ELMA
Your Solution Partner

High bandwidth with command, C4ISR computing platform

RUGGED MOBILE

ATCA - MULTIPROCESSING SYSTEM

This ATCA platform provides high bandwidth multiprocessing on the move (COTM) field deployable system. The system is designed for extended shock and vibration requirements and meets military two man lift requirements.

- Elma type 11a, 6U, 6 slot chassis
- Full replicated mesh backplane
- Up to three dual, 6-core Intel® processors
- 10 Gigabit Ethernet switching speeds
- Redundant system management
- Red Hat Enterprise Linux, 64-bit OS
- Optional virtualization software configurations
- Mounted in a rugged transit case for safe transport

Requirements

Build a rugged transportable platform with high levels of compute density, 10 Gigabit Ethernet switching, I/O and storage capacity, while limiting overall system size and weight. This command, control, and communications platform should provide real time management of the processing, storage and distribution of critical incoming and outgoing data streams from a networked array of geographically dispersed military assets.

Solution

Elma, along with its partner SMART Embedded Computing, provided a fully tested and integrated AdvancedTCA (ATCA) based system featuring up to 36 processing cores, ample front and rear Gigabit and 10 Gigabit Ethernet I/O ports and over 3 TB of 2.5" storage drives, with room to add additional storage. The system also includes a 10 Gigabit Ethernet switch for networking operation, as well as a PICMG 3.0 / 3.1 compliant shelf manager, with the option for redundant shelf managers to meet high availability requirements. Packaged in a rugged transit case, the complete system was subjected to a battery of shock and vibration testing including a 36" drop test, to ensure reliable operation in ground mobile applications.

Benefits

The high level of functional density packed into the ATCA solution resulted in system footprint reduction as compared to cPCI or VME solutions with comparable capabilities. The additional shock and vibration tolerance provided by shock isolation mounting in the transit case extends the rugged capabilities of the system, making it ideal for consideration in ground mobile applications. Elma's pre-configured platform solution allows the system developer to concentrate on application development activities and other higher level tasks. As the embedded system integrator, Elma provides a single point of contact for system support, EOL transition, spare parts, inventory management, warranty services and order placement. computing industry.