



MOCAP

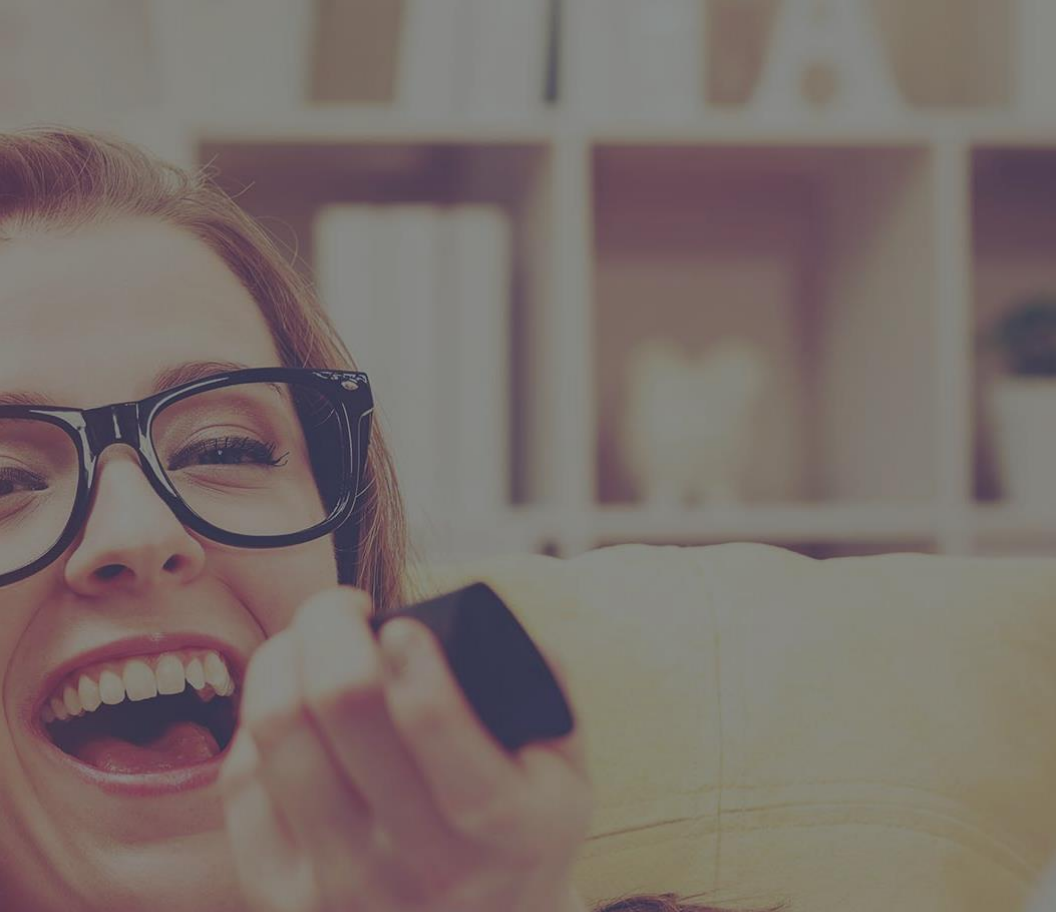
**Measuring performance of cloud-based
platform for interactive TV services delivery**

Uros Zizek

CASTOOLA

FEC2

Volos, 5 October 2017



Castoola Platform is cloud-based platform for serving of interactive TV services based on HbbTV (“Hybrid broadcast-broadband TV”) technology.

WHAT IS CASTOOLA PLATFORM?

Background & motivation

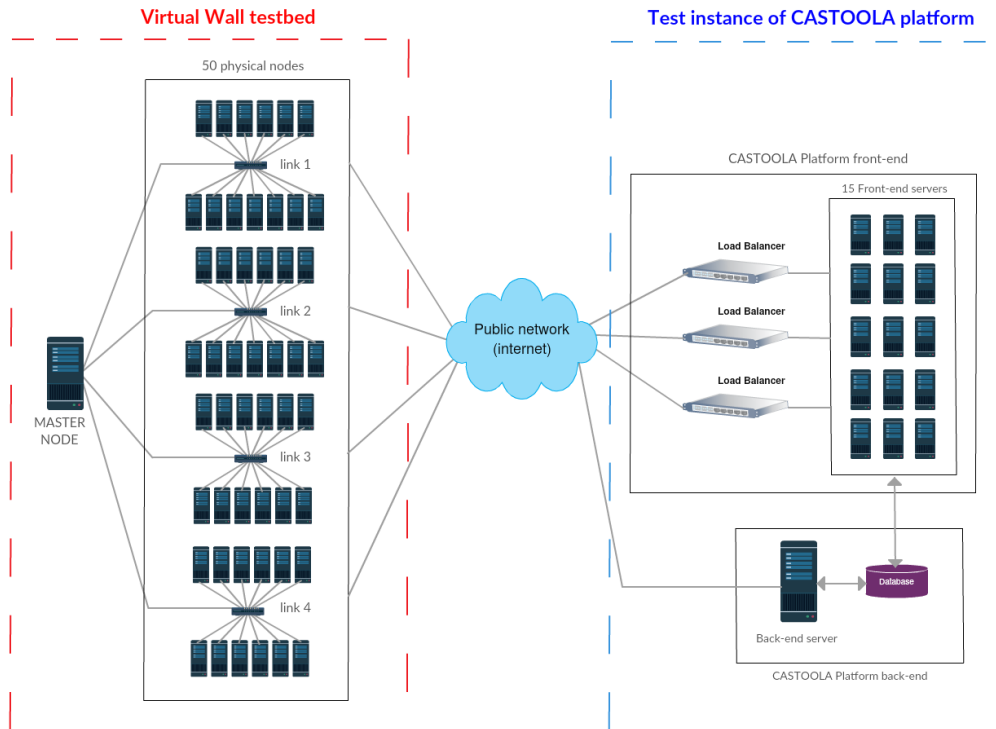
- hard to test our platform in a **real large-scale environment** with a guarantee that existing end-users would not experience any bad side-effects
- always keen to **improve** our product and deliver highest possible quality of service
- obtain **useful information** about the bottlenecks and plan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

Goals & objectives

- to simulate high number of end-user requests from the Virtual Wall testbed to the test instance of our platform
- to define and prepare 15 different test scenarios,
- to execute the experiment on each test scenario 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

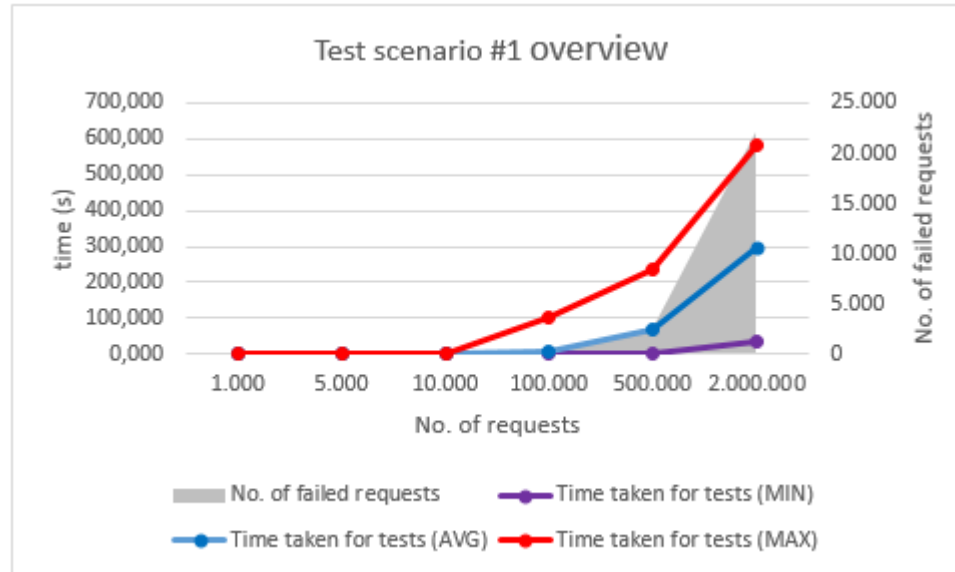
Set-up of the experiment

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



Results (1/3)

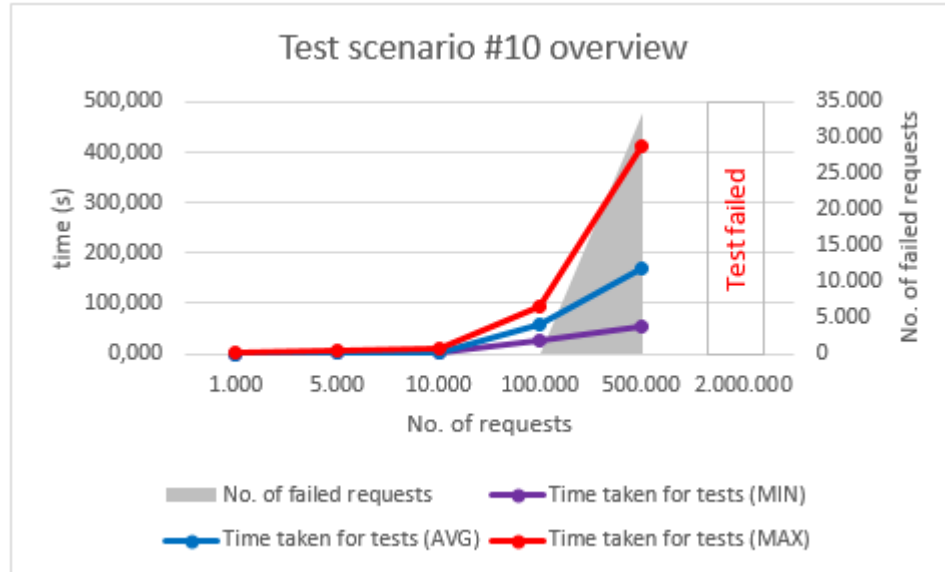
Example of the result on the front-end part of the platform



Results (2/3)



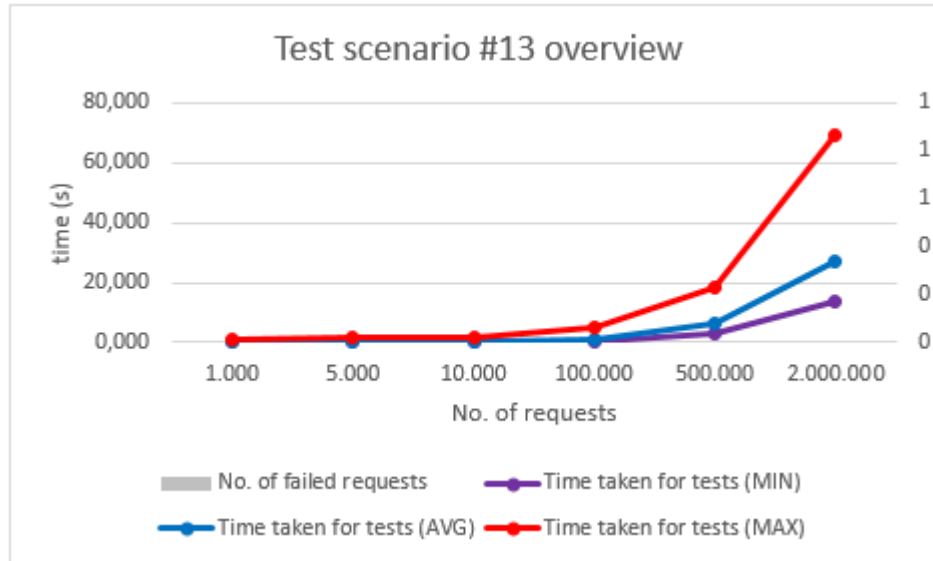
Example of the result on the back-end part of the platform (complex operation)



Results (3/3)



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



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



Co-funded by the
European Union



Co-funded by the
Swiss Confederation

This project has received funding from the European Union's Horizon 2020 research and innovation programme, which is co-funded by the European Commission and the Swiss State Secretariat for Education, Research and Innovation, under grant agreement No 732638.

**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.**

WWW.FED4FIRE.EU