

Megaplex-4

MS-SGW

VPN Aggregator, Router and Firewall



- Static and dynamic routing
- Secured by design with L2/L3 VPNs, stateful firewall, and Radius
- Automated PKI (X.509) with integrated DNS resolver
- User-friendly, easy to use web-based GUI
- High availability (optional)

Part of the Megaplex multiservice module family, MS-SGW adds to Megaplex-4 routing, L2/L3 VPN capabilities and stateful firewall with an extensive networking feature set.

MS-SGW provides a future-proof, cost-effective solution for secured L3 communication like SCADA communication backhauling.

The module occupies two module slots in the Megaplex-4 chassis.

INTEROPERABILITY

MS-SGW interoperates with RAD's SecurityGateway and SecFlow product line.

MARKET SEGMENTS AND APPLICATIONS

MS-SGW aggregates multiple VPNs from remote SecFlow devices and addresses Industrial IoT application, for example:

- Distributed automation in secondary substations
- Smart meter concentration
- Water resources management
- Smart retail.

MS-SGW is usually located behind the organizational firewall. It may also serve as WAN gateway, depending on the customer needs.

MANAGEMENT AND SECURITY

In addition to routing, MS-SGW features rich security capabilities (e.g. firewall, automated PKI, and RADIUS).

The device can be managed via the MS-SGW web-based interface. Local or remote (SSH) menu-driven access is also supported for basic and initial configuration.

MS-SGW is supported by RADview (RAD's network management system).

Specifications

STANDARDS

IEEE 802.3, 802.3u, 802.1D, 802.1Q, 802.1p

ETHERNET INTERFACE

Number of Ports	1 internal GbE port (facing Megaplex-4 backplane)
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Maximum Frame Size	9600 bytes
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BRIDGE

Compliance	802.1D
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IRB	Integrated Routing & Bridging Mode (one of the bridge ports must have an IP address)
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Mode	VLAN-unaware
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Loop avoidance	STP, RSTP
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Multiple bridges	
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Port mirroring	
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ROUTER

Protocols	OSPFv2 (IPv4), OSPFv3 (IPv6)
Routing	Static and dynamic routing Dual stack IPv4/IPv6 (the interface can have both IPv4 and IPv6 addresses) Single unicast router (single VRF) DNS Resolver
Routing interface	Resides on: <ul style="list-style-type: none"> Physical Ethernet port VLAN sub-interface Double VLAN sub-interface
Policy Based Routing	Based on Firewall rules
NAT	Static NAT (1:1) NAPT Port forwarding (hole punching)

MANAGEMENT

Control Port	RS-232, UART interface, RJ-45 connector, 115200 bps
DHCP	DHCP client and server DHCP relay
Options	Password-protected access, authorization levels WEB GUI (full configuration and monitoring) Local terminal via front panel control port (limited configuration menus) SSH (basic configuration menus) RADview Syslog IPv4/IPv6 protocols

TIMING

Timing	NTP client and server
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SECURITY

VPN	OpenVPN L2TP
Firewall	Stateful firewall Configurable rules: <ul style="list-style-type: none"> Per interface Rule can apply to IPv4/ IPv6 L3 and L4 attributes Firewall Rules: 200
RADIUS	RADIUS authentication
IPsec	IPv4 , IPv6 Transport/Tunnel mode Multiple concurrent IPsec sessions Built-in SCEP client IPSec Authentication: <ul style="list-style-type: none"> User-configurable IKEv1, IKEv2 Certificates (SCEP) PSK (Pre Shared Key) Encryption algorithms: AES-CBC, AES-GCM 128/192/256, Blow-Fish, 3DES, CAST 128 Hash algorithms: MD-5, SHA-1, SHA-256/384/512, AES-XCBC PKI with X.509 certification IPSec 300 concurrent tunnels NAT-T (NAT Traversal)

RESILIENCY

High availability	State synchronization Configuration synchronization Common Address Redundancy Protocol
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DIAGNOSTICS

LED Indicators	RDY (green): The module is up and running
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USB PORT

For factory use only

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GENERAL

Processor	2C Rangeley (Intel Rangeley ATOM 2 core processor)
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Environment

Operating Temperature	-10°C to +55°C (14°F to 131°F)
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Storage Temperature	-20°C to 70°C (-4°F to 158°F)
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Humidity	up to 95%, non-condensing
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Power

Power Consumption	35W max
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Ordering

MP-4100M-MS/SGW/R2C

Megaplex-4 multiservice module, Security gateway, 2C Rangeley (Intel Rangeley ATOM 2 core processor)

The module must be ordered together with a RADcare Package and RADcare Project Assurance Package.

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