

Global broadband network infrastructure

MOBILE SATELLITE

19" RACK MOUNT SYSTEM

This 19" rack mount system provides up to 41 board slots across both front and rear backplanes. The system, with full payload content, is integrated and tested prior to shipping for fast installation and deployment.

- Up to 10 Intel® Xeon 6U cPCI processor cards with front and rear I/O
- Up to 4 fully managed and redundant layer 2/3, 24 port gigabit Ethernet switches with IPV6 switching / routing and front or rear I/O
- Network Attached RAID 1 storage
- Dual redundant shelf managers for chassis health management and reporting
- Support for multiple operating system versions
- Custom cabling supporting rear GigE I/O
- Shipped under a single model number

Requirements

Provide highly reliable network infrastructure for remote ground deployment in support of global broadband satellite communications. The system should play a vital role in delivering high speed, high capacity, low latency Internet Protocol communications to mobile commercial and defense related users.

Solution

Elma Electronic designed a system capable of meeting both the uptime and high bandwidth demands of the application. The cPCI based system delivers a unique redundant system controller scheme as well as redundant Ethernet switches each with automatic failover capability to maximize equipment uptime. The system supports up to 10 single board computers for extremely high processing power as well as high capacity redundant (RAID 1) storage. A chassis shelf manager provides overall system health monitoring.



Benefits

Elma's solution provided unprecedented levels of integration and redundancy in a single chassis design. The resulting system size and weight measurements were roughly equal to 50 % that of systems meeting comparable computational and reliability requirements. As the complete system designer and manufacturer, Elma acts as the one stop source for engineering support, field support and spare parts support. Crucial end of life (EOL) issues are managed and monitored by Elma to ensure a seamless transition to form fit and functional replacements when individual components move towards EOL. Through longstanding relationships with our partners, Elma was able to provide this open platform solution using best in class board level products from leading suppliers in the embedded computing industry.