CITY OF HEWITT

HEWITT, TEXAS

NEPTUNE TECHNOLOGY GROUP

HIGHLIGHTS

- City has eliminated service calls for accounts with a move-out and move-in on same date

- Neptune's R450™ System reduced reading time by 2.5 weeks

- Increased reading accuracy without transposed numbers or re-reads has helped accelerate cash flow

- Detailed consumption data by account enables customers to manage their usage

- Graphs of hour-to-hour usage have resolved billing complaints while finding previously unidentified leaks

Neptune's R450™ Fixed Network AMI Makes Efficiency a Walk in the Park – *Without* Feet on the Street

AMI in the Right Place – an Ideal Location for Fixed Network

Begun in 1882 as a station along the Missouri, Kansas, & Texas (MKT or Katy) Railroad, Hewitt, Texas encompasses 6.86 square miles south of Waco. The City is centrally located between Dallas and Austin and has experienced phenomenal growth since the 1970s. At one time the fastest growing community in the nation, it has boomed from 569 in 1970 to its current population of 13,549.

The local water system was started with a single artesian well and storage tank in 1899 and remained in private hands until the City purchased it in 1985. Today the water system consists of five wells, three connections to the Waco water system and 73.5 miles of water lines serving nearly 5,600 accounts, 97 percent of them residential.

When James Black joined Hewitt's utility billing services in 1992, the City read its meters with paper and pencil. The addition of

touchpad reading helped, although it still required up to two-and-a-half weeks for personnel to record the readings to meet the monthly billing cycle. After the installation of a supervisory control and data acquisition (SCADA) network for the City in 2010, Director of Utilities Black and his team realized that the same conditions that made the service area ideal for SCADA – a relatively flat, contained landscape with tall water towers for signal collection and transmission – also made it ideal for fixed network advanced metering infrastructure (AMI) for its water system.

In an effort spurred by City Manager Adam Miles, Hewitt decided to bypass a mobile AMR system in favor of total fixed network AMI. "Knowing that we're locked into our boundaries and can't grow outside our geographic area, it made sense," Black said. However, with the funding available, Hewitt would have only one chance to get its metering system right.

The project was accomplished through Siemens Industry-Infrastructure and Cities division and local government code 302. Three different AMI companies and their systems were investigated and the choice was made to run a pilot of 100 meters using Neptune's R450™ System. According to Utility Billing Manager Karen Sexton, the initial testing commenced in February 2011. After witnessing the successful results and with the added benefit of having Neptune Level One Distributor HD Supply just ten minutes down the road, the City worked with Neptune Territory Manager Rex Baxter and Chad Nobles with Siemens to begin a system-wide changeout in October 2012. Installation within the city limits was entirely completed by May 2013, including E-Coder® solid state absolute encoders, R450™ radio frequency meter interface units (RF MIUs), and the posting of two R450™ Data Collectors on water towers. Black had planned to implement an additional R450™ Mini Collector on a ground storage tank but discovered that the RF coverage provided by the other two units was actually more than enough.

A Fount of Knowledge – Water Consumption Data through the R450 System

Black and his team implemented the new system during the off-peak season to better prepare customers for the improved meter accuracy – and resulting higher bills – before the months of peak water usage. Sure enough, as the new reads started coming in and bills were sent out, customers complained, saying their bills couldn't possibly be accurate. "A lot of customers had been under-billed before because of inefficient meters," Sexton said. With consumption data for individual accounts in hand, the City showed customers graphs with exact dates and times of water usage. In many cases, the cause for the higher bills turned out to be small, previously unidentified leaks. Within a short time, customer complaints subsided when they understood the increased accuracy of the AMI system as well as the details of their own usage. "We had one lady who said, 'Thank you for taking the time to explain this to me,'" said Black.

Not only are customers better informed but they're also acting on that information. "We had customers who'd been running their sprinklers without thinking much about it," said Sexton. "Now we can show them their hour-to-hour usage and say, 'Here's where you were watering your lawn from two until five in the morning using 1,500 gallons per hour.' When they can see that, they can then decide, 'Am I willing to spend that much to water my grass?'"

Black added, "A city councilman whose water bill had jumped didn't realize that in our area, St. Augustine grass takes twice the water as Bermuda grass. He had just planted it, and now he's ready to pull it all up."

Already, the City has begun enforcing a tiered billing system by usage. In the near future, Hewitt plans to leverage the capabilities of its R450 System to enable consumers to have more control of their own water consumption. Black is interested in the capability of Neptune's N_SIGHT™ IQ™ Intelligent Data and Analytics application to not only provide a portal where customers can check their own usage but also receive proactive notifications of continuous leaks or even water consumption that exceeds preset budgets. "We're trying to educate the customer," Black said. "It will make things easier for them and alleviate some of our problems up front."

Faster than Walking OR Driving – and More Efficient

While Hewitt can now provide an extra hand in the area of customer service, its meter reading has become largely hands-free – with no need for keyed entry or even keys to the utility truck. "We can read our whole system in two-and-a-half to three minutes versus the two-and-a-half weeks it took before," Black said. As a result, Neptune's R450 System has sped up Hewitt's billing. According to Black, "The accuracy's better with no transposed reads, and we don't have to go back for re-reads. Now we can double-check high readings here in our office in a matter of minutes." All of this has not only accelerated cash flow, "It's saved us a lot in-house."

The City has also reduced its time in the field by eliminating service calls for those accounts with a move-out and move-in on the same date. "We don't have to send out techs for our connect-disconnects anymore," said Sexton. "And those had made up 75 percent of our work orders."

"We're making up so much ground that we can realign our employees from meter reading to things like main breaks and other maintenance," Black said. "We've scaled back two reading positions without having to let anyone go – we just didn't have to replace employees after they'd left. The system has taken up that much slack."

"We're very excited about our Neptune R450 System, with the information for the customer, and the ease for us. It's user-friendly, not overwhelming. Just click here, and it guides you through. The first time you read meters with it, it's 'wow'…It's the 'Cadillac' of all systems."