

# Streaming Music and Messaging in Queue and On Hold

Easy On Hold® is the leading provider of streaming MOH/Queue Music technology and content.

2023





Since inception, Easy On Hold® has focused on innovation in an industry that had become stale. We have replaced repetitive, unimaginative phone-on-hold messages with dynamically generated content.



The number of paid (premium) streaming music subscribers continues to grow.

SoundCloud

**76M**

Apple Music

**108M**

iHeart Radio

**150M**

Spotify

**220M**

## How did we get here?

### Accidental Music

In 1962, when Alfred Levy discovered a problem with the phone lines at his factory, he located a loose wire that was touching a girder on the building. The steel in the building picked up the music being transmitted by a nearby radio station. Callers heard the radio station on the phones. On March 26, 1962, Levy applied for a patent for his on hold electric circuit: the “hold button”. It was awarded in April of 1966.

### 1990s

The technology of Levy’s day carried into the 1990s in the form of the cassette tape. Once placed in an “on-hold player”, the tape would copy audio to an internal computer chip, advertised as ‘non-volatile memory.’ Callers heard the audio from the chip (tapes would wear out if used 24/7). These machines are still being sold today!

### On-Prem PBX Era

Easy On Hold® started business during the cassette tape and audio CD era but experimented with various audio distribution methodologies. These included devices that could transfer CD audio to an internal chip, devices connected by telephone lines and eventually digital audio on memory cartridges and USB flash drives. The Interalia iPromo system stored internet-delivered audio at the phone system site, playing announcements on a schedule. Unfortunately, the “store and forward” method requires cumbersome proprietary software and periodic “call backs” to re-synchronize player content to new schedules. These methods required the phone system to incorporate MOH audio via analog audio input.

### Streaming Era

Newer on-site appliances (IP-PBX) still provide an audio jack for an external device. What if we could come up with a way to feed both digital and analog connections with one system? Easy On Hold® created the first streaming music on hold platform in 2013, a service that adds value to marketers, technicians and callers alike.

# Our Brands

**Easy On Hold®** and **Brandi Music™** are dependable, scalable streaming content services made to improve any business or organization.



Easy On Hold® focuses on custom content callers hear when in queue or on hold.

**Mono 128 kbps http(s). mp3 format**  
**Bandwidth Consumption: 0.025GB/hr**



Brandi Music™ is a feature-rich business music service (with optional announcements) for background music and phone-on-hold.

**Stereo 192 kbps http(s). mp3 format**  
**Bandwidth Consumption: 0.13GB/hr**

## STRICT SECURITY PROTOCOLS

Streams from Brandi Music and Easy On Hold® are in use in hospital systems, banks, credit unions, universities, and many other high-security environments.

## SCALABLE FOR LARGE ROLLOUTS

The architecture of our streaming services makes large-scale fulfillment practical. Client stream creation takes only minutes. Servers are built with redundancy and load balancing to manage thousands of streams.

## WORLD-CLASS ENGINEERING

Our streaming architecture and 2C-BAS streaming player were designed by engineers distinguished for their innovations in the medical, automotive, and audio industries. Such unlikely pairings resulted in a sophisticated, modern approach to how we looked to bring a streaming music and messaging solution to telephony and contact center audiences.

## VERIFIABLE TROUBLESHOOTING

The EOH team has access to the data and reporting tools necessary for customer satisfaction. Our 2-Channel Business Audio System device, designed and built by Easy On Hold®, keeps meticulous logs should troubleshooting be needed.

## MANAGEABLE & STABLE

The stream is always on. Any number of streams having unique content may be presented to end-users. URLs do not change over time. Bandwidth does not multiply as listeners are added.

## SUPERB TECH SUPPORT

Phone support is available during and after business hours. Engineering support is available throughout the planning and deployment process.

## Failover Design

When an active stream request hits the gateway server, a check is conducted to confirm that the client is valid and the requested stream is up. If yes, the server delivers the specific customer stream. If the stream is not up, the failover server will provide a temporary stream.

## Audio Device

Using our audio device, the 2-Channel Business Audio System, requires traffic on the following ports:

- Port 53 (DNS lookup)
- Port 443 (HTTPS traffic)
- Port 123 (NTP or custom NTP)
- Recommended whitelist:  
pool.ntp.org  
\*.easynholdcloud.com

## Authentication

The .mp3 streams are encrypted using https (TLS), although streams can be heard by entering the URL in any web browser. At this time no cookies or tokens are employed.

If a system cannot negotiate through the gateway to the client stream, an alternate URL is provided. If there is a restriction to the number of characters allowed in a URL, an alternate URL is provided.

## Reporting

Streams offer the opportunity for diagnostics that old analog systems never could. The player device made by Easy On Hold® (2-Channel Business Audio System) reports connectivity, uptime, runtime, temperature, wi-fi signal strength if in use, boot count, etc. Software can be updated remotely. A copy of the previous software is maintained onboard.

## Content Control

Streaming on-hold content is managed via the Content Control Center. Designated users can set start and stop dates for topics, and request and approve scripts and audio.

The screenshot displays the Content Control Center interface. At the top, there is a blue button labeled "Add On Hold Message". Below it, a section titled "With Selected" contains a "Select All" button and an "Actions" dropdown menu. To the right, there is a search bar with the placeholder text "Find keywords, Tags", a search icon, and a "Clear Search" button. Below the search bar, there is a checkbox labeled "Show Archived".

The main content area shows two rows of workflow progress indicators. Each row starts with a checkbox and a topic name: "Telehealth" and "Phone or video appointments". To the right of each topic name are several icons: a play button, a tag, a calendar, a folder, a download arrow, and a toggle switch labeled "On". Below each topic name is a horizontal timeline with five stages: "Scripting", "Review Script", "In Studio", "Review Audio", and "Complete". Each stage has a green checkmark below it, indicating that the step is completed.

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Easy On Hold® streams provide features and benefits that make your job easier.



Why you'll like  
**streaming** MOH

## Why **techs** like streaming.

**Messages are changed in the stream, not by handling files.** The audio content no longer passes through your hands. In some cases, devices are not required, reducing maintenance.

**Streams automate start and stop dates** of each topic (individual announcement). No more out-of-date audio files being left on the system.

Like it or not, someone at your company is responsible for the **liability of licensing the content** that is heard on your phones. Easy On Hold® assumes that responsibility.

**Bandwidth consumption is just 0.025 GB/hr.** for the mono 128kbps stream (less than one employee listening to Pandora®).

**Streams provide real data** that can be used in implementation and troubleshooting.

Once installed, the **URL does not change.** No further maintenance is required.

## Why **marketers** like streaming.

**Scheduling automation** allows high-value topics to be delivered with pinpoint timing. Relevant information reduces call abandonment and increases customer engagement.

**Changes are heard immediately.** You'll never wonder when topics will be played, or if they were programmed at all.

**Dayparting**, meaning “good morning” and “good afternoon” phrases surprise and delight callers. Unexpected positive moments activate the brain's pleasure center.

The predictable “audio loop” makes hold times feel longer than they really are. Instead, **topics are played randomly in the stream.**

**Easily manage content at multiple locations** using any browser or device.

All of your topics are not of equal importance, so Easy On Hold® streams let you **set priority ratings for each topic.** Your high-value, time-sensitive messages are heard more often.

The Easy On Hold® streaming solution is compatible with a growing number of telephony platforms. See page 10 for information about the 2-Channel Business Audio System for on-premise applications.

<b>Platform</b>	<b>Streaming Solution</b>
Asterisk	http mp3 stream URL
Avaya 7+ w/AAMS 7.8+	64k HLS stream URL
Bicom Systems 4.1+	http mp3 stream URL
Broadsoft	Custom SIP stream
Cisco CUCM on Prem	RTP EOH 2-C BAS or Streaming Queue Music Local Appliance on VMware
Voneto	https mp3 stream URL
Cisco UCCE/PCCE	Streaming Queue Music On Prem Appliance on VMware
Fortinet FortiVoice	https mp3 stream URL
Free PBX	http mp3 stream URL
Freeswitch	http mp3 stream URL (mod_shout)
Genesys Engage	64k HLS stream URL
Genesys Pure Connect	https mp3 stream URL
iPitomy	https stream URL (S50, S100, S300)
Yeastar	Custom SIP stream
Mitel MiVoice Business	https mp3 URL
OnSIP	Custom SIP Stream
Nextiva	EOH 2-C BAS Device (see page 10)
Legacy PBX	Custom SIP Stream
TPX (Broadsoft)	https mp3 w/Local Media Server
Vodia	RTP via SQM cloud or premise



# Our **company focus** is to help you **deliver amazing customer experiences.**

Every interaction with your company presents an opportunity for friction or satisfaction. When a company prioritizes customer experience, revenues grow faster as customers perceive receiving greater value.

**"88% of customers say the experience a company provides is as important as its products or services."**

Salesforce State of The Connected Customer, 2022

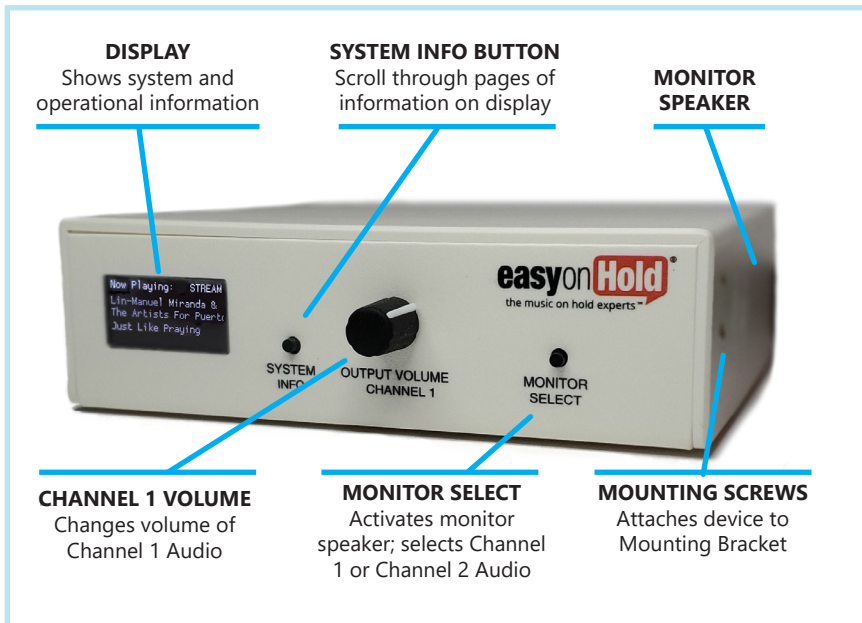


## Fresh perspectives for your consideration.

- 1** Streaming might work on your platform, even if it is hosted. As shown on the previous page, many platforms can now stream, meaning you may not require an external audio device.
- 2** Like Netflix, streaming MOH is a subscription service. The ongoing fees pay for the delivery of the audio. You can use content you have the rights to or have EOH do your scripts, voices, and music.
- 3** If equipment is needed, you won't be buying it; it comes with the service. The 2-Channel Business Audio System device is incompatible with streams other than your EOH subscription. However, it can use local audio files via a USB drive.
- 4** A better experience is achieved using voiced messages in the hold queue stream rather than inserting hold announcements from the IVR over a hold music loop. Interrupting hold music for an announcement abruptly stops music for a moment, leading callers to think their call is about to be answered. When they hear a recorded message instead, your customers can become disappointed and frustrated.
- 5** We want to work with your brand, not just your technology. Helping the tech team implement a time-saving, better-sounding queue and hold music solution is just the beginning. Upgrading to streaming MOH opens up marketing opportunities that grow revenue.

# 2-Channel Business Audio System

The most advanced on-prem streaming solution.



**A dual-channel high-quality device for streaming phone on hold and overhead music service.**

## Reporting Feature

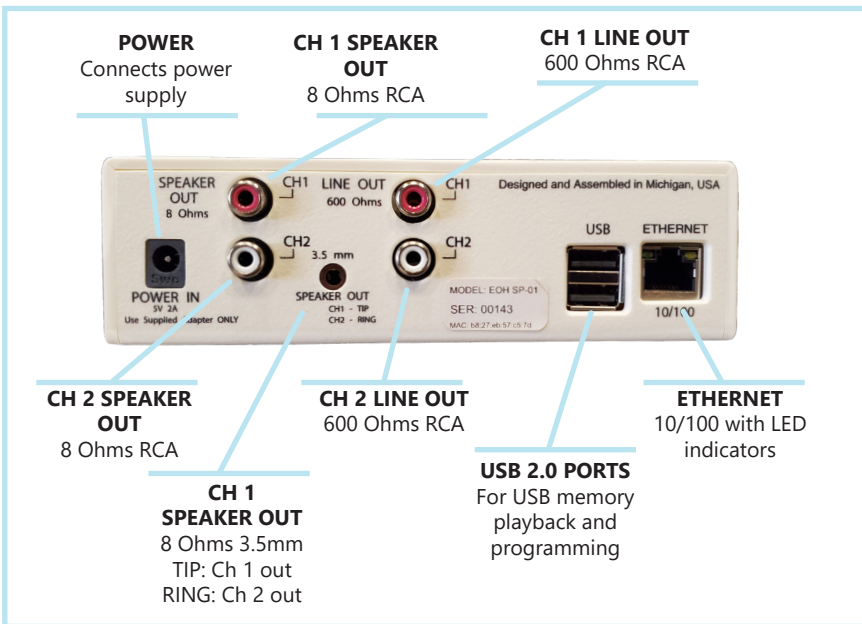
At 15-minute intervals the device confirms public I.P. address, unit serial number, connection type, configuration as DHCP or Static, time and day unit settings last changed.

## Static IP Feature

The device can be configured DHCP or STATIC. Configuration is easily changed via USB drive.

## Failover Feature

As an internet connected device, the 2-C BAS continuously monitors connectivity. In the event of a loss of internet service, the system will play pre-configured locally-stored audio files. When connectivity is restored, the unit will resume playing the internet stream without the need to reboot the device.



## Remote System Upgrades

With the device connected to its stream, new versions of the software can be remotely deployed. The device will automatically reboot to activate the new software, causing an interruption in audio playback of about 30 seconds. Updates are scheduled events and can happen at a time that is convenient to you.

## Cisco CUCM RTP Stream

For Cisco CUCM, this device can be configured to provide a stream in 8-Bit rtp on a custom multicast I.P. address. Easy On Hold® will configure the device prior to shipping. Because of this innovative device, you no longer need two separate pieces of equipment to stream into CUCM.

## FCC CERTIFICATION

The 2-Channel Business Audio System has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For more information, view the User Guide at: <https://easynhold.com/knowledgebase/EOH-2C-BAS-User-Guide.pdf>



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<https://easynhold.com>

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