Wowza Streaming Engine™ media server software can transcode only the audio portion of the stream. The default audio-only template that comes with Wowza Streaming Engine enables you to ingest a source stream with G.711 (µ-law and A-law)/MPEG-1 Layer 1/2/MPEG-1 Layer 3 (MP3)/Vorbis/Opus audio and convert it to AAC for compatibility with additional player technologies. If your source stream includes video, it’s ignored by Transcoder when using this template. This article describes how to use the default audio-only template to create AAC audio stream renditions and play them with different player technologies.

Create a live application to ingest the live source

You must set up an encoder that publishes a live stream to an application in Wowza Streaming Engine for transcoding. Use one of the following articles to create a live streaming application named live in Wowza Streaming Engine:

- Set up live streaming using an RTMP-based encoder in Wowza Streaming Engine
- Set up live streaming using an RTSP/RTP based encoder in Wowza Streaming Engine
- Publish and play a live stream (MPEG-TS based encoder) in Wowza Streaming Engine
- Set up live streaming using a native RTP encoder with SDP file in Wowza Streaming Engine
- Re-stream video from an IP camera (RTSP/RTP re-streaming) in Wowza Streaming Engine
- Do basic server-side publishing with the stream class and Wowza Streaming Engine Java API
Configure the Transcoder

Transcoder uses a templating system to match incoming streams to an encoding template that controls the encoding parameters of the resultant transcoded streams. Wowza Streaming Engine has default templates for the most common workflows, including an audio-only transcoding workflow. The default audio only template is specifically intended to ingest a supported audio stream and an H.264 video stream (as passthrough) and convert the audio format to AAC.

Enable the Transcoder

1. In the **Applications** contents panel in Wowza Streaming Engine Manager, click **live**, and then click **Transcoder**.
2. On the details page, click **Enable Transcoder**.
3. Restart the application when prompted.
Configure the Transcoder to use the audio-only template

1. Click the Applications tab at the top of the page in Wowza Streaming Engine Manager, and then click live in the contents panel.

   **Note:** This article uses the live application that installs with Wowza Streaming Engine. If you want to use a different live application, select it instead from the contents panel.

2. In the contents panel, click Transcoder, and then click Edit.

3. Clear the Match source stream name to template name check box, and set the Fallback Template to Audio Only (Default). This means that all incoming streams will use the default audio-only template.
4. Click **Save**, and restart the application when prompted.

Configure the encoding preset

The default audio-only template has one encoding preset (**aac**), which transcodes the audio channel of your source stream to AAC and passes the video channel through (if there is one).

**Important:** The **aac** encoding preset can be used with the default settings. No additional configuration is required to produce AAC audio renditions of your stream.

The default **aac** encoding preset has the following settings:

- **Preset Name** – **aac**
- **Outgoing Stream Name** – **mp4:$(SourceStreamName)_aac**. This names the transcoded stream by appending `_aac` to the end of the source stream's name. For example, **myStream_aac**.
- **Video Codec** – **Passthrough**. Passes the source video, if present, through to
the output renditions without any changes. Because the video is ignored by default, no other video-related settings are configured. Setting the **Video Codec** to **Disabled** removes any video that’s present from the transcoded stream.

- **Audio Codec** – AAC
- **Audio Bitrate** – 48000

If you want, you can edit the default **aac** encoding preset or create new encoding presets. However, if you change an encoding preset’s **Video Codec** to a value other than **Passthrough** or **Disabled**, the video and audio will both be transcoded. If that’s what you want to do, consider using the other default templates that are designed for transcoding both video and audio instead. See **Configuring the Transcoder in Wowza Streaming Engine Manager**.

For more information about editing an existing encoding preset or creating a new encoding preset, see **Configure an encoding preset**.

**XML configuration**

**Note:** If you configured the audio only templates in Wowza Streaming Engine Manager, you can skip this section. If you make changes to transcoder template files in a text editor and you’re using Wowza Streaming Engine software, any supported settings are displayed in the manager the next time it’s started. Wowza Media Server™ software doesn’t support Wowza Streaming Engine Manager, so you must edit the transcoder template files in a text editor if you’re running Wowza Media Server.

The default audio-only template ([install-dir]/transcoder/templates/audioonly.xml) has the following layout and contents:
Before this template can be used in a transcoding session, it must be specified in the Transcoder section of your live application.

1. Using a text editor, open `[install-dir]/conf/[application]/Application.xml` and set the `/` to `transcoder`:

```
<transcoder>

```

2. Next, set the `/` to `audioonly.xml`:

```
<transcoder>

```

Default audioonly.xml file

```
true

750
75

true
aac
mp4:${SourceStreamName}_aac

PassThru
${SourceVideoBitrate}
```
3. Save the changes just made.

Playing streams produced by the audio only template

Playback URLs for AAC stream renditions

To play the stream renditions produced by the default audio only template, the URLs using each of the player technologies would be the following:

**Apple iOS device** (Apple HLS/Cupertino)

http://[wowza-ip-address]:1935/live/myStream_aac/playlist.m3u8

**DASH players** (DASH streaming)

http://[wowza-ip-address]:1935/live/myStream_aac/manifest.mpd

**Adobe Flash Player** (Adobe HDS/San Jose)

http://[wowza-ip-address]:1935/live/myStream_aac/manifest.f4m

**Microsoft Silverlight** (Smooth Streaming)

http://[wowza-ip-address]:1935/live/myStream_aac/Manifest

Where [wowza-ip-address] is the IP address of your Wowza Streaming Engine server and myStream_aac is the name of the stream rendition produced by the audio only template.

**Note:** By default, the name of a stream rendition produced by the audio only template is a combination of the source stream name (for example, myStream), followed by an underscore (_) and the encoding preset name (aac).

**Apple HLS**

For streams that you deliver to iOS-based devices, use the following encoding settings:
• **Video:**
  - Apple iPhone, iPod, and iPod touch – Use H.264 Baseline Profile Level 3.0 and don’t use B-frames
  - Apple iPad — Use H.264 Main Profile Level 3.1

• **Audio:** AAC-LC up to 48 kHz, stereo audio

For streams you deliver to Android devices, you might need to add the `cupertinoPacketizeAllStreamsAsTS` property to your application. For more information, see [Improving bitrate switching between audio streams](#).

If you’re unsuccessful getting your transcoded renditions to play and your outgoing stream doesn’t need to include video, you can create an audio-only stream that complies with the Apple App Store requirements using the method described in [Create Apple App Store compliant streams (audio only rendition) with Wowza Streaming Engine](#).

**Microsoft Smooth Streaming**

For streams that you deliver to Microsoft Silverlight players (Smooth Streaming), your encoding must have both audio and video and the keyframe interval must be between 1 and 4 seconds. We recommend a keyframe frequency of 2 seconds.

If your stream doesn’t have video, you must make it behave like it does. To accomplish this, you can use the `ModuleAVMix` module to create a video stream and attach it to your audio-only stream(s). For more information, see [Mix audio and video from different live sources with a Wowza Streaming Engine Java module](#).