

This table covers features related to IM support.
<table>
<thead>
<tr>
<th>FEATURE/CAPABILITY</th>
<th>SKYPE FOR BUSINESS 2015 OR 2016 CLIENT</th>
<th>SKYPE FOR BUSINESS ON MAC</th>
<th>TEAMS CLIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiate IM with or email to a contact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Navigate among multiple IM conversations/Track multiple conversations in a single tabbed window</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log IM conversations in Outlook</td>
<td>If server side conversation history is turned on</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use prepared conversation templates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check spelling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skill search (with SharePoint Server integration) †</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persistent Chat (Group Chat) integration ‡</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Escalate a Persistent Chat room to a Skype for Business Meeting with one click ‡</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inline pictures of sender and receiver in IM window</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Send ink messages</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Receive ink messages

Set IM messages as high importance

†On-premises Skype for Business Server and on-premises SharePoint 2013 are required for skill search.

‡Not available with Skype for Business Online.

**Meetings support**

This table covers features related to Meetings support.

[Note:] Skype for Business meeting features aren't available in Skype for Business Online Standalone Plan 1. In Skype-to-Skype sessions, a Skype for Business Online Plan 1 user can participate in desktop sharing and application sharing if they're invited by a user who has access to sharing features. For details, see the Skype for Business Online Service Description.

<table>
<thead>
<tr>
<th>FEATURE/CAPABILITY</th>
<th>SKYPE FOR BUSINESS 2015 OR 2016 CLIENT</th>
<th>SKYPE FOR BUSINESS ON MAC</th>
<th>TEAMS CLIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add computer audio</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add video</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>View multiparty video (gallery view)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video-based screen sharing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use in-meeting presenter controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access detailed meeting roster</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participate in multiparty IM</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Share the desktop (if enabled)†

Share a program (if enabled)

Add anonymous participants (if enabled)

Use dial-in audio meetings

Initiate a Meet Now meeting

Add and present Microsoft PowerPoint files

Navigate Microsoft PowerPoint files

Add and edit OneNote meeting notes

Use a whiteboard

Conduct polls

Upload files to share with others

Schedule a meeting or conference

Q&A Manager
<table>
<thead>
<tr>
<th>FEATURE/CAPABILITY</th>
<th>SKYPE FOR BUSINESS 2015 OR 2016 CLIENT</th>
<th>SKYPE FOR BUSINESS ON MAC</th>
<th>TEAMS CLIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delegate can schedule a meeting on behalf of delegator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synchronize delegates between Skype for Business and Outlook</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video Based Screen Sharing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set Video Spotlight (lock video)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Give/Take control of screen sharing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

† Participants can't control desktops that are shared by Skype for Business on Mac. Skype for Business on Mac users can't control desktops shared by Windows users.
Voice (Telephony) support

This table covers features related to voice services support.

<table>
<thead>
<tr>
<th>FEATURE/CAPABILITY</th>
<th>SKYPE FOR BUSINESS 2015 OR 2016 CLIENT</th>
<th>SKYPE FOR BUSINESS ON MAC</th>
<th>TEAMS CLIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiate a call</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Click to call a contact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer a call</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage call forwarding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage team call settings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage delegates</td>
<td></td>
<td>Requires Skype for Business Server 2015 CU4 or later</td>
<td></td>
</tr>
<tr>
<td>Initiate a call to a Response Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support emergency services (E-911)</td>
<td></td>
<td>Requires Skype for Business Server 2015 CU4 or later</td>
<td></td>
</tr>
<tr>
<td>Connect to voice mail, set up or change greeting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missed call notification</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEATURE/CAPABILITY</th>
<th>SKYPE FOR BUSINESS 2015 OR 2016 CLIENT</th>
<th>SKYPE FOR BUSINESS ON MAC</th>
<th>TEAMS CLIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make calls on behalf of another contact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(manager/delegate scenario)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Handle another’s calls if configured as a delegate

Manage a high volumes of calls

Call park

Group call pickup

Location-based routing

Manage Response Group/Team call group

### External users support

This table covers features related to support for external users homed on the PSTN.

<table>
<thead>
<tr>
<th>FEATURE/CAPABILITY</th>
<th>SKYPE FOR BUSINESS 2015 OR 2016 CLIENT</th>
<th>SKYPE FOR BUSINESS ON MAC</th>
<th>TEAMS CLIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiate IM with a public contact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiate IM with a federated contact</td>
<td></td>
<td></td>
<td>Coming soon</td>
</tr>
<tr>
<td>Conduct two-party or multiparty calls with external users †</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

† Not available with Skype for Business Online.

### Recording support

This table covers features related to support for recording meetings.
Client-side recording of audio, video, application sharing, desktop sharing, and uploaded content

Client-side recording of file transfers, shared OneNote pages, and PowerPoint annotations

Select preferred recording resolution

† Recording is unavailable in certain Skype for Business Online standalone plans. Recording requires full Skype for Business client rights.

‡ Recording of file transfers, shared OneNote pages, and PowerPoint annotations is unavailable in Skype for Business Online.

**Modern Authentication**

This table covers features requiring support for modern authentication.

<table>
<thead>
<tr>
<th>FEATURE/CAPABILITY</th>
<th>SKYPE FOR BUSINESS 2015 OR 2016 CLIENT</th>
<th>SKYPE FOR BUSINESS ON MAC</th>
<th>TEAMS CLIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern Authentication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-factor Authentication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cert-Based Authentication</td>
<td>(Domain-joined device only)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Archiving, compliance, and logging support

This table covers features related to support for archiving and logging functions and compares Skype for Business Online with Teams.

<table>
<thead>
<tr>
<th>FEATURE/CAPABILITY</th>
<th>SKYPE FOR BUSINESS 2015 OR 2016 CLIENT</th>
<th>SKYPE FOR BUSINESS ON MAC</th>
<th>TEAMS CLIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving of IM conversations in Outlook Conversation History</td>
<td>If server-side conversation history is turned on</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access sign-in logs from client</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>eDiscovery/archiving/content search and hold for conversations data</td>
<td>†</td>
<td>†</td>
<td></td>
</tr>
<tr>
<td>eDiscovery/archiving/content search and hold for meetings and calls</td>
<td>† †</td>
<td>† †</td>
<td>Coming soon</td>
</tr>
<tr>
<td>Office 365 audit logs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retention policies for conversations and files</td>
<td>†</td>
<td>†</td>
<td>Coming soon</td>
</tr>
</tbody>
</table>

† Supports iOS and Android. Does not support other clients.
DLP for conversations and files

† For Skype for Business Online users, this feature requires Exchange Online and is controlled by the user’s Exchange mailbox In-Place Hold attribute.

‡ Supports Metadata, PowerPoint uploads, File transfer, Whiteboard, and Q&A. Does not support Audio, Video, and App and Desktop sharing.
Learn about Teams and drive usage in your organization. Check back frequently for new videos.

<table>
<thead>
<tr>
<th>Tutorial: Journey from Skype for Business to Teams</th>
<th>Walks you through everything you need to know about the journey to Teams from Skype for Business Online.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick start - Microsoft Teams for Education admins</td>
<td>For IT admins in Education, deploy Teams across your organization.</td>
</tr>
<tr>
<td>Quick start guide: Configuring Calling Plans in Microsoft Teams</td>
<td>Quick start guide for configuring calling plans in Teams.</td>
</tr>
<tr>
<td>Audio Conferencing videos</td>
<td>Videos introducing Audio Conferencing in Teams to the IT admin.</td>
</tr>
</tbody>
</table>

Deploying and operating Teams

Deep dive into Guest Access
Coffee in the Cloud session with Laith Al and Karuana Gatimu
e-Discovery in Microsoft Teams
Coffee in the Cloud session with Anuman Acharya and Karuana Gatimu

Teams: Step-by-step intro for using, enabling and managing the experience
Microsoft Mechanics session with Dan Stevenson and Jeremy Chapman
End user training for Microsoft Teams
1/30/2018 • 1 min to read • Edit Online

Use these training resources to help you onboard your organization to Microsoft Teams.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Training Center</td>
<td>Training to help your users get the most out of Microsoft Teams</td>
</tr>
<tr>
<td>Microsoft Teams Help</td>
<td>Teams end user product documentation</td>
</tr>
<tr>
<td>Welcome to Teams</td>
<td>A guide to help you get up and running quickly with Teams, the chat-centered workspace in Office 365.</td>
</tr>
<tr>
<td>Microsoft Teams tips &amp; tricks</td>
<td></td>
</tr>
<tr>
<td>What is Microsoft Teams?</td>
<td>Short introduction to Teams, your hub for teamwork</td>
</tr>
<tr>
<td>Microsoft Teams channel on YouTube</td>
<td></td>
</tr>
<tr>
<td>Introduction to Microsoft Teams</td>
<td></td>
</tr>
</tbody>
</table>

Overview of security and compliance in Microsoft Teams
12/20/2017 • 4 min to read • Edit Online

Microsoft Teams is built on the Office 365 hyper-scale, enterprise-grade cloud, delivering the advanced security and compliance capabilities our customers expect.
Teams is Tier C-compliant at launch. This includes the following standards: ISO 27001, ISO 27018, SSAE16 SOC 1 and SOC 2, HIPAA, and EU Model Clauses (EUMC). Within the Microsoft compliance framework, Microsoft classifies Office 365 applications and services into four categories. Each category is defined by specific compliance commitments that must be met for an Office 365 service, or a related Microsoft service, to be listed in that category.

Services in compliance categories C and D that have industry-leading compliance commitments are enabled by default. Services in categories A and B come with controls to turn on or turn off these services for an entire organization. Details can be found in the Compliance Framework for Industry Standards and Regulations. Microsoft Teams also supports Cloud Security Alliance compliance.

Teams also enforces team-wide and organization-wide two-factor authentication, single sign-on through Active Directory, and encryption of data in transit and at rest. Files are stored in SharePoint and are backed by SharePoint encryption. Notes are stored in OneNote and are backed by OneNote encryption.

We also added support for audit log search, eDiscovery and legal hold for channels, chats and files as well as mobile application management with Microsoft Intune.

These tools reside in the Office 365 Security and Compliance Portal and provide the following features:

- Auditing and Reporting
  - Audit log search plugs right into the Office 365 Security and Compliance Center and exposes abilities to set alerts and/or report on Audit event by making available, export of workload specific or generic event sets for admin use and investigation, across an unlimited auditing timeline. All Audit Log data is available for setting up of alerts within the Office 365 Security and Compliance Center, as well as for filtering and export for further analysis.

- Compliance Content Search
  - Content Search can be used to search Microsoft Teams through rich filtering capabilities and exported to a specific container for compliance and litigation support. This can be done with or without an eDiscovery case. eDiscovery

- Electronic discovery is the electronic aspect of identifying, collecting and producing electronically stored information (ESI) in response to a request for production in a law suit or investigation.
  - Capabilities include case management, preservation, search, analysis and export of Teams data. This includes chat, messaging and file data.
  - Customers can leverage in-place eDiscovery or
  - Advanced eDiscovery The following table outlines the differences between the two:
Case Management | X | X  
Access Control | X | X  
Content Searches | X | X  
Hold(s) | X | X  
Export | X | X  
Duplication Detection | - | X  
Relevance Searches with Machine Learning | - | X  
Unstructured Data Analysis | - | X  
- Legal Hold
  ° When any Team within Microsoft Teams is put on In-Place Hold or Litigation Hold, the hold is placed on the groups mailbox.
  ° Legal Holds are generally applied within the context of an eDiscovery case.

The figure below indicates the workflow of Teams data to both Exchange and SharePoint.

IMPORTANT
There can be up to a 24-hr delay to discover Teams content.
Additionally, Microsoft is considering providing the following security features for Teams. Once available, guidance will be provided on how customers can leverage the features:

- Tenant-specific retention Policy
- Data loss prevention (DLP)
- Customer Lockbox
- Rights Management

### Decision Point

What security and compliance features does your organization require? Does your organization have the required licenses to meet Security and Compliance business requirements?

### Next Steps

Document the required security and compliance features in the table below.

### Licensing

When it comes to the information protection capabilities, Office 365 subscriptions and the associated standalone licenses will determine the available feature set.

<table>
<thead>
<tr>
<th>INFORMATION PROTECTION CAPABILITY</th>
<th>OFFICE 365 BUSINESS ESSENTIALS</th>
<th>OFFICE 365 BUSINESS PREMIUM</th>
<th>OFFICE 365 ENTERPRISE E1</th>
<th>OFFICE 365 ENTERPRISE E3/E4</th>
<th>OFFICE 365 ENTERPRISE E5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archive</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>In-Place eDiscovery</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Advanced eDiscovery</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
</tr>
<tr>
<td>Legal Hold</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Requirement</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>---</td>
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<td></td>
</tr>
<tr>
<td>Compliance</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Content Search</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Auditing and</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Reporting</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Conditional</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Access*</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

*Conditional Access requires additional licenses

Decision Point

Does your organization have the required licenses to meet Compliance and Security business requirements?

Next Steps

Review your organization's current licensing and confirm it meets all business requirements for compliance and security.

Before enabling any of these features, ensure you have access to the Security & Compliance Center in the Office 365 Admin center. By default, tenant admins have access.

Content Search and eDiscovery do not require enablement within the Security & Compliance Center.

Location of data in Microsoft Teams

Data in Teams resides in the region based on tenant affinity. Currently, Teams supports the Americas, EMEA, and APAC regions.

As of November 1, 2017, Teams offers data residency in the United Kingdom for new tenants only. A new tenant is defined as any tenant that hasn’t had a single user from the tenant sign in to Microsoft Teams.

**NOTE**

Existing tenants from the UK will continue to remain in EMEA, until a migration plan is published (which is anticipated in 2018).

For more information, see the Microsoft Teams tech community blog post about the launch of UK data residency.
Privacy in Microsoft Teams

As a customer of Office 365, you own and control your data. Microsoft does not use your data for anything other than providing you with the service that you have subscribed to. As a service provider, we do not scan your email, documents, or teams for advertising or for purposes that are not service-related. Microsoft doesn’t have access to uploaded content. Like OneDrive for Business and SharePoint Online, customer data stays within the tenant.

Check out more about our trust and security related information at the Office 365 Trust Center. Teams follows the same guidance and principles as the Office 365 Trust Center.
Identity models and authentication in Microsoft Teams

Microsoft Teams support all the identity models that are available with Office 365. Supported identity models include:

- **Cloud Identity**: In this model, a user is created and managed in Office 365 and stored in Azure Active Directory, and the password is verified by Azure Active Directory.

- **Synchronized Identity**: In this model, the user identity is managed in an on-premises server, and the accounts and password hashes are synchronized to the cloud. The user enters the same password on-premises as they do in the cloud, and at sign-in the password is verified by Azure Active Directory. This model uses the Microsoft Azure Active Directory Connect Tool.

- **Federated Identity**: This model requires a synchronized identity with the user password is verified by the on-premises identity provider. With this model, the password hash does not need to be synchronized to Azure AD, and Active Directory Federation Services (ADFS) or a third-party identity provider is used to authenticate users against the on-premises Active Directory.

**Configurations**

Depending on your organization’s decisions of which identity model to implement and use, the implementation requirements may vary. Refer to the requirements table below to ensure that your deployment meets these prerequisites. If you have already deployed Office 365 and have already implemented the identity and authentication method, you may skip these steps.

<table>
<thead>
<tr>
<th>IDENTITY MODEL</th>
<th>DEPLOYMENT CHECKLIST</th>
<th>ADDITIONAL INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>1. Compare Office 365 Plan Options and obtain a subscription &lt;br&gt; 2. Create an Office 365 tenant &lt;br&gt; 3. Assign Office 365 licenses to the tenant &lt;br&gt; 4. Configure Domains and admin users &lt;br&gt; 5. Continue with Identity Model specific instructions</td>
<td>Office 365 Plan Options&lt;br&gt;Compare Office 365 Business Plans&lt;br&gt;Buy licenses for your Office 365 for business subscription&lt;br&gt;Add licenses to a subscription&lt;br&gt;Set up Office 365 for business&lt;br&gt;Add users and domain with the setup wizard&lt;br&gt;Note: If you need assistance, the</td>
</tr>
</tbody>
</table>
Microsoft FastTrack for Office 365 team is available to assist.

<table>
<thead>
<tr>
<th>IDENTITY MODEL</th>
<th>DEPLOYMENT CHECKLIST</th>
<th>ADDITIONAL INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud Identity</td>
<td>1. Create users using Office 365 Admin Portal</td>
<td>Add users individually or in bulk to Office 365</td>
</tr>
<tr>
<td></td>
<td>2. Synchronize with Azure AD Connect</td>
<td>Set up directory synchronization for Office 365</td>
</tr>
<tr>
<td></td>
<td>3. Configure and manage with Azure AD Connect</td>
<td>Note: Password hashes must be synchronized for Office 365 to perform authentication.</td>
</tr>
<tr>
<td></td>
<td>4. Create users using on-premises Active Directory management tools</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synchronized Identity</td>
<td>1. Install Azure AD Connect</td>
<td>Set up directory synchronization for Office 365</td>
</tr>
<tr>
<td></td>
<td>2. Configure Directory Synchronization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Create users using on-premises Active Directory management tools</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Set up directory synchronization for Office 365</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Plan your AD FS deployment checklist</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Plan your AD FS deployment checklist</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Deploy your federation server farm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Configure extranet access for AD FS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9. Set up a trust between AD FS and Azure AD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10. Verify and manage single signon with ADFS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11. Note: Password hashes do not need to be synchronized to</td>
<td></td>
</tr>
<tr>
<td>Federated Identity</td>
<td>1. Install Azure AD Connect</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Configure Directory Synchronization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Install and configure a Federated Identity Provider (ADFS recommended)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Create users using on-premises Active Directory management tools</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Set up directory synchronization for Office 365</td>
<td></td>
</tr>
</tbody>
</table>
Refer to Choosing a sign-in model for Office 365 and Understanding Office 365 identity and Azure Active Directory guides for additional details.

## Multi-Factor Authentication

Office 365 plans support Multi-Factor Authentication (MFA) that increases the security of user logins to Office 365 services. With MFA for Office 365, users are required to acknowledge a phone call, text message, or an app notification on their smartphone after correctly entering their password. Only after this second authentication factor has been satisfied, can a user sign in.

Multi Factor authentication is supported with any Office 365 plan that that includes Microsoft Teams. The Office 365 subscription plans that include Microsoft Teams are discussed later in the Licensing section below.

Once the users are enrolled for MFA, the next time a user signs in, they see a message that asks them to set up their second authentication factor. Supported authentication methods are:

<table>
<thead>
<tr>
<th>TENANT TYPE</th>
<th>AVAILABLE MFA SECOND FACTOR OPTIONS</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud Only</td>
<td>MFA for Office 365</td>
<td>Plan for multi-factor authentication for Office 365 Deployments</td>
</tr>
<tr>
<td></td>
<td>✦ Phone Call</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✦ Text Message</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✦ Mobile App Notification</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mobile App Verification Code</td>
<td></td>
</tr>
</tbody>
</table>

Refer to Choosing a sign-in model for Office 365 and Understanding Office 365 identity and Azure Active Directory guides for additional details.
| Hybrid setup (Synchronized or Federated Identity model) | MFA for Office 365  
Azure MFA module (ADFS integrated)  
Physical or virtual smart card (ADFS integrated) | Note: Additional MFA solutions are available with Identity providers that are compatible with Azure AD federation |
The audit log can help you investigate specific activities across Office 365 services. For Teams, here are some of the activities that are audited:

- Team creation
- Team deletion
- Added channel
- Changed setting

To see the complete list of activities that are audited in Office 365, read Search the audit log in the Office 365 Security & Compliance Center.

### Turn on auditing in Teams

Before you can look at audit data, you have to first turn on auditing in the Security & Compliance Center (https://protection.office.com). For help turning on auditing, read Turn Office 365 audit log search on or off.

**IMPORTANT**

Audit data is only available from the point at which you turned on Auditing.

### Retrieve Teams data from the audit log

1. To retrieve audit logs, go to the Security & Compliance Center. Under Search & Investigation, select Audit log search.
1. Use **Search** to filter by the activities, dates, and users you want to audit.

2. Export your results to Excel for further analysis.

**IMPORTANT**

Audit data is only visible in the Audit Log if auditing is turned on.

**Video: TechTip: Using Audit Log Search in Teams**

Join Ansuman Acharya, a program manager for Teams, as he demonstrates conducting an Audit Log search for Teams in the Office 365 Security & Compliance Center.
Large Enterprises are often exposed to high penalty legal proceedings which demand submission of all Electronically Stored Information (ESI).

All Teams 1:1 or group chats are journaled through to the respective users’ mailboxes and all channel messages are journaled through to the group mailbox representing the Team. Files uploaded are covered under the eDiscovery functionality for SharePoint Online and OneDrive for Business.

1. To conduct an eDiscovery investigation with Microsoft Teams content, review this link.

2. Microsoft Teams data will appear as **IM or Conversations** in the Excel output, or you can mount the **.PST** in Outlook.
   a. When mounting the .PST for the Team, note that all conversations are kept in the Team Chat folder under Conversation History. The title of the message aligns to Team and Channel. From reviewing the image below, you can see this message from Bob who messaged the Project 7 channel of the Manufacturing Specs team.

3. To see private chats in a user’s Mailbox, they are also located inside the Team Chat folder under Conversation History.

Content Search provides an ad-hoc way to query Microsoft Teams information spanning Exchange, SharePoint Online, and OneDrive for Business.
In the example below, we created a new **Content Search**. Then, we selected the Manufacturing Specs mailbox and Manufacturing Specs SharePoint site. This allows us to search against Channel chats from Exchange, File uploads/modifications from SharePoint Online, and OneNote changes as well.

You can also add query criteria to the **Content Search** to narrow the results returned. For example, below we wanted to search both Exchange and SharePoint locations for the Manufacturing Specs team to look for content where the keywords “**New Factory Specs**” were used.

After adding search conditions should you choose to, you can then export a report or the data to your computer for analysis. For more information on how to use Content Search, review this link.
To put a user or a team on Legal Hold, navigate to the Security & Compliance Center. When you create a new case, you are presented with the option to place mailboxes or sites on hold.

**NOTE**
Placing a user on hold does not automatically place a group on hold or vice-versa.

**IMPORTANT**
When a user or group is placed on hold, all message copies will be retained. Example: Clay posted a message in a channel and then modified the message. In a hold scenario, both copies of the message are retained. Without Legal Hold, only the latest message is retained.

In the figure below, there is an investigation involving Clay. Clay is a member of the Brokers-Dealers team.

If we needed to Legal Hold all the places Clay could have discussed Brokering plans, ensure that the team’s SharePoint site is added to the Legal Hold site list, as well as Clay’s OneDrive for Business site.

<table>
<thead>
<tr>
<th>Create a new hold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
</tr>
<tr>
<td>Hold for Woodgrove Bank case</td>
</tr>
<tr>
<td>Mailboxes</td>
</tr>
<tr>
<td>Name</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Brokers-Dealers</td>
</tr>
<tr>
<td>Clay Narvaes</td>
</tr>
</tbody>
</table>

To recap, use the table below to understand what needs to be placed on Legal Hold based on data requirements:

<table>
<thead>
<tr>
<th>SCENARIO</th>
<th>WHAT TO PLACE ON HOLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Teams Private Chats</td>
<td>User mailbox</td>
</tr>
<tr>
<td>Microsoft Teams Channel Chats</td>
<td>Group mailbox used for the team</td>
</tr>
</tbody>
</table>
The following table lists the known issues for Microsoft Teams.

<table>
<thead>
<tr>
<th>ISSUE TITLE</th>
<th>BEHAVIOR / SYMPTOM</th>
<th>KNOWN WORKAROUND</th>
<th>DISCOVERY DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU and APAC customers receive an error when they add a guest user from another tenant</td>
<td>Customers in EU and APAC experience a replication delay between Microsoft Teams and Azure Active Directory. When a user from an EU or APAC tenant tries to add a guest user from any other tenant, they receive an error message asking them to try again.</td>
<td>Click the retry button again to execute the addition of the guest user.</td>
<td>11/8/17</td>
</tr>
</tbody>
</table>
When you try to join Teams from Internet Explorer or Edge, the program consistently loops or crashes and doesn’t sign in.

Your organization utilizes Trusted Sites in Internet Explorer and the Teams web-based application does not correctly log in because trusted sites for Teams are not allowed.

Make the following changes to IE settings, either with Administrator rights or a Group Policy Object:
1. Under Internet Options > Privacy > Advanced, accept First-Party and ThirdParty cookies, and check the box for Always allow session cookies.
2. Click Internet Options > Trusted Sites > Sites, and add all of the following:
   - https://*.microsoft.com
   - https://*.microsoftonline.com
   - https://*.teams.skype.com
   - https://*.teams.microsoft.com
   - https://*.sfbassets.com
   - https://*.skypeforbusiness.com

**NOTE:** Always validate and allow all trusted URLs for Teams and the requirements from the following document: Office 365 URLs and IP address ranges.
<table>
<thead>
<tr>
<th>ISSUE TITLE</th>
<th>BEHAVIOR / SYMPTOM</th>
<th>KNOWN WORKAROUND</th>
<th>DISCOVERY DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photo upload to Teams is not blocked on OWA/Outlook as policy requires</td>
<td>Teams allows users to upload photos directly to Office 365, in spite of policy settings in place preventing photo upload for OWA.</td>
<td></td>
<td>10/16/17</td>
</tr>
<tr>
<td>Teams URL with parameters gets truncated after login redirection</td>
<td>In Internet Explorer and Edge, when opening shared teams file link on a Teams web app for the first time after logging in, you'll be redirected to the wrong document. If you are already signed in to team web app and click the shared file link, then the link works as expected.</td>
<td></td>
<td>10/11/17</td>
</tr>
<tr>
<td>Users might not be able to switch accounts on Intunemanaged mobile devices</td>
<td>Users might not be able to switch accounts on Intunemanaged mobile devices.</td>
<td>No workaround.</td>
<td>9/20/17</td>
</tr>
<tr>
<td>Wiki not created for channels created by guests</td>
<td>When a guest creates a new channel, the Wiki tab is not created. There isn't a way to manually attach a Wiki tab to the channel.</td>
<td>No workaround.</td>
<td>9/20/17</td>
</tr>
<tr>
<td>Issue</td>
<td>Description</td>
<td>Resolution</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------</td>
<td>--------</td>
</tr>
<tr>
<td>Green artifacts in Chrome video rendering</td>
<td>Green artifacts appear while viewing video or sharing the screen in a call or meet up in Chrome.</td>
<td>Disable the hardware acceleration setting in Chrome.</td>
<td>8/3/17</td>
</tr>
<tr>
<td>Outlook add-in limitations</td>
<td>To use the Outlook add-in, you must sign in to Teams using multi-factor authentication (MFA). If MFA fails halfway through the sign-in process, you’ll still be able to sign into Teams, but you’ll get an error message when you try to use the add-in. The add-in is only available for Windows users for the time being. The add-in won’t work if you’re using an authentication proxy.</td>
<td>No workaround.</td>
<td>8/2/17</td>
</tr>
<tr>
<td>Incorrect SharePoint user created for Microsoft Teams SharePoint site</td>
<td>The SharePoint creator for a Microsoft Teams Group appears to be a SharePoint Admin, not the correct user. When auditing from the SharePoint administration console, the creator for the site collection page associated with the Office 365 Group created against the team in Microsoft</td>
<td>No workaround.</td>
<td>7/21/17</td>
</tr>
</tbody>
</table>
Teams is the SharePoint admin.

<table>
<thead>
<tr>
<th>ISSUE TITLE</th>
<th>BEHAVIOR / SYMPTOM</th>
<th>KNOWN WORKAROUND</th>
<th>DISCOVERY DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public team list does not display all teams</td>
<td>The list of public teams is based on the Microsoft Graph.</td>
<td>If you don't see a team, try searching for it in the top right search box.</td>
<td>7/21/17</td>
</tr>
<tr>
<td>Can't access OneNote in 1:1 chat</td>
<td>When in a 1:1 chat, click Notes, and Setup fails to open OneNote.</td>
<td>First, open OneDrive from Files, and then click on Notes in 1:1 chat, which will open OneNote. If the other user in the chat gets a permission denied error, they must open OneDrive in Teams first, which sets the personal site URL.</td>
<td>7/21/17</td>
</tr>
<tr>
<td>Date format and digit separator use US format instead of EU format</td>
<td>When changing the language settings in Microsoft Teams, the date format and digit separator are not changed to the country-specific settings.</td>
<td>No workaround.</td>
<td>7/13/17</td>
</tr>
<tr>
<td>Minimize and Close tooltip remains on primary monitor</td>
<td>In the Windows client, the tooltip for Minimize and Close can remain in your primary monitor after you have minimized or closed the window.</td>
<td>This issue can be avoided by hovering over the Minimize button and waiting for the tooltip to appear before clicking.</td>
<td>7/3/17</td>
</tr>
</tbody>
</table>
### Connector options are missing for some teams

When you right-click a channel, the Connectors option is not present for any member of the team.

The creator of the team must have an online mailbox; otherwise, no Connector option will be available. This is expected behavior.

6/26/17

### A team name with an & symbol breaks connector functionality

When a team name is created with the & symbol, connectors within the Team/Group cannot be established.

Don't use special characters in team names.

6/21/17

### Modern authentication failure

When there is an initial failure with multi-factor authentication, use the web app for authentication. For more information, see [https://docs.microsoft.com/en-us/windowsserver/identity/adfs/operations/adfs-promptlogin](https://docs.microsoft.com/en-us/windowsserver/identity/adfs/operations/adfs-promptlogin).

Check this setting: `Set-MsolDomainFederationSettings -DomainName yourdomainhere -PreferredAuthenticationProtocol WsFed -SupportsMfa $False -PromptLoginBehavior Disabled`.

6/19/17

<table>
<thead>
<tr>
<th>ISSUE TITLE</th>
<th>BEHAVIOR / SYMPTOM</th>
<th>KNOWN WORKAROUND</th>
<th>DISCOVERY DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users can't recreate a preexisting channel name</td>
<td>Once a channel name has been created, even if it's deleted, it cannot be recreated. Our system maintains this data for information protection scenarios.</td>
<td>No workaround.</td>
<td>3/13/17</td>
</tr>
<tr>
<td>Unable to insert stickers using mobile app</td>
<td>You can't use stickers on the mobile apps.</td>
<td>No workaround.</td>
<td>3/13/17</td>
</tr>
<tr>
<td><strong>Skype for Business required for some meetings</strong></td>
<td>Your calendar of appointments is conveniently displayed within Microsoft Teams. To enter a meeting, click the <strong>Join</strong> button. While we are continuing development in this area, if this meeting was scheduled with Skype for Business and you click <strong>Join</strong>, Microsoft Teams will launch your Skype for Business client to complete your entrance into the meeting. Meetings scheduled within Microsoft Teams will initiate directly within the product. In the future, we will streamline this experience.</td>
<td><strong>Click <strong>Join</strong>. Microsoft Teams will intelligently decide whether Skype for Business is required for a user to join the meeting based on the URL included in the meeting description.</strong></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>**Missing <strong>Meetings icon in the left nav bar</strong></td>
<td>The <strong>Meetings</strong> icon on the app bar is currently only enabled for users whose mailbox is on Office 365 multi-tenant and a select few dedicated users whose mailbox location can be discovered using Exchange auto discovery. Microsoft Teams does not yet support mailboxes housed in Exchange onpremises and Exchange Dedicated.</td>
<td><strong>No workaround.</strong></td>
<td></td>
</tr>
</tbody>
</table>
This is under investigation; however, there is no timing for delivering this capability.

<table>
<thead>
<tr>
<th>ISSUE TITLE</th>
<th>BEHAVIOR / SYMPTOM</th>
<th>KNOWN WORKAROUND</th>
<th>DISCOVERY DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendee maximum for meetings</td>
<td>Each Microsoft Teams meeting can have up to 80 attendees.</td>
<td>No workaround.</td>
<td>3/13/17</td>
</tr>
<tr>
<td>Unable to join meetings from the Windows mobile client</td>
<td>You cannot join a team meeting from the Windows Phone app.</td>
<td>Support for joining meetings from Windows Phone is coming soon.</td>
<td>3/13/17</td>
</tr>
<tr>
<td>Mobile Teams client layout differences</td>
<td>Teams are listed in alphabetical order, and the channels cannot be collapsed on the mobile client.</td>
<td>No workaround.</td>
<td>3/13/17</td>
</tr>
<tr>
<td>List of workspaces is not alphabetized</td>
<td>Users switching workspaces when adding a PowerBI tab will encounter an unalphabetized list of workspaces to switch between.</td>
<td>No workaround.</td>
<td>3/13/17</td>
</tr>
<tr>
<td>Issue</td>
<td>Description</td>
<td>Workaround</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Scroll bar disappears when selecting reports</td>
<td>Users adding PowerBI reports can't scroll through a list longer than one screen of reports without losing their scroll bar.</td>
<td>Use Up and Down arrows to scroll through the list.</td>
<td>3/13/17</td>
</tr>
<tr>
<td>Users can't create a team</td>
<td>Your company may have set a policy restricting who can create Office 365 groups or teams.</td>
<td>Check with your IT admin to understand your company’s policy for creating groups and teams.</td>
<td>3/13/17</td>
</tr>
<tr>
<td>Team member maximum of 2500</td>
<td>Each Microsoft Team can have a maximum of 2500 members per team.</td>
<td>No workaround.</td>
<td>3/13/17</td>
</tr>
<tr>
<td>Deleting a team will also delete the group associated with it</td>
<td>Users may not realize that the underlying Office 365 Group is deleted when the team is deleted. Additionally, if the underlying Office 365 Group is deleted, the team is deleted as well.</td>
<td>Additional language in Microsoft Teams provides this information to the user. This information is not present in the Office 365 Groups interface.</td>
<td>3/13/17</td>
</tr>
<tr>
<td>Planner single sign-on (SSO)</td>
<td>SSO does not apply to Planner. You will have to sign in again the first time you use Planner on each client.</td>
<td>No workaround.</td>
<td>2/28/17</td>
</tr>
<tr>
<td>Can't save profile picture</td>
<td>Users can't save their profile picture when the Exchange Mailbox is hosted.</td>
<td>No workaround.</td>
<td>2/28/17</td>
</tr>
</tbody>
</table>
Meetings not available

Meeting functionality and icon are not available when Exchange Mailbox is hosted (homed) on-premises.

Upgrade to Exchange 2016 CU3 or later for the onpremises deployment.

<table>
<thead>
<tr>
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<th>KNOWN WORKAROUND</th>
<th>DISCOVERY DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group mailboxes are not enabled for archival (extra storage) purposes</td>
<td>In the Office 365 Security and Compliance Center, Global Admins cannot enable archival on Group mailboxes. They can do this on user mailboxes only.</td>
<td>If the Group mailbox capacity is nearly full, please contact Microsoft Office Support to extend mailbox size.</td>
<td>2/1/17</td>
</tr>
<tr>
<td>Safari web client support</td>
<td>Users trying to open the Microsoft Teams web client on Safari are directed to download the desktop client. Microsoft is looking into Safari support and will share updates on the Teams Roadmap.</td>
<td>Use supported internet browsers, which include: Internet Explorer 11, Microsoft Edge, the latest version of Chrome (plus the two previous versions), and the latest version of Firefox (plus the two previous versions).</td>
<td>11/2/16</td>
</tr>
<tr>
<td>Team members can't be reached for ad-hoc meetings</td>
<td>Ad hoc meetings are supported if both people are using the latest app. Meetings are not yet supported on the</td>
<td>Download and install the latest desktop, iOS, or Android app to join the meeting.</td>
<td>11/2/16</td>
</tr>
</tbody>
</table>
Skype for Business onpremises users aren’t getting my messages

Messages will not complete when Microsoft Teams users try to send a message to another individual who is using Skype for Business onpremises.

Interoperability between Teams and users hosted on Skype for Business Online is supported. Teams users can send 1:1 chats to nonTeams users using Skype for Business Online. Interoperability between Teams and users hosted on Skype for Business onpremises is not supported. Teams users cannot send 1:1 chats to non-Teams users using Skype for Business onpremises.

Support resources for Microsoft Teams

1/29/2018 • 1 min to read • Edit Online
Help, practical guidance, and tools

- Microsoft Teams Deployment Advisor
- Microsoft Teams Help
- Office Training Center - Teams
- Microsoft Teams Customer Success Kit
- Microsoft Teams Tech Community
- Microsoft Teams YouTube video channel
- Microsoft Teams Developer Preview
- Known Issues
- Teams client release notes

Feedback and support options

- Microsoft Teams feedback portal on UserVoice
- Microsoft Teams Tech Community
- In the Microsoft Teams client (desktop or web app), select Feedback > Share an idea.

Verify service health for Microsoft Teams

12/20/2017 • 1 min to read • Edit Online

Service health for Microsoft Teams is displayed on the Office 365 Admin portal main page. Before troubleshooting issues, it's a good practice to verify that the Teams service is healthy.

Also, keep in mind that, Microsoft Teams is built on top of additional Office 365 services, so when looking at Service Health, remember to also check the status of Exchange, SharePoint, and OneDrive for Business. Service Health issues for these other services does not automatically mean that Teams is impacted (e.g. Address Book downloads in Exchange are unavailable), but that you should review the advisories for those affected services to determine if there is an impact to Microsoft Teams.
Most issues discovered with the Microsoft Teams client can be traced back to firewall or proxy connectivity. Verifying that the necessary URLs, IP addresses and ports are opened in your firewall or proxy will minimize unnecessary troubleshooting. For specific information on URLs and IPs required for Microsoft Teams, please reference the Office 365 URLs and IP Address support article. The following scenarios require specific URLs and ports to be opened in the firewall.

- Authentication
- Microsoft Teams Client Connectivity
- Collaboration
- Media
- Shared Services
- Third Party Integration
- Skype for Business Interoperability
- Skype for Business Client Interoperability
There are three types of log files automatically produced by the client that can be leveraged to assist in troubleshooting Microsoft Teams.

- Debug logs
- Media logs
- Desktop logs

When creating a support request with Microsoft Support, the support engineer will require the debug logs. Having these logs on hand before creating the support request will allow Microsoft to quickly start troubleshooting the problem. Media or desktop logs are only required if requested by Microsoft.

The following table outlines the various clients, and their associated logs. Log files are stored in locations specific to the client and operating system.

<table>
<thead>
<tr>
<th>CLIENT</th>
<th>DEBUG</th>
<th>DESKTOP</th>
<th>MEDIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Windows</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mac OSX</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>iOS</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Android</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Windows Phone</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

For a complete list of supported operating systems and browsers, reference the following Microsoft Teams FAQ.

**Debug logs**

These are the most common logs and are required for all Microsoft support cases. Debug logs are produced by the Window and Mac desktop clients, as well as browser based clients. The logs are text based and are read from the bottom up. They can be read using any text based editor and new logs are created when logging into the client.

Debug logs show the following data flows:
- Login
- Connection requests to middle tier services
- Call/conversation

The debug logs are produced using the following OS specific methods:

- **Windows:**
  1. Right-click **the Microsoft Teams icon** in your application tray, select **Get Logs**
  2. Choosing **Get Logs** from the **Help** pull-down menu
  3. Keyboard shortcut: Ctrl + Alt + Shift + 1

- **Mac OS X:**
  1. Choosing **Get Logs** from the **Help** pull-down menu
  2. Keyboard shortcut: Option + Command + Shift+1

The debug logs are automatically downloaded to the following folders.

- **Windows:** `%userprofile%\Downloads`
- **Mac OS X:** `Downloads`
- **Browser:** You will be prompted to save the debug log to default save location

### Media Logs

Media logs contain diagnostic data about audio, video and screen sharing. They are required for support cases only upon request and can only be inspected by Microsoft. The following table outlines the log location.

<table>
<thead>
<tr>
<th>CLIENT</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td><code>%appdata%\Roaming\Microsoft\Teams\mediastack*.etl</code></td>
</tr>
<tr>
<td>Mac OSX</td>
<td><code>~/Library/Application Support/Microsoft/Teams/mediastack*.blog</code></td>
</tr>
</tbody>
</table>

### Desktop logs

Desktop logs, also known as bootstrapper logs, contains log data that occurs between the desktop client and the browser. Like media logs, these logs are only needed if requested by Microsoft. The logs are text based and can be read using any text based editor in a top down format.

<table>
<thead>
<tr>
<th>CLIENT</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td><code>%appdata%\Roaming\Microsoft\Teams\logs.txt</code></td>
</tr>
</tbody>
</table>
Mac OS X

~/Library/Application Support/Microsoft/Teams/logs.txt