Evaluation Criteria for Enterprise Geocoding

Choosing the Right Software To Provide Location Intelligence

Research Perspective

Sponsored by

VENTANA RESEARCH

Aligning Business and IT To Improve Performance

Ventana Research
2603 Camino Ramon, Suite 200
San Ramon, CA 94583
info@ventanaresearch.com
(925) 242-2579
www.ventanaresearch.com

Starting with Geocoding

The process of geocoding increases the quality of business information by augmenting geographic references to fully support operations and decision-making. Without the dimension added by geocoding, operational risk increases, business cycles are wasted, customer satisfaction declines and the likelihood of decisions that could be flawed increases.

Organizations should plan the implementation of enterprise geocoding carefully. To begin, identify how it can help improve your processes. Identify the range of geographies you need to cover, domestically and, if your business functions globally, internationally. Also determine the categories of your business data to which enterprise geocoding must be applied. At a minimum this will include customer, product and service, location, asset and workforce data.

With the needs identified, set the evaluation criteria you will use to select a geocoding supplier and product. Ventana Research recommends five categories of software criteria – usability, functionality, reliability, manageability and adaptability – and two vendor criteria, validation and total cost of ownership/return on investment (TCO/ROI). In particular in the functionality category we recommend building in criteria that value geocoding precision and breadth of coverage to correspond to your company's needs.

Before beginning the evaluation, assemble a group with the right combination of people and skills to ensure that you make the best choice and that input will be available from all the appropriate people, including those who will use the product. This must be a cross-functional team that includes people from IT and the lines of business affected by geocoding; the input of the latter is essential to ensure the resulting choice will deliver tools that address their needs. If you have no previous experience with a geocoding deployment, consider getting assistance to provide education and knowledge transfer.

The process of geocoding increases the quality of business information by augmenting geographic references to fully support operations and decision-making.

At this point you are ready to build a business case for investment in geocoding. This case should be based on the business benefits, framing them within a timeframe for achieving them. Enterprise geocoding can provide benefits in business areas such as customer service, finance and the supply chain; for each area in which improvement is desired, determine the savings in costs, time and resources. In most organizations the value of the investment in reducing the risk of failing to meet expectations with respect to customer relationships and operational efficiency is a core part of a business case for investment. In most cases these benefits can justify the cost of investment in enterprise geocoding.

Risks of Not Geocoding

If you encounter resistance to investing in enterprise geocoding, consider the potential consequences of not doing it. Look at each of the business areas in which it might add value and determine impacts on customer retention and growth if the company lacks the capability to communicate with individuals within a targeted proximity of your retail or service locations. Also identify the costs of dealing with incorrect information in the customer service and operational areas and the time lost in dealing with inaccurate geographic coding of information.

If you already have some geographic capabilities, assess whether they are sufficient to support geocoding effectively across the enterprise's processes, including internationally. Merely being able to find an address or search on the Internet for driving directions is not enough. If your technology requires extensive programming or that all processing to done in the database, it will not be flexible enough to handle the diverse array of enterprise needs. If this is the case, examine and to the extent possible quantify the value of having complete accuracy and integrated global support in one system that can support what you do today and adapt to your needs in the future.

The following criteria will help you identify the combination of technology capabilities and business requirements that must be satisfied to enable you to make the right choice in selecting a vendor for enterprise geocoding.

Seven Key Evaluation Criteria

#1: Usability for all roles

Analysts in the affected lines of business areas typically are the people most aware of issues when geocoding is not done properly; thus the software must be readily available for them and have the capabilities they need. Their specific usage requirements and levels of sophistication vary; some need to be prompted for review, while others need to be able to invoke geocoding as part of a business process. IT professionals want to be able to adapt and integrate the technology into existing systems; application developers may want to embed it into their systems. Thus the software must offer both simplicity of use for the business roles and technological robustness for IT. Also important are the extent of training required for various users and the nature and quality of the support and training the vendor can provide wherever in the world geocoding might be used. Automation of the geocoding process and support for workflow and exceptions also are critical to gaining efficiency from enterprise geocoding.

#2: Flexible capabilities for today and tomorrow

In today's global economy most organizations support customers, workers and/or suppliers elsewhere in the world. Each area may impose local demands on the technology; these, aggregated together, should be integrated in a single set of processes for global enterprise geocoding. The software must support not only verification and replacement of an address but the full process – verification, cleansing, matching and updating – as a series of steps in the geocoding process;

moreover, the software must be flexible enough to do this either in real time or as batch processing. It should be able to support data and location validation, augmentation of reference data and even multilevel geocoding aggregated from a specific location to the territory, district and region in which it exists. Advanced systems ensure country-level certification of data and can use parcel point-level data including street interpolation, intersections, postal centroids and reverse geocoding. Insist that this complete set of capabilities (and others you identify) be available and integrated within one product to provide the right level of address cleansing and verification.

#3: Adaptability to enterprise processes

Supporting key business processes across the enterprise requires that geocoding can be integrated in existing processes and systems. These range from customer-facing systems to accounting in the back office to the supply chain. Insist that your geocoding technology use a single application programming interface to process addresses around the world in a consistent method. In addition, individuals and businesses around the world interact today in common business processes that incorporate location and languages as well as proprietary geographic entities like sales territories or national operating requirements. These must be as efficient as possible, and so the technology must be able to embrace and support all such processes while maintaining a standard user interface.

#4: Manageability at all stages

Don't underestimate the importance of easily being able to manage any technology you acquire. Include installation, configuration, deployment and operational support in considering manageability. Make sure that information about location can be kept secure and private and that the software is able to accommodate any industrial, national and corporate policies. Also include integration with any third-party services that might be used to augment or improve the data based on its geocoded attributes. Finding methods to manage the geocoding efforts centrally can save significant time and money. People responsible for the results of the geocoding should be able to manage and monitor the technology and address exceptions in the process.

#5: Reliability of geocoding

Supporting global enterprise business processes requires that technology reliably perform at expected levels and scale as needed. A business process might require that the software is invoked in real time one record at a time or collected in batches and processed and updated within a specific timeframe. Whatever the specific requirements, the software should be able to operate 24-by-7 worldwide and across discrete systems that support specific business processes. Accuracy of the geocoding of course is critical; the vendor should guarantee that the software will deliver a specified small volume of false positives to reduce the need for manual intervention in address validation. In addition, global geocoding should have available and use all appropriate source data at the postal and country levels and be easy to update. The resulting information also should be formatted to

support both the needs of the business and all local and national requirements.

#6: Validation of the technology provider

The capability to deliver comprehensive enterprise geocoding and support international requirements takes time to develop. Make sure that the vendor you select has invested significantly in the technology and has a track record of proven installations in a range of countries and languages around the world. Insist that the provider supply customer references that span domestic and international operations and if possible compete in industries similar to your own. Evaluate its global operations and deployment of offices to support activities around the world. Also ascertain that the provider has a stable business model and ample finances and resources to continue to support your efforts for the foreseeable future.

#7: Affordable TCO and certain ROI

As for any investment, you must determine how to gain the most value from enterprise geocoding. Any vendor that you consider should be able to demonstrate the total cost of ownership, which includes the software, system and resources required to establish and maintain geocoding. As part of this process, compare the cost of existing efforts to those using technology that can streamline geocoding needs across the enterprise and internationally; the net saving resulting from the elimination of the labor associated with the manual review may reduce by a significant amount the cost of the new investment. Ensure you understand the required level of investment up-front and the value it will return in the form of calculable benefits for the business; we recommend that you measure ROI over three years.

About Ventana Research

Ventana Research is the most authoritative and respected benchmark business technology research and advisory services firm. We provide insight and expert guidance on mainstream and disruptive technologies through a unique set of research-based offerings including benchmark research and technology evaluation assessments, education workshops and our research and advisory services, Ventana OnDemand. Our unparalleled understanding of the role of technology in optimizing business processes and performance and our best practices guidance are rooted in our rigorous research-based benchmarking of people, processes, information and technology across business and IT functions in every industry. This benchmark research plus our market coverage and in-depth knowledge of hundreds of technology providers means we can deliver education and expertise to our clients to increase the value they derive from technology investments while reducing time, cost and risk.

Ventana Research provides the most comprehensive analyst and research coverage in the industry; business and IT professionals worldwide are members of our community and benefit from Ventana Research's insights, as do highly regarded media and association partners around the globe. Our views and analyses are distributed daily through blogs and social media channels including Twitter, Facebook, LinkedIn and Google+.

To learn how Ventana Research advances the maturity of organizations' use of information and technology through benchmark research, education and advisory services, visit www.ventanaresearch.com.

