

Timing planes in IP production

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Come and catch up on the Sony stand
C10901 in the Central Hall

Timing planes in IP production



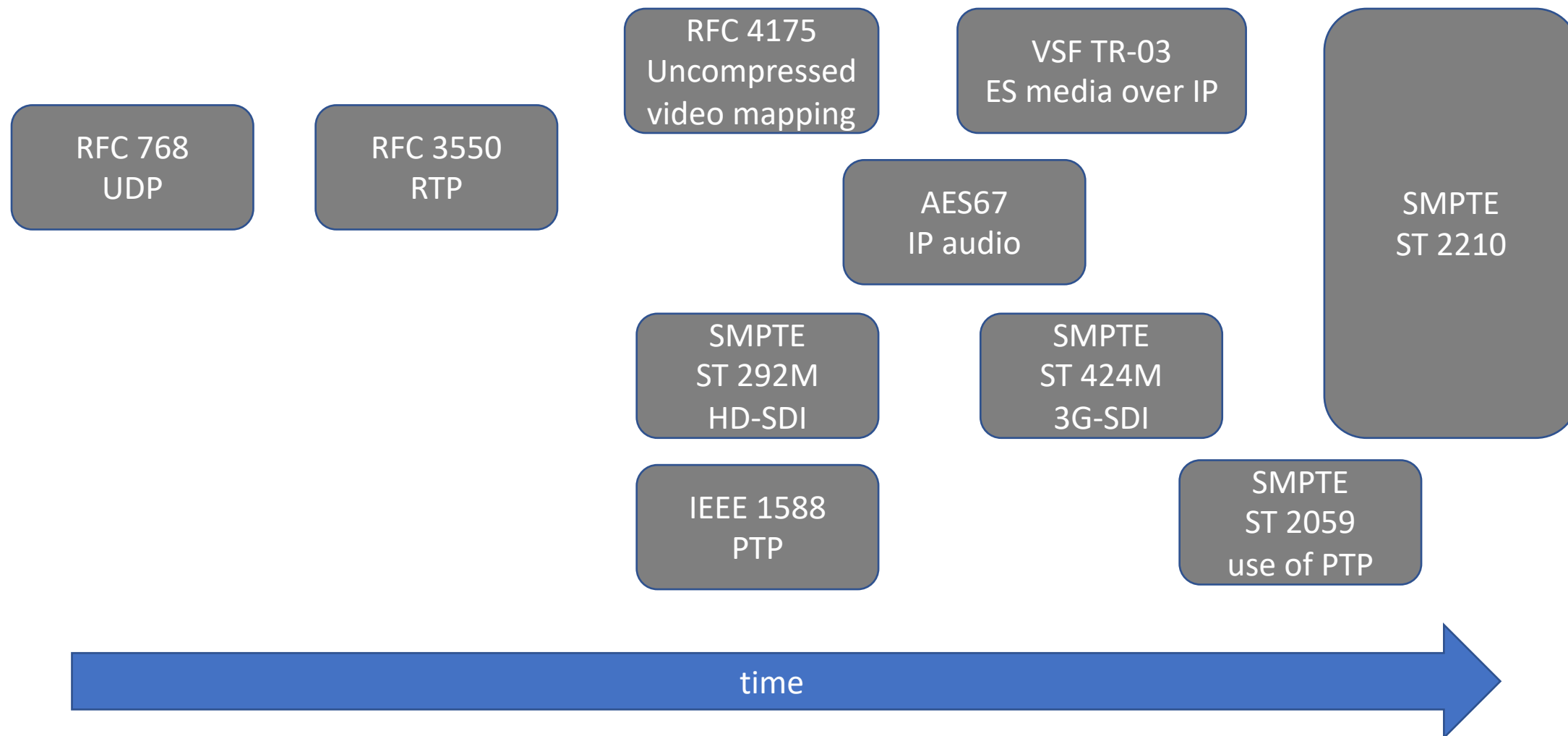
The current situation

The need

The solution

Call to arms

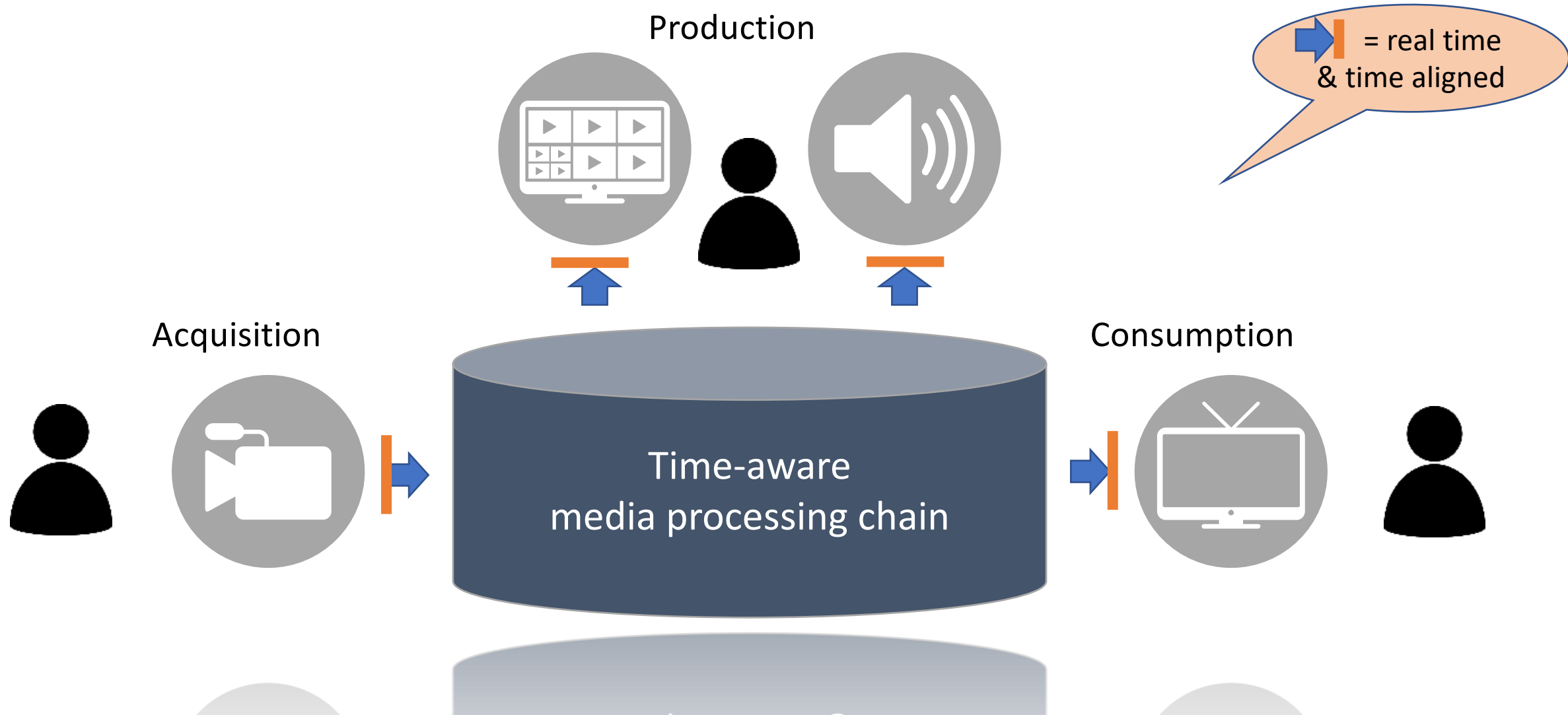
The relevant standards journeys



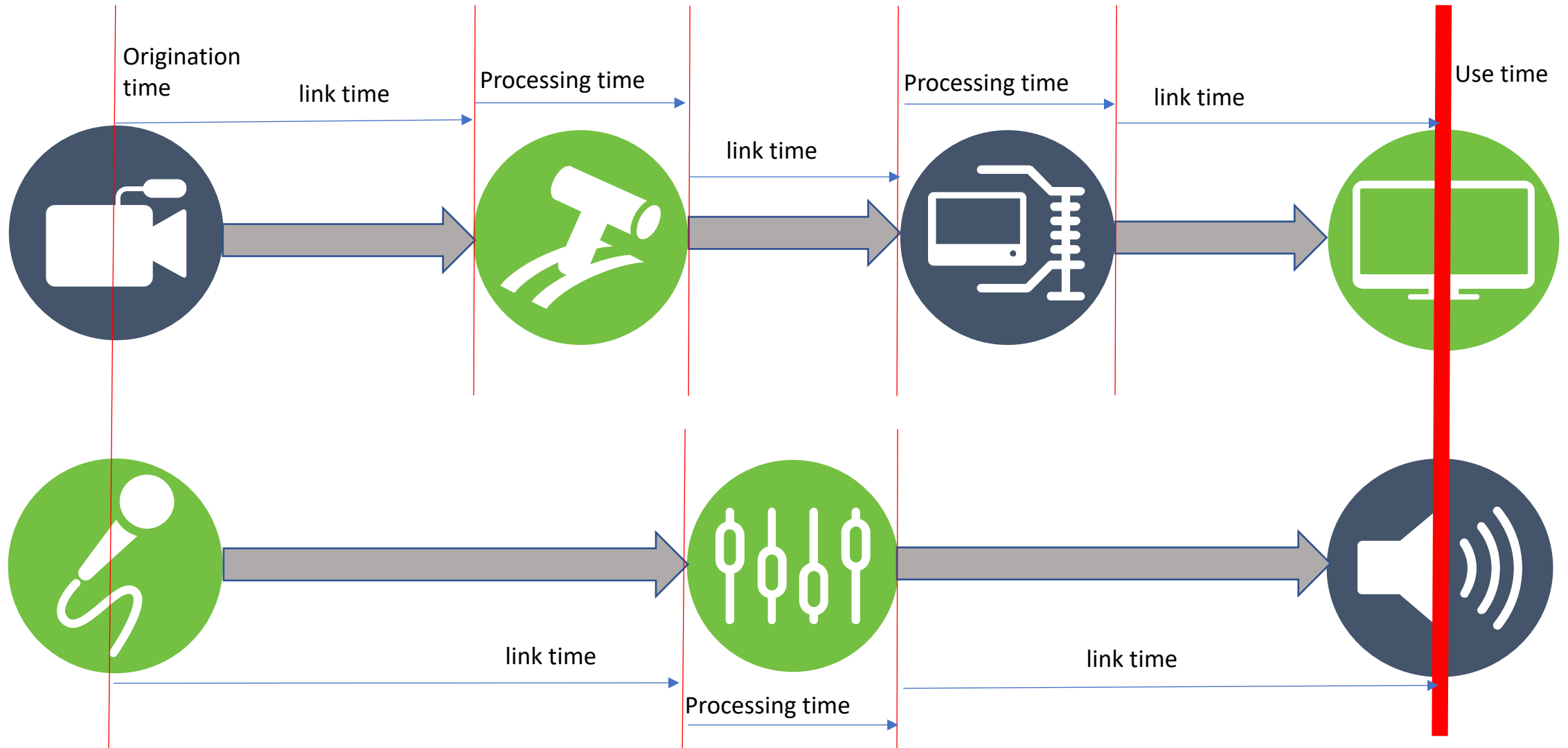
The ST2110 suite & NMOS



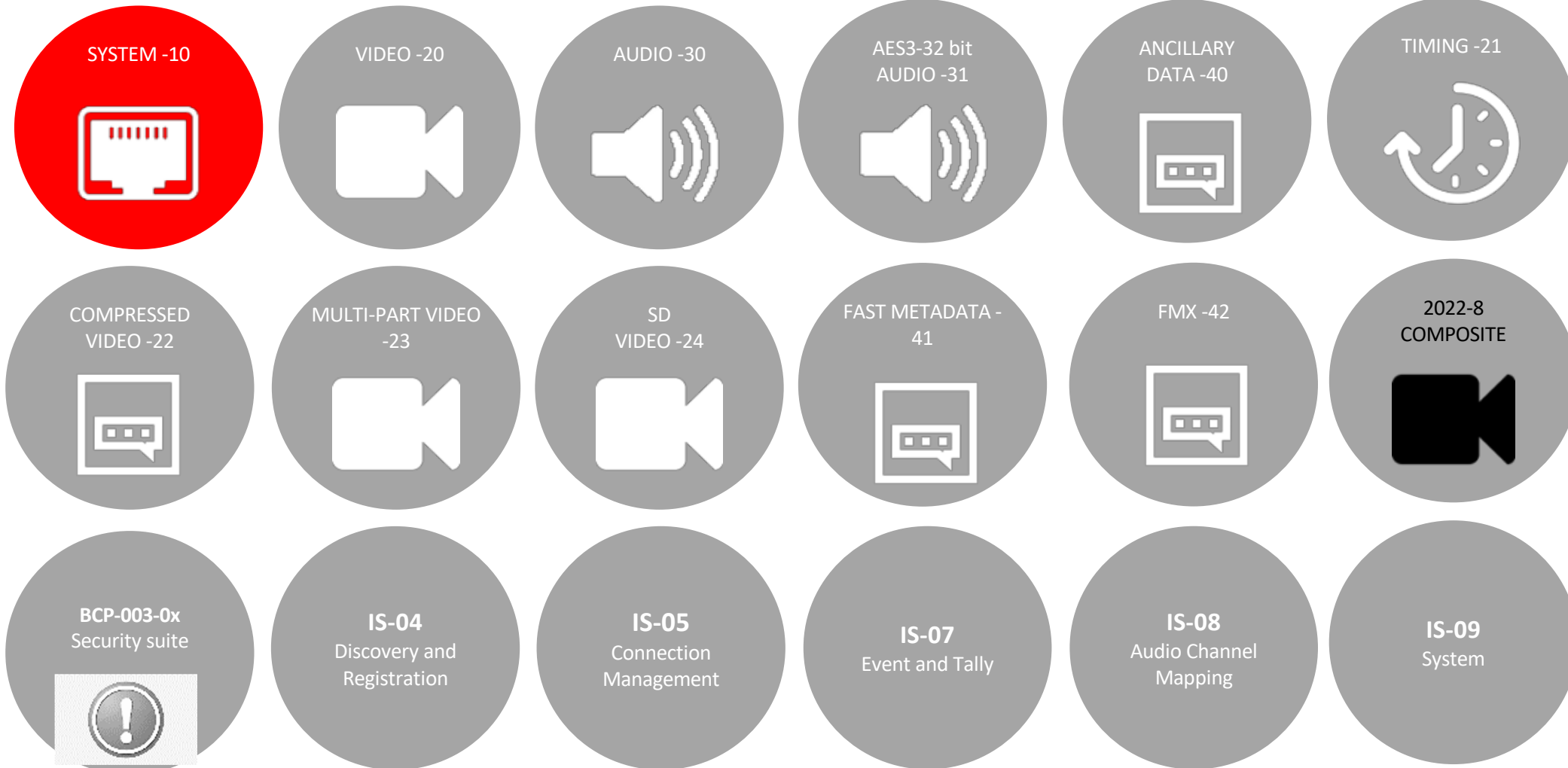
The broadcast end game



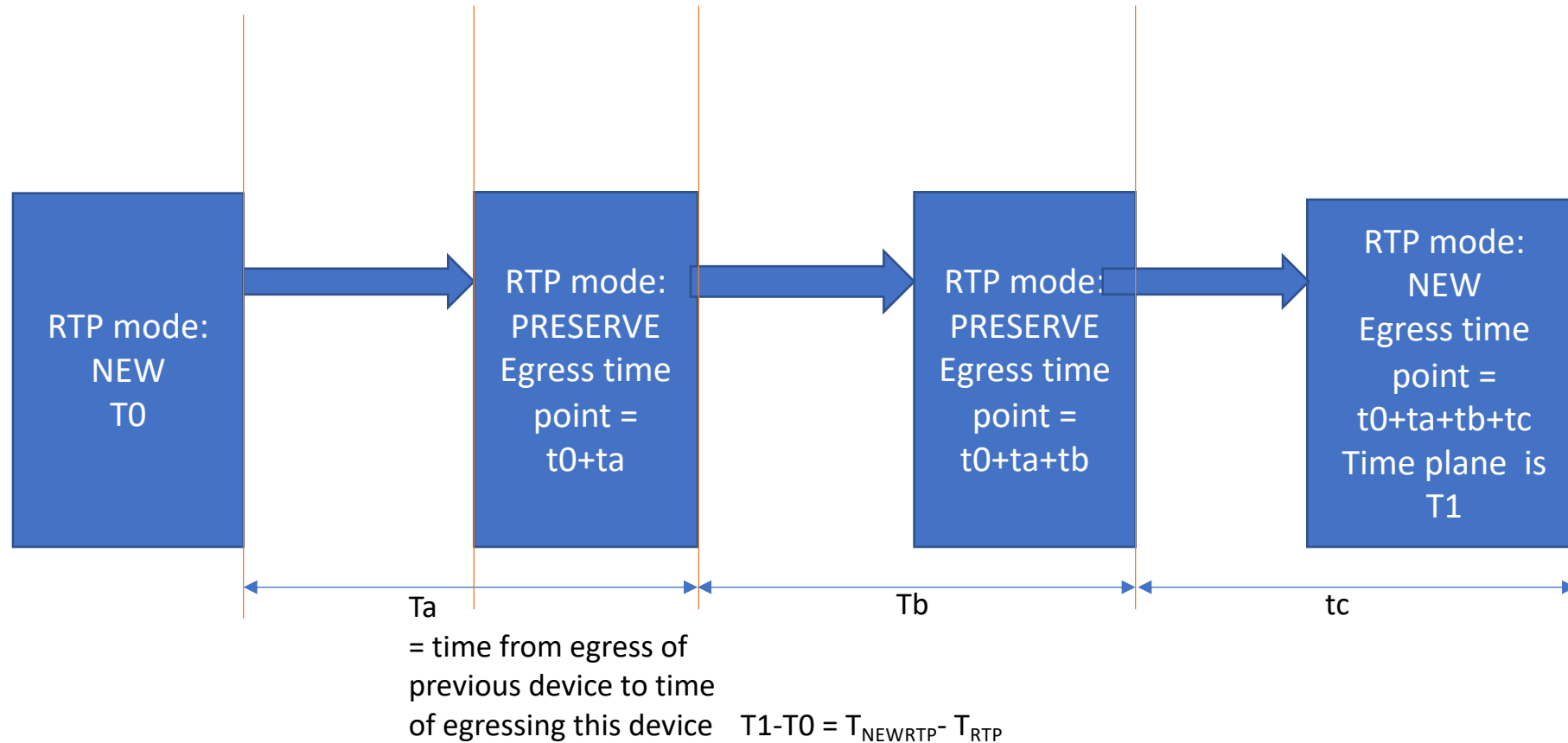
Reconciling media essence timings



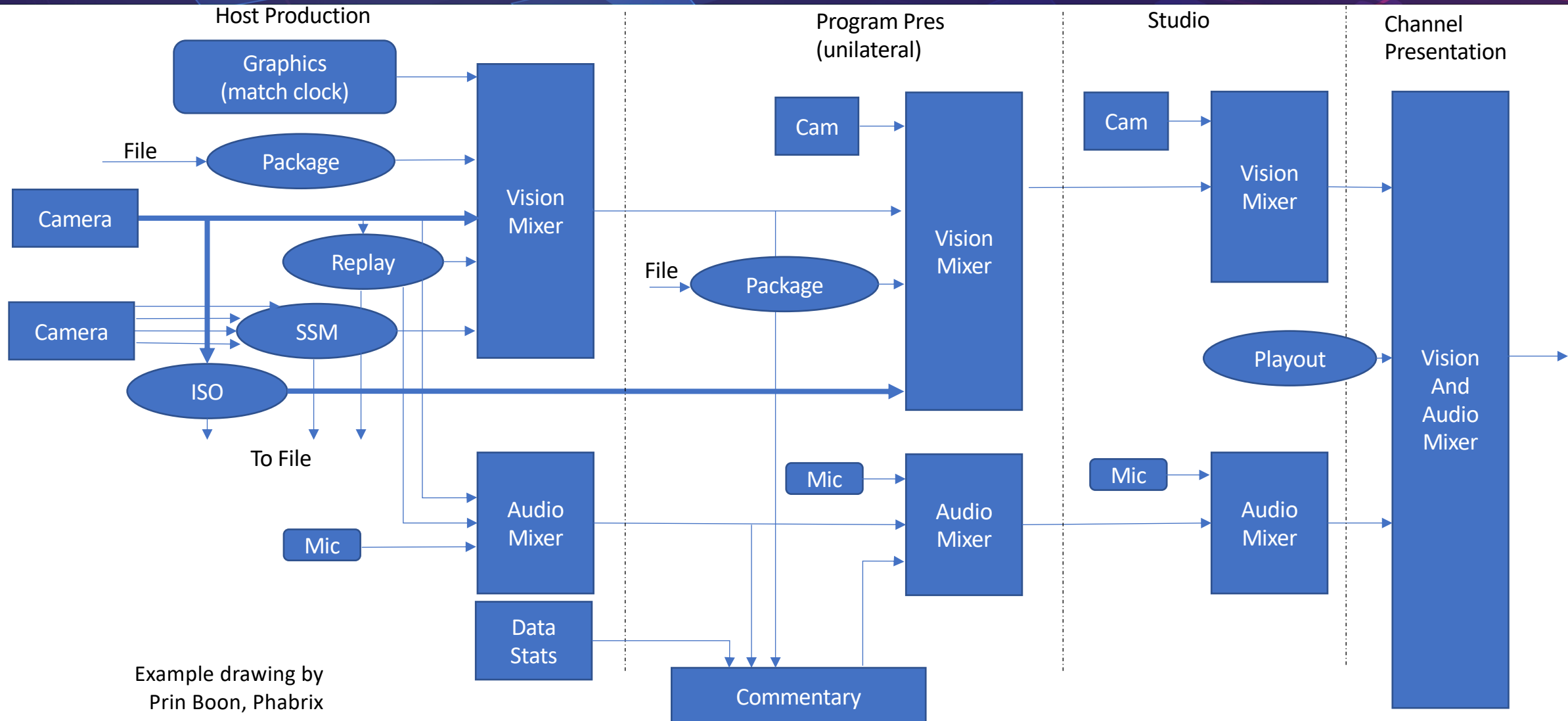
The ST2110 suite & NMOS - revisions



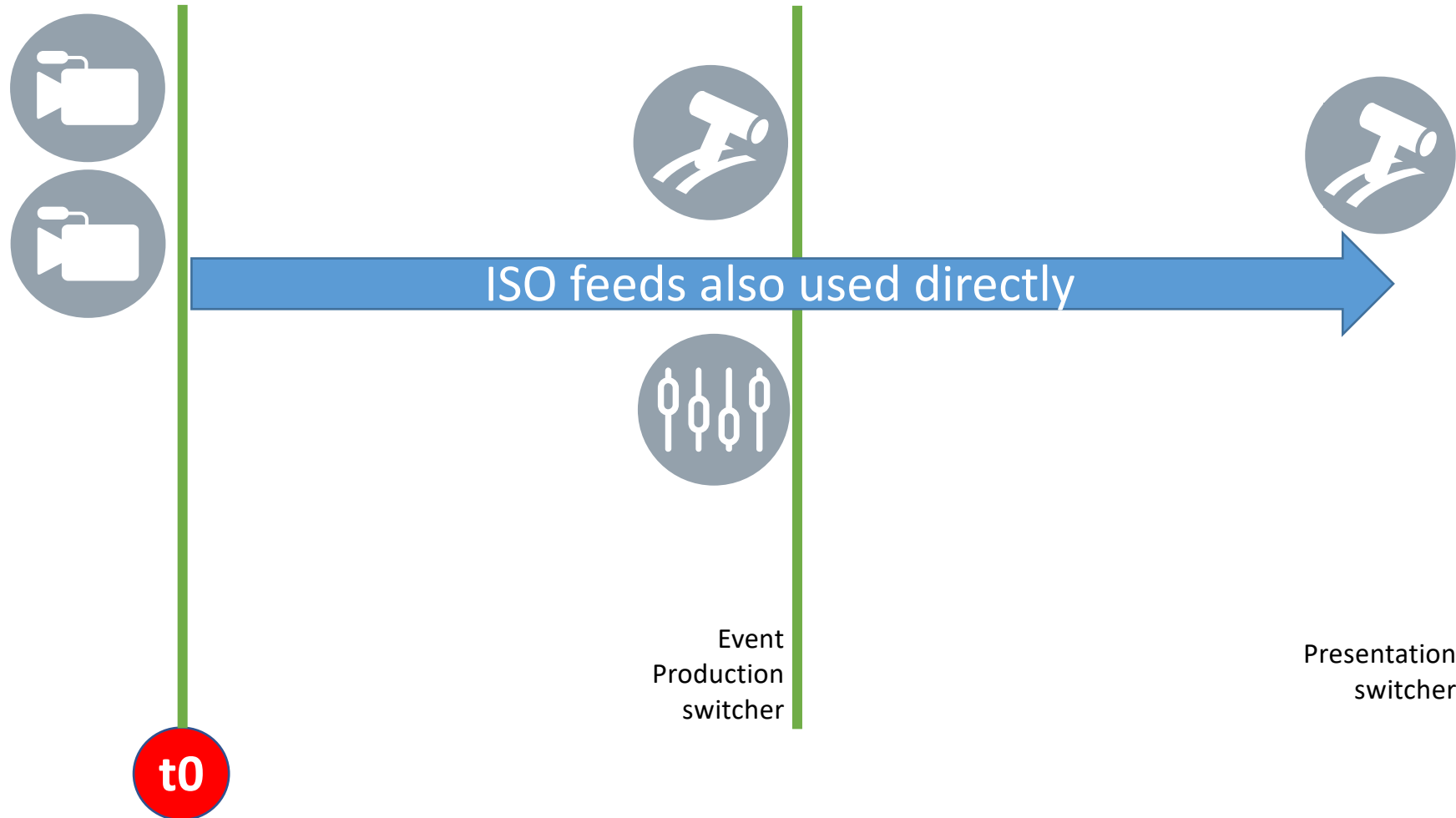
Timing propagation through system – ST 2110 revisions



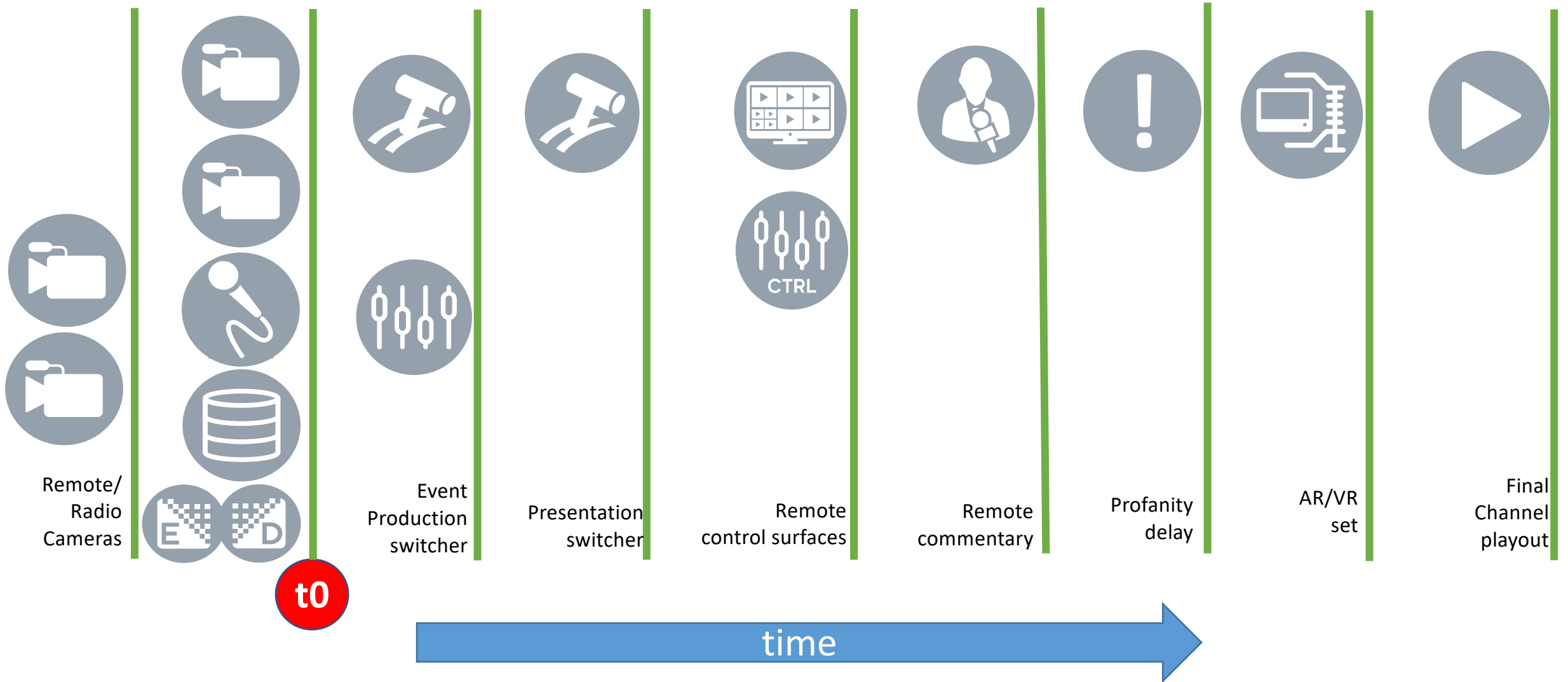
Example of production timing planes



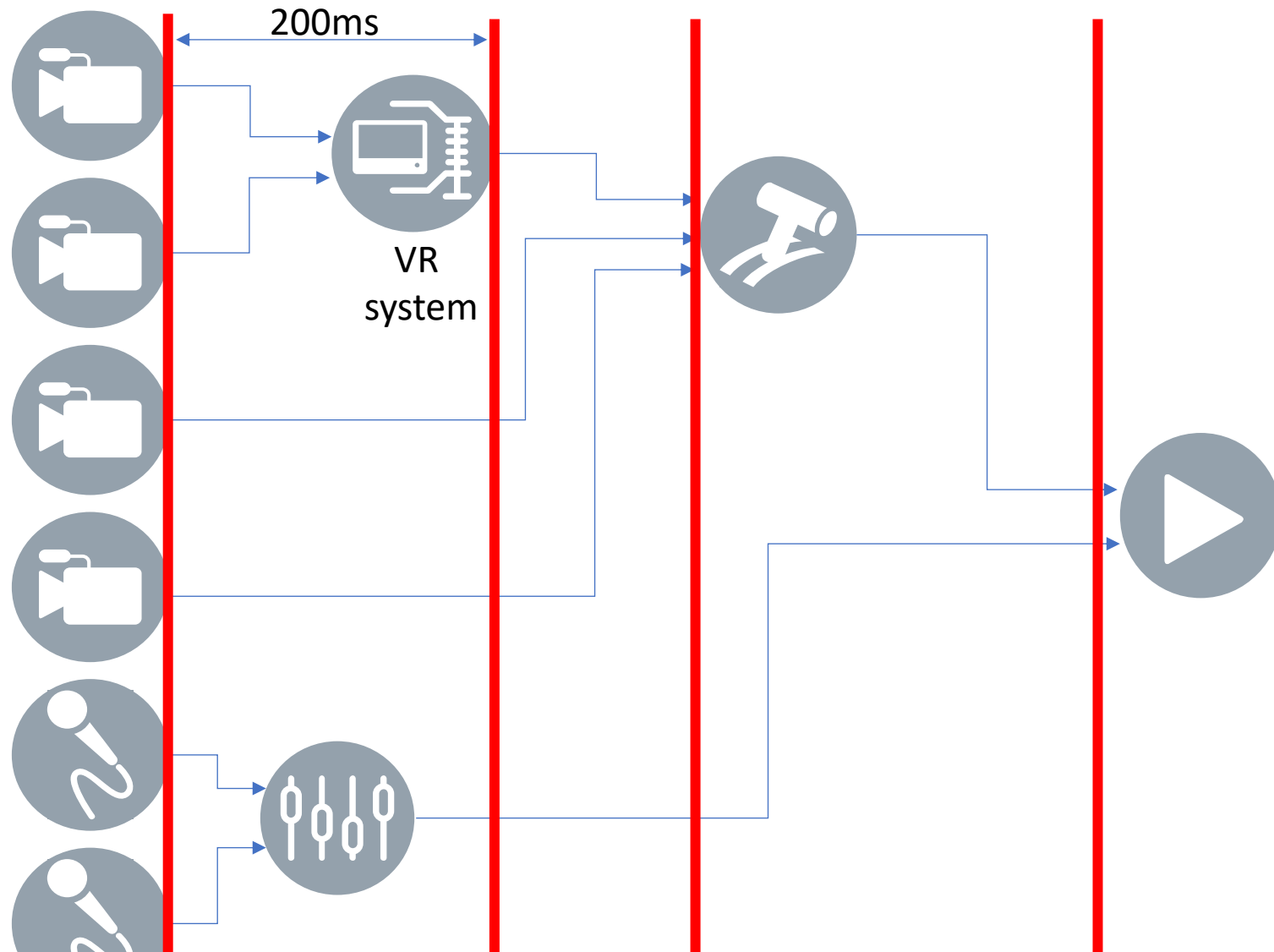
Sources that cross timing planes



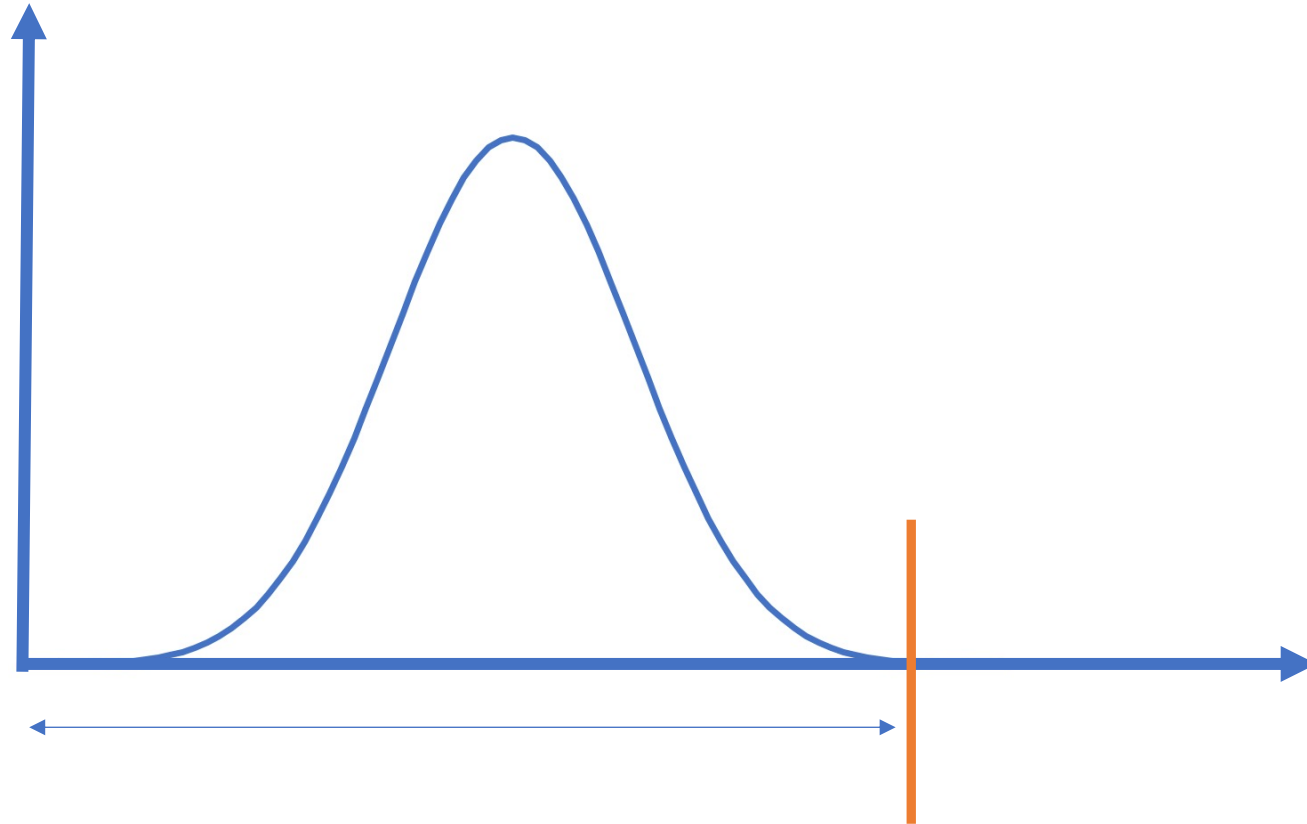
Multiple production timing planes



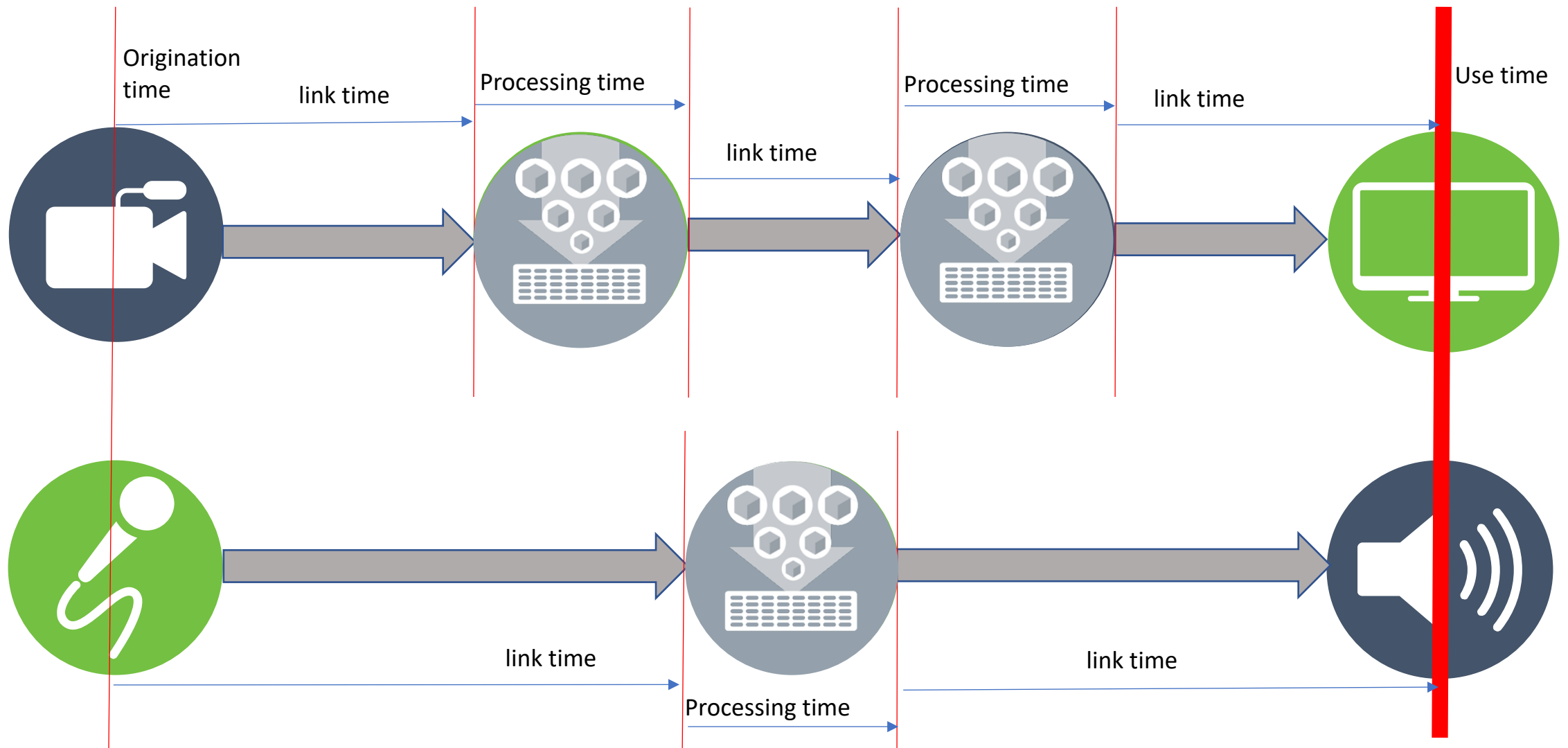
Specific real-world use-case in 2021



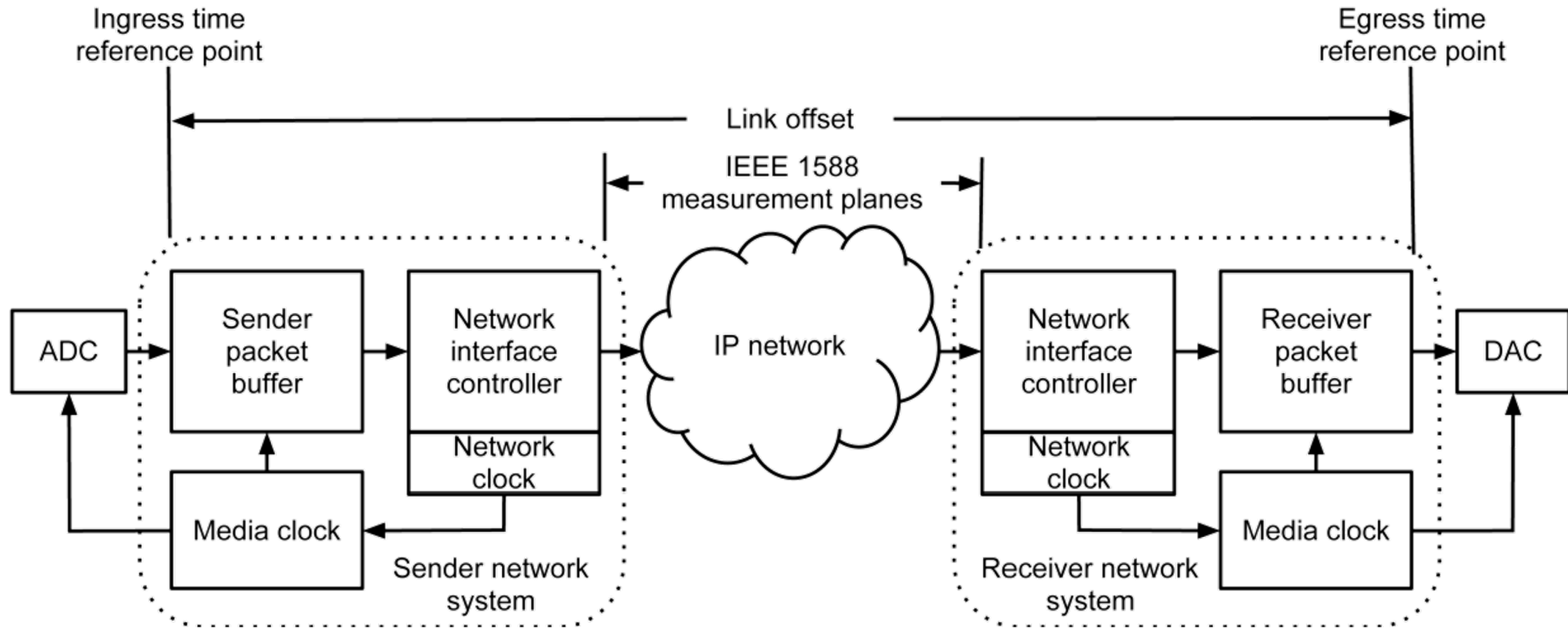
Software procession execution time



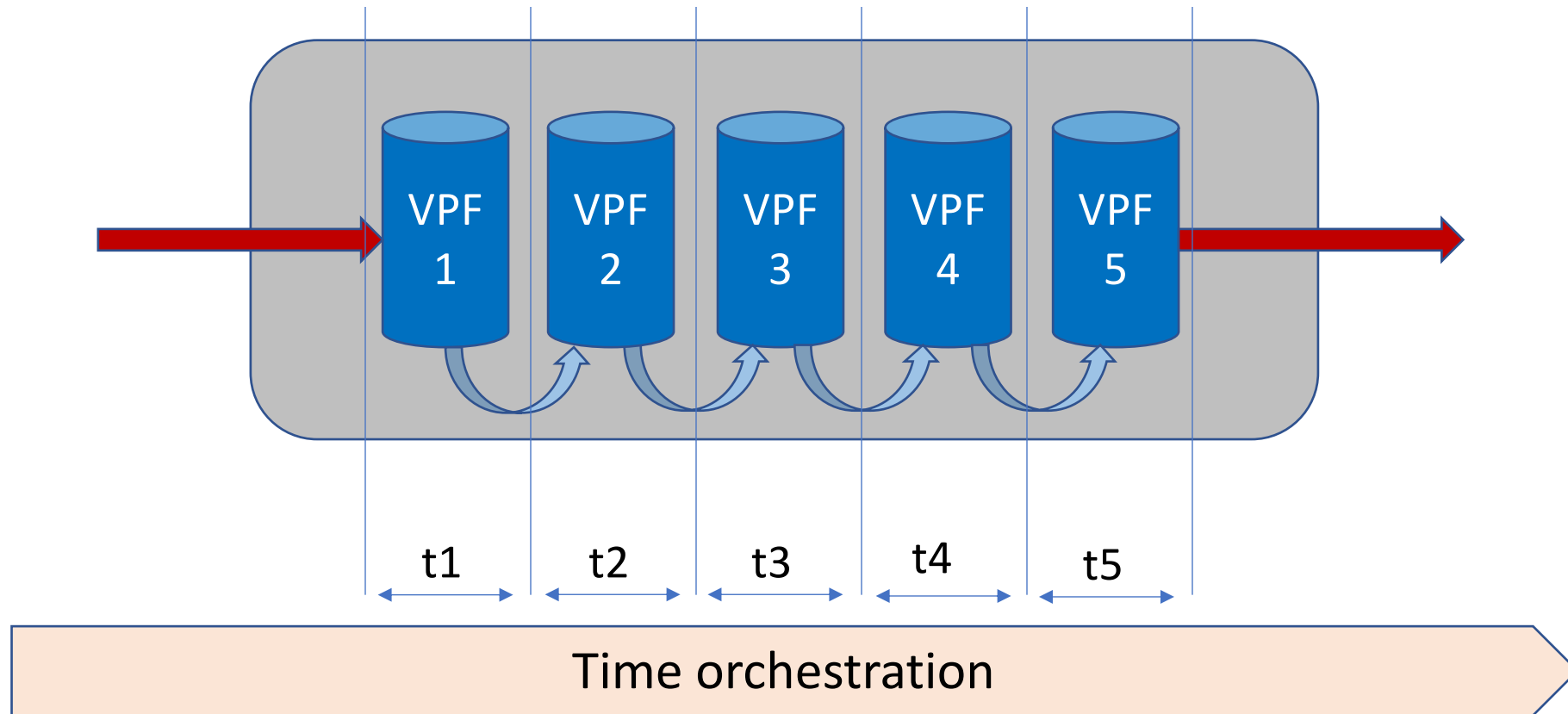
Same principles apply in virtualized world



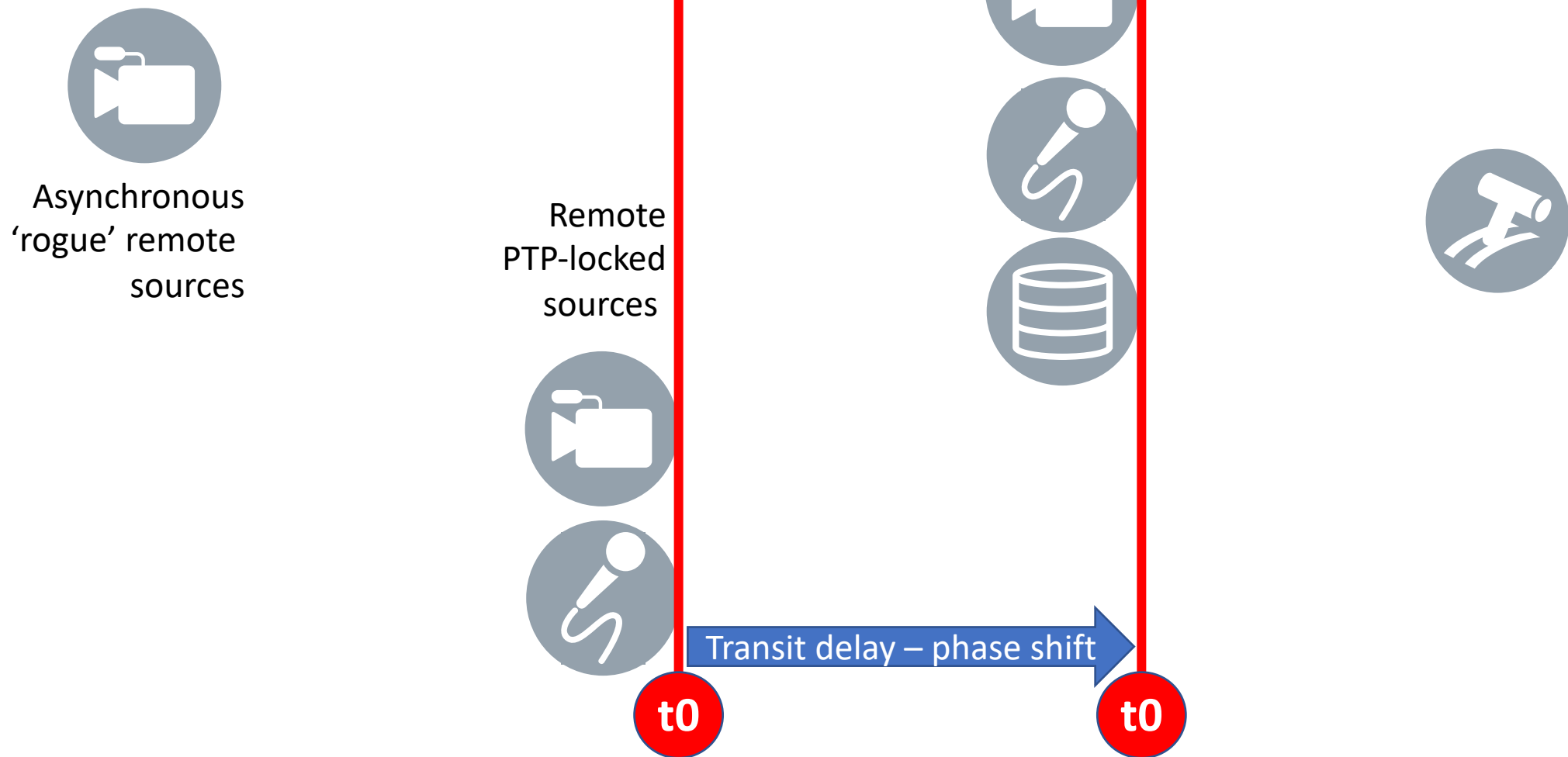
AES67 link timing



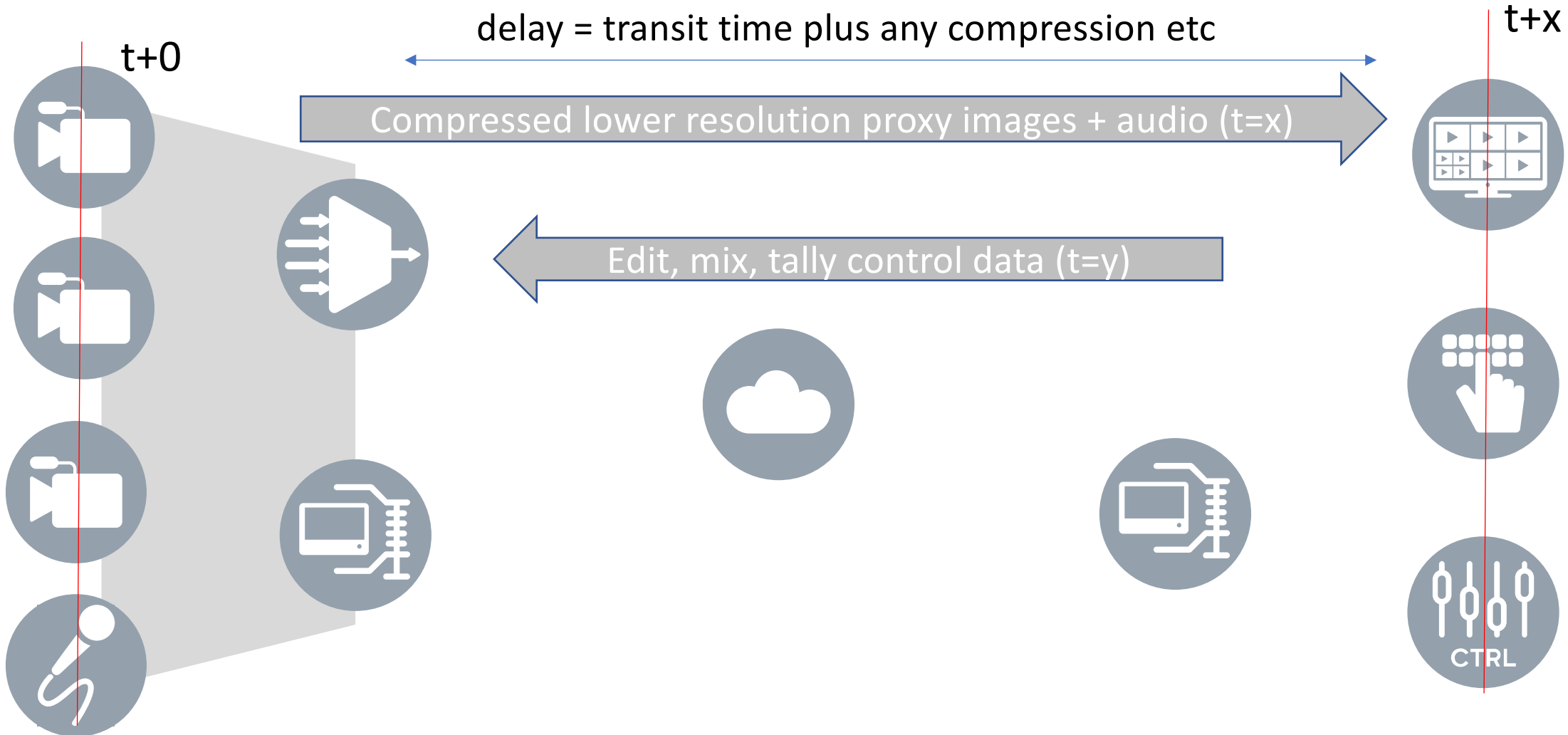
Concatenated virtual processing functions, each with defined (max) execution time



Media Source timings



Proxy remote production timing reconciliation



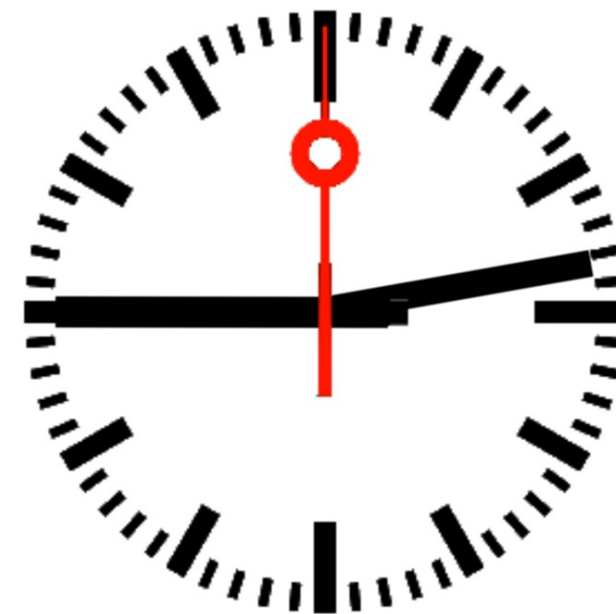
Timing requirement examples



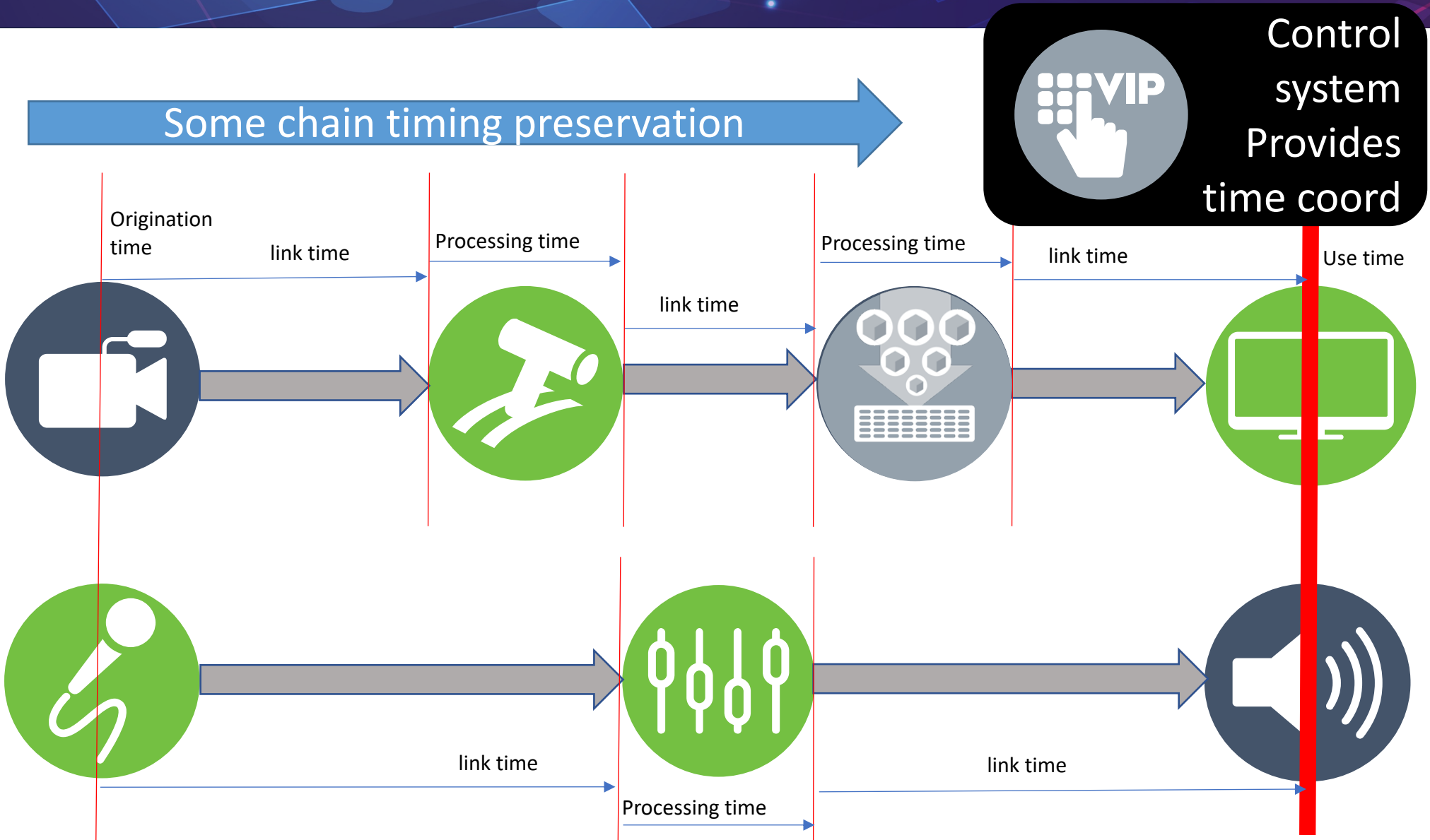
Audio-video lip sync
~5ms

Coherent audio
sync ~20us

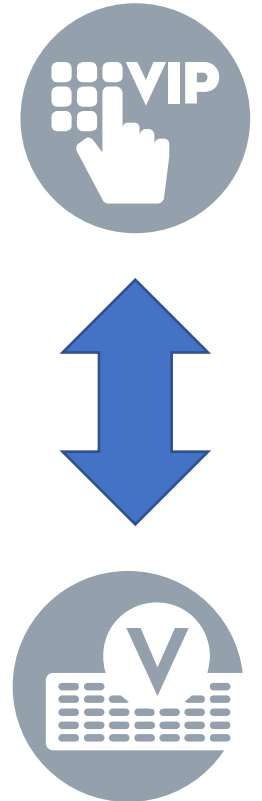
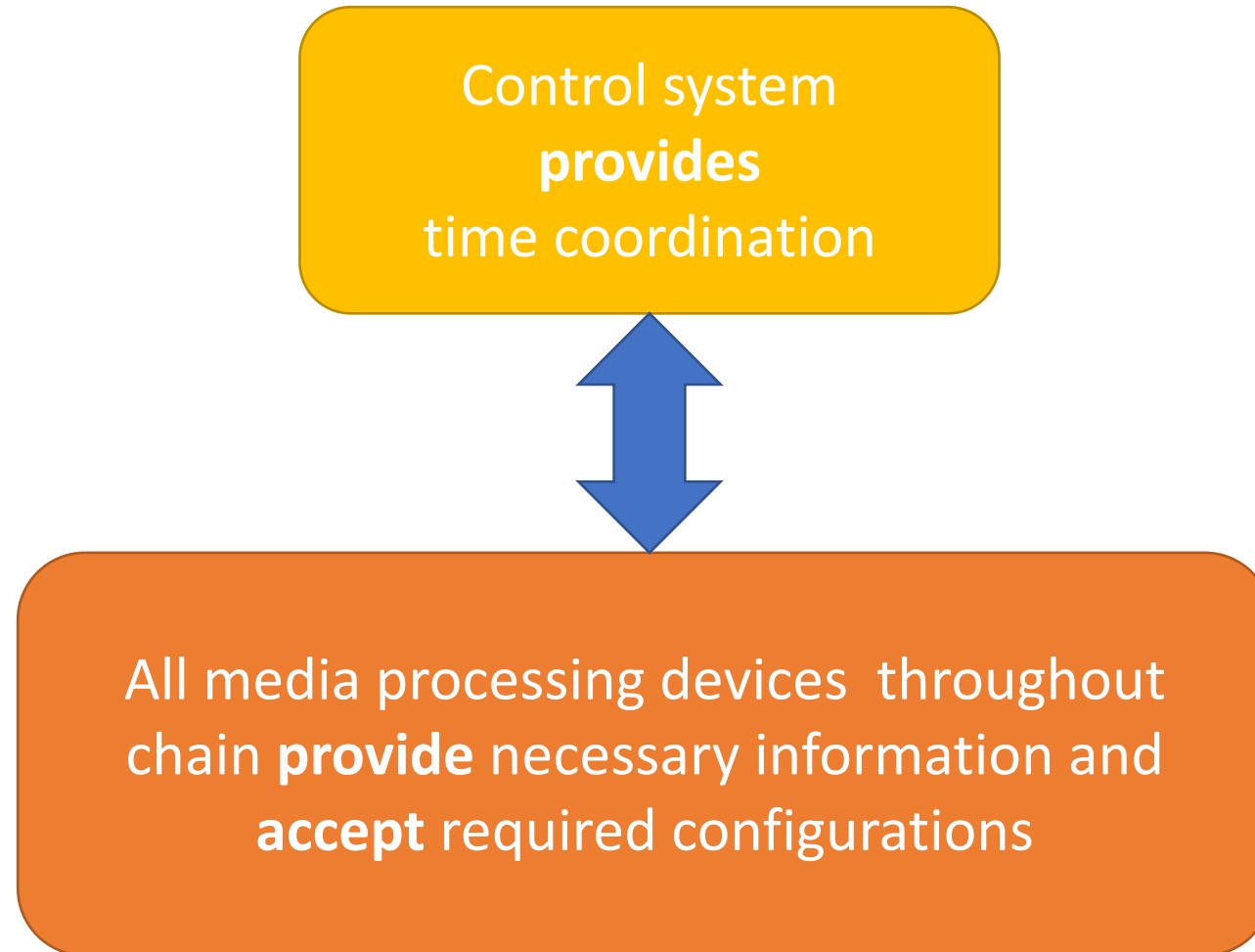
Absolute time
delivery ~20ms



Hybrid timing reconciliation



What is needed to make this work



Draft an Recommended Practice document that defines a workable ecosystem to provide 'automatic' reconciliation of media essence timing at any point along a production chain.

Do consider getting involved



- Send a 'user story' for requirements
- Send in any 'gotchas'
- Join the team!

Join me again later, Monday and Tuesday



IP media cloud connectivity

IP showcase

Sunday 24th April - 15:00

Facility federation

IP showcase

Monday 25th April - 12:30

5G for live production

IP showcase

Tuesday 26th April - 11:30

Thank you!



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nevion
A Sony Group Company

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Any Questions?

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IP SHOWCASE