



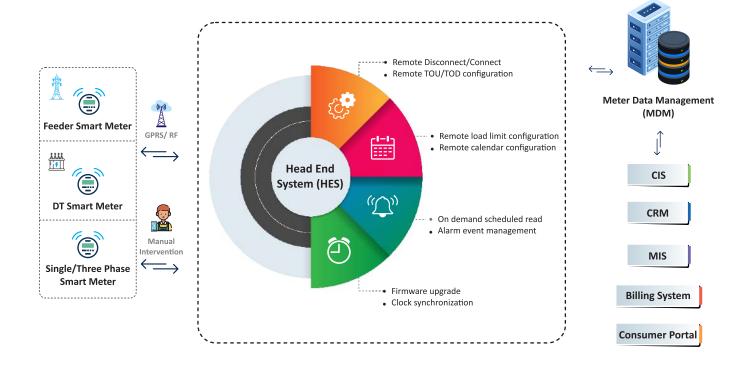
## **Head End** System

UGO Head End System (HES) operates on a secure cloud-based server. It is developed to offer secure and quality-based solution in a cost effective way.

UGO HES is capable to communicate via numerous channels such as 2G, 3G, 4G, NBIoT, RF, etc. It combines all the functionalities into a



unified view for quick searching and data visualization as well as making informed decisions. UGO HES is completely configurable system, and it is also a forward-thinking solution built upon open standard and protocols with a scalable and flexible system.







- Two-way communication capability.
- On demand and real time communication.
- All types of smart meters are supported.
- Multiple MDMs can be handled simultaneously by UGO HES.
- Scheduling of regular activities such as meter readings, disconnections, and firmware upgrades.

- Completely auditable systems.
- Consolidated view for data visualization.
- UGO HES is capable for handling multiple Channels.
- Supports open and secure, standard protocols and APIs for communication.
- Capability to store and transmit high volume of data with end to end encryption.

## **Key Features of HES System:-**



Multiple Communication Channels

UGO HES supports multiple communication channels (RF, 2G, 3G, 4G, NBIoT etc.) and protocols. It provides ideal communication options for all customer segments and network



UGO HES ensures secure and reliable data flow at all system levels. Our HES has a user access management component that provides single sign-on for all system applications and centralized user access control.



UGO HES can receive alarms sent by devices for various events. It communicates the alarms further to MDM, thus providing accurate information about the network status.



UGO HES have critical and non-critical reporting functionality. The critical & non-critical information generated from this reporting functionality shall be made available to MDM at user configurable periodicity.

When any meter data cannot be acquired for



whatever reason, in that case meter data are gathered from the meter using a registered and approved wireless device & mobile application.



It provides statistical and graphical monitoring of the meter data, meters communications, and failure networks. Power outages and meters on a heat map and all system components can also be viewed and trended graphically.



UGO HES architecture enables decentralized system processes which are divided to meter communication, database and integration. The system performance can be scaled horizontally by adding servers to each of these layers.



This includes establishing the clock, billing cycle end, load profile, demand integration, net metering, firmware configuration, load limiting, current/voltage threshold, and many more meter setup tasks such as pinging the meter.



Provides easy integration for other systems to access and control smart metering devices as well as many features to help integrating thirdparty systems.



HES operations are carried out in accordance with a 99.9% SLA on a daily and monthly basis.