

**GeoIndex - A New Geolocation Methodology****Presenter****Matthew Hudnal**

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Traditional mapping of address-enabled data involves the correction and subsequent geolocating of an address on a per-item basis. To support the mapping needs of multiple agencies in the State of Alabama, we have developed a GeoIndex that leverages past address corrections and geolocations to facilitate expedited mapping of new data. The process on its surface is simplistic in nature, but the implications at the enterprise level are quite far reaching. As addresses are geolocated, they are first checked against an indexed SQL table of a master 'GeoIndex'. This index contains the raw address in its uncorrected form, the address after it has been corrected (misspellings, N to North, etc), the geolocated latitude and longitude, and the accuracy of the geolocation (zip code, roof top, etc). The raw address is SQL indexed so that matching happens instantaneously. So if an address has ever been corrected and geocoded, the system is able to take advantage of the previous data. In Alabama, our GeoIndex is currently at 4 million addresses and will be at approximately 40 million addresses by January of 2014. We can now bulk-geocode millions of addresses in a matter of seconds with this system and serve the needs of many different state agencies through one centralized service. This is truly a revolutionary change for mapping of data in Alabama and the system is scalable and applicable to any system that needs to be able to geolocate and subsequently map addresses.