



## Vessel Traffic System (VTS) Fees & BOOT Concept

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# Agenda

- Kongsberg Norcontrol IT / VTS Concept
- VTS Fees / examples /requirements

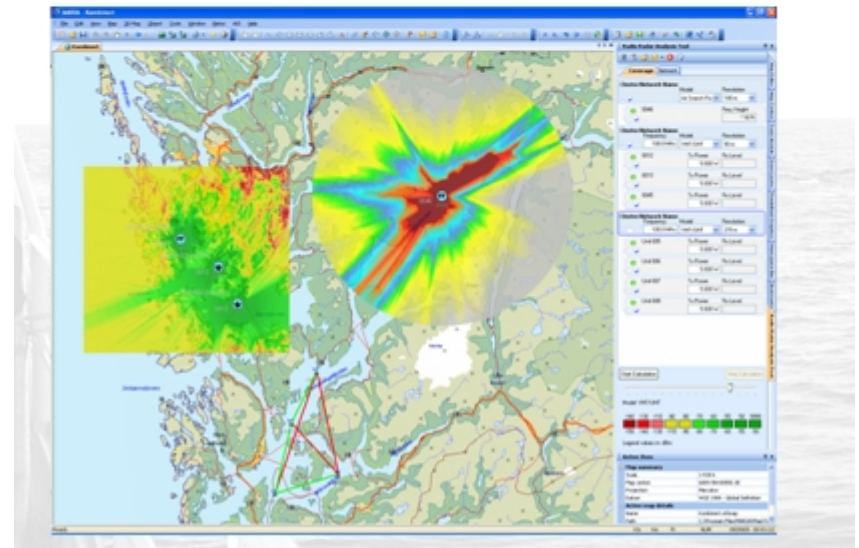
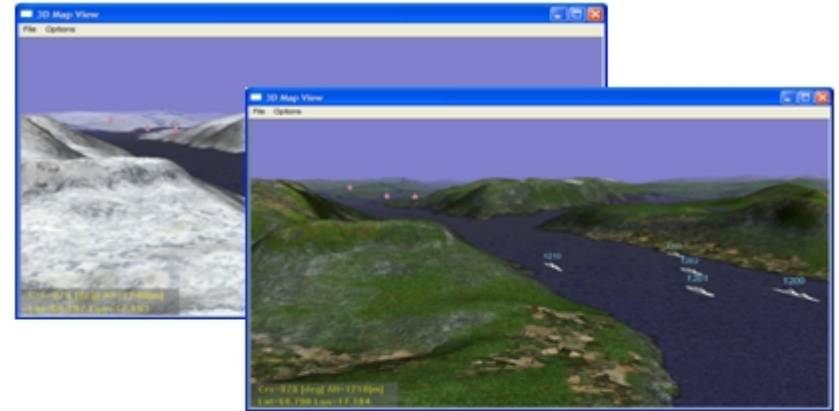
# Kongsberg Norcontrol IT



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World renowned and market leader in development and implementation of Vessel traffic Systems (VTS), Coastal Surveillance Systems and AIS Networks:

- Over 30 years of experience
- Subsidiaries and presence in all continents
- Installed over 220 systems worldwide
- Systems installed in over 30 countries
- Over 100 of installed systems contain at least 3 sensors and/or radars

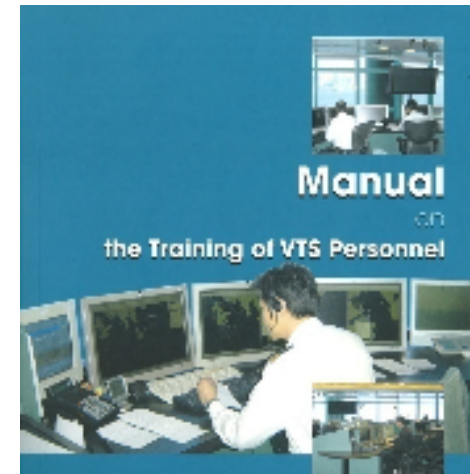
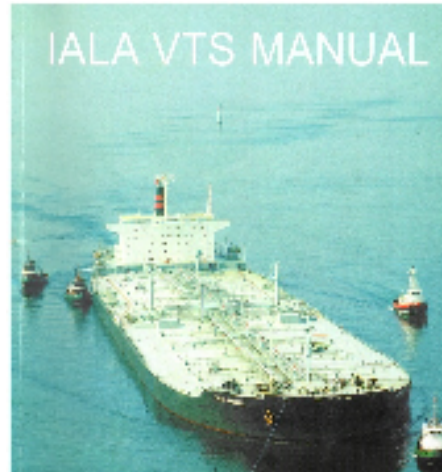


## 'User Led' initiative..

“**Shore based needs** are currently being developed with the assistance of IALA and are anticipated to fall into the categories of:

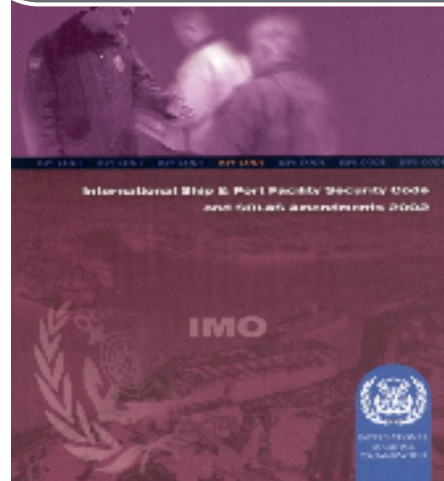
- **better data collection** for marine domain awareness;
- **more effective information management;**
- **better provision of information to vessels;**
- **greater quality assurance;**
- **more effective sharing of information** between authorised shore users to reduce the burden on seafarers and improve logistic management; and
- **To support Search and Rescue (SAR) operations** by improving access to relevant information and ensuring effective communication.”

Ref: IALA FAQ ver 1.5 dated Sept 2010



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# e-Navigation



# Maritime Domain Awareness



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- **Situation Awareness**

- Real time monitoring of maritime domain with multiple sensors
- Recognised Surface Picture/Common Operating Picture for all users
- Multi Sensor fusion

- **Prevention**

- Accurate, timely and user friendly data flow enabling high risk situations to be identified
- Port Security and act upon illegal activities

- **Port Efficiency**

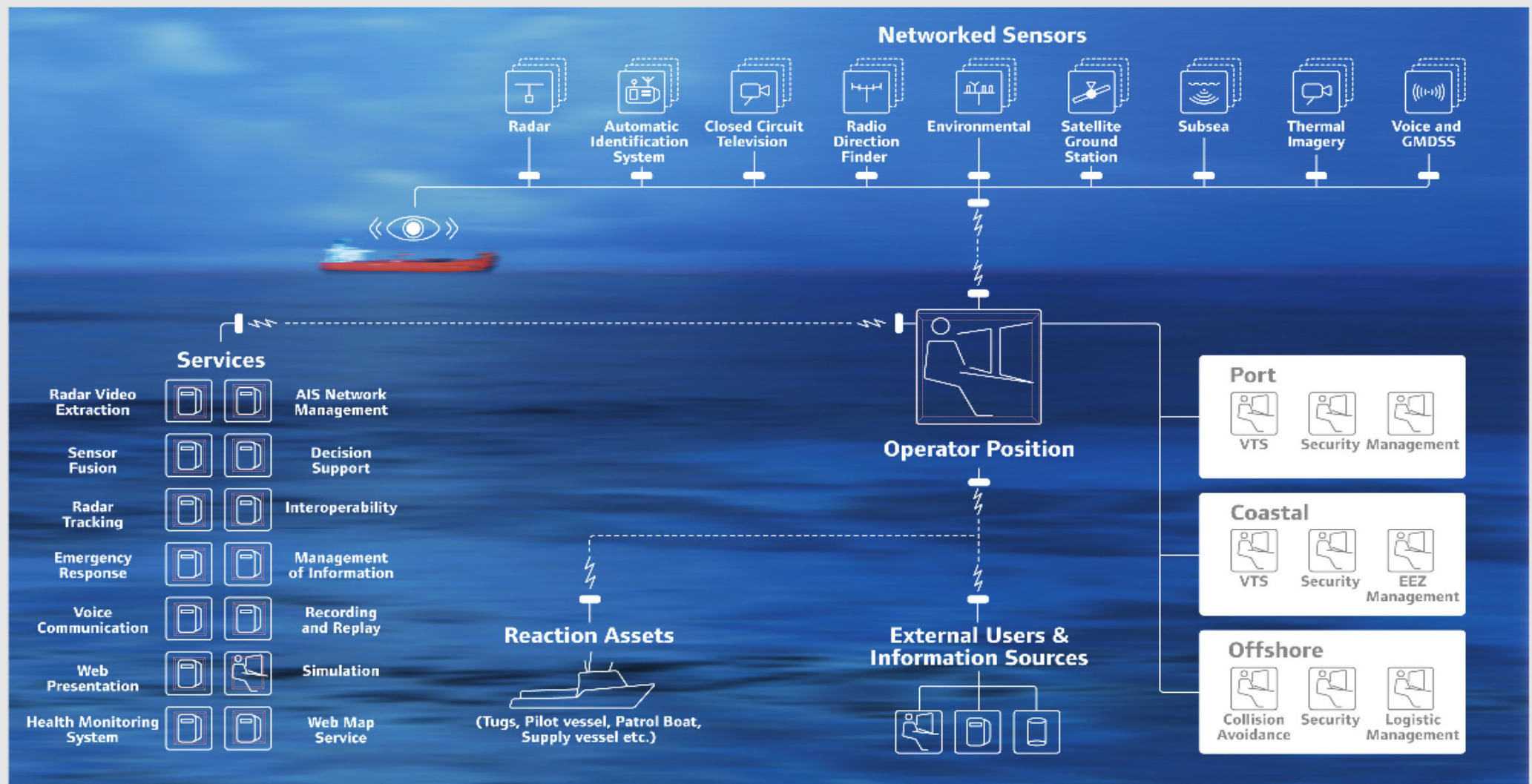
- Berth and Port programming
- Anchorage allocation and integration into administrative procedures (invoicing, resources, etc.)



# C-Scope – System architecture



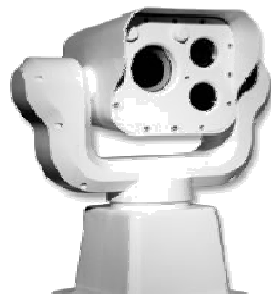
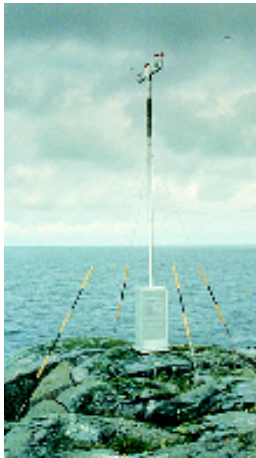
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# External sensors



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# Requirements for establishing a VTS Fee



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## Preliminary Requirements:

- Legislature in place (national, regional or port Legislature)
- Similar concept to current AtoN's fees charged by Ports today
- Compromise by Port Authority / Maritime Authority to implement system
- 24/7 operation with reaction assets ready to be deployed
- Construction permits and clearance

## Operating Requirements:

- Formal establishment of "VTS Fee"
- VTS Fee of USD x.x per DWT or USD x.x per mt of LOA, or flat fee
- VTS Fee to be within reasonable boundaries to prevent lack of port competitiveness or large impact
- Be part of "no due certificate" prior to departure
- VTS Fee increase mechanism over the years (legislature)
- Insure maintenance, mid-life upgrades and major upgrades



# Advantages of establishing a VTS Fee



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## Economical and Operational:

- Decrease cost for investment in VTS system and maintenance as well as manning
- Better vessel programming, berth allocation, designation of pilots and other resources
- Possibility of info-linking into port administrative system, and effective mean to charge port expenses (use of berth, for example)
- Improve Port efficiency by means of accurate statistics
- Possibility to reduce Port insurance policy (less incidents of possible collision, boarding, stowaways, etc)
- Improve Port Security overall



# BOOT – BUILD, OWN, OPERATE, TRANSFER



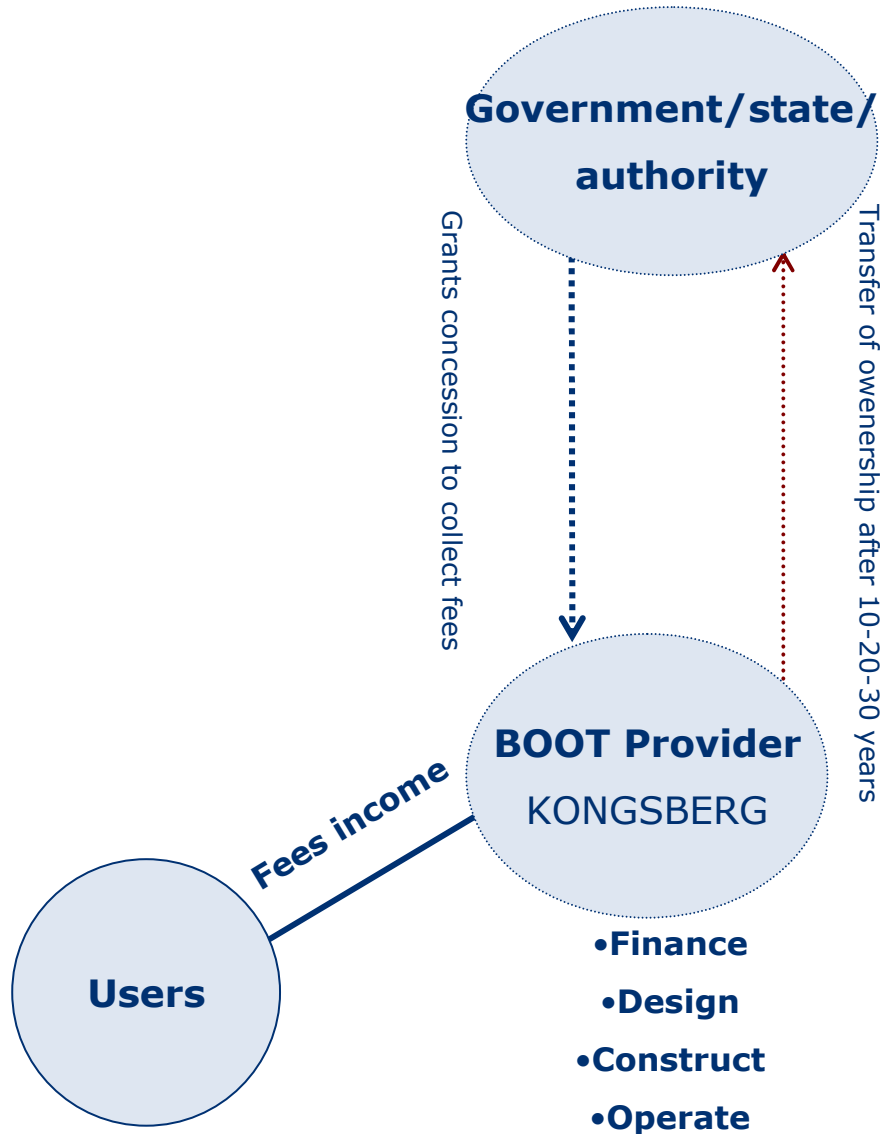
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- A single organization or consortium (BOOT Provider) designing, funding, owning and operating the scheme for a defined period of time – and then transferring this ownership across to an agreed party
- The customer enter into long term supply contract with the BOOT provider
- BOOT schemes are becoming popular for means of financing infrastructure developments in e.g. India, Australia, etc.
- A BOOT model is 100 % debt funding / no investment requirement from client (example port authority / maritime authority)
- The key requirement of a BOOT provider is long term contract with the customer
- BOOT terms vary between projects (for example 10-20-30 years)

# Basic BOOT Contract Diagram



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New control center Golf of Khambat VTS



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# Thanks for your attention

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