# VIGILUS

## [Cableless Underwater Surveillance Array]

PROVEN, TRUSTED AUTONOMY

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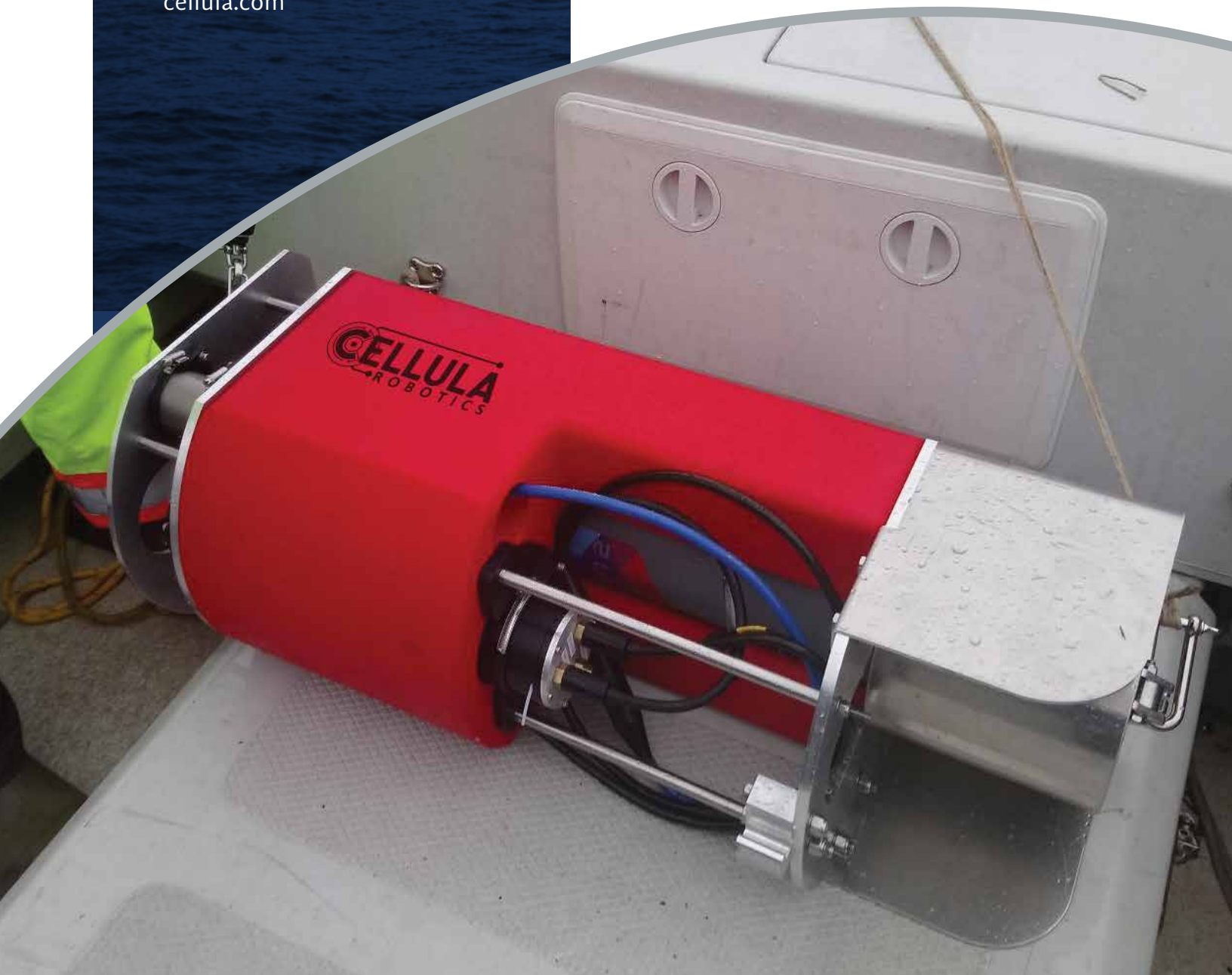
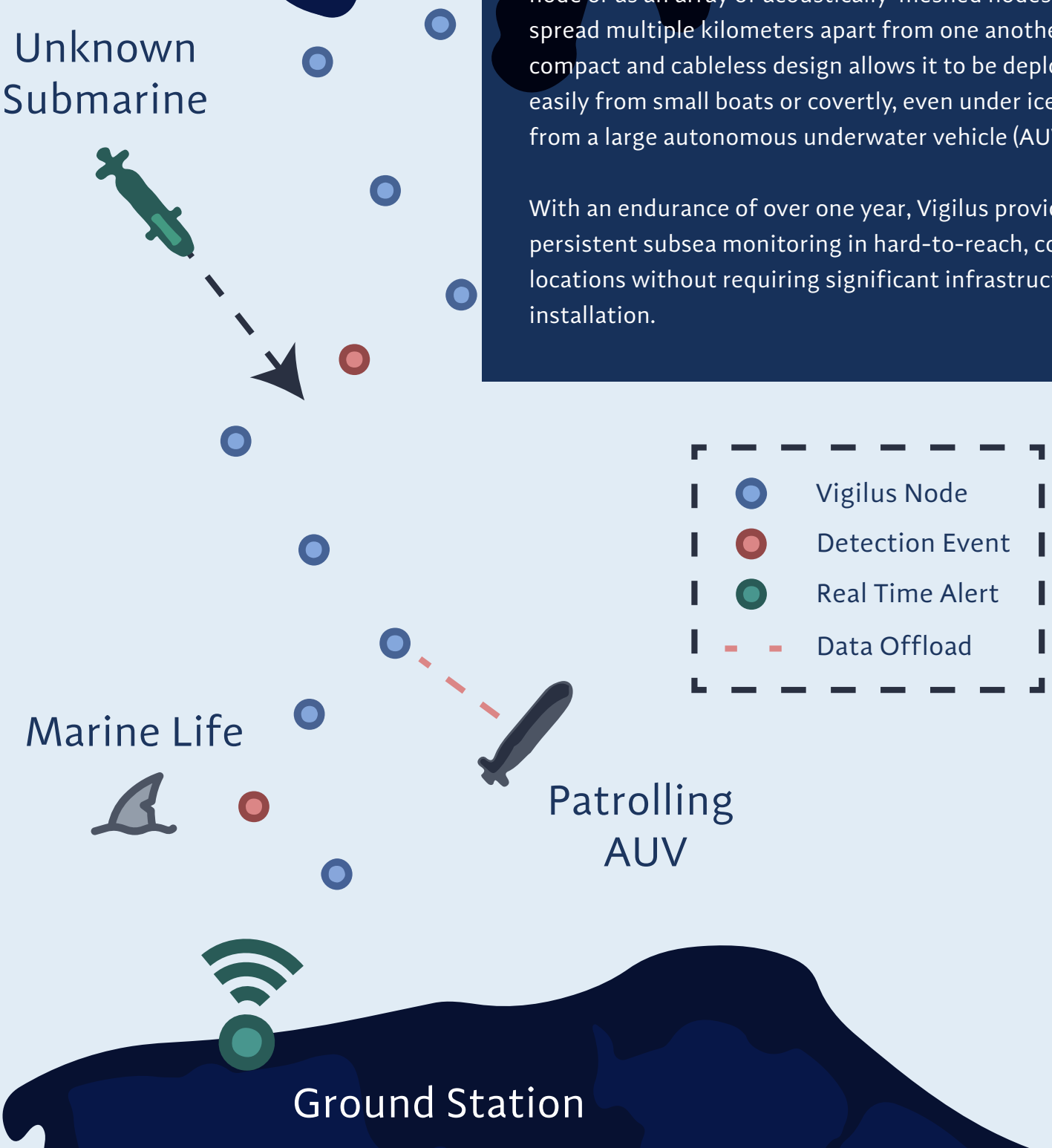


## A CANADIAN CAPACITY TO DYNAMICALLY SHAPE AND MONITOR UNDERWATER OPERATIONS

Originally conceived as a solution for marine life monitoring, Vigilus is a subsea acoustic surveillance array that collects, interprets, and acts on acoustic and environmental data. Vigilus can be deployed as a single node or as an array of acoustically-meshed nodes spread multiple kilometers apart from one another. Its compact and cableless design allows it to be deployed easily from small boats or covertly, even under ice, from a large autonomous underwater vehicle (AUV).

With an endurance of over one year, Vigilus provides persistent subsea monitoring in hard-to-reach, covert locations without requiring significant infrastructure installation.




## ARRAY OVERVIEW

Vigilus nodes deployed on the seafloor are spaced multiple kilometers apart. The sensors connect acoustically to establish a “fence” or “array” for observation in a location, and work together intelligently to provide persistent surveillance underwater.

Each Vigilus node autonomously collects and processes acoustic and environmental sensor data in its area; the data collected can be pattern matched onboard to a library of targets. Vigilus can be programmed to automatically make decisions, based on the classification and confidence of the match, to pass on events, messages, and locations in near real-time between itself and other in-area assets, such as AUVs or topside communication equipment.

## EASY, COVERT DEPLOYMENT

Vigilus can survey maritime choke points, including hard-to-reach areas like under ice or challenging topographical environments, for over a year without maintenance.

## BATTLESPACE SHAPING

Vigilus can periodically send acoustic pings when dropped at key chokepoints, serving as a deterrent for unwanted vehicles entering the area.

## REAL-TIME MONITORING

High bandwidth data can be transferred via a blue light modem when AUVs or other assets are nearby. When connected to central command via a shoreside gateway with satellite communication capabilities, events are passed over in near real-time, allowing for timely decision making without having to recover the node.

## Specifications

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| 500 m water depth |
| Encrypted data storage & transfer |
| 50 m range 10 Mbit/s blue light modem |
| Acoustic trigger release for node recovery |
| CTD for environmental sensing |
| Optional LBL beacon |
| Year long deployments |
| Acoustically-meshed network |
| >3 km acoustic communications range |

# About Us

Cellula Robotics Ltd. is a proudly Canadian, privately owned, world-leading marine technology company focused on revolutionizing underwater security through advanced Autonomous Underwater Vehicle (AUV) systems.

Headquartered in Burnaby, British Columbia with additional offices on the East Coast of Canada and the United States, Cellula employs over 80 dedicated professionals, including highly skilled engineers, designers, and technicians.

Cellula Robotics Ltd. is driven by a mission to redefine the paradigm of underwater security. By harnessing the potential of cutting-edge AUVs, we aim to change the way the world approaches subsea security. Driven by innovation and industry knowledge, we are committed to crafting sustainable solutions for the defense, mineral exploration, and energy sectors. Our hydrogen fuel cell-powered long range AUVs address evolving demands, propelling us towards a greener future.

Our unyielding commitment to quality is evident through our ISO 9001:2015 Quality Management System that not only underscores our dedication to excellence but also reflects our ability to consistently surpass the expectations of our clients.

# Contact Us

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