SP INTEGRATION

CUSTOMIZED RUGGED SERVER FOR MILITARY TRANSPORT AIRCRAFT

Challenge

The Indian army requires a system to process massive GIS-integrated data collected from transport aircraft. This data supports mission planning and real-time operational decisions. It is crucial to analyze the data quickly using computer vision to identify terrain, threats, and key objects, then transmit the insights to command centers with minimal delay. The solution needs to ensure fast processing, secure data handling, and stable performance under dynamic conditions to support rapid response in critical military operations.

Solution

For GIS computing, an enterprise-class GPU is essential for handling intensive data processing tasks. SP Integration designed a rugged server to operate reliably in aircraft environments, withstanding variable shock and temperature conditions. Certified to MIL-STD-810 and MIL-STD-461 standards for durability in extreme conditions, it was equipped with a MIL-D-38999 power interface for seamless integration with military vehicles. Powered by an Intel Xeon server-grade CPU, the system efficiently processes multi-source sensor streams, enabling the client to overcome GIS data analysis challenges.

Requirements

- 2x Intel Xeon 6443N Server CPU
- 1TB DDR5 5600MHz RDIMM
- NVIDIA H100 PCIe Enterprise GPU
- MIL-D-38999 military circular connector

Benefits

- **Enterprise-Class GPU**

  High-performance GIS data processing and computer vision tasks

- **MIL-D-38999 Power Connector**

  Secure and rugged power connectivity that's compatible with military vehicles and aircraft

- **Rugged Design**

  Built for stable performance in tough aerial environments