

iSEG RF-1031

Secure Gateway

WHY RADIFLOW?

Radiflow is a recognized leader in industrial cybersecurity, offering dedicated solutions designed to meet the unique requirements of industrial infrastructures:

EXPERIENCE

Over 10 years' experience discovering and analyzing advanced persistent threats and targeted attacks, including attacks on critical and industrial infrastructure

EXPERTISE

Dedicated team of industrial cybersecurity experts who understand the colliding worlds of automation and security.

END-TO-END PORTFOLIO

Radiflow offers a holistic portfolio of services and technologies, including secure gateways, Industrial IDS and many more.



- ▶ Authentication Proxy for securing remote access
- ▶ IP SCADA firewall
- ▶ IPsec VPN over cellular & fiber with X.509 certificates
- ▶ Ruggedized gateway for Serial and Ethernet devices
- ▶ Resilient network uplink over Ethernet or Cellular
- ▶ SCADA protocols gateway
- ▶ Fit for harsh environmental conditions
- ▶ Enabler for NERC CIP v6 compliance

The iSEG RF-1031 Secure Gateway was designed for small remote sites that require a secure connection to a limited number of devices.

The iSEG RF-1031 offers security solutions for both M2M (Machine to Machine) and H2M (Human to Machine) traffic by incorporating a DPI (Deep-Packet Inspection) firewall, as well as a user-identity firewall.

The iSEG RF-1031 includes a distributed DPI firewall or monitoring all network traffic and managing physical and remote access control systems. The whitelist-based firewall is installed at every port for both Serial and Ethernet traffic. Each SCADA protocol packet is validated by the firewall for source, destination, protocol and packet content.

The firewall's two states (Monitoring and Blocking) allow blocking suspicious traffic or just monitoring, in addition to triggering an alarm at the control center.

The iSEG RF-1031 supports VPN tunnels for secure inter-site connectivity with IPsec, DMVPN, mGRE tunnels (among others) with key management certificates, supporting layer-3 services.

In addition, the iSEG RF-1031 fully supports L3 switches (VLANs, Routing, etc.) for Ethernet and serial ports.

The iSEG RF-1031 offers a built-in APA (Authentication Proxy Access), for compliance with the NERC CIP V6 requirement for identifying and granting privileges to users prior to granting network access. Once validated, specific access is granted to predefined devices and functions, and each operation is logged. The iSEG RF-1031 is also integrated with a physical identity server system, for other authentication methods (e.g. magnetic card.)

SPECIFICATIONS

SECURITY

Distributed DPI Firewall
 Profile-based firewall
 Security rules planning per service group
 Firewall modes: Monitoring, Enforcement
 IEC 104 DPI Firewall
 Modbus TCP DPI Firewall
 DNP3 TCP DPI Firewall
 S7 TCP DPI Firewall

VPN

IPsec Certificates X.509
 IPsec Dynamic Key Exchange
 IPsec encryption AES, 3DES
 L3 IPsec VPN policy based L3
 IPsec VPN route based
 L3 mGRE DM-VPN

Access Control

Access Lists L3, L4
 NAT
 User-based/Task-based access control for local devices via local APA (Authentication Proxy Access)
 OS image encryption

INTERFACES

1 or 2 x RS-232 RJ45 Serial port
 1 x RS-485 RJ-45 Serial port
 1 x 10/100TX RJ-45 Ethernet port
 1x100/1000 SFP Ethernet port

Cellular Modem with dual SIM for HSPA +/ LTE CDMA 450MHz
 Discrete lines: 2 In, 2 Out
 Console

PHYSICAL DESIGN

DIN rail mounting, optional wall mount
 Rugged enclosure - IP 30
 Fanless, self-cooling
 Wide range of ambient temperature: min. -40°C, max +70°C (-40°F to +158°F)
 Storage Temperature: min -40°C, max +85°C
 Operating humidity up to 90%
 Dimensions (HxWxD) 106 x 44.7 x 120mm
 Power supply 9-60V
 DC IEC 61850-3 conformance
 MTBF 25 years

MANAGEMENT

Console serial port
 Backup/Restore running config
 Conditioned/scheduled system reboot
 Remote management and upgrade
 TFTP/SFTP Client
 Safe Mode
 Syslog

PROTECTION

Protection over wired and cellular

connections

Protection between Cellular ISPs (SIM cards backup)
 Conditioned/scheduled system reboot

NETWORKING

Serial

SCADA gateway IEC 101/104 and DNP3
 Terminal Server Byte/Frame modes
 Serial transparent tunneling byte mode

Routing

Static routing
 OSPF v2
 IPv4

Switching

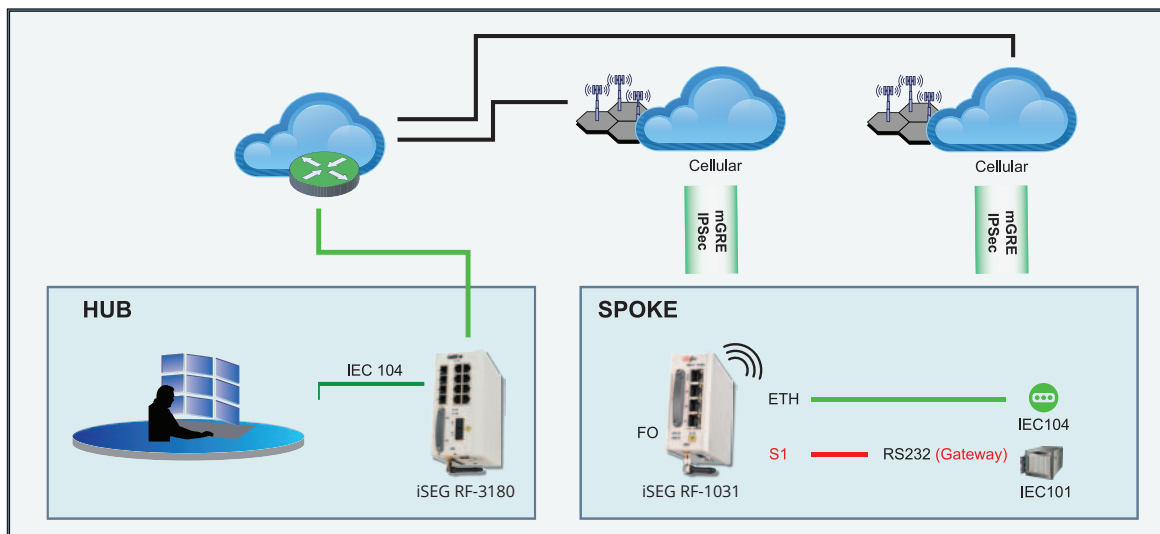
Auto Crossing
 Auto Negotiation IEEE 802.3ab
 VLAN Tagging

Time

Local Time settings
 SNTP

Diagnostic

Counters & statistics per Port
 LED diagnostics
 Ping
 RMON
 DDM



Remote site access over redundant cellular networks