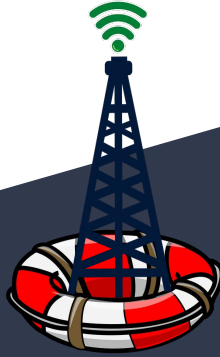
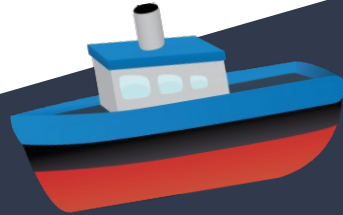


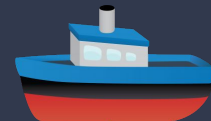
RSA – Project Presentation

Automatic Nautical Sensor Data Collection

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Objectives



- Develop an autonomous system which allows to collect nautical information
 - Safety : No need human intervention
 - Efficiency : Autonomous system are better than other methods
 - Environmental monitoring : Maintain water quality
- Base Station (RSU)
 - Receive all the information coming from the autonomous boats
 - Start operation and sharing sensor location information
- Autonomous boat (OBUs)
 - Three autonomous boats to cover a significant area of water
 - Navigation system
- Sensors
 - Temperature
 - Water level
 - etc

Architecture

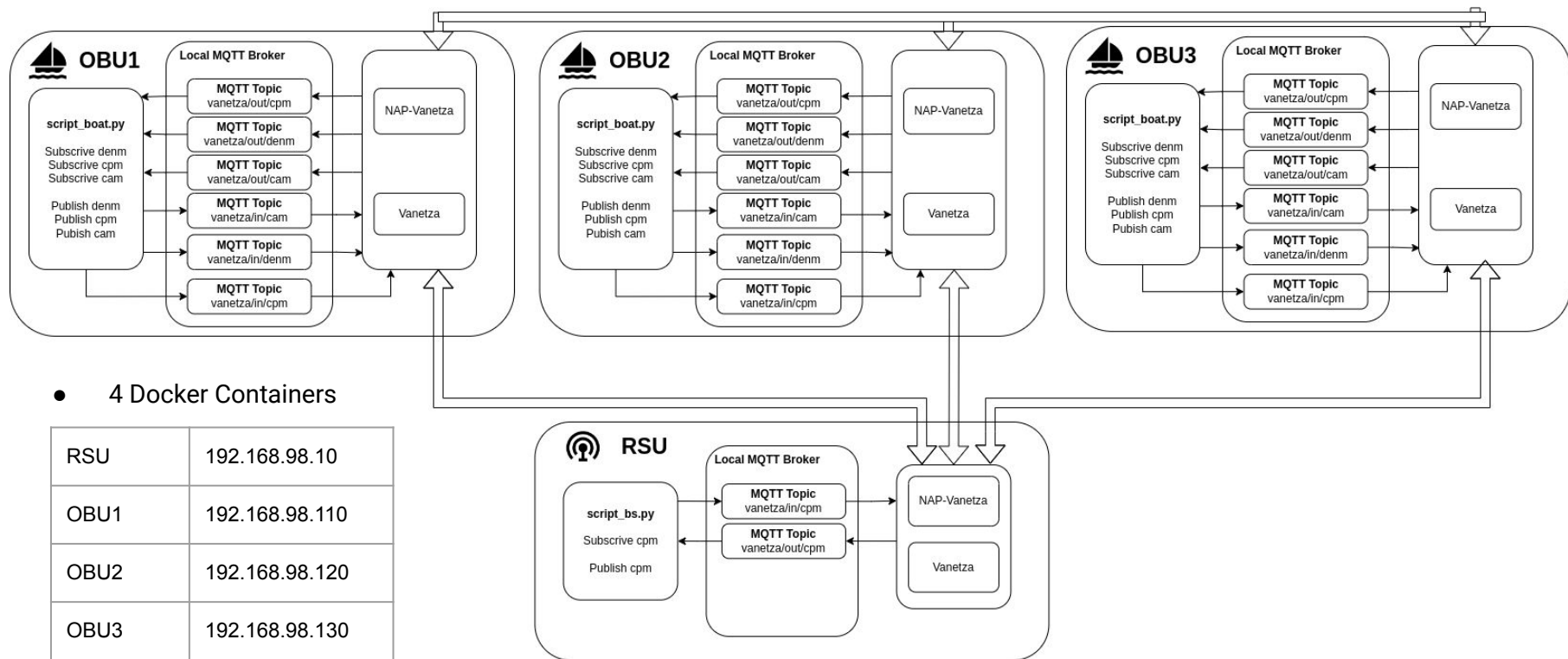
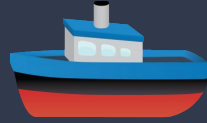


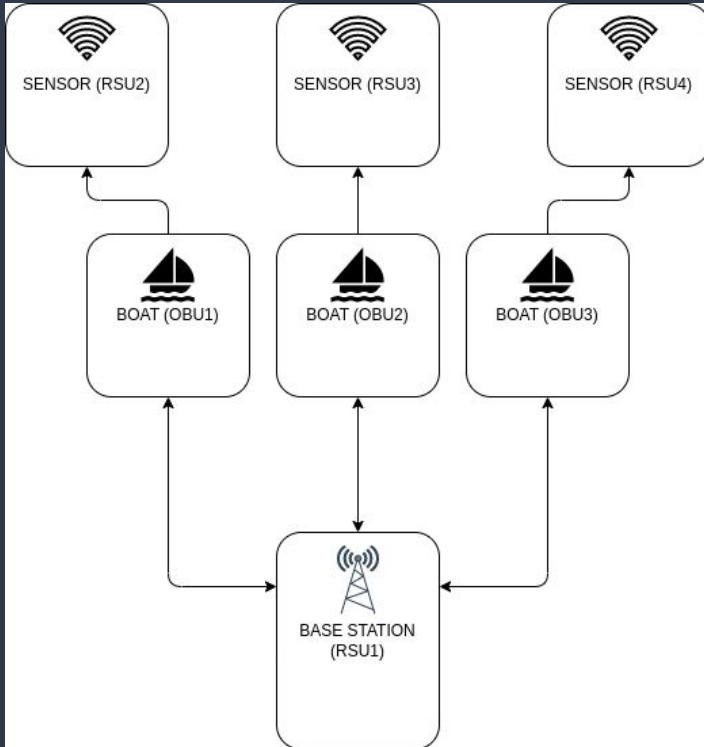
Diagram of Implementation



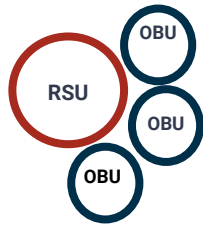
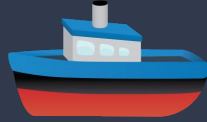
Message Types

OBUs	
cam	Sends current and future position (boat)
denm	Send the current sensor position
cpm	[receive from RSU Base Station]

RSU	
cpm	Send location of sensor in the water



Timeline



Start Operation

Send cpm message with location of all sensors



Moving

The boats receive the cpm message and start moving



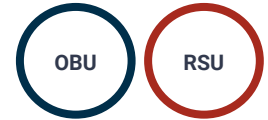
Deciding

The OBUs exchange denm messages with destination of the boat itself. If there is the same destination, the closest one is chosen.



Receive Data

Still deciding what the best approach is



Delivery

The OBU arrives at the base station and sends the collected sensor data to the RSU.



DEMO