



SAR GATEWAY 460 FM COMBO

Configuration & Connectivity Guide for SAR Server

GSM • Ethernet (LAN) • MQTT / JSON • Failover • Third-Party Server

 Device	SAR Gateway 460 FM Combo
 Purpose	Send field / slave device data to the SAR server
 Connection Options	GSM (SIM card) or Ethernet (LAN) or Both with failover
 Data Protocol	MQTT / TCP (JSON format)



STEP 1 — Connect through SIM Card (GSM)

 GSM Setting	Configure the SIM / GSM parameters
 APN	AIRTELMETERV4 (for M2M SIM)



STEP 2 — Connect through Ethernet (LAN)

Select **STATIC IP/DHCP** and fill in the details below (example values shown):

 Mode	STATIC IP/ DHCP
 IP Address	192.168.131.100 (example)
 Gateway	192.168.131.1 (example)
 Netmask	255.255.255.0
 Primary DNS	8.8.8.8



STEP 3 — Send Data to SAR Server

Primary Server (Server IP 1)

 Protocol	Protocol name — example: MQTT
---	-------------------------------

 Server IP / URL	Broker name — example: mqtt.sar-an.....
 Server Port	Example: 8883 (secure) / 1883 (non-secure)
 SSL Security	Enable → No Auth

Event Format

 Primary Event Format	JSON FORMAT (standard)
 Primary Data Logging	Disable (Disable = gateway backup data OFF)

STEP 4 — System & Event Settings

(a) System Setting — Network Fail-Over Setting

Set the Failover Priority according to the connection you want to use:

Failover Priority	Behaviour	Interface
 LAN only	Ethernet connection only	LAN
 SIM only	GSM connection only	GSM
 LAN fail → GSM	Works on LAN; if LAN fails, switches to GSM	Both
 GSM fail → LAN	Works on GSM; if GSM fails, switches to LAN	Both

(b) Event Control — Event Packing

Log Event TX options:

 Combined Single Event	All data sent together as one combined data payload
 Slave-ID Based Event	Separate payload for each Slave ID (single payload per slave / different slave-ID based data)

IMPORTANT NOTE

- For the gateway to connect over LAN (Ethernet), a LAN Ethernet connection is MANDATORY.
- Download the firmware version file (over LAN) before / during setup.

THIRD-PARTY (CLIENT) SERVER

1 Step 1 — Connect Protocol

 Protocol	Protocol name — example: MQTT / TCP
 Server IP / URL	Client server IP / URL
 Server Port	Client server broker port

2 Step 2 — Remaining Settings

Same as the previous settings (GSM / LAN, Event Format, Failover, Event Control).

LAN NETWORK — DEVICE ACCESS DETAILS

 Device MAC Address	12-digit number (device MAC ID) — provided on site by the SAR team
---	--

Details to be provided by the Client IT Team (when connecting to the client LAN)

- Static IP Address — provided by the client.
- Open Port Number: 8883 — required for online data.
- MAC ID — provided on site by the SAR team.

QUICK CHECKLIST

- ✓ GSM APN set to AIRTELMETERV4 (M2M SIM inserted)
- ✓ LAN: Static IP, Gateway, Netmask 255.255.255.0, DNS 8.8.8.8 configured
- ✓ Server protocol (MQTT), broker URL and port (8883 / 1883) entered
- ✓ SSL security enabled — No Auth
- ✓ Event format = JSON; Primary data logging = Disable
- ✓ Failover priority selected (LAN / GSM / both)
- ✓ Event packing selected (Combined / Slave-ID based)
- ✓ Firmware file downloaded over LAN
- ✓ Client IT: Static IP, port 8883 open, MAC ID shared