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Teams Broadcast Events

Overview

Microsoft Teams Broadcast Events is a feature of Microsoft Teams and Office 365 that enables you to schedule and produce live events and stream to online audiences up to 25,000 attendees. Broadcast Events are an extension of Teams Meetings allowing the meeting to reach to large audiences.

Broadcast Event Production Types

Microsoft Teams Broadcast Events supports following live event production methods:

Production Type	Description
Self-Service	This option allows user to produce their broadcast events using Teams Meetings. Use this option if you want a lightweight option to create your
	broadcast events and are inviting remote presenters / panelists for participating in the broadcast.
External Encoder	This option allows user to produce their broadcast events using an external encoder (hardware/software) via Microsoft Stream. Use this option if you already have a production setup (e.g. media mixers such as NewTek Tricasters, etc.) that supports streaming to an RTMP service. This option is typically used in large auditorium type events such as executive town halls – where a single stream from a media mixer is broadcasted to the audience.

Roles

Large events typically have several people involved in successfully live streaming the event

Role	What this person does	
Organizer	Creates the broadcast event with appropriate attendee permissions, event team	
	members, invites attendees and manages meeting reports.	
Producer	As a host of the meeting, ensure attendees have a great viewing experience by controlling the media sources that are sent to the broadcast. - Start / Stop the broadcast - Share own video into the broadcast - Share participant video into the broadcast	
	Share active desktop/window share into the broadcastSelect layouts	
Presenter	Presents A/V and/or screen into the broadcast meeting, or moderates Q & A.	
	Note: This role can share A/V or screen only in Self-Service broadcasts.	
Attendee	Watch the event live, using DVR controls or on-demand either as anonymous or authenticated users.	

Getting Started

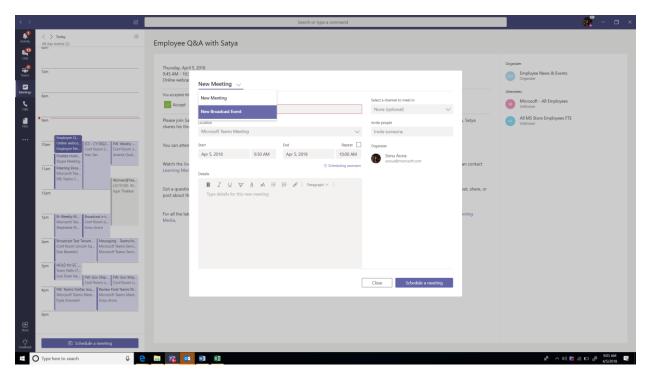
After your admin enables the Microsoft Teams Broadcast Events feature for your organization, you can start using it. Watch this short video to get started!

- Step 1 Schedule a broadcast event and invite co-presenters
- Step 2 Invite attendees to your broadcast event
- Step 3 Produce your broadcast event
- Step 4 Manage the event recording and reports

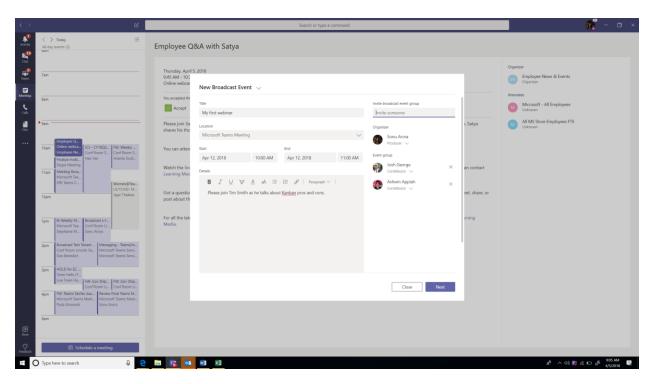
Step by Step Tutorials

Schedule a new broadcast event

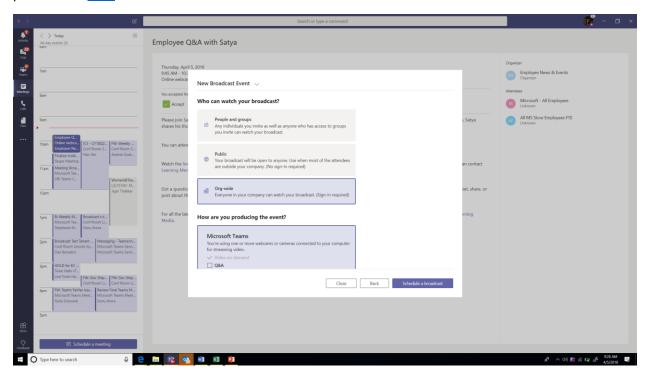
In Teams client, from Meetings tab, click on "Schedule a Meeting" and then select "New Broadcast Event".



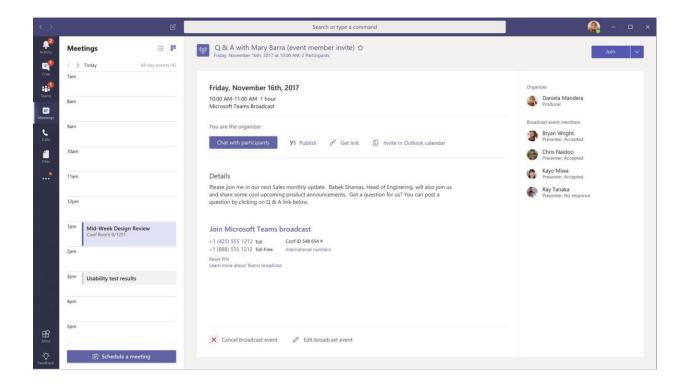
Invite other event team members who will either be presenting into or moderating the event.



Specify the attendee permissions to control who can watch the broadcast. Learn more about attendee permissions here.



Click on "Schedule a Broadcast" to schedule the broadcast event. Once the event is scheduled it will be show up in the organizer and other team members' calendar.



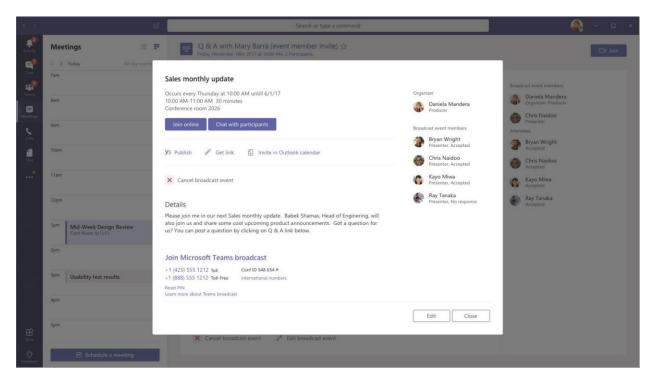
Attendee Permissions – "Who can watch the event"

When scheduling a broadcast event, you can specify the following permissions for the attendees so only authorized attendees can join the broadcast event.

Permission Type	Description	
Public	Choose this option if you expect anonymous users outside of your	
	organization to join the event.	
Org-wide	Choose this option if anyone from your company (or federated	
	companies) can watch this event.	
People and groups	Choose this option if the event can only be watched by individuals,	
	distribution lists and/or O365 Groups.	

Inviting attendees to your broadcast event

Once the broadcast event is scheduled, organizer can click on "Get Link" or "Invite in Outlook calendar" to invite the attendees in their favorite app.



Get Link

Click on this option to copy the broadcast link so you can invite attendees as you see fit – either by sending a calendar invite, sharing it on a website and/or a collaboration group.

Invite in Outlook Calendar

Click on this option to download the event ICS file and open is your favorite calendar application such as Outlook.

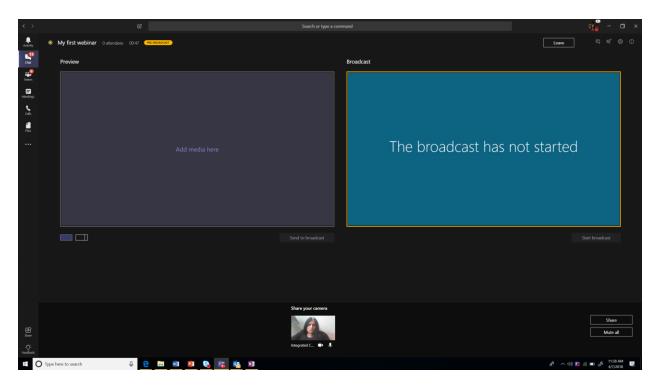
Produce a self-service broadcast event

If you were designated as producer into the broadcast event scheduled with self-service production method, you will join as a producer in the Teams Meeting.

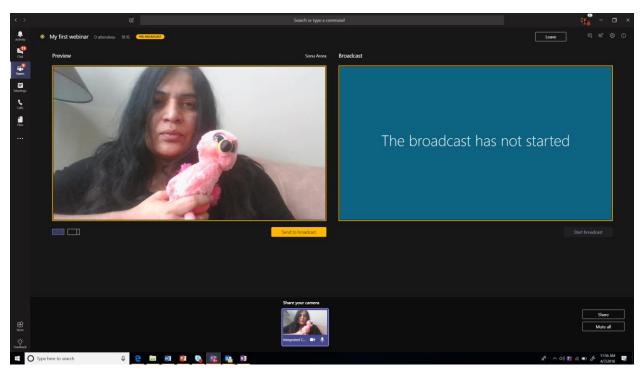
Here are some features available to the producer in a self-service broadcast:

- 1. Select video feeds of other presenters and send to broadcast
- 2. Start Broadcast
- 3. End Broadcast
- 4. View live attendee count
- 5. Chat with other producers and participants
- 6. Share screen into the broadcast
- 7. Invite users to join as presenters
- 8. Mute all other presenters
- 9. Moderate Q & A

For a quick start, start your camera, if you haven't already joined with the camera on.



Click on your camera feed to preview it before sending it to the broadcast.



Click on "Send to Broadcast" to send the feed to the broadcast.

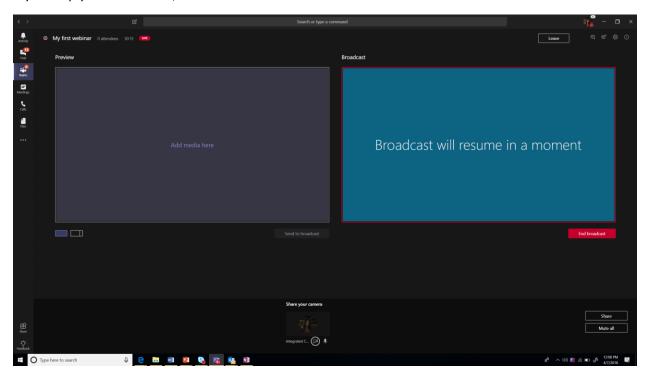


Click on "Start Broadcast" to start the broadcast. You will get a confirmation dialog to start the broadcast. You are now live! There is currently a delay of 15 to 40 seconds from the time a media stream is broadcasted to the event being displayed to attendees. This <u>latency</u> is due to the technological challenges in the underlying streaming protocols.



Note: There is currently a known issue where the video feed in "Preview" is a mirror of what's getting broadcasted. The issue is already fixed in the media stack but it will take few weeks before the fix shows up in Teams client.

If you stop your video feed, the attendees will see "Broadcast will resume in a moment".

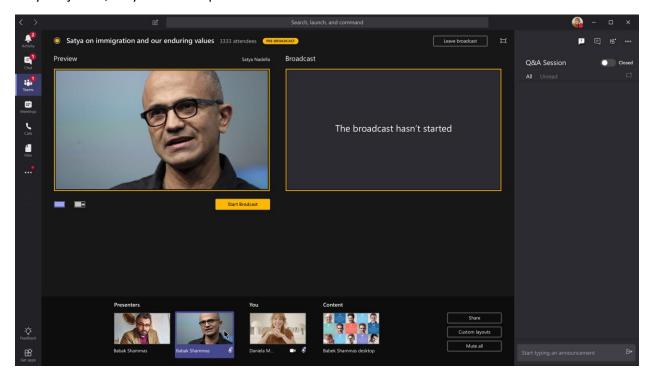


To share your desktop screen or an application, click on "Share" and select the second monitor.



Tips: If you are the single producer in the event, it is recommended that you have dual monitors. This way you can queue up the content and send to broadcast without having jarring transitions from the same monitor.

To queue up another video feed, make sure other presenters are joined into the broadcast event. Once they are joined, they will show up in the bottom row.



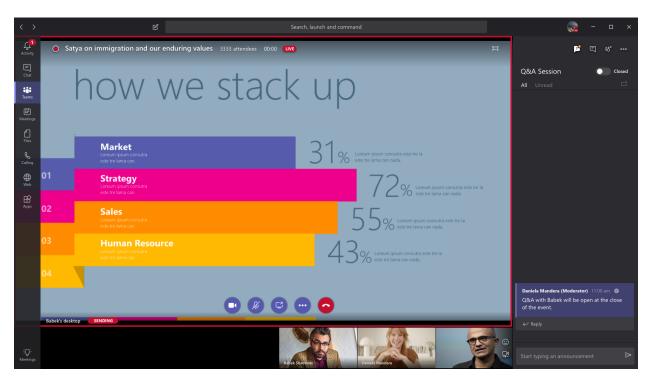
Present in a self-service broadcast event

If you were designated as a presenter into the broadcast event, you will join the inner Teams Meeting that makes up the broadcast event. The presenter experience in a broadcast event is mostly like joining a regular meeting. In Teams, click on "Join" to join the event as a presenter. If you are joining outside of teams, the Join URL will open the experience in Teams.

The following table shows capabilities supported for a producer and a presenter in a broadcast event:

Capability	Producer	Presenter
Select video feeds of other presenters and send to broadcast	Yes	No
Start Broadcast	Yes	No
End Broadcast	Yes	No
View broadcast preview (stream that's sent to the attendees)	Yes	No
Manage recording and reports	Yes	No
Join as an attendee	Yes	Yes
View live attendee count	Yes	Yes
Chat with other producers and participants	Yes	Yes
Share screen into the broadcast	Yes	Yes
Invite users to join as presenters	Yes	Yes

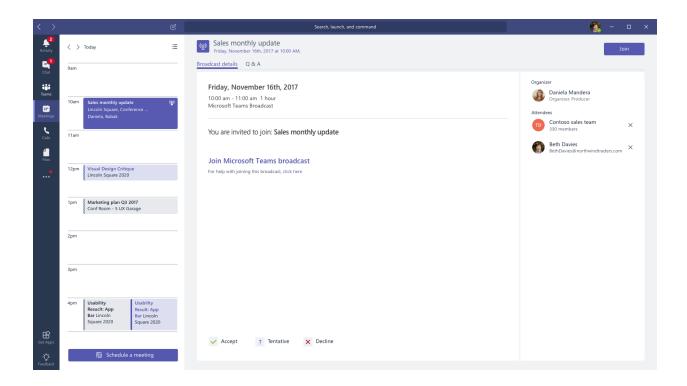
Mute all other presenters	Yes	Yes
Moderate Q & A	Yes	Yes



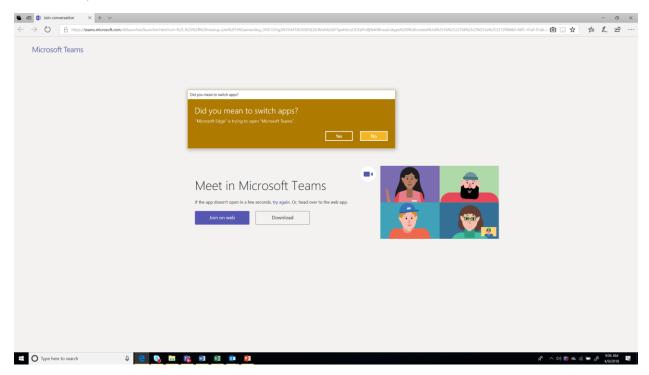
Attend a broadcast event

Once attendee gets the event URL, the attendee can click on the URL to join the broadcast.

1. If the user opens the event invitation from calendar in Teams, the user will directly be taken to broadcast attendee experience within Teams.



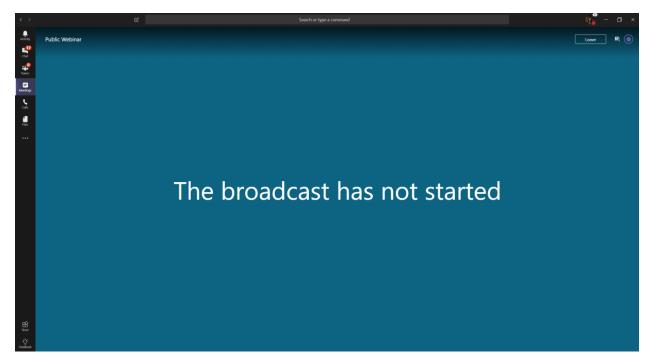
2. If the user opens the event invitation from calendar in Outlook, the user can join from the Web or open the event in Teams.



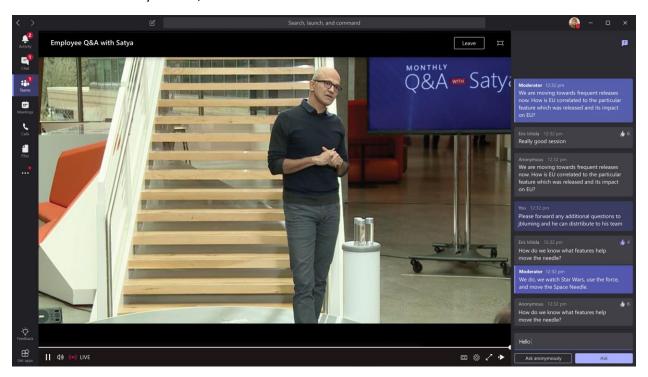
- 3. For events scheduled as anonymous events,
 - a. Users who are already signed in to Teams will join as authenticated users

b. Anonymous users will be provided an anonymous web join experience

If the event has not yet started, attendees will see "broadcast has not yet started curtain'



If the event has already started, attendees will see the event with live indicator.



Once the event is over, if the event was configured with video-on-demand options, attendees will be able to watch the recorded event on demand.



Manage event recording and reports

The producer can perform the following functions on artifacts available after the event is over:

	View in Teams	Download	Delete
Attendance Report	No	Yes	Yes
Broadcast Event	Yes	Yes	Yes
Recording			
(if configured)			
Broadcast Event	No	Yes	Yes
Transcript			
(if configured)			
Hive Insights Report	No, opens the Hive	N/A	N/A
(if configured)	link in a browser		
Q / A Report	No	Yes	Yes
(if configured)			

Attendee interaction with moderated Q & A

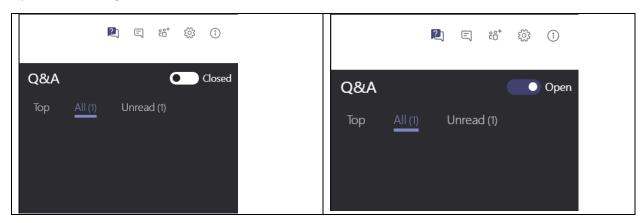
In Teams Broadcast Events, the attendees can interact with the event producers and presenters using either "Moderated Q & A" or "Yammer", whichever was configured for the event.

Note: In V1, attendees cannot interact with the event team using Teams chat.

Moderator - Open/Close Q & A

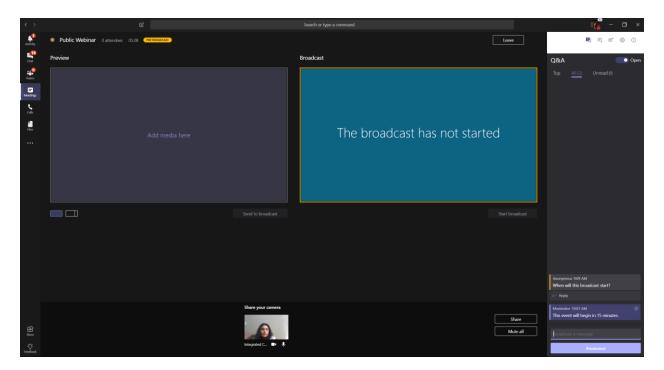
When an event is created with Q & A option, the Q & A is open by default and attendees can start asking questions even if the broadcast event has not started. These questions are only visible to the moderators until the moderator explicitly choose to announce the Q & A to all the attendees.

To Open/Close Q & A, in Teams Producer / Presenter UI, click on Q & A icon and then toggle the Open/Closed widget.



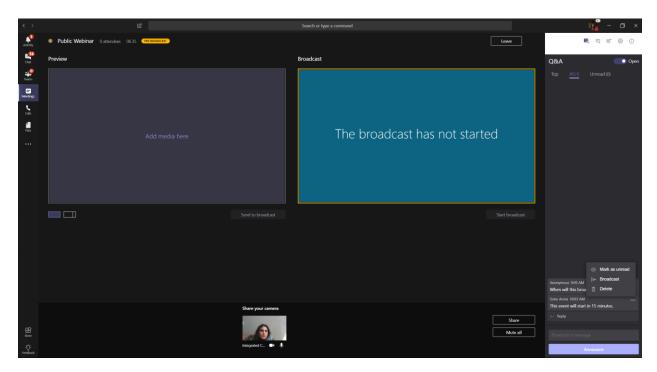
Moderator – Make announcements using Q & A

In the "Broadcast a message" compose box, enter a message and click on "Announce".



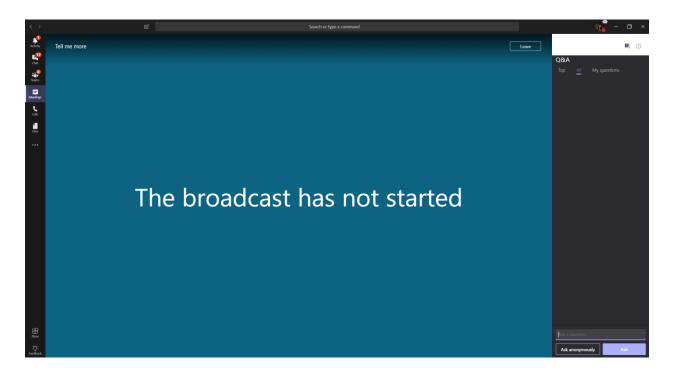
Moderator – Answer questions

Select the question and click on "Reply" to respond to the question. The answer will be instantly available to the user who asked the question. Click on "..." -> Broadcast to make the Q & A visible to all the attendees.



Attendee – Ask a question

Open the Q & A panel by clicking on the Q & A icon in the attendee experience. Then in the "Ask a question" compose box, enter your question and click on "Ask". To ask a question anonymously, click on "As anonymously".



Pre-Requisites

Here are the system requirements for each role.

Role	System Requirements	
Organizer	E1, E3 or E5 license	
	CsMeetingBroadcastPolicy must be assigned to this user	
	User has live event permissions in Stream and Stream is turned on for tenant	
	Teams Client – Desktop (Windows, Mac), Web	
Producer	E1, E3 or E5 license	
	CsMeetingBroadcastPolicy must be assigned to this user	
	User has live event permissions in Stream and Stream is turned on for tenant	
	Teams Client – Desktop (Windows, Mac)	
Presenter	Any O365 license that allows users to join Teams meetings	
	Teams Client – Desktop (Windows, Mac), Web, Mobile	
Attendee	Watches the event online, live, DVR	
	Attendees can watch the event from Teams, Yammer or Stream. If user doesn't	
	have Teams, the user can also watch the event in the browser (Edge, Chrome,	
	Safari).	

Feature Capabilities

The following table shows the difference between Skype Meeting Broadcast and Teams Meeting Broadcast.

Capability	Skype Meeting Broadcast	Teams Broadcast Events (Self-Service)
Maximum audience size	10,000	25,000
Scheduling	✓ (Skype Meeting Broadcast Portal)	✓ (Microsoft Teams)
Scheduling – Anonymous, Companywide & Specific People	✓	✓
Audience engagement – Yammer	✓	✓ (integrated)
Audience engagement – Moderated Q & A	✓	√ (integrated)
Producer client on Windows	✓ (Skype for Business)	✓ (Microsoft Teams)
Producer client on Mac	Х	✓ (Microsoft Teams)

Presenter camera A/V	✓	✓
Presenter – PSTN access	Х	✓
Share a screen	X (mitigated with HDMI to H.264 capture device)	✓
Cloud based meeting recording	✓	✓
Real Time Captions and Translation	✓	✓
Attendee DVR controls (pause, rewind)	✓	✓
Available on-demand immediately	✓	✓
Partner eCDN Support	✓ (Hive, Kollective, Ramp)	✓ (Hive, Kollective, Ramp)
Post-broadcast usage reports for Producers	✓	✓
Present a PowerPoint (PPT Sharing)	✓	X (mitigated via VBSS)
Audience Sentiment Analysis - Live voting & polls	✓ (Microsoft Pulse)	Х

Known Issues

There are some known issues that we are already aware of and actively working on addressing:

#	Known Issue	Mitigation
1	Share a window is currently disabled for the producers and presenters.	Use desktop sharing in the producer and presenter user experience. This will be fixed before GA.
2	In Producer UX, the video preview is a mirror of what's actually part of the broadcast.	None. This will be fixed before GA.
3	In Producer UX, some broadcast actions (Send to broadcast, Start/End broadcast) may take 1-2 min.	None. We are adding loading indicators and user feedback states.
4	Broadcast experience in this release is optimized for multiple presenters.	If you are a single producer who wants to use own video and screen sharing, we recommend

		using dual-monitor, so you can produce on
		one monitor and share content on another.
5	Teams chat is only supported between the	Use Moderated Q & A for attendee
	event team members.	engagement.
6	Recording of the broadcast event created	
	using self-service production is not auto-	
	uploaded to Microsoft Stream. You can	
	download the meeting recording and upload	
	to Stream.	
7	Limit on max number of concurrent events	There is currently a limit of maximum 30
	that can take place within Microsoft	concurrent events. If you get this error
		starting a broadcast, please try again. We
		need to complete our capacity planning
		before allocation or over-provisioning
		additional resources.
8	Intermittent event team join failure	We see from telemetry that 10% of
		producers/contributors fails to join the inner
		broadcast meeting. We know the root cause, if
		you encounter it, just retry.

Best Practices

To produce a great broadcast event, we suggest these best practices.

Planning and producing your event

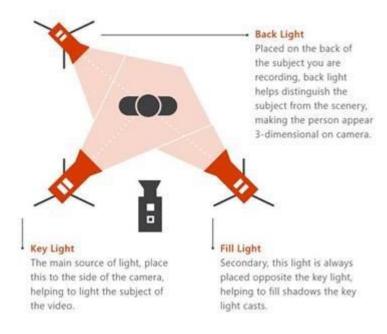
- Most importantly, practice. Run several events as rehearsals, watch the attendee experience live and on demand. Learn the system well, so the producers don't have to solve problems during the live event.
- Always have more than one person in the event team meeting, ideally three people, one of
 which is away from the room the presentation is taking place in. This is to make sure if there's a
 network outage on site, in the room, you don't lose all control of the meeting.
- Create a custom URL somewhere (for example, bit.ly, or any in-house solution) for the attendee join link. In the event of any catastrophic event, or if a producer makes some kind of mistake, you can easily create a new broadcast event and just update your custom URL to point to it. That way you don't need to update every attendee's calendar with a new link.
- Start the meeting for the event team about 30 minutes ahead of time. Have a slide active that is a nice intro slide for the event group indicating that it will begin soon. Start the live broadcast about 10 minutes early to make sure everything is working end-to-end. Leave all audio sources muted until you're ready to go live with your presenter, at the start time of the meeting.
- Plan for your event team communication Real-time communications are critical for live events. The inner event chat is a good way to stay in touch.
- Designated Roles and Responsibilities Know who is responsible for each step of the operation, from camera operators, presenters, Q&A moderators, and your overall producer or director.
- Learn more in our <u>Getting Started Guide</u>, or watch our <u>introduction video</u>.

Audio

- Do not ignore audio it's the most important part of a great meeting. You'll have people listening with the browser in the background; nobody sits and watches every frame carefully. But, everyone will listen and hear every glitch.
- Make sure you have a good microphone on the presenters, a lapel microphone, not a hand held.
 People don't handle microphones well under pressure. Make sure in-room audio is tested ahead of the event as well, so you aren't bringing noise or feedback from the room into the online event.
- Audio can be added to the broadcast using any audio capture device that will take balanced audio (XLR connector) or even a headphone style 1/8-inch plug and let you encode and bring the audio in via USB for the Teams client. Alternatively, you can use a high-end AV system, and connect the HDMI or SDI output of that system into Teams client using a basic video capture device like an HDMI-USB box.
- If you are broadcasting an event with an in-room audience, there is a setting that can be used to suppress noise cancellation, since audience, applause, laughing and so on is often picked up as noise.

Video

- Light your subject well, you can't have too much light for most cameras. Lighting can be the difference between a production perceived as quality or amateur.
- Use three lights to illuminate your subject a key light, a fill light, and a back light to provide good depth.



- You can use a capture device to take HDMI inputs into your meeting as a camera. You can use these to use a prosumer camera with better optics and zoom capabilities and an HDMI output as a Teams meeting camera.
- These HDMI capture devices can also be used to stream a desktop into a broadcast meeting to show videos or demos. Any PC or Mac with an HDMI output can be used.

Screen Sharing

If you are a one-person event producer, it is recommended that you have dual-monitors. This way you can share the content from the second monitor, while producing the event from first monitor.

Teams Broadcast Events uses Video-based Screen Sharing (VBSS). Use the following planning guidelines to ensure you get the best experience:

- 1. Ensure producers and presenters are assigned the right TeamsMeetingPolicy with correct ScreenSharingMode. If ScreenSharingMode is None, producers/presenters will not be able to share screen.
- 2. Ensure right network bandwidth requirements are accounted for media traffic:

Video Codec	Resolution and aspect ratio	Maximum video payload bitrate (kbps)	Minimum video payload bitrate (kbps)
H.264	1920x1080 (16:9) (The aspect ratio depends on the sharer's monitor resolution, and will not always be 16:9)	4000	1500

FAQ

Why is there a delay of few seconds before attendees can view the broadcast live stream?

There is currently a delay of 15 to 40 seconds from the time a media stream is broadcasted to the event being displayed to attendees. This latency is due to the technological challenges in the underlying streaming protocols. The network congestion and other bandwidth availability related factors also cause issues, that can potentially delay the stream. Even if you have a great network that can sustain the streaming bitrate, the delays can still happen. If the attendee interaction is low in a broadcast event, the latency is not that big of an issue.

How can the event team members chat with each other?

The event team members can chat with each same way how they would chat in a regular meeting. From Meetings Tab, select the event and then click on "Chat with participants" or when joined in the meeting, click on the "Chat" panel.

How do I edit a broadcast event scheduled in future?

Until there is full Calendar support in Teams, to edit an event scheduled in future (or past), select the event from the calendar in Outlook and click on "View event in Teams".

Join Microsoft Teams Broadcast Event

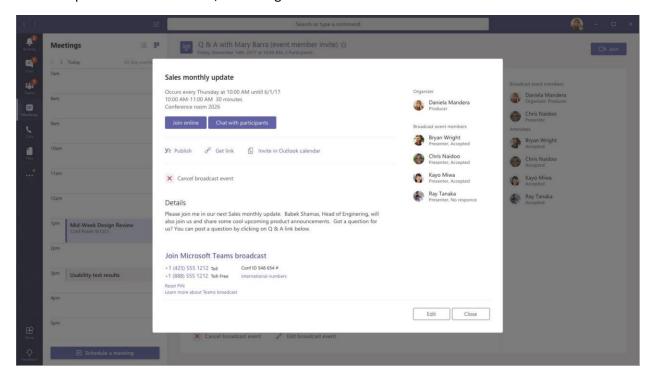
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+1 425-616-0754 United States, Chicago (Toll)
+1-888-555-1212 United States (Toll-free)

Conf Id 548 123#

Local numbers | Reset PIN | Learn more about Teams | View event in Teams
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h

This will open the event in Teams, so the organizer can edit it in Teams.



Is Pulse supported in Microsoft Teams Broadcast Events?

Pulse is not supported in Microsoft Teams Broadcast Events. We have plans to provide out-of-box support for sentiment analysis and polls in Microsoft Teams Broadcast Events post V1.

How do I promote an attendee to a presenter?

We do not currently provide native support for promoting an attendee to a presenter.

Workaround: Via Q & A, you can establish a protocol with the authenticated attendees as to how they should be included in the broadcast. For example, you can ask them to say something like: "I would like to ask a question live". Moderator can then "nudge" / invite the attendee as a presenter into the broadcast.

How do I add a custom curtain before the event starts?

We do not currently provide native support for adding a custom curtain into the broadcast.

Workaround: Start the event 10 minutes before and share a screen.

How do I share a pre-recorded video into a broadcast?

We do not currently provide native support for adding media clips into the broadcast.

Workaround: You can however use the HDMI capture device (such as Magewell) to stream a desktop into a broadcast event to show a pre-recorded video or demo. Any PC or Mac with an HDMI output can be used.

How do I announce a broadcast event in a Teams channel?

Until we add support for publishing a broadcast event to one or more Teams channel, you can view broadcast event details, click on "Get Link" and publish the event manually in the Teams channel. Make sure the broadcast event was created with right permissions.