

Weathering PNT Data Challenges at Sea



Why This Case Study Is Relevant

It demonstrates the importance of resilient timing platforms for safe navigation and naval battlespace mission planning.

Background

A naval customer needed to ensure resilience against threats to critical oceanic data for safe navigation and situational awareness in the naval battlespace. Military operations at sea pose extreme challenges as environmental factors impact Positioning, Navigation and Timing (PNT) reliant systems. Oceanographic, hydrographic, bathymetric, geophysical and acoustic data all must be gathered from a host of sensors and systems, processed and synchronized to be used for peacetime and battlefield operations.

Solution

Orolia installed SecureSync® with SAASM, our secure time and frequency platform for rack-mounted shipboard server rooms. SecureSync ensures that sensor data is synchronized with the network for accurate real time information used for navigation and mission planning.

Specifically, the customer needed to synchronize timing for oceanic current modeling and weather patterns. Synchronizing sensors with network equipment enables systems such as surveying and real-time mapping equipment for safe navigation. Orolia replaced a legacy system that was unable to provide the data and decision support information required.

Results

Network synchronized oceanographic data is critical for fleet safety and to maximize sea power. The customer placed an initial order and was so pleased that they continued to outfit all ships that have these requirements with SecureSync SAASM systems.