

Off-Shore Solutions

Shore-based AIS Solutions

Need:

Off-shore platforms, cables, pipelines, and wind farms all have one thing in common – the need for surveillance and monitoring of area traffic to ensure safe, continuous operation. An operations center should be able to see and identify the vessels in the area of their structures and track the position of service vessels and aircraft operating between shore and platform.

Similarly, the service aircraft need to be able to see, identify, and message exchange with vessels in the area. SAR operations must be as safe and efficient as possible. Are all of these requirements being met today with one technology?

Solution:

The answer to the above is “yes,” and with the CNS Systems Off-Shore Solution it’s efficiently done.

By utilizing AIS technology and data, situational awareness for off-shore structures is greatly enhanced. Vessel traffic can be monitored and tracked, and vessels identified, from shore-based operations centers and the platform itself. The dedicated VHF data link provides reliable communication between AIS equipped shore, platform, vessels and aircraft. With aircraft’s extended VHF range, the overall situational view is even more enhanced.

A combination of AIS hardware, display and data management software components create the solution. Placement of a Base station on-shore and platform, AIS Class A Transponders on vessels, and Airborne AIS Transponders on aircraft provide the hardware necessary to receive and transmit AIS data amongst your network of assets.

CNS Systems’ Horizon product, vessel management software, installed on-shore and on platform gives the ability to view and track vessels, display specific vessel information and send/receive safety related and free text messages. Situations where a service craft, either vessel or aircraft, is deployed to a platform only to be turned back due to weather, will likely no longer occur. Thus, great savings in time and cost will be realized.

Safer and more efficient SAR operations will also be seen. This solution provides operations centers the ability to see all assets deployed, and assets are able to see each other. Therefore, more assets can be actively engaged in the SAR operation for a quicker rescue.



CNS Systems™



Off-Shore Solution

Components:

VDL 6000/FASS Base stations located in the operations center and on the platforms are the primary hardware components to receive and transmit AIS messages.

- Meets requirements of international AIS standards
- Low power consumption and alternative power sources
- Filtering of AIS targets by Message type
- Filtering of AIS targets in a defined area

Horizon, a shore-based and platform based vessel management software that provides a complete AIS interface designed for vessel tracking and monitoring.

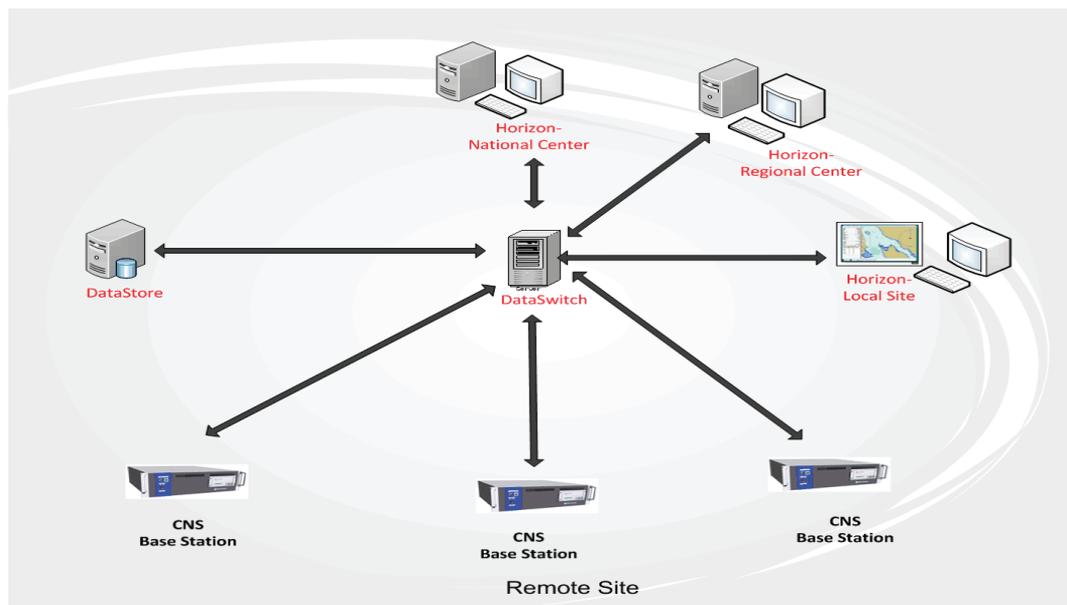
- View and track all vessels
- Display specific vessel information
- Send and receive safety related and text messages
- Fully user configurable display
- Set entry and exit alarms
- Configure guard zones for area that are dangerous, restricted, or need to be monitored
- Configure Target groups

DataSwitch is implemented for AIS data routing and management. DataSwitch enables the flow of information from one or more AIS base stations to the Operations Center for display within Horizon. It connects nodes (hardware sensors, users, and/or networks) and chooses the optimal way to send each information packet based on its current understanding of each node.

- Allows multiple sources of standard and proprietary data to be collected, filtered, sorted, and redistributed
- Advanced connection protocols can be added
- Convert incoming data to a particular data format
- Filtering – based on connections, NMEA message types, and more

DataStore provides a back-end database and front-end user application for logging, playback and filtering of NMEA and NMEA-formatted data.

- Stores and timestamps all NMEA data
- Time based filtering for playback
- User defined playback capabilities
- Synchronization with other base station databases and DataStore instances with redundancy
- Filters for AIS message type, geographical area, data source, MMSI and target vessel
- Filters for function/message type and international message support



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