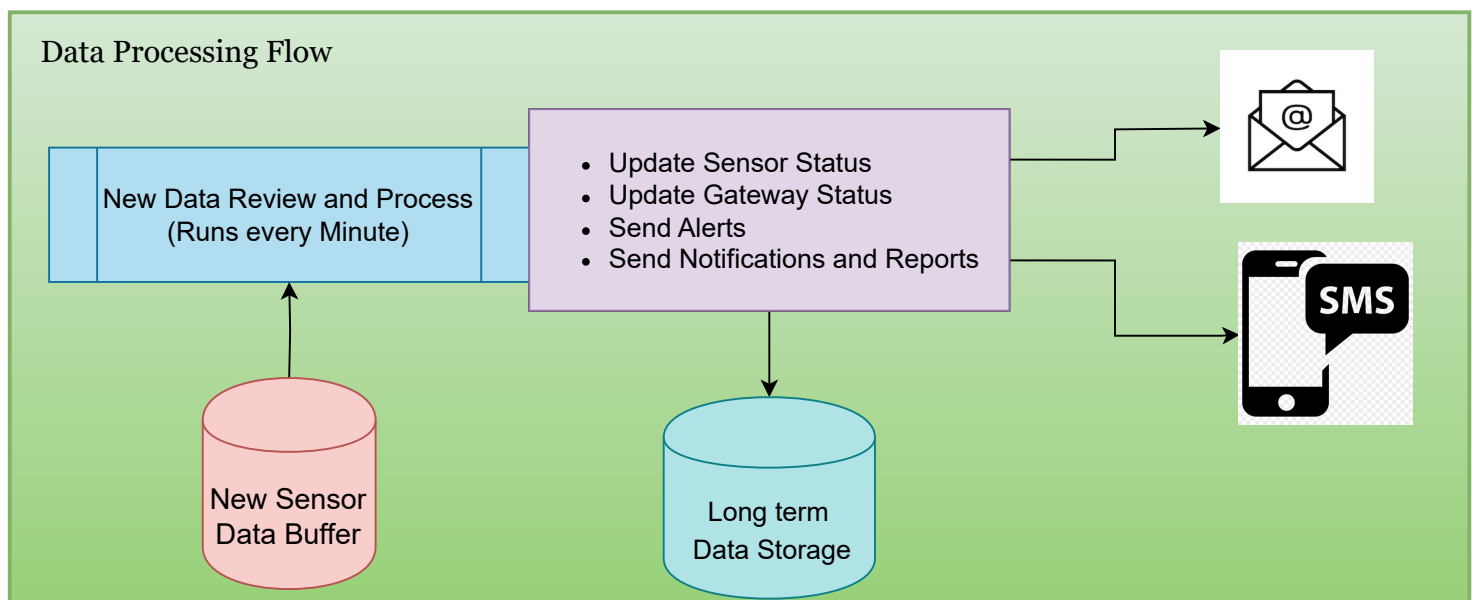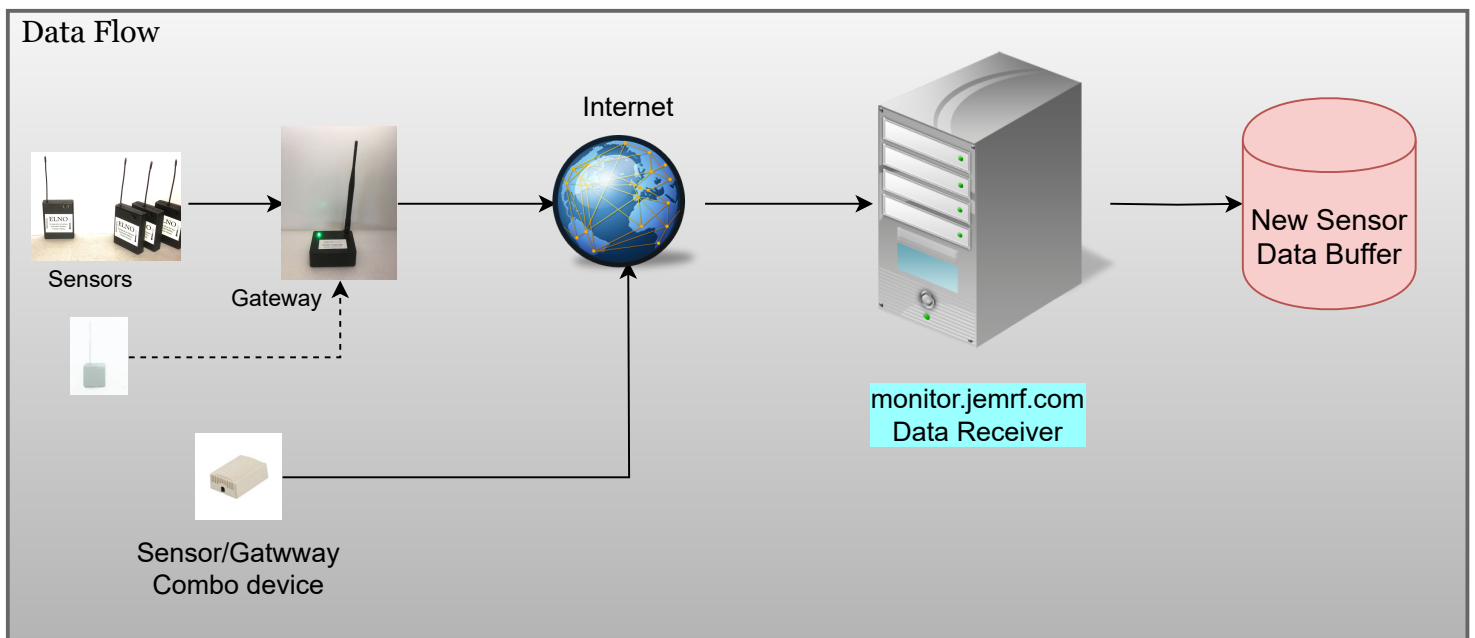# Monitoring Data flow and Data Processing

Data Process

RF Sensors take Samples and send them to the Gateway. WiFi sensors have an integrated Gateway.

The **Gateway** decodes and formats the Data sample and sends it to the Server for storage.

In the Background, a set of tasks run to process the new data samples and move data to long-term storage. Tasks include:

- All samples during the last minute are combined into a one-minute value (average).
- For Analog sensors such as Temperate, the last value received is stored.
- Logical sensors such as On/Off or Door Open/closed have two options: the current state is stored unless there was a change cycle during that minute, then it shows the even state.

Data Flow

Internet

Sensors

Gateway

Sensor/Gatwway
Combo device

monitor.jemrf.com
Data Receiver

New Sensor
Data Buffer

Data Processing Flow

New Data Review and Process
(Runs every Minute)

- Update Sensor Status
- Update Gateway Status
- Send Alerts
- Send Notifications and Reports

SMS

New Sensor
Data Buffer

Long term
Data Storage

The system was designed as an event monitoring system.

Updates and notifications are on the next Minute interval after data is received. The design is for Monitoring, and not as a real-time Alarm System alternative.