

Master Meter

Dynamic Consumer Engagement for Widespread Water Conservation

As North American water utilities adopt Advanced Meter Infrastructure (AMI), they must manage massive consumption-focused ‘Big Data’ where traditionally there was only a single monthly consumption data point. Municipally operated water utilities have not traditionally operated the kind of IT infrastructure to support and manage this data. Master Meter developed Harmony MDM—a highly intuitive, cloud-hosted, Meter Data Management software solution, to address these imbalances while enabling utilities to best leverage raw data.

“The key to improving customer satisfaction and the utility-rate payer relationship is data sharing,” begins Jerry Potter, President/CEO of the firm. Master Meter provides powerful software tools via customized web portals and smartphone apps that provide engaging, insightful data presentation to help water customers become informed, proactive water conservation participants who can create customer budgets supported with real time threshold alerts. “Master Meter’s extensive set of water measurement, leak detection, data network, and data management software tools help both utilities and their customers better manage water,” says Potter.

Master Meter’s ultrasonic Octave Water Management System, designed for commercial and industrial consumers—the largest consumers of water—provides Harmony with precise hourly consumption data. Engineered with solid-state technology, Octave does not experience accuracy loss, which is common with traditional mechanical meters, thereby presenting a formidable conservation ally. “Reflecting the deep technology inside our flagship meter product, the Octave is

assembled and tested in an access controlled clean room,” states Greg Land, Octave Product Manager.

Allegro is Master Meter’s flagship AMI solution. Network reliability is essential in ensuring a robust flow of measurement data is available to Harmony MDM. Data granularity brings the clarity necessary to improve consumption behavior understanding and desired change. Water meters traditionally require transmitter wire and/or connections when transitioning to AMI—the majority of these meters are found in a pit-set underground environment. “Advanced Metering Infrastructure (AMI) end points must be resistant to moisture penetration and the presence of harsh elements that often affect transmitter reliability in pits,” affirms Tim Schwartz, AMI Product Manager. Master Meter has recognized these challenges while pioneering an Under-the-Glass Encapsulation technology (UTG) for their Allegro endpoint. “Not only is the patent-pending dual band antenna design incorporated in the UTG endpoint but also it is optimized to handle the deleterious effects of water on RF performance,” states Schwartz. Our exclusive antenna design results in an increased transmission performance and transceiver sensitivity for reliable data flow that when effectively presented through Harmony, leads to widespread water conservation.

Drive-by based automated meter reading (AMR) technology is a maturing product in the industry. Master Meter has brought very advanced technology to the AMR space with respect to the industry’s first UTG product design, and in functional attributes with Real Time Clock technology. “3G Mobile AMR



Jerry Potter

can provide RTC-enabled, synchronized meter reading information for accurate ‘Non-Revenue Water’ calculations, 4,000 disparate points of data logging for usage analysis, and a bevy of leak, tamper and theft alerts,” notes Schwartz.

“Harmony MDM pulls water consumption data together from all data collection technologies into a seamless customer presentation package. Harmony’s integrated approach presents information modules such as GIS, Customer Service, Work Order, Network Performance, Leak Management Zones, and Meter Inventory in a cohesive visual graphics tool” states Potter.

Meaningful data, clearly presented, makes the difference for water utilities. Recently, California’s Soquel Creek Water District, a part of the Central Coast hydrologic region, faced demanding conservation requirements. Partnering with Master Meter and Harmony software, the District rose to be ranked 8th Best Performing Water District in the State of California. “Master Meter continues to develop exciting data-centric technologies that promote conservation efforts and ensure the future of water,” concludes Potter. **CR**