



Modern data leader's guide to improved customer outcomes

Learn key strategies to unlock revenue impact and demonstrate data team value with a unified, 360-degree view of your customers



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Executive summary

For many enterprises, the pressure is on — leverage data in new, innovative ways or get left behind. That onus rests on the shoulders of Chief Data Officers (CDO) and their team composed of analysts, engineers and scientists. The requirement is two-pronged: usher in a data-driven culture and ensure that use of data is purposeful, actionable and compliant.

Data teams feel mounting pressure to efficiently deliver valuable, revenue-driving insights to key stakeholders but are held back by scattered and disparate data sources, unreliable legacy systems and limited resources.

This puts democratization of data top of mind for the majority of CDOs, as nearly 70 percent¹ spend a substantial fraction of their time on data-driven cultural initiatives. Data teams hold the keys to unlock better marketing campaigns, stronger customer lifetime value and more effective fiscal management — but many still lack the foundational elements that make up a modern data infrastructure.

Through centralized data access, CDOs can provide internal data products that empower everyone in an organization, across departments, to access and wield data for impactful business decisions — powering better solutions, products and outcomes.

It starts with building a single, unified view of your customers across channels, known today as Customer 360. Customer expectations are at an all-time high and continue to grow. To meet these expectations, enterprise leaders need a more reliable and seamless way to unify, integrate and make accessible their customer data.

This guide serves as a strategic roadmap to help data leaders navigate the foundational considerations that enable Customer 360 and demonstrate value to serve as a catalyst for culture change.



[Chief Data Officer Agenda 2023: Prioritizing business value creation report by AWS in partnership with MIT CDOIQ¹](#)

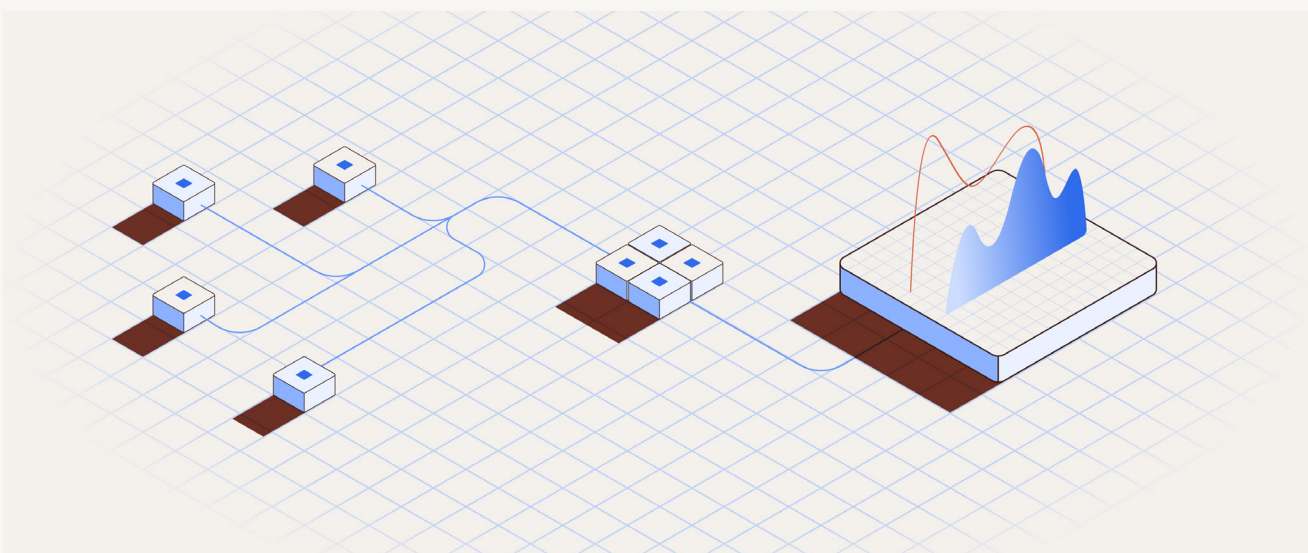
Data movement is a core competency for any digital business

Enterprises have an abundance of business-critical data stored across systems in highly complex infrastructures, and enabling the flow of data from source to destination and vice versa are imperative to accessibility and use. This is especially relevant as the rapid adoption of cloud has radically changed the processes of managing and handling data.

Facilitating data movement is foundational for unlocking data's value. The progression of data movement and access that leads organizations to greater outcomes is multi-tiered:

- 1 **Centralization** must come first, as without a single source of truth it is difficult to systematically make use of data across an organization.
- 2 Once data is centralized and a profusion of data becomes available to users, **democratization** (with data governance) is a common next step as organizations grapple with the challenges of enabling widespread access to data while preventing unsanctioned use.
- 3 Finally, an organization that achieves centralization and democratization can then **build data solutions** that benefit key, revenue-driving business initiatives (e.g., creating a Customer 360).

In a digital ecosystem where end users now expect an Amazon-level of personalization at every touch point, these foundations serve to enable data usage at scale, helping anyone in a company wield the power of data to improve customer outcomes.



Centralized data: The first step to informed decisions

With the increase of SaaS applications, databases, ERP systems and more, organizations must consolidate data from a growing variety of sources into a centralized destination that decision-makers and stakeholders can access seamlessly.

One of the main benefits of data centralization, and the democratization it enables, is reducing an enterprise's data-to-decision time. This is a big reason why many wide-scale organizations are migrating to the cloud, embracing cloud data warehouses and data lake platforms to scale analytical access and improve their speed to insights.

Storing data in the cloud, however, is only half the battle; the method in which data is moved is paramount. Moving data automatically provides real-time access for decision makers and stakeholders to ensure data integrity, reduce the risk of downtime and flexibility. For these reasons, an automated ELT (Extract-Load-Transform) model is preferred to a traditional ETL (Extract-Transform-Load) model, as the former provides nearly instant, self-service access to analytics-ready data.

In the case of building a 360-degree view of your customer, this is integral. By transformation data at the end of the workflow, data teams can combine raw data from disparate data sources into data models that best meet their needs.

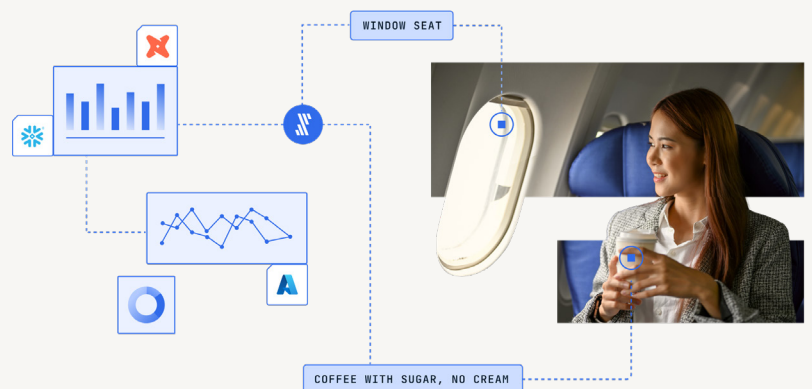
What is a Customer 360?

Customer 360 is a comprehensive and centralized view of your customers. This 360-degree view helps any type of organization better understand customer behavior patterns to better anticipate and predict their consumers' needs and habits in real-time.

An initiative this comprehensive, however, is only possible by capturing all of the data and interactions between a business and its customers across all channels and touchpoints.

Fueled by centralized data, Customer 360 enables:

- Improved customer engagement
- Real-time, targeted marketing efforts
- More personalized customer experiences



The issue for most organizations, however, is that legacy systems and processes make it impossibly difficult to obtain this view. A modern, centralized approach to data movement is required to decouple data processes from data's value.

With the centralization, speed and scalability that a modern data platform provides — data teams are better equipped to analyze customer behaviors, preferences and demographics to identify patterns, trends and customer segments.

Data centralization: A deceptively complex engineering challenge

Centralizing data comes with several challenges, including:

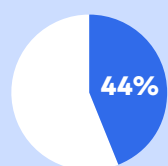
- 1 Accommodating a wide and growing range of sources
- 2 Ensuring that syncs run reliably and are resilient to upstream schema changes
- 3 Maintaining and upkeeping existing pipeline connections as endpoints are updated
- 4 Guaranteeing data integrity and offering visibility throughout the syncing process

The fundamental challenge associated with centralizing data is that moving it from a source to a destination is a deceptively complex engineering problem. It involves: designing new architecture, provisioning the right compute and storage resources, ensuring timely performance updates, building in resistance failure and more. As a result, do-it-yourself (DIY) pipelines or legacy solutions make Customer 360 a complex undertaking that demands considerable investment in time, labor and money.

For example, all of the time used on pipeline building and maintenance amounts to a misappropriation of critical resources, leaving data teams vulnerable to wasted spend and high attrition rates.

This combo of infrastructure complexity and data abundance makes automation a critical component for enterprises to enable free-flowing, scalable data movement. Without expediting and simplifying data movement, enterprises will struggle to centralize.

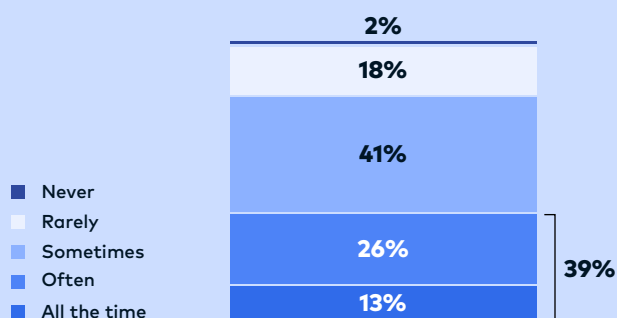
The cost of manual pipeline management



44% of time spent by data engineers is lost on maintaining data pipelines

For a median team of 12 data engineers, that amounts to a \$520,000 annual cost to a company

How often data pipelines have to be rebuilt after being deployed



Source: The State of Data Management Report²

Denver Broncos leverages C360 to fuel its sellout streak

“Fivetran helps in the data ingestion and the blending process by getting everything in that one centralized database for us, and then from there, it really unlocks the ability to see everything about our fan. Marrying all of the data together helps us understand that fan journey and pinpoint things in that fan journey that we can improve, and that helps us reach the fan better.”

Clark Wray, Senior Director of Ticket Strategy and Analytics, Denver Broncos

DATA STACK

- Pipeline: Fivetran
- Cloud destination: Snowflake
- Sources: Dynamics 365, Eloqua, Qualtrics, Google Analytics, YouTube Analytics and more

BUSINESS CHALLENGE

- Boost ticket sales and deliver the best fan experience across digital platforms
- Mounting number of new data sources collecting fan data
- Too much data engineering time spent on homegrown data integrations

SOLUTION

Leveraged a modern data platform that automatically and effortlessly centralize data from 50+ sources, including its email data in Dynamics 365, its marketing automation data in Eloqua and its fan feedback in Qualtrics.

BUSINESS OUTCOME

- Fan data centralized into Snowflake to power a unified and personalized cross-platform customer experience
- Visibility into ad campaign performance and website and app engagement
- Real-time insights across interdepartment tools across finance, sales and HR to build a holistic view of the business
- Saved 20 hours a week on data pipeline maintenance

A modern data platform for Customer 360

Creating a holistic view of their customer base is the goal of nearly every organization, especially for revenue-focused departments like marketing that benefit immensely from clean, actionable data. All of this, of course, can create added pressure for CDOs and their teams, as data teams are ultimately responsible for:



Understanding the data requirements that business stakeholders define and aligning with them on said objectives



Building, maintaining and scaling the necessary infrastructure to support the sources, volume and complexity of data involved

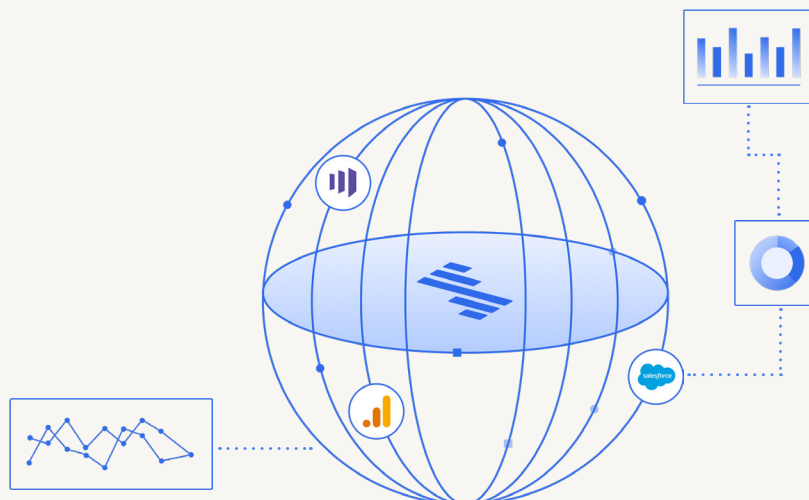


Establishing and enforcing data governance policies, including privacy regulations, to protect customer information

Fortunately, when data movement is executed efficiently, data access no longer acts as a source of frustration and stagnation — instead, it serves as a competitive advantage.

More than just delivering on data-enriched, organization-wide goals, the key to a high-performing Customer 360 model is achieving **accelerated time to insights**. A company's marketing team, for example, may want Customer 360 to personalize outreach and adjust marketing strategies in real time with live data.

Data centralization fundamentally requires a technological solution in the form of **a fully-managed, automated data movement platform**.



Consider these key capabilities when investing into a modern data platform:



Easy to use out of the box, with minimal need for configuration and engineering time to get started



Utilizes an ELT architecture rather than ETL method, which simplifies the data pipeline, enables secure data processing and leverages the scalability of the destination base for data transforming



Built with robust security features, especially if you're an organization in a highly regulated industry where sensitive data must be obscured, encrypted or excluded



Reliable in real time, including the ability to cope with upstream scheme changes, new data source configurations, and optimizations for pipeline and network performance



Fully supportive and customizable, as far as your organization's current data sources and destinations, as well those you're likely to use in the future

By checking off all of the above boxes, an automated data movement platform frees data teams from building and maintaining pipelines, all while fueling key initiatives like Customer 360 through the centralization of data access.



Condé Nast maps customer journey across global brands

“With Fivetran, we can pull data from pretty much anywhere and put it anywhere. This gives us a true 360-degree view of how our audiences are engaging with our content, which we can then use to gain valuable insights into our audiences and brands.”

Nana Yaw Essuman, Sr. Director of Data Engineering

DATA STACK

- Pipeline: Fivetran
- Destination: Databricks Delta Lake
- Sources: Facebook Page Insights, Facebook Ads, Google Ads, Google Search Console, Twitter Ads

SOLUTION

Adopted a modern data platform that provides 400+ fully-managed pipelines that automatically centralizes data into any cloud destination

BUSINESS CHALLENGE

- Diversify its revenue streams to stay competitive in today's fast-changing media landscape
- Analyzing and monetizing trillions of data points to deliver powerful, personalized and relevant experiences that inform and delight its readers

BUSINESS OUTCOME

- Data from more than 20 sources is automatically ingested into the company's Databricks Delta Lake for analysis
- Saved weeks of engineering resources per connector and eliminated continuous monitoring of custom scripts
- Data turned into revenue-driving insights around digital customer behavior and improved targeting

Applying Customer 360 to different use cases

The beauty of embarking on a Customer 360 initiative is the ability to mold it into whatever best suits your organization, across different industries and use cases.

Here are just a few examples of how Customer 360 benefits unique business goals.



RETAIL

Produce personalized omnichannel experiences

Integrate customer data across channels to truly understand the customer journey, tailor marketing outreach and optimize inventory management to build your competitive advantage.



SPORTS

Create superfans to sell out your stadium

Leverage fan data to build segments, understand what resonates with each group, improve the live experience and personalize outreach to grow your fan base.



HOSPITALITY

Create unforgettable guest experiences

Personalize marketing, promotions and offers based on individual guest profiles to enhance loyalty and generate positive word-of-mouth recommendations.



HEALTHCARE

Deliver tailored care for your patients

Consolidate data from various healthcare systems to build a comprehensive view of a patient's health information and promote continuity of care and patient engagement.



FINANCIAL SERVICES

Drive profitable outcomes for your clients

Leverage a holistic view of each client's information, interactions and financial relationships to identify and recommend relevant products and services.



GAMING

Construct an immersive gaming experience

Build retention and loyalty by aggregating gamer and marketplace data to tailor gameplay, in-game content and marketing outreach.

While these are just a few examples of how data can power better experiences and relationships, Customer 360 most readily serves as an agent of change. That level of influence is invaluable to bolster the standing of your team and improve your opportunity to serve as a data leader.

Snowflake's marketing analytics team drives value with Customer 360

“Fivetran makes things easy. With a few clicks, we can authenticate against any of the platforms and then seamlessly and almost instantly the data appears within Snowflake.”

Carl-Johan Wehtje, BI & Analytics, Snowflake

DATA STACK

- ELT: Fivetran, Fivetran Transformations for dbt Core™
- Cloud Destination: Snowflake Data Cloud
- Sources: Marketo, Salesforce, Hubspot, Snowplow, Google Analytics, Bing Ads, Google Ads, LinkedIn Ads, YouTube Analytics, Facebook Pages, Facebook Ads, Instagram Business, Email and more

BUSINESS CHALLENGE

- Centralize their many, many data sources into the Snowflake Data Cloud
- Build a 360-view of their customer to provide marketing more comprehensive analytics
- Fuel segmentation models and recommendation engines

SOLUTION

Deployed over 900 Fivetran connectors (including Lite connectors) to move over 400M monthly active rows of data and build a 360-degree view of customer behavior, enabling the marketing team to drive massive efficiencies in marketing spend and targeting.

BUSINESS OUTCOME

- 360-degree view of customer provides marketing with a real-time view of their customer
- Accelerated time to insights as clean and normalized reporting sets enabled data team to focus on calculations and joining work to expose data to end users faster
- Marketing analytics team drives value for the organization with advanced data science and machine learning models, attribution scoring, forecasting and segmentation

Conclusion

CDOs are in a unique position. There is immense data at their disposal, but the challenges of delivering — in the form of insights that power initiatives like Customer 360 — increase due to issues involving data silos, data integrity and manual processes. At the same time, the pressure is on to deliver results fast, to keep pace with competition in a lightning-fast, cloud-based ecosystem.

There are solutions that can rid CDOs of the stress and impediment created by legacy data systems, in the form of automated data movement. With a deliberate strategy, data leaders can leverage the ease and reliability of automation to achieve centralization and deliver on high-value projects like Customer 360.

By impacting revenue directly and demonstrating substantial value, CDOs can usher in the cultural change of data democratization at scale, setting the foundations for future data innovation. By establishing a data-driven culture and freeing up the bandwidth of the data team, CDOs can move from reactive use of data, such as descriptive analytics, to higher-value, more innovative and proactive uses of data, like predictive analytics powered by machine learning and AI.

The world's biggest brands rely on Fivetran to automatically centralize their data and get to revenue-impacting insights faster.

[Reach out for a demo tailored to your specific business.](#)



Fivetran automates data movement out of, into and across cloud data platforms. We automate the most time-consuming parts of the ELT process from extract to schema drift handling to transformations, so data engineers can focus on higher-impact projects with total pipeline peace of mind.

With 99.9% uptime and self-healing pipelines, Fivetran enables hundreds of leading brands across the globe, including Autodesk, Conagra Brands, JetBlue, Lionsgate, Morgan Stanley, and Ziff Davis, to accelerate data-driven decisions and drive business growth.

Fivetran is headquartered in Oakland, California, with offices around the world.

For more info, visit [Fivetran.com](https://www.fivetran.com).

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