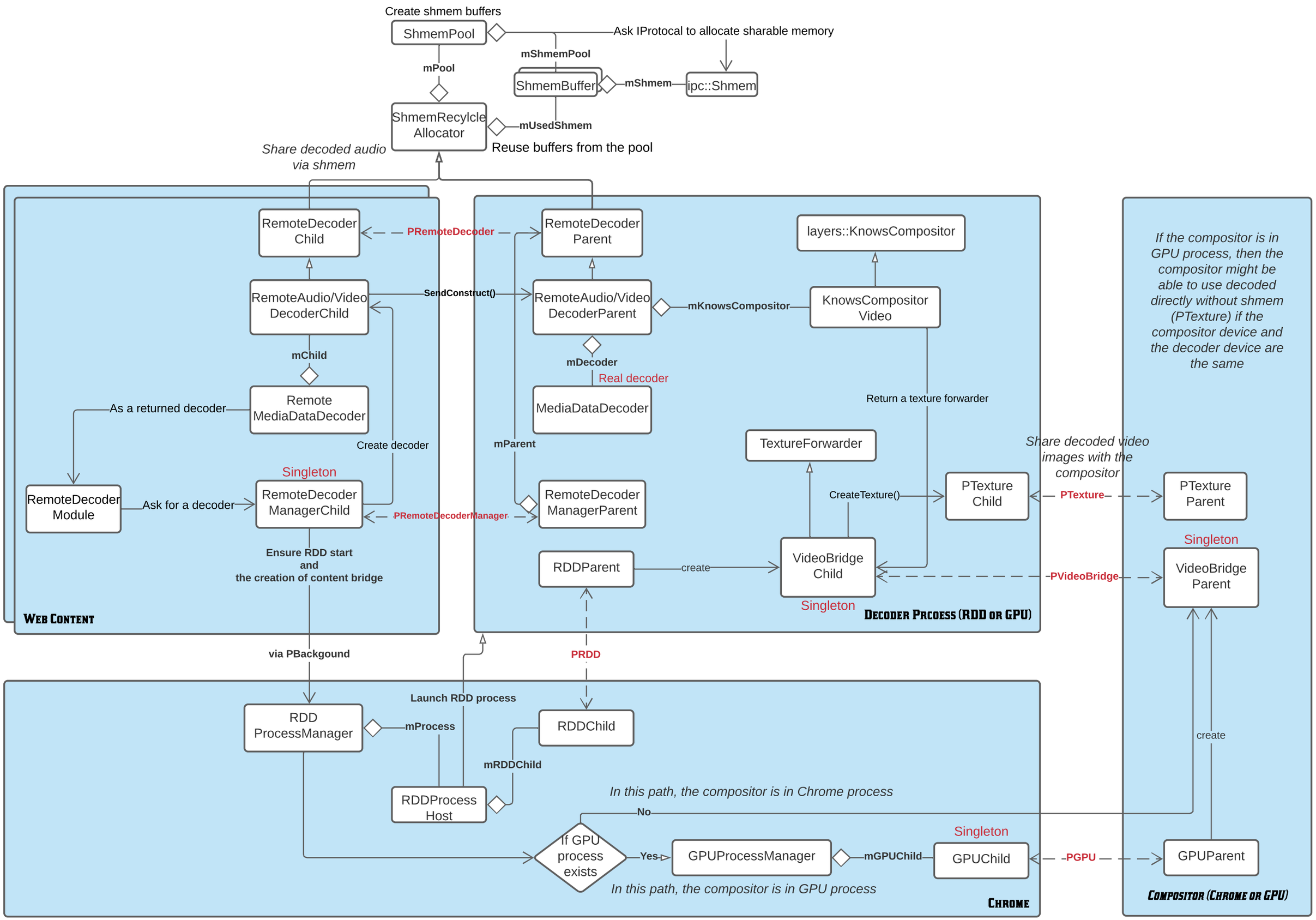
Create shmem buffers
ShmemPool
Ask IProtocal to allocate sharable memory
mShmemPool
mPool
ShmemBuffer
mShmem
ipc::Shmem
ShmemRecylcle Allocator
mUsedShmem
Reuse buffers from the pool
Share decoded audio via shmem
RemoteDecoder Child
PRemoteDecoder
RemoteDecoder Parent
layers::KnowsCompositor
RemoteAudio/Video DecoderChild
SendConstruct()
RemoteAudio/Video DecoderParent
mKnowsCompositor
KnowsCompositor Video
mChild
mDecoder
Real decoder
Remote MediaDataDecoder
MediaDataDecoder
Return a texture forwarder
As a returned decoder
Create decoder
mParent
TextureForwarder
Share decoded video images with the compositor
Singleton
RemoteDecoder Module
Ask for a decoder
RemoteDecoder ManagerChild
PRemoteDecoderManager
RemoteDecoder ManagerParent
CreateTexture()
PTexture Child
PTexture
PTexture Parent
Ensure RDD start and the creation of content bridge
RDDParent
create
VideoBridge Child
PVideoBridge
VideoBridge Parent
Singleton
Web Content
Decoder Process (RDD or GPU)
If the compositor is in GPU process, then the compositor might be able to use decoded directly without shmem (PTexture) if the compositor device and the decoder device are the same
via PBackgound
PRDD
Launch RDD process
RDD ProcessManager
mProcess
RDDChild
mRDDChild
RDDProcess Host
In this path, the compositor is in Chrome process
No
If GPU process exists
Yes
GPUProcessManager
mGPUChild
GPUChild
PGPU
GPUParent
In this path, the compositor is in GPU process
Chrome
Compositor (Chrome or GPU)