



**Intelligent
Awareness**

Intelligent Awareness

Enhancing safety through intelligent data fusion



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**Intelligent
Awareness**

Part of the Remote & Autonomous portfolio



**Ship
Intelligence**



**Intelligent Asset
Management**



**Remote & Autonomous
Operations**



**Energy
Management**



**Health
Management**



**Data
Management**
Coming soon



**Fleet
Management**
Coming soon



**Intelligent
Awareness**



**Remote
Operations Centre**
Coming soon



**Autonomous
Navigation System**
Coming soon



**Vessel
Connection**
Coming soon





**Intelligent
Awareness**

Creating a safer environment



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**Intelligent
Awareness**

What is Intelligent Awareness

An advisory system that enhances the situational awareness of vessel surrounding, critical to decision making, through intelligent sensor data fusion.

This enables safer operation in challenging and complex environments and improves efficiency

VESSEL
SOG: 0.1 KT
COG: 001
DST: 0.5 NM

VESSEL
SOG: 0.1 KT
COG: 001
DST: 0.5 NM



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Intelligent
Awareness



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**Intelligent
Awareness**

Highlighting hazards in real time

Providing short and medium range **object detection**

Providing **better visibility** in fog, dark and poor weather

Assisting crew with **safer operations** and **shared awareness**

Enhancing **reliability, reducing risk** of human error

IA system **data is stored and available** to owner at any time



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Intelligent
Awareness

Cutting-edge camera and sensor technology

INS

LIDAR and
Camera system

PTZ

Radar and AIS

8 Nm

4 Nm

1 Nm



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Intelligent
Awareness

How does it work?

Sensors

R-R Lidar



R-R antenna



R-R Camera Unit



R-R PTZ



R-R Radar



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Intelligent
Awareness

How does it work?

Intelligent Data Fusion

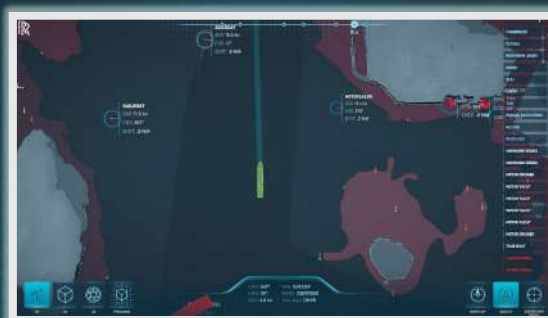


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How does it work?

IA User Interfaces



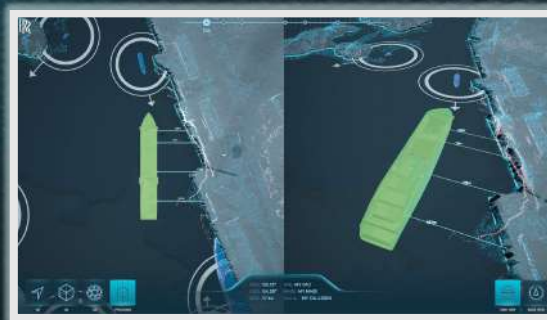
Virtual Reality 2D



Virtual Reality 3D



Augmented Reality



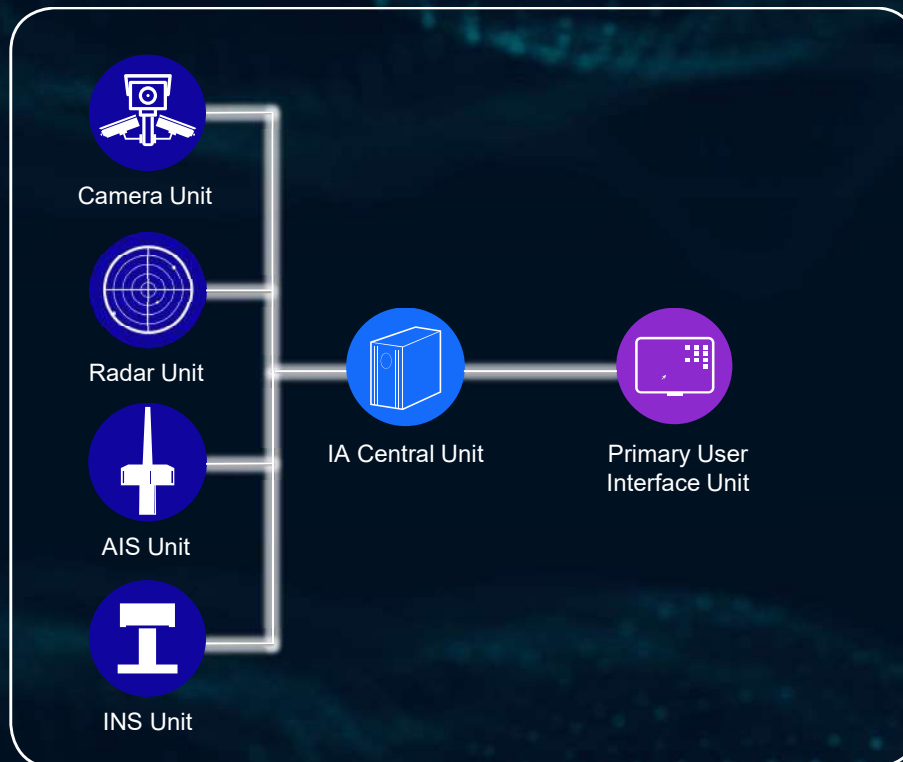
Precision





Choosing the best IA system for you

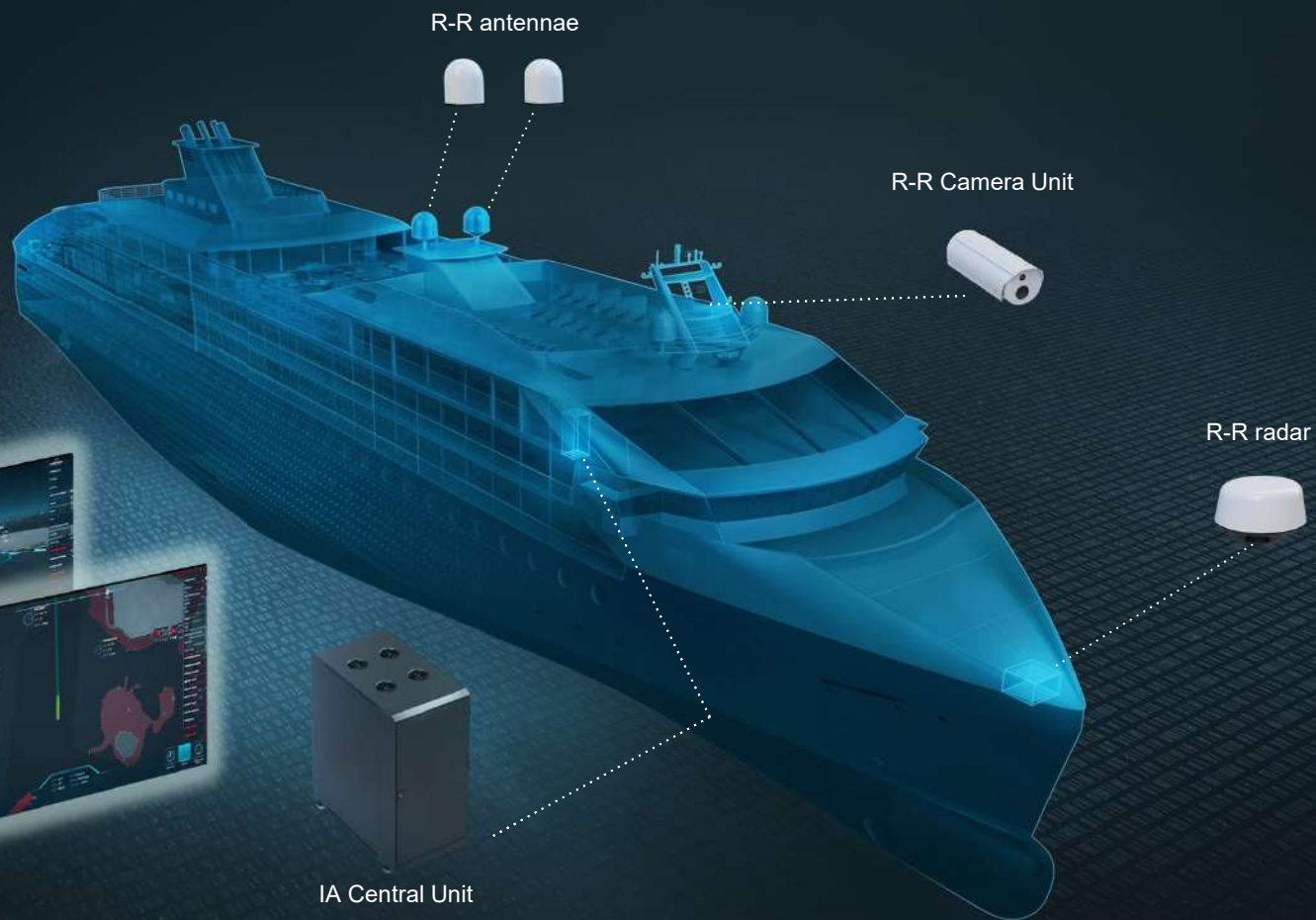
IA Standard





Intelligent
Awareness

IA Standard





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Choosing the best IA system for you

IA Standard

- Lidar Unit (optional)
- PTZ Module (optional)

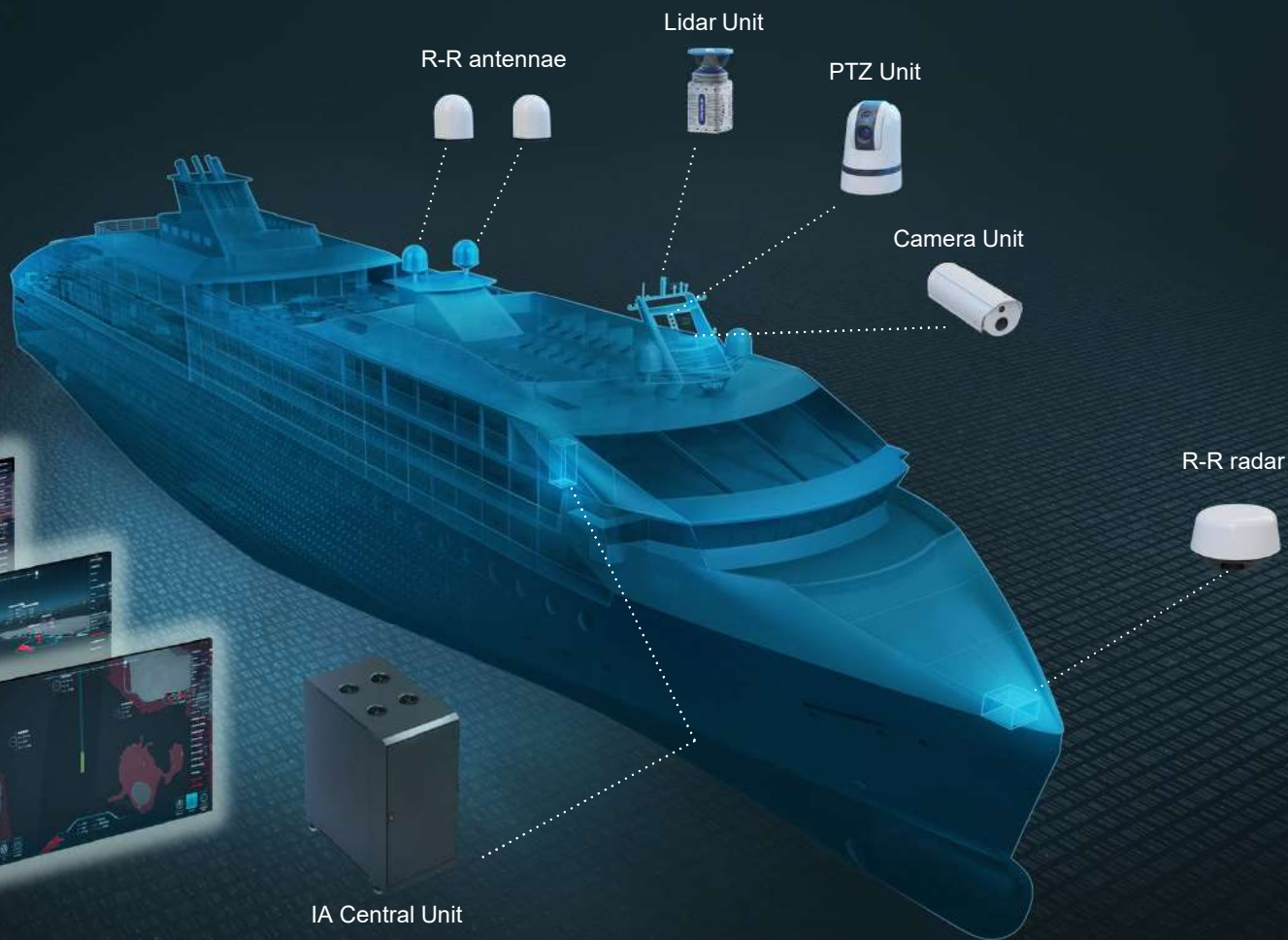


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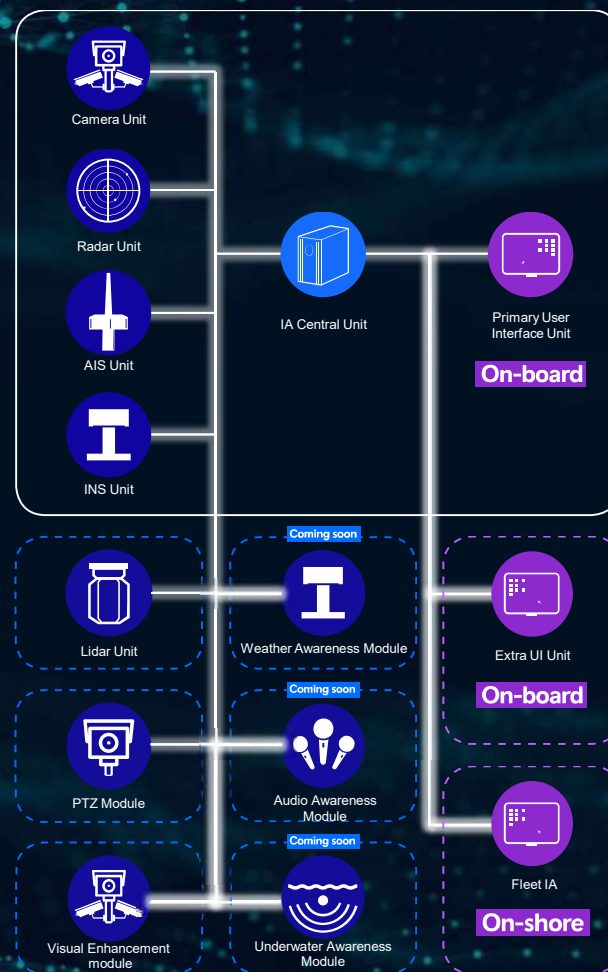
IA Lidar and PTZ





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Choosing the best IA system for you



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Intelligent Awareness

Building block for autonomous ships

Advisory
Human in control



Intelligent Awareness

Connected Control Systems
Human in control



Intelligent Awareness



Autonomous Navigation System

Remote Control & Autonomous Decision Making
Human monitoring



Intelligent Awareness



Autonomous Navigation System



Remote Operations Centre





Intelligent
Awareness

Please contact si.sales@rolls-royce.com for further information on our Intelligent Awareness system or other Ship Intelligence solutions.