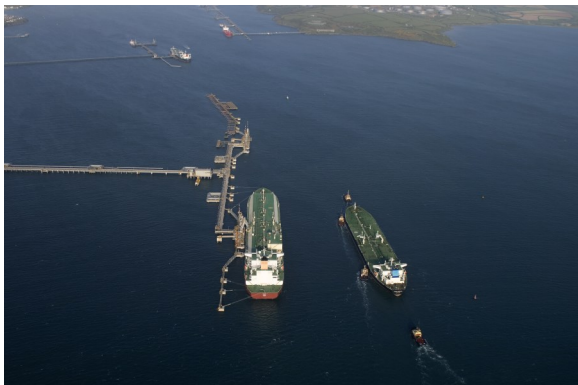


Integrated Maritime Surveillance

Port Management, Port Security and Vessel Traffic Systems



Introduction

Denbridge Marine is a global provider of innovative Maritime Surveillance and Port Management Solutions with over 20 years' experience in the field and a worldwide customer base including various major ports, navies, customs, offshore and coastal authorities.

The modular, open architecture iVIsion maritime surveillance and iMAP port management systems are based on an innovative True Radar processing and tracking technology, combined with field proven user-friendly situational awareness displays and information databases to aid decision making for complete Maritime Domain Awareness.

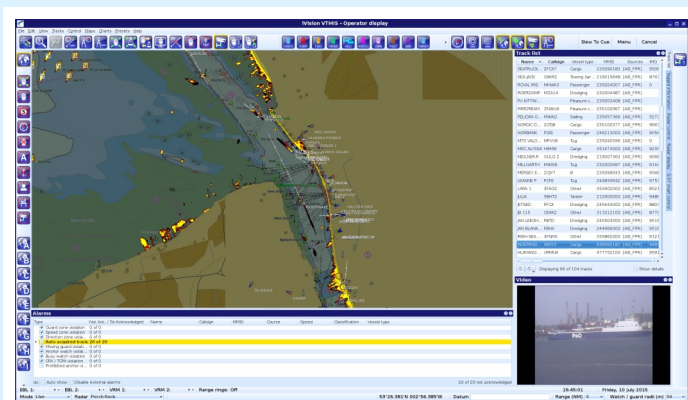
Our iVIsion VTMISS, Coastal Surveillance and integrated iMAP Database solutions are designed to manage the complexities of the wider port community and coastal authorities and to improve the safety, efficiency and security of government and commercial port and coastal authority operations.

We offer Basic, Standard or Advanced IMO and IALA capability to meet the specific requirements of small, medium and large sized ports, including full VTMISS operator training courses using the iVIsion VTMISS Simulator.

Total customer satisfaction throughout the entire life cycle of the system is our number one priority and we offer cost effective and efficient technical support services to our customers on a worldwide basis, via a network of local service agents.

Our iVIsion solution has field proven pedigree in high end sensor fusion user environments where high quality radar video transmission and tracking is paramount.

Intuitive iVIsion Operator Display



References

Our solutions have been successfully deployed in over 100 installations in 22 countries worldwide:

- UK Nuclear Naval Base at Clyde/Faslane QHM
- UK Nuclear Naval Base at Plymouth QHM
- UK MoD Air and Maritime Range Surveillance
- Milford Haven Oil and LNG Port, UK for VTMISS
- Aberdeen Port, UK for Port Management
- Gloucester Harbour, UK for Portable Pilotage
- Spanish Coastguard SASEMAR for VTMISS and SAR
- Alexandria Port, Egypt for VTMISS
- Middle Eastern Coastal Surveillance Systems
- Altamira Port Authority, Mexico for VTMISS
- ExxonMobil, Malaysia Offshore Platform Protection

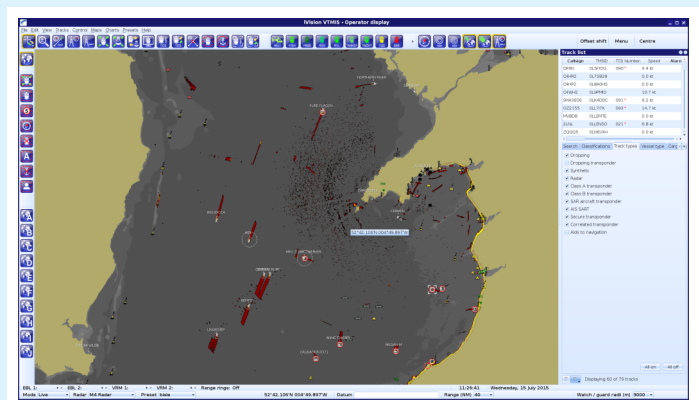
iVIsion Solution

The fully integrated iVIsion maritime surveillance solution has a Service Oriented Architecture (SOA) which provides high scalability, efficiency, connectivity and interoperability performance. The use of SOA and standard communication protocols such as TCP/IP and XML enables the system to share its information to all authorised organisations.

The iVIsion solution is intuitive, intelligent and provides standard COTS equipment using existing, proven "in service" software and hardware.

Our network centric COTS systems can be easily customised to connect to any third party sensors and applications. Scalable systems from single coastal radar sites to complex integrated national coastal surveillance and port management networks.

Secured authentication and authorisation ensure system security and integrity. Dynamic service connections lead to faster system setup times and lower maintenance.



Surveillance Solutions

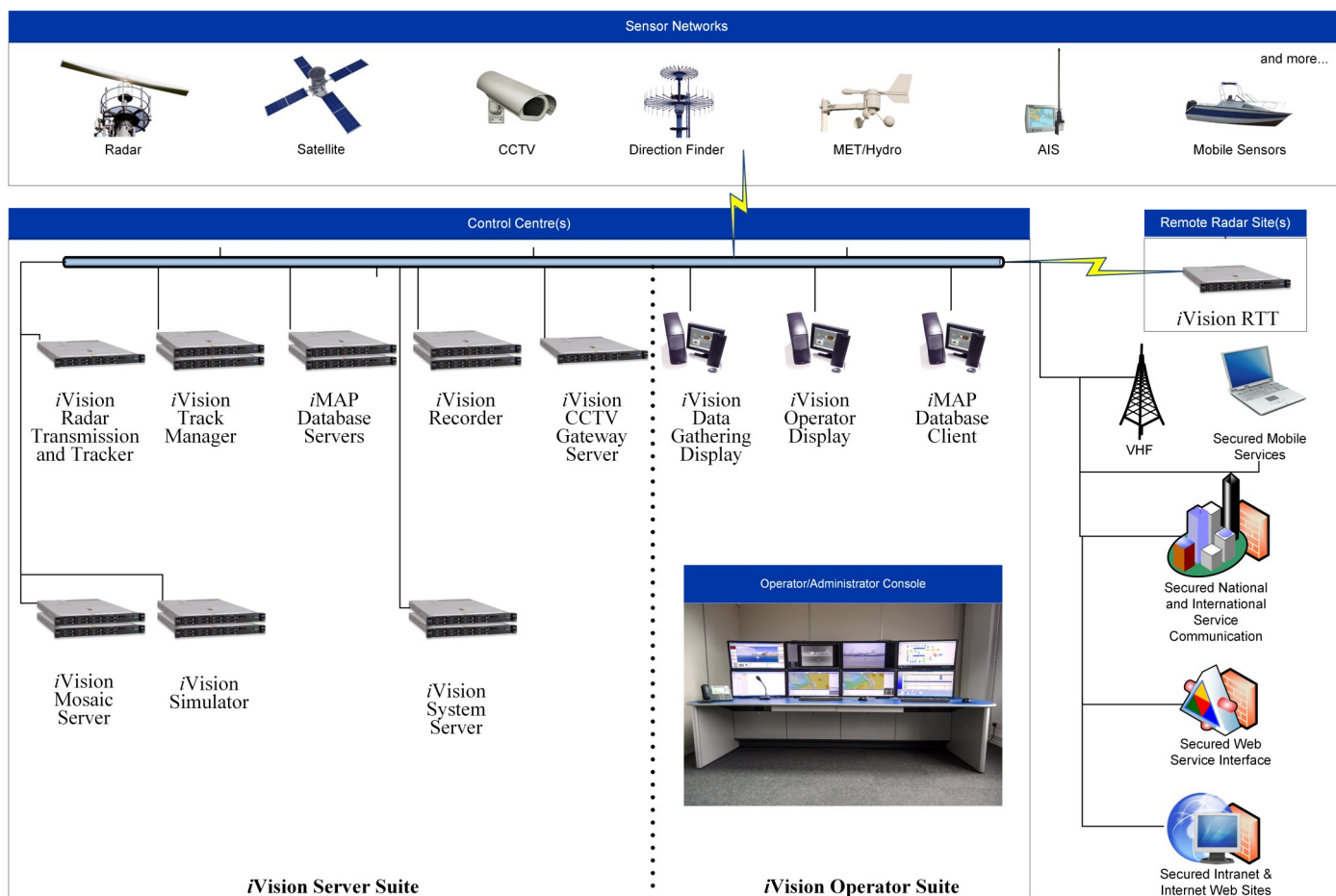
Multiple Technologies Provide Integrated Solutions for:

Vessel Traffic Systems
Coastal Surveillance
Search and Rescue
Windfarm Monitoring

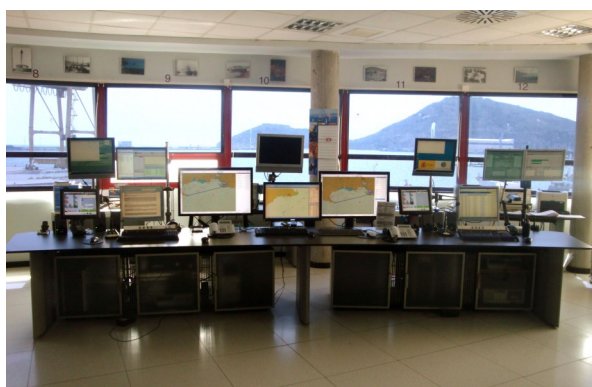
Port Operations Management
Homeland Security
Range Control
Fisheries and EEZ Protection

Port and Harbour Security
Critical Infrastructure Protection
Offshore Platform protection
Smuggling and Illegal Immigration Interdiction

Typical Integrated Maritime Surveillance Architecture



Typical Control Centre Configurations



iMAP Solution

iMAP is an integrated information management system especially designed for Port and Coastal operations.

All Applications are built around the centrally managed Database System that supports the automated collection, analysis and dissemination of static and real-time Vessel Traffic information.

An on-line centralised database with web-enabled real-time planning, scheduling and monitoring tools and electronic bulletin boards.

The system is designed to manage the complexities of the wider port community and to improve the safety, efficiency and security of government and commercial port operations.

The system supports secured third party data exchange using industrial standard Electronic Data Interchange (EDI) or Internet Web Services. Managing port activities more efficiently and economically.

iMAP is built with the cross platform standard SOA Services and is highly expandable and scalable

Denbridge Marine Limited

Yanco House, Monks Ferry,
Birkenhead, Merseyside, UK
CH41 5LH

Tel: +44(0)151-649-4080
www.denbridgemarine.com
info@denbridgemarine.com

BS EN ISO 9001:2008 BS EN ISO 14001:2004

Key iMAP Applications

- Vessel Management Database Client
- Agent Booking System
- Vessel Traffic Analysis Tool
- Reporting System
- Database System Manager
- Invoicing System
- Secured Web API
- MCA CERS Windows Service
- MCA CERS Message Management
- MCA CERS Hazmat and Error Handling Web Services
- Lloyds Data Web Service
- VTS Database Agent and Web Service
- Slot Booking System
- PEC Online Application
- Pilot Fatigue System
- Public Web Site

Port Management

As a traffic organization service the VTMIS centre plans, programs and monitors shipping movements, allocates pilots, liaises with agents, terminals, tugs, fishermen, Customs, Navy, Coastguard etc.

A VTMIS can improve the efficiency of vessel traffic in two ways, i.e. through: Reducing accidents; and Eliminating conflicts such a multiple berth bookings, draft violations, channel conflicts and confirming resources to service the vessel as early as possible, ensures that planned operations run effectively and efficiently with reduced delays and increased utilization of infrastructure.

Intuitive iMAP Database Client and Interactive Traffic Analysis

