

Autonomous Robots' Applications and Systems

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5G enables several enhancements in robotic applications and systems

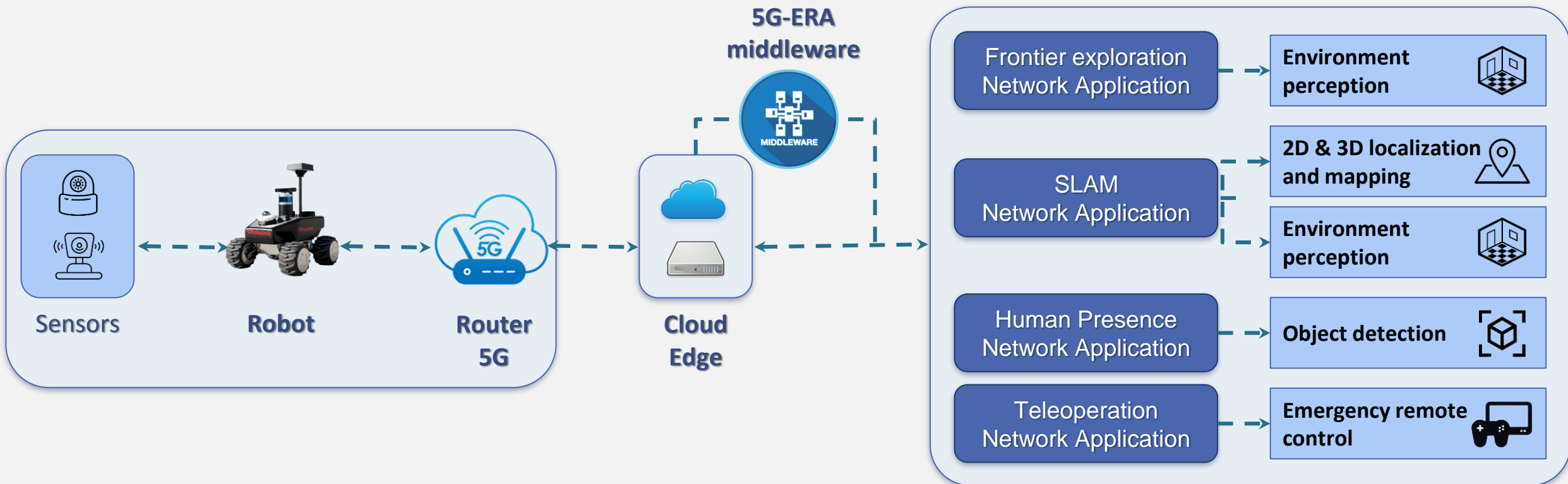
- Increases computational capacities
- Enhances the autonomy of the robot
- Provides the robot with new features and capabilities
- Increasing network communications robustness using Cloud and Edge capabilities



Surveillance use case

Use case description

- Recognition and mapping of the unstructured environment in a disaster area and, *in particular cases*, also people detection



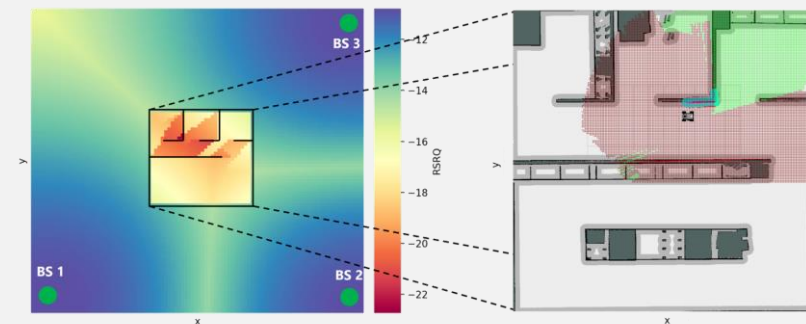
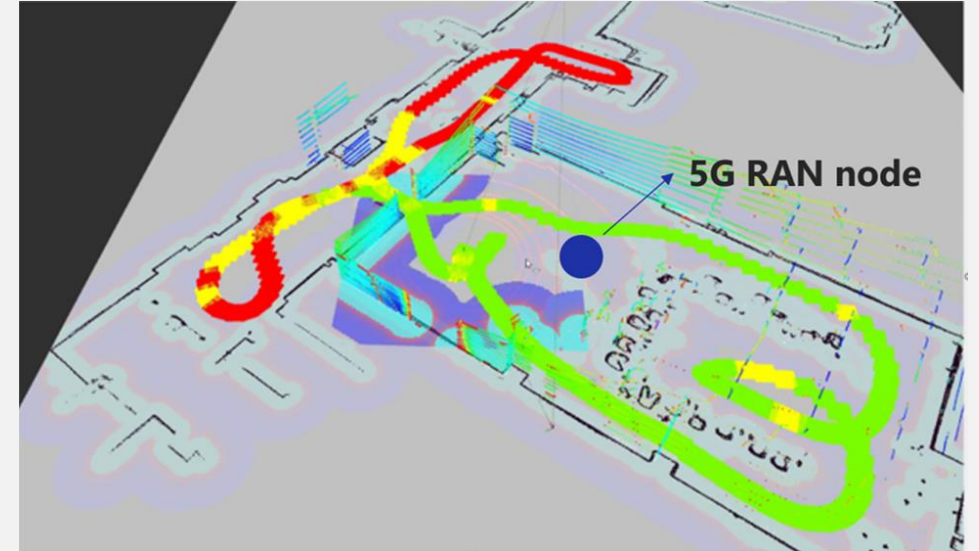
Use case



Signal Quality Application

Signal Quality Application allows to create a map with the 5G signal quality and use it in the robot navigation.

- Using this map, the robots navigates avoiding low 5G signal areas, allowing uninterrupted offloading of other robotic network applications



Results



TOWARDS SMARTER 5G-CONNECTED MOBILE ROBOTS: DYNAMIC OFFLOADING AND RADIO-AWARE SEMANTIC MAPS

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ATHENS - 2023



Thank you for listening.
Any questions?

