TaRDIS

Discover TaRDIS use case: SATELLITE SWARMS

(Distributed navigation for LEO satellite constellations)

project-tardis.eu

info@project-tardis.eu

CONCEPT

We facilitate the design, tuning, and testing of distributed Orbit Determination and Time Synchronization (ODTS) algorithms for **swarm satellite constellations**, by providing space engineers a swarm simulation tool covering a wide parameter space.
The simulation tool, built on top of the TaRDIS swarm technology, allowing the integration of computational resources from multiple entities with minimal configuration effort.

BENEFITS

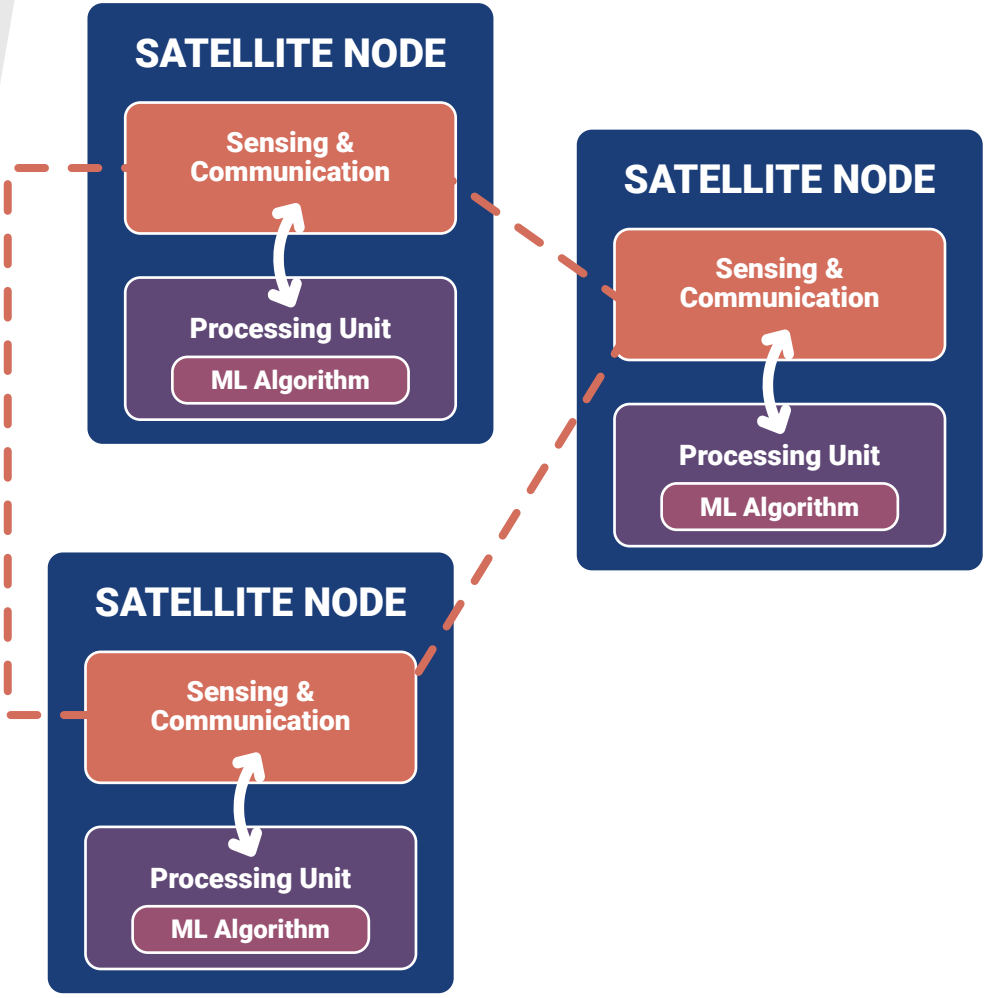
Speed up and improve distributed ODTS algorithm design, test, and tuning, by leveraging machine learning tools and a **distributed simulation tool** that requires low expertise and can be easily scaled using off-the-shelf machines.

INPUT

- Earth base station positions
- ODTS algorithms and configurations
- Local neighbourhood
- Measurement streams

OUTPUT

- Orbit determination
- Time synchronization


SATELLITE NODE
Sensing & Communication
Processing Unit
ML Algorithm
SATELLITE NODE
Sensing & Communication
Processing Unit
ML Algorithm
SATELLITE NODE
Sensing & Communication
Processing Unit
ML Algorithm

TaRDIS

Trustworthy And Resilient Decentralised Intelligence For Edge Systems

Learn more about TaRDIS on our website:

project-tardis.eu

Funded by the European Union

@tardis-project

@TARDIS_eu