



## Recording and Playback

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## General Questions

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### What tools does WebEx provide for recording, editing, and playing recordings?

With the WebEx recorders you can record everything that happens in a WebEx meeting; audio, video, chat conversations, notes, etc.

There are two options for recording a WebEx meeting: Network-based recording (Record on Server) with the Network-Based Recorder (NBR) and Local recording. When using Network-based recording, no additional hardware is required. All meeting content is automatically recorded on the WebEx servers and is easily accessible.

If you want to change the recording, such as making it shorter or eliminating sections where nothing important is happening, we provide another tool that allows you to change it. If you save recordings to your WebEx service site, you can publish the recording on a Web page so that others can play it or download it to their computer.

Choose from the following players and recorders:

WebEx Network Recording Player for Advanced Recording Format (.arf) files	Use it to play recordings in ARF format (Network-based recordings). Use the player to convert recording to Windows Media Format (.wmv), Flash format (.swf), or MPEG-4 format (MP4). No editing is supported in the player. Basic editing is supported on the recording properties on your WebEx service Web site, such as truncating the beginning or end of the recording, and removing panels such as video, chat, etc.
WebEx Recorder and Player for Recording Format (.wrf) files	This is a standalone recorder and player that allows you to save recordings in the WebEx proprietary WRF format on your computer. You can also use it to record applications or your computer to create software demonstrations, training, and so on. You can then upload recordings to your WebEx site and share them with others by sending them the provided streaming/download URLs.
WebEx Recording Editor	Use this tool to add, delete, or rearrange parts of a recording in WRF format.

For detailed information about using each of these players, see the user guides on the Support page of your WebEx service site.

### What do I need to play recordings?

To play WebEx recordings you should have a sound card; to play recordings on the Web you should have an Internet connection.

To record teleconferences when using WebEx stand-alone recorder, you should also have:

- A computer headset (presenters only)
- A phone headset (preferred over regular phone handsets for presenters who speak during a teleconference)
- A phone recording adapter



**Note** This is required to connect your phone to your computer. WebEx recommends the DynaMetric TLP-120 or TMP-636 adapters; the TMP-636 adapter supports bidirectional audio which is useful for recording audio that contains UCF rich media.

- A universal amplifier (WebEx recommends the Plantronics MX10 universal amplifier and headset)

### Can I play WebEx recordings with any multimedia player?

Yes, but you must first download the recording from the WebEx service Web site and convert it to Windows Media File (.wmv) format, Flash (.swf) format, or MPEG-4 format (MP4). To convert a network-based recording (.arf) to Windows Media File (.wmv) format, Flash (.swf) format, or MPEG-4 format (MP4), use the WebEx Network Recording Player.

**Note**

The WebEx Network Recording Player does not support converting recordings to MP4 format on Mac systems.

To convert a local recording (.wrf) to WMV format, use the WebEx Recording Editor.

### How can I get the WebEx recorder, editor, and players?

If you have an account on your WebEx site:

- 1 On the navigation bar at the left, select **Support**.
- 2 Select **Downloads**.
- 3 Scroll down to the Recorders and Players section and select **Recording and Playback**.
- 4 Download the desired player.

### How do I convert WebEx network-based recording files (ARF) to Windows Media File format (WMV) , Flash format (SWF), or MPEG-4 format (MP4)?

Start the WebEx Network Recording Player and open your ARF file. Select **File > Convert Format** and select the desired format. Select the desired configuration in the dialog that pops up and select **Convert**.

**Note**

The WebEx Network Recording Player does not support converting recordings to MP4 format on Mac systems.

### When I try to convert my ARF file to MP4 format, I'm asked for a URL, username, and password. What should I enter?

The URL you should enter is your WebEx site; for example, company.webex.com. The username and password should be your WebEx username and password.

**Note**

The WebEx Network Recording Player does not support converting recordings to MP4 format on Mac systems

### My WebEx site requires that I sign in through my company website (through single sign-on) and I don't have a WebEx username and password. What should I do if I want to convert ARF files to MP4 format?

Converting ARF files to MP4 format is not currently supported for WebEx sites integrated with single sign-on.

**How do I connect the DynaMetric adapter to my computer and phone?**

To connect the adapter to phone:

- 1 Unplug your phone handset or headset from the phone jack and connect the DynaMetric telephone cord to the jack.
- 2 Plug the phone handset or headset into the DynaMetric adapter.
- 3 Plug the DynaMetric gray audio cable into your computer's microphone jack. (If you are using the DynaMetric TMP-636, plug the black cable into the computer's headphone jack.)

## Network-Based Recording or "Record on Server"

- [What is network-based recording \(NBR\) or "Record on Server"?](#)
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**What is network-based recording (NBR) or "Record on Server"?**

Network-based recording (NBR) is a recording option available to WebEx customers on release WBS25 or later. Network-based recording enables you to capture all meeting content, including WebEx integrated audio, VoIP audio, or third-party audio conference for later playback and sharing. NBR recordings are saved to WebEx high-availability storage servers, making it easy to access all meeting content.

Unlike the stand-alone WebEx Recorder for WRF format files, network-based recording is managed completely within the WebEx client and does not require the use of additional hardware, such as a phone recording adapter

to record the teleconference. Network-based recording also provides basic editing capabilities through your WebEx service site, without requiring the use a video-editing application.

**Which centers can use network-based recording?**

WebEx Meeting Center, Event Center, Support Center, and Training Center.

**Which operating systems are supported for a host using network-based recording?**

A host using network-based recording can use the Windows, Mac, Linux, and Solaris operating systems.

**Do I need any additional hardware to use network-based recording for my meetings?**

No, you can simply get it enabled on your site. In the Meeting Manager you can record all your meeting actions, including the teleconference.

**What is the typical size of a one-hour recording?**

The size will vary depending on the action during the meeting. Typically, a meeting that does not contain video usage ranges from 15 to 40 MB. A meeting with video usage can range in the 250MB size.

**How long until my recordings are available for viewing or distribution?**

Usually, recordings are available between 30 minutes and up to 24 hours after the end of your meeting

**Where can I find my recordings?**

Your recordings are posted to the My Files section of My WebEx, in the My Recordings tab.

**How do I get the WebEx Network Recording Player?**

You can download the WebEx Network Recording Player by going to **Support > Downloads > Recording and Playback**.

**How do I publish my recording to my attendees?**

Once your recordings are posted to the My Files section in My WebEx, a streaming URL is generated that can be sent via email, posted to your WebEx service Web site, or posted to any other Web site.

**Does network-based recording capture all the content of the meeting?**

It records the full attendee-view of the meeting, so it captures the following:

- All public chat
- All data including annotations, polls results that are shared, and notes (requires publishing)
- Presenter video (requires at least one attendee present in the meeting)
- WebEx Audio (VoIP and telephony) and third-party audio

It does not capture the following:

- All private chat to the host
- Poll results not shared by the host

- Breakout sessions (Training Center), Media Viewer (Event Center), Closed Captioning (Meeting Center), and Practice Rooms (Event Center) panels are not recorded or played back
- When recording multi-point video, only the presenter's video is recorded and played back

**Does network-based recording capture third-party audio?**

Yes. By entering your third-party conference number in the start recording process, you can capture third-party audio in your recording.

**Does network-based recording capture VoIP and Audio Broadcasting?**

Yes, first start the recording and then start your audio selection.

**Can I pause the recording when I am recording on the server?**

Yes. A Pause button is available in the Recorder panel when you are recording on the server.

**I cannot play my network-based recording file on the latest WebEx Network Recording Player after my site was upgraded. What should I do?**

Starting in WBS28.9, a new audio engine was introduced in the WebEx Network Recording Player, and an old audio codec was removed. Due to those changes, network-based recording files (.arf) that were created on a release earlier than WBS27.12 (earlier than March 2010) and use VoIP-only audio can no longer be played on the latest Network Recording Player (they can still be played on earlier versions of the WebEx Network Recording Player). Network-based recordings that use VoIP-only audio and that were created after WBS27.12 can be played on the latest release using the new player with no issues. Network-based recordings that use hybrid audio (mix of VoIP and telephony or telephony only) are not impacted. If you still have access to an older version of the Network Recording Player, you can convert your recording file (.arf) to standard video format such as Windows Media File (.wmv) format, Flash (.swf) format, or MPEG-4 format (MP4).

**Note**

The WebEx Network Recording Player does not support converting recordings to MP4 format on Mac systems.

## Playing Recordings

- [Are recordings streamed or downloaded to my computer?](#)
- [Can I play a recording if my computer is not connected to the Internet?](#)
- [I cannot play my local recording file on the latest WebEx Recorder and Player after my site was upgraded. What should I do?](#)

**Are recordings streamed or downloaded to my computer?**

As the recording owner (meeting host), you can choose either to stream the recordings by selecting the streaming link or to download the recording file to your computer by selecting the download link. If you do not own the recording, you can ask the host to send you the recording streaming and download links.

**Can I play a recording if my computer is not connected to the Internet?**

Yes. You need to download and install the appropriate stand-alone player. Select **Support > Download > Recording and Playback**.

To play back network-based recordings (.arf), install the WebEx Network Recording Player for Advanced Recording Format Files. To play back local recordings (.wrf), install the WebEx Recorder and Player for WRF Format files.

**I cannot play my local recording file on the latest WebEx Recorder and Player after my site was upgraded. What should I do?**

Starting in WBS28.9, a new audio engine was introduced in the WebEx Player and WebEx Recording Editor. An old audio codec was also removed from these applications. Due to those changes, local recording files (.wrf) that were created on a release earlier than WBS27.12 (earlier than March 2010) can no longer be played on the latest WebEx Player or WebEx Recording Editor (they can still be played on older versions of these applications). Local recordings that were created after WBS27.12 can be played on the latest release using the new player with no issues.

If you still have access to an older version of the WebEx Recording Editor, you can convert your local recording file (.wrf) to a standard video format-Windows Media File (.wmv).

## Creating and Publishing Recordings

- [Can I record everything that happens in a WebEx meeting, event, or session?](#)
- [How do I record a WebEx meeting, event, or session?](#)
- [After I record a WebEx meeting, what happens to the recording?](#)
- [How do I make my recording available to others?](#)
- [Can I record an Internet phone \(VoIP\) conference?](#)
- [Can I record WebEx meetings that contain UCF multimedia?](#)
- [How can I improve the quality of the audio when using local recording?](#)
- [What audio compression and sampling rates does WebEx support? Which ones should I use?](#)
- [How large are recording files?](#)

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**Can I record everything that happens in a WebEx meeting, event, or session?**

Yes. You can record the audio, video, desktop sharing, annotations, chat, and so on.

**How do I record a WebEx meeting, event, or session?**

Just start or join your WebEx meeting, event, or session, and then press the red **Record** button.

You can also go to the Meeting menu in Meeting Center, the Event menu in Event Center, or the Session menu in Training Center, select **Start Recording**.

In Support Center, you can select the **Recording** button from the session control panel.

**Note**

If you are a participant, you can record if your presenter has enabled recording for you.

**After I record a WebEx meeting, what happens to the recording?**

If you used network-based recording (Record on Server) you can find your recordings in the My Files section of the **My WebEx** page of your WebEx service site, in the **My Recordings** tab.

**How do I make my recording available to others?**

Recordings made using network-based recording (Record on Server) will be in your WebEx service Web site under **My WebEx > My Files > My Recordings** tab. Each recording has a streaming/download link that you can email to others right from the recording list.

Selecting the Send Email icon opens the Share My Recording dialog box and allows you to send an email message to others so they can view the recording.

You can also publish the playback/download link for your recording on your web site for others to access. For details, see the Streaming Recordings on Your Web Site guide on your **Support** page.

**Can I record an Internet phone (VoIP) conference?**

Yes.

**Can I record WebEx meetings that contain UCF multimedia?**

Yes. To record the audio from UCF files at the same time that you record audio from a WebEx meeting, use an adapter such as the DynaMetric TMP-636 or Plantronics MX-10. This allows you to send the sound from your telephone through your computer's sound card. To record video or Flash files, turn off hardware acceleration (or video overlay) on your computer's video card. For details, see the Windows Media Player online help.

**How can I improve the quality of the audio when using local recording?**

If audio quality is poor or if there is no audio, make sure that:

- You used the WebEx Audio Setup Wizard to test your volume.
- If you are recording audio from a source other than a microphone, start the recorder and select the correct recording source.
- If you hear "clicks and clacks" during playback, you may be using an older version of the WebEx Player. Re-install the player on your computer and try again.

**What audio compression and sampling rates does WebEx support? Which ones should I use?**

WebEx supports the following audio recording formats:



- G.723 (8 kHz) This is the default setting; it is optimized for streaming over the Internet.
- PCM (8 kHz, 22 kHz, 44 kHz) This results in higher audio quality but much larger file sizes. This is recommended only for recordings that you distribute on a CD-ROM.

### How large are recording files?

A one-hour recording is typically between 15 and 40 MB. The size varies depending on whether you have included chat sessions, notes, video, and other features in your recording.

## Editing Recordings

- [Can I edit recordings?](#)
- [Can I dub the recording audio?](#)
- [Can I insert markers into a recording?](#)

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### Can I edit recordings?

Yes. For recordings that were created using the WebEx WRF Player or the WebEx Recorder, Player, and Recording Editor, you can use the WebEx Recording Editor to add, delete, or rearrange recorded data. You can also specify segments in the recording, much like tracks on a CD, so that you can quickly navigate to a specific point during playback. You can download the WebEx Recording Editor from your **Support** page.

For recordings that were made using network-based recording (Record on Server), basic editing can be done on the **Recording Properties** page under Playback control, such as specifying a different start and end time for the playback, and omitting specific panels (Participants, Chat, etc.) from the playback.

If additional editing is required, you can use the WebEx Network Recording Player to convert the recording to a Windows Media File (.wmv) format, Flash (.swf) format, or MPEG-4 format (MP4), and then use third-party editing tools to edit the file.



#### Note

The WebEx Network Recording Player does not support converting recordings to MP4 format on Mac systems.

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### Can I dub the recording audio?

Yes, but this feature is only available for local recording (.wrf). "Dubbing" is where you copy all or part of a recording. To dub a recording:

- 1 Use the WebEx Recording Editor to open the WebEx recording.
- 2 Use the Current Location Indicator to specify where you want to start dubbing.
- 3 From the Tools menu choose **Dub Audio**.
- 4 If you would like audio dubbing to end automatically at the certain point, specify the end point.
- 5 Select **OK**.

**Can I insert markers into a recording?**

Yes, but this feature is supported only in the stand-alone WebEx Recording Editor. You can use markers to specify certain points in the recording. During recording, press the Ctrl-Alt-M keys on your keyboard to insert markers.

## Recording CMR Hybrid Meetings

- [Can I record a CMR Hybrid \(WebEx-enabled TelePresence\) meeting?](#)
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**Can I record a CMR Hybrid (WebEx-enabled TelePresence) meeting?**

Yes, starting with WBS29, you can record video, audio, sharing, chat, and polling for CMR Hybrid (WebEx-enabled TelePresence) meetings. Just press Record as you normally would in your WebEx meeting and your recordings will appear in your **My Files > My Recorded Meetings** list in the My WebEx section.

- **File format:** CMR Hybrid meeting recordings will be in MP4 format. Video will be recorded at 360 p.
- **Viewing recordings:** You can view your recordings from your **My Recorded Meetings** list by selecting the **Play** button. Our streaming player will allow you to see screen sharing, application sharing, the active speaker video camera feeds, the participant list, chat, and polling.
- **Downloading recordings:** You can download the screen sharing, application sharing, and audio portion of your meeting as one MP4 file, which can be played back in most standard video players. The downloaded recording does not contain active speaker video camera feeds, the participant list, chat, and polling.
- **Editing recordings:** To edit a recording, you can download the MP4 file and use your own MP4 video editor.
- **Audio map:** A new feature of our streaming player shows the time each person is talking (up to six people). You can use the audio map to navigate to key places in the meeting where each participant is talking.

If you are a participant, you can record the meeting if the host has enabled recording for you.

## Known Issues and Workarounds

- [What are the known issues?](#)
  - [Why does a security message appear when I play a recording?](#)
  - [Is the WOT format still supported?](#)
  - [I see a black screen when I try to record an application. What can I do?](#)
  - [I converted my network-based recording file \(ARF\) to Flash format \(SWF\) but I can't play it on my Flash Player. What can I do?](#)
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**What are the known issues?**

These are the known issues:

- New recordings created using a version 2.1 or later recorder will not play in pre-2.1 players, so be sure to upgrade to and download the latest player.
- You cannot use the recording editor to combine pre-2.1 WRF files with 2.1 WRF files.
- The Solaris player does not play audio from WebEx Internet phone conferences.
- If a host starts a meeting, shares his webcam video, and starts recording the meeting with no other participants, the video playback in the recording may have long periods of time where the video is frozen.
- A recording converted from ARF to MP4 or WMV format may have out-of-sync audio and video, and it may have choppy audio quality.

**Why does a security message appear when I play a recording?**

A security message appears when you try to play a recording from the Web. The Windows operating system displays this message to let you know that a plug-in for your Web browser is about to be installed.

When you see the message, just select **Yes** in Internet Explorer to allow the WebEx Player installation to continue. The plug-in does not pose a security threat to your computer or network.

**Is the WOT format still supported?**

WOT is the original format for WebEx recordings. You can continue to use the WebEx WOT Player to play recordings in this format, however the latest WebEx Player can play only recordings in the WebEx Recording Format (WRF).

**I see a black screen when I try to record an application. What can I do?**

You are most likely recording an application that uses video overlay, such as an applications that play video files. To record these applications, turn off hardware acceleration (or video overlay) on your computer's video card. To turn off hardware acceleration, see the Windows Media Player online help.

**I converted my network-based recording file (ARF) to Flash format (SWF) but I can't play it on my Flash Player. What can I do?**

If you are using Adobe Flash Player version 11.4 or later, you must update your WebEx Network Recording Player to version WBS28.9 or later. After you update your WebEx Network Recording Player, you can convert your ARF file to SWF format by selecting the **High key frame rate** conversion option.

