



Configuration Guide

Configuring Music on Hold on the NetVanta 7000 Series

This configuration guide describes the Music on Hold (MoH) feature available on the NetVanta 7000 Series. This guide provides a basic overview of the Music on Hold feature, as well as procedures for configuring the feature in both the ADTRAN Operating System (AOS) Web-based graphical user interface (GUI) and the command line interface (CLI).

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Music on Hold Overview

Music on Hold is a feature that allows the user to play hold music internally from a NetVanta 7000 Series unit or externally from an attached music player. The internal option of this feature replaces the MP3 player or other hardware that would normally be required to generate hold music. The Music on Hold feature can be used for hold music as well as for call queues and FindMe-FollowMe.

There are two methods for configuring the NetVanta 7000 Series unit: the GUI or the CLI. Both methods are covered in this guide; however, not all features can be enabled using both methods. This limitation will be noted where applicable.



Instructions for configuring Music on Hold via the GUI can be found also in the video tutorial [Using the NetVanta Audio Converter for Music on Hold and Audio Prompts](#) available from the ADTRAN Support Community (<https://supportforums.adtran.com>).

Both GUI and CLI configuration methods require certain steps in order to configure the internal option of the Music on Hold feature:

- Set the Music on Hold mode to **internal**.
- If necessary, download new WAV files to the unit.
- Create a new music player. (The default system player can be used as well.)
- Add one or more WAV files to the music player.
- Set the new music player as the default player.

Hardware and Software Requirements and Limitations

The Music on Hold feature is available on NetVanta 7000 Series voice products running AOS firmware version A4.01 or later. For a complete list of supported platforms, refer to the [AOS Feature Matrix](#) available from the ADTRAN Support Community (<https://supportforums.adtran.com>).

Configuring Music on Hold Using the GUI

To connect to the NetVanta 7000 Series GUI and configure the Music on Hold feature, follow these steps:

1. Open a new page in your Internet browser.
2. Enter your unit's IP address in the browser's address field in the following form:
http://<ip address>/admin, for example:
http://10.22.100.77/admin

- At the prompt, enter your user name and password and select **OK**.

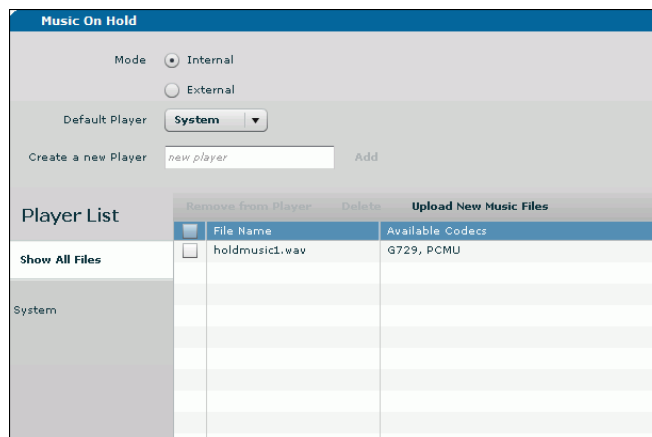


NOTE *The default user name is **admin**, and the default password is **password**.*

- From the main GUI menu, navigate to **Voice > Applications > Music on Hold**.




- At the top of the **Music on Hold** menu, select the Music on Hold **Mode** using the radio buttons. Selecting **External** (the default) specifies that the hold music will play from an external device such as an MP3 player or other device. If the mode is set to **External**, no further configuration is required; simply plug the device into the unit's MOH port, located on the rear panel of the NetVanta 7000 Series.



Selecting **Internal** specifies that the hold music will play from locally stored files specified in the playlist. If the mode is set to **Internal**, continue with [Step 6](#).

6. Select the default player from the **Default Player** drop-down menu. The default player will be used when placing a caller on hold and when using the FindMe-FollowMe feature. The Call Queuing feature can specify whether to use the default Music on Hold player or a different one. If you need to create a new player, enter the name of the new player in the **Create a new Player** field and select **Add**. You can then use the **Default Player** drop-down menu to specify the new player as the default player.



To delete a player, place your cursor over the name of the player in the **Player List** and then select the **Delete** icon  that appears beside the player name.

7. Select **Show All Files** to display the music files on the unit and their available formats.
8. To upload additional music files to the unit, select **Upload New Music Files**.

File Name	Available Codecs
holdmusic1.wav	G729, PCMU



Ensure that the files are available in the required formats; for example, G.729 and PCMU (G.711 U-law) for North America and PCMA (G.711 A-law) for Europe. The AOS Audio Converter can convert MP3 files to the proper formats. For more information about installing and using the Audio Converter, refer to [Installing the NetVanta Audio Converter](#) and [Using the NetVanta Audio Converter for Music on Hold and Audio Prompts](#) available from the ADTRAN Support Community (<https://supportforums.adtran.com>).

9. Select whether the music file is encoded in **G.729**, **PCMU**, or **PCMA** format. Be careful to select the radio button that matches the format of the file you are uploading.

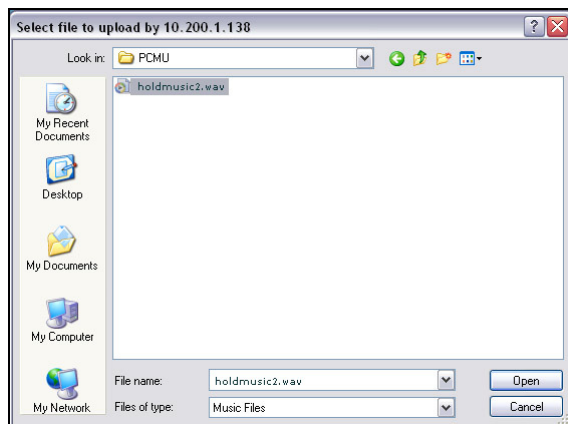


For North America, music files must be encoded and uploaded in both the G.729 **and** PCMU formats before they will be available for use in a playlist. Outside of North America, only the PCMA format is necessary.



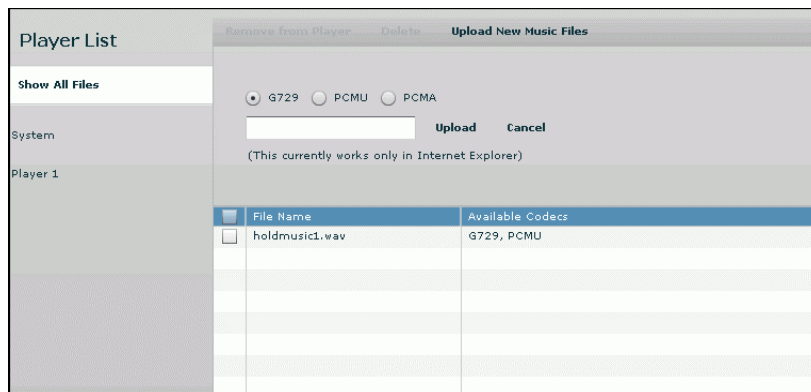
By default, the system uses G.711 U-law as the preferred CODEC. The preferred CODEC setting cannot be changed using the GUI. To change this setting, refer to [Step 8](#) in the CLI section.

10. Select **Upload** and navigate to the location of the music file on your computer. Select the file and then select **Open**.



NOTE *Currently, the system supports only Internet Explorer for navigation and file uploading.*

11. To add music files to the player, drag the files from the list and drop them onto the player name in the column on the left. If no music files are added, the player will still function, but no sound will be heard.



NOTE *To remove unwanted files from a player, select the player name, select the check box beside the file name to remove, and then select **Remove from Player**.*

12. To change the file order when a player uses multiple music files, select the player name and then drag and drop the file to the new location in the list.
13. Once the music file has been uploaded to the unit, add it to the player as described in [Step 7](#).
14. Select **Apply** at the bottom of the **Music on Hold** menu to save changes to the player.

Configuring Music on Hold Using the CLI

To access the CLI and configure the Music on Hold feature, follow these steps:

1. Boot up the unit.
2. Telnet to the unit (**telnet** <*ip address*>), for example:

```
telnet 208.61.209.1
```



If during the unit's setup process you have changed the default IP address (10.10.10.1), use the configured IP address.

3. Enter your user name and password at the prompt.



*The AOS default user name is **admin** and the default password is **password**. If your product no longer has the default user name and password, contact your system administrator for the appropriate user name and password.*

4. Enter the Enable mode by entering **enable** at the prompt as follows:

```
>enable
```

5. Enter your Enable mode password at the prompt.
6. Enter the Global Configuration mode using the **configure terminal** command:

```
#configure terminal
(config)#
```

7. Set the mode of the Music on Hold feature using the **voice music-on-hold mode** command. The mode can be set to **internal**, which specifies that the hold music will play from a locally stored file, or **external** (the default), which specifies that the hold music will play from an external device such as an MP3 player or other device. If the mode is set to **external**, no further configuration is required; simply plug the device into the unit's MOH port, located on the rear panel of the NetVanta 7000 Series. The following example sets the mode to **internal**:

```
(config)#voice music-on-hold mode internal
```

8. Set the preferred file encoding using the **voice music-on-hold preferred-codec** command from the Global Configuration mode. The coder-decoder (CODEC) can be set to **g729**, **g711ulaw**, or **g711alaw**. Setting the CODEC to **g729** conserves bandwidth and CPU usage. Setting the CODEC to **g711ulaw** (the PCM CODEC used in North America) or **g711alaw** (the PCMA CODEC used outside of North America) provides improved sound quality. By default, the preferred CODEC is set to **g711ulaw**. The **voice music-on-hold preferred-codec** command is not available using the GUI. In the following example, the preferred CODEC is set to **g711alaw**:

```
(config)#voice music-on-hold preferred-codec g711alaw
```

9. If needed, upload new music files to the unit using either the GUI (refer to [Step 8](#) in the GUI section) or FTP. When using FTP to add music files to the player, make sure that the files are located in the

music/G729, music/PCMU directories on the unit's CompactFlash® card. If using PCMA, the file should be located in the music/PCMA directory.



Ensure that the files are available in the needed formats; for example, G.729 and PCMU (G.711 U-law) for North America and PCMA (G.711 A-law) for Europe. The AOS Audio Converter can convert MP3 files to the proper formats. For more information about installing and using the Audio Converter, refer to [Installing the NetVanta Audio Converter](#) and [Using the NetVanta Audio Converter for Music on Hold and Audio Prompts](#) available from the ADTRAN Support Community (<https://supportforums.adtran.com>).

10. To create a new Music on Hold player and enter the Music on Hold Configuration mode, use the **voice music-on-hold player <name>** command. For example, the following uses **PLAYER1** as the name of the new player:

```
(config)#voice music-on-hold player PLAYER1
(config-PLAYER1)#
```

11. Add music files to the new player using the **file <index> <filename>** command, where <index> is the position of the file in the playlist and <filename> is the new music file. For example, the following adds the file **holdmusic1.wav** to the first position in the playlist:

```
(config-PLAYER1)#file 1 holdmusic1.wav
```

12. Set the new player as the default Music on Hold player using the **default** command:

```
(config-PLAYER1)#default
```

The default player will be used when placing a caller on hold and when using the FindMe-FollowMe feature.



The Call Queuing feature can use either the default player or a different player specified in the Call Queuing configuration.