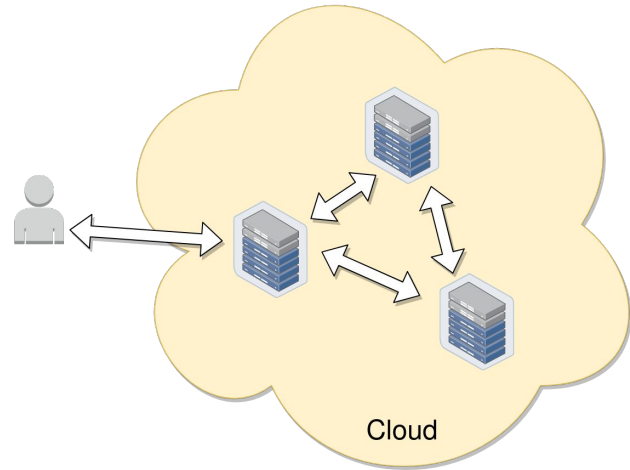# High Performance Load Balancing and Scheduling Techniques for Mobile Distributed Systems
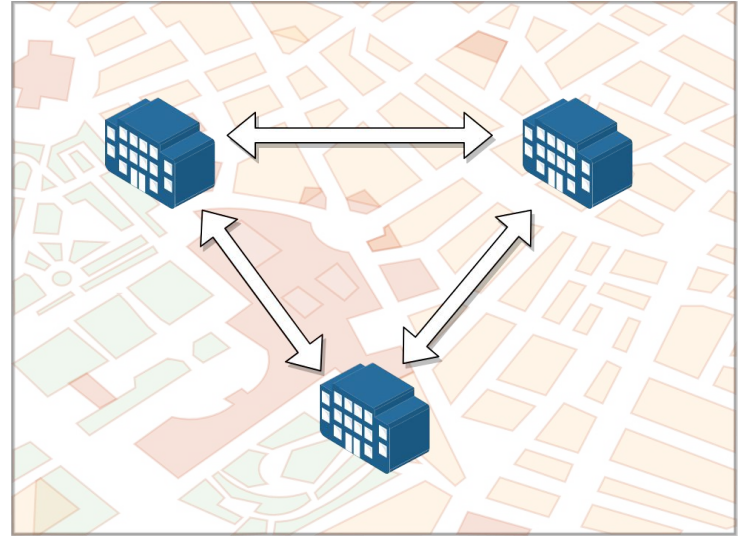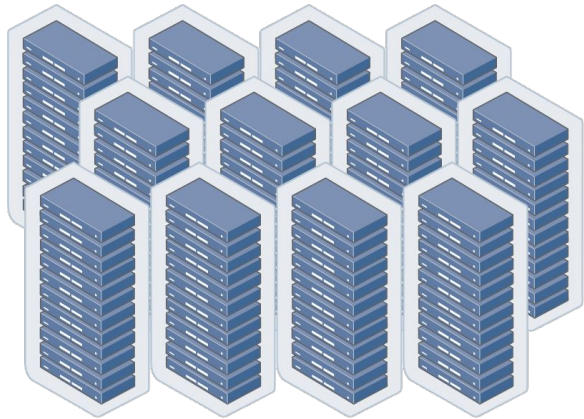
Bruno Chianca Ferreira

Supervisors: Guthemberg Silvestre ENAC/ReSCo
Guillaume Dufour ONERA/DTIS

Distributed Systems

- Booking a flight
- Making payments
- Chatting and sending messages
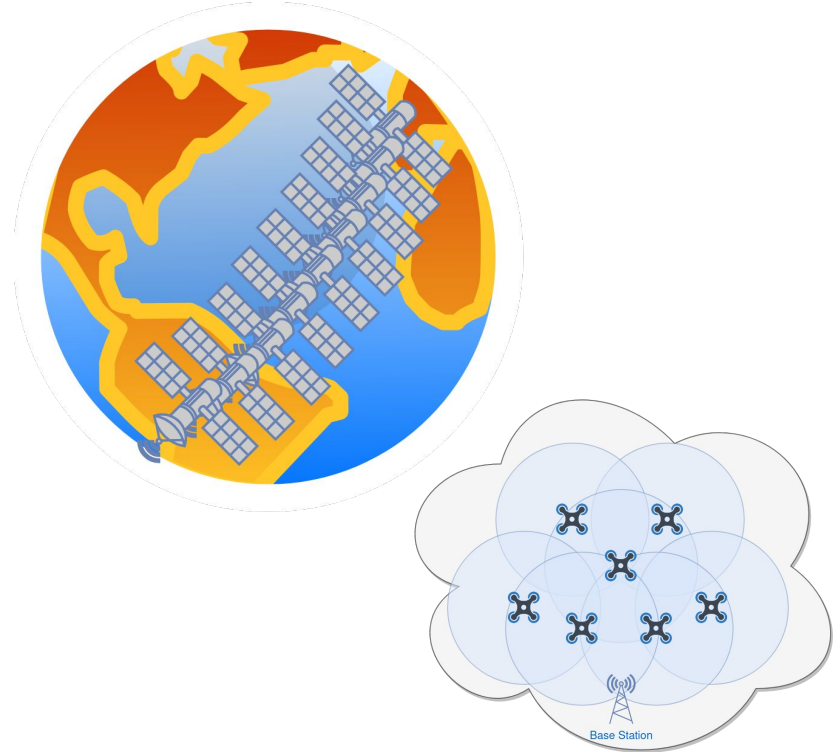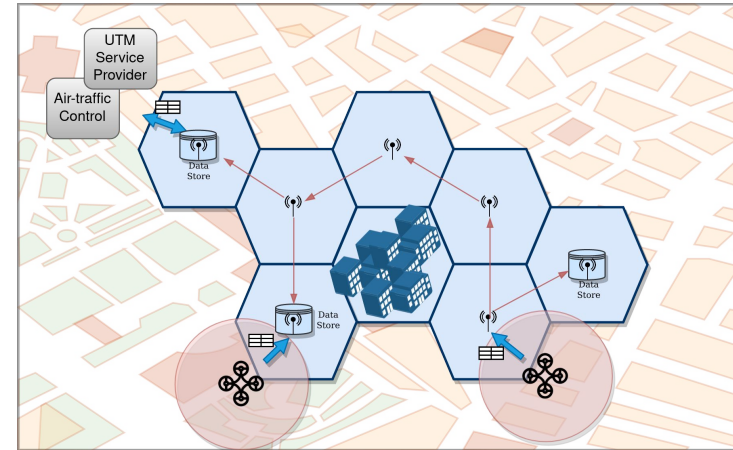- Social Networks

Cloud

Data Centers

Mobile ad hoc Computing

- Removal of time guarantees
- Introduction of connectivity failures
- Contention in communication medium
- How can we measure and improve performance?

Base Station

Towards a Middleware

- Establish methods to use the mobility in our favor, to reduce congestion and latency and increase system performance.
- Assess how to use those strategies to find better placement for replicas according to mobile node density across the topology.
  - Use these placement strategies to support other ongoing research about the use of distributed stores to support UAV position tracking for UTM

High Performance Load Balancing and Scheduling Techniques for Mobile Distributed Systems

Bruno Chianca Ferreira