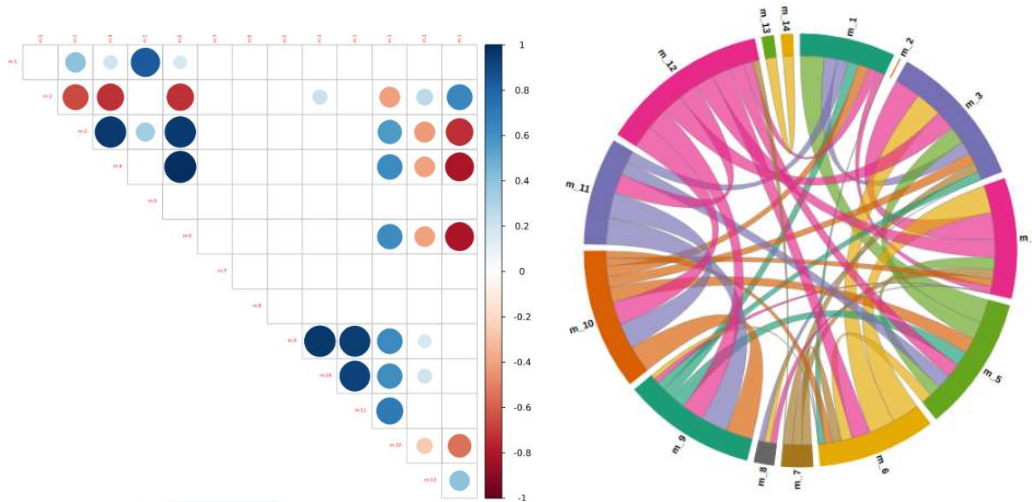


FUDGE-5G and UBITECH's Vertical Application Orchestrator

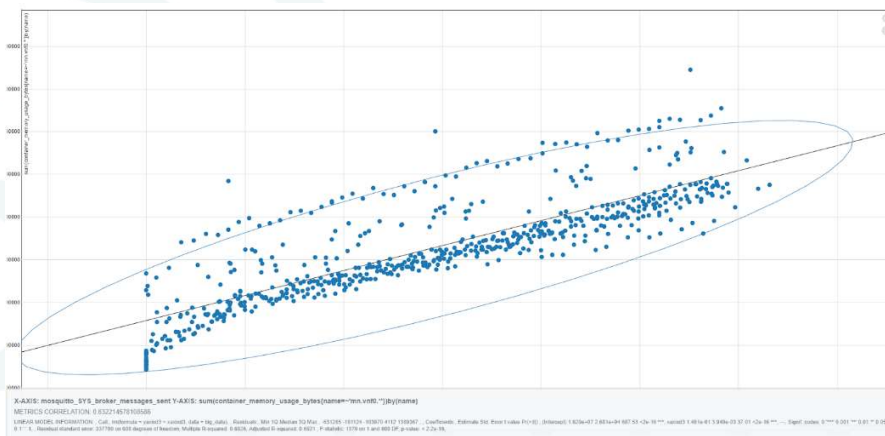
FUDGE-5G Project Newsletter #6 April 2022

FUDGE's Vertical Application Orchestrator has recently extended its functionalities offered to the verticals. Specifically, and in extension to it's analytic toolkit the new functionality provides profiling capabilities for the service deployments.

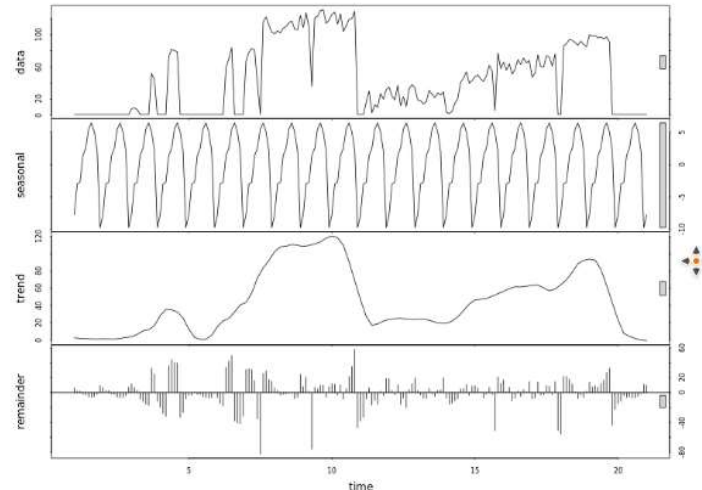
Correlation Analysis that identifies strong correlations, relations, and trends among infrastructure-oriented and application component-specific metrics, leading to insights that can be used for runtime policy definition and proactive decision making by the various orchestration mechanisms.



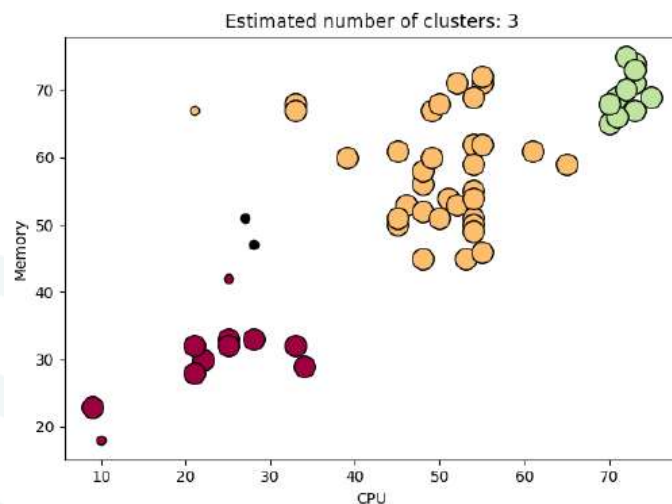
Resource Efficiency Analysis that identifies resource consumption trends and capacity limits, used for planning accordingly optimal reservation of resources.



Time Series Decomposition and Forecasting to identify trends and provide accurate forecasting models, forecast resource demanding periods and scale proactively the deployed functions to optimally serve the workload.



Clustering to identify clusters based on time series data from multiple metrics, leading to identification of groups of metrics with similar behaviour. Upon the clustering analysis, identification of the boundaries of elasticity rules' triggering based on the component operation is also realised.



Elasticity Efficiency Analysis that identifies the performance of scaling operations, along with the impact of scaling actions in the service output efficiency. For the simple users these new features are providing insights for analysis and the behaviour of their deployed service while for the more experienced provides:

- Easy integration of analysis processes/scripts by data scientists independently of the programming language used.
- The production of analysis results in the form of URLs that can be easily viewed and compared by the interested parties (e.g. data scientists, network administrators).
- The design and implementation of a set of APIs for supporting the registration and execution of analysis processes.

Project Coordinator

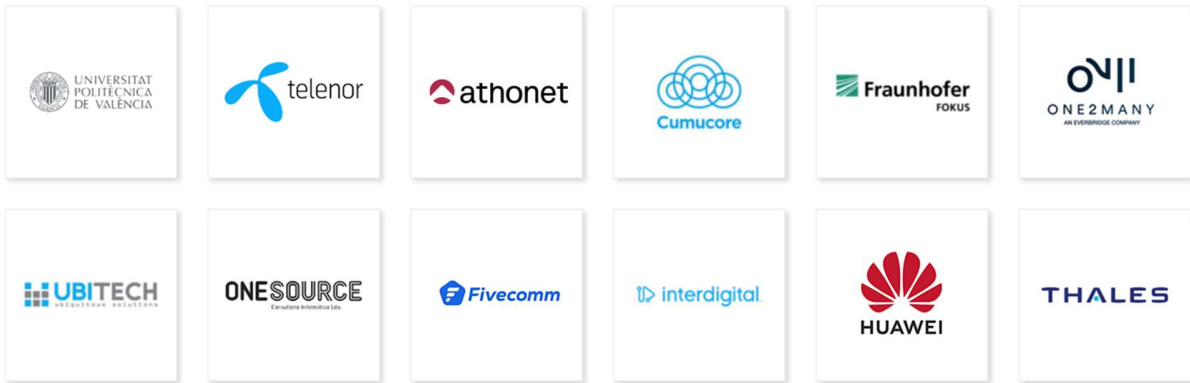


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