GENIVI AudioManager

- **GENIVI AudioManager**

- Dependencies: 7 not in AGL
  (CommonAPI, DLT -Diagnostic Log and Trace, Persistence Manager, Node-State-Manager...)

- Code line count (all dependencies): 144,168

- Code line count (AudioManager): 67,027

- Out-of-tree patches needed: 7

- Code nature: C/C++
Tizen IVI PulseAudio Module (Murphy)

• **Tizen IVI PulseAudio Module (Murphy)**

  • Dependencies : 1 not in AGL (Murphy)

  • Code line count (dependencies : Murphy) : **100,866**

  • Code line count (Tizen IVI PulseAudio module) : **23,499**

  • Out-of-tree patches needed : 17 (mainly for PulseAudio)

  • Code nature : C
    
    *(PS : Tizen IVI puts part of the logic in PulseAudio itself, probably for performance reasons)*
    
    *(PS2 : we want to remove/cut down Murphy, thus drastically reducing code line count)*
• Applications use PulseAudio directly
• An internal PulseAudio module requests the Policy Manager
• Policy Manager (Murphy) uses rules written in LUA language
• PulseAudio module decides
GENIVI AudioManager audio model

- Applications use PulseAudio and the GENIVI AudioManager D-Bus interface
- GENIVI AudioManager controls PulseAudio (via a plugin)
- rules are written in XML files
Proposed audio model

- Native applications use PulseAudio directly
- AGL applications use PulseAudio with media roles, and the AGL PulseAudio modules applies policy (provided by a stripped-down daemon)
- GENIVI applications use the GENIVI AudioManager D-Bus interface provided by a compatibility layer
Upstreamable PulseAudio code?

- GENIVI AudioManager PulseAudio Routing Plugin:
  - routing_sender_move_sink_input
  - routing_sender_move_source_output
  - routing_sender_sink_input_volume_ramp
  - routing_sender_sink_input_volume
  - routing_sender_sink_volume

- Tizen PulseAudio IVI Plugin:
  - mir_router_make_routing
  - mir_volume_make_limiting
  - mir_router_phone_compare
  - mir_volume_suppress
  - mir_volume_correction

(Also has a “main-volume-policy” module in PulseAudio, providing a “volume_ramp” API)
Upstreamable PulseAudio code?

Common code

- these APIs live in both codebases:
  - volume_ramp APIs
  - volume_mute APIs
  - move_sink/move_source/routing APIs
Annex
Questions & Answers

Q&A
That's All Folks!