



Infantry Power & Data Unit (IPDU)

Connecting dismounted soldiers to vehicle platforms

Key features

- Connects 4 embarked soldiers to the vehicle power and data networks
- Share location, video and other essential parameters from vehicle to soldier
- Provide power to the soldier in-situ charging
- Power Management
- Data Networking
- System Integration
- NATO & UK GVA compliant
- GSA, Nett Warrior compliant

Overview

Ultra PCS (part of Eaton) is proud to introduce the Infantry Power & Data Unit (IPDU), a cutting-edge solution for seamless soldier-to-vehicle integration within GVA-enabled platforms. Designed with the modern battlefield in mind, the IPDU bridges the gap between mounted and dismounted operations, enhancing both soldier effectiveness and situational awareness.

This includes:

Power Management - The IPDU offers vehicle-derived power, ensuring continuous power by facilitating seamless transitions between vehicle power and soldier-worn batteries. It extends mission endurance by recharging soldier-worn batteries during vehicle operation and protects soldier-worn devices from vehicle power surges and spikes while ensuring lithium battery safety during charging.

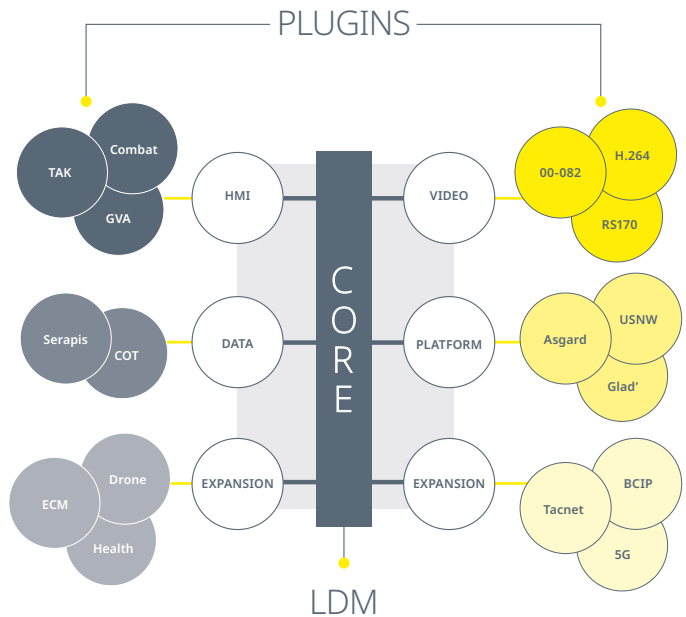
Data Exchange - Links the vehicle's GVA to the Soldiers' Electronic Architecture enabling robust two-way communication and supports DDS messaging for mission updates, location, and video feeds.

Interoperability - Integrated mission systems benefit from the IPDU's ability to overcome challenges such as locked IP addresses and unfamiliar DDS middleware. It provides a dismounted soldier gateway, translating native soldier protocols such as ATAK messaging to the vehicle's DDS network. The IPDU supports multiple international soldier systems, including Nett Warrior, UK GSA, and Australian GSA, ensuring interoperability across platforms



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Technical Specifications

- 28V Power input from Platform
- Platform Ethernet connection
- 4 x soldier interfaces (28v power and Ethernet)

Designed to meet

- Vibration to DEF STAN 00-35 part 3
- Shock and Bump to DEF STAN 00-35
- Operating temperature to DEF STAN 00-35 (-19° to +49°)
- Storage temperature to DEF STAN 00-35 (-21° to + 71°)
- EMC to DEF STAN 59-41 (part 3) (Limits to Land Class A)
- Sand, Dust and Driving Rain to DEF STAN 00-35
- Salt atm. to DEF STAN 00-35 (72 hours)

Technical Specifications

At its core, the IPDU uses the Ultra Platform Gateway Interface (PGI) software framework, designed to interface a variety of sub-systems to and from GVA, the PGI software employs a “plug-in” architecture with an open API that allows sub-system providers to create a software adapter.

For the IPDU, the embarked soldier is simply considered as another sub-system, with a plug-in being created that can understand the messaging on the Soldier work architecture (GSA or ATAK for example).

The IPDU acts as a translator, allowing GVA data to be passed, via the plug-in to the connected soldier.

New plug-ins can be created to connect other coalition systems (for instance Gladius).

Advanced functions such as message filtering and parsing can be enabled to only allow appropriate data fields to be shared.



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