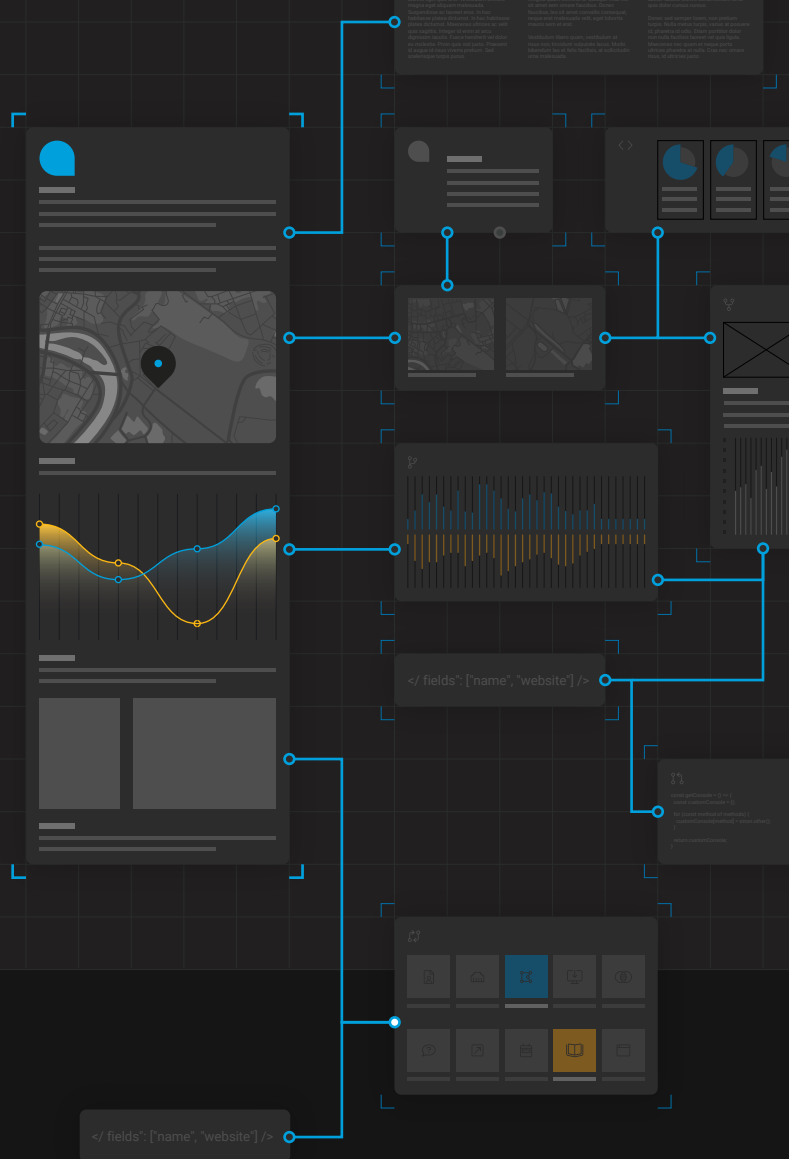




PUT YOUR DATA TO WORK:

# The complete playbook



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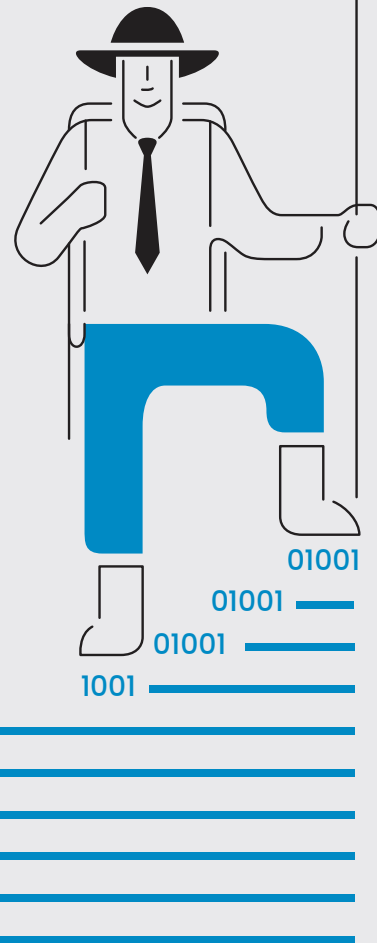
## Data: The new oil?

In 2017, The Economist posited the question, 'is data the new oil?'<sup>1</sup> In 2021, we can definitely say that it is. The World Economic Forum says that there are 44 zettabytes of big data in the world. If that's hard for you to envision, try thinking of it as 40 times more than the number of stars in the observable universe. It's estimated that if we keep producing data at this pace, by 2025, there will be 175 zettabytes of data in the global datasphere.<sup>2</sup> The number is astronomical and overwhelming – but it also provides a previously unimaginable resource for companies who know how to harness its power.

# Data: The foundational building block

What do startups and Fortune 500 companies have in common? They rely on data to power products, business insights and marketing strategy. From the top search engines to navigation systems, data is used to fuel products, manage risk, inform business strategy, create competitive analysis reports, provide direct marketing services, and much more.

In order to provide a top-notch product and customer experience, you need data with comprehensive coverage, accuracy and recency. We will get into exactly what those terms mean later on. As the use cases below illustrate, data is an essential ingredient in everything, from marketing and sales to product development. Your data needs to include demographic insights on individuals and households as well as firmographic insights on businesses across the US & Canada. High-value details about traditional brick-and-mortar locations and the growing number of home-based businesses operated by entrepreneurs, freelancers, contractors, consultants, and service providers across every industry are essential attributes to look for when sourcing your data.



# Pivotal use cases:



## Insurance, risk & financial solutions

To ensure users have up to date information for underwriting, risk assessment, fraud detection and to improve efficiency.



## GPS & navigation systems

To ensure in-car navigation systems are powered by first-class data and navigates users to the right places.



## Marketing & analytics

To provide reliable and high-quality insights with demographic and firmographic data to drive the best performance of models and marketing solutions.



## Local search & delivery applications

To ensure business listings are current and up to date so they can be found online and product deliveries make it to the right location.



## Location intelligence

To power GIS applications with the right data to support mapping technology and gain insights on specific geographical areas.



## Virtual assistants

To ensure their products and applications answer the question "what time does the pizza place down the street close?"



## System Integrators

To assist federal agencies in identifying and filling information gaps to mitigate risk, locate hard-to-find entities, and gain operational efficiency.



## Digital solutions

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

# The 4 essentials you need from your data

Compliance, coverage, accuracy and recency are all crucial to ensure your data is actionable. Without CCAR, you won't be able to translate data into an optimized customer experience and higher ROI.

**Compliance**

**Coverage**

**Accuracy**

**Recency**

## 1 Compliance:

The sunset of Google's third-party cookie has brought ethical data collection and consumer privacy to the forefront of the cultural zeitgeist. Consumers are getting worried about the sheer amount of data captured about their online behaviors, while still craving personalized advertising.<sup>3</sup> It is possible to make consumer privacy a priority and still collect the data needed to power your product and fuel marketing strategies. When choosing a third-party data provider, ensure their data is CCPR, CASL and GDPR compliant. If you don't make this choice up front, you could pass the cost onto your customers. The cost of using non-compliant data is high – and can result in millions of dollars in fines as well as damage company reputation.

Let's look at a real-world example. Bonnier AB is a large media group with more than 180 subsidiaries operating as separate entities in over ten countries. Europe's GDPR sent companies across the E.U. scrambling to achieve compliance. Bonnier AB had the extra hurdle of making sure each of their 180 subsidiaries was compliant. The expense of bringing each company up to code was astronomical, so the company had to innovate.

Bonnier AB worked with Accenture to create an automated compliance solution using advanced pattern-matching and machine learning techniques to discover data across siloed systems along with knowledge graphs that provided insights into the data. This approach allowed Bonnier AB to achieve compliance and identify new business opportunities through their data. From developing new offerings and promotions to reducing operational inefficiencies and identifying new revenue sources, Bonnier AB was able to transform a potential compliance nightmare into a competitive advantage.<sup>4</sup>



## 2

### Coverage:

When selecting a data source, developers need to make sure the datasets they are leveraging have comprehensive coverage, meaning that they encompass the entirety of the data needed to fulfill the purpose that a product, application, or service was designed for. Comprehensive coverage is paramount in creating both a cutting-edge product and a smooth user experience.

For example, data coverage can help a company set the price of a product. Airbnb, the popular vacation home rental service, can use data coverage to help set prices to rent out their homes.

If the data set has good coverage, inclusive of various attributes such as traffic reports, restaurants/bars, shopping, crime statistics, public transit routes, and more Airbnb will be able to compare the prices and addresses of their current listings and determine an appropriate range. Rentals that are in low-crime areas boasting a lot of restaurants and shops and close to public transit would be priced higher.



## 3

### Accuracy:

Data accuracy helps ensure decisions are not made with an incorrect picture of the business landscape. Data accuracy determines how effective your solution will be and how well it can serve your customers' needs. A developer cannot create a quality product if it is powered by inaccurate data.

For example, if a navigation or a business listing tool guarantees coverage of a specific geographic area, it needs to provide accurate information about businesses in that area. Poor quality data can mean that a user attempts to contact or visit a business that has closed, moved to a different location, or changed their phone numbers. Customers are busy and wasting their time because of inaccurate data will immediately turn them off from using an app, a platform, or a solution. Disappointed consumers are much more likely to leave bad reviews or share their negative experiences on social media.

Inaccurate data has negative consequences that can affect a company in a number of different ways. For example, it can lead to a product miscategorizing the industry or size of a business. For companies using data for marketing purposes, inaccurate data can lead to wasted budget, low inboxing rates and ineffective campaigns. If a company is using inaccurate data for risk assessment, misrepresenting the industry and size of businesses within a building or overstating the number of businesses in a building will lead to poor conclusions when assessing the risk of a commercial property.

When assessing the coverage and accuracy of data, developers should take into account what sources were used to build the database, what processes are employed to verify the data, and what ongoing monitoring the data vendor performs to identify changes and update their data. Waiting for businesses to self-report changes is not enough to maintain an accurate dataset.

## Brand example: Boeing

When it came to Boeing's 737 aircraft, data accuracy was literally a matter of life-or-death. In March 2019, the Boeing 737 MAX passenger airliner was grounded worldwide after two tragic crashes. The cause of the crashes? Inaccurate flight data.

Boeing has reported that the flights crashed because the software piloting the flight pushed the noses of the aircraft down repeatedly, due to inaccurate flight data. The training of the human pilots did not adequately cover what to do in this situation and did not allow for them to override the software. Boeing has spent 8 billion dollars in relation to the accidents, suffered a damaged brand reputation, and most importantly – the loss of life was immeasurable.

The company has announced more than \$8 billion in costs related to the accidents and the damage to airlines and suppliers extends far beyond that.

## 4 Recency:

Making sure the third-party data you acquire is available and updated in real-time ensures you're not making decisions based on an outdated picture of the business landscape. Did you know that in the 18 months since the COVID pandemic hit, over 600,000 business have changed their address? (See the infographic on page 8 to see how business data has changed since March 2020) Business data changes quickly, and these rapid changes means your data is in a constant state of atrophying. Companies can tackle this challenge by accessing real-time data through APIs as long as they use a data provider who offers real-time updates and has processes to identify when information has changed

Data partners should offer robust APIs that enable analysts and developers to access large databases instrumental for building and scaling products while decreasing lag time and eliminating the financial burden of maintaining large data stores.

For example, Zillow, the premier real estate listing website, used real-time data to increase the accuracy of their 'Zestimates', the company's estimates of a listing's worth. Zillow currently offers Zestimates for more than 100 million U.S. homes, alongside hundreds of attributes for each property. To figure out how much a home is worth, Zillow uses a variety of public-record data, such as tax assessments, sales transactions, images of houses, MLS listing data, etc. When Zillow started ten years ago, they would input this data into their in-house machine-learning framework. As Zillow grew, they had a hard time scaling their process. Real estate valuations change quickly, and they needed a data source that would feed them a constant stream of new data.

Zillow partnered with a real-time data streamingservice that continuously captures the data they need to calculate their Zestimates. In turn, this data is ingested and pushed into Apache Spark, which runs machine-learning models on the data and allows Zillow to compute Zestimates in seconds.<sup>5</sup>



# 5 steps to impeccable data hygiene

According to IBM, bad data costs U.S companies three trillion dollars per year.<sup>6</sup> A study by Gartner has found that most organizations surveyed estimate they lose \$14.2 million dollars annually.<sup>7</sup> The financial cost of bad data is the most obvious cost, but there are consequences that run much deeper, especially for those who use data to fuel their products. For example, a customer using a navigation system might arrive at their destination only to realize the business has closed or moved, causing your customer to feel frustrated or dissatisfied with your product. If your competitor has up-to-date data on closed businesses and you don't, chances are they will win that customers business. Accurate data can be the difference between cultivating a satisfied, loyal clientele and hemorrhaging business.

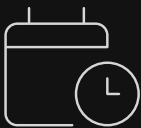


## Clean your data...now.

Before beginning any large project, buying new data or undergoing a digital transformation, start by cleansing your data. This means updating your current data, standardizing the format, checking for dupes and filling in any knowledge gaps.

## Increase transparency.

Making sure your database is visible across different departments and users is paramount to combatting bad data. By increasing transparency, users can avoid entering duplicate data and can merge dupes when they find them.

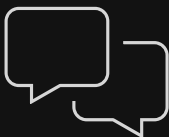


## Schedule regular data audits.

In an ideal world, data would be updated constantly, in real-time. However, we recognize that not all businesses have the resources for this. Depending on the size of your database and the resources you have at hand, we recommend auditing every month to three months.

## Communicate with contact owners.

If you are using your data for sales and marketing purposes, chances are that your sales teams have inputted or own a good portion of the data in your system. Before a cleanse, be sure to give them a heads up to ensure they can update their contacts. Ideally, you are using a service that consolidates duplicate entries and never deletes contacts or their histories.



## Reduce the risk of data bad data entering your database.

Now that you have a freshly cleaned database, the last thing you want is bad data flowing in. Replace regular fields with normalized fields and using picklists to prevent free-form data entry are two ways to prevent duplicate or bad data being entered into your system.

## Efforts to ensure the integrity of your data can greatly enhance response rates and increase ROI

So keep your eye on the prize: greater engagement and higher revenue. Be sure to conduct regular data hygiene since it's one aspect of increased ROI that you can easily tackle.



INFOGRAPHIC:

The lifecycle of a business  
over 18 months

(March 2020 – August 2021)

Data changes fast, according to Forbes, B2B data decays at a rate of 70% per year.<sup>8</sup> The COVID-19 pandemic has had a major effect on businesses in the U.S. and Canada. We used our data to get the exact numbers on how business data has changed in the 18 months since the pandemic first appeared on the scene in March 2020. Take a look:



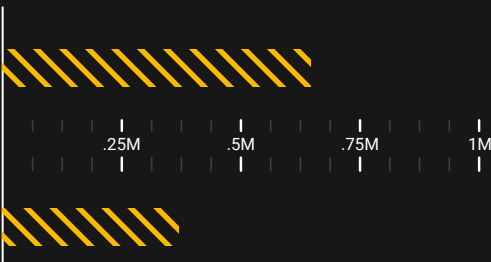
Business Contact Details

646,068

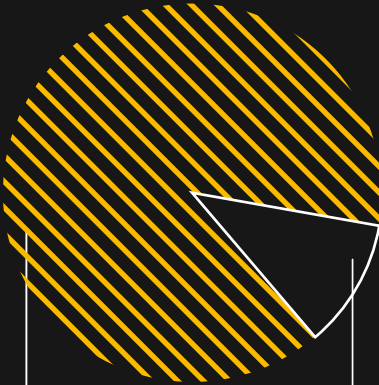
changed their  
business address

369,163

changed their  
business  
phone number



Status



2,462,416

businesses opened

311,955

businesses closed



Business Operations



1,117,816

businesses  
underwent  
an ownership  
change

1,617,076

changed their  
business  
operating  
hours

1,951,761

modified their  
business  
website/URL



10,338

businesses were  
acquired or  
merged



Digital



28,887

changed their  
business  
email address

Total number of business data changes  
in the last 18 months:

8.515.480



## VENDOR RFP CHECKLIST

# These common questions need to be on your list when you approach a potential new data partner

Selecting a new vendor to work with can be overwhelming – especially when you are interviewing a large quantity of potential partners. We created this checklist to ensure you don't accidentally skip over some of the most critical questions when requesting information.

1

### How is the data sourced?

It's imperative to know where the data that is going to be powering your product, platform or solution is coming from and how it's being sourced. Many businesses and consumers are concerned with data privacy and ethical data collection. Your brand reputation may depend on whether the data that powers your data was sourced ethically.

2

### How is the data validated to ensure accuracy? What quality checks do you have in place?

You need to know you are selecting a provider that will provide you with clean, accurate data to ensure your product is providing the best value to clients. Whether they are trying to make an informed business decision about where to open a newly opening business, conducting market analysis, or targeting, your clients need high quality data to meet their business goals.

3

### Is the data privacy compliant?

Your data provider should follow CASL, GDPR and CCPA guidelines in order to avoid heavy fines, and in some cases, criminal charges. Most importantly, you want to make sure the data you are incorporating into your product is compliant so your users won't face any legal complications.

4

### What is the coverage of data?

When selecting a data source, you need to make sure the datasets you are licensing have good coverage, meaning that they encompass the entirety of the data and scope needed to fulfill the purpose that a product, application, or service was designed for. Comprehensive coverage is paramount in creating both a good product and a good user experience.

5

### Is there a linkage between business and consumer?

In the wake of the global pandemic, our professional and personal lives have never been more entwined. Being able to reach business executives and consumers whether they are working remotely or in the office is critical to today's marketing and sales strategies.

6

### How are franchise and headquarters linked in the database? (i.e. location, linkage, and corporate hierarchy)

Headquarters and franchises need to be properly linked in a database in order to provide an accurate market analysis, better understand business trends, predict future outcomes, understand a certain geographical area, and or analyze business performance.

7

### In what format is the data delivered, and what is the cadence?

Every business needs data that can be smoothly and quickly integrated with their current solution. The data provided by your partner should be offered in a variety of formats and customizable depending on your needs, whether you want to manage a full file, make real-time API calls, or a combination of the two. You should have the flexibility to take in the data at a frequency that works for you – whether that be monthly, weekly or daily.

## QUIZ

# How well do you understand different data types?

Understanding how data is collected and leveraged is key to driving growth and improving customer experience. Take this quiz to learn how well you understand the differences between data types and how to put them to work to achieve your business goals.



Tap or click your answer



Reveal your score

### 1. How many types of data are there?

### 2. What is first-party data?

### 3. Which of the following is an example of first-party data?

### 4. What is the definition of second-party data?

### 5. Which of the following is an example of second-party data?

### 6. Which data needs to be collected in compliance with GDPR and CASL guidance's?

### 7. What is the definition of third-party data?

### 8. What factors are important to take into consideration when selecting a third-party data provider?

### 9. Which is of the following is an important question to ask a potential third-party vendor?

### 10. What impact will the sunseting of 3rd-party cookies have on third-party data?

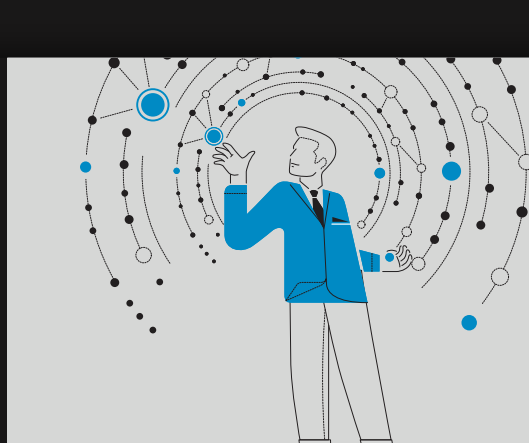
## Score

Add up your points and check your results:

#### 20-30 - Data Rockstar!

Congratulations! You have solid foundation of knowledge about your data.

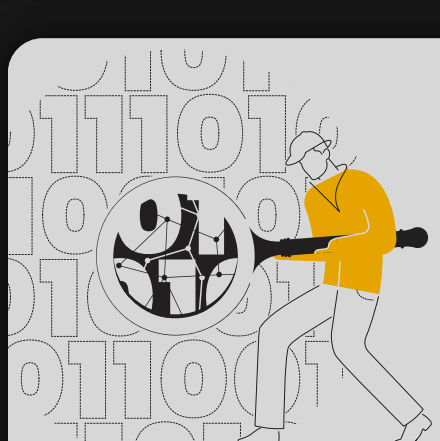
**Next Steps:** Keep up the good work! Make sure you stay on top by continuing to practice good data hygiene – including cleansing data regularly, updating data in real-time and minimizing data entry. Talk to us about real-time data verification, cleansing and enhancement needs.



#### 10-19 - Data Proficient

Not too shabby! You have the basic infrastructure and knowledge to become a data-driven organization, but you need a push to get to the next level.

**Next Steps:** Consider investing in data management technology – such as an automated data cleansing tool or a CRM integration that feeds verified data directly into your system, in real-time, to get you to the next level of data proficiency.



#### 0-9 - Data Novice

You have a way to go, but the good news is that there are a ton of excellent resources to help you on your journey! Take advantage of the many knowledgeable data partners on the market that are here to help.

**Next Steps:** Check out our blog and thought leadership pages to brush up on your knowledge. If you want some extra guidance, contact us at [sales@data-axle.com](mailto:sales@data-axle.com) to have an expert give you the inside scoop.



## SOURCES

1 [economist.com](https://www.economist.com)

3 [adage.com](https://www.adage.com)

5 [hbr.org](https://www.hbr.org)

7 [forbes.com](https://www.forbes.com)

2 [seedscientific.com](https://www.seedscientific.com)

4 [accenture.com](https://www.accenture.com)

6 [gartner.com](https://www.gartner.com)

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