

FINAL AGENDA

10.35-10.50

Introduction to PHYSICS FaaS approach, Prof. Marta Patiño, Computer Science School, Universidad Politecnica de Madrid

10.50-11.10

PHYSICS design environment for FaaS, Prof. Georgios Kousiouris, Department of Informatics and Telematics, Harokopio University of Athens

11.10-11.30

Methodology and approach to specify use-cases scenarios, Niklas Franke, Fujitsu

11.30-11.50

Enhancing greenhouse control system efficiency and reliability using FaaS, Théophile Lohier, CybeleTech

11.50-12.10

Higher availability and certainty for QC with FaaS, Volkan Gezer, DFKI

12.10-13.00

Q&A Session

PHYSICS
Three ways of using Node-RED (1/3)

- One as a function editor and deployer to the OW case
- Faster
- Limited at the moment to native Javascript functions
- Limited in terms of embedded node-red nodes

Typical Node.js OpenWhisk Runtime Image

PHYSICS
Lessons Learned

- Pilots needed to understand the complicated technology environment to identify real value added
- It was difficult to identify actual key stakeholders through the questionnaire
- In the workshops, some key players turned out to be stakeholders and vice versa.
- What could be done better? The level of knowledge before the workshops could be aligned even better.
- It was very difficult for the pilots to describe the easiest way in the scenario description.
- The co-creation workshop were fun

Strategy use cases, tasks, and sub-tasks link together as a graph

PHYSICS
Characteristics of Function as a Service

- Application logic is split into smaller chunks
- Function execution should be stateless
- Function execution is performed inside a container, launched on demand upon request
- Costs are based on function invocations, runtime and memory used for the function

PHYSICS Components

PHYSICS
Challenges of application development in the FaaS model^{1,2}

- How can functions become manageable, shared, grouped and reused
- Express increasing complexity in the functionality
- What are the emerging architectural patterns for serverless systems and applications?
- How to test, debug, deploy and manage serverless systems and applications?
- Abstracted application design and porting to the serverless paradigm
- Link between design and dictation of deployment and runtime needs

PHYSICS
The Application Developer Saga...

- The Cloud Era
 - Application and stable resource
 - Applications need to get more distributed
- The Microservice Era
 - Applications need to get more modular, scalable and manageable

Snapshots of the webinar "Building Versatile Serverless Applications Across the Cloud Edge Continuum"