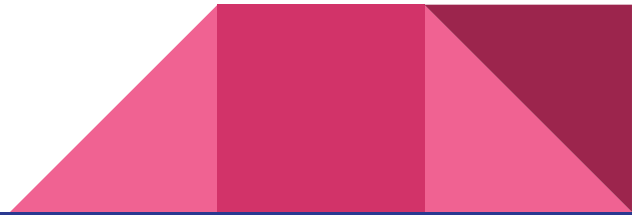
# Walk and Seat

## RSA : Project - Final Evaluation

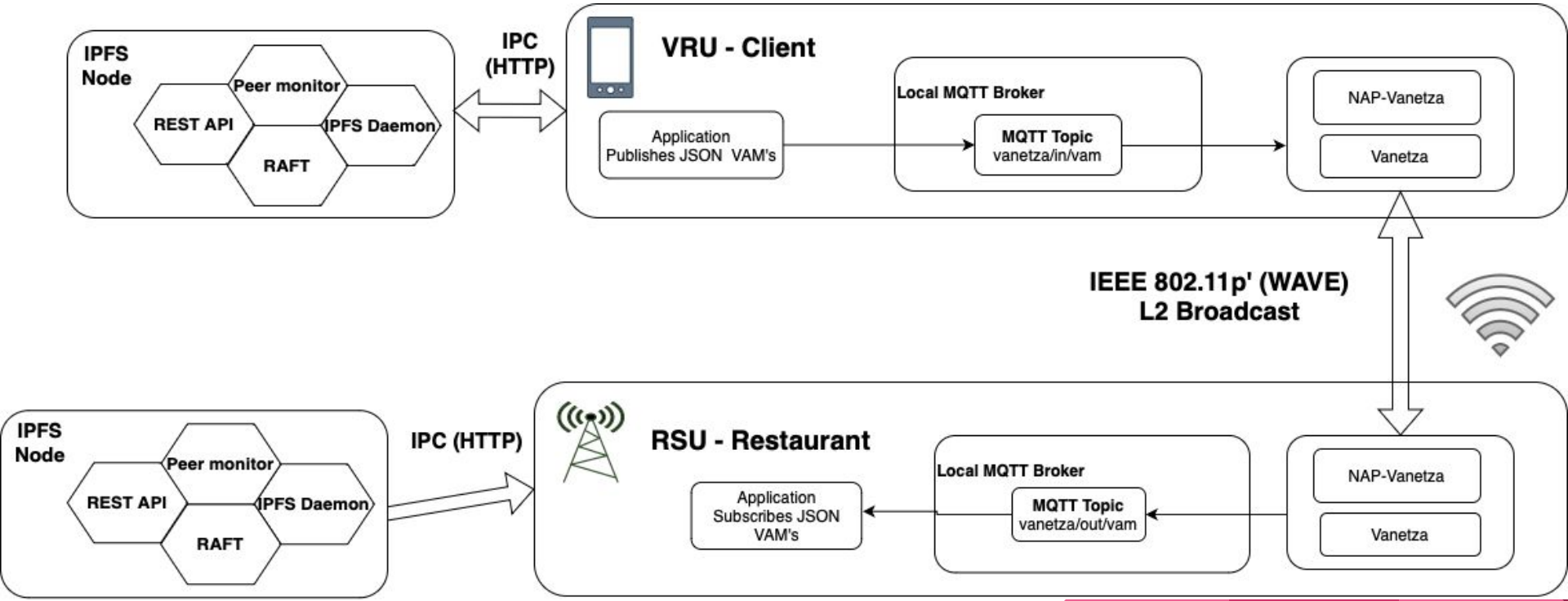
Manuel Couto 93285
Bernardo Falé 93331

# Objectives

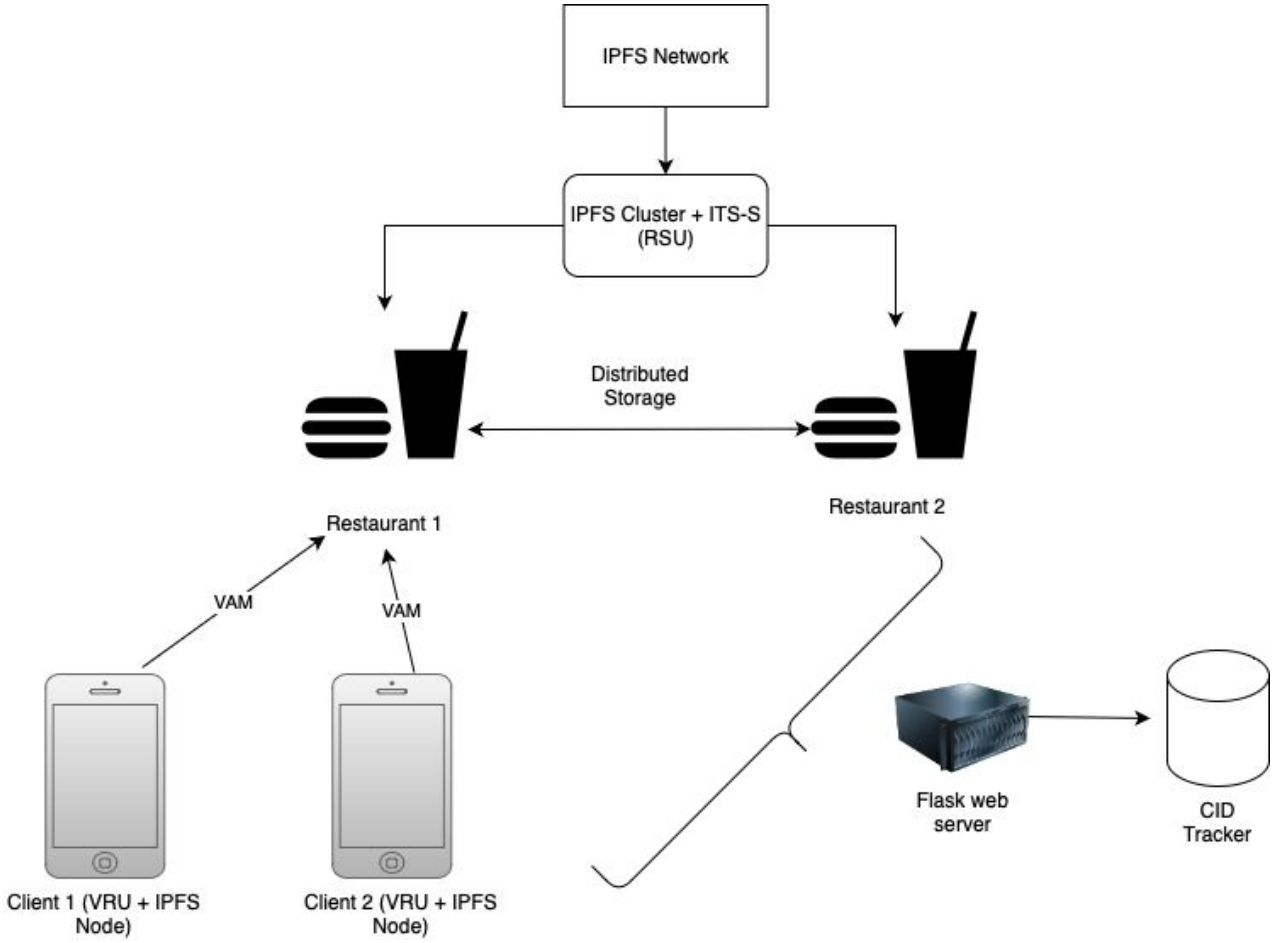
- Different approach for VANETZA
- Use IPFS
- Decentralized, Distributed, Offline Availability and Authenticity of Information
- Allow clients outside the restaurant area to access content related to the restaurant such as :
  - Number for available tables
  - Menu
- For this, a cluster of restaurants must be implemented for distributed and fast information among clients
- Each person is a VRU/IPFS node
- Each restaurant is a RSU/IPFS node



# VRU's and RSU's architecture

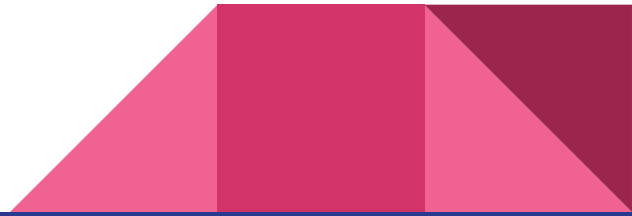


# Implementation diagram

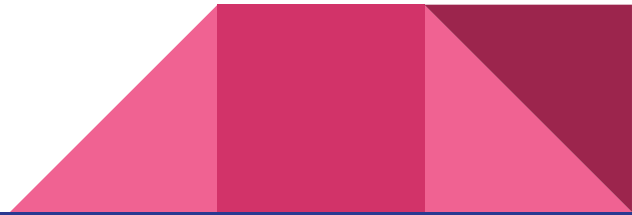


# Timeline

1. Dispatching docker containers (Vanetza and IPFS)
2. Dispatching Web server
3. Generating Vanetza periodic messages and starting simulation
4. The VRU’s should walk across a pre-defined path
5. If the distance between the VRU’s and the RSU’s is less than 50 meters the files that are distributed across the cluster will be sent to the client
6. The clients will receive sitting and menu information
7. The clients can make a reservation
8. The restaurants can update their information and deploy them to the IPFS network



- Firstly, the clients/Restaurants need to be added and dispatched to the IPFS cluster, as well as the VANETZA network
- Periodically, the clients should send VAM’s
- Upon reception of VAM’s, the Restaurants should process that message and decide if the VRU is close to the restaurant or not
- If it is, it should ask for the other IPFS nodes to send their information
- Afterwards, the node should send an asynchronous message, such as DENM, to inform the VRU



# Preview (live demo)