



# MIGRATION OF MI.NET M AMR TO AMI INSTALLATION REQUIREMENTS

Customers who deploy the Mueller Mi.Node M system in mobile mode have the option of migration to fixed network or AMI as their systems grow and their need for additional data increases.

General requirements are provided below for data capture during the initial mobile installation process. Be aware that different systems require additional data capture in order to fulfill individual customer requirements during the installation process. Data is normally captured in the billing software interface for most mobile systems.

**Data Requirement:** The meter register ID and the Mi.Node ID should be captured and recorded at the time of meter installation.

- In mobile AMR applications, the meter register number is associated with the account information. During the reading process, the Mobile Transceiver utilizes the register ID when recording meter data.
- In fixed network AMI applications (and in the event the system migrates to AMI from mobile), the Mi.Node ID number is associated with the account information. During the reading process, the Multi Network Collector (MNC) utilizes the Mi.Node M ID when recording meter data.
- The register ID and Mi.Node M ID should both be captured for future use at the time of installation.

**Data Requirement:** One meter or sub-meter GPS coordinates for all meter locations should be captured at the time of installation to facilitate a seamless transition from mobile to fixed network applications in the future.

- Existing GPS meter location can be utilized if it is available however it is strongly recommended that a minimum of one-meter accuracy data be used for the best fixed network radio propagation study possible. This degree of location accuracy enhances fixed network system performance.
- Valid 911 meter address data can be used to geocode meter locations for mobile systems, however it will be less accurate for all mapping based functions and may be insufficient for radio propagation studies in the event the system migrates from mobile to fixed network functionality at a later date.

**Installation Tip:** Accurate meter location data for fixed network AMI systems is critical due to the longer-range communication required. Mobile system transmissions are normally acquired over shorter ranges that require less granular location accuracy. Following the register and node ID recording requirements outlined above will reduce required man hours to capture additional data later, reduce infrastructure and enhance overall system performance for both mobile and fixed network applications.

## INSTALLING INDOOR SET METERS

- Optimal installation providing the best radio frequency range for mobile and fixed network systems is achieved when the radio is installed on an exterior wall of a home. Exterior wall mounting provides the most efficient access to the nodes during subsequent field investigations. All potential fixed network sites require exterior installation of the nodes.
- In mobile applications that will never migrate to fixed network, the radio module may be installed inside the home. Mueller recommends that the node be installed as high as possible in the basement rafters to provide the best radio frequency propagation as possible. The integral wall mount bracket continues to be available for mounting with screws.

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## INSTALLING PIT AND VAULT SET METERS

Prior to August, 2019 the Mi.Node M module was housed in the two part enclosure pictured below on the left. Effective December, 2019, all Mi.Node modules will be housed in a new 3 part housing with removable antenna cap as pictured on the right.



Figure 1 Original and New Mi.Node Enclosures

The 3-part node housing design permits the removal of the antenna cap and direct installation of the Through The Lid Hanger for composite lids or antenna for metal or concrete lids as required by the pit/vault lid material composition; TTL-A (Through the Lid Antenna) or a TTL-H (Through the Lid Hanger). The integral wall mount bracket continues to be available for mounting with screws.



Figure 2 TTL-A and TTL-H