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MOCAP

Measuring performance of cloud-based platform for interactive TV services delivery

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Background & motivation

- Hard to test our platform in a real large-scale environment with a guarantee that existing end-users would not experience any bad side-effects
- Always keen to **improve** our product and deliver highest possible quality of service
- Obtain useful information about the bottlenecks and plan future upgrades

What is Castoola platform?

Castoola Platform is cloud-based platform for serving of interactive TV services based on HbbTV ("Hybrid broadcastbroadband TV") technology. Targeting TV operators and broadcasters, which would like to make their TV channel or network interactive, it is offering viewers the possibility to consume rich broadband content on top of the linear broadcast television.

Goals & objectives

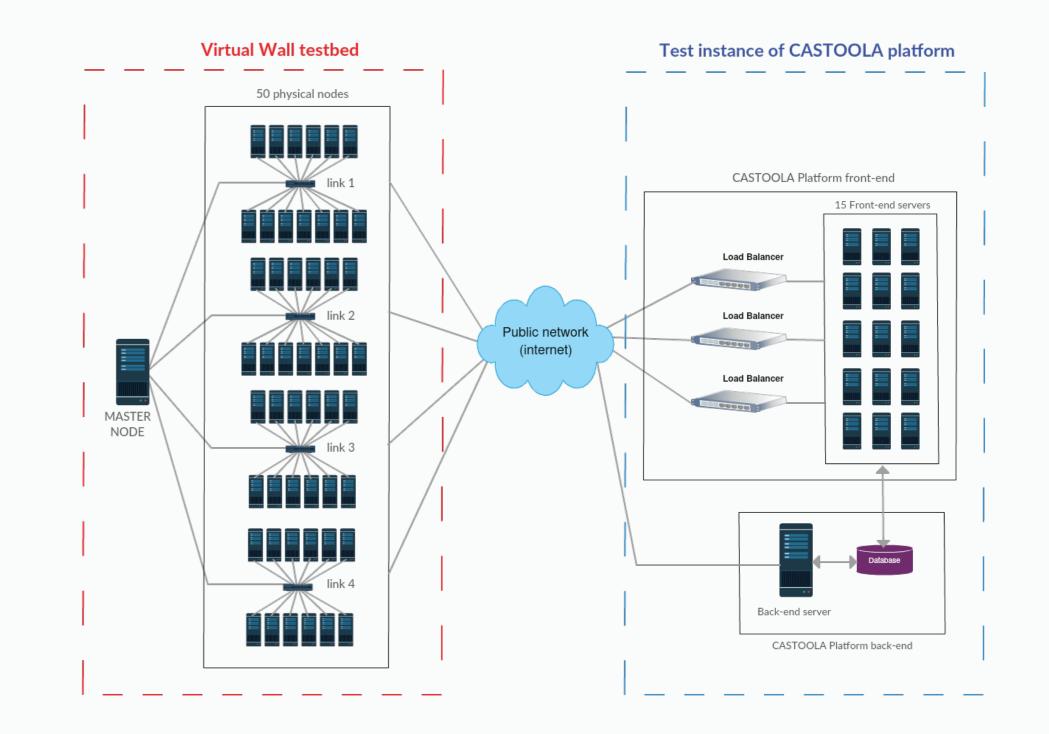
- To simulate high number of end-user requests from the Virtual Wall testbed to the test instance of our platform
- To execute the experiment on 15 test scenarios on multiple different ranges of number of end-user requests:
 - up to 1.000 end-users
 - up to 5.000 end-users
 - up to 10.000 end-users
 - up to 100.000 end-users
 - up to 500.000 end-users
 - up to 2.000.000 end-users

Conclusion & business impact

- Overall satisfied with the results
- Back-end part of the platform needs improvement
- Lots of useful information about the performance and bottlenecks
- Future development activities to be planned based on the results

Set-up of the experiment

- Virtual Wall testbed (1 master node, 50 testing nodes)
- Test instance of Castoola Platform in the cloud (DigitalOcean)



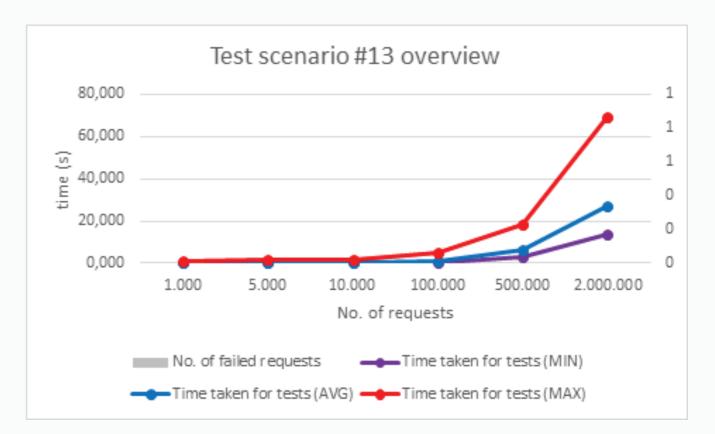
Results



Example of the result on the front-end part of the platform

35.000 30.000 Test failed 25.000 20.000 15.000 10.000 5.000 ŝ 5.000 10.000 100.000 500.000 2.000.000 No. of requests No. of failed requests Time taken for tests (MIN) — Time taken for tests (AVG) — Time taken for tests (MAX)

Example of the result on the back-end part of the platform (complex operation)



Example of the result on the back-end part of the platform (static cached file)

Thanks to the experiment we conducted within Fed4FIRE, Castoola platform will be able to serve as many as needed end-users with rich interactive TV services and will make old-fashioned linear TV more attractive and targeted, in the future.

