Effects of a Gstreamer version upgrade on a Yocto application

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- Product Design Company
- Our clients are companies with innovative product ideas but need technical expertise
- One of the products is a live-realtime streaming service discussed today

Application

- Multimedia application, generally one video stream and two audio streams.
- ~ 60 elements, in three distinct pipelines.
- Operating system update, simultaneous technology update

Original
- Yocto "Jethro" (Community)
- 3.14.28 Kernel
- **1.4.5** Gstreamer

Update
- Yocto "Hardknott" (i.MX6 – TechNexion, i.MX8 - NXP)
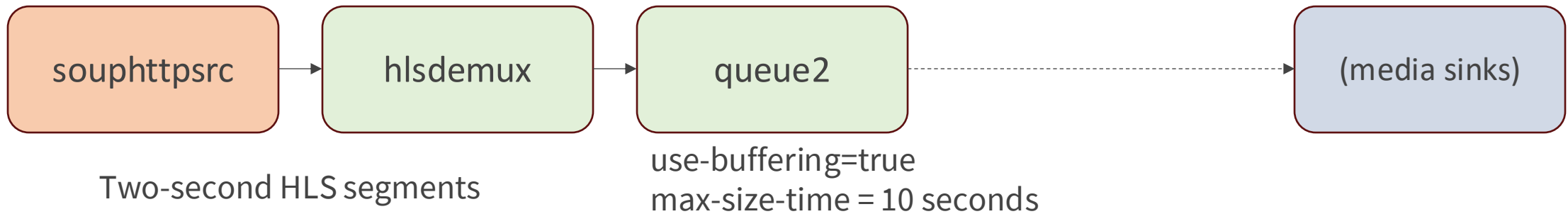- 5.10.72 Kernel
- **1.18.5** Gstreamer

1) Video Sinks

	Video File Player			RTP Video Player
Jethro:	autovideosink	=	imxg2dvideosink	=	imxg2dvideosink
i.MX6 Hardknott:	autovideosink	=	xvimagesink	:	imxv4l2sink
i.MX8 Hardknott:	autovideosink	=	waylandsink	:	glimagesink

- X11 desktop to wayland desktop
- Window positioning and sizing challenges

2) Default Properties

souphttpsrc → hlsdemux → queue2 ⤳ (media sinks)

Two-second HLS segments

use-buffering=true
max-size-time = 10 seconds

- Would sometimes stall when we changed camera source!

- GST_LOG: grepped out the arriving buffer sizes, was able to figure out what was happening.

New default settings:
use-bitrate-query = true   (true = downstream est. duration)
use-tags-bitrate = false   (true = upstream tags est. duration)

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Questions?

Thank You

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