Our mission – peace and security.

LIU • Link Interface Unit

The Data Link Interface for Weapon System Simulations

Background

The LIU provides direct access to TCP/IP-based Link 16 networks for both simulation systems and real C2 systems. By utilizing the LIU these systems are able to exchange Link 16 data over wide area networks with other simulations or with real weapon systems in real-time. The LIU is an appropriate and unique tool in support of simulation-based training and experimentation in Link 16 environments. The implementation level corresponds to C2 units including fighter control but can be used with most Link 16 platform implementations. The developers and users of simulation systems require minimal knowledge of Link 16 because the complete logic of the Link 16 rules and algorithms according to STANAG 5516 are integrated in the LIU and are followed automatically.

Description

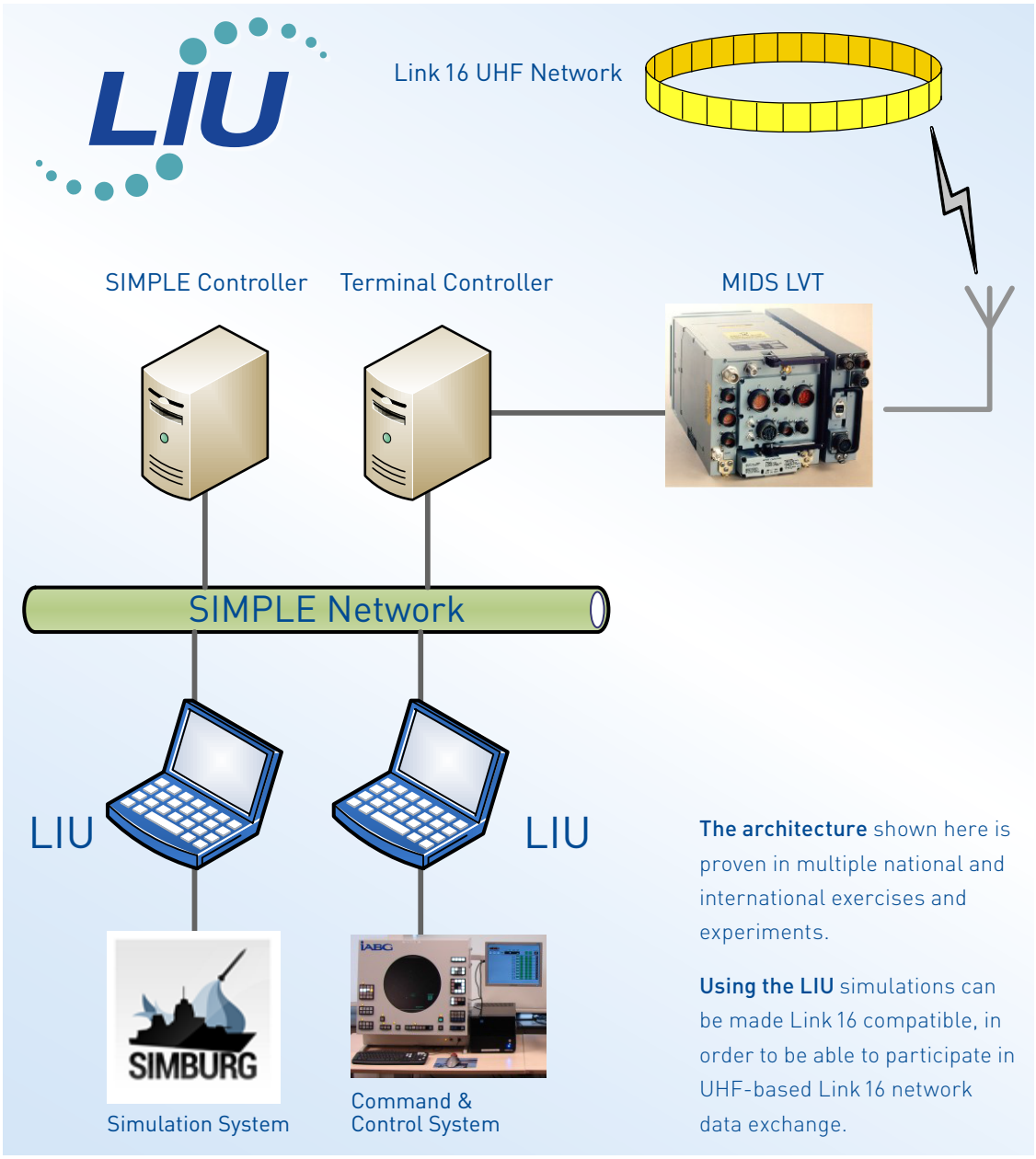
The LIU enables simulations and legacy systems to participate in Link 16 networks either in Ethernet-based or in UHF based networks over a separate gateway in connection with a Link 16 terminal.

The LIU provides the following functionalities:

- Receipt and transmission of Link 16 messages according to STANAG 5516 via SIMPLE, STANAG 5602, data format over TCP/IP
- Automatic correlation of received tracks
- Generation of the reporting responsibility in accordance with STANAG 5516
- Automatic handling of data update requests
- Automatic handling of receipt compliance messages
- Link 16 track management and commands

Implemented Link 16 messages as defined in STANAG 5516	
J2.0	Indirect Interface Unit PPLI
J2.2	Air PPLI
J2.3	Surface (Maritime) PPLI
J2.4	Subsurface (Maritime) PPLI
J2.5	Land (Ground) Point PPLI
J3.0	Reference Point
J3.2	Air Track
J3.3	Surface (Maritime) Track
J3.4	Subsurface (Maritime) Track
J3.5	Land (Ground) Point/Track
J3.6	Space Track
J3.7	Electronic Warfare Product Information
J7.0	Track Management
J7.1	Data Update Request
J7.2	Correlation
J7.3	Pointer
J7.5	IFF/SIF Management
J7.7	Association
J9.0	Command
J9.1	Engagement Coordination
J10.2	Engagement Status
J12.0	Mission Assignment
J12.6	Target Sorting
J13.2	Air Platform and System Status
J13.3	Surface (Maritime) Platform and System Status
J13.4	Subsurface (Maritime) Platform and System Status
J13.5	Land (Ground) Platform and System Status
J28.20	Text Message

IABG



The architecture shown here is proven in multiple national and international exercises and experiments.

Using the LIU simulations can be made Link 16 compatible, in order to be able to participate in UHF-based Link 16 network data exchange.

Technical Data

- **Platforms**
  Standard PC with Microsoft® Windows and .Net Core
- **Network Interface**
  Ethernet, TCP/IP
- **SIMPLE**
  STANAG 5602
- **LINK 16**
  STANAG 5516
- **Simulation Interfaces**
  C-API for MS Visual Studio
  TCP/IP Interface
- **Administration Interface**
  Graphical User Interface

Scope of Supply and Services

- LIU software
- User manual
- Interface Control Document
- Technical customer consulting
- Integration planning
- Programmer training course
- Operator training course
- Maintenance & support

For further information please contact
Phone +49 89 6088-2147
dssolutions@iabg.de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MOBILITY, ENERGY & ENVIRONMENT


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IABG
Einsteinstrasse 20
85521 Ottobrunn
Germany
Phone+49 89 6088-2030
Fax +49 89 6088-4000
info@iabg.de
www.iabg.de