

THALES COMMUNICATIONS

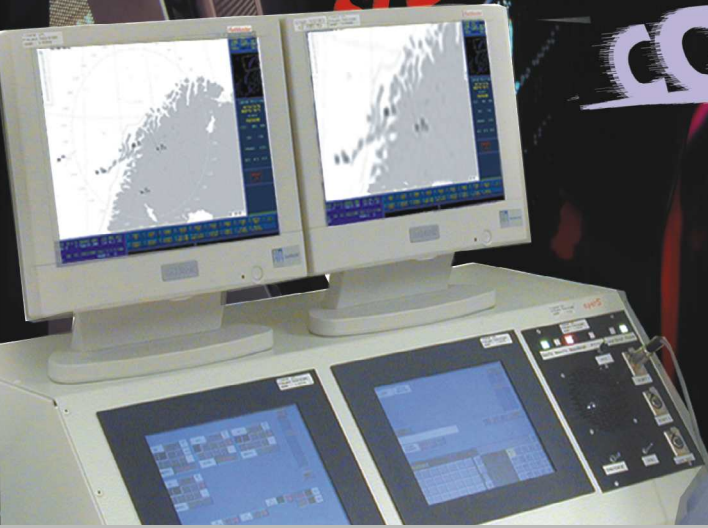
THALES

WLAN IPSEC

SNMP

IPKING

COTS



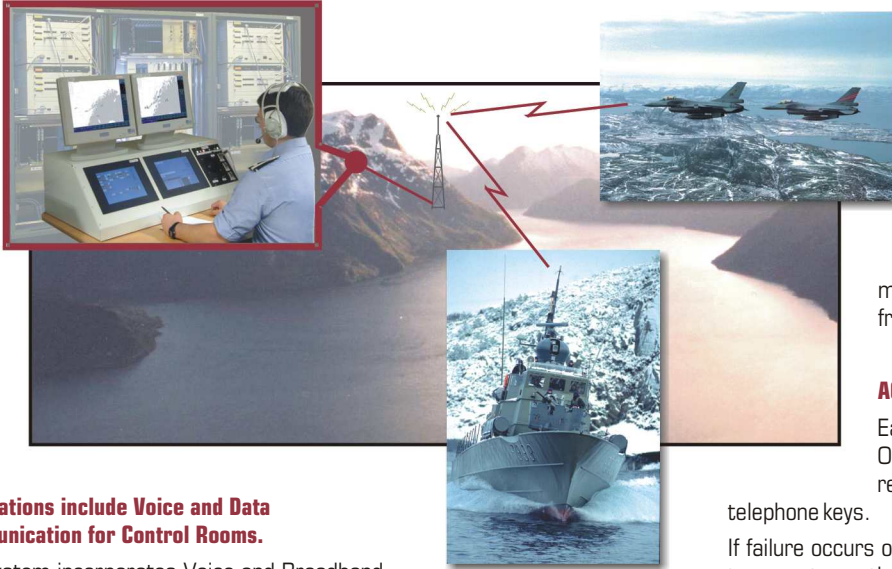
**ACEcom**

- the Military VCS

# ACEcom

## The Military VCS

THALES Communications AS, the principal supplier and developer of secure military communication and information systems for the Norwegian Defence, is delivering ACEcom. This system represents a new standard for Voice and Data Communication Systems (VCS), designed to NATO ACCS specifications.



### Applications include Voice and Data Communication for Control Rooms.

The system incorporates Voice and Broadband Data into the same network, based on COTS products, both for hardware and software. Connects local or remote radios via direct lines or switched network for increased survivability.

### A system targeted for:

- Air Control and Surveillance
- Naval Control and Surveillance
- Harbour and Coastline Control and Surveillance
- Other paramilitary Control and Surveillance

The system is created with the most modern and effective COTS building blocks (products) on the market today, as e.g. IP/ATM switching, ISDN switching/IP-gateways, SNMP management, Windows GUIs, APIs etc.

### The system is designed to handle all types of narrow- and broadband traffic including:

- Data (e.g. all types of commercial LANs, ISDN, X- and V-series and Data for information display systems)
- Voice (analogue, ISDN etc.)
- Video (e.g. radar)

### The system can include commercial information services such as:

- Web
- Databases
- Workflow

### The main other features of ACEcom are:

HMI based on Touch Screens, one or two panels, gives adaptive display control according to the logged in role with resources predefined by the management.

ACEcom handles both secure and non secure traffic to and from the same operator position. The system offers complete Radio, Telephony and Intercom functionality. Both secure and non secure networking between sites, enabling intercommunication between operators and use of radios allocated to other sites. An added feature is that telephone subscribers can be given access to radios with PTT capability from the telephone.

Separate operational and technical management and complete management for radios including encryption and frequency hopping.

### ACEcom Flexibility

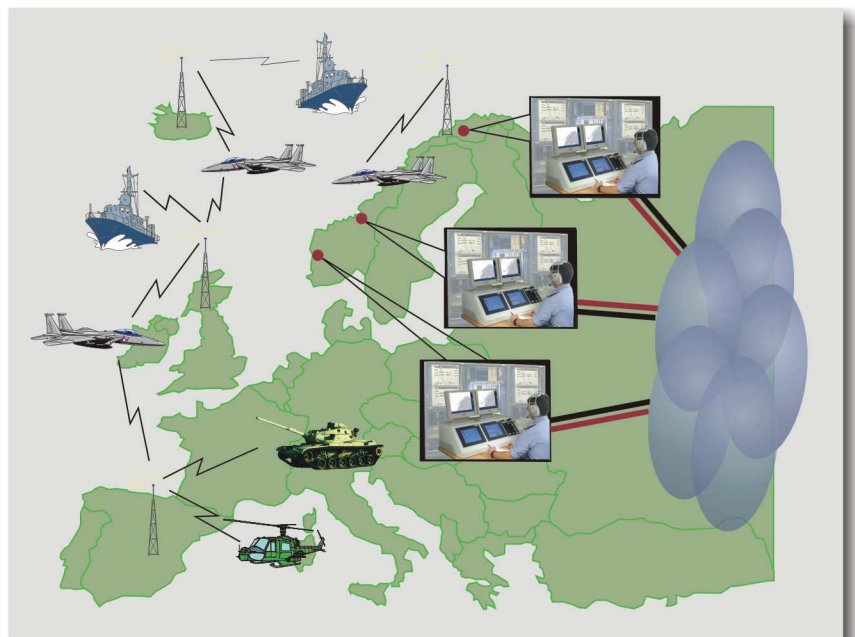
Each operator logs in with his defined role at any Operator Position and receives the allocated resources like radio, interphone and direct

telephone keys.

If failure occurs on an Operator Position, the operator is free to move to another position and log in again and receive the same resources in order to continue working.

The use of the switched network for radio connections means that one site can disconnect the radio and another site can use it instead.

Use of the switched network also means that alternative routes can automatically be found in case of transmission failure.



The ACEcom has a modern broadband architecture meaning that the functionality is implemented in the terminals and adapters connected via a COTS broadband network (ATM/IP)





# ACEcom Management

Operational and Technical Management can be co-located or separated with the Operational Management in the operation room for resource allocation and Technical Management in the technical room.

## Operator Resource management giving flexibility

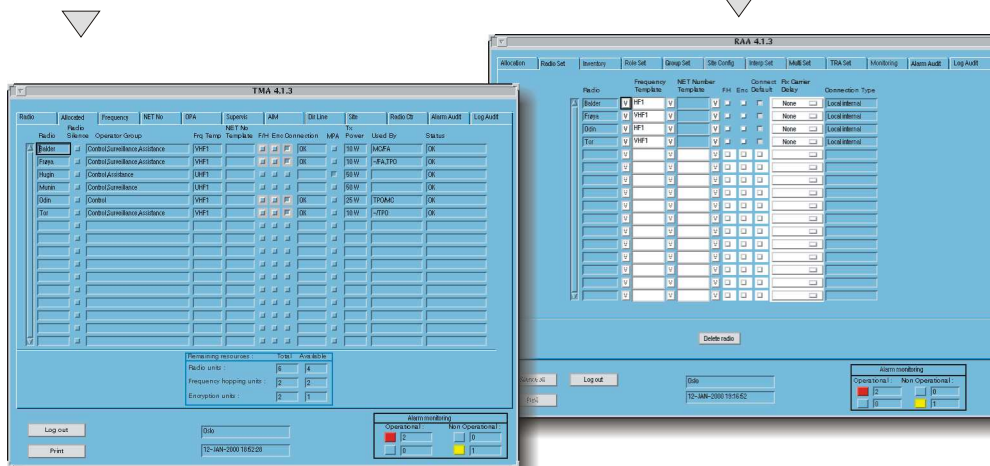
The operator resource management is based on a flexible role definition with multiple role scenarios to handle different operational scenarios. The resource management tasks are to assign different resources (radio, interphone and telephone) with comprehensive, yet effective, HMI based on commercial workstations and X-windows. Operator Resource management gives you the flexibility to adapt the operational procedures to the given situation.

## Modern COTS Technical Management

The technical management main tasks are:

- supervision
- configuration
- performance
- security

The tasks are performed with comprehensive, yet effective, HMI based on commercial workstations and X-windows.



Examples of management foils

## Why ACEcom?

**Security has been a vital issue in the design of the ACEcom system. The system gives the opportunity for Multi-level security communications from the same Operator Position for military purposes. The system is capable of operating in a system high mode or a single level mode.**

### Integration of voice and data

The ACEcom uses future safe technology like IP, ATM, ISDN, SNMP and Windows in order to provide a viable solution for a long term Control Room Communications platform, taken into account the possibility to closely integrate e.g. voice, video, radar display, and message handling systems (data systems, CPDLC...).

### Reuse of existing COTS equipment and easy upgrades

The ACEcom utilises standard commercial off-the-shelf system components, enabling customer re-use of invested equipment and granting easy upgrading of equipment for increased system power as technology improves and matures.

### No system limitations

The ACEcom has no practical limits related to the number of operators, computers or radios in the total system.

### Further, ACEcom strong points are:

- Handling of voice, video and data in a true/real multi media environment
- Modular system upgradable to very high capacity and very high connectivity
- Totally redundant and distributed design for extreme survivability
- CTI, computer telephone integration
- CRI, computer radio integration
- CII, computer Intercom integration
- IP based data, signalling and management data traffic
- Fiber optical technology for easy installation and security
- Spare parts common with commercial IP/ATM/ISDN switches.
- World wide delivery and support with local expertise
- Variety of type-approved national network(data and voice) interfaces

**THALES**

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