

Addressing the Addressing Debacle

Iredell County, N.C., had long grappled with addressing errors and inconsistencies.

The Problem

What is the unifying point for almost everything a city or county does? The answer: the address. Above and beyond the addresses associated with parcels (the situs addresses), there are incidence reports, E911 addresses, units, condos, meters, signage, and even mailing addresses, all of which may or may not be directly tied to a physical address.

“One thing that everyone in a county has is an address,” said Steve Ervin, County Assessor. “Accurate address information is the key to county services such as emergency services, tax collection, voting, and allocation of resources. It all comes back to the address.”

And there’s the rub. Accuracy. Most local governments’ addressing databases are riddled with errors and inconsistencies. Typically, addresses are assigned over many years by different people in different departments without consistent procedures and conventions.

As just one example, when Laura Crater, now Assistant Assessor & Personal Property Supervisor in Iredell County’s Tax Office, was hired over 20 years ago, a large part of her job was plugging addresses into the County’s CAMA system. She would look at a map, judge where the parcel and the street was, and then input her assumptions into the database. “That was over 20 years ago and some of that data is still out there,” said Crater. “It may be right and it may be wrong. It all came down to judgment calls that weren’t always that accurate.”

Inconsistencies can lead to a number of problems including: addressing errors, problems with currency, missing addresses, little sharing of information, and duplicated and broken work flow processes. These issues often lead to decreased revenues (e.g., if you can’t find it, you can’t tax or collect it), increased costs of operation, and even the potential of public safety issues.

Iredell County was no different. “Managing addresses across multiple county departments has been a challenge for as long as I was working for the county. I think it’s a challenge for most if not all counties,” said Bill Doolittle, former tax director for Iredell County.

Doolittle was well aware of the toll the address problems were taxing the county—and all counties, really. But though Doolittle had searched for a software solution to solve their addressing woes for many years, the only alternative seemed to be to cobble together a mostly home-grown solution, a task that would require far more internal resources than Iredell County could manage.

Then Doolittle saw a demo for FARRAGUT AddressOne, an enterprise addressing software solution. He was immediately sold. “I wish this product had been around 20 years ago,” said Doolittle. “FARRAGUT is the first company to create a packaged software solution. It seemed like a very reasonable alternative to building a solution from scratch.”

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About Iredell County

Iredell County, with a population of 158,153 (2009 census estimate) is a growing county in North Carolina. Historic Statesville serves as the county seat. The town of Mooresville, known as “Race City USA,” is considered a major hub of NASCAR racing. Although northern Iredell County remains primarily rural, the southern end of the County is experiencing rapid population growth, largely due to the draw of the Lake Norman area. Lake Norman, located near Charlotte, North Carolina’s largest city, features the state’s largest inland lake.

AddressOne at Work

Barry Whitesides, senior GIS addressing technician, is the “address guy” for Iredell County, and he has been for 13 years.

Prior to about eight years ago, after Iredell County embarked on the implementation of a 911 Address System, each of Iredell County’s three primary municipalities—Statesville, Mooresville and Troutman—maintained their own address systems (mostly a mix of city address systems and developer-assigned addresses). Because of the new 911 initiative, each town handed over their address responsibilities to Iredell county (that is, to Whitesides). By 2002, these addresses (a number of which had been changed) had been added to Iredell’s GIS system. “So you could say I was handling four different systems under one common database prior to our purchase of AddressOne,” said Whitesides.

Now enter AddressOne. Understandably, Whitesides (“the address guy”) was a little “leery” of the software at first, especially the automation features. “I was reluctant to change,” he admitted.

The first time he clicked a point and the system automatically created an address, Whitesides was quick to disagree with the assigned address (and was happy to see that AddressOne was flexible enough to allow him to override the automation). tune.

Over the next few weeks, however, Whitesides began to change his tune. “As I got used to AddressOne, I trusted it more and more,” he said. “I realized that by taking out the guesswork, it will help us tidy things up. I’m finally able to fix some of the problems that I’ve known about for years.”

Some features won Whitesides over from the start. The Centerline tool, for example, gives Whitesides a user interface for managing the street centerline as well as their associated attributes (e.g., address ranges, jurisdictional boundaries, emergency response areas, zip codes, and more). “The first time I used the tool to break the centerline at the zip code, I was amazed at how the tool automated the process,” said Whitesides. “This tool has made it much easier to improve the data accuracy of my street centerline layer for the areas where the different emergency response districts converge.”



Addressing is the hub around which everything else in local government rotates

Public safety

By streamlining address creation, validation and maintenance using GIS-based tools, AddressOne offers Iredell County numerous benefits. But benefit number one, said Doolittle, is improved public safety. AddressOne was purchased by Iredell County using their Enhanced 911 (E911) funds. E911 is a system that automatically associates a physical address with the calling party’s telephone number. This gives emergency responders the location of the emergency without the person calling for help having to provide it.

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Chris Bridges | GIS /Mapping Adminstator, Iredell County”

But what if the address is incorrect in the county's database? Poor address data can lead to serious public safety issues. Despite the adoption of even the most sophisticated Computer-Aided Dispatch (CAD) Systems, around the country, emergency crews still occasionally get lost or get sent to the wrong address. Most incidences can be traced to address data that is either inaccurate or not current (for new streets or construction sites).

"Emergency workers are in a huge hurry when they get that emergency call," said Doolittle. "Addressing issues should never stand in their way. Whether it's a firefighter on a call or an ambulance trying to locate a person who has just had a heart attack, every second counts."

AddressOne has extensive built-in quality control rules to make sure zip codes, emergency response districts and addresses are internally consistent. It also includes error reporting/correction facilities to help staff catch more subtle errors.

Another key feature of AddressOne is that it centrally manages and standardizes the use of both physical and mailing addresses. Previously in Iredell County, as in most counties, multiple departments would manually enter and maintain data, which often winds up as a confusing blend of physical and mailing addresses.

"AddressOne has cleaned and validated our addressing database," said Chris Bridges, Iredell County's GIS/Mapping Administrator. "We now have a lot more confidence in the accuracy and timeliness of our addresses."

And that benefit is only expected to continue. "When you no longer need to re-key the same address across multiple departments, you introduce fewer errors and inconsistencies," said Doolittle. "With a single database—tied to GIS data—Iredell County can supply its emergency department with addressing data that is far more accurate and detailed."

Taxation

If you can't find it, you can't tax or collect it.

AddressOne will help Iredell County increase its revenues on a number of fronts. For one, many jurisdictions do not issue building permits until the final address has been assigned to the new construction location. This delay can result in significant revenue impacts—delayed building materials sales and use tax, delayed property taxes from completed new structures, and delayed spending from new citizens and businesses. AddressOne provides real-time address information to the building permit system to help avoid these delays.

Parcel mapping cannot legally take place until the plat map is recorded, yet construction has already been going on for six months or more. Since these are new addresses and frequently new parcels (the ownership basis for taxation), tax offices incur a huge amount of manual effort trying to add new construction on to the tax rolls.

AddressOne KEY BENEFITS

- AddressOne, a packaged enterprise addressing system, is specifically designed to meet the needs of local government.
- Streamlines address and centerline creation, validation and maintenance using robust GIS-based tools
- Increases the accuracy and reliability of address data
- Centrally manages and standardizes the use of both physical and mailing addresses
- Enables querying and the validation of addressing information
- Maintains a complete history of retired and obsolete addresses
- Provides a robust set of integration facilities that allows AddressOne to be integrated with other departmental applications

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Sometimes an entire year of property tax revenue that should have been billed and collected can be missed, a significant revenue shortfall. AddressOne automatically provides the addresses for the tax system, even if the parcels were not created until later.

Aside from new construction, AddressOne will also help find taxable real and personal properties that escaped being recorded. Just in its early stages of implementation at Iredell, the County is already starting to reap the benefits of attaching personal property to accurate physical addresses.

“It can be very difficult to figure out where personal property is located,” said Crater. “Accurate addresses will help us make sure we are charging in the proper jurisdictions at the proper tax rates [and that the recipients are receiving the bill].”

AddressOne also helps maintain accurate tax payments.

“Sometimes tax payers make a payment on the wrong address,” said Crater. “With AddressOne, we eliminate this possibility. The tax payer has the right address on the bill, so the money gets credited to the right property. It will save a lot of headaches for the tax department and the tax payer.”

The Trickle-Down Effect

Ultimately, the benefits of accurate, reliable address data trickles down into all county government departments—as well as the jurisdictions and the tax payers themselves. “I think it trickles down to everybody in the end,” said Crater. “For example, in the past, there have been times when we have had to make large refunds to a jurisdiction because we sited it wrong. But if we have the correct information from the start and can bill accordingly, they can do their budgets correctly for tax estimates.”

Yet another example is elections. Voter registration is a key consumer of addressing data, and the widespread use of special taxation districts requires extremely precise and current addressing. AddressOne provides every address a unique address record down to the unit (apartment or office suite) level, with as many jurisdictions as needed, and the ability to use map boundary changes to maintain the data.

“It’s hard to think of an area of local government that won’t realize the benefit of accurate addressing data,” said Ervin. “From emergency services to the sheriff’s department to the tax office to the school districts, everyone will be impacted and it will all be good.”



Iredell County Government Center