

SEANAPSYS

SUBSEA IOUT PLATFORM

FUNCTIONAL DESCRIPTION

Seanapsys is a technological platform, developed by Saipem and WSense, capable to unlock the realization of a real underwater Internet of Things, paving the way to advanced applications like distributed monitoring, wireless smart assets and "subsea Wi-Fi".

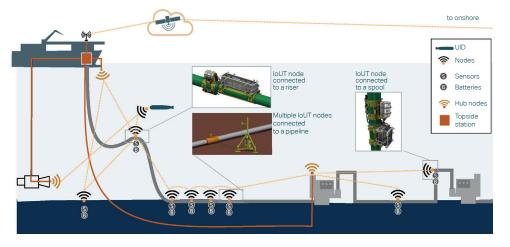
Seanapsys platform is consisting of highly configurable nodes capable to gather and locally process data (edge computing), communicate through water making use of fit for the purpose wireless modems.

The nodes can operate as stand-alone or combined in matrixes allowing the realization of large subsea networks where stationary and mobile nodes (as Saipem Hydrone underwater drones as well as other vendor AUVs/ASVs/ROVs) can seamlessly interact.

Seanapsys can integrate any commercial modems adding on the top of them advanced capabilities as interoperability, networking, data security and compression.

Two versions available to address any specific operating scenarios:

- Seanapsys Full: a powerful and flexible node, capable of interfacing a large set of modems and sensors and provided with a computational capability sufficient to run complex data transmission and management algorithms.
- Seanapsys Lite: a lighter unit designed to provide communications, acquisition, and processing capabilities where installation constraints and/or power consumptions are key design drivers.





KEY FEATURES AND BENEFITS

Subsea WiFi: interface different underwater systems and support underwater robotics communication infrastructure

Wireless smart asset: provide any conventional underwater equipment with wireless communication interface and logic capabilities

Distributed monitoring: enable large scale data acquisition through the nodes network

Edge computing: data processing capability to extract high value information and identify possible criticalities that can be notified through short warning messages

Advanced capabilities: modem interoperability, networking, data security and compression

Water depth: up to 3,000 m

Power supply: wired, battery and hybrid options available

Autonomy: low power consumption design, node autonomy is depending on configuration selected

Comms interface: open to any commercial modem (modem agnostics)

Comms range: depending on configuration selected Comms protocols: Seanapsys platform supports subsea standards for wireless communication as promoted by the SWiG group

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