iSEG RF-1031

Secure Gateway

▶ 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.)

radiflow
Secure Your Assets

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

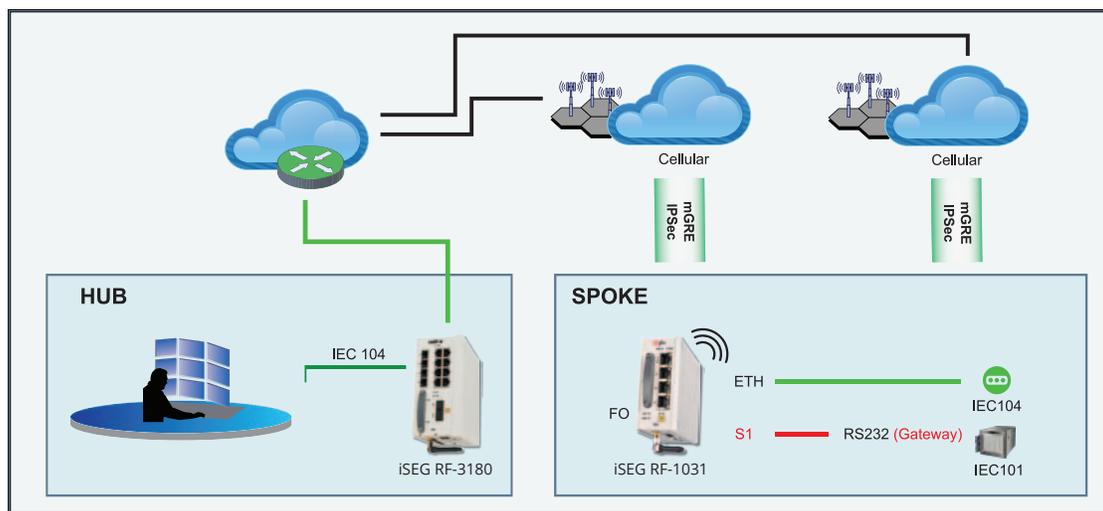#### Routing
Static routing
OSPF v2
IPv4

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