Abstract: The work examines options for a modern daemon centered audio stack for HelenOS. It studies four different audio architectures; ALSA, OSS, JACK, and PulseAudio. Each of them implements different approaches to providing general purpose audio support. Champion of every approach is analyzed, its strengths and weaknesses assessed. Based on the results of the analysis, different approaches for HelenOS audio stack are examined and the most promising one implemented. Complete audio stack is implemented, including an audio device driver, and a demonstrator audio application. Direction of future work and improvements is discussed at the end.