



THE MODERN MARKETING DATA STACK

Your Technology Guide to Unifying, Analyzing, and Activating
the Data that Powers Amazing Customer Experiences



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INTRODUCTION

Just over half of marketing decisions are influenced by analytics, and about the same percentage of marketing leaders are unimpressed by the results they receive from their investments in analytics.¹ Soon after leaders revealed this reality, nearly 59% of CMOs reported increased pressure from their CEOs to prove the impact of their marketing efforts.² And following that, in 2022, investment in analytics to improve organizations' digital marketing activities grew by 37 percent.³

A daunting reality, and possibly an uphill battle, yet with every challenge there is an opportunity. But where should you start? What technologies should comprise your Modern Marketing Data Stack, so you spend your analytics budget wisely and deliver the experiences your customers expect? And what will help you reveal new insights, drive more business, and demonstrate significant value to executive management?

There are more than 7,000 SaaS companies alone that provide some kind of marketing solution.⁴ It's a crowded space, but like any product your organization considers, you must ask: "Who else is using it, to what degree, and what is their feedback?" The same goes for the technologies that comprise the Modern Marketing Data Stack. You've already spent big money creating your marketing teams and purchasing tools to deliver marketing campaigns. But your team and their efforts are only as powerful as the data that powers them. Track, measure, and analyze those efforts with a marketing data stack that can help you best find, identify, serve, and convert prospects into customers.

THE RESEARCH

For this report, Snowflake analyzed usage patterns from a pool of nearly 6,000 of our active customers, with existing on-demand or capacity contracts with Snowflake that generated revenue between June 1, 2021 to June 1, 2022, to understand what technologies they use for their marketing data stacks.⁵ Snowflake has a unique vantage point because many organizations use these technologies in conjunction with Snowflake's Data Cloud. As such, we have identified certain categories of the Modern Marketing Data Stack that these technologies fall into and where the most used technologies among Snowflake customers rank in each category. We also identified technology vendors we believe are "Ones to Watch." These vendors do not necessarily offer the top technologies within each category from a consumption standpoint. But they offer customers new products and features, and innovative solutions in their respective categories.

We observed there are typically six technology categories organizations consider when building their marketing data stacks. These are:

- **Analytics**
- **Integration & Modeling**
- **Identity & Enrichment**
- **Activation & Measurement**
- **Business Intelligence**
- **Data Science & Artificial Intelligence**

Of course, organizations are in different phases of their marketing analytics strategy. For example, we found the majority of our customers use technology from the Integration & Modeling and Business Intelligence categories, while fewer use Activation & Measurement or Data Science & Artificial Intelligence tools. Some may build a strong foundation by integrating all business and customer data into a single view, while others have matured to the phase of activating that data and applying data science tools to automate and scale predictive and prescriptive analytics.

Our analysis also revealed the most sophisticated marketers power their marketing data stacks by employing a best-of-breed approach instead of building their own solutions from scratch.

In the pages that follow, we explore each of the six categories that comprise the Modern Marketing Data Stack for this year's report. We also highlight Snowflake's leaders and up-and-coming companies (Ones to Watch) to monitor within each category. We'll also share examples of how current Snowflake customers leverage a number of these partner technologies to enable data-driven marketing strategies and informed business decisions. To bring this technology analysis full circle, we'll detail the requirements of a modern cloud data platform essential to unifying, integrating, analyzing, and sharing the data generated by multiple marketing data stack solutions, so you can reveal insights that were previously inconceivable when these solutions confined data and analysis to their individual silos.

We hope these findings provide a concrete overview of the tools, applications, and other technologies marketers choose to create their marketing data stacks. In doing so, we aim to assist you in your own journey to true, data-driven marketing.

A DISTINCTION: MARTECH VS. THE MODERN MARKETING DATA STACK

Your organization likely has a few, or even dozens, of SaaS applications that help you automate the creation, delivery, and ability to track your marketing programs across many digital channels. Each app generates massive amounts of data within its own data repository. This array of solutions constitutes the **MarTech** stack and is integral to generating interest in your company, in its product and services, and in the views and advice it offers to its total addressable market. The typical components of the MarTech stack include marketing automation software (e.g., Marketo), advertising destinations (e.g. SEO or social media platforms), email service providers (e.g., Mailchimp), and others.

The MarTech stack generates much of the data that the **Modern Marketing Data Stack** uses to derive insights that inform new strategies and programs for your organization. As you read deeper into this report, we'll highlight how powerful the Modern Marketing Data Stack is, and how essential it is to further leveraging the solutions you may already have in your MarTech stack.

Of the approximately 500 Snowflake customers⁶ that appear in the 2022 Forbes Global 2000, a whopping 95.2% use at least one of the tools highlighted in this report, while an equally impressive 71% use three or more.⁷

MARKET DYNAMICS AND THE RISE OF THE MARKETING DATA STACK

Over the past 15 years, a growing number of marketers have set out to tackle two daunting goals:

- 1 Collect as much data as they can about existing and potential customers to better understand their needs, interests, and motivations
- 2 Use that data to better deploy their marketing spend while tracking its effectiveness down to the penny

Yet, even as organizations dedicated more resources and energy toward both goals, achieving them has only gotten harder. That's due in part to the exploding volume, velocity, and variety of siloed data that organizations collect via the dozens of SaaS apps they use for developing consumer segments, personalizing customer experiences, ad targeting, broad analysis, and much more.

CMOs aspire to have access to all useful data (including first-, second- and third-party data across traditional and digital channels) to develop a single, unified view of the customer. Building such a centralized data hub can have its complications, but marketing leaders must also grapple with massive ongoing changes to how they can identify and track digital consumers. These shifts include restrictions on mobile device tracking, the deprecation of third-party cookies on web browsers, and the proliferation of privacy and regulatory requirements at the state, national, and regional level.

This environment makes it more urgent for organizations to develop a fully integrated MarTech stack that sits on top of a flexible, scalable, and performant data platform that centralizes all data generated by each app in the MarTech stack. From there, they should also recognize they can integrate and analyze that data by deploying technologies across the six categories of the Modern Marketing Data Stack on that same data platform.

The stakes are high for marketers who don't move forward on this journey. For example:

- **Lack of 360-degree views:** Brands struggle to make sense of fragmented data sets from a variety of sources, impeding their ability to generate a holistic view of their customers. Only 14% of organizations report they have achieved a 360-degree view of their customers.⁸ This hinders personalization, yielding poor or potentially irrelevant messaging and offers to customers.
- **Reliance on other teams:** The more fragmented the data, the more expensive, time-consuming, and engineering-intensive it becomes to stitch data together.
- **Security and privacy concerns:** Ongoing data fragmentation can create security, compliance, and privacy challenges, as multiple copies of data creates create new vulnerabilities with each copy.
- **Data latency:** Marketers increasingly compete against companies that can react in real time to changing campaign dynamics. Siloed data can become stale quickly, resulting in uninformed decision-making.
- **Limited measurement:** Without a unified data view, "closing the loop" and measuring campaign effectiveness becomes impossible.

THE WAY FORWARD

Marketers who have adopted a single, centralized marketing data stack can achieve at least two significant benefits:

1 The best tools for each task: Rather than relying on one-size-fits-all platforms, which may not offer the right suite of solutions, organizations that build their marketing stacks on a modern cloud data platform can choose technology vendors that address their specific needs and use cases. This is true across all six categories of the Modern Marketing Data Stack:

- ***Analytics:*** These solutions capture first-, second-, and third-party event data from multiple sources through direct and indirect customer interactions. Solutions in this category process a diverse set of data analytics across behavioral, product, mobile, web, and various other landscapes, and make it available for storage in an organization's platform (single source of truth), to enable insights into what drives consumer actions and optimizes return on investment.
- ***Integration & Modeling:*** Technologies and tools such as these clean and model raw data so it can be ingested and organized into a single repository before it is integrated, analyzed, and shared.

- ***Identity & Enrichment:*** This category includes solutions that identify individuals or households by mapping disparate identifiers and touchpoints, and using third-party data sets and analytic services, to enrich an organization's existing data.
- ***Activation & Measurement:*** Data activation solutions are designed to take an organization's data stored in their central repository and activate it to channels or applications used by both internal teams, or accessed by customers. Measurement tools specialize in offering organizations visibility and feedback regarding the performance and effectiveness of their marketing and advertising campaigns and the most relevant touchpoints that drive sales.
- ***Business Intelligence:*** This category of data analysis and visualization tools that use reports and dashboards to democratize key performance metrics for multiple types of business users, including senior management, to make dynamic business decisions.
- ***Data Science & Artificial Intelligence:*** Platforms such as these can help data scientists and analysts build and deploy models used for automating, assuring, and accelerating predictive analytics, as well as automating decision engines, propensity models, and audience selection.

2 Unified data: With a modern cloud data platform as the foundation of the Modern Marketing Data Stack, marketers can experience near-unlimited scale, performance, and flexibility when storing, integrating, analyzing, and sharing datasets of any volume, format, or velocity.

A cloud data platform can also unlock all sorts of collaboration internally and externally, providing organizations with a far more open ecosystem of potential data partners, data service providers, tools, and applications. Organizations will no longer have to accept storage limitations, data latency, or subpar data governance.

Once fully deployed, marketers will quickly realize a tremendous set of payoffs: previously unobtainable insights, smarter and faster decision-making, and enhanced ability to adjust to a constantly changing marketplace.

Combined with modern MarTech activation technology, the Modern Marketing Data Stack, and the modern cloud data platform are ushering in the ability to generate advanced analysis and reveal new business opportunities.

ASSUMPTIONS AND CLARIFICATIONS

It's important to note that the findings of this report came from analyzing how many Snowflake active customers use these solutions in conjunction with the Data Cloud, and how they use these technologies specific to their business and marketing goals. This approach can differ from the full extent of the functionality these solutions can offer marketers, and how the providers of these solutions position their products in the market.

We must also assume each solution offers a multitude of modules and features that could span a number of aspects around collecting, modeling, integrating, enriching, analyzing, and activating data. In addition, more than one of the solutions referred to in this report could provide some of the same features. But there would rarely be a direct comparison even between two solutions grouped in the same technology category. Lastly, Snowflake customers may be using features of one solution, and complementing those with different features from other solutions within the same category to comprise their Modern Marketing Data Stack.

Based on these assumptions, we must clarify that the solutions grouped in each technology category in this report may not directly compete with one another. In some cases, solutions within the same category deliver complementary value to customers. In addition, if a solution appears in one technology category, they may also offer modules and features that relate to other categories in this report.

REPORT METHODOLOGY AND KEY FINDINGS

Our objective in this report is to identify the technologies among Snowflake's Partner Network, Marketing Partners, and Marketplace Partners that 1) already have a significant adoption and usage across Snowflake's nearly 6,000 active customers, and 2) actively take advantage of Snowflake's Data Cloud capabilities.

We identified solutions in each of the six technology categories that comprise the Modern Marketing Data Stack typically leverage the Data Cloud in one of two ways: they use Snowflake for core workloads such as data integration, transformation, analysis, and activation; and technologies that leverage Snowflake's collaboration capabilities to seamlessly and securely share data and insights between departments, with their customers, and across their business ecosystems. For each of these six categories, we analyzed two main components to develop an initial score for each technology: the breadth of their presence within our customer base, and the depth of usage for each solution.

Technologies that use Snowflake's core workloads for data integration, transformation, and analysis:

- Breadth accounts for 70% of the score and represents the number of active customers, or the total number of distinct active customers, that consumed compute resources from their Snowflake instance via a particular technology.
- Depth accounts for 30% of the score and is measured by the total number of jobs run by the solution on Snowflake, the resulting amount of total consumption, and the average consumption per account.

Technologies that use Snowflake's collaboration capabilities:

- Breadth accounts for 70% of the score and is measured by the total number of "stable edges" a solution produces. An "edge" is a data share between a Snowflake customer and a data provider. A "stable edge" is an edge that has produced at least 20 transactions in which compute resources are consumed and such consumption results in recognized product revenue over two, successive, three-week periods (with at least 20 transactions in each period).

- Depth accounts for 30% of the score and is measured by total credit consumption—the sum of all credits consumed on a particular technology; number of consumers—the total number of distinct consumers of a particular technology; and the number of data sharing jobs within the platform—the total number of times data was shared between the Snowflake instance associated with a technology and another Snowflake instance.

All of these analyses were conducted over a 12-month period, from June 1, 2021 to June 1, 2022.

Each score was normalized within its category on a scale of 0-100 to create an index, in which a score of 100 would indicate that the application ranked first across every metric. The resulting rankings were used to inform the lists below:

- **Leaders:** The top five companies, based on the calculated index, within each category.
- **Ones to Watch:** Selected for their strong performance, but also taking into account additional factors such as strong momentum, an innovative technology or approach within Snowflake, or demonstrable customer success.

MODERN MARKETING DATA STACK: LEADERS AND ONES TO WATCH

Based on Snowflake data from across nearly 6,000 active customers, and using various elements of the Modern Marketing Data Stack, here are the leading technologies within each of the six categories.

1. ANALYTICS

Solutions that capture event data from first-, second-, and third-party sources through direct and indirect customer interactions. Solutions in this category process a diverse set of data analytics across behavioral, product, mobile, web, and various other landscapes, and make it available for storing in an organization's data repository to enable insights into what drives consumer actions and optimizes return on investment.

Types of solutions: web analytics, social analytics, product analytics, behavioral analytics

Leaders (in alphabetical order):

- **Amplitude** is a digital analytics platform that uses behavioral reports to provide insights to organizations based on users' interactions with products. The integration between Amplitude and Snowflake allows organizations to break down data silos to deliver self-service data insights. The integration allows anyone, technically savvy or not, to easily generate queries as well as join with any other data centralized within Snowflake.

Customers of Snowflake get the benefits of Amplitude's user-friendly self-service interface to generate insights from all their event and user data. Amplitude customers also get the peace of mind of knowing their product data is being stored in a modern cloud data platform. Together, Amplitude and Snowflake increase the ROI of data organizations collect and store, and offer teams flexible solutions to access their data.

- **Data.ai** is a leading provider of market estimates and insights into mobile ecosystems. Through Snowflake Secure Data Sharing, organizations can gain insight into mobile app performance for strategic product, marketing, and growth decisions. Data.ai's customers are responsible for nearly half of all downloads and revenue in the app stores, and include some of the world's leading technology companies across finance, media, gaming, and other industries.
- **Heap** provides low-code analytic software to enable teams to create digital experiences and accelerate their businesses. Organizations can access retroactive data directly in their Snowflake instance with no developer resources needed. This offers direct access to their Heap data using their Snowflake account via Snowflake Data Sharing, which enables Heap to act as a provider and share data directly with consumer accounts.

ANALYTICS

LEADERS



ONES TO WATCH



- **Mixpanel** enables fast self-serve analytics on existing source-of-truth data from Snowflake. With Snowflake Secure Data Sharing and Mixpanel Data Pipelines, organizations can join Mixpanel data with existing data environments to answer complex queries about customer journeys and user behavior, all in an intuitive interface.
- **Twilio Segment** is used by more than 20,000 organizations to collect, unify, and activate customer data to make real-time decisions, accelerate growth, and deliver world-class customer experiences. Segment includes a destination to Snowflake and provides data governance, data integration, and audience management all in a single place, simplifying data collection from multiple touchpoints into one location through a single API.

Ones to Watch:

- **Rudderstack** continues to generate excitement in the market with its unique approach to ingesting and integrating first-party behavioral data and third-party datasets. Its Event Stream product provides real-time streaming for first-party data ingested directly into SaaS apps and into Snowflake. With RudderStack, organizations leverage a single platform for data ingestion, audience management, and data activation. The breadth of technical functionality of the platform has demonstrated success among customers with deeper customization requirements and technical aptitude.
- **Snowplow** enables businesses to create behavioral data to unlock AI and advanced analytics directly from their Snowflake Data Cloud instance or in a real-time stream. With Snowplow, data teams can generate, govern, and model granular behavioral data within their own cloud, freeing data analysts

and scientists from the constraints imposed by analytics vendors and off-the-shelf Customer Data Platforms (CDPs). Snowplow and Snowflake together enable organizations to create a single view of customer behavior. With AI- and BI-ready behavioral data stored directly in their Snowflake account, teams can focus on creating data products and activating data as part of a composable CDP.

2. INTEGRATION & MODELING

These technologies and tools cleanse and model raw data so it can be ingested and organized into a single repository before it is integrated, analyzed, and shared. This category also includes technology providers that offer data transformation—the process of changing the format, structure, or values of data to make it more organized and useful to humans and computers.

Types of solutions: ETL, ELT, data modelers, batch/change data capture (CDC)

Leaders (in alphabetical order):

- **dbt™** works on top of Snowflake to provide a centralized environment for collaborative data transformation. Data professionals who know SQL can collaborate on end-to-end transformation workflows in Snowflake. Working with dbt on Snowflake enables organizations to run their transformations at near-infinite scale. dbt's data transformation technology allows joint customers to deploy their analytics code to the Snowflake Data Cloud, drawing on best practices from the software development world such as modularity, portability, and CI/CD.

INTEGRATION & MODELING

LEADERS



ONES TO WATCH



- **Fivetran** automates data movement in the Data Cloud. Together, Fivetran and Snowflake empower data teams to focus on delivering analytics, rather than building and maintaining pipelines. Currently, thousands of leading organizations choose Snowflake and Fivetran to leverage the benefits of centralizing and accessing all data in the Data Cloud in order to deliver more impactful business insights, automated and zero-maintenance data pipelines, and stringent data security standards.
- **Informatica** Intelligent Data Management Cloud (IDMC) is a cloud-native, AI-driven platform. It enables customers to ingest, transform, and govern data in the Snowflake Data Cloud to uncover insights and use AI & analytics. IDMC delivers end-to-end enterprise cloud data management SaaS solutions that include data integration, cataloging, governance, and master data management. These solutions support cloud data warehousing/data lakes, business intelligence, and data management use cases. Informatica's data integration capabilities connect, transform, route, and process an organization's mission-critical data of any type, pattern, model, complexity, or workload, across any location.
- **Matillion** is a modern data integration platform that helps organizations realize the value of Snowflake's Data Cloud by taking advantage of the speed, scale, performance, and economics of the public cloud. Armed with an extensive list of pre-built connectors, Matillion provides a low-code/no-code interface to accelerate the loading of data into the Data Cloud and the transformation of that data for advanced analytics. With advanced orchestration capabilities, APIs, and metadata sharing, Matillion manages the modern enterprise data stack, ensuring timely consumption of data at scale by analytic and governance tools such as ThoughtSpot, Tableau, PowerBI, Alation, and more.

- **Talend** collects, governs, transforms, and shares the data in your instance of the Snowflake Data Cloud, and ensures data health. With Talend and Snowflake, you can assess and improve the reliability of your data to bring clarity to your business decisions, and put the right data in the hands of the people who need it.

Ones to Watch:

- **Funnel** helps marketers connect all of their data, clean and normalize it (while preserving the raw data), and send that data to the Snowflake Data Cloud. With Funnel, marketers' data is automatically refreshed, mitigating challenges of data latency. It's updated daily, and with Funnel's direct share to Snowflake, automatically fits their models. With Funnel, marketers can collect all of their marketing data from any source and they can depend on fresh data because Funnel maintains updates from marketing sources.
- **Hevo Data** is a data pipeline platform that enables organizations to integrate data from 150+ sources into Snowflake. The no-code experience is optimized to allow data operators to load data with zero maintenance and low latency. Features include preloaded transformations and auto-schema mapping. Hevo differentiates itself with a reverse-ETL capability that delivers operational intelligence back to business tools. This breadth of functionality that's focused on customer experience and agility positions Hevo Data as a provider to watch in the Modern Marketing Data Stack.

3. IDENTITY & ENRICHMENT

Once an organization has unified and integrated its data, a key step is to resolve individual identities by mapping each touchpoint and interaction to a single person, and enrich those identities with third-party data.

Types of solutions: Identity resolution providers, enrichment dataset providers

Leaders (in alphabetical order): The true value of this category lies in the breadth of the data providers available and the diversity of their datasets. Snowflake customers have access to the data providers needed to enrich data and optimize marketing campaigns via Snowflake Marketplace, regardless of the domain they operate in, or the specific type of data needed to enrich their current campaign data.

The number of Snowflake customers engaged in data sharing continues to rise. As of July 31, 2022, 21% of Snowflake customers⁹ have at least one stable edge. Snowflake's Marketplace listings grew 13% quarter over quarter, now with more than 1,500 data listings from more than 310 providers.¹⁰

From June 1, 2021 to June 1, 2022, these are the highest ranked Snowflake Marketplace Partners:

Enrichment Providers Shoutouts

- **Demographics and Commerce:** Crunchbase, Equifax, IPinfo.io, Jobvite, Recurly, Starschema, SafeGraph
- **Financial:** Crux Informatics Prod, Exchange Data International, FactSet Research Systems Inc., Knoema, S&P Global, Stripe
- **Health:** IQVIA
- **Transportation:** DAT Solutions LLC
- **Weather:** Weather Source, LLC

Also part of this category of the Modern Marketing Data Stack are identity providers. Organizations require an effective process to attribute customer behavior and interactions across all touchpoints, to a single unified customer profile. Many leading identity resolution providers are natively integrated in the Data Cloud and leveraging Snowflake's underlying modern data sharing technology. It's worth noting that many organizations within this category, such as LiveRamp, Neustar, and Experian, are building identity, enrichment, onboarding, activation, and other capabilities within Snowflake, enabling these processes to happen faster and with greater security. Essentially, this means there is no need to copy and move data between any of these solutions and the Data Cloud, adding agility and governance while reducing latency.

There are eight identity providers that offer this improved performance for customers operating in the Data Cloud. They are:

- Acxiom
- Aidentified
- Experian
- FullContact
- Verisk Marketing Solutions (Infutor)
- LiveRamp
- Merkle
- Neustar

IDENTITY & ENRICHMENT

ENRICHMENT PROVIDERS

crunchbase

JOBVITE

CRUX

knoema

DAT

Recurly

EDI

S&P Global

EQUIFAX

SAFE GRAPH

FACTSET

STARSCHEMA

ipinfo.io

stripe

IQVIA

WEATHER
SOURCE

IDENTITY PROVIDERS

ACXIOM

aidentified

experian

FullContact

Verisk

/LiveRamp

MERKLE

neustar

4. ACTIVATION & MEASUREMENT

Data activation is the portion of the marketing data stack that allows marketers to take action on organized data. Data activation solutions are designed to take an organization's data stored in their central repository and make it faster and easier to access, and activate that data to channels used by internal teams or accessed by customers. Measurement tools specialize in offering organizations visibility and feedback, regarding the performance and effectiveness of their marketing and advertising campaigns and the most relevant touchpoints that drive sales.

Types of solutions: Customer data platforms, demand-side platforms, reverse ETL, customer engagement platforms, measurement providers, marketing automation platforms, email service providers, and others.

Leaders (in alphabetical order):

- **Braze** is a leading comprehensive customer engagement platform that powers interactions between consumers and the brands they love. With Snowflake Secure Data Sharing—which enables account-to-account secure sharing of data through the Snowflake database, views, and user-defined functions (UDFs)—organizations that use both Braze and Snowflake can access granular event-level data. This gives organizations the ability to analyze patterns of behavior for predictive modeling, generate funnel reports to better understand the user's journey, or trigger follow-up actions to re-engage users, among other capabilities. Event data lives directly within the customers' data stack, which means users can instantly join multiple, disparate sets of data to broaden their view into the metrics driving their business, and leverage this information to support more impactful customer engagement efforts going forward.

- **Hubspot** leverages Snowflake Secure Data Sharing, so organizations can pass their data from HubSpot to Snowflake quickly, securely, and comprehensively, in order to curate and analyze their HubSpot data within their existing data stack. Through data sharing, no data is actually copied or transferred between accounts, ensuring higher levels of compliance and security while also limiting any storage costs to those associated with the compute resources needed to process and analyze the data in question. With all their data united in Snowflake, organizations get deeper customer insights faster.
- **Simon Data** is the marketer-first orchestration customer data platform (CDP), allowing e-commerce, travel, marketplace and retail brands to use data to build unique customer journeys across channels at accelerated speeds. With Simon Data, marketing teams can easily access their Snowflake data to orchestrate real-time, personalized campaigns without needing extensive engineering support. Built on top of Snowflake, Simon leverages secure data shares to build audience segments, personalized customer experiences, and cross-channel journeys. This partnership offers customers flexible data ingestion, powerful self-service tooling that maps 1-1 with their data models, and experimentation capabilities that enable coordinated testing across all marketing channels and systems. It's built around the customer's data, by including data egress to bring everything back into their Snowflake environment including channel engagement, campaign metadata, experimentation context, and more.

ACTIVATION & MEASUREMENT

LEADERS



ONES TO WATCH



- **The Trade Desk** is a technology company that powers buyers of digital advertising. Through its self-service, cloud-based platform, ad buyers can create, manage, and optimize digital advertising campaigns across ad formats and devices, including Connected TV. Combined with Snowflake, customers of The Trade Desk can access their data in a safe, secure manner at the event level when executing campaigns. This cross-channel, log-level data enables marketing campaign managers, ad buyers, and marketing analytics teams to run full-funnel attribution and improve data analysis. This advanced analytics environment has the added benefit of keeping the data in a single place, maintaining an easy path to activation in the bid stream.
- **VideoAmp** provides measurement and optimization tools that unify audiences across the disparate systems of traditional TV, streaming, and digital media. The partnership between Snowflake and VideoAmp unlocks value and insights for advertisers, publishers, and data owners, allowing for a comprehensive view of cross-screen media measurement and optimization. VideoAmp has invested in industry-first technologies including cleanrooms, granting unique and secured privacy-preserving access to first-party data, and integrations with social, streaming, and other large digital platforms.

Ones to Watch:

- **Hightouch** offers a unique, user-friendly solution for audience management and data activation directly in the Data Cloud, as a Snowflake connected application. Organizations can execute on audience management without having to extract or duplicate their data. Many organizations are opting for a composable customer data platform (CDP) with Hightouch responsible for data activation from the Data Cloud—a best-of-breed alternative to traditional CDPs. Hightouch continues to build Snowflake-specific functionality designed to enhance multi-channel personalized customer experiences, support customer360 initiatives, and optimize advertising effectiveness.
- **Rivery** enables organizations to extract, load, transfer, integrate, and activate customer data across marketing platforms such as Salesforce, HubSpot, Marketo, and other various channels such as demand-side platforms (DSPs), search, or social. With Rivery, marketers can create audiences directly in Snowflake and then push those audiences automatically into these platforms without the need for file transfers. Rivery uses turnkey connectors, low/no-code transformation, and customizable data activation, making it easy for marketers to integrate the right data sources into Snowflake, and activate them through reverse ETL. Rivery is a unique approach to data management that incorporates automation and actionable logic into the traditional data ETL/ELT processes.

- **Zeta** is the data-powered marketing cloud with one vision: make sophisticated marketing simple. Through data and AI, Zeta empowers enterprises to achieve the best results by truly understanding, connecting, and engaging consumers in a complex digital ecosystem. The industry-leading Zeta Marketing Platform (ZMP) is an omnichannel platform that makes it easier for marketers to unify identity, intelligence, and activation across all channels, ultimately delivering better experiences for consumers and better outcomes for brands.

5. BUSINESS INTELLIGENCE

The Business Intelligence category covers tools used for data analysis and visualization that use reports and dashboards to democratize key performance metrics consumed across the business by multiple user profiles and groups, including management. Technologies in this category use visual methods to provide organizations with insights that can support data-driven decision-making. Examples include better understanding their audiences, identifying potential trends in customer behavior, measuring the effectiveness of marketing efforts across all channels, and surfacing insights about competitors.

Types of solutions: data visualization, business intelligence and dashboards

BUSINESS INTELLIGENCE

LEADERS

 **MicroStrategy**

 **MODE**

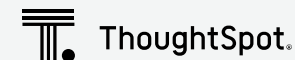
 **Power BI**

 **sigma**

 **+ a b | e a u**

ONES TO WATCH

 **sisense**

 **ThoughtSpot**

Leaders (in alphabetical order):

- **MicroStrategy** is a platform for enterprise analytics built to deliver a broad range of web, mobile, and embedded business intelligence experiences with enterprise-level trust, scale, and security. MicroStrategy's open architecture includes live connections to Snowflake's Data Cloud and supports optimized push-down SQL queries that maximize performance. These connections are enhanced by an in-memory layer that caches data, when needed, to optimize Snowflake compute resources. MicroStrategy also incorporates unique BI applications such as HyperIntelligence, which permits no-code embedding of context-rich marketing insights into any website or application. MicroStrategy's cloud-native architecture supports monthly releases of new features, performance enhancements, and security updates.
- **Mode** is the modern business intelligence platform that fundamentally shifts how people use data, every day. Built around data teams that deliver high-impact analysis and self-serve data products, Mode helps every team tap into their analytical side to find trusted answers. Together with Snowflake, Mode enables faster speed to insight by unleashing analysts to iterate on raw data and instantly combine new data sources. As a single platform for multiple types of analysis, Mode future-proofs your business intelligence as your data culture evolves and scales.
- **Microsoft PowerBI** is a unified, scalable platform for self-service and enterprise business intelligence that's easy to use and helps you gain deeper data insight. Power BI customers can leverage a native Snowflake connector that supports a wide range of access patterns, including the ability to leverage single sign-on (SSO). Organizations can utilize Snowflake's multi-cluster, shared data architecture to connect their BI platforms directly to Snowflake.
- **Sigma** enables enterprise users to engage directly with Snowflake through its intuitive spreadsheet interface. Enterprise and technical users can collaborate, build models, visualize data, and present through Sigma's Workbooks platform. With Sigma, customers can get started instantly and maximize their Snowflake investment by empowering teams to securely explore, calculate on, and analyze billions of rows of live data.
- **Tableau** is a platform for modern business intelligence. It enables data exploration for professionals ranging in data analytics experience—from business users to data scientists—revealing insights with accessible machine learning, statistics, natural language, and smart data prep. When Tableau connects to Snowflake, Tableau queries are sent directly to Snowflake and return fresh, up-to-date data needed to generate insights in the form of visualizations, data stories, forecasts, and even action frameworks from Salesforce.

Ones to Watch:

- **Sisense:** Sisense Fusion delivers insights embedded into products, business workflows, and productivity tools knowledge workers use every day. Sisense offers BI capabilities and embeds analytics directly into business workflows, justifying its position as a provider to watch. Customers can rebrand and white label the Sisense platform to align to an application or web site, as well as embed Sisense directly into a web site. Data teams can connect directly to Snowflake to prepare, query, and manage structured and semi-structured data within The Data Cloud, using both code and a web-based, visual data modeling experience. Together, Sisense and Snowflake power complex, ad-hoc, advanced analysis; self-service dashboards; and embedded analytic applications. Sisense's value proposition is not about finding solutions for BI, but helping people find answers. By streamlining the process of accessing insights, business leaders can gain the necessary knowledge to take critical action in a matter of minutes.
- **Thoughtspot:** ThoughtSpot Modern Analytics Cloud empowers organizations with its Live Analytics, so they can interactively and intuitively engage with their data, find insights, and take action. Customers can take advantage of ThoughtSpot's web and mobile applications to improve decision-making across their organizations. ThoughtSpot has made analytics and BI accessible to users of any technical skill level by enabling them to query using a familiar search experience. ThoughtSpot's platform delivers self-service for business users of any skill level by complementing it with an intuitive interface. The developer-friendly ThoughtSpot Everywhere platform makes it easy to build

interactive data applications, while "SpotApp" templates for your favorite SaaS applications allow organizations to accelerate the development and launch of Live Analytics use cases, near-instantly. And automated insights from SpotIQ help organizations discover outliers and key drivers within their datasets.

6. DATA SCIENCE & ARTIFICIAL INTELLIGENCE (AI)

The promise of applying AI to marketing is to allow brands and partners to analyze and use much larger pools of data to personalize the customer experience. This category covers data science and machine learning (ML) tools or platforms that help marketers implement predictive analytics to extract more granular insights from their data, improve forecasting or segmentation precision, and ultimately scale marketing use cases across organizations more efficiently.

Types of solutions: AI/ML platforms, predictive analytics

Leaders (in alphabetical order):

- **Alteryx:** The Alteryx Analytics Automation Platform accelerates your data from access and preparation to analysis and predictions, with a powerful, easy-to-use, end-to-end platform. The Snowflake Data Cloud makes data management flexible, scalable, and highly secure. Together, Alteryx and Snowflake make it easy and accessible for everyone in an enterprise, across departments and skill levels, to quickly transform data into actionable insights.

DATA SCIENCE & ARTIFICIAL INTELLIGENCE (AI)

LEADERS

alteryx



H2O.ai

ONES TO WATCH

HEX

teclon

- **Amazon SageMaker Data Wrangler** is a capability of Amazon SageMaker that makes it faster for data scientists and engineers to prepare data for ML via a visual interface. With SageMaker Data Wrangler, you can simplify the process of data preparation and feature engineering, and complete each step of the data preparation workflow, including data selection, cleansing, exploration, and visualization from a single visual interface. A key accelerator of data preparation is the Data Quality and Insights Report, which checks data quality and helps detect abnormalities in your data. Organizations can use Snowflake as a data source in Amazon SageMaker Data Wrangler to easily prepare data in Snowflake for machine learning.
- **Dataiku** is one central solution for the design, deployment, and management of AI applications. Dataiku and Snowflake are complementary solutions that combine Snowflake's highly scalable computational power and processing flexibility with Dataiku's machine learning and model management capabilities. Dataiku and Snowflake deliver cloud-optimized, enterprise-ready AI solutions that enable technical and non-technical users to easily and quickly build, deploy, and monitor many types of data science projects such as machine learning and deep learning. Organizations can now acquire crucial insights to make better business decisions and drive new business opportunities at scale.

- **DataRobot** is an end-to-end AI/ML platform that supports automated machine learning and code-first development to build and deploy accurate predictive models quickly, and accelerate ML workloads and use cases. DataRobot takes advantage of the seamless access to all data types stored in the Snowflake Data Cloud, including data from Snowflake Marketplace via data sharing, to accelerate the model development lifecycle and move it to production. This enables the creation of trusted, explainable, and scalable models across the business. Marketing is one department that uses DataRobot to determine the effectiveness of marketing activities and operations, accurately target customers, advance the buying journey toward purchase, and improve customer relationships.
- **H2o.ai** built a native integration that allows users to access all of H2O.ai's advanced machine learning capabilities directly from their Snowflake environment. Through multiple pre-built integrations, users can easily leverage H2O.ai machine learning for real-time analysis from within the Snowflake toolset. This shortens learning cycles, significantly reduces processing times, ensures predictions are based on the most recent data, and makes those predictions available to any application built on top of Snowflake.

Ones to Watch:

- **Hex** is a platform for collaborative data science and analytics that is gaining market momentum through its ability to bring together data scientists, business analysts, and consumers of analytics in a unified workspace. Hex offers a classic notebook feel with modern capabilities such as SQL and Python cells with full compute pushdown, low-code cells, Snowpark cells, and integrations with key components of the modern data stack such as dbt and GitHub. Hex makes it easy for data teams to collaborate and deploy notebooks as applications for business-wide consumption. With Hex, organizations build and deploy advanced data science models that enhance the efficiency and scale of their marketing campaigns.
- **Tecton's** feature platform for machine learning provides the simplest and most reliable way to operationalize Snowflake data for real-time ML use cases such as fraud detection, product recommendations, search, risk assessment, and pricing. Tecton is a fully-managed cloud service that automates ML data pipelines, stores historical and online feature data, and provides simple APIs to serve data for online serving and model training. Tecton provides first-class integrations with Snowflake's Cloud Data Platform, allowing it to ingest raw data from Snowflake, transform data using Snowflake processing, and curate historical feature data on Snowflake. Tecton supports Snowpark, allowing organizations to transform data using Python on Snowflake. In addition to the Tecton feature platform, Tecton is also the main contributor to Feast, the leading open source feature store, which is tightly integrated with Snowflake.

CUSTOMER SUCCESS STORIES

While adoption and investment across the six categories vary widely, some patterns emerged. First, and unsurprisingly, data collaboration is experiencing steep growth when compared to more traditional workloads, such as the data warehouse. Data collaboration has experienced more than 300% growth in both stable edges and Snowflake Marketplace partners since April 2020.¹¹

Our research also found the majority of customers use leading technologies that fall into the Integration & Modeling or Business Intelligence categories. More customers are in the earlier phase of building a unified view of the customer and eliminating data silos, as opposed to more advanced phases of leveraging activation and measurement, and data science and AI and ML technologies for more innovative and automated marketing use cases.

Lastly, while the most technically resourced and sophisticated customers are typically more capable of building their own tools and technologies across the Modern Marketing Data Stack, our analysis found that a whopping 95.2% of customers¹² that appear in the 2022 Forbes Global 2000 use at least one of the tools from the six categories for both Leaders and Ones to Watch. Seventy-one percent use at least three of the solutions.

Our research also found that, out of that same group of customers, 75.7% currently use one of the leaders from the Integration & Modeling category, and an even greater number (87.6%) work with one of the leaders highlighted in the Business Intelligence category. Conversely, lower adoption from customers of leaders from other categories such as Data Science & Artificial Intelligence (44.5%) and, more acutely, Activation & Measurement (5.5%), support the hypothesis that even the most sophisticated and well-resourced organizations are still assembling their modern data stack to enable more advanced marketing use cases. This includes navigating a fragmented ecosystem, particularly in categories that enable emerging marketing use cases.

Below are some examples of leading brands that have built their Modern Marketing Data Stack on Snowflake:



CHALLENGE:

Compare Club collects data from a number of disparate sources across multiple websites and customer touchpoints. But prior to using Snowflake, everything was stitched together through Excel spreadsheets and there was no easy way to conduct business monitoring or reporting accurately. Business teams' access to the data was a challenge, which meant the data team was often tasked with building custom integrations to various marketing tools and advertising channels. These manual integrations could take more than three weeks to build, were very brittle, and difficult to maintain. In addition, their existing marketing tools created challenges by not handling all of the multi-channel touch points crucial to Compare Club connecting with customers over the phone, email, SMS, and so on.

SOLUTION:

Modern Marketing Data Stack on Snowflake:

Snowplow, Fivetran, Hightouch, Braze, Tableau

The modern data stack implemented by Compare Club now consists of analytics technologies, including Snowplow, which specializes in behavioral analytics. Compare Club opted for Fivetran for fully managed reliable data integration for 90% of its data sources, including sales pipeline data from multiple Salesforce instances. That data gets integrated into the Snowflake Data Cloud, which collects and consolidates all of Compare Club's data, making it quick and easy to

create data models and run analytics. Compare Club uses Hightouch to sync data from Snowflake to various tools such as Braze, Facebook Ads, and Salesforce to empower its sales and marketing teams, and increase return on ad spend. With Braze, Compare Club can launch marketing campaigns across multiple touchpoints to address every aspect of the customer journey. Finally, with Tableau, Compare Club uses an intuitive analytics platform to generate critical marketing and business insights from its data and campaigns.

IMPACT:

- Hundreds of hours saved by the sales, marketing, and executive teams by building a Modern Marketing Data Stack on Snowflake
- 9.5% cost per inquiry reduced by using Hightouch to build look-alike audiences for specific segments
- Increased LTV, retention, and loyalty by operating in a more customer-centric fashion with the Modern Marketing Data Stack

[Learn more](#)

COMPARE CLUB: GETTING A UNIFIED VIEW OF THE CUSTOMER JOURNEY

Glossier.

CHALLENGE:

As retailers enter the holiday season, they face the challenges of consumer demands constantly changing and a highly disrupted supply chain. Black Friday has an oversized relevance for retailers, and Glossier is no exception. It represents one of only two sales promotions of the year for the beauty products retailer, which means that its loyal customer base patiently awaits for the holiday to purchase their products via a promotion. This approach brings significant benefits for Glossier, but it comes with its challenges as well. The peak volume of traffic and orders means Glossier needs timely and accurate data to garner the needed agility to best serve its customers. However, Glossier's data foundation lacked the necessary performance to help them navigate this challenging paradigm. The majority of the team's time was spent building ad hoc integrations for data sources and separate systems, which frequently broke. This outdated and manual approach proved time-consuming and costly.

SOLUTION:

Modern Marketing Data Stack: *Stripe, Fivetran, dbt™, Hex*

With the goal of implementing a robust data-driven marketing foundation, Glossier effectively created a modern marketing data stack on top of Snowflake. The company built a unified view of all customer data that enabled them to leverage same-day reporting to improve decision-making. Glossier did so by centralizing all customer data in the Data Cloud, leveraging holistic data and analytics through platforms and data sources such as Stripe and Amplitude, and integrating them seamlessly and instantly with Fivetran. With dbt Labs for data modeling, Glossier was able to power personalized interactions with its customer base and effectively establish a future-proof solution to address peak demands.

IMPACT:

- 36% increase in marketing ROI (over previous year)
- Increased conversion on paid orders
- 10% increase in customers interacting with cart personalizations and +2% increase in average order value (AOV)

[Learn more](#)



**GLOSSIER:
IMPROVED
MARKETING
EFFECTIVENESS
AHEAD OF THE
PEAK HOLIDAY
SEASON THROUGH
SEAMLESS DATA
INTEGRATION AND
ANALYSIS**



CHALLENGE:

Managing a multitude of data sources, data structures, file formats, and APIs from 45+ vendors was operationally burdensome for Slack. Siloed data made it difficult to achieve a comprehensive view of the customer journey. Creating custom audiences required support from technical staff, which led to delays for marketers and ultimately hindered the customer experience. Slack needed an approach centered on a single source of truth that ultimately empowered marketers and reduced administrative effort and time needed to create new segments and campaigns.

SOLUTION:

Modern Marketing Data Stack on Snowflake:

Matillion, Tableau

Slack implemented a combination of technologies that directly addressed its challenge of creating a unified view of multiple, disparate data sources. Slack uses Matillion to support the conversion of raw data into analytics-ready data. Slack also orchestrates computational workflows and ETL processes with Airflow, an open-source workflow management platform for data engineering pipelines. That data then gets integrated into Snowflake, where Slack can leverage near-limitless scale of storage and compute to ingest and analyze large amounts of marketing and product data from many different sources. Slack also uses Tableau to quickly identify and visualize critical business insights that help improve decision-making and marketing efficiency.

IMPACT:

- Empowered marketers to run campaigns in-house without assistance from advertising agencies, saving time, effort, and money.
- Reduced time-consuming data wrangling
- Built a future-proof marketing foundation to optimize existing campaigns, identify new audiences that are likely to convert, and boost conversion rates

[Learn more](#)

**SLACK:
CREATING A SINGLE
SOURCE OF TRUTH
TO FACILITATE
AUDIENCE CREATION
AND IMPROVE
MARKETING
OUTCOMES**



CHALLENGE:

Type any destination or travel-related keyword into Google and you'll inevitably come across Tripadvisor's website. As the world's largest travel guidance platform, Tripadvisor's success in the market was largely due to its ability to attract massive amounts of traffic thanks in part to its review collection and community building strategies, attracting nearly a half billion monthly users (pre-pandemic). However, as we approach a post-cookie world and experience pandemic recovery, Tripadvisor now faces a new set of challenges. Changing privacy regulations, evolving consumer needs and behaviors, and increased competition have forced the company to undergo rapid transformation. Before adapting a modern marketing data stack, anchored on Simon Data and Snowflake, Tripadvisor's marketing was hindered by:

- Slow campaign deployment. Campaign creation was dependent on IT and data engineering resources for segmentation and advanced personalization.
- No single view of the customer. Without being able to aggregate data across all customer touch points, Tripadvisor's personalization efforts felt hollow and fell short of their vision of personalized experiences driven by advanced segmentation, automation based on behavior, and dynamic campaigns.
- Cumbersome machine learning approach. A fragmented data architecture made it difficult for the team to create models that create value for both the customer and the business.

- Inefficient cross-team collaboration. Tripadvisor's marketing teams were siloed across channels, leading to a fragmented customer experience and an uncoordinated workflow.

SOLUTION:

Modern Marketing Data Stack on Snowflake:

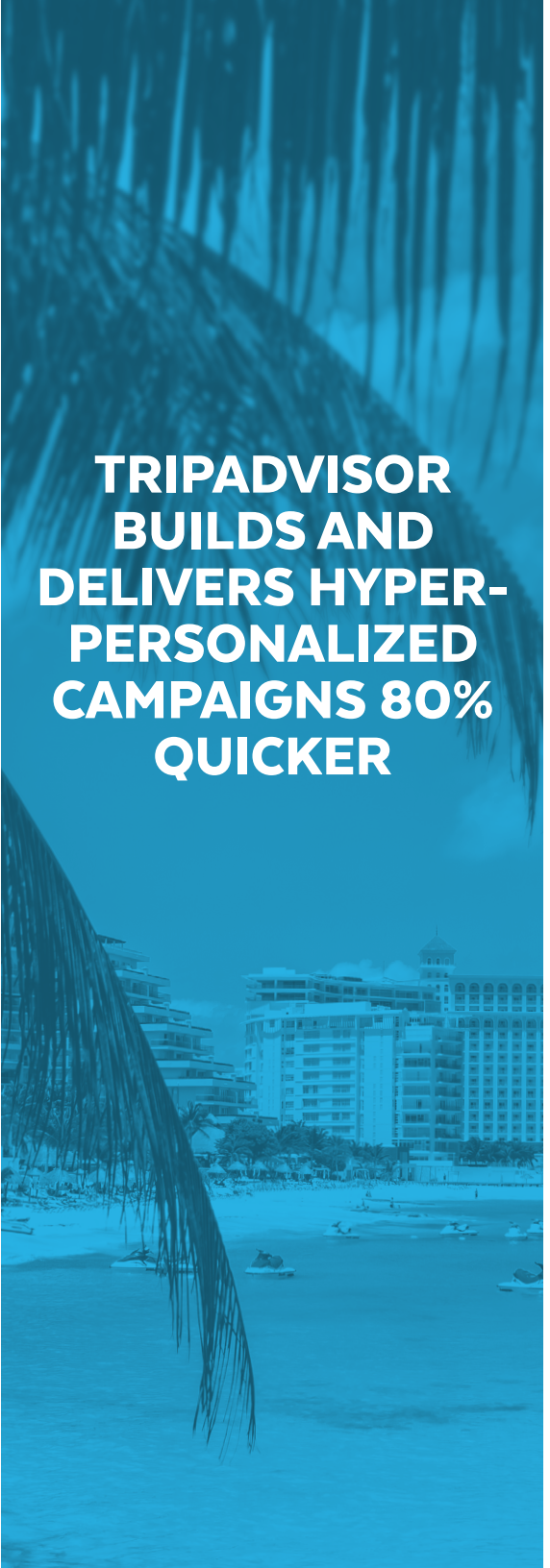
Simon Data, Tableau

By leveraging bidirectional integration between Snowflake and Simon Data, Tripadvisor's marketing team was able to access a unified view of the user and launch the personalized experiences central to its strategic initiatives. Tripadvisor integrates all customer and business data into Snowflake, then uses collaboration capabilities to share with Simon Data in order to run quick and impactful segmentation models, and execute hyper-personalized campaigns through a no-code interface. Tripadvisor's stack also enables automated, personalized campaigns based on historical and real-time behavior, saving significant time and generating efficiencies for marketers. Tripadvisor also uses Tableau for visualization or powerful insights that support critical decision-making and offer access to deep analytics to any internal user.

IMPACT:

- Marketing teams were able to utilize Simon Data to speed up personalization campaign deployment by 80%.
- Deeply personalized, automated campaigns based on historical and real-time behavior.
- Machine learning and rich member-engagement data now power advanced segmentation and personalized messaging at scale.
- Marketers can deliver integrated multichannel campaigns more easily.

[Learn more](#)

A blue-tinted background image showing a tropical beach scene. In the foreground, a palm frond hangs down from the top right. In the background, there are modern buildings and a beach with people.

**TRIPADVISOR
BUILDS AND
DELIVERS HYPER-
PERSONALIZED
CAMPAIGNS 80%
QUICKER**

THE SNOWFLAKE DATA CLOUD: THE BACKBONE OF YOUR MODERN MARKETING DATA STACK

Marketers who build their data stacks on Snowflake enjoy the benefits of a robust and flexible cloud data platform, namely, a single platform for all their data regardless of the source—applications, data warehousing, data lake, data science, data engineering, cybersecurity, and Unistore. Instead of having to copy and move data, the Data Cloud can eliminate data movement, reducing the impact of slow performance and significant data latency that leads to poor customer experience and marketing inefficiencies. The Data Cloud also streamlines governance by removing the need for multiple data copies that create potential data security, compliance, and privacy issues. With all of their data in one place, marketers can make real-time decisions that consider a 360-degree view of the customer or prospect.

Snowflake also enables privacy-centric, seamless, and secure data collaboration for first- and second-party data, as well as for third-party data through Snowflake Marketplace, which has grown to more than 310 data providers and 1,500 listings as of July 31, 2022. As a leading data partner ecosystem, Snowflake Marketplace ensures marketers can build their stack with best-of-breed partners.



ON THE HORIZON

The findings detailed in this report represent the core components and current use cases for the Modern Marketing Data Stack. Still, there are a few emerging trends that may become part of this report in future years:

1 Connected apps built directly in the data layer:

Until recently, SaaS application providers invested in big data capabilities that vastly outstripped what their customers could run in their own environments. As a result, their applications needed to ingest their customers' data in a siloed data store so it could be processed within the SaaS app providers' own highly performant data platform. This required customers to relinquish control of their data, which they could only access by building and managing API pipelines for each of their SaaS applications. With Snowflake, enterprises of all sizes are adopting the Data Cloud's massively scalable and cost-efficient data platform to store and process their customers' data in the Data Cloud, as a single source of truth. As these connected apps continue to gain traction, they may further increase the performance of a Modern Marketing Data Stack.

2 Advertising is consolidating in the Data Cloud:

Amid regulatory and privacy changes, including the impending deprecation of third-party cookies, media companies and their advertising partners are starting to migrate their advertising platforms directly to the Data Cloud. Specifically, leading media companies such as NBCUniversal and Disney are using Snowflake within innovative new technologies, such as data clean rooms—a secure, governed methodology which enables first-party data collaboration in real time. Some of these entities are already among the leaders in data sharing within the Snowflake platform. As more publishers, advertisers (e.g., Roku), ad agencies (e.g., WPP, Horizon Media), and identity and application partners continue to build and migrate their advertising platforms and solutions to Snowflake, more use cases will surface for organizations building their Modern Marketing Data Stack on the Data Cloud.

3 Reinforcing capabilities and performance in your single source of truth:

Copying and moving data means increased latency and reducing marketers' ability to deliver holistic, targeted, timely, and consistent customer experiences. It also increases privacy and security vulnerabilities for sensitive data that marketers need to maximize for campaigns. That's why the Data Cloud continues to reinforce capabilities and introduce critical workloads that eliminate the need for data movement. Snowflake's cybersecurity workload eliminates data silos, automates powerful security analytics, and expands Snowflake's offering with connected security applications from third-party partners. Snowflake's Unistore workload delivers a modern approach to working with transactional and analytical data together in a single platform with a single dataset, streamlined transactional application development, and a simplified architecture for consistent security and governance controls.

To find out more about how to assemble a Modern Marketing Data Stack, or the depth and breadth of what Snowflake's Data Cloud offers organizations, contact us [here](#).

APPENDIX:

DETAILED METHODOLOGY

Methodology - The motivation behind the chosen methodology was to identify the technologies that have developed a significant customer base within Snowflake, and also have customers actively using the power of Snowflake's Data Cloud.

All of these analyses were conducted over a 12-month period, from June 1, 2021 to June 1, 2022. The goal was to attain the following:

Identify the full list of technologies for marketing data stack:

- Started with Snowflake's full customer base (any active Salesforce account during the period above).
- Narrowed list to "active customers". Active customers defined as:
 - Contract end date has not passed
 - Contract type is capacity or on-demand/self-service
 - Has generated revenue in the last year
- Pulled the data for the full set of technologies and tools that our active customers have used over a 12-month period.
- From the list of technologies and tools that were used for marketing use cases with our active customer base, we limited the results to include those providers that are active members of the Snowflake Partner Network or "SPN", have a comparable agreement in place with Snowflake, or are Snowflake Marketplace Partners and have agreed to the Marketplace Terms and Conditions.

Split the technologies based on their type of

Snowflake consumption: The list of marketing technology tools was then split into two separate categories based on their type of Snowflake consumption: Technologies that use Snowflake's core workloads for data integration, transformation, and analysis, and technologies using collaboration capabilities. The rationale for splitting the full set into two distinct groups was that the overlap for tools operating on both sides was less than 0.5%.

Identify key metrics needed to measure success of different marketing tools for each category.

- For technologies using Snowflake's core workloads for data integration, analysis, and transformation:
 - Total number of active customers using the technology on Snowflake
 - Total credit consumption the technology uses on Snowflake
 - Average credit consumption for active customers using the technology on Snowflake
 - Total number of warehouse jobs produced by that particular technology over the last year

- For technologies using Snowflake's collaboration capabilities:
 - Total number of stable edges that include the technology. Stable edges are the ongoing relationships between data providers and data consumers. They represent a data share that has produced at least 20 transactions in which compute resources are consumed and such consumption results in recognized product revenue over two successive, three-week periods (with at least 20 transactions in each period).
 - Total credit consumption that the technology is using on Snowflake
 - The total number of consumers of the data provider's data. This includes consumers of stable edges but also edges that have not met the threshold to be considered stable and sustained.
 - Total number of data sharing jobs produced by that particular technology over the last year.

Generate a ranking based on the type of Snowflake usage that illustrates the level of market penetration achieved by the technology, and complement it with how deep that usage is. Calculate based on the following weighted criteria:

- Technologies using Snowflake's core workloads for data integration, analysis, transformation:
 - Breadth (70%): number of active customers
 - Depth (30%): total credit consumption, average credit consumption, number of warehouse jobs.
- Technologies using Snowflake's collaboration capabilities :
 - Breadth (70%): number of stable edges
 - Depth (30%): total credit consumption, number of consumers of the data provider, number of data sharing jobs.

Rank/select the marketing technologies from 1 to N, where the lower number (ranking) is more favorable.

Combine the full list of technologies across both groups and normalize this ranking between 0-100. (A score of 100 would be the technology ranked first across every metric.)

- Leaders represent the top five technologies with the highest index in each category
- Ones to Watch did not necessarily follow the leaders in their standing, but were selected based on multiple factors such as strong recent momentum in the market, innovative technology or approach with Snowflake, or have recently demonstrated strong customer capabilities



ABOUT SNOWFLAKE

Snowflake enables every organization to mobilize their data with Snowflake's Data Cloud. Customers use the Data Cloud to unite siloed data, discover and securely share data, and execute diverse analytic workloads. Wherever data or users live, Snowflake delivers a single data experience that spans multiple clouds and geographies. Thousands of customers across many industries, including 510 of the 2022 Forbes Global 2000 (G2K) as of July 31, 2022, use Snowflake Data Cloud to power their businesses. Learn more at [snowflake.com](https://www.snowflake.com)



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CITATIONS

¹ Gartner, Marketing Data and Analytics Survey 2020

² Deloitte, CMO Survey August 2021

³ Deloitte, CMO Survey February 2022

⁴ Statista, Leading Software as a Service (SaaS) Countries Worldwide in 2022

⁵ For the technology providers included in its report, Snowflake included companies that are currently part of the Snowflake Partner Network (SPN), that have an active co-marketing agreement with Snowflake, or that are active Marketplace Partners, subject to Snowflake's Provider Terms of Service.

⁶ As of July 31, 2022. Please see Snowflake's Q2 FY23 earnings press release for a definition of total customers.

⁷ Snowflake internal data, 2022.

⁸ Gartner's Customer Data Survey: The 360-Degree View of the Customer is More Myth than Reality, January 19, 2022

⁹ Please see Snowflake's Q2 FY23 earnings press release for a definition of total customers.

¹⁰ As of July 31, 2022. Please see Snowflake's Q2 FY23 earnings press release for a definition of Snowflake Marketplace listings.

¹¹ [snowflake.com/news/snowflake-data-marketplace-expands-total-providers-over-300-unlocking-more-value-for-thousands-of-organizations](https://www.snowflake.com/news/snowflake-data-marketplace-expands-total-providers-over-300-unlocking-more-value-for-thousands-of-organizations)

¹² As of July 31, 2022. Please see Snowflake's Q2 FY23 earnings press release for a definition of total customers.