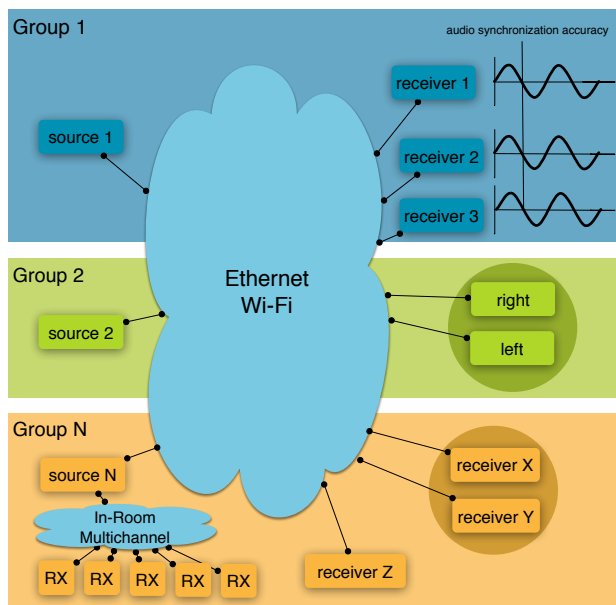


StreamMultiRoom

Silicon Independent Framework, Stereo & Multichannel Audio Sync

StreamUnlimited's silicon platform independent multi-room audio framework enables the distribution of any audio content in realtime via any IP based network (Wi-Fi, Ethernet, etc.). Devices can act as source and/or receiver and can be organized into zones/stereo speaker pairs or single speakers. The audio synchronization accuracy between the receivers is lower than $2\mu\text{s}$ and the default audio quality matches mp3@256kbps (16Bit/48kHz) - although the architecture allows the use of different audio distribution formats to fulfill any quality criteria.



Platform support

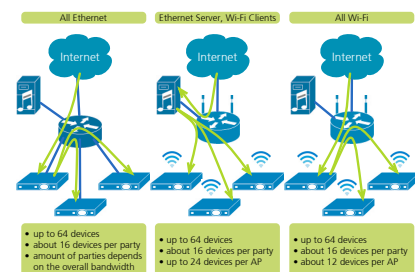
- Linux
- ARM Cortex-A7/A8/A9, MIPS
- Texas Instruments, Freescale/NXP, Broadcom, Marvell, Qualcomm and others

Features

- Audio synchronization accuracy: $< 2\mu\text{s}$ (with TI WiLink8 or by adding optimizations for the Wi-Fi solution in use)
- Graceful degradation of audio in case of unrecoverable errors
- Audio from any source can be distributed
- Automatic discovery of receivers and sources
- User interface for pairing of devices
- Compensation of latencies introduced by device specific processing units
- Portable onto other hardware platforms
- Wi-Fi meshing support with TI WiLink8
- In-Room: low latency Lip-Sync, lossless link in cooperation with Summit/WISA

Typical use cases and performance

As the multiroom framework separates the network topology from the audio distribution, the network performance itself will define the limiting values. If the end system can rely on proprietary Wi-Fi network equipment or reduced audio quality is used, the below mentioned figures can be boosted. Shown performance figures are for 11n standard networking infrastructure devices.



StreamUnlimited is an integrated embedded engineering house focusing on innovative and quality products. We have high level competences in Connectivity and User Interface Technology, powered by a strong background in Audio and Video. We provide development and integration services to our customers. StreamUnlimited also offers a range of fully featured digital modules.

