

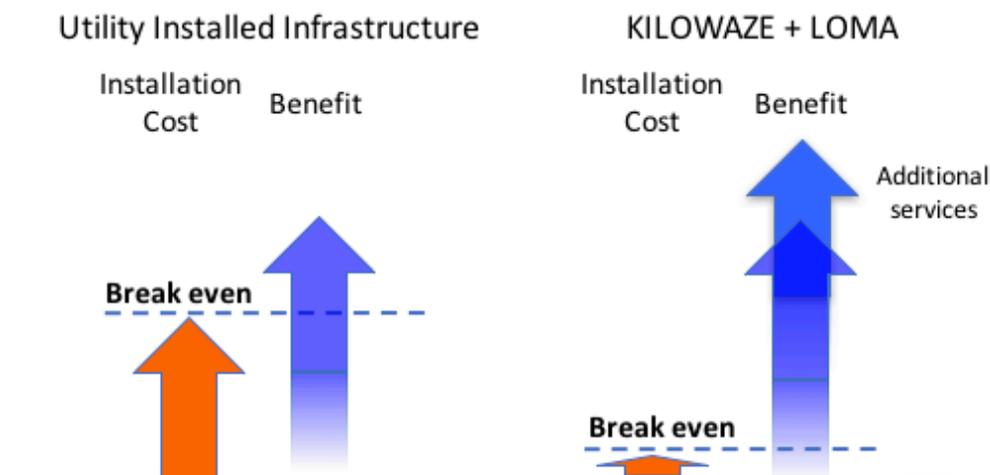
Cost Effective AMI Deployment Using the Low Power Wide Area Network (LPWAN)

For many utilities, smart meter AMI deployment has not been possible because of the high cost of meter hardware, high initial capital cost of network infrastructure and the high cost of network installation, maintenance and support. With such high initial costs, utilities and the Public Utility Commissions (PUCs) who regulate them have questioned the ability of AMI systems to provide positive investment payback or even breakeven.

MDCS brings a cost effective solution to this problem. The KILOWAZE ANSI electricity meter has the best value proposition in the market today. And, in conjunction with the LOMA data network, MDCS will deliver the lowest cost and value rich solution to any utility. With KILOWAZE, there is no utility paid network or computer infrastructure to install, maintain and support. Instead, KILOWAZE meters use the LOMA network to deliver meter data to the utility. In place of a high initial capital investment, utilities pay a low monthly per-meter fee. The fee includes access to 14 meter parameters, 6 status conditions (including power outage reporting) and downstream AMI functions such as remote disconnect.



KILOWAZE + LOMA lowers breakeven, increases profits and enables value added services



The LOMA network service is a nationwide wireless network infrastructure tailored to work with KILOWAZE meters. In geographies where the network is not already available, LOMA installs new infrastructure and maintains it. For the utility, there is no proprietary infrastructure to put in place, no network capital cost and no costly maintenance. This means a significant increase in payback and improved overall quality of service for an AMI installation. In addition to traditional AMI benefits like increased meter reading accuracy, shorter read-to-revenue, faster power outage reporting and remote service disconnect, the cost savings also opens the door to funding new services like the automation of demand response and consumer driven savings programs. All of these help to reduce operational costs, improve the bottom line and increase customer satisfaction.

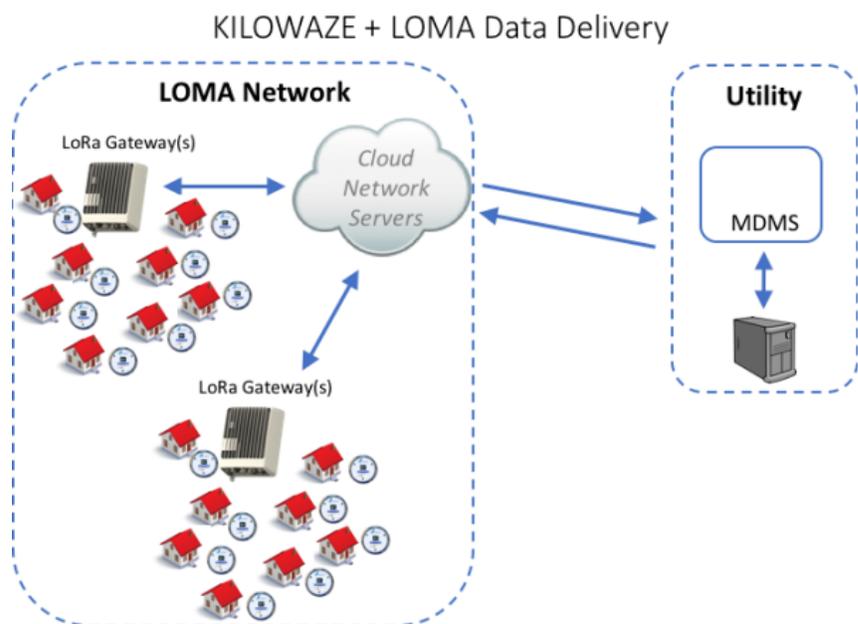
About the LOMA network

The LOMA network is the low cost bi-directional wireless communications link between KILOWAZE meters and the utility's Meter Data Management System (MDMS). The foundation of the LOMA network is a Low Power Wide Area Network (LPWAN) using LoRa® long range radio technology.

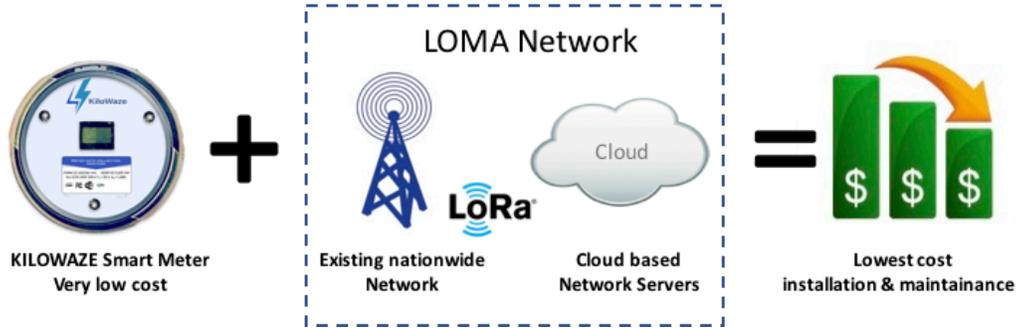
LoRa, a standards based technology with worldwide acceptance, has a wide communications range, high user capacity and high network security. Its robustness to interference and two way communications capability make it the leading LPWAN technology worldwide.

In the LOMA network, KILOWAZE meter data is received by LoRa gateways deployed in the utility's geographic region. A single gateway can cover entire cities in

10 square miles radius. Data from gateways is backhauled (either cellular, Ethernet, or Wi-Fi) to Cloud based network servers. The intelligence and complexity of the LOMA network is in the network servers, which manage the network and perform tasks such as redundant packet filtering, security checks and schedule acknowledgments. The data is then delivered to the utility's MDMS using the industry standard REST interface format. Utility's without MDMS or that require custom configuration to accommodate the REST format, can take advantage of the Datafase interface development service offered by MDCS.



KILOWAZE + LOMA
Lowest Cost AMI, Simple to Implement



KILOWAZE ANSI electricity meters and the LOMA wireless network provides a low cost of entry AMI capability to utilities with limited resources enabling them to significantly reduce operational costs, improve the bottom line and increase customer satisfaction.