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December 12, 2005

Need for Dynamic Registry and Address Authorities

Needs of Local Address Authorities. Street addresses are the location identifiers most widely used by state and local government and the public. Street addresses are critical information for administrative, emergency response, research, marketing, mapping, GIS, routing and navigation, and many other purposes. Because they have evolved over many decades, under the control of thousands of local jurisdictions, in many different record and database formats, and to serve many purposes, different address formats and types pose a number of complex geoprocessing and modeling issues. As a consequence, government agencies struggle with these issues as they seek to integrate large, mission-critical files into master address registries.

Needs of County, Regional, State, and National Address Aggregators. These problems are multiplied for data aggregators, including, for example, the Census Bureau, USPS, state and regional emergency operations centers (EOC), county and regional GIS administrators. Each of them must aggregate addresses from many different sources, and reconcile conflicting information, often without direct access to the originator of the data. As a result, incorrect and outdated addresses are often retained, and variant versions of the same address are received, and much time and effort are wasted in trying to correct errors. The problem is particularly acute in times of large-scale emergency, when EOC operators receive multiple conflicting address files and must spend precious hours locating and reconciling them.

Role of a Dynamic Address Registry. Dynamic address registries offer a framework for
1. Local address authorities to maintain lists of official addresses, along with attribute and record-level metadata concerning the local AddressID, the address location, other descriptive information, and the address lineage, and file-level metadata.
2. Address aggregators to aggregate standardized addresses into larger registries.

Both types of registry managers would have to maintain current data, post changes as revisions occur (testing for obvious errors in the process), and refer requests for authoritative validation to the originating local authority.

Address Identifiers, and the Need for a Dynamic Registry of Address Authorities. Local address authorities would be expected to assign a unique ID to each address in their jurisdiction. Address authorities themselves might have unique ID's perhaps an extension of the FIPS/GNIS code for their jurisdiction. The Authority ID + Address ID could form a unique address ID for the entire nation. The Authority ID would have to provide for multiple authorities in the same area, and for identification of agency or office that creates addresses. Thus a registry of addresses would require a registry of address authorities.