

## Integration Note

Manufacturer:	CasaTunes
Model Number(s):	<b>Supports all CasaTunes matrices and music servers</b>
Core Module Version:	8.6.500 or later
Driver Developer:	CasaTunes
Document Revision Date:	November 29, 2023

### Overview & Supported Features

With CasaTunes, you can pick and choose from our flexible line of music servers and matrix amplifiers to create the perfect multiroom audio solution for your customers, whether they need an entry, value, or high-performance system.

CasaTunes Music Servers provide up to 8 streams of pre-amplified, line level, high-definition audio. The streams are typically fed to a matrix amplifier, which amplifies and distributes the music streams throughout the home.

Each stream works as an independent, stand-alone music player. You can listen to disc music, networked music, Internet radio, Internet music services, stream music via Apple AirPlay, and play Spotify music using Spotify Connect.

CasaTunes Music Servers can be used in one of two ways, (i) stand alone as a streamer, or (ii) in combination with a CasaTunes or CasaTunes supported 3rd party matrix amplifier.

Matrix Amplifiers switch and amplify music streams fed from a CasaTunes music server and various other music components, including TVs, set-top boxes, Google Chromecast, Amazon Echo Link, SONOS Connect/Port, phonographs, and more, throughout your home.

You can listen to any input source (stream or music component) in any room or combination of rooms. The built-in hardware audio switch results in perfect synchronization and near-zero latency, ideal for switching TV audio, as well as music.

The CasaTunes drivers for NICE consist of 3 drivers. The CasaTunes System Discovery driver is an MCI driver that automatically discovers your CasaTunes system and installs the CasaTunes Zone Controller and CasaTunes Media Renderer drivers, configuring all rooms, media player sources (as well as any SONOS Port/Connect sources connected to the matrix amplifier).

#### **THE FOLLOWING OPTIONS ARE SUPPORTED BY THE CASATUNES DRIVER:**

- Automatically discovers and configures the drivers for a stand-alone CasaTunes music server or CasaTunes system (music server + matrix amplifier)
- Supports all CasaTunes music servers and all CasaTunes 3<sup>rd</sup> party matrix amplifiers, including Acurus, Anthem, AudioControl, Audio Authority, Axiom, ChannelVision, Dayton Audio, HTD, Leviton/HAI, Monoprice, Nuvo, RTI, Russound, SpeakerCraft, and Vanco systems.
- The CasaTunes Zone Controller driver autoconfigures based on the number of zones, room groups and sources configured in CasaSetup or CasaTunesX.

- ❑ Supports all CasaTunes supported music, including disc, networked, Internet music services, Internet radio, AirPlay and Spotify Connect.
- ❑ Browse and search for music (including Spotify Connect)
- ❑ Supports CasaTunes and native music service playlists (support varies depending on music service)
- ❑ Complete meta data and transport control (varies based on music service capabilities)
- ❑ Supports NICE favorites programming.
- ❑ Queue support. View queue contents, select a different song to play from the queue, delete a song from the queue, and save the queue as a CasaTunes Playlist
- ❑ Supports multiple music instances (or accounts) for each music service.
- ❑ Supports playing a custom chime audio file or Text-To-Speech (TTS) message in a room or room group (using the "Send Command..." on the CasaTunes Zone Controller (or Media Renderer when in streamer mode))
- ❑ Supports invoking CasaTunes Smart Tasks
- ❑ Optional music service information. Select whether to display the music service name, account name, or music quality, for the current playing song or none.
- ❑ Automatically configures one or more SONOS Port/Connect devices as streaming sources when connected to the matrix amplifier (and configured in CasaSetup or CasaTunesX)
- ❑ Offers a robust list of Events and Universal Functions for command linking and automating and scheduling tasks.
- ❑ Report's device state information to NICE cloud service for dealer pro-active remote monitoring. Custom logging of issues to log files for diagnosing issues. CasaTunes automatically monitors and reports on communication, audio, and other hardware issues.
- ❑ Remote access to CasaTunes music servers minimizes truck rolls.

Any feature not specifically noted as supported should be assumed to be unsupported.

## CasaTunes Configuration

The CasaTunes system should be installed and configured first. Visit the CasaTunes web site for more information ([www.CasaTunes.com](http://www.CasaTunes.com)). Use the QuickStart guide that came with your system to configure the hardware, then follow the steps in the CasaSetup (CasaTunes Administration Tool) manual or the CasaTunesX App to configure your CasaTunes hardware and software setup.

### Configuring your CasaTunes Music Server as a standalone music streamer

If you are planning to use your CasaTunes music server as an independent, standalone music streamer, and are using a third-party matrix amplifier with its own NICE driver, then you should configure your CasaTunes music server in **Streamer Mode**.

To configure your music server in Streamer mode using CasaSetup, follow these steps:

1. Open CasaSetup
2. Select the **Controller** page.
3. Make sure the **Controller Type** is set to **CasaTunes CT**
4. Click on **Advanced Settings**

5. Check the box **Configure music server as a multi-stream player?**

To configure your music server in Streamer mode using the CasaTunesX App, follow these steps:

1. Open CasaTunesX
2. Select MENU > Settings > System Setup
6. Edit and select **Streamer** for the Music Server Mode

## Nice Configuration

Adding the CasaTunes System Discovery driver, a media communication interface driver, will automatically discover your CasaTunes System and automatically install the CasaTunes Zone Controller and CasaTunes Media Renderer drivers.

If you configured your CasaTunes music server in **streamer mode**, the CasaTunes System Discovery driver will only install the CasaTunes Media Renderer drivers. You will need to manually configure the CasaTunes media renderers as Zone Controller source inputs.

**Note: If the CasaTunes System Discovery driver is unable to discover your CasaTunes music server, this is typically a result of your network blocking multicast UDP packets. If you encounter this issue, you can override discovery by manually entering the IP address of your CasaTunes music server in the IP Address configuration field and setting the “Configure using” field to “IP Address” in the CasaTunes System Discovery driver.**

If you have more than one CasaTunes music server present in your network, automatic discovery will add the first music server it discovers. To select a different music server, manually enter the IP address of this CasaTunes music server in the IP Address configuration field.

## Installation Process

Follow the installation steps below:

1. Install and setup your CasaTunes system as before (visit [www.CasaTunes.com](http://www.CasaTunes.com) for more information)
2. Download the latest CasaTunes driver for NICE from the Marketplace using the NICE Management Cloud and searching for CasaTunes (or download the latest NICE driver from the CasaTunes web site: <https://casatunes.com/downloads>)
3. In the NICE Configurator, select the **MEDIA** tab.
4. Click on **Communication Devices** and select **Add New Communication Device...**
5. Select the **CasaTunes System Discovery** from the list of available drivers.
6. The CasaTunes System Discovery driver will automatically install and configure the CasaTunes Zone Controller and CasaTunes Media Renderer drivers.

If your CasaTunes music server is configured for **streamer mode**, you will need to manually assign the CasaTunes media renderers to your Zone Controller source inputs.

## Uninstall

To uninstall the CasaTunes drivers:

1. Open the **Configurator**

2. Select the **Media** tab.
3. Expand **Communication Devices**
4. Right click on the CasaTunes System Discovery driver and select **Delete** to remove the CasaTunes MCI, Media Renderer and Zone Controller driver instances

**Note: The CasaTunes drivers requires ELAN controller software version 8.6.500 or later.**

## Update

To update the CasaTunes drivers:

1. Download the latest CasaTunes driver for NICE from the Marketplace using the NICE Management Cloud and searching for CasaTunes (or download the latest NICE driver from the CasaTunes web site: <https://casatunes.com/downloads>)
2. In the NICE Configurator, select the **MEDIA** tab.
3. Click on **Communication Devices** and select the **CasaTunes System Discovery** driver.
4. Click on the **Update Driver...** button in the footer and select the latest CasaTunes System Discovery driver you downloaded from the NICE Marketplace.
5. Select the first CasaTunes Media Renderer source. Click on **Update Driver...** and when prompted whether to update the driver from the Controller select Yes. This should update the driver for all your CasaTunes Media Renderers.
6. If CasaTunes is configured in System Mode, where CasaTunes is also controlling the Zone Controller, then select the CasaTunes Zone Controller. Click on **Update Driver...** and when prompted whether to update the driver from the Controller select Yes.

## SUMMARY OF NICE CONFIGURATOR DRIVER PROPERTIES

Driver	Variable Name	Setting	Comments
<b>CasaTunes System Discovery</b>			
	Name	CasaTunes System Discovery	
	System #	<Auto Detect>	
	Device Type	Ethernet	
	Driver Name	CasaTunes System Discovery	
	Driver Version	<auto Detect>	
	Driver Vendor	CasaTunes	
	Installed	<auto Detect>	
	Status	Driver Status	Read Only
	MAC Address	Music Server MAC Address	Read Only
	ID	<Auto Detect>	Read Only. ELAN assigned Driver ID
	Poll Seconds	10	Polling frequency used to monitor connection
	Debug Level	Error, Info, Debug, Debug Verbose	Used by Support for diagnosing issues
	Configure Using	Discovery or IP Address	Note 5
	IP Address	IP Address of music server	Note 2
	Port	<Auto Detect>	
<b>CasaTunes Zone Controller</b>			
	Name	CasaTunes Zone Controller	
	System #	<Auto Detect>	
	Status Color Coding	Enabled/Disabled	Whether to display different colors depending on driver status
	Status	Zone Controller Driver Status	Green means the Zone Controller is ready
	Driver Version	<auto Detect>	
	Driver Vendor	CasaTunes	
	Installed	<auto Detect>	
	Device Type	CasaTunes Zone Controller	
	Alerts	<Auto Detect>	Display the number of issues, if any. Check log for details.
	Poll Seconds	3	How often the zone information is refreshed
	Debug Level	Error, Info, Debug, Debug Verbose	Used by Support for diagnosing issues
	Driver Configuration	Automatic (default)/Manual	Note 2
	Hidden Zones	Include or exclude hidden zones	
	AirPlay Zones	Include or exclude AirPlay zones	
	IP Address	<Auto Detect>	Note 2
	Port	<Auto Detect>	Note 2
<b>CasaTunes Media Renderer</b>			
	Name	<Auto Detect>	Note 1
	System #	<Auto Detect>	
	Status Color Coding	Enabled/Disabled	Whether to display different colors depending on driver status
	Status	Media Renderer Driver Status	Green means the Media Renderer is ready
	Driver Version	<auto Detect>	
	Driver Vendor	CasaTunes	
	Installed	<auto Detect>	
	Device Type	CasaTunes Media Renderer	
	Source ID	<Auto Detect>	Note 3
	Name	<Auto Detect>	Read Only. See Note 4
	Poll Seconds	3	How often the Now Playing information is refreshed
	Debug Level	Error, Info, Debug, Debug Verbose	Used by Support for diagnosing issues
	Driver Configuration	Automatic (default)/Manual	Note 2
	Optional Content	Display Account Name	Customize optional meta data to be displayed
	IP Address	<Auto Detect>	Note 2
	Port	<Auto Detect>	

### Notes

**Note 1:** Initially configures the name to match the source name specified in CasaSetup.

**Note 2:** You can manually setup and configure the driver if required. Used by support for diagnosing issues.

**Note 3:** Configured to match the Source Number in CasaSetup (Zero based).

**Note 4:** Read Only variable that displays the current name for this source in CasaSetup.

**Note 5:** By default, the CasaTunes System Discovery driver will automatically discover your CasaTunes music servers in your network. If this fails you can override discovery and manually enter the IP Address of a CasaTunes music server by setting this variable to "IP Address"

## **ADVANCED INTEGRATION FEATURES – SMART TASKS, TEXT-TO-SPEECH AND CUSTOM CHIMES**

### **USING CASATUNES SMART TASKS**

A CasaTunes Smart Task is a task containing one or more actions. Actions include playing music, controlling rooms, controlling music, playing chimes, converting text messages into playable audio, and adding a timed or scheduled delay. Using these basic building blocks, you can construct some very sophisticated tasks. Use the CasaTunesX App to create your CasaTunes Smart Tasks.

*Note: You can only run unattended Smart Tasks (i.e. Tasks that do not require user input)*

To learn more about CasaTunes Tasks, please refer to the following pages on the CasaTunes web site (<https://www.casatunes.com/features/smart-tasks>)

Once you have created your CasaTunes Smart Tasks, you can invoke a CasaTunes Smart Task in NICE by sending commands in response to a trigger using the NICE Event Mapper.

To configure a Smart Task command in the NICE Event Mapper:

1. Select Add command...
2. Select Audio Zone Controller
3. Select the CasaTunes Matrix as the object.
4. Now select Send Command... from the list of commands.
5. Configure the Text 1 text property for your Smart Task

### **CONFIGURING THE SMART TASK COMMAND TEXT PROPERTY**

The text to enter in the Text 1 field is a JSON object, formatted as a simple text string. The following JSON objects are defined for a Smart Task command.

Smart Task JSON string:

```
{
  "command": "task",
  "id": "smart task name"
}
```

For example, to execute the smart task called "All Rooms Off", you would enter the following string in Text 1 field:

```
{"command":"task","id":"All Rooms Off"}
```

### **NICE TEXT-TO-SPEECH AND CHIME SUPPORT**

CasaTunes provides the option to play custom chimes (a chime audio file is simply an audio file you copy into the \\casaserver\casadata\chimes folder), or to convert text to speech (TTS) audio and play these in a specific room or room group. When playing a chime or TTS audio, CasaTunes will save the current setup, temporarily pause, or stop the audio playing in the room or room group, play the chime or TTS audio, and then upon completion resume whatever was playing in the room or room group.

Chimes and TTS audio can be used to provide audio notification and/or audio alerts in response to some activity.

In NICE, you can trigger a chime or TTS command in response to an event in the Event Mapper.

To configure a chime or TTS command in the NICE Event Mapper:

1. Select Add command...
2. Select Audio Zone Controller
3. Select the CasaTunes Matrix as the object.
4. Now select Send Command... from the list of commands.
5. Configure the Text 1 text property depending on whether you are configuring a chime or TTS command.

### **CONFIGURING THE TEXT 1 TEXT PROPERTY**

The text to enter in the Text 1 field is a JSON object, formatted as a simple text string. The following JSON objects are defined for a chime and TTS command.

Text To Speech JSON string:

```
{
  "command": "tts",
  "input": "your text here",
  "id": "room or room group name",
  "preWait": "in seconds",
  "postWait": "in seconds",
  "volume": "0..100"
}
```

Chime JSON string:

```
{
  "command": "chime",
  "id": "room or group name",
  "chime": "name of the chime file (without extension)",
  "preWait": "in seconds",
  "postWait": "in seconds",
  "volume": "0..100"
}
```

Note: JSON properties in **bold** are required.

For example, to send a text-to-speech message "Living room window has been opened" to the room group called "All Rooms", you would enter the following string in Text 1 field:

```
{"command":"tts","input":"Living room window has been opened","id":"All Rooms"}
```

To play a chime called "doorbell 1" in the room group called "All Rooms" you would enter the following string in Text 1 field:

```
{"command":"chime","id":"All Rooms","chime":"Doorbell 1"}
```

The preWait, postWait and volume properties are all optional. They can be used to insert a delay before the chime or TTS audio is played (to allow any zones to power on), and/or to add a delay after the chime or TTS audio is played and the previously playing music is restored (if any). The volume property can be used to override the page volume settings for the room or room group.

## TTS AUDIO AND CHIME SUPPORT FOR CASATUNES MEDIA RENDERER

If you are using CasaTunes in Streamer Mode (where CasaTunes is not controlling the audio zone controller), you can still send a TTS audio or chime command to a specific CasaTunes stream, however, you will need to save the current zone setup, power on the zones to use and switch the source to the specified streamer, configure the zone volumes, and restore the previous saved zone setup when the command completes.

To trigger a chime or TTS command on a specific streamer in response to an event in the Event Mapper.

1. Select Add command...
2. Select Streaming Media Interface
3. Select the Streaming Source as the object.
4. Now select Send Command... from the list of commands.
5. Configure the Text 1 text property depending on whether you are configuring a chime or TTS command as before. However, for the "id" property, enter 1 for source 1, 2 for source 2, etc.



## COMMON MISTAKES

1. CasaTunes is not properly configured prior to adding the CasaTunes System Discovery driver.
2. Make sure your NICE controller and CasaTunes music server are on the same network segment (subnet).

## NICE DEVELOPER PARTNER INFORMATION

This NICE driver is developed and supported by:



Website: <https://www.CasaTunes.com>

For support requests please submit a ticket: <https://www.casatunes.com/support/ticket>