

RM4100 Series

The Border Security Shield

The RM4100 Series acts as the network's outer defensive perimeter (Border Firewall). It is deployed wherever the local tactical network interfaces with untrusted or public external links, such as satellite terminals (SATCOM), commercial broadband, or public cellular networks. Powered by a Next-Generation Security Appliance engine with hardware acceleration, it delivers Next-Generation Firewall (NGFW) capabilities directly to the field, providing total visibility and deep-packet threat analysis without bottlenecking network speeds.

Key Features

Primary Network Role	Ultra-Secure Border Firewall & Security Gateway
Security Acceleration	Dedicated ASIC enabling up to 3.5 Gbps IPsec VPN throughput
Next-Generation Firewall (NGFW)	Hardware-accelerated DPI, IDS, and IPS
Hardware Bypass	WAN-to-LAN fail-to-wire connectivity during power loss
Enterprise-Grade SD-WAN	Application aware QoS and traffic prioritization
Network Segmentation	Zone-based firewall isolation for sensitive traffic
Tactical Zeroization	Emergency wipe of encryption keys and configuration data

Capabilities

The RM4100 Series is specialized for border security and perimeter defense, acting as a secure gateway where protected tactical grids interface with untrusted external networks like SATCOM, public infrastructure, or commercial backhaul. Driven by a dedicated security processing ASIC, it excels at heavy data-stream aggregation, delivering exceptional multi-gigabit throughput while running concurrent, high-overhead defensive inspections.

As a Next-Generation Firewall (NGFW), its capabilities extend far beyond standard port filtering; it executes line-rate Deep Packet Inspection (DPI), hardware-accelerated Intrusion Detection and Prevention (IDS/IPS), and deep application-type analysis to isolate and block advanced hostile exploits. The system features an automated fail-to-wire bypass mechanism between its primary WAN and LAN interfaces, ensuring that critical physical link integrity is maintained even in the event of complete power loss. Its internal software architecture leverages content-aware Quality of Service (QoS) and advanced SD-WAN routing to dynamically assess, prioritize, and secure mission-critical data streams over a robust topology of IPsec, OpenVPN, and Zero-Trust Network Access (ZTNA) secure tunnels.

The capabilities of the RM4100 series include:

- **ASIC-Accelerated Security:** Multi-gigabit throughput optimized for heavy data-stream aggregation and encryption.
- **Next-Gen Deep Inspection:** Hardware-driven DPI, IDS/IPS, and granular zone-based firewalling.
- **Fail-to-Wire Bypass:** Physical bypass pair between WAN and LAN to preserve link integrity during power loss.
- **Content-Aware Traffic Control:** Advanced SD-WAN and application-layer QoS profiling for mission data prioritization.
- **High-Capacity Tunnelling:** Robust, secure transport utilizing high-capacity IPsec, OpenVPN, and ZTNA topologies.

Form factors

The RM4100 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

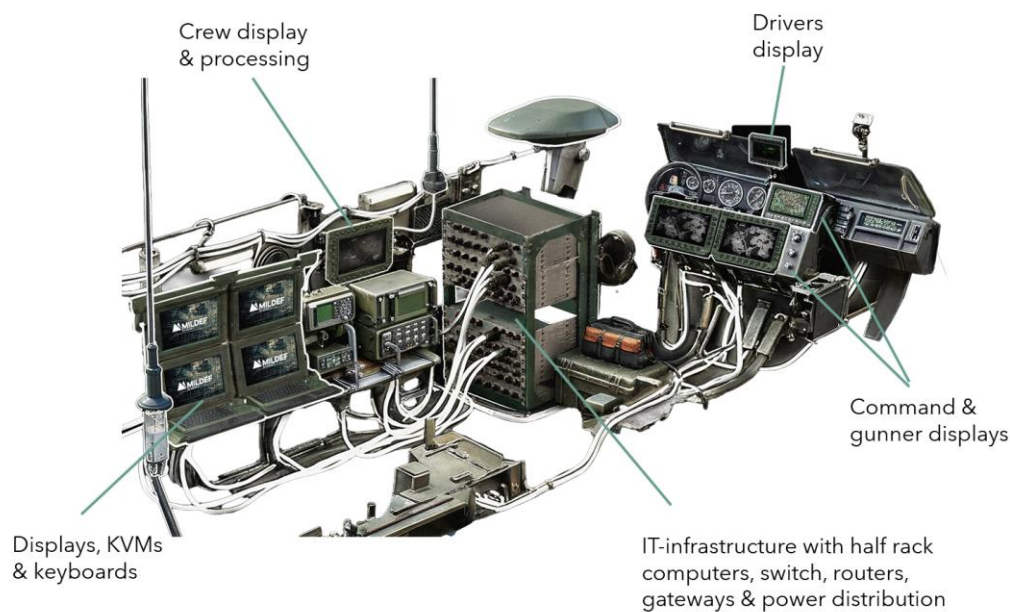
The MilDef 19"/2® addresses the requirements for small, high performance IT hardware. The modular design and broad product offering (computer, network, power and peripherals) enables the use of 19"/2® units as building blocks for creating built to purpose solution. Same form factor over multiple generations 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 RM4100 series is a core component of many tactical platform designs. Some use case examples are:

- **Network Security Boundaries:** Protects tactical networks where trusted and untrusted environments interconnect.
- **SATCOM Gateway Shelters:** Secures communications entering and leaving satellite communication networks.
- **Coalition Information Exchange Gateways:** Enforces security controls between national, coalition, and partner networks.
- **Cyber Defense Nodes:** Provides centralized threat inspection, intrusion prevention, and policy enforcement.



Specifications

System & Interfaces			
Router Platform	FortiGate Rugged 60F	Voice Interfaces	None
Primary Network Role	Security Gateway / NGFW	Cellular Connectivity	None
WAN Interfaces	2 x shared-media Gigabit Ethernet WAN Interfaces (RJ45/SFP)	Primary Traffic Type	Secure IP Data
LAN Interfaces	4 x Gigabit Ethernet Integrated Switch Ports	PoE Capability	No
Core Capabilities			
Processing Capacity	Up to 6 Gbps firewall throughput, ~550 Mbps NGFW throughput and 950 Mbps IPS throughput	Security Functions	NGFW, DPI, IDS/IPS, Application Control, ZTNA
Encryption / VPN Capacity	Hardware-assisted VPN processing supporting up to ~3.5 Gbps IPsec throughput	VPN Technologies	IPsec, SSL VPN, OpenVPN, ZTNA
Firewall Capability	Full Next-Generation Firewall (NGFW) with DPI and IDS/IPS	Traffic Prioritization (QoS)	Application-Aware QoS and SD-WAN Policies
Network Services	Firewalling, IDS/IPS, SD-WAN, Application Control, and ZTNA	Secure Boot	Yes
Dynamic Routing Support	BGP, OSPF, RIP, SD-WAN Routing	Zeroization	Yes
Tactical & Mission Services			
Traffic Management	SD-WAN Traffic Steering and Application-Aware Path Selection	Resilience Features	Fail-to-Wire Operation, Dual-WAN Resilience, and SD-WAN Path Optimization
Communications Services	Secure Data Transport and Policy Enforcement		
Deployment & Architecture			
Primary Mission Use Case	Secure Network Boundary Protection and Cyber Defense	Network Position	Security Layer
Typical Deployment	Network Edge, Security Zones, SATCOM Boundaries, and Interconnection Points		
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 Operation/Air Carriage 15,000 ft		Ground vehicles - ground mobile tracked
			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