

BANG & OLUFSEN

# AIRPLAY 2 & BANG & OLUFSEN

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# WHAT'S NEW?

## COMPARED TO AIRPLAY

Multiroom-capability

Control other instances in the house

Voice control via Siri

Larger buffer to prevent dropouts

Continue playing even if you pick up the phone

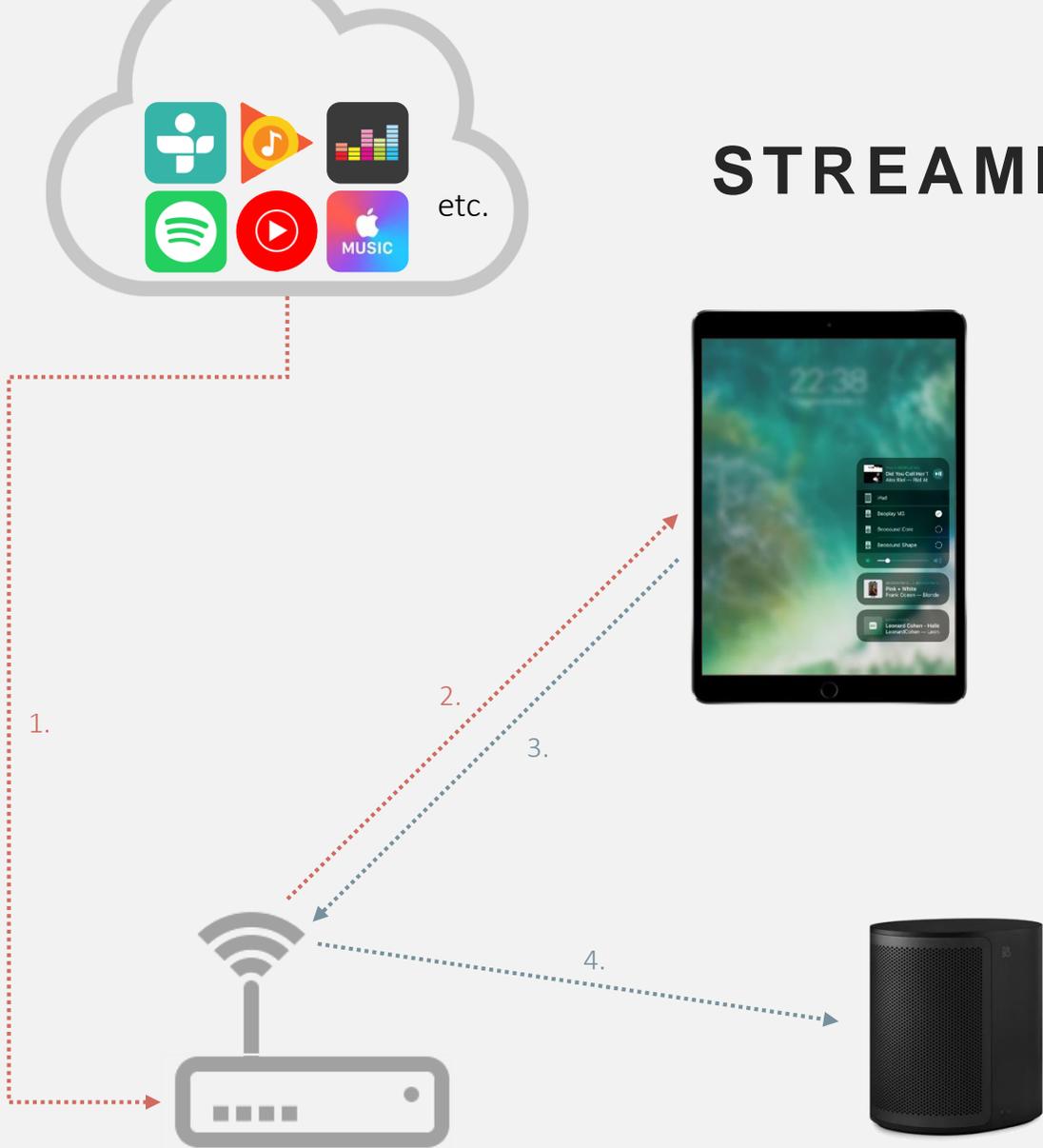
Works on iDevices with iOS/tvOS version >11.4







# STREAMING PRINCIPLE



1. Your music app (typically\*) request the content from the internet
  2. The music will be streamed from the internet, through your router to your iPad
  3. The iPad will then pass on the sound to the selected AirPlay 2 speakers through the router
  4. Music will start playing on the selected speaker(s)
- \* Local content can also be played – in that case, no internet connection is required, only a local network

# HOW TO START AIRPLAY'ING

First, start playing music in your favorite music app

1. Depending on your app you may find the AirPlay symbol directly in the app – if yes, you can press that and directly access the AirPlay 2 screen.
2. If not, simply access your device's Control Center\* and select the small symbol by the music controls in the top right corner

## \* HOW TO ACCESS CONTROL CENTER IN IOS13

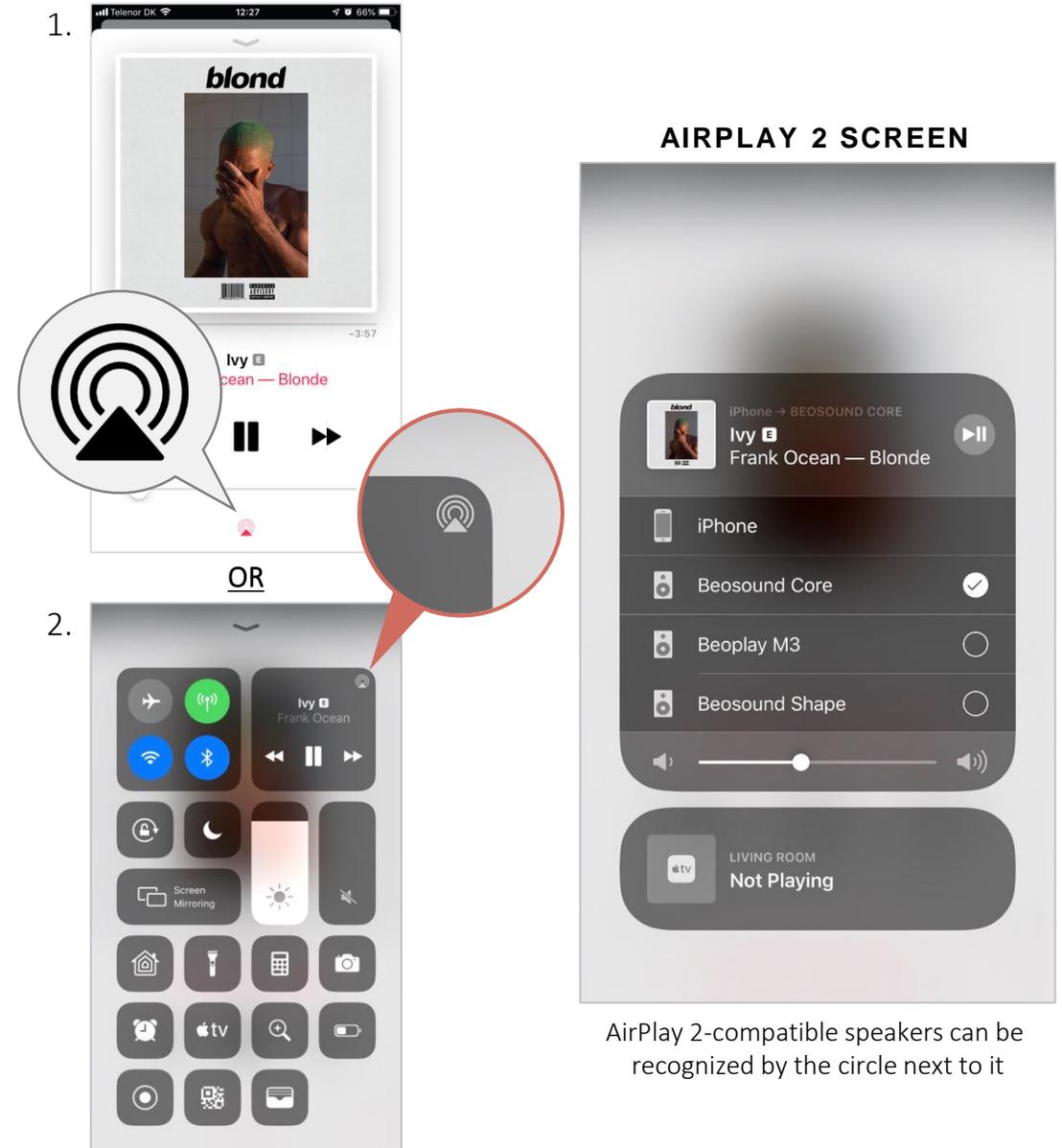
Swipe from:



iPhone 8 and older



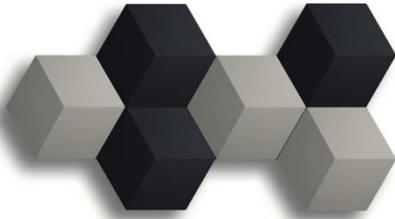
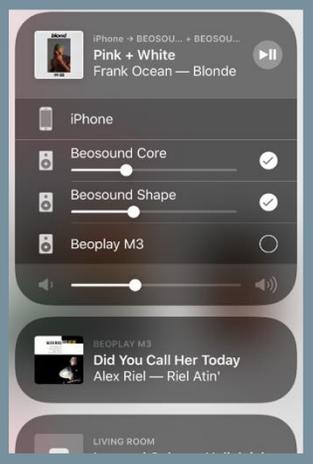
iPhone X and newer



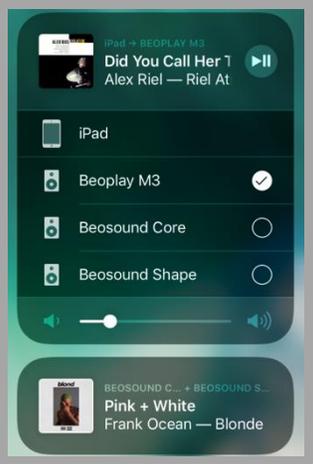
AirPlay 2-compatible speakers can be recognized by the circle next to it

# AIRPLAY 2 EXAMPLE

1. iPhone is streaming to Core and Shape.

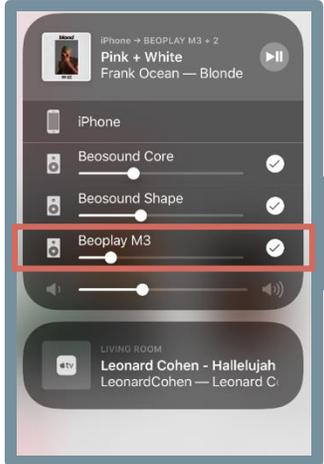


2. iPad is streaming to M3.



- With AirPlay 2 it is possible to have multiple instances playing at the same time on the local network
- One music stream per iDevice
  - It is not possible to airplay Spotify to one speaker, and TuneIn to another from the same device at the same time
  - The number of individual iDevices on the local network determines how many different streams can play at once

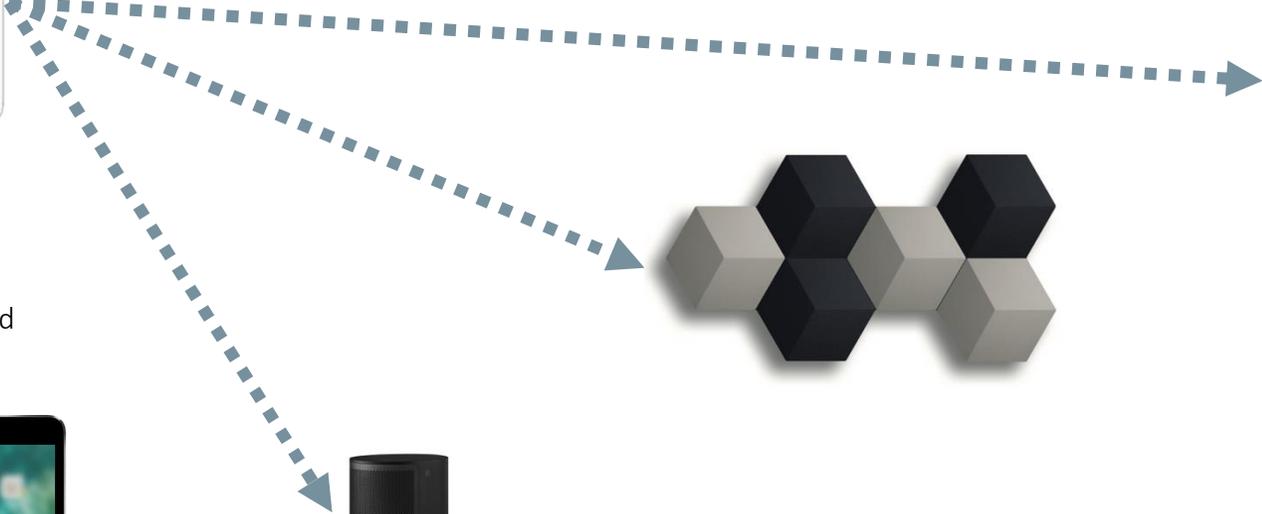
3. "Beoplay M3" is added to the group on the iPhone.



# AIRPLAY 2 EXAMPLE CONTINUED



4. This will "steal" the M3 from the iPad, and the music stops on the iPad.



- ... Continued from previous page
- It is possible to control all ongoing AirPlay 2 instances from each iOS device, even if you did not start it.
- It is, as shown in this example, also possible to steal a speaker from another ongoing experience

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# VOICE CONTROL

With a few steps it is possible to voice control AirPlay 2 speakers using Apple's voice assistant, Siri.

Siri is built-in to all iDevices and is also present in Apple's own smartspeaker, the HomePod.

If you want to have full control of your music and request specific songs using Siri, it is required that you use Apple Music.

But if you're using other music-services, you still can do basic controls, such as next, previous, pause, volume, etc.

See how to add your speaker to the Home-app and enable voice-control on next page or have a look at this video, where we also go through the different multiroom commands:

[https://youtu.be/joV\\_DdkJWWk](https://youtu.be/joV_DdkJWWk)



# ADD YOUR SPEAKER TO THE HOME-APP

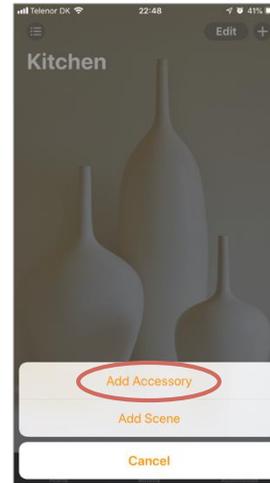
1. Open the 'Home' app
2. Create Home



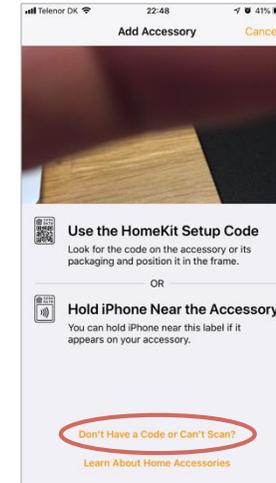
3. Press +



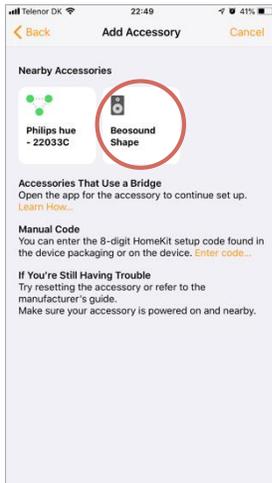
4. Select 'Add Accessory'



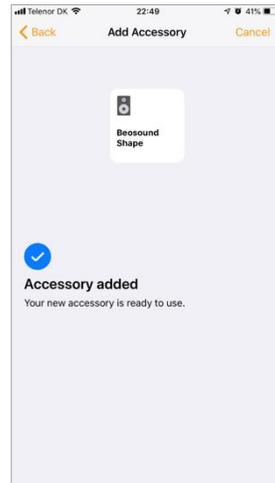
5. Select 'Don't Have a Code or Can't Scan?'



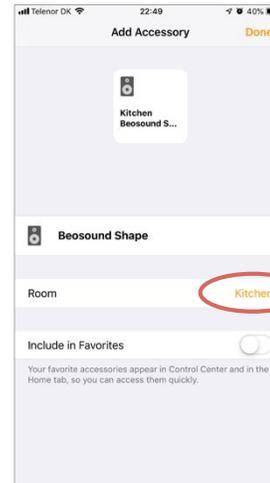
6. Select your AirPlay 2 speaker



7. Your speaker is added



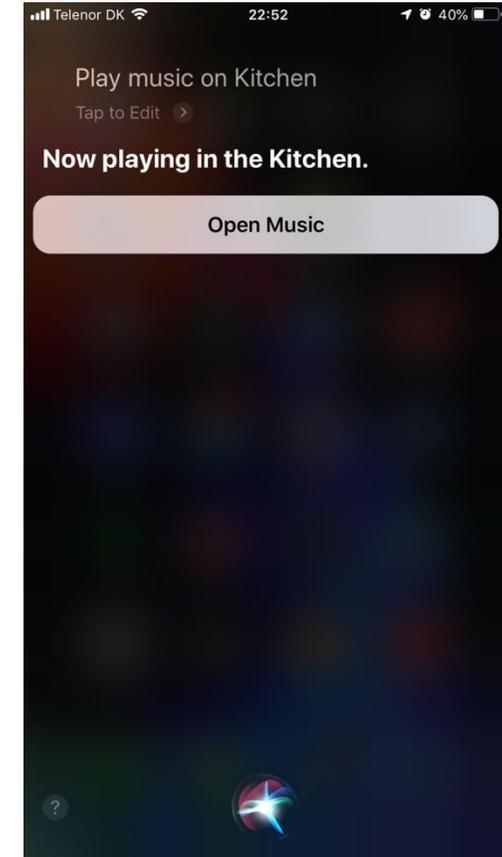
8. Assign the speaker to a room



9. Ready



Hey Siri!



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# TV INTEGRATION WITH APPLE TV

If you are interested in having your TV to be a part of AirPlay 2, there is a very easy solution to this;

AppleTV 4 and 4K are also capable of being a part of AirPlay 2 multiroom. As many customers already has an Apple TV connected to their Bang & Olufsen TV, this makes it very easy for the customer to both play sound and video *to* the Apple TV, but also to distribute sound *from* the Apple TV.

On the next pages you will see how to set it up, and how to use it.



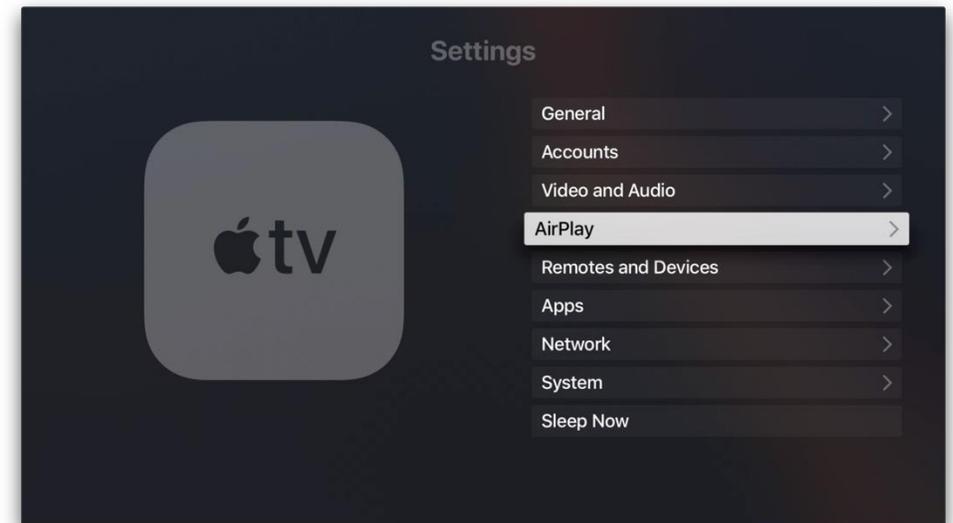
## ENABLE AIRPLAY 2 ON THE APPLE TV

To enable AirPlay 2 and make it discoverable in the Home-app, you will need to assign it to a room.

On the Apple TV, go to: **Settings / AirPlay / Room**

Assign the Apple TV to the room it is in.

Now the Apple TV will appear with the "AirPlay 2-circle" next to it on your phone's AirPlay 2-screen.



## AIRPLAY TO THE APPLE TV

Playing music to the Apple TV is just as easy as with speakers – simply select your Apple TV, either stand-alone or as a part of a group.

Apple TV's are recognized by the different logo next to it.

### EXPERIENCING ECHO?

When playing both from and to an Apple TV together with other speakers, you may experience a slight echo in the sound.

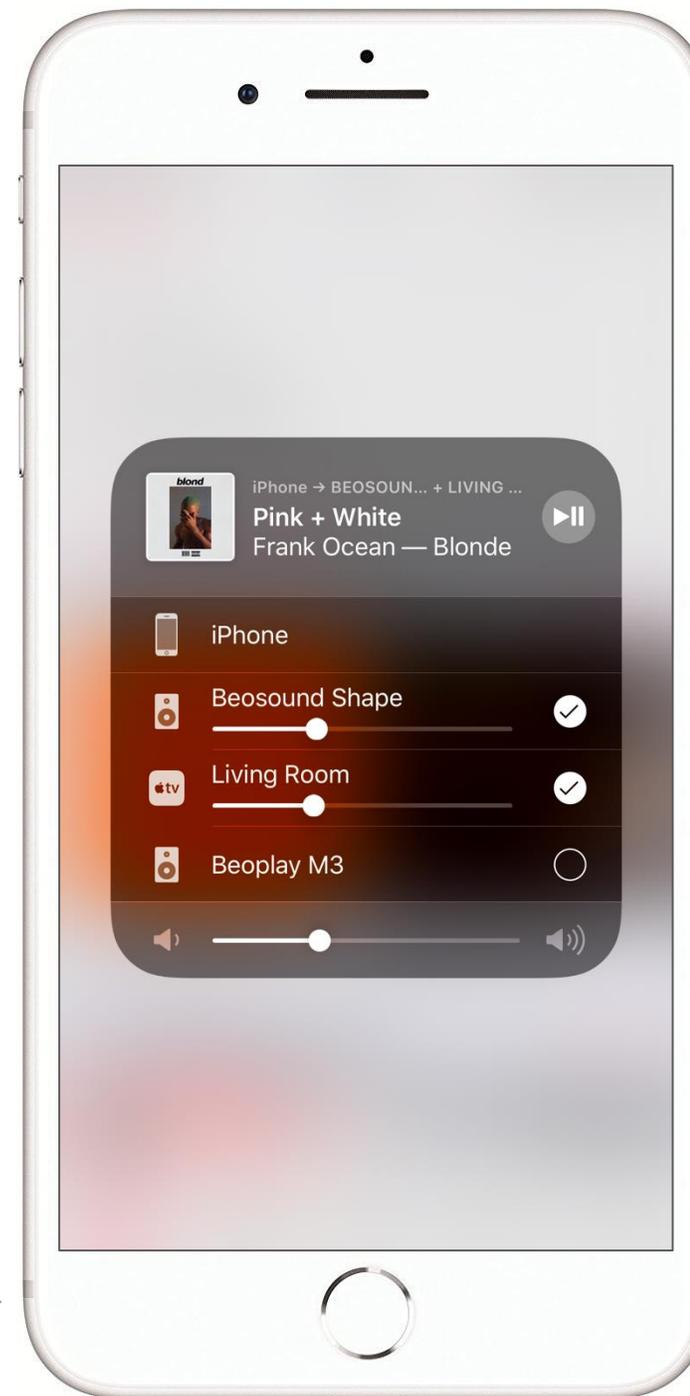
This is due to the time it takes to process the picture in the TV – and this added delay varies between TV models. On certain models it is very easy to hear, and on others it is barely noticeable.

A new feature in tvOS 13 is 'Wireless Audio Sync', which allows you to record a quick sound sequence from the Apple TV that is connected to your TV, using the microphone in your iPhone.

This will determine how much the audio is delayed through your TV, and share that value to the other AirPlay 2 compatible devices in your network, allowing them to compensate for the delay.

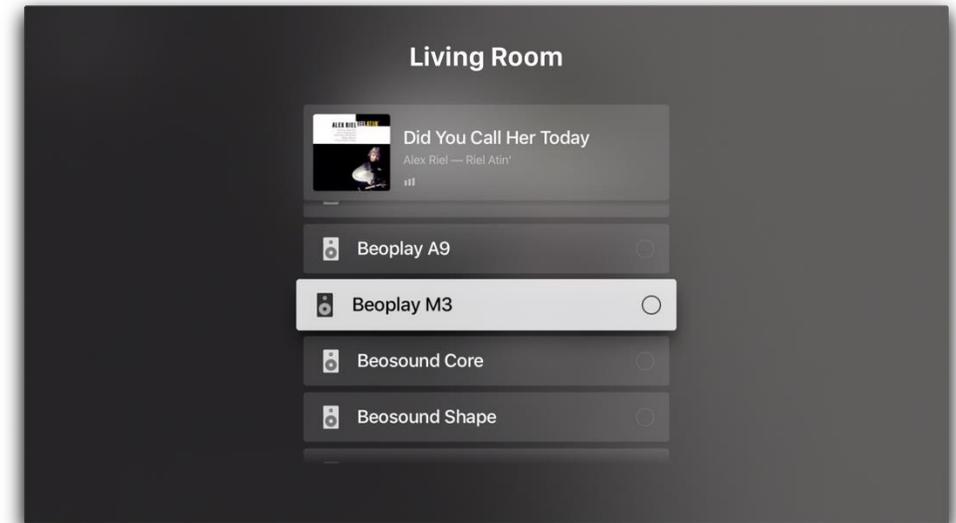
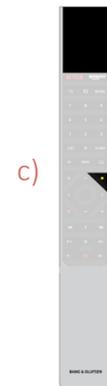
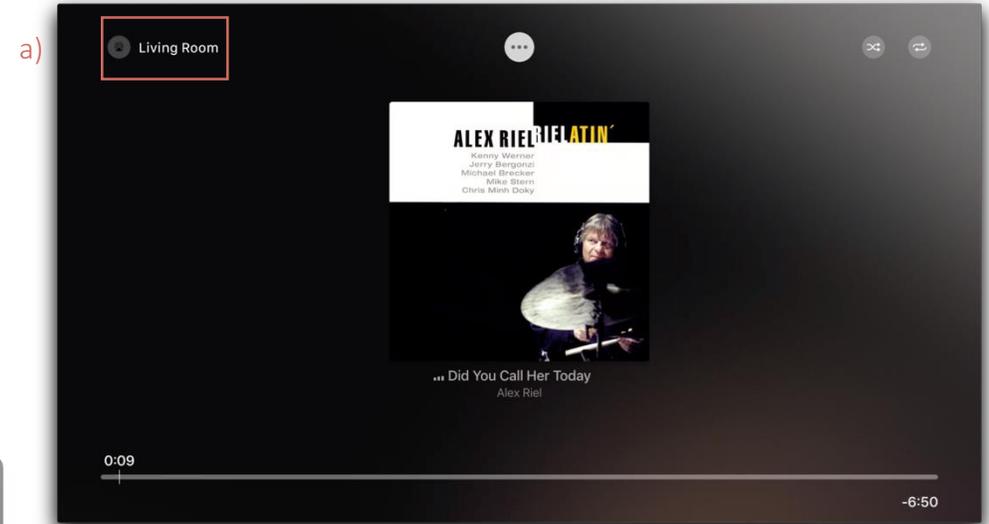
How to setup 'Wireless Audio Sync':

<https://support.apple.com/en-am/HT210526>



## DISTRIBUTE SOUND FROM APPLE TV

1. Start playing some content on the Apple TV, e.g. YouTube or Apple Music.
2. To select one or more speakers, we need to call up the AirPlay 2-screen on the Apple TV.
  - a) In some apps you will see the AirPlay symbol directly in the app you're playing from – in Apple Music it is in the upper left corner of the 'Now playing' screen.
  - b) If you cannot find the symbol, you can make a long press on the Play/Pause-button on the original Apple TV remote.
  - c) If you are using a Bang & Olufsen TV and using PUC-control, make sure that you have updated to the latest version of the PUC-tablet for Apple TV 4th gen. This makes it possible to press **YELLOW** to call up the AirPlay 2 screen using the Bang & Olufsen remote.
3. Select the speaker(s) you want to distribute to.



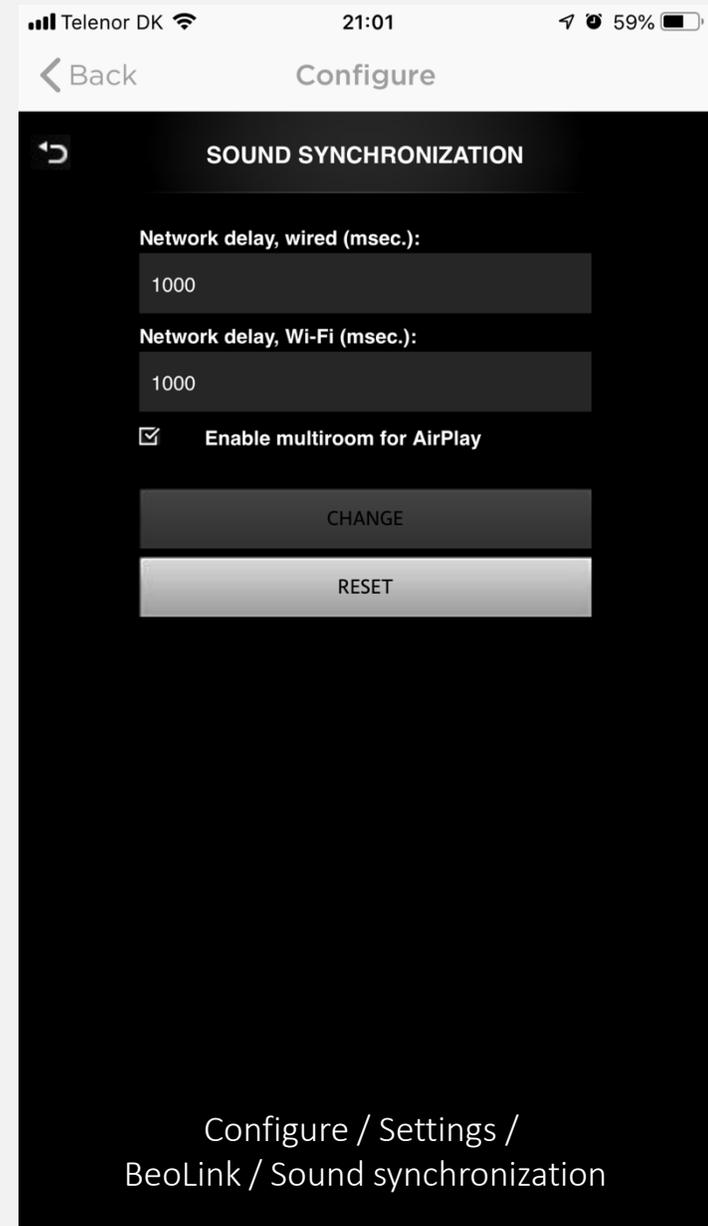
# AIRPLAY 2 AND BEOLINK

Apple AirPlay 2 is different from BeoLink Multiroom in many ways, one being that AirPlay 2 sound is available for multiple brands, which means that cross-brand multiroom is possible as long the products support the protocol.

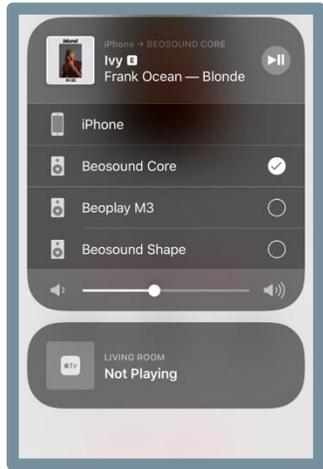
This also means that out-of-the-box, AirPlay 2 has no connection with BeoLink; it is its own platform. It is controlled using a very easy and intuitive user-interface built directly in to the operating system of your iOS-device.

But many B&O customers has products that do not support AirPlay 2, e.g. BeoVision 11 or Horizon – and for those customers, its possible to adjust a setting, that enables distribution of AirPlay using BeoLink – however, this comes at a price, and our recommendation is that if you have the possibility to use "pure" AirPlay 2, this will give the user a better experience.

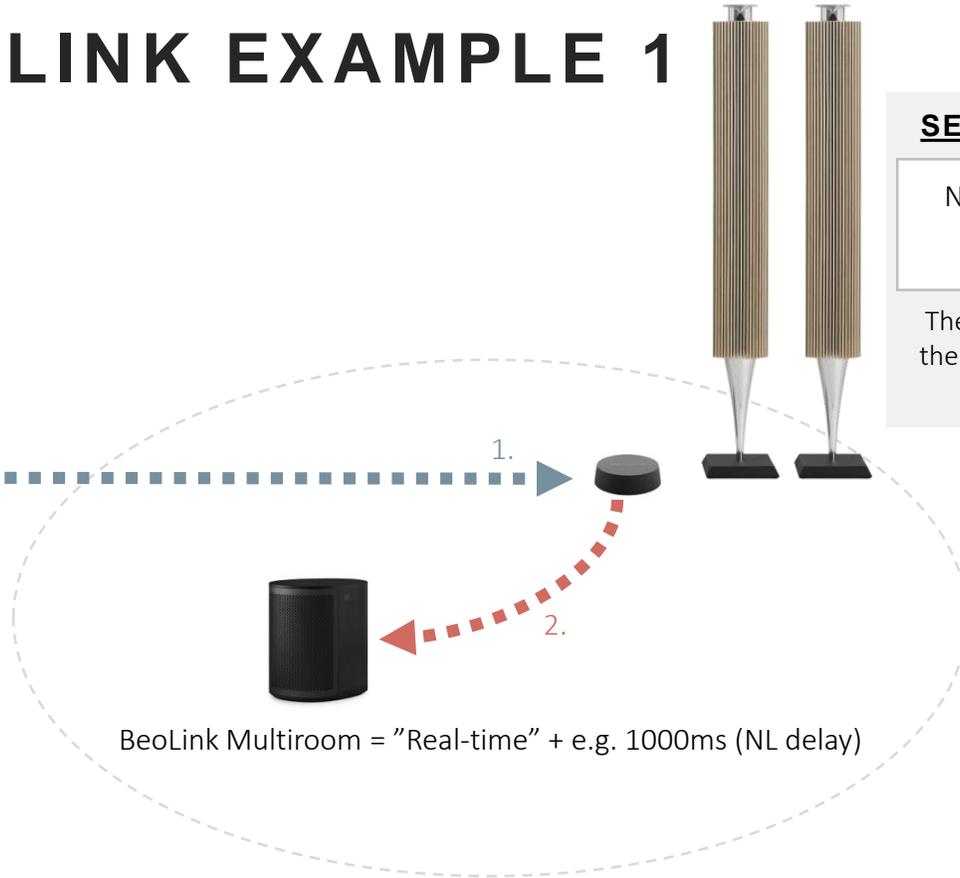
The effects of this setting are explained on the next two pages.



# BEOLINK EXAMPLE 1



AirPlay 2 = "Real-time"



**SETTINGS ON BEOSOUND CORE:**

Network delay (msec):	1000
<input checked="" type="checkbox"/> Enable multiroom for AirPlay	

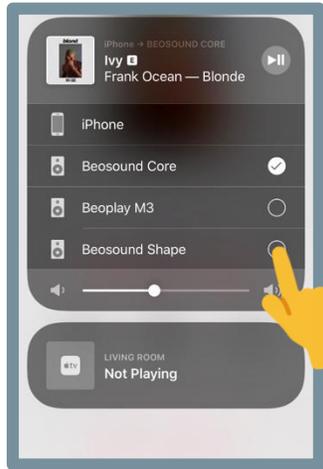
The Network Link delay value is now added to the AirPlay 2 stream, since AirPlay now is a part of Network Link

1. iPhone is streaming to Core, which has the AirPlay multiroom checkmark ticked.

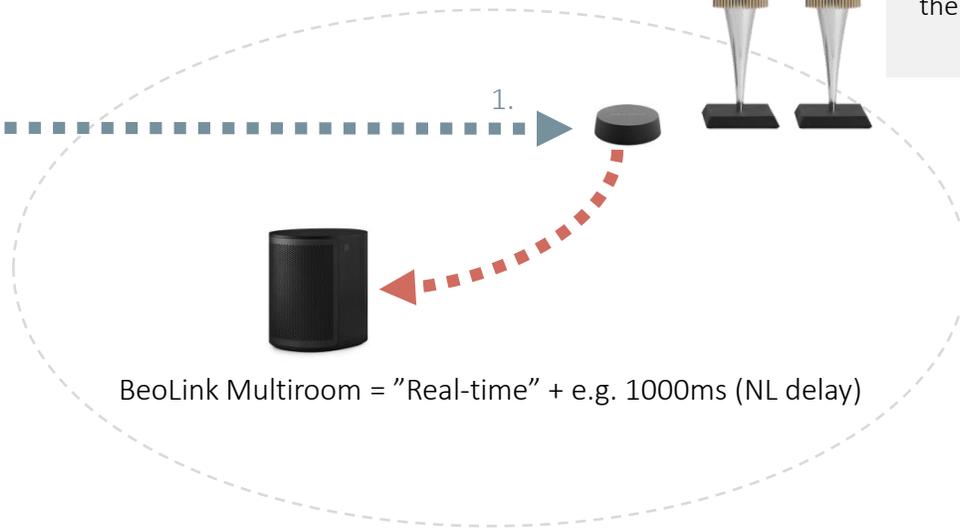
2. M3 joins AirPlay from the Core using BeoLink. Sound is in sync.

Conclusion: When the "Enable multiroom for AirPlay" checkmark is ticked in e.g. a Beosound Core, you can AirPlay to that specific product and distribute the sound using the BeoLink Multiroom functionality (Join & Expand)

# BEOLINK EXAMPLE 2



AirPlay 2 = "Real-time"



BeoLink Multiroom = "Real-time" + e.g. 1000ms (NL delay)

## SETTINGS ON BEOSOUND CORE:

Network delay (msec): 1000

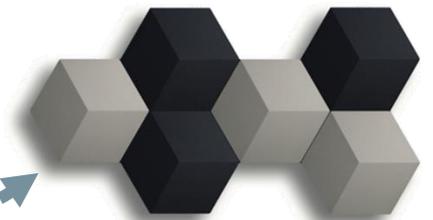
Enable multiroom for AirPlay

The Network Link delay value is now added to the AirPlay 2 stream, since AirPlay now is a part of Network Link

1. Same scenario as previous page. Core and M3 are playing together, using BeoLink Multiroom.

2. Now, instead of expanding the sound to Shape using BeoLink Multiroom, we select the Shape on the AirPlay 2 screen on our iDevice.

We will experience that the sound is out of sync.



**Conclusion: When the "Enable multiroom for AirPlay" checkmark is ticked in e.g. a BeoSound Core, it is recommended to AirPlay to that specific product and then distribute the sound using the BeoLink Multiroom functionality (Join & Expand), instead of using AirPlay 2.**

## PLEASE NOTICE:

IF YOU WANT TO USE 'PURE' AIRPLAY 2 WITHOUT BEOLINK,  
MAKE SURE THAT ALL PRODUCTS HAVE THE "ENABLE  
MULTIROOM FOR AIRPLAY"-CHECKMARK **DISABLED**.

IF ENABLED, YOU WILL VERY LIKELY EXPERIENCE THAT THE  
SOUND IS OUT OF SYNC.

THIS SETTING SHOULD ONLY BE ENABLED IF YOU SOLELY  
WANT TO DISTRIBUTE SOUND USING JOIN AND EXPAND,  
INSTEAD OF THE NATIVE AIRPLAY 2-METHOD.