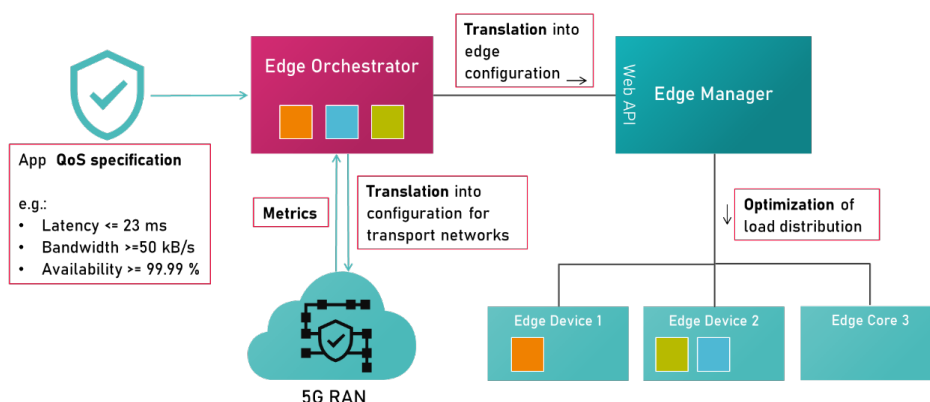


IntelloT component available for OC #2 integration - Details

Name	Edge Infrastructure
Responsible partner(s)	SIE
Brief description	The Edge Infrastructure is a group of components, used in UC3, which is responsible for the distribution of edge apps on edge devices in an optimal fashion considering service levels for apps and utilization of the infrastructure. It consists of four types of components: The Edge Device is a managed device able to run Edge Apps. Edge Apps are dockerized microservices, orchestrated with docker-compose. The Edge Manager is responsible of the lifecycle of those Edge Devices and Edge Apps. And the Edge Orchestrator is a component, we introduced in IntelloIoT, to augment static app to device mappings with dynamic reallocations. Therefore, it relies on the Computation Resource Manager (CompRM). For the optimal allocations of Edge Apps on Edge Devices, we drive a two-way approach, where we (1) process the metrics from the underlying network plus we (2) optimize the network based on app service level constraints. Here, we rely on 5G MEC service approach. We currently support the Siemens Industrial Edge product line.



Interfacing (I/O)	• HyperMAS • HIL Service • CommRM
Main interactions	The Edge Orchestrator is the entry point for all other components of the Edge Infrastructure. It provides a web API for lifecycleing edge apps and for reserving resources for edge apps.
Deployment	The Edge Orchestrator is a dockerized collection of microservices deployed in the local network. The Edge Manager is VM hosted inside the local network. The Edge Devices is distinct hardware, which can be only managed by the Edge Manager.
Licensing	Proprietary
Deliverable references	D4.1 chapter 3

