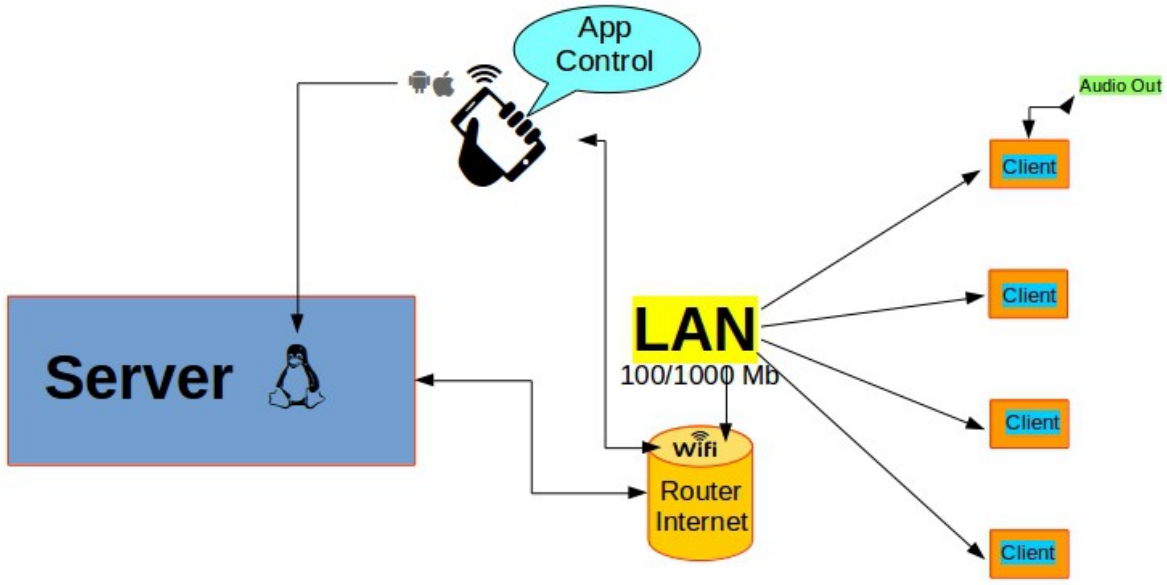
ASDS
Audio Sync Distribution System Over IP

This system has one device called Server and multiple devices called Client.
ASDS allow to transmit a stereo high quality multichannel audio (linear or compressed) on LAN over IP from a server to different client in sync mode.
Two or more clients that receive the same audio channel play on the sound system the sound in sync. So if you connect two clients in nearby listening areas the sound it will look like the same, without any kind of delay between them.
The server communicate to the clients via LAN. From the server with the use of and iOS/Android App you can choose the audio channel and change some settings like audio quality. The mobile device will find automatically the server through WiFi network.



ASDS hardware is designed on a ARM device with a Linux operating system.

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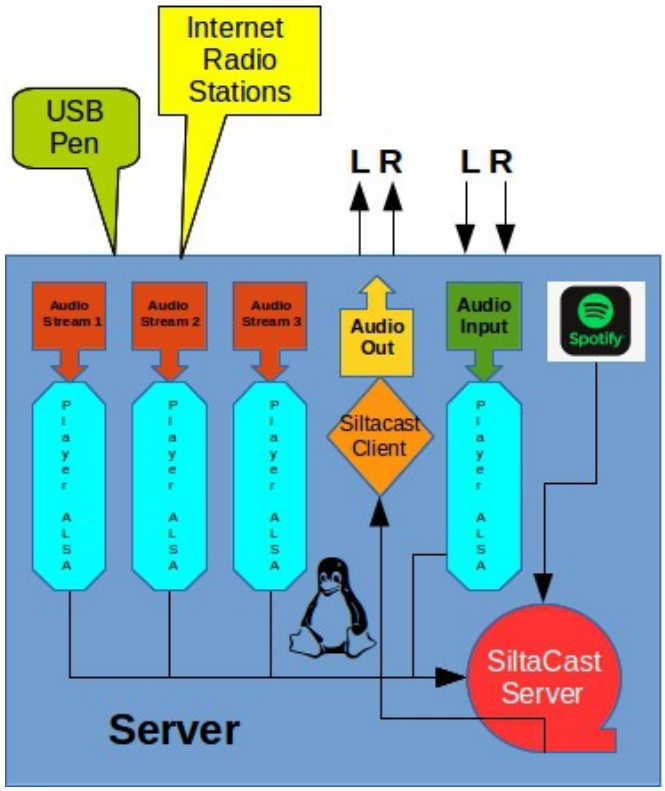
Server

Il server ASDS funziona da concentratore di sorgenti, vi sono implementati nel sistema 5 player che possono leggere contemporaneamente a scelta il contenuto di una normale USB Pen con musica, ascoltare stazioni Radio in streaming, o essere configurati con un account Spotify controllato dalla sua client-app in remoto.
In addition the server has one or more (optional) line input stereo for external sources. It will be possible connect different clients on LAN and associate the desired audio source. The clients connected to the same audio source will be in complete synchronicity.



On the server there is a analog output stereo line that allow to perfomance as a normal client.

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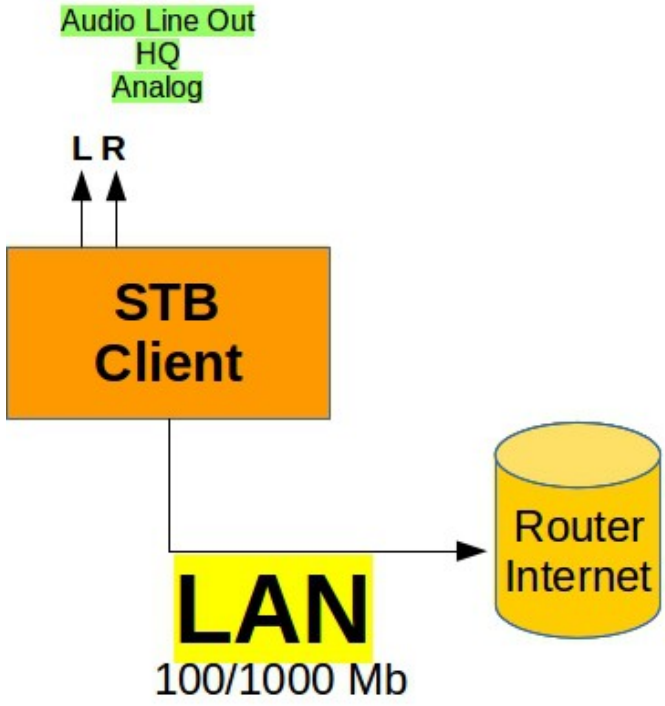
Client

The client is an ARM device that can play the audio stream from the server. It has an Ethernet port and a stereo line audio output. The discovering of the client is automatic found in LAN through a discovery from the server.



The IP Address is configured by the typical DHCP from the LAN router.

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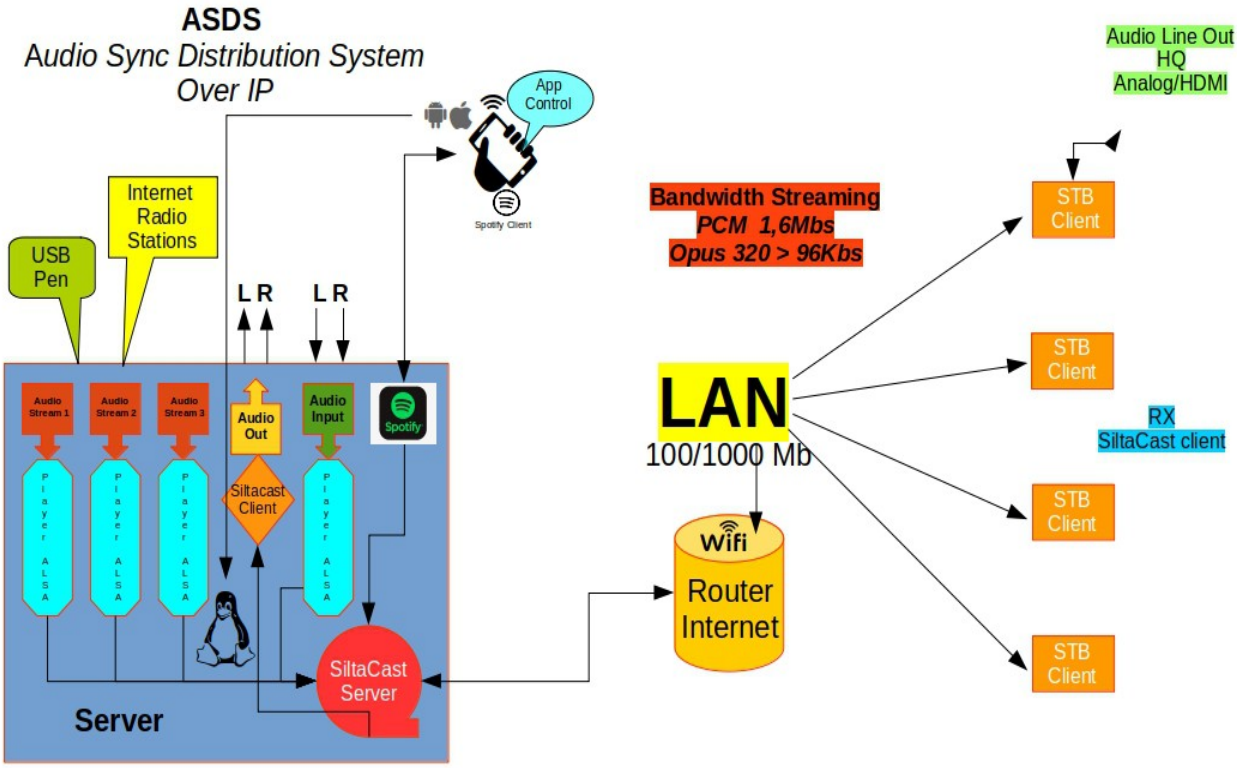
Sistema ASDS

ASDS System works on LAN and use TCP/IP protocol, for a proper functioning it need at least a 100 Mbits wired network. More clients are connected most bandwidth is used. Siltacast® is the protocol that allow the tranmission of the audio stream, the audio quality is configurable (you can lower the audio quality to optimize the bandwidth used).

Below the table of different codecs and qualities that can be used:

	Quality	Format	Bandwidth
•	HQ	PCM	1,6 Mbits
•	High	Opus	320 Kbits
•	Normal	Opus	192 Kbits
•	Low	Opus	96 Kbits



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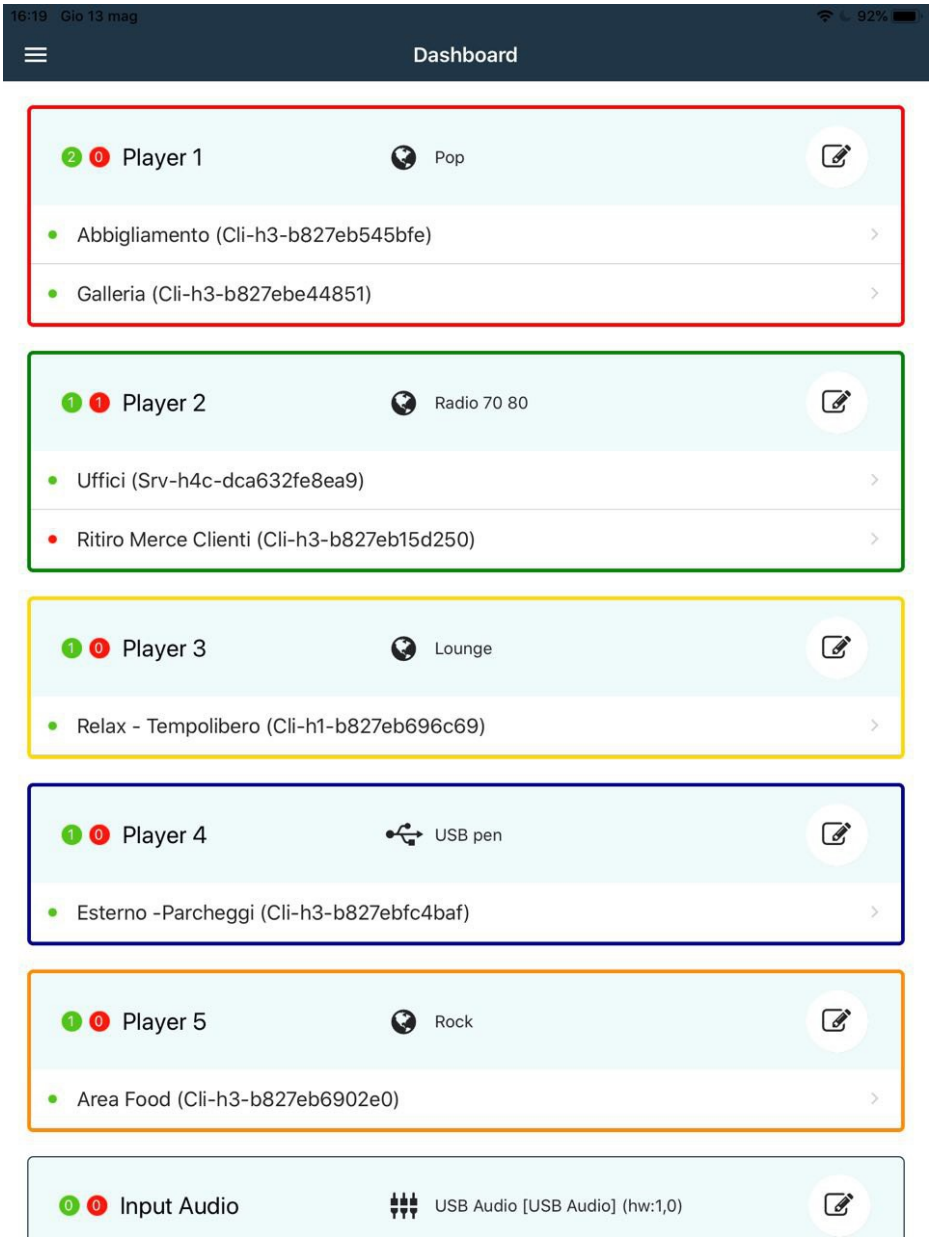
Applicazione IOS – Android

All the job is done by an iOS/Android application
From the app you can choose at any time the audio source to play in different clients and areas.



In the Dashboard we have a recap of the current status of the system. We can see realtime active players and change player to the different clients.

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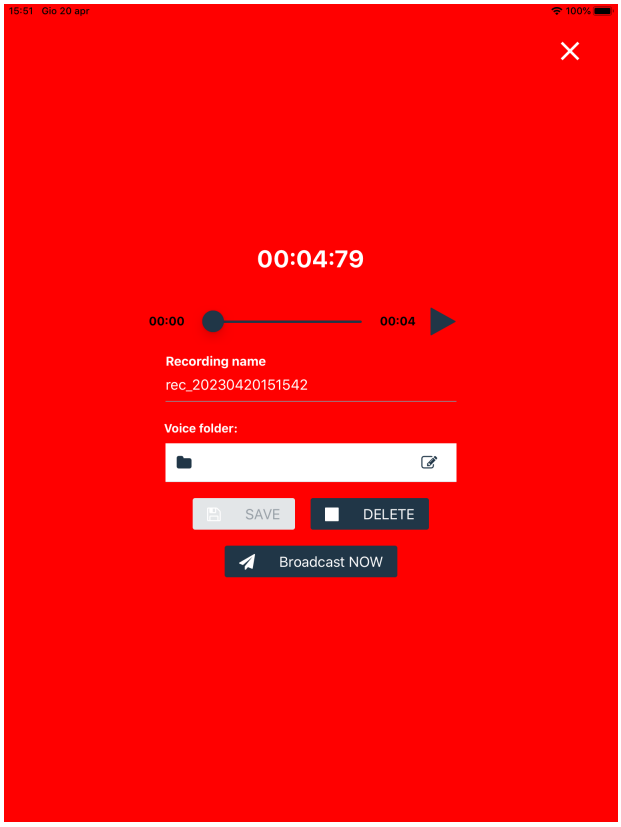
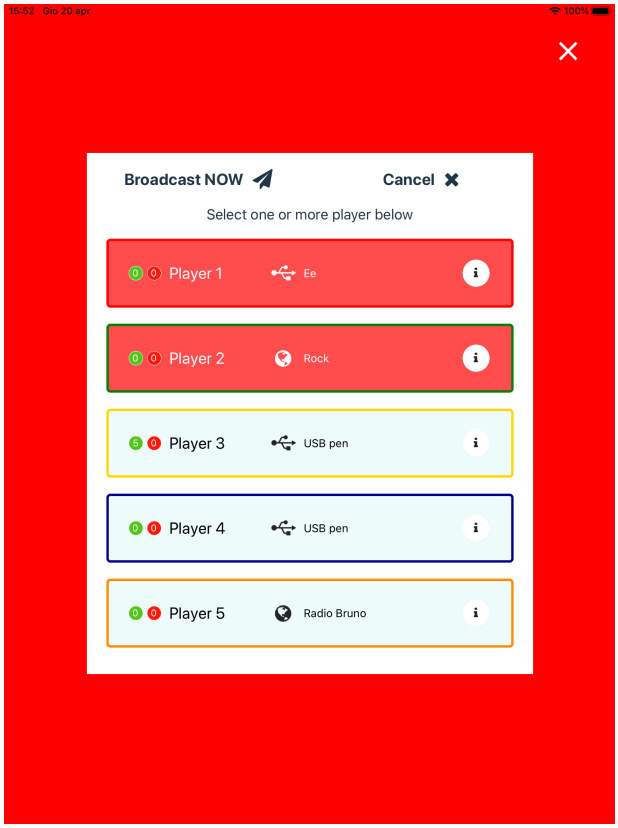
Using the App "Voice" section you can record from tablet/phone voice and promos to schedule in playlists or broadcast in realtime to the differents channels by pressing a button.





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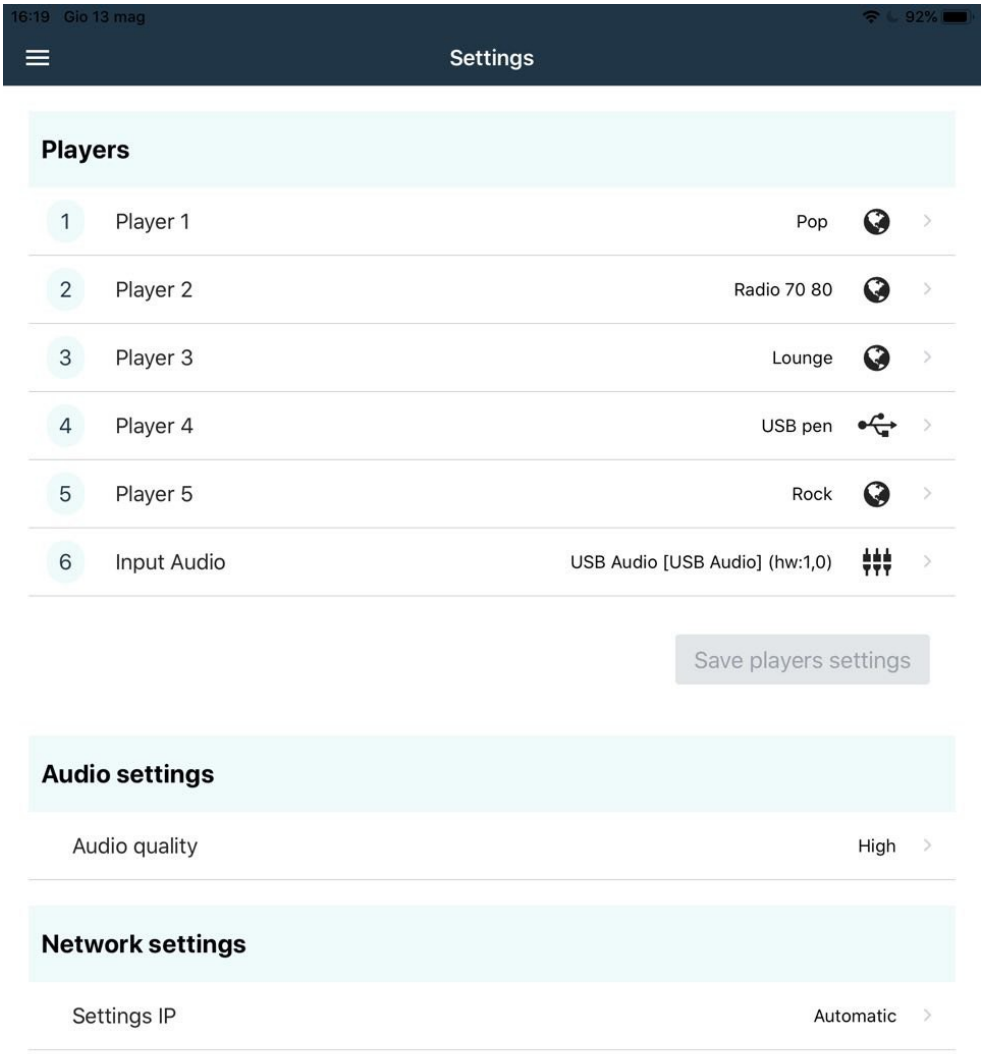
The Settings page allow to change the configurations of players and server.



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