



Medium Extended Air Defense System

## NATO Missile Defense Program Deploys Rugged Routers

Lockheed Martin relies on the DuraNET 3825 from Parvus Corporation to provide network connectivity for the NATO MEADS program. The ruggedized Cisco router from Parvus was selected because it combines the powerful features available in Cisco IOS® software, Catalyst® Layer 2 LAN switching, and flexible Layer 3 WAN routing into a single ruggedized platform.

## Developing a New Missile Defense Program

For over a decade, Lockheed Martin Space Systems Company has been a critical partner in the development of the NATO MEADS (Medium Extended Air Defense System) program. MEADS is a mobile Air and Missile Defense System that will incorporate the hit-to-kill PAC-3 Missile Segment Enhancement (MSE) Missile in a system that includes 360-degree surveillance and fire control sensors, netted-distributed battle management/communication centers and high-firepower launchers. The system will combine superior battlefield protection with extensive flexibility, allowing it to protect maneuver forces and critical assets against tactical ballistic missiles, cruise missiles, unmanned aerial vehicles and aircraft.

MEADS may replace or supplement the Patriot systems in the United States and Germany and Nike Hercules systems in Italy. The system is designed to permit full interoperability between the U.S. and allied armies, and it is the only medium-range air defense system to provide full 360-degree coverage.

## Ruggedized Router Specified for MEADS Program

To support this mission, Lockheed Martin has specified the DuraNET 3825, a ruggedized version of Cisco Systems' 3825 Integrated Services

Router (ISR), to provide the network connectivity for the MEADS Tactical Operations Center. Parvus has shipped initial quantities to Lockheed and other NATO partners.

The DuraNET 3825 provides a robust Commercial-Off-the-Shelf (COTS) solution that extends the application use of industry-leading Cisco hardware. The DuraNET 3825 combines the powerful features available in Cisco IOS® software, Catalyst® Layer 2 LAN switching, and flexible Layer 3 WAN routing into a single ruggedized platform. This robust Internet Protocol (IP) networking device integrates embedded security processing, generous performance, high memory capacity, and high-density interfaces to deliver the performance, availability, and reliability required for scaling mission-critical applications.

Featuring mechanical packaging enhancements designed to suit shipboard / military shock and EMI environments, the DuraNET 3825 is designed



DuraNET 3825

# Case Study

to meet MIL-S-901D Grade B shock levels and MIL-STD-461 radiated emissions requirements. The DuraNET 3825 subsystem comes in a rugged rack-mountable 2U chassis fitted with circular MIL-DTL-38999 connectors. The unit brings out up to nineteen (19) Ethernet and ten (10) serial ports, including dual Gigabit Ethernet WAN uplink ports, a Gigabit Ethernet Switch port, sixteen 10/100 Ethernet switch ports, eight Asynchronous / Synchronous RS-232 ports, console and auxiliary serial ports.



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## Rugged Routers Required for Demanding Military Applications

Rugged, powerful routers and switches are ensured a productive future in demanding military operations as the military's growing number of complex, mission-critical applications require robust performance and flexibility.

“The inclusion of DuraNET 3825 routers for the MEADS program is a testament to Parvus’ proven track record of supplying durable, highly-reliable IP networking equipment for demanding military applications,” said Les Goodman, president of Parvus. “We are honored to partner with Lockheed Martin to supply such an important program with the necessary equipment for the next-generation air and missile defense system.”

