

MULTISERVICE  
COMMUNICATION  
NETWORK

VOICE

DATA

VIDEO



# SPEEDER

Naval Internal Communication System

SPEEDER, the latest generation of networks in the proven THOMNET family of naval LANs, introduces ATM and IP technologies to provide the flexibility and performance required to face the new challenges of naval communications.

**A single, multiservice backbone for all internal communications and direct access to all external communication assets.**

# SPEEDER

## a generic offering...

### Modular and scalable

Generic SPEEDER nodes are the basic components of a SPEEDER network.

On the user side, the node provides modular access for all types of narrow-band or wide-band services.

On the network side, the generic node performs narrow-band and wide-band switching and provides interfaces with other nodes (ATM switching/transport – 3-port OC3 at 155 Mbits/s – extension to ATM ports at 622 Mbits/s; IP 1 GBytes).

(see "SPEEDER NODE")

### Overall bandwidth of hundreds of Mbits/s

Nodes are associated in a combined looped and meshed architecture to offer overall bandwidth of hundreds of Mbits/s for non-blocking transport of critical narrow-band services with simultaneous high data rate for wide-band services.



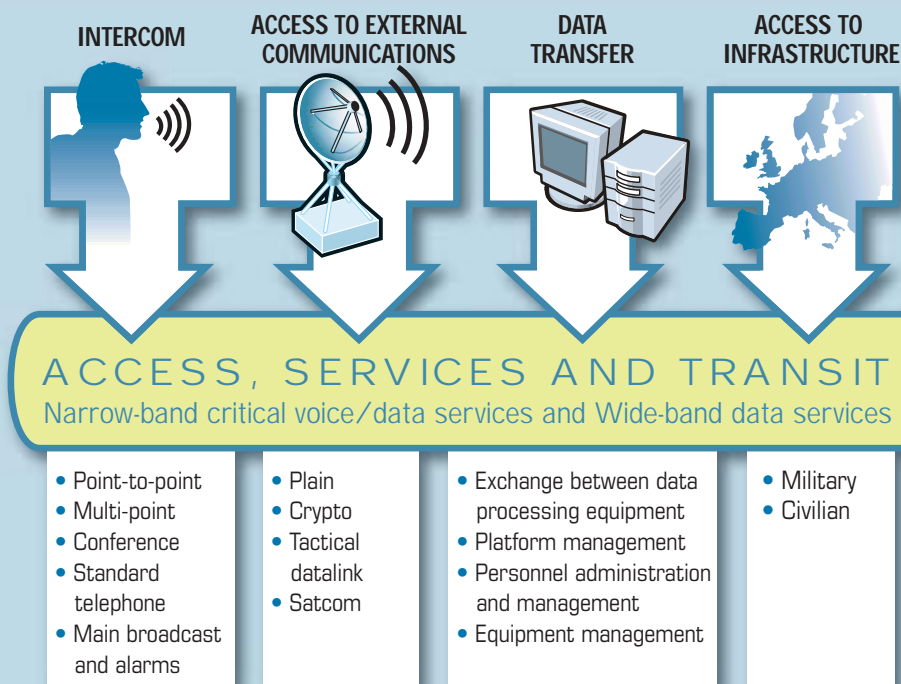
### Extensive range of narrow-band and wide-band user accesses

An extensive range of narrow-band user accesses are available through standard interfaces (RS232/422, ISDN SO/S2, X.25 and PABX) as well as specific audio/data interfaces for modems, crypto devices, plain and crypto radio, etc.

Wide-band user accesses include Ethernet 10 Base T, 100 Base Tx and 100 Base Fx to interface any onboard applications such as message handling and administration.

- ▶ **Multiservice communication network (Voice, Data, Video)**
- ▶ **Non-blocking transport of time-critical services**
- ▶ **High data rate for wide-band services**
- ▶ **High survivability to multiple failures and battle damage**
- ▶ **Security: multilevel and red/black separation (TEMPEST)**
- ▶ **Modular design/ Standard interfaces (ISDN, ATM Forum, IP Forum)**
- ▶ **Full range of voice and multimedia terminals**
- ▶ **Scalable to any naval platform**
- ▶ **Fully FICS-compatible**

### SPEEDER USER APPLICATIONS



# ...tailored to the naval environment



## » High survivability

SPEEDER's ruggedised design meets the specific requirements of the harshest surface and subsurface environments. Naval communication systems also require a designed-in capability to maintain services in the event of severe damage.

SPEEDER's combined looped and meshed network architecture guarantees a high degree of survivability in the event of component failure or battle damage, with automatic cut-off of failed elements and dynamic system restoration without loss of critical services.

[see "SURVIVABILITY"]

## » Security

Security is a major issue for a backbone that ties together internal and external communication assets handling both classified and non-classified information. Accredited security filtering and TEMPEST red/black separation are fully implemented to prevent misrouting or compromise.

The SPEEDER network can be deployed in a one-loop or two-loop configuration according to customer-specific security policy.

[see "RED/BLACK SEPARATION"]

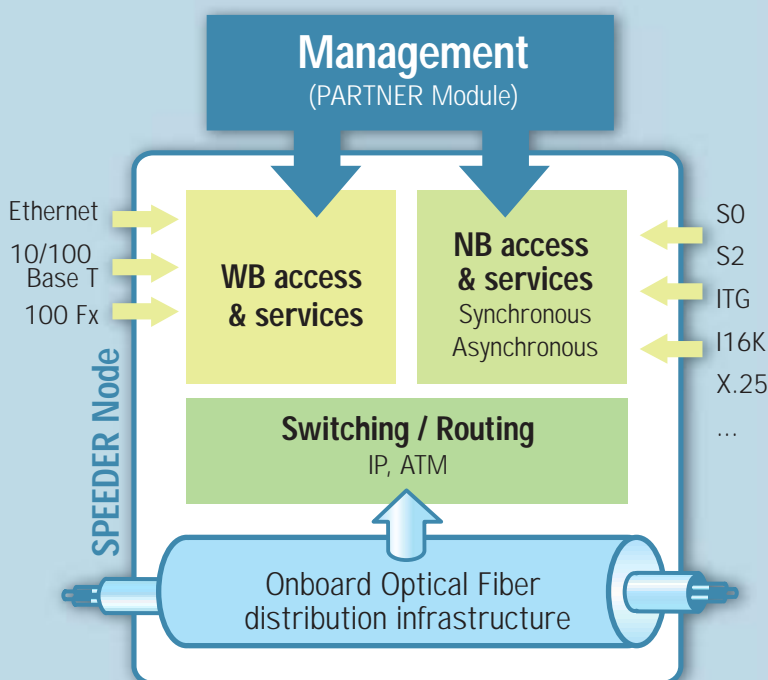
## » Easy network administration

SPEEDER's network administration module includes all the functions needed for network configuration (initial setup and dynamic resource allocation) and surveillance.

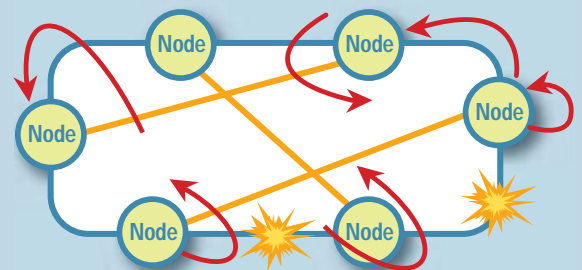
The network management module is designed as a PARTNER module (SNMP interface) so it can be directly incorporated into a PARTNER management system or any other open management system supporting an SNMP Agent.

Depending on operational requirements, network management can be centralised on a single station or distributed to balance operator workload or provide a hot swap capability.

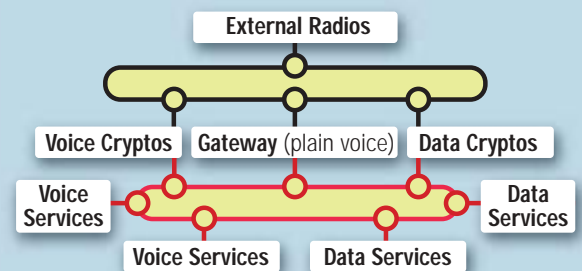
### SPEEDER NODE



### SURVIVABILITY



### RED/BLACK SEPARATION



# A wide range of voice and multimedia terminals

The standard SPEEDER configuration includes TOMA terminals, a complete family of voice and multimedia terminals.

With its broad range of interfaces, intrinsic flexibility and multi-level traffic handling capability, SPEEDER is the ideal backbone for a Fully Integrated Communications System (FICS).

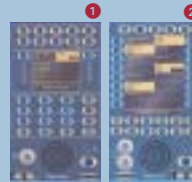
## REFERENCES:

30-year's experience in naval platforms internal communications systems. THALES Communications' integrated communications systems for 200 naval units (surface and submarine) and over 20 Navies all over the world.

## TOMA family of voice and multimedia terminals

- » **Administrative phone**
- » **Point-to-point**
- » **Intercom**
- » **Conference**
- » **Broadcast (orders and alarms)**
- » **Radio circuits**

❶ VOICE - ISDN S0 -  
2 simultaneous  
voice circuits



❷ VOICE - ISDN S2 -  
16 simultaneous  
voice circuits

- » **Ruggedised Multimedia Voice Terminal**

- » **Desktop Multimedia Voice Terminal**

(single board integrated in PC or workstation for voice, video-conferencing, CCTV, MHS, data display and all other PC information).



**PC applications and voice capability are independent. Voice remains fully operational even if PC fails.**

**As a leading company in the field of naval communications, THALES Communications is committed to the customers' satisfaction, whatever their needs, from operational requirement analysis to technical assistance and maintenance.**

# THALES

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