LOGISTIC INFORMATION TECHNOLOGY SYSTEMS

Logistic Information Technology (Log IT) systems are used to record, manage asset, and resource inventory data. The standardisation of logistic information data and its sharing via a federated logistic communication network will significantly enhance the ability of EU Member States to perform the logistics procedures and reduce the logistic footprint required for missions and operations under the Common Security and Defence Policy (CSDP) framework.

Background

The current European Capability Development Priorities of 2018 identified logistic support shortfalls regarding Reception, Staging, Onward Movement (RSOM), Commercial Logistic Operators and Next Generation Logistic Systems, i.e., a lack of a quality exchange of IT based information and a lack of common standards. Consequently, activities have been identified where, together with EDA involvement, Member States' capabilities could be enhanced.

The Strategic Context Case 'Enhanced Logistics and Medical Support' with its modules Military Mobility and Logistics as well as the Enhanced Military Mobility Focus area are drawing the roadmap to overcome those identified shortfalls.

EDA is looking to develop a federated logistic communication network to be used by EU Member States to facilitate interaction of military and commercial logistics operators as well as with third parties.

State of play

There is considerable diversity across Member States in terms of deployed national logistic IT systems. Although NATO members are able to use the Logistic Functional Area Services

(LOGFAS) platform - which provides on-line tools for the planning, coordination and execution and monitoring of multinational logistic operations and exercises - the use of LOGFAS across EU Member States is inconsistent both in terms of shared data frequency of use. The challenge for EU Member States is to exchange and share logistic data and files by using the various national logistic IT applications (mainly ERP Systems) which are used by military and civil logistic operators in a cyber resilient environment. To achieve that, EU Member States could benefit from standardised logistic data and common tools for sharing that data. Another challenge is to enhance the real time situation awareness of logistic assets and resources. Track & Trace technology will help to provide the asset visibility required.

Aim

EU Logistics staff will be able to handle, coordinate and prioritise the flow of logistic resources and to manage the provision of force elements into, within and out of a joint operations area in peacetime, on missions and in crises. Therefore, a comprehensive, timely and reliable overview of assets and resources being provided by Member States is required to that end, a federated logistic communication network based on common standards will benefit Member States by ensuring interoperability, visibility and transparency in joint logistic operations.

Objectives

The overarching objective of the LogITSys project is to support the establishment of a Federated Logistic IT Network, which will include both military and commercial logistic operators carrying out logistic operations in a cooperative manner by considering Cyber Security aspects as well as the handling of classified data and the situation awareness by applying Track and Trace technology. As a first action, two studies will lay the foundation for further activities and work strands in the future, namely:

- A first study on the mapping of national and commercial logistic IT systems with additional focus on Track & Trace and Enterprise Resource Planning (ERP) software.
- And a second study focused on the development of a concept for a federated logistic communication system network.

Mapping of national and commercial logistic IT systems

Work on first study on the mapping national and commercial logistic IT systems began in February 2022. It will also include an overview on Track & Trace and Enterprise Resource Planning (ERP) software. The findings of this study will provide an overview of currently used national IT logistics systems by the military. The overview will include their specifications and capabilities, an overview of existing Track & Trace capabilities and the standards used, existing interfaces to other IT systems, data exchange standards and Cyber/IT security standards established and handling of the classified data. As military logistics operations depend more and more on outsourced logistics services by commercial logistic operators (CLOs – also referred to as 3/4PLs) , it is important to include this element in the overview of the IT systems used by the military. Mapping will provide essential information on logistic IT, processes and common data used by Member States and those CLOs providing logistic services to Member State military forces This information will facilitate the development of a concept for a federated logistic communication system network that will include CLOs exchanging data with the military.

A concept for a federated logistic communication system network

Following the mapping of national and commercial logistic IT systems the findings will be used to develop a concept for a federated logistic communication system network. The concept will provide a proposed roadmap on how to connect the various IT applications and sub-systems currently in use to one federated logistic communication network. The concept will also provide options and recommendations for different aspects of the federated network including the standardisation of logistic data exchange between Member states, armed forces, CLOs and allied forces. The concept will identify options to use shared T&T capability, to handle classified information considering also cyber security aspects.

The connection of the various IT systems in one federated logistics communication network will provide the basis for the exchange of logistic data and information in real time, which will be beneficial for all kinds of logistic operations and logistic sub-processes, such as movement and transport as well as supply chain management. Cyber/IT security aspects and handling of classified data will provide resilience to the logistic activities by protecting all Member States as potential network participants against any kind of cyber-attacks, thus ensuring the safe and sound execution of logistic activities.

Track & Trace capability

Track & Trace, also known at NATO as 'Asset Tracking', consists of the identification, collection, recording, monitoring, sharing and presentation of information on the location and condition of assets moving within the supply chain. Track & Trace as part of a federal logistic communication network is seen as essential for the efficient operation of the Reception, Staging, Onward Movement (RSOM) process.

The implementation of Track and Trace capabilities will provide a real time situation awareness of the whereabouts of assets and resources within the various logistic processes, significantly improve the quality of logistic data, and contribute to the Recognised Logistic Picture provided to the Force Commander.

Cyber security aspects

Cyber resilience of the entire logistic CIS/IT architecture will ensure the safe handling of classified data and the overall ability of the Logistic IT system to continue performing its function despite cyber-attacks. Cyber/IT security aspects and handling of classified data will provide resilience to the logistic activities by protecting all Member States as potential network participants against any kind of cyber-attacks, thus ensuring the safe and sound execution of logistic activities.