

The GNOME Audio Story

Arun Raghavan



Who am I?



twitter: @louiswu

irc: Ford_Prefect



PulseAudio

GStreamer

Other misc.



How hard can audio be?



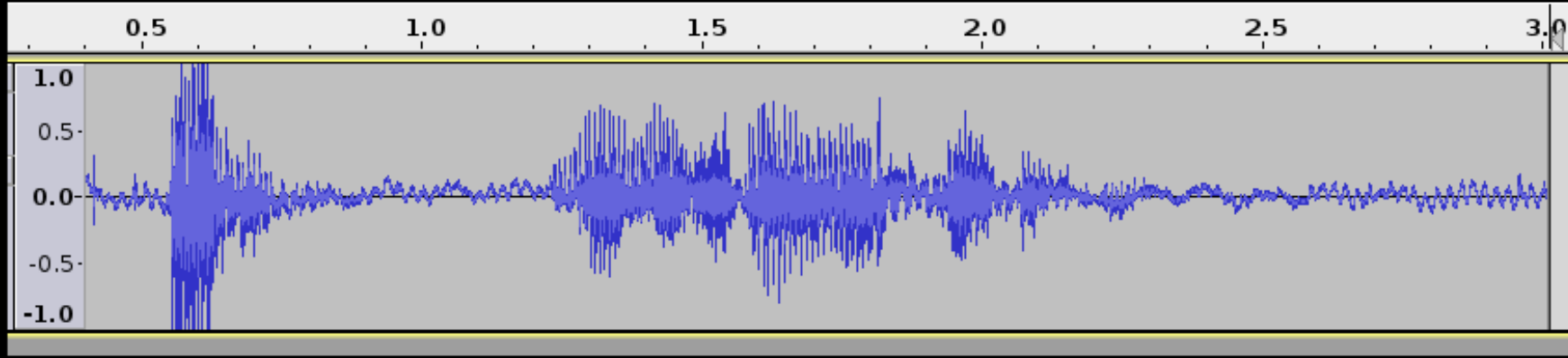
 Read samples, play them out

 Record samples, do stuff



Samples?







Start from the lowest layer



ALSA



Advanced Linux Sound Architecture



Kernel infrastructure

Userspace library

Plugin system



“Restricted” subset

Talk to the hardware



PulseAudio



Sound server

Why do we need one?



Applications just wanna
play or capture



Frameworks

Applications

...

PulseAudio

ALSA

BlueZ

...



Mixing
Conversion
Volumes



Routing

Filters



Power

Hardware



Simple API

Async API



libcanberra



Event sound library



Phone ring

Button press

New message



GTK+ bindings

Easily attach an event to a widget



Sounds cached if possible



GStreamer



Swiss-army multimedia knife



Encode/decode

Containers



Audio and video

Disk, network, ...



Everything that Nirbheek
spoke about yesterday



BUT WHAT DO I USE?



ALSA



Practically never



PulseAudio



Working with samples

Fine-grained control



libcanberra



Event sounds

GSound in the future

'nuff said



GStreamer



Encoded audio

Custom pipeline



JACK



What's that?

Pro-audio use cases



Future work



Container support

Filters and effects



UI interactions

Low latency



Easier policy

Compressed audio



Questions?



Thank you!

