

RM2100 Series

The Tactical Routing Platform

The RM2100 Series serves as the platoon's central communication hub, optimized for routing and distributing heavy data streams within command posts and headquarters. Built upon a modern high-performance embedded routing core, it guarantees full military interoperability (BGP/OSPF/EIGRP) and seamless integration with existing defense systems. It is the definitive choice for deployments where reliable routing, high-performance encryption, and hardware-validated data security are required at the absolute core of the network.

Key Features

Primary Network Role	High-Performance Tactical Core Gateway
Embedded Routing Engine	Native military standards compatibility with existing command infrastructure
Advanced Crypto Acceleration	Onboard crypto processor delivering ~350 Mbps IPsec VPN throughput
Secure Boot	Hardware-validated protection against boot-level attacks
Tactical Zeroization	Emergency wipe of encryption keys and configuration data
Integrated Switchboard (optional)	Expandable Layer 2/3 hardware switching module

Capabilities

The RM2100 Series is engineered as a high-density, mission-critical routing hub designed to anchor the central infrastructure of tactical command posts and static headquarters. Operating on a modern embedded architecture with robust processing power, it delivers line-rate 1G packet routing without introducing hardware or CPU bottlenecks, ensuring consistent, ultra-low latency data distribution across large military subnets.

The platform's strength lies in its sophisticated networking intelligence, providing comprehensive native support for advanced enterprise and military routing protocols including BGP, OSPF, EIGRP, and complex Multicast environments (PIM/IGMPv3). Its cryptographic performance is highly accelerated by an onboard hardware co-processor that maintains fast, secure IPsec VPN tunnels up to ~350 Mbps. Data security is fully enforced via an embedded hardware root of trust that validates cryptographically signed firmware layers during startup. Furthermore, it features a modular design that accepts an internal Layer 2/3 hardware switchboard to scale physical interface density.

The capabilities of the RM2100 series include:

- **Line-Rate 1G Performance:** Full throughput routing that scales seamlessly via software performance licensing.
- **Military-Grade Protocol Suite:** Complete native support for complex dynamic routing and multicast architectures.
- **Onboard Crypto Co-Processor:** Dedicated hardware acceleration ensuring high-speed IPsec VPN traffic.
- **Hardware Root of Trust:** Embedded cryptographic startup validation protecting against boot-level exploits.
- **Emergency Zeroization:** Support wiping configurations and encryption keys during a compromise.
- **Internal Modular Expansion:** Supports an integrated switchboard module to scale local interface density.

Form factors

The RM2100 series offers different form factors depending on best fit for a particular use case.

Standard 19"/2 form factor	Customized form factor
	
▪ Form, fit and function over multiple generations ▪ Long-term roadmaps	▪ Project driven form factor

MilDef 19"/2 modular design

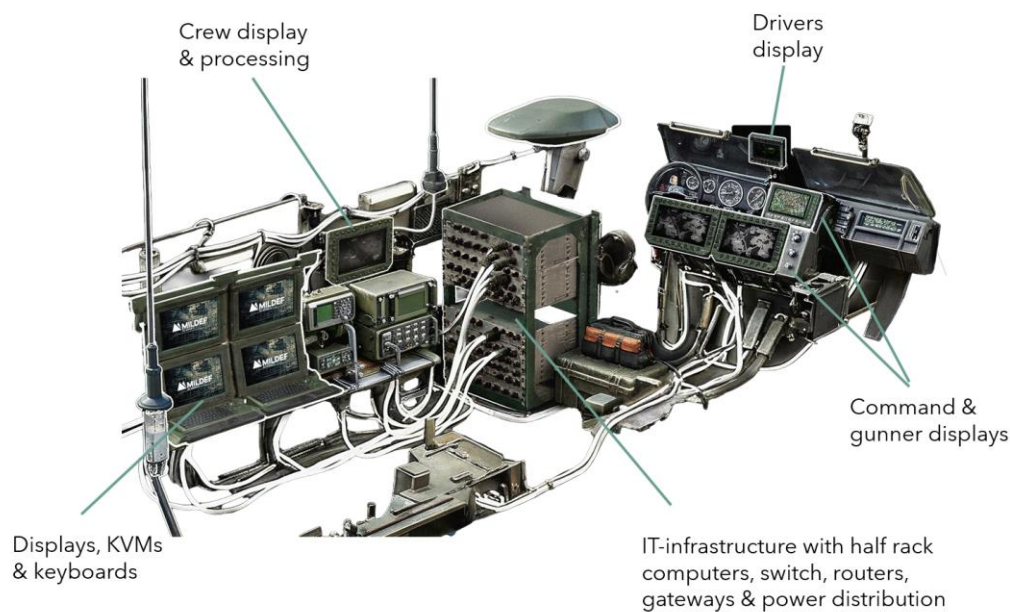
The MilDef 19"/2® addresses the requirements for small, high performance IT hardware. The modular design and broad product offering (computer, network, power and peripherals) enables the use of 19"/2® units as building blocks for creating built to purpose solution. Same form factor over multiple generations enable reuse of cable, mounting solution etc for midlife upgrades along the system life cycle.

Solution provider

MilDef offers solution and integration delivering seamless, end-to-end solutions by integrating hardware and software into complete systems that meet customer requirements. Managing integration projects/programs to ensure alignment with mission objectives/business strategy and technological capabilities.

Hardware ECO-system

Our hardware offering including all the building blocks for complete IT infrastructure for the tactical edge, such as displays, network products, power products, docking stations, mounting solutions etc.



Use case

The RM2100 series is a core component of many tactical platform designs. Some use case examples are:

- **Armoured and Tactical Vehicles:** Serves as the central routing platform interconnecting mission systems, radios, sensors, and vehicle network infrastructure.
- **Command Posts and Tactical Headquarters:** Acts as the backbone router connecting operational systems, communications assets, and WAN services.
- **Communications Shelters:** Aggregates SATCOM terminals, tactical radios, and local networks into a unified transport backbone.
- **SATCOM and Radio Gateway Nodes:** Routes traffic between tactical communications systems and wider operational networks.

Specifications

System & Interfaces				
Router Platform	Cisco ESR6300	Voice Interfaces	None	
Primary Network Role	Tactical Core Router	Cellular Connectivity	None	
WAN Interfaces	2 x dedicated Gigabit Ethernet WAN interfaces (Copper/Fiber combo)	Primary Traffic Type	Routed IP Data	
LAN Interfaces	4 x Gigabit Ethernet LAN ports (expandable via optional ESS3300 Cisco switch module)	PoE Capability	Conditional (requires optional ESS3300 Cisco switch module) - PoE (IEEE 802.3af) - PoE+ (IEEE 802.3at)	
Core Capabilities				
Processing Capacity	Up to 2 Gbps line-rate routing performance with hardware-assisted forwarding	Security Functions	ACLs, Route Security, Hardware Root of Trust, IPsec	
Encryption / VPN Capacity	Hardware-accelerated IPsec supporting ~350 Mbps secure tunnel performance	VPN Technologies	IPsec, GRE, DMVPN, FlexVPN	
Firewall Capability	IOS-XE Stateful Firewall	Traffic Prioritization (QoS)	Advanced IOS-XE QoS and Traffic Prioritization	
Network Services	Routing, Multicast, VPN, and Layer 3 Services	Secure Boot	Yes	
Dynamic Routing Support	BGP, OSPF, EIGRP, RIP, PIM, IGMP	Zeroization	Yes	
Tactical & Mission Services				
Traffic Management	Dynamic Routing, Multicast Distribution, and Traffic Engineering	Resilience Features	Fail-to-Wire Operation, Dynamic Route Convergence, and VPN Resilience	
Communications Services	Core IP Transport Infrastructure			
Deployment & Architecture				
Primary Mission Use Case	Tactical Network Backbone	Network Position	Core Network Layer	
Typical Deployment	Command Posts, Headquarters, Tactical Core Networks			
Environmental				
MIL-STD-810				
Shock operating	Functional Shock. 40G/11ms	Noise level	Max noise level of 40 dB SPL 1 m (3.3 ft)	
Temp. operating	-40 to 65°C (-40 to 149 °F)*	Salt fog	5 ± 1%	
Temp. storage	-40 to 71°C (-40 to 160 °F)*	Temp. shock	55 °C (131 °F) / -40 °C (-40 °F)*	
Humidity	Aggravated, 95 ± 4% RH	Vibration	Rotary wing aircraft - helicopter	
IP Class	IP65*		Truck/trailer - loose cargo	
Low air pressure	Rapid Decompression 8000 ft / 40000 ft		Ground vehicles - ground mobile tracked	
	Operation/Air Carriage 15,000 ft		Ground vehicles - ground mobile wheeled	
Optional standards				
RTCA/D0160, VG, DEFSTAN, MIL-STD, etc can be included on request.				
EMC				
MIL-STD-461				
EMI/EMS	Ground Army	ESD	CS118	
Optional standards				
RTCA/D0160, VG, DEFSTAN, MIL-STD, etc can be included on request.				
Power				
Vehicle Power	MIL-STD-1275			
Optional standards				
VG, DEFSTAN, MIL-STD, etc can be included on request.				

*Higher available on request