The Water, Web, and Mobile Connection

By:
Ahmed Khattab
Nobel Systems
Effective Utilities Management

- Passing and getting back information between field and office personnel.
- Effective data collection without redundancy of manual input.
- Viewing mission critical information while out in the field.
- Changing priorities to accommodate emergency and problem escalation.
Obstacles

- Web applications are only available online.
- Mobile Device Browsers only Work on Certain Websites (Silverlight and Flex do not work on most devices)
- Internet “Dead-Spots” will severe any connection and will leave the possibility of data loss and manual reentry.
- Wireless broadband Internet speeds make viewing Aerials and Basemaps slow.
- No available internet.
Solution

- Nobel Systems Introduced GeoViewer Mobile which is based on ESRI’s iOS API.
- Ability to view GIS data offline.
- Ability to view Basemaps offline.
- Only pass minimal information while online (DigAlerts, Service Orders, Flushing Collection Data, Valve Exercising Data, … etc.)
- Vital mapping functionality (Identifying, Zooming, Searching, … etc.)
Water Utilities Usages

- Valve Exercising
- Hydrant and Blowoff Flushing
- Service Orders
- DigAlert Tickets
- Leak Reporting
- Document and Asbuilt Viewer
Valve Exercising

- View the hydrant on a GIS map to get more information on related assets, such as the size of the main it is connected to.
- The ability to connect to a Valve Exercising Machine
- Collect Valve information and make comments on the exercise task.
- Save data locally to the device and then synchronize with Master database.
Hydrant and Blowoff Flushing

- Collect flushing data
- Calculate water loss
- Save data locally to the device and then synchronize with Master database.
- The data collected can be later used to Generate reports.
Service Orders

- Automatically get latest service orders, while in the field.
- See only service orders to be worked on today.
- View service orders on the map, to get information from near by assets.
- Information collected by field personnel is transmitted to the office personal to view.
- Generate daily reports for completed service orders.
DigAlert Tickets

- View DigAlert tickets on the map, and have the boundaries of the area to be marked drawn on the map.
- Check out tickets, so that colleagues working on DigAlert, do not duplicate the work.
- Mark ticket completion, and add comments to the ticket.
Leak Reporting

- Add new leaks to GIS
- Fill form to collect information on the status of the leak.
- Attach Images and Videos