



Using 1MARK™ to Put GIS Mapping in the Hands of Your Field Staff

This is the second in a series of articles describing how authorities can use 1MARK to easily and affordably connect the front office to the field staff for a seamless flow of information using cloud technology.

By the Staff at 1MARK™

Status of the Cloud

Cloud computing and storage capabilities are changing the way information is used, distributed and stored in many industries. For example, it is already a mainstay in the construction industry by connecting employees to the construction site by providing access to project files and plan revisions from any mobile device with internet connection. No longer are files stuck on a single server back at the office.

Likewise, Pennsylvania's water and wastewater industry is slowly starting to keep pace with cloud technology. Already cloud technology is powering a bid procurement system along with many advances in the utility billing arena. Our first installment of articles introduced you to the cloud solution for handling PA 1 Call tickets.

Undoubtedly, cloud technology is here to stay and advancements will only continue for almost every industry.

Beyond purely operational improvements, users also benefit from seamless disaster recovery because cloud providers perform hourly backups with data centers located physically in two or more regions of the United States.

Additionally, cloud users see decreases in power usage, IT support, maintenance, server space, new hardware and the never-ending upgrades to the latest version of software.

Serving up GIS Maps to Field Staff

Most authorities have made the move to GIS mapping long ago and now have robust systems that reside mainly in the office. However, getting this information to the field staff for use in their day-to-day operations, in an affordable and easy-to-use fashion, is certainly the missing link. Finally, the use of Google Maps as a free GIS viewer, combined with cloud computing, has opened the door to solving this problem.

IMARK uses these tools to provide authorities a platform to allow GIS mapping to be served to the field staff using mobile devices that they likely already have in their hands. And if not, putting such devices in their hands is easy and affordable considering you can purchase a \$300 tablet with a \$10/month data plan.

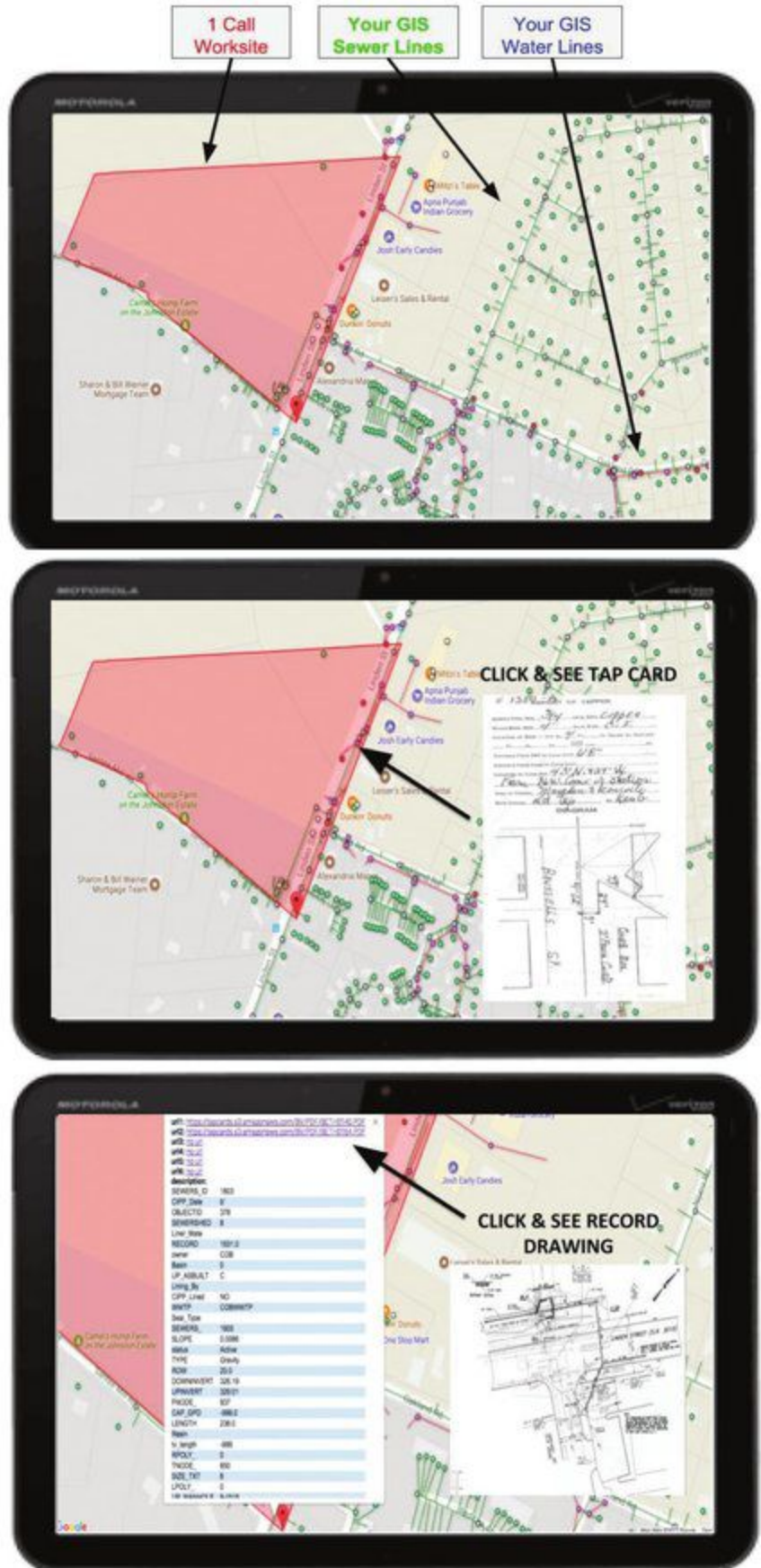
Getting Your GIS Mapping into the Cloud

GIS software developers have shifted their focus in the last few years to providing their service using cloud technology. It is now common for the GIS staff and engineers to access GIS software via the web, instead of having the program loaded onto your computer. Field access is possible using some GIS software products; however, the mapping has proven to be cumbersome to access (i.e., log on) and difficult to navigate.

The use of GIS shape files (uploaded to the cloud) and the free Google Maps service, allows authorities an affordable and simple method of putting all of their GIS mapping into the hands of their field staff for day-to-day use at the click of a button on their mobile devices. IMARK's basic package includes the 1 Call module and this GIS mapping capability.

Maintaining Your GIS in the Cloud

Keeping your mapping current for changing conditions in the field is always a major priority for any utility. After the initial upload of your GIS shape files (done by the IMARK staff), keeping your mapping current to the field staff is now made easy using IMARK's built-in-tools. These tools allow you, or your engineer, to run simple batch files that automatically upload new shape files whenever they are needed. Users typically schedule the batch file to run automatically at the end of the work week to make sure the field staff has the most current mapping.



Our next installment of articles will describe how cloud technology can serve your digital, geo-located field measurement and record drawings to your field staff using 1MARK's PDF File Viewer for use in their day-to-day work.

About 1MARK™

1MARK™ is our newest endorsed member program that provides authorities a low-cost, monthly subscription option to connect the front office with the field staff for a seamless flow of information accessible on any web browser, tablet or smartphone.

This web-based software platform processes and manages PA 1 Call Tickets, includes a complete work order system tailored to the water and wastewater industry and provides a solution for transmitting all of your important digital, geo-located information to field staff superimposed onto Google Maps for viewing of your GIS mapping, field measurements and all of your record drawings.

For more information about 1MARK™, which is produced by Breakthrough Concepts, LLC, or to arrange for your personal demonstration, please visit PMAA's website and find 1MARK under the Endorsed Member Programs section in this magazine (pages 18–19).



What PMAA Members Are Saying About 1MARK™



In October of 2017 the Bethlehem Township Municipal Authority converted to the web-based 1MARK system for all its PA 1 Call ticket processing. Our area of responsibility for Bethlehem Township, PA includes; public sanitary sewer, storm sewer, traffic controls, and lighting.

Being able to provide our field staff with the integration of our ESRI® GIS mapping through the use of shape files and Google® Maps, the one stop shop approach enhances operations by providing locators with immediate utility location, as well as access to record plans.

Staff can now easily navigate mapping and tickets on any cellular device in the field and on demand. Converting to 1MARK and training was completed in literally a few hours, was incredibly simple and immediate.

In a world where software companies promise easy solutions and almost seem to never deliver, the 1MARK's system literally is on the "mark"!

**Steven J. Hunsberger, Director
PPIS/Bethlehem Township Municipal Authority**

