Research & Development

DEFENSE LOGISTICS INFORMATION RESEARCH (DLIR)

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OBJECTIVE

DLIR Program researches core technologies to improve the quality, security, and interoperability of logistics data. DLA must transform business practices and methodologies as Industry and the Military Services have begun their transition to product model technologies that produce 3D technical data while DLA's current procurement processes primarily use 2D technical data.

INTEROPERABILITY

Improve interoperability with Military Services for technical data and other products
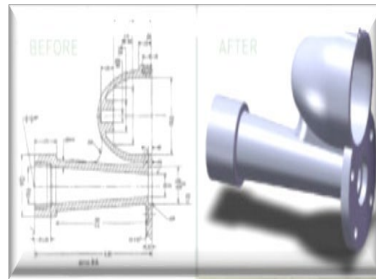
DIGITAL THREAD / DIGITAL TWIN

Support the development of the DT/DT which is the foundation for connecting DLA's procurement and quality assurance activities to the Military Services Product Lifecycle Management (PLM) and MRO (Maintenance, Repair, Operations) in a closed loop

INDUSTRY 4.0

Industry 4.0 research to assist Small and Medium Manufacturers (SMMs)

INNOVATION & TECHNOLOGY

Identify efficient and effective methods for the Military Services to replace 2D Technical Data Packages (TDPs) with model-based TDPs.

Improve Warfighter readiness with near real-time 3D technical data directly from the Military Services.

Demonstrate a complete end-to-end digital thread across all phases of acquisition.

Spread awareness of DLA 3D data requirements throughout DOD.
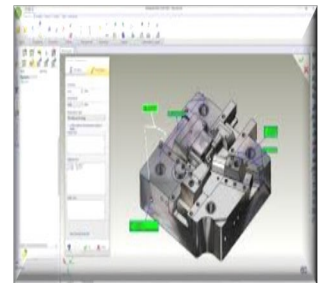
STRATEGIC THRUSTS

Improve interoperability with the Military Services for technical data

Produce criteria and business case to convert legacy 2D technical data into modern 3D formats

Support DLA Technical Data Management Transformation (TDMT) Efforts

WARFIGHTER ALWAYS

THE CHALLENGE

- While Industry and the Military Services have begun their transition to product model technologies that produce 3D technical data, DLA's current procurement processes use 2D technical data

- Lack of interoperability between the Military Services and DLA for technical and business data
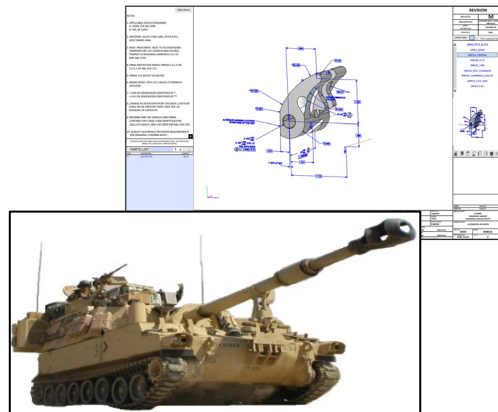
WARFIGHTER READINESS
THE BENEFITS

- Modernized technical data packages with 3D models; improved support for routine DLA procurements

- Improved data sharing between customers, DLA, and Industry for more efficient, cost-effective parts support, to include Additive Manufacturing (AM) and other advanced manufacturing applications

- Coordinated development of DOD Digital Engineering standards and practices including MIL-STD 31000, OSD's Digital Engineering Strategy, and the Additive Manufacturing for Maintenance Operations Working Group

TECHNICAL DATA MANAGEMENT TRANSFORMATION IN SUSTAINMENT
ENABLING DLA TO INCREASE VALUE THROUGH SMART, RAPID PARTS PROCUREMENT
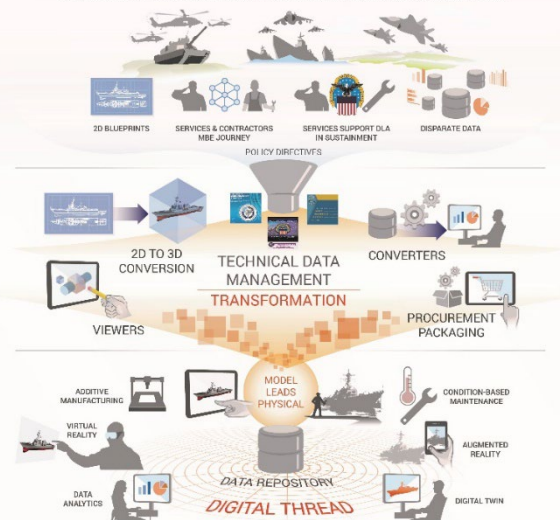
WHOLE OF GOVERNMENT PARTNERSHIPS

- **MILITARY SERVICES**
- **DLA MAJOR SUBORDINATE COMMANDS (MSCS)**
- **DLA J3, J6, J7**
- **OFFICE OF THE SECRETARY OF DEFENSE (OSD)**
- **MANUFACTURING INNOVATION INSTITUTES**

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ACCOMPLISHMENTS & ONGOING EFFORTS

- Leveraged 3D technical data from the USAF KC135 weapon system to produce a near real time collaboration tool to bring DLA, the engineering authority, and the supplier into the same digital workspace.

- Build upon the KC135 effort and apply it to the Paladin Howitzer weapon system by engaging with suppliers to convert up to 50 NSNs to model based TDPs, and eventually gain concurrence from the Army ESAs to have the model-based TDPs become the authoritative TDPs.

- Continued Industry 4.0 research to assist Small and Medium Manufacturers (SMMs) to include the development of a cloud-based, AI-enabled, searchable, quarriable PLM lite system.