Adaptive, Intelligent and Distributed Assurance Platform
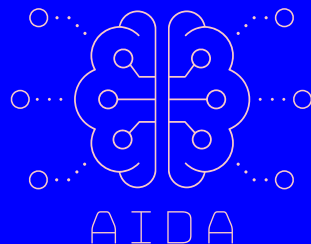
AIDA

Evolving RAID, a platform used by Mobileum for integral risk management in companies, to leverage edge computing and 5G, while ensuring privacy and confidentiality.
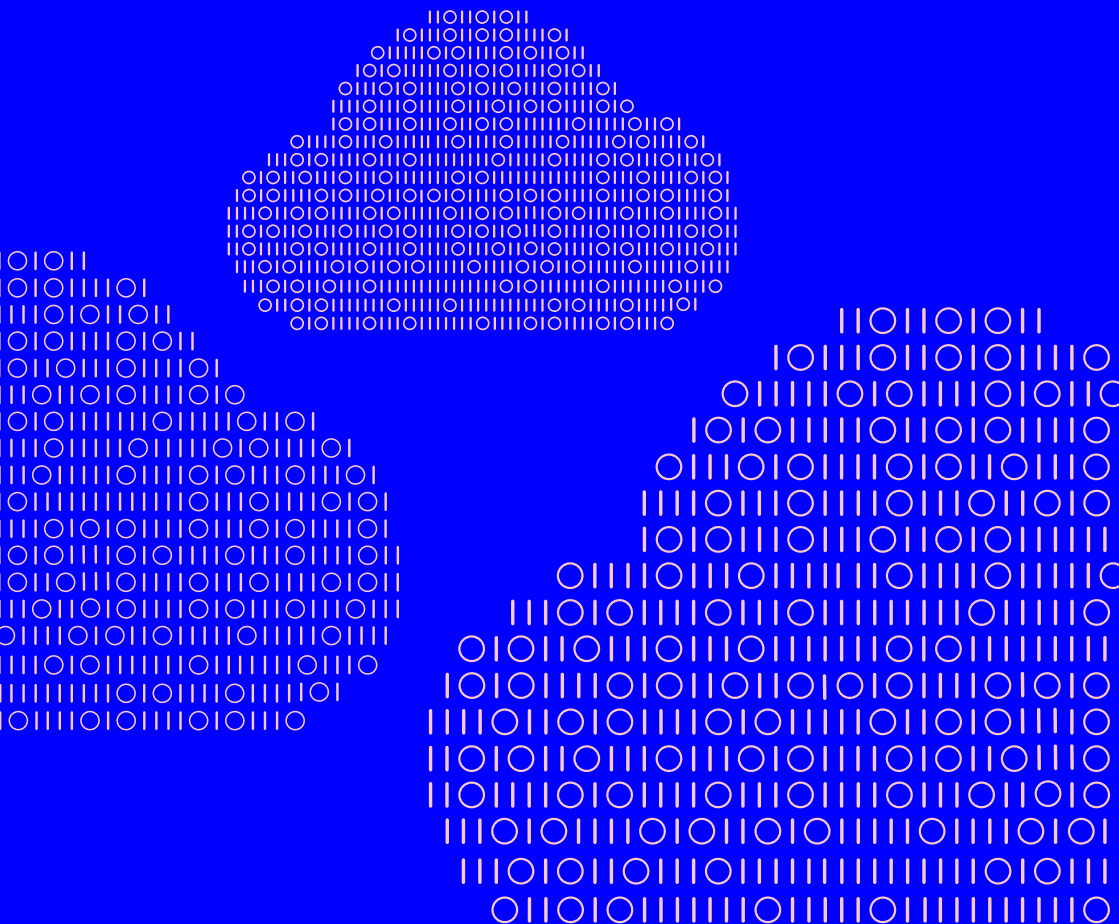
Goals

- Distribution of the RAID platform components leveraging edgge computing and 5G
- Exploration of emergent federated machine learning techniques
- Resilience to intrusion or tampering
- Data privacy and confidentiality

Distribution

Distribution, orchestration, and monitoring leveraging KubeEdge and its interconnection with Kubernetes to enable edge-cloud continuum including a Data lakes solution

Resilience to Intrusion

System call representation to be used with machine learning techniques and a tool for intrusion detection in microservices
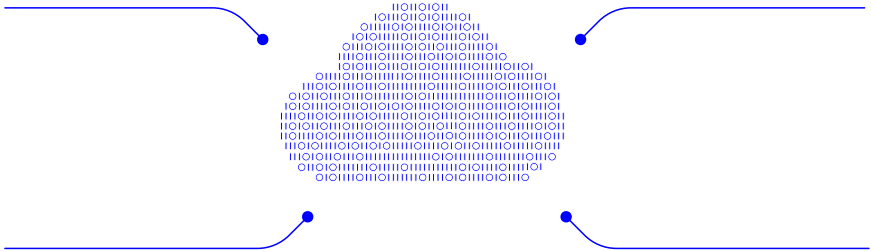
Data Privacy and Confidentiality

To maintain the confidentiality of the operational data being monitored and analyzed, and protect the privacy of the entities to whom the data refers to are fundamental concerns in the design of the platform

Federated Machine Learning

Trustworthy, Online, Federated Machine Learning (TOF-ML) Framework and federated rule-based algorithms for classification and regression, TV piracy detection algorithms and phone call fraud detection algorithms

Consortium

The AIDA consortium is composed of four partners from academia and industry.

Highlights

8 software tools
42 scientific publications
- 3 with PT partners and CMU
- 3 with Mobileum

2 use caases
- bot net detection
- International Revenue Shared Fraud (IRSF)