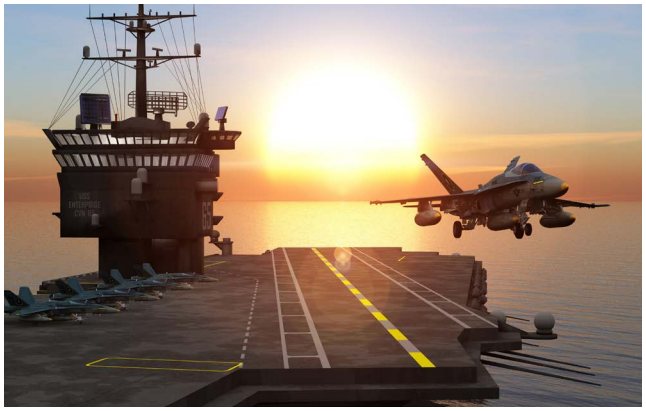

TCG LinkPRO®

Tactical Data Link Processing Software

Key Features

- Software-only, embeddable TDL processing engine
- Simultaneous multi-link message processing
- Standards-based multi-TDL implementation
- Link 16, Link 11, Link 22, VMF, JREAP, SADL, CESMO
- Full-featured application programming interface (API)
- IP-based host connectivity
- Low-level protocol and terminal management off-loading
- Dynamic message routing and filtering
- Automatic R/C, R2, and message responses
- Multiple terminals control per instance
- Windows and Linux support

Applications

- Tactical data link processing
- Tactical communications systems
- Mission system integration
- Command and control (C2) systems
- TDL test, training, and operational environments

Software-Only Multi-TDL Solution

Curtiss-Wright's TCG LinkPRO is a standards-based, high fidelity, software-only, tactical data link (TDL) processing engine designed to enable multi-link interoperability across tactical platforms. LinkPRO off-loads low-level TDL protocol, radio/terminal control, and message processing from host mission systems, reducing integration risk, improving interoperability, and lowering lifecycle costs.

LinkPRO supports rapid integration of multiple tactical data links into weapon systems, command and control (C2) systems, and support platforms with a comprehensive API.

Comprehensive TDL Message Processing

LinkPRO provides comprehensive processing across multiple tactical data links, handling protocol-specific complexity and presenting host systems with a normalized tactical data model. This approach allows host mission systems to focus on mission logic and operator interaction rather than low-level link management.

Core processing functions include:

- TDL message parsing, validation, and protocol handling
- Track, radio, and event normalization
- Automatic generation of required acknowledgments and responses
- Dynamic routing, filtering, and distribution of TDL messages
- Full multi-link radio and terminal initialization, control, and monitoring

Architecture and Integration

With LinkPRO is built on a layered, modular software architecture with an open API that supports flexible deployment across a wide range of tactical hosts.

The software may be deployed as:

- A stand-alone TDL processing system with its own user interface
- An embedded component within a host mission software suite

Standard IP-based, 1553, SATCOM, and radio specific interfaces enable scalable and distributed system architectures, allowing LinkPRO to integrate seamlessly into existing network-centric systems.

Operational Today

LinkPRO is operationally deployed as a fundamental component of command-and-control systems in the United States and internationally across Asia-Pacific, Europe, and the Middle East. It is used in both operational and integration environments to support real-world multi-link interoperability and coalition operations

System Requirements

- Operating Systems: Windows® or Linux®
- Processor: Greater than 2 GHz
- Memory: 500 MB (dependent on track volume & configuration)

Curtiss-Wright is the leading independent supplier of TDL software solutions for military communication systems. Curtiss-Wright's comprehensive portfolio of TDL testing, training, simulation, and battlefield operations solutions provide warfighters with proven multi-link communication capabilities that optimize performance and increase mission effectiveness.

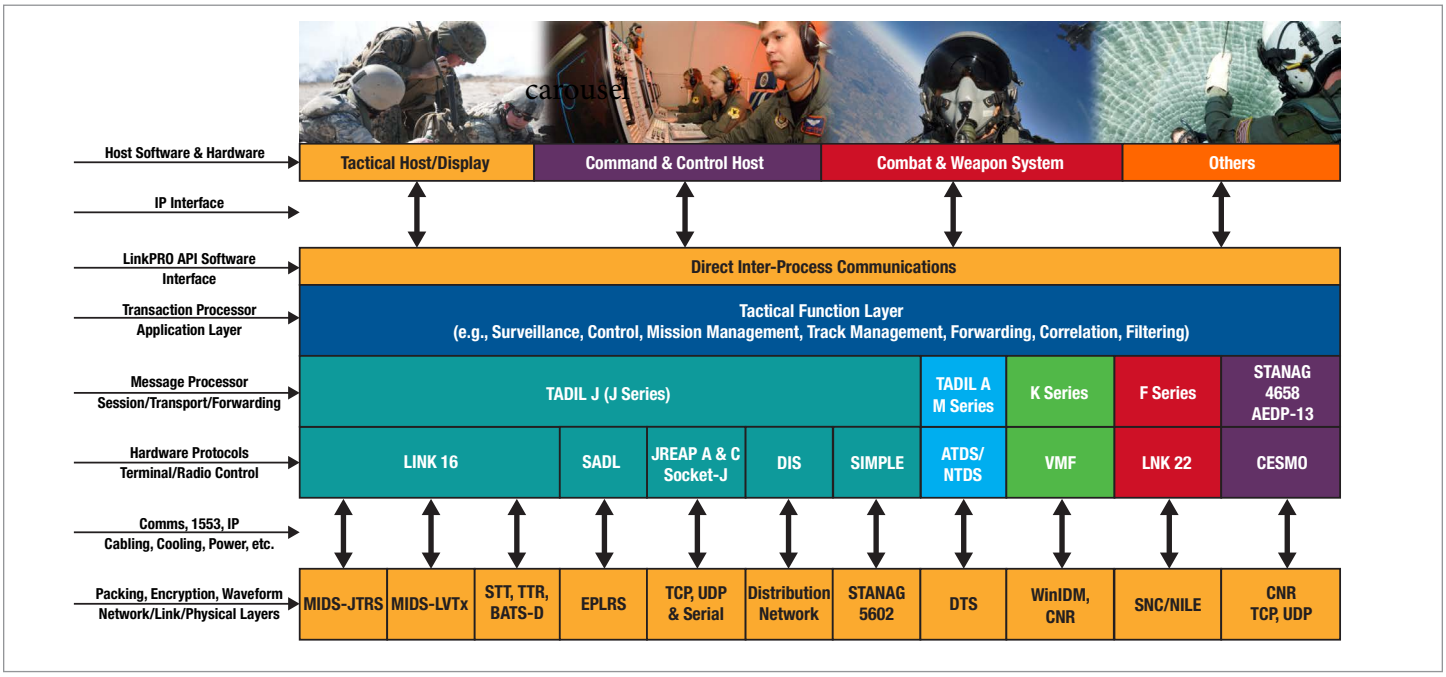

Figure 1: LinkPRO, the global standard for powering TDL communications systems

Specifications

Supported Terminals and Interfaces

- MIDS LVT-1, LVT-2, LVT-3
- MIDS JTRS
- Small Tactical Terminal (STT) and BATS-D
- TacNet Tactical Radio (TTR)
- WinIDM, Combat Net Radios (CNR)
- Link 11 ATDS / NTDS
- JREAP-A and JREAP-C
- Serial, IP, and 1553

Supported Tactical Data Links

- Link 16
- Link 11
- Link 22
- VMF
- JREAP
- SADL
- CESMO

Ordering Information

Contact Curtiss-Wright for ordering information.

TCG LinkPRO