Master your PipeWire streams with WirePlumber

George Kiagiadakis
Senior Software Engineer
george.kiagiadakis@collabora.com
Overview

• Quick introduction to PipeWire
• WirePlumber basics
• Demo
Quick introduction to PipeWire

- Powerful multimedia IPC framework
- Replaces audio servers like PulseAudio and JACK
- Implements equivalent video server
- Security built-in
- Exceptional performance
Orchestrating PipeWire

- Apps and devices represented as nodes
- Nodes have I/O points, called ports
- Ports are linked together to form a media flow pipeline (graph)
- Configuring ports & linking done by the “session manager” (orchestrator)
WirePlumber

- Modular session manager for PipeWire
- Scriptable in Lua
- Also provides API for tools (in C, with other language bindings through gobject-introspection)
Demo

1. Two processes, sharing *audio*:
   
   GStreamer producer -> GStreamer consumer

2. Single process audio playback to ALSA
   
   GStreamer producer -> ALSA device

3. Security mechanism
   
   Client in host system | Client in container
Links

- gitlab.freedesktop.org/pipewire
- docs.pipewire.org
- pipewire.pages.freedesktop.org/wireplumber
Thank you

Message {
    config {
        priority: "high"
        body: "Collabora is hiring" // Many open positions
        recipient: "you" // Please join us
        calltoaction: "http://col.la/join"
    }
}