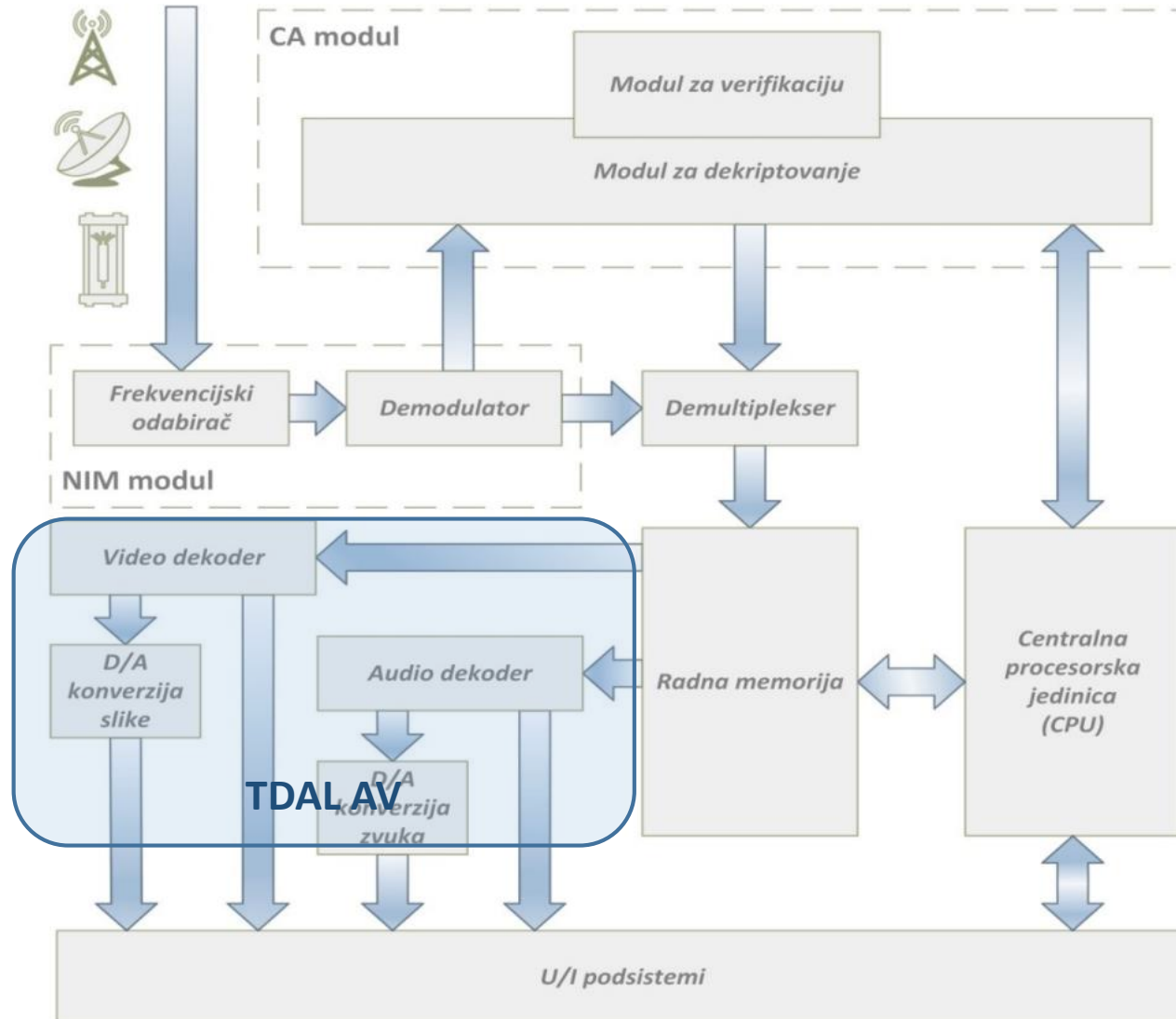**NIT**

Breathe ideas.

DTV Basic

Day 6 - Audio and Video decoder

Audio and Video Decoder

TDAL AV

- The purpose of the TDAL AV module is to contol physical audio and video decoder .

- Decoder can be used in two modes:
  - External audio and video
  - Memory

- Client can be notified about changes on the audio and video decoder (e.g. first frame, audio issue, etc...)

- TDAL AV module has contol over audio and video speed - trick modes (PVR case)

TDAL AV - pipeline

- Connect to data source

    - TDAL AV module requires data input (input stream) from demultiplexer (TDAL DMX).

    - TDAL AV must know from which demultiplexer data arrives (e.g. from witch "channel" audio and video stream type are needed to be decod).

    - To identify audio and video component available to the AV module stream handle is used.

    - The stream reference is set as the input to the AV module using function: "***TDAL_AV_InputStreamSet***"

- Connect to data display module

    - TDAL AV module requires access to TDAL DISP module to connect video graphics layer on which decoded frame should be written.

    - A layer handle reference is used to identify graphics layers.

    - The reference to the graphichs layer is set using function: "***TDAL_AV_VideoDestinationSet***"
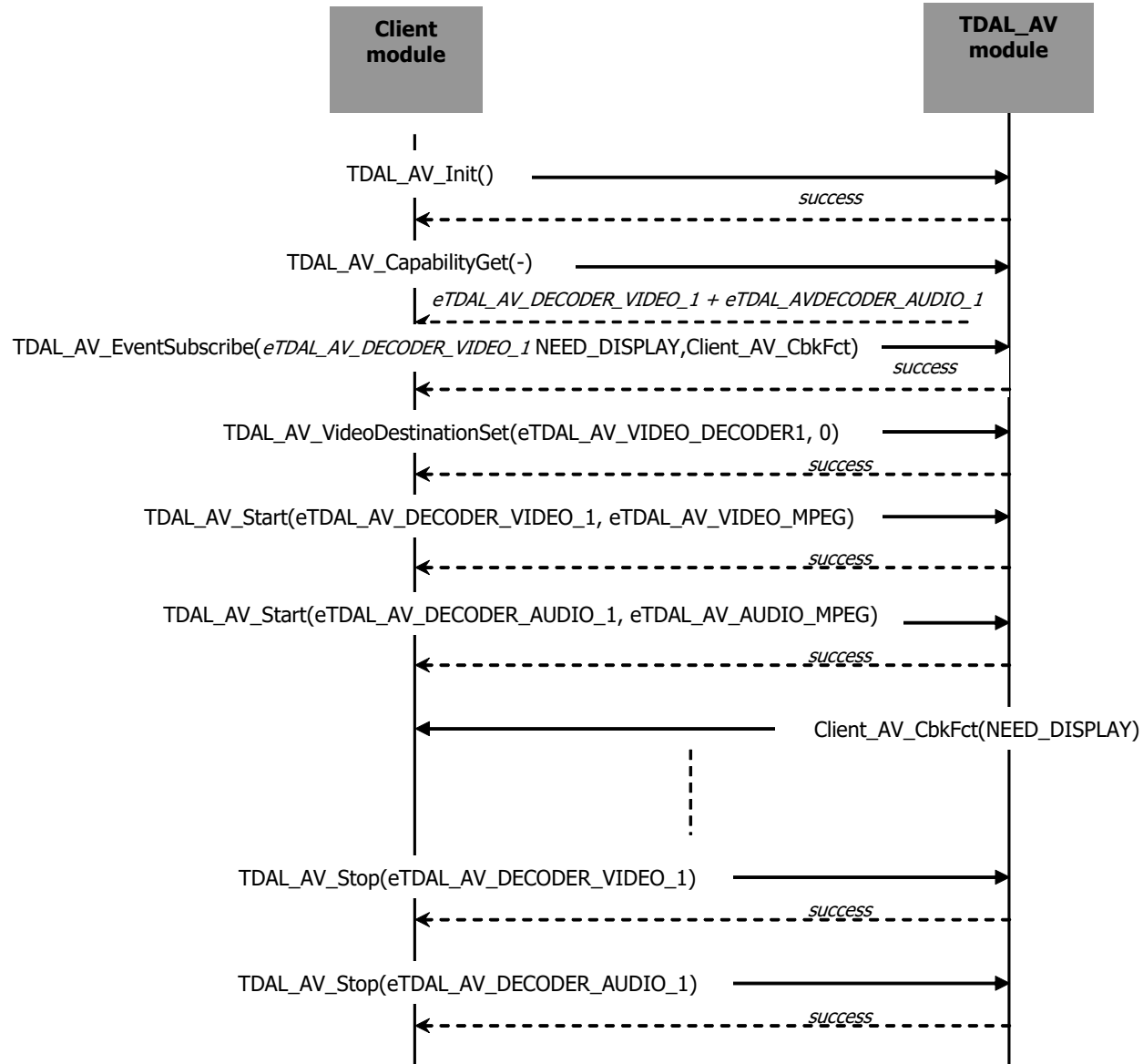
TDAL AV - instance

- TDAL AV module can use multiple instances of audio and video decoders.

- TDAL AV module in PVR context can control parallel decoding (e.g. PIP/PAP functionality).

- TDAL AV module reserves identifiers [1..4] for up to four instances of video and audio decoders. These instances are logical.

TDAL_AV API

Function name	Description
TDAL_AV_Init TDAL_AV_Term	Initialization/Deinitialization AV module
TDAL_AV_CapabilityGet	Get supported audio/video decoders
TDAL_AV_APIRevisionGet TDAL_AV_PlatformRevisionGet	Get API version and platform
TDAL_AV_EventSubscribe TDAL_AV_EventUnsubscribe	Register and Unregister callback function to get status events from decoders.
TDAL_AV_Start TDAL_AV_Stop	Start/Stop decoding.
TDAL_AV_SynchroModeSet	Set sync mode (live input, memory or IP network.
TDAL_AV_SpeedSet	Set decoding speed.
TDAL_AV_InputStreamSet	Set inpit data stream to decoder.

TDAL AV API

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