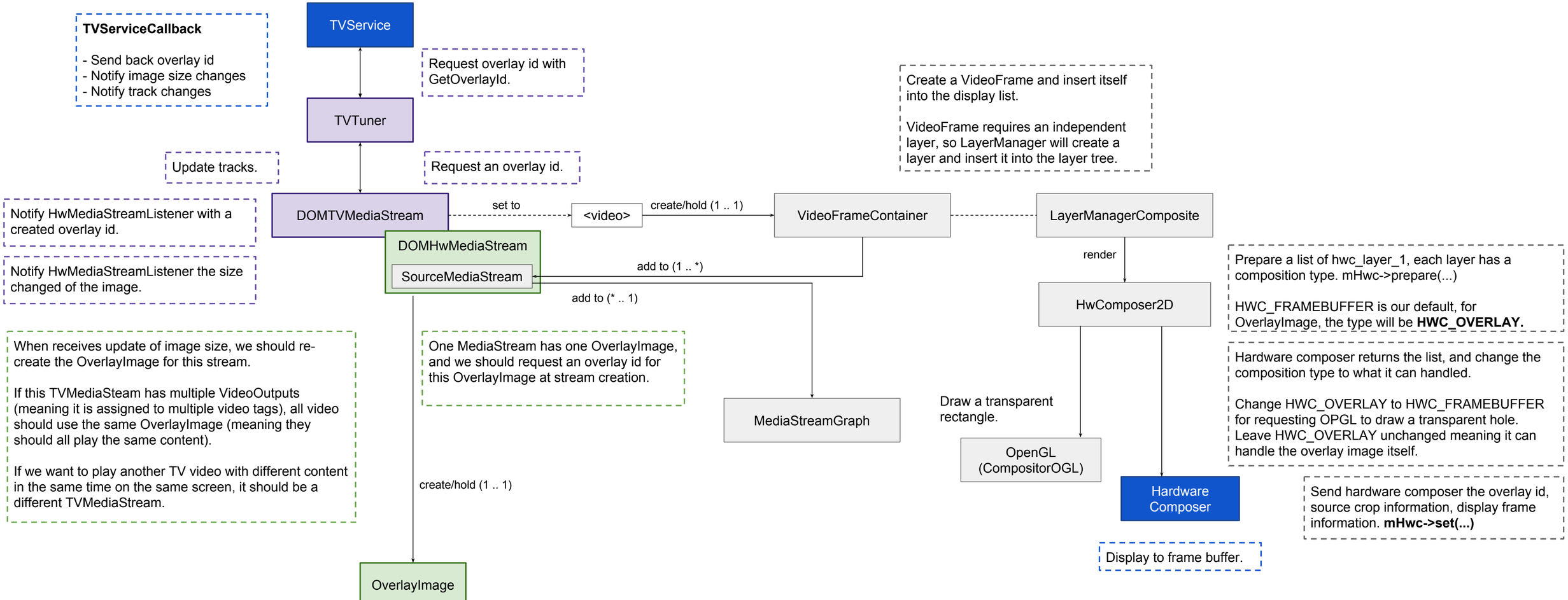
TVServiceCallback
- Send back overlay id
- Notify image size changes
- Notify track changes
TVService
Request overlay id with GetOverlayId.
TVTuner
Update tracks.
Request an overlay id.
Notify HwMediaStreamListener with a created overlay id.
DOMTVMediaStream
set to
<video>
create/hold (1 .. 1)
VideoFrameContainer
Create a VideoFrame and insert itself into the display list.
VideoFrame requires an independent layer, so LayerManager will create a layer and insert it into the layer tree.
LayerManagerComposite
DOMHwMediaStream
SourceMediaStream
Notify HwMediaStreamListener the size changed of the image.
add to (1 .. *)
add to (* .. 1)
render
HwComposer2D
Prepare a list of hwc_layer_1, each layer has a composition type. mHwc->prepare(...)
HWC_FRAMEBUFFER is our default, for OverlayImage, the type will be HWC_OVERLAY.
When receives update of image size, we should re-create the OverlayImage for this stream.
If this TVMediaSteam has multiple VideoOutputs (meaning it is assigned to multiple video tags), all video should use the same OverlayImage (meaning they should all play the same content).
If we want to play another TV video with different content in the same time on the same screen, it should be a different TVMediaStream.
One MediaStream has one OverlayImage, and we should request an overlay id for this OverlayImage at stream creation.
MediaStreamGraph
Draw a transparent rectangle.
OpenGL (CompositorOGL)
Hardware Composer
Hardware composer returns the list, and change the composition type to what it can handled.
Change HWC_OVERLAY to HWC_FRAMEBUFFER for requesting OPGL to draw a transparent hole. Leave HWC_OVERLAY unchanged meaning it can handle the overlay image itself.
Send hardware composer the overlay id, source crop information, display frame information. mHwc->set(...)
create/hold (1 .. 1)
OverlayImage
Display to frame buffer.