L3HARRIS™
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DISTRIBUTED TARGETING PROCESSOR-NETWORKED (DTP-N)

L3Harris' DTP-N is a high-performance data and signal processing computer that bridges gaps between onboard and external data networks in real time

DTP-N reduces pilot workload by providing actionable information, and not just data, to the warfighter on the large-area display. It has the power to compute algorithms quickly to deal with the complex battlespace of the future.

HIGH PERFORMANCE

L3Harris' DTP-N provides performance scalability, technology insertion and functional growth capability via an open system architecture design. It has multiple levels of security and complies with open mission systems standards for F/A-18 aircraft.

The multilevel security (MLS) capability supports multiple security enclaves on board and provides secure interoperability with several subsystems.

CRITICAL INFORMATION

The DTP-N significantly improves mission processing, subsystem interfacing, display generation and secure, multilevel information management. It hosts user-generated software in conjunction with third-party and supplier-provided software.

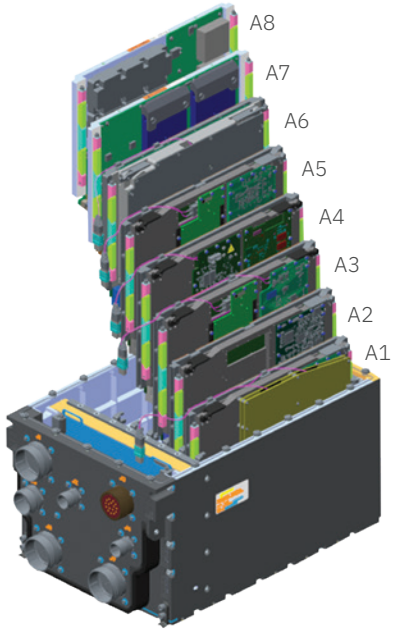
The DTP-N computer addresses critical gaps for users. It provides a gateway from existing F/A-18E/F and EA-18G avionics to new external radio frequency tactical networks. Connection to the Tactical Targeting Network Technology (TTNT) through MIDS-JTRS ethernet interfaces allows an increase in bandwidth to collect and share time-critical information using streaming video, still imagery and other means.

Photo by Lance Cpl. Seth Rosenburg

BENEFITS

- Real-time processing provides a bridge between onboard and external data networks
- Video generation capability enables high-bandwidth, low-latency digital video transmission in mission-critical applications
- Scalable high-performance open systems architecture provides compatibility with commercial off-the-shelf (COTS) real-time operating systems and other defined interfaces
- MLS built into the hardware allows multiple levels of data to be isolated from each other, switched and routed in accordance with predefined security policies
- Open-standard development allows for future upgrades to the aircraft to be integrated more quickly, reducing downtime

SPECIFICATIONS	
Physical dimensions	9.345” (W) x 14.00” (L) x 7.620” (H)
Weight	41 lbs (actual)
Dissipated power	340 W (typical) MIL-STD-704E +115 VAC Three phase 400 Hz
Number of slots	8 (6U, VPX)
Physical application	Fixed wing (F/A-18E/F/G)
Raw processing speed	~919 GFLOPS
Backplane processing speed	Tactical ethernet (10GBase-SR, 1000Base-T and 100Base-T)
Network processing speed	10GBase-SR, 10/100/1000BaseT
Hold-up time	54 ms
MTBF	1,405 hrs
MTTR	7.42 min
Supported interfaces	10GBase-SR Fiber-optical ports (7) 10GBase-SR ethernet (1) per IEEE 802.3 Clause 52 10/100/1000Base-T copper ethernet (11) per IEEE 802.3 Clause 40 10/100Base-T copper ethernet (2) per IEEE 802.3 Clause 25 RS-232 (7) Several miscellaneous discretes
Supported standards	VITA 46.0 and VITA 48.2 MIL-STD-1472 MIL-STD-704E MIL-STD-461F MIL-STD-810
Software/middleware	VxWorks (Wind River Systems) Python software HMAC (SHA-256) ZebOS (RSTP, LACP, layer 2 protocols) Embedded software used on MLS switch



The DTP-N system has a single air-cooled weapon replaceable assembly (WRA) consisting of a chassis, backplane assembly and multiple removable modules.

SLOT	MODULE
A1	General purpose processor (GPP) 1 with dual-fibre channel express mezzanine cards (XMCs)
A2	GPP 2 with ethernet switch XMC
A3	GPP 3 with COTS network interface card (NIC) and digital video output Mezzanine (DVOM) XMCs
A4	GPP 4 with MLS NIC and cross-domain solution XMCs
A5	GPP 5 with COTS NIC and Boeing PXMC
A6	MLS switch
A7	Power supply
A8	Power supply

Distributed Targeting Processor-Networked (DTP-N)

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers’ mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.

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