

Analytic Services Network Application

SUMMARY

5G-EPICENTRE's Analytics Engine (AE) is designed to perform the analysis of the experimental data derived from the 5G network and the vertical PPDR services.

The Analytic Services Network Application offers a way for verticals to interact, so they can subscribe to the analytics service and request analytics on specific KPIs of interest, providing flexibility to the end-users, using Kubernetes-based solutions.

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DEPENDENCIES

The module has the following dependencies:

- **Data collection.** Access to the RabbitMQ instance provided by the Testbeds where measurements from the UCs and the infrastructure are published.
- **Data Storage.** The AE needs an external InfluxDB instance (provided by the Testbed) to guarantee persistence of critical data (the measurements gathered from infrastructure/UC) and retrieve them for data analytics tasks.

For more information, do not hesitate to visit the website <https://www.5gepicentre.eu/> and/or contact the 5G-EPICENTRE team.

Contact the 5G-EPICENTRE team by filling in the [form](#) provided. Apply [here!](#)

SERVICES & VALUE FOR END-USERS



The 5G-EPICENTRE's Analytic Services Network Application is composed of different NFs. The KPI Monitor, the Analytics Driver and the Analytic Services Network Application API would be set at the Testbed Level (Infrastructure Layer), and would work together to perform data-intensive operations. The Analytics Aggregator NF would be deployed at the platform level (Backend Layer). The Analytic Services Network Application uses containerised solutions compatible with Kubernetes-based deployments.

A list of the different services composing the Analytic Services Network Application is provided below:

- **Analytics Driver:** the NF responsible for collecting information in the form of input data from the Testbed Layer (e.g., metrics related to 5G networks and vertical services); and for pre-processing the data, in order to forward them to the other AE NFs for KPIs calculation.
- **KPI Monitor:** responsible for computing experiment KPIs (when needed), using data provided by the Analytics Driver; and forwarding output KPI values to the Analytics Aggregator NF.
- **Analytics Aggregator:** will receive input data from the internal Analytics Engine NF at each individual

testbed; aggregate the information; and propagate it to the visualisation components residing in the Frontend layer.

- **Analytic Services Network Application API:** The vertical can use the API to subscribe to the analytics service and request analytics on specific KPIs of interest, providing details about the measurements and the methodology to be applied for the KPI calculation, so to configure the KPI Monitor.

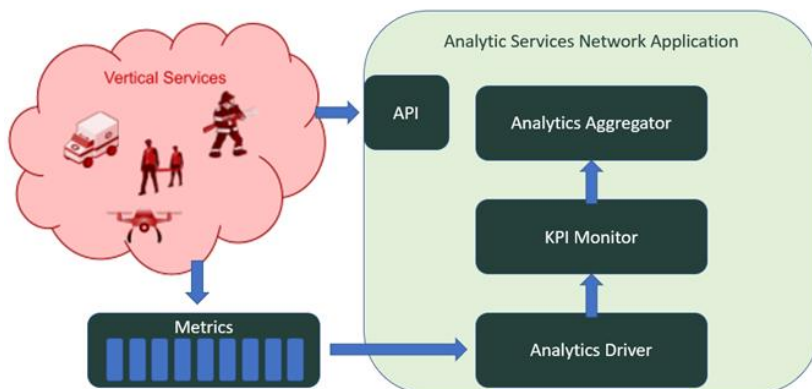


Figure: Analytic Services Network Application