Contents

Mesh Technical Requirements

https://learn.microsoft.com/en-us/mesh/setup/content/preparing-your-organization

You will need access to several administration tools:

- Teams Admin Center (TAC) is needed to configure avatar and immersive spaces administration.
- Azure portal is needed to administer Mesh cloud scripting used for custom Mesh environments (if your environments optionally use that form of scripting).
- Other tasks like permitting URLs and firewall ports will be done in whatever administrative tools are used by your organization.
- Mesh uses other parts of the Microsoft 365 suite. If your organization has any restrictions, test whether those restrictions will interfere with Mesh.

Mesh Action	Access Needed
Create a Mesh Collection	Create Microsoft 365 group
Be added as a member to a Mesh Collection	Access Microsoft 365 groups
Create a Mesh event	Access to Microsoft 365 Calendar
Be invited to a Mesh event	Access to Outlook Mail
Create a template	Access to SharePoint
Add an image or video to an event or template	Access to either SharePoint or OneDrive

For Microsoft Mesh, you will need the following:

- Teams Premium license in a tenant for Commercial use
- Pre-requisite license for Teams Premium (https://learn.microsoft.com/en-us/microsoftteams/teams-add-on-licensing/licensing-enhance-teams#what-are-the-requirements-to-purchase-teams-premium)
- (Optional) Unity license(s) and Azure subscription with storage to develop custom immersive spaces and deploy Cloud Scripting for Mesh environments. (https://learn.microsoft.com/en-us/mesh/develop/script-your-scene-logic/cloud-scripting/cloud-scripting-setup-infrastructure)

To use Microsoft Mesh, all users (including developers, event organizers, and event attendees/users) are required to have a M365 Office subscription with access to SharePoint, OneDrive, and M365 Calendar. Required for:

- Group creation: Used for Mesh World creation in Mesh on the web.
- SharePoint/OneDrive: Used for custom event/template creation.
- Mailbox/Calendar: Used for event creation and/or sending/receipt of event invites.

For Immersive Spaces for Teams:

Your users must have a commercial Teams license: Microsoft Teams Enterprise, Teams Essentials, or one of the following M365, O365, or Business SKUs with Teams included: Microsoft 365 Business Basic, Microsoft 365 Business Standard, Microsoft 365 Business Premium, Microsoft 365 E3/E5, and Office 365 E1/E3/E5. (https://learn.microsoft.com/en-us/mesh/resources/mesh-troubleshooting#what-are-the-license-requirements-for-immersive-spaces-in-teams)

All users who will be participating in immersive experiences together must have native accounts in the same Microsoft Entra ID (formerly Azure Active Directory) - guest access to the tenant does not work.

The administration for immersive spaces and avatars will happen in the Teams admin portal, admin.teams.microsoft.com. You will need the tenant Global Administrator to assign someone on the Mesh team the role of Teams Administrator in Microsoft Entra

Cloud Scripting

If your developers plan to build custom Mesh environments that will use Mesh Cloud Scripting, they will require an Azure subscription to which they can deploy their cloud scripting service. An Azure subscription is not required for environments that only use Mesh Visual Scripting. (https://learn.microsoft.com/en-us/mesh/develop/script-your-scene-logic/cloud-scripting/cloud-scripting-prepare-for-your-project)

Endpoints and Firewall in Teams:

- **Avatars in Teams:** Configure your enterprise firewall settings to align with the standard set of Microsoft 365 (https://learn.microsoft.com/en-us/microsoft-365/enterprise/urls-and-ip-address-ranges?view=o365-worldwide&preserve-view=true)

- **Immersive spaces in Teams:** In addition to the above, Mesh also requires the IP addresses and port ranges detailed in Firewall configuration for Azure Communication Services for media capabilities such as audio, video, and screenshare. (https://learn.microsoft.com/en-us/azure/communication-services/concepts/voice-video-calling/network-requirements#firewall-configuration&preserve-view=true) and requires that outgoing traffic also be allowed to IP addresses in the "AzureCloud" service tag over the following protocols and ports:

    o   TCP: 443, 80

    o   TCP & UDP: 30,000-30,499

    o   UDP: 3478-3481

Endpoints and Firewall in Mesh:

In general, the same as above applies with some extra steps to enable additional Mesh features like larger multi-room events, Cloud Scripting, and embedded content (WebSlate, Video/Image objects).

In addition to the aspects mentioned above:

- **Cloud scripting:** To display dynamic and rich data in Mesh environments by interfacing with Azure, you'll need to allow traffic to the Azure resources that your enterprise hosts for cloud scripting. You can

do this as new environments using cloud scripting are published by allowing traffic on TCP port 443 (HTTPS) to that environment's hosted app: <app>.azurewebsites.net.

- **Embedded content (WebSlate, video/image):** The Mesh app enables dynamic content experiences leveraging the web and Azure. This empowers event organizers to place Video and Image Objects with a no-code event customization experience, and developers to add web interactivity with WebSlates. This dynamically loaded, embedded content has unique requirements for immersive experiences due to the unique permissions required to access resources while within Mesh experiences.

July 2024 Mesh Network Update

Before the rollout

Multi-room events hosted in the Mesh app require endpoint and firewall requirements outlined in [Endpoints and firewall requirements for multi room events - Microsoft Mesh | Microsoft Learn](#).

During the rollout

- You may find that you don't need to configure the endpoint and firewall requirements outlined in [Endpoints and firewall requirements for multi room events - Microsoft Mesh | Microsoft Learn](#).
- We recommend supporting the full set of endpoint and firewall requirements for multi-room events to prevent an interruption in service during rollout.

After the rollout

- Users should observe improved audio quality when using the Mesh app, and there will be simplified network requirements to get started with the Mesh app on PC and Meta Quest headsets.
- The network setup requirements will be simplified to the endpoints and ports needed for Microsoft Teams, as documented in [Microsoft 365 URL and IP address ranges](#), as well as those for Azure Communication Services, as documented in [Firewall configuration for Azure Communication Services](#).
- Admins will no longer need to allow traffic to all IP addresses in the "AzureCloud" service tag over the protocols and ports outlined in [Mesh setup docs for admins](#).
- Users in your organization will no longer need to consent to the terms needed to use Mesh's current infrastructure for spatial audio to use the Mesh app on PC and Meta Quest headsets.

Please note that if your organization hosts custom content as part of using Mesh (for example, for cloud scripting, web slates, or other media), you will still need to continue allowing access to those resources, as outlined in [Mesh setup docs for admins](#). Also note that Immersive spaces in Teams will continue to require the "AzureCloud" service tag over associated protocols and ports until its respective infrastructure transition is completed in upcoming months.

From <https://portal.office.com/adminportal/home?#/MessageCenter/:/messages/MC807460>

Teams Premium

Mesh

- Custom immersive spaces in Microsoft Mesh
- Larger capacity immersive meetings

Meetings

- Customize meeting templates for your organization
- Add organization branding to meeting lobbies
- Customize meeting backgrounds for your organization
- Customize Together mode scenes for your organization
- Add branding to meeting invites and meeting join launch pages
- Read live translated captions during meetings
- Manage what attendees see
- Use RTMP-In for meetings
- Hide attendee names
- View engagement reports
- Translate post-meeting transcriptions (coming soon)
- Turn on eCDN Meetings*
- Audio quality alerts
- Video quality alerts
- Screen sharing quality alerts
- Automatic real time telemetry with 7 day retention
- Prevent users from sharing content when attending external Teams meetings
- View how many users attended meetings that used a Teams Premium feature
- View the number of meetings used a Teams Premium feature
- View the number of meetings each user attended that used a Teams Premium feature

Webinars

- Manage what attendees see
- Send custom and reminder emails to registrants
- Create a webinar wait list
- Webinar organizers can view engagement reports
- Manually approve registrants
- View engagement reports
- Limit the day and time when people can register
- Use RTMP-In for webinars
- View how many users attended webinars that used a Teams Premium feature
- View the number of webinars used a Teams Premium feature
- View the number of webinars each user attended that used a Teams Premium feature.

Town Halls

- Broadcast town halls to 20k attendees (up from 10k)
- Host up to 50 town halls simultaneously   (up from 15)
- Town hall Q&A capacity of 20k attendees (up from 10k)
- Use Microsoft eCDN for Premium town halls 2
- Choose an eCDN provider for town halls 2
- View Microsoft Town hall insights
- Town hall organizers can view engagement reports
- Edit town hall emails

- Town hall attendee reactions
- Organizers can pre-select 10 languages for live translated captions
- Real time monitoring of the attendee experience
- View how many users attended town halls that used a Teams Premium feature
- View the number of town halls used a Teams Premium feature
- View the number of town halls each user attended that used a Teams Premium feature.

Advanced Collaboration

- Admin can view insights on inactive external domains*
- Admin can view insights on inactive teams*
- Admin can view insights on external collaboration by user*
- Admin can view insights on external collaboration by team*
- Admin can view insights on external collaboration by guest*
- Users can block incoming chats from people in your organization

Meeting Protection

- Add watermarks to meetings
- End-to-end encryption for meetings
- Control who can record
- Prevent copy/paste in meeting chats
- Assign Microsoft Purview Information Protection sensitivity labels for meetings*
- Custom user policy packages
- Prevent users from sharing content in external Teams meetings

Intelligent Meeting Recap (Also in CoPilot License)

- Navigate meeting recordings with autogenerated chapters (coming soon)
- View when a screen was shared in the meeting transcript
- View time markers in meeting recordings when you joined or left a meeting
- Jump to different speakers with speaker timeline markers
- View AI-generated notes and tasks from meetings
- View when you were mentioned in a meeting*