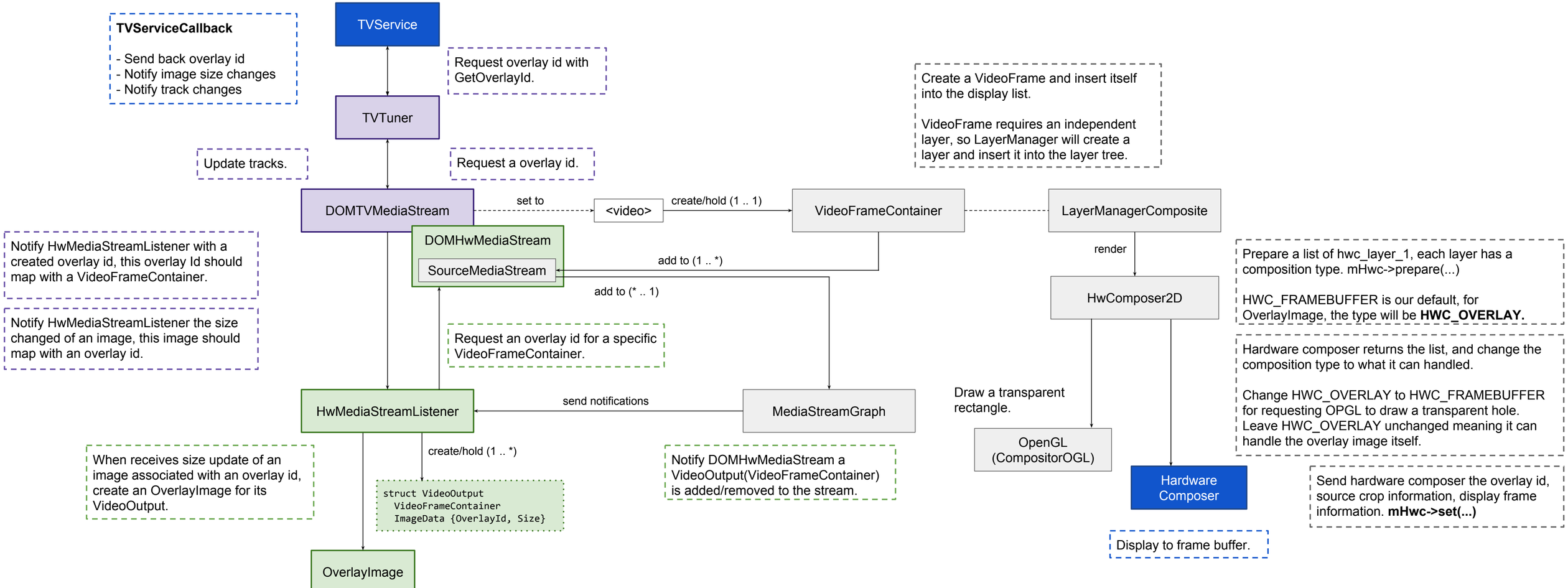
TVServiceCallback
- Send back overlay id
- Notify image size changes
- Notify track changes
TVService
Request overlay id with GetOverlayId.
TVTuner
Update tracks.
Request a overlay id.
DOMTVMediaStream
set to
<video>
create/hold (1 .. 1)
VideoFrameContainer
Create a VideoFrame and insert itself into the display list.
VideoFrame requires an independent layer, so LayerManager will create a layer and insert it into the layer tree.
LayerManagerComposite
Notify HwMediaStreamListener with a created overlay id, this overlay Id should map with a VideoFrameContainer.
DOMHwMediaStream
SourceMediaStream
add to (1 .. *)
add to (* .. 1)
render
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.
HwComposer2D
Notify HwMediaStreamListener the size changed of an image, this image should map with an overlay id.
Request an overlay id for a specific VideoFrameContainer.
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.
HwMediaStreamListener
send notifications
MediaStreamGraph
Draw a transparent rectangle.
OpenGL (CompositorOGL)
Hardware Composer
When receives size update of an image associated with an overlay id, create an OverlayImage for its VideoOutput.
create/hold (1 .. *)
struct VideoOutput
VideoFrameContainer
ImageData {OverlayId, Size}
Notify DOMHwMediaStream a VideoOutput(VideoFrameContainer) is added/removed to the stream.
Send hardware composer the overlay id, source crop information, display frame information. mHwc->set(...)
Display to frame buffer.
OverlayImage