

OPSCenter™ VTS



An extensible component-based platform for a wide range of Vessel Traffic Management Solutions

The ideal VTS solutions for VTS authorities to keep control of:

- Ports and harbors
- Waterways
- Locks
- Pilotage

Benefits

- Modular open architecture
- Grows with demand
- Low maintenance
- Low total cost of ownership
- Advanced radar and data processing
- Full life cycle support and logistics concept
- Commercial-off-the-shelf (COTS) components

Vessel Traffic Services (VTS) ensure the safety of maritime operations, improve the efficiency of navigation, and protect the marine environment. VTS is especially important for those areas where traffic congestion increases the risk of incidents or where the environmental consequences of an incident could be severe. Due to the potential risk of human casualties and long lasting environmental effects caused by maritime disasters, public pressure on government and local authorities has increased. Subsequently, the demand for VTS systems throughout the coastal traffic highways of the world is also growing. VTS systems are no longer reserved only for major ports, waterways, and maritime authorities but are increasingly significant for a wide array of smaller though equally important maritime service providers.

Barco's OPSCENTER™ VTS is designed to be an affordable, versatile VTS system fulfilling standard to advanced requirements for Vessel Traffic Services. It provides state-of-the-art technology and components delivering high-performance and highly reliable Vessel Traffic Management services across a wide range of VTS needs.

BARCO

Visibly yours

A cost-effective solution for maximum traffic awareness

Why VTS?

Vessel Traffic Services improve port and waterway efficiency and reduce the risk of marine accidents by providing timely, accurate, and relevant information to mariners and allied services. VTS systems are also being recognized as a significant contributor to enhanced port and waterway security. A properly staffed, managed and equipped VTS system is a valuable and versatile tool that can be integrated with other services and functions including pilotage, aids to navigation, search and rescue, law enforcement, as well as customs and immigration.

By installing a VTS system, ports not only contribute to safety but also offer added value to the port's customers by improving the quality of service. For example logistics partners within the port's free zone can take advantage of the disseminated traffic data to better coordinate the services within the free zone. This insures smoother shipment completion and clearance.

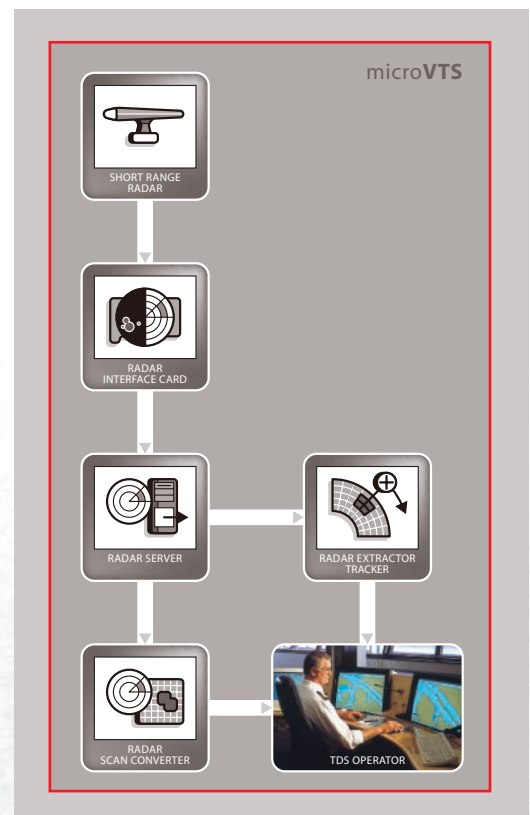
For smaller but growing ports we have configured two system packages comprising a basic VTS system plus additional features. These packages are open, allowing a wide range of add-ons to upgrade the system by size and functionality.

MICROVTS

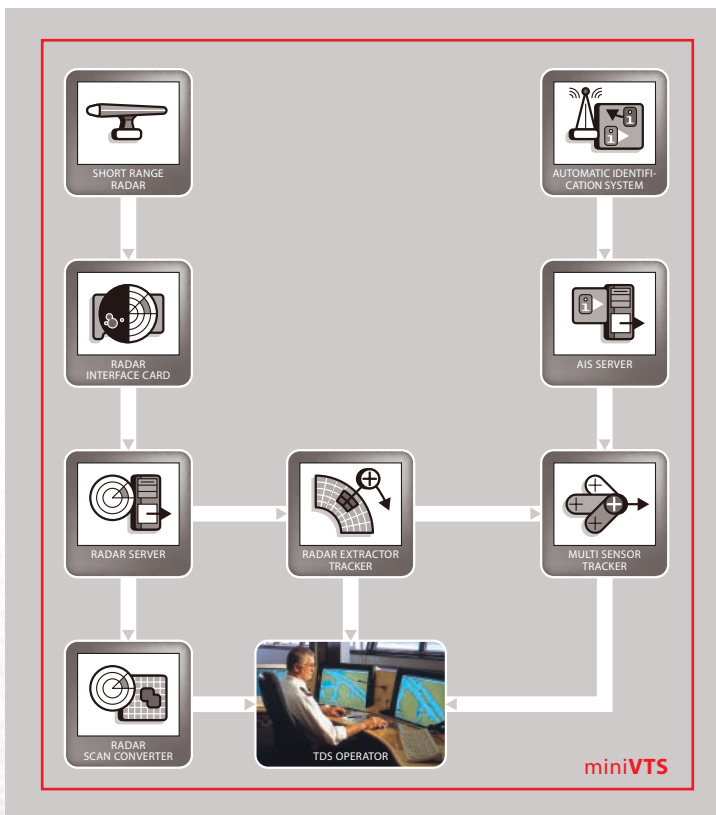
The starter package VTS system includes:

- 1 Short range radar unit
Radar sensor (different types and brands available)
- 1 Radar Video Network
Consists of PCI RADARINTERFACE-CARD, RADARSERVER, and RADAREXTRACTOR-TRACKER
- 1 Traffic management working position
Radar video and traffic display, including ECDIS map

The microVTS starter package comprises a suitable short range radar unit (various brands available depending on the site conditions), a complete radar video network for radar acquisition, radar processing (digitalization, plot extraction, plot tracking) and distribution from one radar source. The radar video network is the heart of the VTS system. It ensures the accuracy of the radar data which is crucial for any surveillance system. The solution is completely software based which provides high reliability and system configurability. The starter package also provides a traffic management working position which includes one display for radar video and traffic presentation.



miniVTS with Multi Sensor Tracker and AIS Network



miniVTS

The extended starter VTS system includes:

- 1 Short range radar unit
Radar sensor (different types and brands available)
- 1 RADAR VIDEO NETWORK
Consists of PCI RADARINTERFACE-CARD, RADARSERVER, and RADAREXTRACTOR-TRACKER for radar acquisition and distribution
- 1 AISNETWORK
(including AIS transponder and AISSERVER)
- 1 MULTI SENSOR TRACKER
to fuse Radar and AIS sensor data
- 1 Traffic management working position
Radar video and traffic display, including ECDIS map

The miniVTS starter package has the same functionality and is set-up like the microVTS system but includes the AISNETWORK and an integrated MULTI SENSOR TRACKER.

The AISNETWORK consists of an AIS transponder and the AISSERVER, which provides the functionality of a logical shore station. It is responsible for acquisition, processing and distribution of AIS information. This is a very important option for VTS authorities who want to be prepared for the future. The fusing of AIS and radar sensor data improves situation awareness for the VTS controller. The AISNETWORK complies with IALA recommendations (A-123/124, ITU 1371-1).

The MULTI SENSOR TRACKER receives and fuses radar sensor data and AIS data. The fused data is displayed on the traffic management working position as correlated logical tracks.



The system which grows with demand

Upgrade options for both MICROVTS and MINIVTS

MICROVTS and MINIVTS are a standard and an advanced package comprising all required components needed for small VTS systems. However, if your requirements exceed what is included in either package we offer a wide range of add-ons to customize / upgrade the system by size and functionality:

Data acquisition

- Multiple long-range/short-range radar systems*
- AIS base station units*
- Closed Circuit Television (CCTV) surveillance units
- Automated Weather Observation System (AWOS)
- Radio Direction Finder units

Data analysis

- Conflict detection (e.g. track-track conflicts: Closest Point of Approach (CPA), area conflicts: protected areas, traffic separation).

Data management

- Recording & replay
- VTMIS web-based ship database for management and dissemination of the traffic information

Communication

- VHF-FM voice radio unit
- Telecommunication network

Data display

- Multiple radar display working positions
- Traffic simulator for training of operators under training
- Large display walls

* one unit is already included in MICROVTS resp. MINIVTS



OPSCENTER™ is a product suite of Barco, comprising standardized components for operational systems. MICROVTS and MINIVTS are built of OPSCENTER™ components.

Ref. OPS VTS Sep '04
Technical specifications are subject to change without prior notice.
© 2004 Barco Orthogon AG

Expertise of Barco

Barco is a worldwide leader in visualization solutions for 24/7 mission-critical applications, offering a wide range of image processing solutions that help customers to improve their productivity and effectiveness. Within the traffic management and surveillance markets, Barco is always one step ahead in the search for future developments.

Barco's product range bundles cutting edge hardware with software expertise and integration experience. As the competence center for sensor data processing and visualization software within the company, Barco Orthogon provides a suite of tailored solutions for the areas of Air Traffic Control, Vessel Traffic Services, Coastal Surveillance, and Defense & Security systems.



Example of a private remote communication center connected with the VTS/VTMIS Infrastructure and equipped with Barco's large display walls.

Barco Orthogon AG

Hastedter Osterdeich 222 - D-28207 Bremen, Germany
Phone: +49 421 20 12 20 - Fax: +49 421 20 12 29 99
info.orthogon@barco.com

BarcoView

Th. Sevenslaan 106 - B-8500 Kortrijk, Belgium
Phone: +32 56 233 413 - Fax: +32 56 233 462

BARCO

Visibly yours