With a history spanning over 20 years, OSI delivers advanced navigation and command and control systems to address the growing need for enhanced real-time situational awareness for military and security applications. OSI solutions include ECPINS Warship, ECPINS Submarine®, ECPINS DMOP, Warship-AIS, T-ACT (Tactical - Asset Control and Tracking), and INTS (Integrated Navigation & Tactical System).

INTS builds on OSI’s ECPINS, integrating selected radars and navigation sensors to provide a comprehensive and cost effective system that is suitable for new builds or existing platform retrofits. Functional systems include:

**NavTac DDU**
The NavTac DDU, a headless device, provides the interface between the ship’s sensors, other data sources and the INTS. Data collected by the NavTac DDU is, checked, validated, recorded, and distributed to clients via UDP multicast. Additional outputs can be configured using any of RS232, RS422, TCP/IP, UDP multicast.

**CMS/Weapon System Interface**
OSI has successfully integrated or interfaced to a number of Combat Management Systems. Able to distribute the data from the Chart Engine, exchange contact and target information, share routes, waypoints and employ full MIL-STD 2525B symbology ECPINS works alongside your CMS helping enhance or share the picture.

**SHOL**
Flying operations are safety critical. Add a multi-ship ASW situation to the mix, night conditions, and a less than friendly sea state make for a complicated situation for your OOW/OOD. ECPINS SHOL simplifies the picture, enabling the watchkeeper to focus on the multitude of tasks in hand, knowing that the operation flying information is up to date, accurate and timely.

**3D Chart**
The ECPINS chart engine is the most powerful maritime data display available, capable of displaying over 22 different official data types, and rendering ENCs in 3D – without the need for proprietary chart types. Satellite imagery, high resolution mapping products, can all be displayed seamlessly and simultaneously. Through the use of user defined filters, land and maritime operations can be conducted simultaneously using the same display.

**Conning Display**
Easy to read, logically presented, ECPINS Conning Display provides a snapshot of engine and rudder status, environmental conditions, route information, alarm status and a depth profile. Surface or subsurface versions available, designed for military use, the conning display also facilitates high speed navigation through a simplified user interface.

**Radar & Radar Image Overlay**
INTS offers full integration with X and S band radar. Less cabling, and fewer LRUs and radar cards, radar can be controlled at all MFCs or dedicated to one or two displays. INTS allows the user to decide upon configuration. Radar Image Overlay is distributed via the LAN using OSI’s proprietary RIBNet Server.

**T-ACT**
T-ACT enables communications between platforms using a secure data link. Routes, contacts of interest, SMS style messages and Maritime Information Objects can all be exchanged simply and quickly. When used in conjunction with the RHIB variant, T-ACT provides full Blue Force Tracking and RHIB C3. Operational capabilities and seaboat safety are improved in the conduct of Maritime Interdiction Operations, and EEZ enforcement.

**WECDIS + W-AIS**
ECPINS Submarine is NATO STANAG 4564 type approved software designed for the military user, enabling warship operation in the most difficult conditions. Full WECDIS functionality and resilient to DGPS/GPS denial or failure through battle damage, ECPINS provides a layered approach to redundancy. W-AIS functionality allows for a detailed Recognised Maritime Picture to be compiled and managed, giving smaller units without an Operations Room the ability to have a rich picture and enhanced Situational Awareness.
INTS is a fully scalable, integrated bridge system that enhances operational capability across a wide variety of platforms and features:

**Compliance**
- Marine industrial components that meet the IMO standards and IMO Approved ECDIS
- IMO Level AIS enhanced for Military use
- Exceeds NATO WECDIS STANAG 4564
- VECTOR (S57/S63) and RASTER Chart Formats (Multi-fuel)

**User Friendly**
- Centralized Bridge Management
- Integrated Platform Management
- Incorporates all BR45 Navigation standards
- “High-speed” navigation design specifications
- Multi-Screen Configurations Day and Night
- Licensing for Fleet wide use

**Enhanced Functionality**
- Command Situational Awareness
- Mission Planning, Solution Sharing via “Secure” AIS link
- Tactical Picture Compilation
- Distribution and Data Base Interrogation
- OPV’s and Fast Craft littoral and open water navigation
- Blue Force “Secure Tracking and Messaging”
- Radar Image Overlay (RIO)
- AML and GIS (18 types) capability
- RHIBS and other craft “C2” expansion

**Sensor & Weapon Interface**
- DGPS, GPS, INS, RIO, ARPA Radar, Gyro/Compass, AIS, Echo Sounder, Speed Log, Auto Pilot
- CMS, SSM, SMCS, EOS

ECPINS® – Electronic Chart Precise Integrated Navigation System ECPINS Warship and ECPINS Submarine are International Maritime Organization (IMO) approved Electronic Chart Display and Information Systems (ECDIS) that surpasses the NATO WECDIS STANAG 4564 standard.
INTS is a fully scalable, IMO compliant IBS - offering design flexibility to meet the requirements of the most demanding military environments from frigates to large offshore vessels.

Contact OSI for systems engineering and customized Integrated Navigation & Tactical System (INTS) solutions and IPMS integration.