Tactical Team Trainer

powered by SElink™ Secure Virtual Networking

- *Comprehensive computer network-based simulation system to facilitate naval tactical exercises*
- *Integrated Secure Networking and Access Control*

The systems and networks naval forces must protect are complex and large in size. Ships are increasingly using systems that rely on digitisation, integration, and automation. Practically all major systems on ships are networked and frequently connected to the internet. The computer networks of the warships not only allow for communications between the ship and shore establishments over the defence enterprise networks, but they also control the machinery that enables a ship to float and move. This clearly has magnified the risk of unauthorised access or malicious attacks to ships' systems and networks.

SE*link*™ is a service-oriented, secure, virtual networking solution to protect end-point and network alike. Able to replicate heterogenous clients and server behaviours in a seamless way, as in a private LAN; when the ICS is inter-connected to IT shore defence network, through SE*link*™, both networks and endpoints are all virtually relocated in the same server LAN regardless of their actual geographical location.

Benefits

1. **Zero Trust Network Access and Assumed Breach model** strategies
2. **Lightweight protocols** for bandwidth sensitive and resource-constrained devices
3. **Zero Encryption Overhead** compared to TLS/SSL
4. **Smart mechanisms** guarantee low-latency, high-speed and scalability
5. **Flawless integration** of security into heterogeneous devices, including legacy assets
6. **Enhanced system longevity and resilience** to quantum attacks
7. **Seamless encryption updates, redesign-free** through Crypto agility
8. **Rationalisation of operational costs:** NO VPN, NO PKI infrastructure, NO static IP addresses
9. **Efficiency and ease of management**

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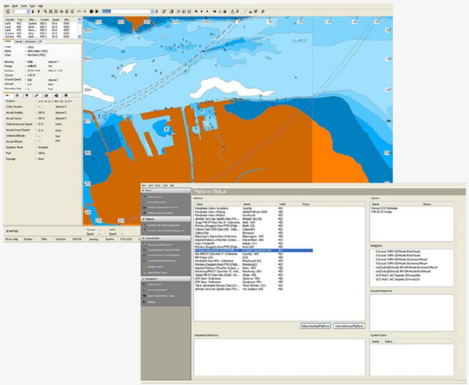
Tactical Team Trainer is an interactive computer network-based naval tactical exercise simulation system, providing commanders with realistic decision making environment and facilitating advanced planning exercises for joint operations and multi-threat warfare.

Tactical exercise capabilities

- Anti surface warfare
- Anti air warfare
- Anti submarine warfare
- Submarine operations
- Electronic warfare for sensor and communication
- Mine warfare
- Amphibious operation
- Multi threat warfare
- Joint forces operation
- Firing and correction for naval weapon exercises



Database availability

- Ships and submarine database
- Aircrafts, fighters and helicopters database
- Land and amphibious vehicles database
- Weapon database (gun, SS-SA-AS missile, torpedo, mines, bombs, and depth charges)
- Electronic warfare for sensor and communication
- Sensor database (visual, radar, sonar, infrared, telescope)
- Electronic warfare and countermeasure database
- NATO tactical symbols database

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Controller Station

Scenario is an essential part of the simulation and is easily built using the included scenario builder: Database availability, including vehicles sensors, weapons, countermeasure, supports the capability of each object deployed in the scenario.

FEATURES

- Scenario builder
- Various environment states
- Exercise handling, monitoring, control
- Multiple forces in one scenario
- Communication channels setting
- Tactical and information display
- Overlays and non-realtime platforms on the run
- Various movement handle and models
- Simulated sensor control and display
- Simulated radar and data jamming
- Datalink simulation
- Simulated weapon control and engagement
- Interaction between platforms, weapons and countermeasures
- Exercise review

Rich support for tactical exercises

Tactical map and information screens allow students to fully control the operations their own ships, including manoeuvres, weapon controls and engagement, sensor operations, creation of non-real objects and many other actions.

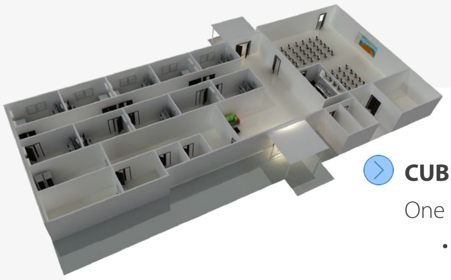
Some modules request real operational devices, but others are adapted to fit the essential functional and tactical simulation purpose.

Full functionality exercise controller

Controller's station provides full exercise control functionality; from scenario creation, arrangement of platforms, starting positions, handling of all platforms, operations and scenario adjustments at runtime.

Controller's and Auditorium's screens are connected for debriefing purposes.

Training Setup



CUBICLE FOR STUDENT

One cubicle contains four workstations for

- Commanding Officers
- Principle warfare officers
- Sensor and detection officers
- Ship manoeuvre officers

This configuration may vary depending on the exercise requirements.

CONTROLLER ROOM

Controller room contains four workstations to

- Prepare the scenario
- Observe and maintain exercise at training time
- Handle communications for all cubicles
- View real time student actions with the monitoring feature
- Control and facilitate briefing and debriefing screen view

AUDITORIUM ROOM

Large room for briefing and debriefing;
Exercise objective, plan, role and cubicle group will be discussed at briefing;
Exercise result and review from any cubicle or controller tactical display can be shown at debriefing session.

SERVER ROOM

All servers will handle data processing and transfer during exercise, supported by fast and recent technology to ensure data reliability and stability.

**Specifications are subject to change without notice to improve reliability, function or design or otherwise*

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SE*link*™ is the evolution of traditional ways to deliver and protect services from unauthorised access integrating smart mechanisms for bandwidth savings, network efficiency and security in a single product. It is a Service-level Secure Software Defined Network solution integrating granular Privileged Access Management and Network Diode in a real ZTNA Zero Trust Network Access approach.

SElink™ Secure Virtual Networking

SElink™ integration

- SElink™ Gateway
- SElink™ Agent for workstations and servers

The SElink™ Gateway performs endpoint "virtualisation" SElink™ protects both the data channel and the access to the communication channel, which can only be used by authorised processes controlled by Zero Trust Access mechanisms confining malware to its origin. This ensures that all naval warships assets including the shore defence network servers are protected even in the event that any device is compromised, for example in the event of a supply chain attack. Naval devices no longer need public static IP addresses to the benefit of a reduction of the attack surface as well as operational costs. Lightweight protocols and zero encryption overhead make the integration of security into bandwidth sensitive devices no longer an issue, making resource utilisation efficient, allow the optimal response and guarantee target performance to the most TCP/IP services. Smart mechanisms such as automatic session recovery, packets aggregation over the same packet header and TCP header overhead reduction prevent packet filtering from providers and improve service availability. Easy to integrate in any environment, over any protocol, portable, multi-device with the benefit of crypto-agility, SE*link*™ security techniques, are resilient and resistant to quantum computing attacks.

USEcube™ Secure Login

SEcure Login

- USEcube™ tokens for strong two-factor authentication of workstations

USEcube™ is a powerful USB based security token, providing hardware encryption, together with the ability to support multiple sophisticated security services. Based on the powerful SEcube™ chip, USEcube™ is fully compatible with Microsoft Windows OS, GNU Linux distributions, Apple Mac OS X and any other Operating Systems supporting mass storage devices.