



**Badger Meter**

## BEACON® Advanced Metering Analytics

### Mobile Solution

#### OVERVIEW

The BEACON® Advanced Metering Analytics (AMA) mobile solution from Badger Meter is built on a century of water metering experience, combining our intuitive BEACON AMA software suite with our proven ORION® communication technologies to prepare you for the future.

#### SOFTWARE APPLICATIONS

##### BEACON Advanced Metering Analytics (AMA)

The BEACON AMA software suite brings greater visibility and utility management control. With tools beyond meter reading, BEACON AMA software offers targeted Advanced Metering Analytics in a secure hosted platform. The innovative software puts metering data to work with easy-to-use data tools for the utility to increase efficiency in day-to-day utility operations and address demands for actionable intelligence.

- Customizable dashboards to deliver information in a format matched to utility requirements
- Ability to set unique alert conditions to define and monitor exceptions
- Automatic software upgrades
- Integration with your utility systems: billing, work order, inventory, Customer Relationship Management (CRM) and Geographic Information Systems (GIS)

##### BEACON AMA Field Application Suite

The BEACON AMA Field Application Suite handles field assignments and data collection with ease and efficiency.

##### BEACON AMA Field Director

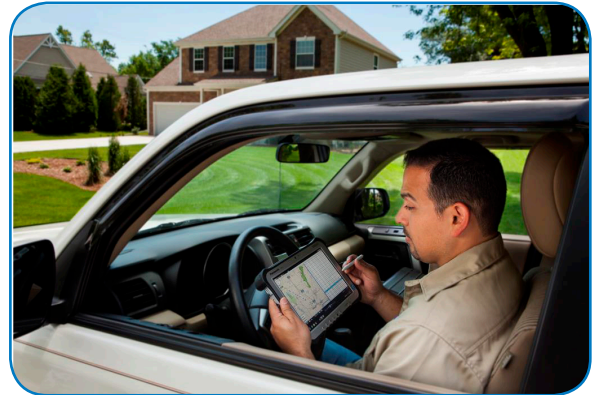
The BEACON AMA Field Director web-based application is designed for utilities to manage meter reader field assignments and monitor the read collection process. Dispatchers can update meter reading assignments and monitor their completion from the office.

##### ORION Mobile Read

The ORION Mobile Read software module is a client-based application designed for utility meter route reading. Meter reading field assignments and reading data are automatically synchronized with the cloud-based BEACON AMA software anytime an Internet connection is established, so meter readers do not have to come into the office to receive assignments or deliver reading data.

##### ORION Endpoint Utility

ORION Endpoint Utility software is a client-based troubleshooting application for programming and quick read of ORION Migratable (ME), Fixed Network (SE) and Classic (CE) endpoints. The software can also be used to extract and view historical interval data from endpoints with data profile functionality using IR or RF technology for ORION SE/ME/CE or SE/ME endpoints respectively.



#### HARDWARE

The BEACON AMA mobile solution features high-powered ORION meter endpoints and a data collector that is both mobile and rugged to deliver precise daily meter information. The mobile solution is comprised of the following hardware:

##### ORION Endpoints

Compatible with BEACON AMA, ORION endpoints are integral elements of the mobile solution.

- ORION ME endpoints are two-way water endpoints for mobile applications. ORION ME endpoints are easily upgraded from mobile to fixed network data collection without rolling a truck or reprogramming the endpoint, preparing you for the future.
- ORION CE endpoints are one-way water endpoints designed for mobile meter reading.

##### Panasonic® Toughpad® Tablet

The Panasonic Toughpad Windows®-based tablet is built for highly mobile operations like meter reading. The Toughpad operates in every environment—from intense heat and sunlight, to pouring rain and freezing temperatures. Together with an ORION mobile transceiver kit or ORION mobile receiver kit, the Toughpad is compatible with the BEACON AMA mobile solution, including ORION Mobile Read and the ORION Endpoint Utility software. Refer to the document, *Panasonic Toughpad Product Data Sheet*, available at [www.badgermeter.com](http://www.badgermeter.com), for more information.

##### ORION Mobile Transceiver, Receiver

The ORION FHSS (frequency hopping spread spectrum) mobile transceiver and mobile receiver are portable devices designed for use with ORION software applications. The transceiver and receiver both feature a plug-and-play design that can be easily maintained and operated. When connected, the ORION mobile transceiver supports RF collection of meter reading data from ORION ME and SE endpoints, while the ORION mobile receiver supports ORION CE endpoints. Refer to the *ORION ME Mobile Transceiver* and *ORION CE Mobile Receiver Application Data Sheets*, available at [www.badgermeter.com](http://www.badgermeter.com), for more information.

## SECURITY

BEACON AMA is ISO 27001 certified and SOC 2 examined for security, availability and confidentiality.

## TECHNICAL SUPPORT AND TRAINING

Configured for the utility, the safe and secure hosted BEACON AMA software suite provides utilities with regular updates, long-term support and maintenance. Comprehensive training is provided at the time of system deployment. To maintain best practices, a library of online videos and options for web-based training and support are also available. Once deployed, our technical support specialists may be contacted by phone, email and web to provide ongoing, utility-friendly support. Additionally, Badger Meter offers extended customized training to further enhance user expertise.

## TECHNICAL REQUIREMENTS

### BEACON AMA and Field Director

Developed as hosted software platforms, the BEACON AMA software suite and Field Director are cloud-based software applications accessed through a standard web browser. User logins provide secure access. Field assignment data is synchronized with ORION Mobile Read on the mobile collection device through a wireless or wired Internet connection. Internet access is required.

Supported web browsers include: Google® Chrome (29 or higher); Microsoft® Internet Explorer® (10 or higher); Apple® Safari® (5 or higher); Mozilla® Firefox® (23 or higher).

### ORION Mobile Read

ORION Mobile Read is a client application that runs natively on the Panasonic Toughpad tablet, or on a customer-supplied tablet/laptop, which meets or exceeds the specifications listed in the table below. An ORION mobile transceiver or mobile receiver kit is required for collection of mobile meter reading data. Secure user logins limit access to field assignments.

#### Tablet/Laptop Specifications

**NOTE:** The Panasonic Toughpad offered by Badger Meter meets or exceeds all the **Recommended** specifications as listed.

TABLET/LAPTOP SPECIFICATIONS			
	Panasonic Toughpad*	Recommended	Minimum
<b>Operating System</b>	Windows 8.1 Professional 64	Windows 8.1 Professional 64	Windows 7 Professional 32
<b>Memory</b>	8 GB	8 GB	2 GB
<b>CPU</b>	Intel Core i5	Intel Core i7, i5 or equivalent	Intel Core i3 or equivalent
<b>Storage</b>	128 GB SSD	128 GB SSD	64 GB SSD or HDD
<b>Connectivity</b>	Bluetooth® 4.0; Intel WiFi; 4G LTE multi-carrier (for use with customer-supplied data plan)	Bluetooth® 4.0; Intel WiFi; Gobi or other 3G or LTE wireless (for use with customer-supplied data plan)	Bluetooth® 4.0; WiFi; Gobi or other 3G or LTE wireless (for use with customer-supplied data plan)
<b>GPS</b> (required for mapping functions)	On-board GPS capability	On-board GPS capability	On-board or external GPS capability
<b>Screen</b>	Touch-capable; daylight readable	Touch-capable; daylight readable	Touch-capable
<b>Camera</b>	8.0 MP (rear-facing) and webcam	3.0 MP (rear-facing)	—
<b>Battery</b>	Long lasting lithium-ion battery pack, 10.8V, typical 4400 mAh; hot-swappable	Long lasting lithium-ion battery pack	Long lasting lithium-ion battery pack
<b>USB port</b>	One (1) USB port	One (1) USB port	One (1) USB port
<b>Ruggedized</b>	MIL-STD-810G certified; IP65-certified	Rugged device recommended	—

\*The specifications listed are those for the Panasonic Toughpad offered by Badger Meter.

### ORION Endpoint Utility

ORION Endpoint Utility is a client application that runs natively on a Windows-based tablet or laptop, with Windows 7 or higher. An IR communication cable is required for IR programming functions, and an ORION mobile transceiver or mobile receiver kit is required for performing RF quick reads, or two-way RF communications (ORION ME/SE endpoints only).

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