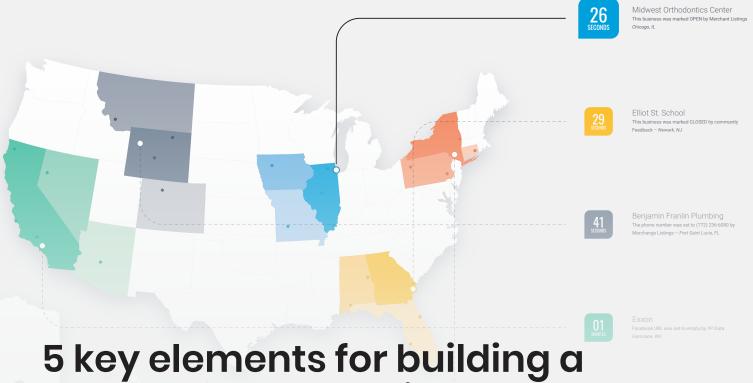
data axle



Successful data-driven product What you need to know about licensing the right data to power

your solutions.

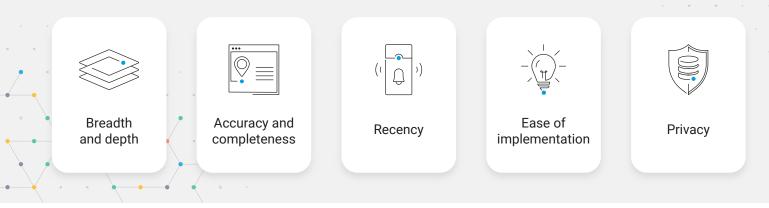
Introduction

Strong businesses require strong data. Leading brands and local businesses alike are tapping into a variety of business and consumer data to market their products, sell directly, and advertise through multiple channels, including social media, display, email, and direct mail. At the same time, product developers building data-driven solutions draw on the same data to meet their customers' ever-evolving needs. Companies across a myriad of industries rely heavily on quality data sources to support search and navigation, location intelligence, risk assessment, and many other solutions.

Data can improve decision-making, efficiency, insights, targeting, reporting, and customer experiences; it can also identify new business opportunities. But not all data is created equal – data-driven products and solutions are only as good as the data that powers them.

When selecting data providers to power their products, developers must ensure they're tapping into comprehensive, high-quality streams of fresh information that can be easily integrated into their products in a privacy-compliant manner. While use cases for data-driven products vary widely, there are certain criteria that all companies and their product teams should look for when <u>evaluating the data</u> that will fuel their solutions. In this guide, we'll take an in-depth look at these criteria, the questions to ask when vetting data providers, and case studies from companies that are tapping into high-quality data to power industry-leading products.

5 key components to consider when licensing data



Data licensing use cases

Startups and Fortune 500 companies alike rely on high-quality data to power their products and solutions. Below are some of the most common use cases for data licensing.



Insurance, risk, and financial solutions

Ensuring users have up-to-date information for underwriting, risk assessment, fraud detection, and improving efficiency.



Location intelligence

Powering geographic information system (GIS) applications with the right data to support mapping technology and gain insights on specific geographic areas.



Marketing and analytics

Enabling companies to effectively and efficiently understand the impact of their advertising and communication efforts at the individual level, across channels and devices.



Digital solutions

Providing the ability to access or create digital audiences intended to reach ideal customers across multiple channels.

Data science

Providing reliable and high-quality demographic, psychographic, and firmographic data to inform a variety of data models – from AI and machine learning, to revenue and efficiency.



Virtual assistants

Empowering applications to accurately answer questions like, "What time does the pizza place down the street close?"



GPS and navigation systems

Powering in-vehicle navigation systems including in-dash and connected solutions, mobile apps, as well as fleet managements, and logistics support with first-class data that reliably gets users to the right places.



Local search, rideshare, and delivery applications

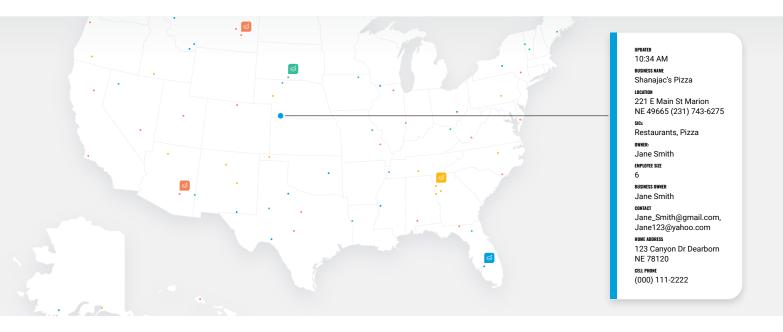
Ensuring business information (locations, operating hours, accessibility, etc.) is complete and up-to-date so businesses can be found online and deliveries so businesses can be found online and rideshare customers and deliveries make it to the right location.

Breadth and Depth

Comprehensive data is a key consideration in determining how well a provider can meet a company's needs. Companies must think in terms of both breadth and depth of data. Does the data source widely cover the subject in question? And does it do so in enough detail that the data can be put to use in the real world?

The breadth and depth of data that an organization requires will vary by use case. For example, in the case of geographic data, developers should look for data sets that include all active businesses (regardless of size) and populated residences in the geographic areas their products represent. Companies should also ask data providers if they offer any specialty data that would be applicable to their unique use case, be it contacts, emails, industry classification, corporate hierarchy, operating hours of a business, or lifestyle characteristics and buying preferences of consumers.

Comprehensive coverage is a necessity for a good user experience. Products, regardless of the tech that powers them, will not perform unless also powered by the right data. Comprehensive coverage ensures that search and navigation users can find the right business and easily navigate to its location. It also means that an insurance underwriter can easily profile the small business they are evaluating. Clients using an analytics solution can make informed decisions based on comprehensive findings. Without data that has both breadth and depth, your product will not have a strong foundation on which to build.



- What coverage does your data provide? Will it represent all sizes, and types of business as well as all households in the area I'm interested in? How do you obtain this coverage?
- What data attributes are available about the businesses and households in my area of interest and what are your fill rates on those attributes? What sources do you use to manage your data and how often are they updated?
- What are your processes for maintaining the breadth and depth of your data? What's your plan for continuously improving your coverage?
- Can you provide a report or can I access an interface to run counts and determine fill rates on individual attributes across your consumer and business data? Is this available as part of the data license you provide?





Breadth and depth in action:

Esri

Esri, the global market leader in geographic information system (GIS) software, location intelligence, and mapping, helps customers unlock the full potential of data to improve operational and business results. In 2014, Esri turned to Data Axle for business data, covering both the U.S. and Canada, that Esri could use to help its clients with marketing analysis and segmentation, prospecting, sales territory analysis, and distribution network site selection. In addition to requiring comprehensive coverage in the U.S. and Canada, Esri's data interests ranged from small, independent businesses up to large national brands.

Esri selected Data Axle as its provider of <u>U.S. and Canadian business location data</u>. As a result, Esri has been able to increase its commercial business and location presence around GIS and mapping platforms for client-specific use cases. With Data Axle's business data, Esri clients are able to gain greater insights via <u>ArcGIS® Business Analyst</u>, Esri's premier GIS tool for commercial markets, which Esri clients can then leverage in collaboration with maps, apps, and reports.

⁴⁴ Data Axle has been a partner of Esri for several years. Their data is key to the delivery of ArcGIS Business Analyst. We value our partnership with Data Axle and will continue to explore ways to support our clients' needs."

Jordan Cullen, Lead Product Marketing Manager, Esri





Breadth and depth in action:

Verizon

Verizon requires comprehensive, accurate data coverage to support the rollout of their 5G internet solutions and related marketing initiatives. Verizon uses Data Axle's platform to ingest business and consumer datasets, and quickly match third-party data sources against Data Axle's data to easily validate and enhance existing information. This enables Verizon to quickly analyze markets and send marketing communications to the appropriate contacts.

⁴⁴ The business data delivered by Data Axle has provided an unparalleled level of intelligence that Verizon uses to improve coverage and service. We look forward to continuing to use their world-class dataset to develop impactful insights that shape our business."

> Pradeep Varadan Manager – Geospatial Data Science, Global Products and Solutions at Verizon

Breadth and depth:

Data Axle's approach

Data Axle has been in business for more than 45 years. Our unique approach to data compilation and verification delivers unparalleled coverage in the U.S. and Canada, across both business and consumer datasets. Leveraging more than 4,000 business and 100+ consumer data sources, Data Axle supports innovative, market-leading companies as they integrate this data into their products and services.

With nearly <u>400 data attributes</u>, Data Axle's <u>business database</u> offers a complete view of almost every business in the U.S. and Canada—from the Fortune 500 down to mom-and-pop shops and work-from-home freelancers. Our business database is updated in real time and features rich information covering location, business activity and more.

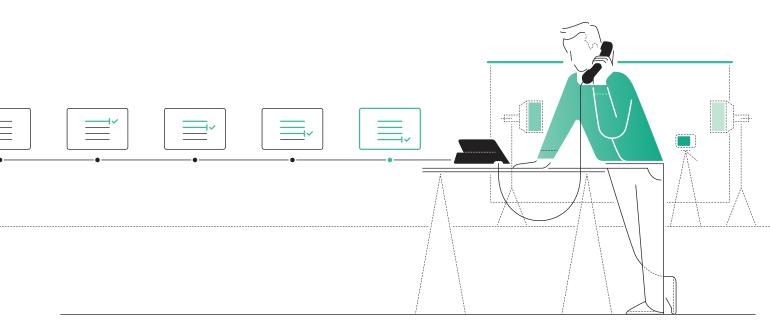
Our <u>consumer database</u>—covering more than 330 million U.S. and Canadian consumers—is compiled from data provided by more than 100 sources including real estate documents, tax assessments, voter registrations, utility connections, bill processors, and more, giving businesses the ability to build marketing campaigns and develop products informed by hundreds of data attributes, updated in real time.

Accuracy and Completeness

While data coverage is important, it's not enough on its own. The data must also be accurate and complete. It's not enough to simply guarantee coverage of a geographic area. The data related to that geographic area must be current and should precisely define the business or individual it pertains to. For a consumer using a search or navigation application, getting routed to a closed business results in a poor user experience. Likewise, misrepresenting the type and size of businesses or overstating the number of businesses in a building will lead to inaccurate risk assessment of a commercial property.

The sleekest technology in the world isn't going to impress users if the data that powers it turns up incorrect or incomplete results. When assessing the accuracy and completeness of data, you need to evaluate database sources, the provider's processes for verifying those sources, and how the data provider ensures that their information stays up-to-date. Simply relying on one source of data will not lead to comprehensive coverage, and waiting for businesses and consumers to self-report changes is not enough to maintain a useful, accurate dataset.

When working with a data partner, developers need to pay close attention to how well the provider's <u>data matches</u> <u>against their own first- or third-party data</u> as well as how effectively the partner can fill in gaps within their existing data.



- · What methods do you use to collect and update your data?
- How do you stay current on the changes to businesses that open and close and individuals that move, marry, and change jobs?
- How frequently can you update the data you provide and can I subscribe to only the changes that are important to my product?
- · How is your data validated? What is actual data and what is modeled?
- · How do you measure data accuracy and how frequently are you testing your data against accuracy criteria?
- Do you have a process for your customers to report changes to your data, a process to validate the feedback, and report back results from your validation?
- What have you done in the last year to improve the accuracy of your data and what initiatives are on your roadmap to improve accuracy this year?





Accuracy and completeness in action:

Zenrin

As a leading provider of digital maps and car navigation solutions serving some of the biggest car manufacturers in the world, Zenrin needs to integrate accurate and detail-rich points of interest data into their products. Drivers rely on Zenrin to get them to the right place and on time for their day-to-day activities—from finding the nearest cup of coffee and dropping their child off at soccer, to locating a nearby gas station. They also expect to know important information about their destinations before they arrive. Is the coffee shop open yet? Does the gas station sell E85? Does it have a convenience store? This type of information changes all the time, which means Zenrin needs up-to-date, constantly refreshed business location data to guide drivers. Thanks to their partnership with Data Axle—and Data Axle's extensive coverage and data verification process—Zenrin knows they're providing their customers with the most up-to-date data products on the market.

Gapanese companies are very strict on quality standards. Data Axle's data is very extensive and trustworthy due to the verification process and cleansing. We are very happy working with Data Axle and look forward to many more years of great business partnership."

Yoko Hiji, Senior Manager of Business Development at Zenrin USA

Accuracy and completeness:

Data Axle's approach

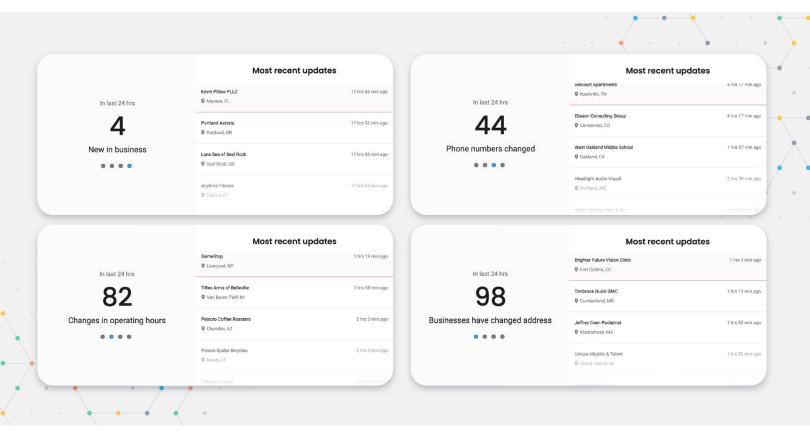
Data Axle offers the most comprehensive and accurate business and consumer databases, covering 16 million verified U.S. and Canadian businesses, 184 million households, and offering almost <u>400 distinct data attributes</u>. Data Axle invests more than \$20 million every year to ensure our data is accurate and can live up to our customers' standards and business needs. We employ more than 300 data technicians who are dedicated to verifying the data quality on a daily basis. Every year, Data Axle's team makes more than 24 million phone calls in support of our data quality, resulting in more than 1 million updates to our databases every single day.

Data Axle's seasoned team of specialists manages, aggregates, and cleanses more than 19 million data attributes monthly, and the company employs thousands of proprietary software programs to check for standardized names, abbreviations, misspellings, duplicates, and more. Together, these efforts ensure that our databases represent the most complete and accurate business and consumer data sources on the market today.

Recency

If the COVID-19 pandemic taught business leaders anything, it's this: If data isn't fresh, it's of no value to your business or your customers. In fact, outdated data and insights can put your products and services on the fast track to irrelevance. In the blink of an eye, a global health crisis upended business and consumer behavior as we knew it. Many business professionals set up satellite offices in their homes. Companies that were operating with months-old data, particularly as it related to business operations, quickly realized they couldn't keep pace with the need for real-time intelligence.

Today's data partners must provide companies with <u>robust APIs</u> that enable real-time data updates. These updates can inform products of the changes to a business or residence as they become available. Delaying such updates by weeks or even days can cause a product or platform to quickly become out of date, leading to a poor user experience.



- · How often is the data updated?
- Do you provide data updates at the frequency required to meet our company needs (hourly, daily, weekly, in real-time)?
- · How do you keep your data up-to-date?
- Do you regularly perform data audits to test the quality of your data? What do these audits look like, and how often do you perform them?
- What happens if a business closes or a new one opens? How quickly can you reflect such a change?
- What happens if a contact moves to a new company? How will you know-and how quickly?



Recency in action:



Brandify, an industry-leading provider of location-based digital marketing solutions, helps brands connect with their customers. They must ensure their clients' business listings show up in search, navigation, and mobile applications—and with up-to-date information at all times. By employing Data Axle's Local Listings service, Brandify enables clients to manage their listings easily and ensure they appear how the client wants the public to see them.

Data Axle's Local Listings service gives clients one central place to add and update information about their business, which then propagates across major search engines, local directories, virtual assistants, and navigation applications, so customers can always get accurate information about a company and its locations. Using Data Axle's Local Listings service, Brandify was able to distribute important updates about a business, such as changing operating hours, throughout the turbulence of 2020's lockdowns and disruptions.

⁶⁶ Our partnership with Data Axle has been a key component of our offering, given that Data Axle has long been one of the most important players in the local search ecosystem. Data Axle is highly trusted by publishers and navigation services that are particularly important to our brand clients. The company has consistently developed its technology to keep pace with modern demands for real-time availability of accurate information of local businesses."

Damian Rollison – VP Product Strategy at Brandify

Recency:

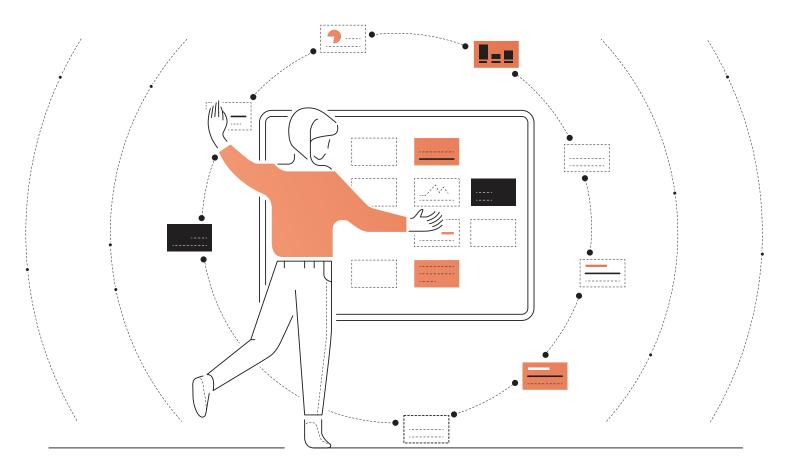
Data Axle's approach

Data Axle's products enable clients to access all of the data they're subscribed to in a variety of different formats, which helps teams prospect, research, analyze, and leverage that data in real time. When companies integrate Data Axle's APIs into the applications they build, they gain access to a wealth of in-depth, accurate data that is continually verified by our research team. For example, in just the last month, we've tracked over 86,000 businesses that have opened and nearly 11,000 that have closed their doors.

Ease of Implementation

As any developer or data analyst can attest, integrating data into a product or platform is about more than the quality of the data—it's about the ease of the integration and how updates are made. In this respect, companies should look for sources that provide standardized data, flexible file formats, and reliable delivery options that meet their requirements. Ideally, companies should be able to avoid using out-of-date data by directly integrating <u>data partners' APIs</u> into their tech stack.

Technical support and proper documentation are also critical in order to effectively onboard new data and ensure smooth operation of a product, as is strong customer support. While self-serve platforms can give companies on-demand access to data resources, such platforms can prove frustrating—and ultimately disappointing—if they're not supported by a qualified, hands-on team of specialists who are committed to client success.



- How can I integrate your data into my existing technology stack or product?
- How often can we ingest the data?
- What file formats are available for delivery?
- Are you willing to provide a demo to assess the structure and quality of your data? Can I evaluate a data sample?
- Do you provide both manual and automatic options for refreshing and/or pulling data to give greater flexibility and control?
- · What customer service resources are available to support my integration of your data?



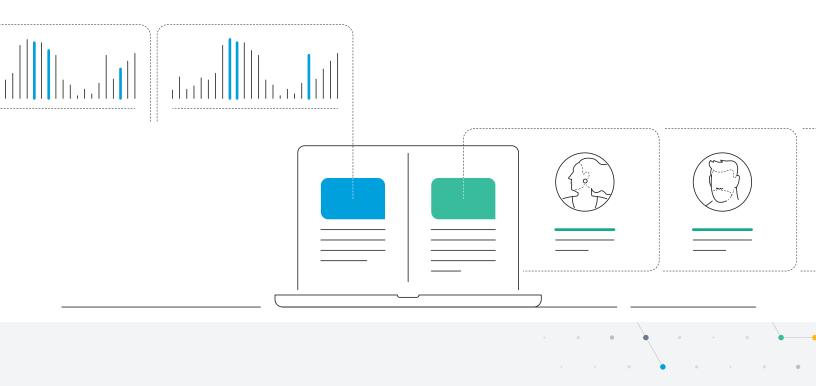


Ease of implementation in action:

Claritas

Claritas, a leading data-driven marketing solutions provider, wanted to improve and expand their business data offering. Specifically, the company needed an easily accessible national business file that could be integrated with their native solutions and used for analytics, modeling, digital targeting, list rental and summary level information in direct marketing and marketing analysis.

Data Axle delivered on this need through its flagship data platform which enabled Claritas to increase the reach of their offline desktop and online web solutions, ultimately helping their clients meet their analytical and multi-channel marketing needs. <u>Data Axle's business database</u> has been seamlessly integrated into both of Claritas' platforms used by their clients for marketing and geographic market analysis, while <u>Data Axle's consumer database</u> is a valuable asset in Claritas' multi-channel campaign tool.



Ease of implementation:

Data Axle's approach

Data Axle is committed to helping clients tap into our industry-leading data in real time with efficiency and ease. Data Axle clients have access to <u>seven APIs</u>, as well as <u>out-of-the-box integrations</u> with Salesforce and Microsoft Dynamics.

<u>Data Axle APIs</u> allow your team to pipe consumer and business data from our platform directly into your own products and applications, to complement prospecting, customer acquisition and retention, analytics and measurement, product strategy, and any other business goals.

Beyond our APIs and integrations, Data Axle can deliver files in a variety of formats to suit your business's needs and systems. In addition to JSON, XML, and CSV, the Data Axle Platform also supports Pipe Delimited as an optional delivery format.

Privacy

The data and privacy landscape is shifting, as consumers and regulators call for more transparency. In recent years, we've seen a rise in data-governing legislation, such as the EU's <u>General Data Protection Regulation</u> (GDPR) and the California Consumer Protection Act (CCPA). These days, any company that employs data for product development and marketing purposes needs to understand how data is being collected, used, and protected.

As companies look to license the right data for their products and services, they need to ensure that data is ethically sourced and properly protected. The best data partners are the ones that do not only deliver high-quality data with ease, but are also transparent about their sources and data management practices.

Questions to ask your data provider

- · What measures do you take to ensure data is kept private?
- · Is your data GDPR- and CCPA-compliant?
- · How is the data sourced in regard to the privacy concerns?



Privacy in action:

DigiCenter

DigiCenter is a technology company that provides the identity and device graph leveraged by marketers, advertisers, technology companies, agencies, brands, and their partners to deliver innovative products, accurate data, and exceptional experiences. Built on a strong foundation of their own deterministic data, the company relies on Data Axle's business and consumer data to serve as additional match keys within their identity graph solution. This helps DigiCenter sync up disparate data around an individual in order to better understand who a person is and what their interests are.

We value the fact that Data Axle's data is privacy-compliant; it helps us ensure that we are delivering consumer-first solutions to the market, all while honoring the best practices put into the marketplace."

Domenic Perfetti - CEO of DigiCenter





Privacy in action:

LiveRamp

LiveRamp is the leading data connectivity platform for the safe and effective use of data for digital advertising. LiveRamp works with Data Axle to onboard privacy-compliant <u>custom audiences</u> informed by advertisers' unique targets and business objectives. Additionally, media buyers are able to access Data Axle's <u>standard digital taxonomy</u> directly through LiveRamp's Data Marketplace, enabling them to reach their intended audience in a secure and compliant way.

⁶⁶ As a company who partners and collaborates with many data providers and tech organizations, LiveRamp is committed to staying truly open and neutral. We want a level playing field for every platform, marketer, and publisher—with consumer privacy at the very center. We appreciate partners like Data Axle who have joined us on this crusade to build a privacy-first ecosystem rooted in trust."

Gerard Vicente – Marketing Lead, Partnerships and Audiences at LiveRamp

Privacy: How Data Axle delivers

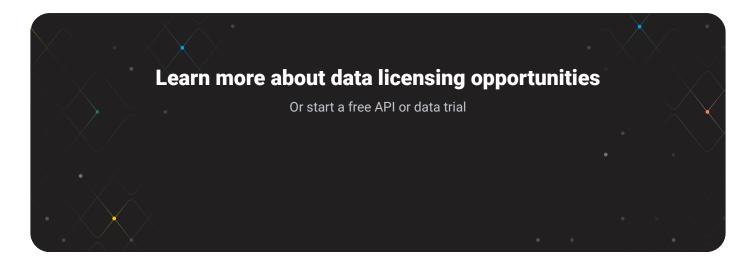
Privacy is not new to Data Axle. Even before the rise of new privacy regulations around the globe, including landmark legislation like GDPR and CCPA, Data Axle has continually adjusted its privacy practices to maintain compliance.

We have long supported consumers' rights to opt out from databases. In addition, Data Axle takes steps to ensure that the data we possess is housed and transmitted securely. These steps may include various methods of physical and electronic security, firewall protections, encryption and hashing of data, as well as stringent access controls to personal information.



Conclusion

The old adage of "garbage in, garbage out" is key when it comes to selecting and integrating data sources into a product, platform, or a solution. While data needs vary greatly based on the use case for that data, businesses and their developers can ensure they're setting themselves up for success by prioritizing breadth and depth, accuracy and completeness, recency, ease of implementation, and privacy when <u>vetting available sources</u>.



About Data Axle

Data Axle is a leading provider of data and real-time business intelligence solutions for enterprise, small business, nonprofit, and political organizations. The company's solutions enable clients to acquire and retain customers, and enhance their user experiences through proprietary business, consumer, and donor data, artificial intelligence/ machine learning models, innovative software applications, and expert professional services. Data Axle's cloud-based platform delivers data and data updates in real time via APIs, CRM integrations, SaaS, and managed services. Data Axle has 45+ years of experience helping organizations exceed their goals.

