

LION

LION is the Link Inter Operability Network testing service being provided by Aerosystems International, in conjunction with the UK Ministry of Defence. LION enables interoperability tests to be conducted between geographically separated datalink equipped integration rigs, through ISDN lines. This avoids the restrictions imposed by the use of live radio transmissions. The system uses the NATO agreed Standard Interface for Multiple Platform Link Evaluation (SIMPLE).

LION provides the cost effective means of testing actual hardware, without the expense of operational trials, and forms the useful bridge between paper analysis and actual platform trials. The service is available and can be purchased by third parties to carry out their own interoperability testing.

Features:

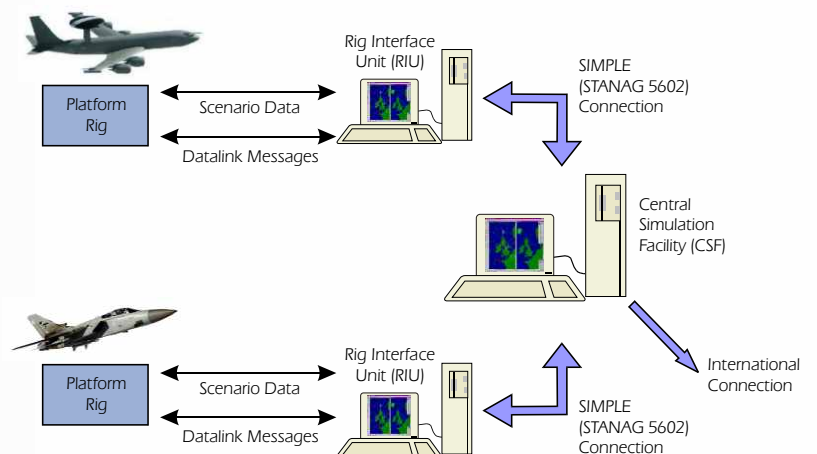
- Link 11 and Link 16 with expansion capability for Link 22, and JRE
- International connection provided to allow tests with other SIMPLE compliant networks
- Extensive on-line and post test analysis
- Uses Commercial Off The Shelf Equipment

Architecture

LION utilises a Central Scenario Facility (CSF) which provides scenario data over ISDN lines to individual Rig Interface Units (RIU) at each platform datalink rig. The CSF ensures that each platform is operating with the same scenario data and performs the function of a central message router for all datalink messages. The RIU provide a SIMPLE interface to the network and tailored interfaces to each platform rig, and contains cryptographic equipment to ensure the security of the information transmitted over the ISDN lines. It has the capability of operating as either terminal or host simulator to ensure platforms can participate in the network.

For efficiency, the LION network utilises a star topology with the CSF at the centre. Addition ports in the CSF are provided for the international connection and to also allow for the introduction of additional platforms. A new platform can be introduced by the addition of an RIU together with extra bearer and cryptographic equipment at the CSF.

A significant advantage of the RIU's is that they will contain the full scenario generation, execution and analysis facilities provided at the CSF. Thus local testing at a single rig will be possible without the necessity of a SIMPLE connection.



LION - The Testing Service

The architecture has been designed to allow third parties to use it for interoperability trials. By providing a rig interface unit and ISDN line at the required site, the LION team can provide an extensive and cost effective testing facility. The LION team has in-depth experience of analysing interoperability problems, to identify the cause of the issues under test. The testing can be tailored to suit individual customer needs.

Platforms

Current platforms

- E3D
- Tornado F3
- Sea King AEW
- T42/CVS

International Connection

Future platforms

- ASTOR
- Eurofighter
- Transportable JTIDS Facility
- Nimrod MRA4
- UK Tanker
- Others as contracted

Interoperability Tests

In general, the network will provide 3 levels of test to confirm interoperability.

- System Wide Checks - to detect system wide issues concerning data link operation and implementation. These will involve multiple platform rigs, augmented by simulation.
- Focussed Testing - used to investigate and focus in on specific interoperability issues which have occurred either in service or identified through paper research.
- International Tests - used to examine the Interoperability between the UK and other nations data link equipped platforms

Additional tests can be added to meet individual customer requirements.

AEROSYSTEMS INTERNATIONAL, Alvington, Yeovil, Somerset, BA22 8UZ, United Kingdom
Telephone: +44 (0) 1935 443000, Facsimile: +44 (0) 1935 443111

AEROSYSTEMS INTERNATIONAL Inc. Suite 204, 1 Resource Square,
Central Florida Research Park, 13501 Ingenuity Drive, Orlando, Florida, 23826
Telephone: 407 381 0329, Facsimile: 407 381 7813

www.aeroint.com, www.tadil.net, www.terrington.com, enquiries@eroint.com