



# Meeting The Data Challenge

How to drive growth with  
Google Marketing Platform + Google Cloud

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# MEETING THE DATA CHALLENGE

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## Foreword:

### The data challenge

The consumer journey is becoming increasingly complicated. People are changing the way they purchase goods and services compared to just a year ago. In the United States, a recent survey found that 83% of shoppers said the COVID-19 pandemic had changed the way they shop.<sup>1</sup> We're seeing this trend globally as well, searches on Google for "for sale online" increased globally by over 100% between 2019 and 2020.<sup>2</sup>

The technology that marketers are using to keep up with changing consumer behavior is getting more complicated as well. Google Marketing Platform brings together advertising and analytics, but as more new tools emerge to help marketers measure their users' journeys, even advanced practitioners face another challenge: separate data sources that aren't easily unified.

In [research](#) conducted by Forrester Consulting with Google, 57% of enterprise decision-makers reported being challenged by siloed data managed by different teams across their organization.<sup>3</sup> Conversations with our customers demonstrate how the data challenge affects different teams in unique ways, from the marketing director whose team isn't using customer sales data to adjust their messaging to the head of analytics whose company overspends on generating customer demand because they can't use site data to predict how much new visitors are worth.

The current global economy is changing, and so are the tools marketers are using to understand it. 81% of respondents in the Forrester research called machine learning and other automated insights "critical or very important to achieving their organization's marketing objectives."

Together, Google Marketing Platform and Google Cloud can help you meet this moment by making it easier to aggregate and activate your own first-party data and share more useful predictive insights throughout your organization in order to drive better bottom-line results.



Sean Downey  
Vice President,  
Media Platforms, Google

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<sup>1</sup> Google-commissioned Ipsos COVID-19 tracker, Global, AU, BR, CA, CN, FR, DE, IN, IT, JP, KR MX, RU, ZA, ES, UK, US, n=1000 online consumers 18+ per market, May 28–31, 2020.

<sup>2</sup> Google Data, Global English, Jun 3, 2020 - Aug 1, 2020 vs Jun 3, 2019 - Aug 1, 2019.

<sup>3</sup> "The Future of Analytics: Firms Seek Advanced Tools to Improve Customer Experiences And Marketing Outcomes", a commissioned study conducted by Forrester Consulting on behalf of Google, July 2020

# 01

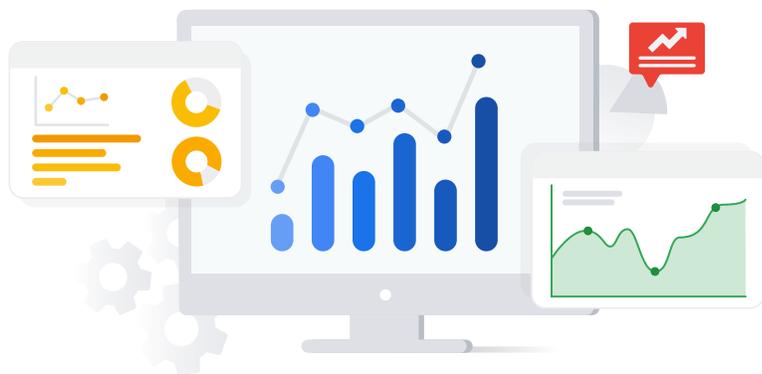
## Smarter, faster marketing

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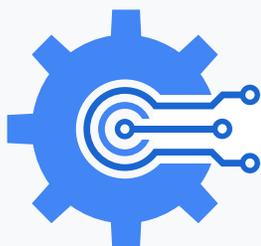


# 01

## Smarter, faster marketing

In order to anticipate customer needs and be the most helpful at the right moments, leading marketers around the world are integrating their ads and analytics platforms. This is enabling them to uncover more insights about their audience and improve their marketing performance. They can more easily customize their message based on how customers have engaged with their website or app. Or they can better optimize their digital campaigns based on the customer action they are trying to drive.

Google Marketing Platform helps you bring together your ads and analytics data to drive better business results. It's easy to integrate and connect your data within Google Marketing Platform because its solutions are built to work together.



**Leading marketers are 1.6x more likely to prioritize integrating technology.<sup>4</sup>**

It all starts with [Analytics 360](#). Analytics 360 helps you better understand your customers. Learn how they are reaching your site, which products they are buying, or where they are dropping off. You can then use those insights to take action by creating audiences of your users and then activating them through Google Marketing Platform.

“Google Marketing Platform is our command center. It’s the one place that we go every day **to find out what’s going on with our strategies, with our insights, and with our customers.**”<sup>5</sup>

Rob Roy, Chief Digital Officer, Sprint

<sup>4</sup> Bain/Google Marketing Leaders Study, global, November 2017. n=1,683 marketing and advertising media and technology executive decision makers in North America, Europe, Australia and Japan.

<sup>5</sup> [Sprint brings ad technology in house to gain control over campaigns](#)



### Focus the reach of your advertising.

Create an audience of high-value customers in Analytics 360 and reach it in your [Display & Video 360 campaign](#).



### Optimize your campaign bidding.

Export Analytics 360 conversions to your [Search Ads 360](#) account so that you can optimize your campaign bids.



### Customize the site experience.

Create an audience in Analytics 360 made up of customers you want to share a discount with and then customize your site for the audience in [Optimize 360](#).



Gain valuable insights directly from **customers**. Create an audience in Analytics 360 made up of customers who didn't convert and find out why with [Surveys 360](#).



## Rituals Boosts Sales by 85% with Google Marketing Platform

Rituals is one of the most widely used luxury bath and body companies in Europe. To help them scale their business globally, they used Analytics 360 and Display & Video together to automatically reach people most likely to convert.

[Read the case study](#)



Google Marketing Platform works well with other Google products. You can easily connect Analytics 360 to [Google Ads](#) – enabling you to reach your Analytics 360 audiences or optimize campaign bidding based on Analytics 360 conversions.

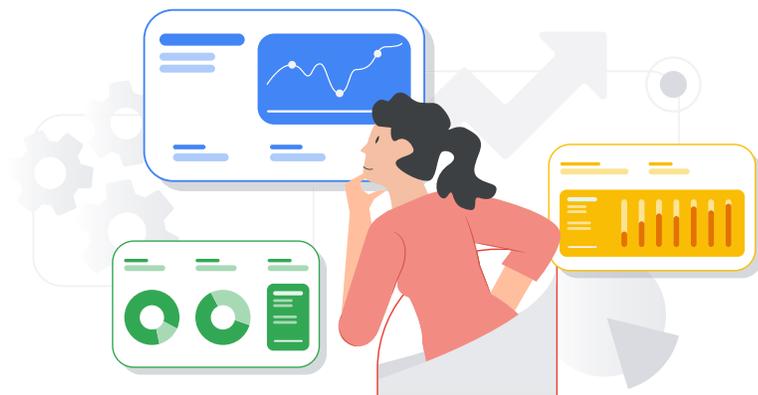
# Prepare for the future

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# 02

## Prepare for the future by anticipating customer needs

Today people expect more personalized and assistive experiences when they engage with your brand. To help you anticipate their future needs and deliver the right experience to them, you need to be able to automate and scale your customer analysis with a cloud-based solution.

When you use Google Marketing Platform together with [Google Cloud](#), you are investing in cloud infrastructure that is secure, flexible, and scalable so that you can act in a way that works best for your business. With Google Cloud's serverless data analytics infrastructure, all your database operations are automated and fully-managed, allowing you to focus on business growth instead of managing your infrastructure.

You can easily move your Google Marketing Platform data and other first-party data from CRM (customer relationship management) systems, email, and point-of-sale into [BigQuery](#), Google Cloud's serverless, enterprise data warehouse. With all your data together in one centralized location in BigQuery, you have more timely access to data and can make more informed business decisions. This will also enable you to use machine learning from Google to help you improve demand forecasting, predict purchase probability, and unlock other advanced insights.

**“It’s incredibly important that we evolve and innovate the way that we collect data, store data and also use this data.”<sup>6</sup>**

Mark-Antoine Lacroix, Marketing Technology Specialist, Booking.com

<sup>6</sup> [Ads Data Hub: Booking.com Case Study](#)

Google Cloud can help you run machine learning models with ease for better decision-making at scale. With [BigQuery ML](#), your team's data scientists and data analysts can build and operationalize machine learning models on structured or semi-structured data, using simple SQL. Or you can use [AutoML](#), a suite of machine learning products in Cloud that enables you to train high-quality models to analyze and predict customer behavior.

By using machine learning in Google Cloud to gain deeper customer insights, you can import those learnings back into Google Marketing Platform, and then act on those insights to improve your marketing performance.



## Responsible Marketing with First-Party Data in Asia Pacific

In a recent study with Boston Consulting Group, we surveyed over 160 brands in the Asia Pacific region and found that every single mature brand is using a cloud solution.

[View the research](#)

# Better together

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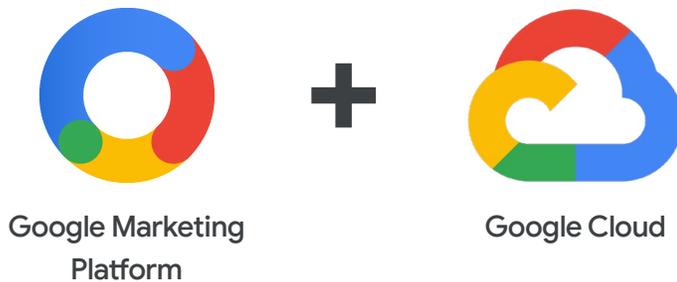
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# 03

## Better together: Google Marketing Platform + Google Cloud



Together, Google Marketing Platform and Google Cloud help you analyze your historical data to unlock actionable insights. This will allow you to deliver personalized experiences and predict future customer behavior.

Let's take a closer look at some marketing strategies that use these two platforms side-by-side.

“As much as you can automate, automate it, and leverage machine learning wherever possible. **We have a finite number of people resources, and automation and machine learning really enable scale.**”<sup>7</sup>

Lindsay Noyes, Director of Digital Marketing, Lululemon

### Understand your customers

Google Marketing Platform has a lot of rich data that can help you spot important changes in customer behavior. From Display & Video 360 or Search Ads 360, you can understand which marketing campaigns are driving the most conversions. And with Analytics 360 you can understand how users are navigating your site and even which items they are purchasing.

With all of that information in Google Cloud – along with your other first-party data – you can find meaningful customer and industry trends.

<sup>7</sup> [Think Retail on Air: Executive Keynote](#)



**Eight out of ten enterprise decision makers say that machine learning and automated insights are critical or very important to achieving their organization's marketing objectives.<sup>8</sup>**

## Trendspotting: Get a bird's eye view of customer behavior

How can you identify trends in your data to help inform your future business strategy? Who are your most valuable customers? Has your top-selling item changed in the last 7 days? By bringing together your sales data in a single place, you can adapt your business plans to take into account external customer trends and industry factors.

The process begins with bringing together your offline sales transactions from your CRM and online sales data from Analytics 360 into BigQuery. Then you'll be able to analyze all of the data together within BigQuery to compare customer engagement across sales and media engagement.

Share this data with your entire team by building a dashboard that visualizes these insights. To visualize this data within Google Marketing Platform, connect your BigQuery data in Data Studio as a data source. Or you can visualize this data with [Looker](#), Google Cloud's enterprise platform for business intelligence, data applications, and embedded analytics.

By visualizing this data in a dashboard, it's easier for your team to find insights. For example, you might find that on Sundays in Chicago, ad spend is 30% higher than normal, but website engagement is 50% lower and total sales are 20% lower, guiding you to shift budget elsewhere in the week.

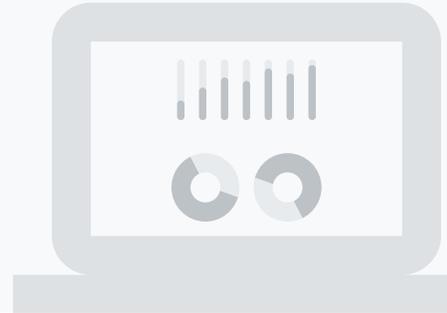
<sup>8</sup> "The Future of Analytics", a commissioned study conducted by Forrester Consulting on behalf of Google n=750 enterprise decision makers in U.S., U.K., France, Germany, Australia, and Japan, responsible for analytics, media or marketing business insights, 2020



## Connect BigQuery to Data Studio

Use the BigQuery connector to access and visualize data from your BigQuery tables within Data Studio

[Learn more](#)



Case study |

**SAS**

## Identifying trends in Scandinavian air travel

For more than 70 years, [Scandinavian Airlines \(SAS\)](#) has served travellers around the world with a premium service and a Scandinavian touch. Over the past 20 years, the aviation industry has changed dramatically. Low-cost carriers have intensified the competition, in turn producing tremendous price pressure on the market.

To stay ahead of the competition, SAS looked to transform their digital marketing. They were already using Google Marketing Platform to scale their marketing across their 22 global markets. And by integrating with Google Cloud, they were able to move their Google Marketing Platform data into BigQuery, Google Cloud's data warehouse.

Once the information was secure in BigQuery, SAS was able to use machine learning to analyze the data

for patterns among its most valuable fliers in order to better anticipate the needs of its new fliers. For instance by using the travel history of existing customers, the marketing team noticed some common trends of where customers were flying and when. With this insight, the team was able to hypothesize how fliers new to SAS might behave and is adjusting their marketing message to this audience.

[Watch the case study](#)

Case study



## How Nissan Asia Pacific identified a unique customer trend with Google Marketing Platform and Google Cloud

[Nissan Motors](#) is a global automobile company. Because of the diversity of each of the countries within the Asia Pacific region, the marketing team there needed to have varied and customized marketing to engage with potential customers in each market to drive incremental car sales. Adding to this complexity was the COVID-19 pandemic in early 2020. Not only did Nissan need a customized marketing strategy for each country, but needed a way to quickly adjust the strategy based on changing customer behavior in each market.

Nissan partnered with [MightyHive](#), their data analytics and cloud partner to generate a full funnel view of their marketing. First, MightyHive helped Nissan implement

Analytics 360 across all the Nissan websites for the Asia Pacific region, this allowed Nissan to view customer engagement from their websites. Then they connected media performance from Campaign Manager 360, Display & Video 360, and Google Ads to their Analytics 360 data; this enabled Nissan to measure how well their campaigns impacted important site actions like reaching out to a local dealership or requesting a test drive of a vehicle. Nissan was then able to identify opportunities for campaign optimization in real-time and decreased their cost per key business action, lowered bounce rate across their websites, and increased likelihood of website visitors converting.

Nissan and MightyHive didn't stop there. They exported the data from Analytics 360 into BigQuery so that they could use BigQueryML to use machine learning to analyze patterns in the data. Their automated analysis in BigQuery revealed an interesting trend. Nissan and Mightyhive found that in certain countries for example, the vehicle model featured in the digital ad wasn't necessarily always the model that people requested a test drive. This meant that people were not committed to the initial car they engaged with and Nissan had the opportunity to recommend additional types of vehicles on the website, like suggesting a more premium model to test drive.





## Tailor your marketing measurement approach to your unique business

Ads Data Hub enables customized analysis that aligns with your specific business objectives, while protecting user privacy and upholding Google’s high standards of data security.

[Learn more](#)

### Segmentation: Generate audiences at scale

You can get more value from your first-party data by segmenting customers into audience lists that can be shared to your advertising platforms. For example when you build audiences like “Highest historical spenders,” “Online-only shoppers,” or “Heavy browsers who don’t log in,” you can then customize messaging to those segments to drive higher marketing performance.

First move your customer behavioral data from Analytics 360 and CRM to BigQuery. Then use BigQuery to run queries that analyze the data and then build various audience segments. Next, export those segments into Analytics 360. Analytics 360 is natively integrated with various Google advertising platforms, so the audiences you build in Analytics 360 based off of the segments from Cloud can be reached in your marketing campaigns.

Let’s say you’ve built a segment in Cloud of “customers who use coupon codes when making a purchase.” You want to re-engage them to drive sales, but one thing you know is that these customers expect discount codes in the messages they receive from your brand. You can build an audience in Analytics 360 from that segment, share the audience to your Display & Video 360 campaign, and reach them with a special discount.



## Audience segmentation with Looker

With Looker on BigQuery, anyone on your team can create custom audiences with easy drag-and-drop access to your most valuable marketing data. Then share those audiences with Analytics 360, marketing automation systems or other API-friendly SaaS tools.

[Learn more](#)

### Case study



## Segmenting prospects with Google machine learning

In 1999 [Salesforce](#) pioneered cloud-based CRM software and today it is the world's #1 CRM platform. Salesforce helps businesses bring together marketing, sales, commerce, service, and IT teams in one integrated platform so that businesses can better engage with customers, from lead to loyalty.

Salesforce wanted to find a way to deliver more customized content on the website or in marketing channels to potential customers. If they could deliver the right content to the right segment of people, they could gain higher efficiencies on their marketing spend. In order to do this, Salesforce first had to better segment the visitors to their website.

Once they exported site data from their Analytics 360 account into BigQuery, they were able to use cluster modeling in

BigQuery and analyzed over 50 different metrics to segment visitors into 5 different personas. Then they interpreted the models' output and found each persona had distinct preferences for content. For example, one of the 5 personas identified, "Consideration Clare," completed the most number of video content on the Salesforce site. With insights like this, Salesforce is now identifying ways they can optimize content recommendations to site visitors in order to encourage them to convert to customers.



## Create better experiences

Consumers today expect consistent experiences when they engage with your brand. While more than 60% of people expect brands to “deliver a consistent experience every time they interact with the brand,” only 42% feel that brands are delivering.<sup>9</sup>

Google’s machine learning gives you the tools you need to acquire a more complete understanding of what customers are saying about your products and brand. Then, use these insights to adjust your marketing strategies. Using the combined power of Google Marketing Platform and Google Cloud, you can use what you learn to meet your customers’ expectations. Not only will you be able to deliver a seamless and consistent experience, but also a personalized one.



**Over half of U.S. consumers say they are interested in seeing personalized content when shopping.<sup>10</sup>**

## Sentiment monitoring: Align your marketing around customer experience

How do your customers feel about your business? The more precisely and accurately you can answer that question, the more effectively you’ll be able to engage with them. Google Cloud’s [Natural Language API](#), which uses machine learning to understand the structure and meaning of text, can help you analyze your social media, product, and customer service records to learn who’s happy and who isn’t.

Say you have an upcoming sale you’d like to promote to your previous customers. You can reach only those customers who have a positive perception of your brand, and exclude those with a negative perception. Then, share both of these lists of customers with Google Marketing Platform and reach them through digital advertising.

Or, using the [Analytics 360 integration with Salesforce Marketing Cloud](#), export these lists into Analytics 360 to create audiences, share them to Marketing Cloud, then create a campaign to reach these people with a dedicated email.

<sup>9</sup> Google/Greenberg, Rising Expectations in Consumer Brand Experiences, March 2017, U.S. (n of 1,501 consumers 18+)

<sup>10</sup> Google/Ipsos, U.S., “Shopping Tracker,” online survey, n=2,551 shoppers who return to a retailer site, Q3 2019.

Case study



ADSWERVE

## How Adswerve uses Sentiment Analysis to help their customers

[Adswerve](#) is a leading Google Marketing Platform and Google Cloud partner and advises thousands of digital marketers, agencies and data analysts on how to make stronger customer connections through data-driven strategies.

Adswerve has helped many of its clients monitor their customers' public sentiment. This has helped clients determine if their products' messaging needed to be updated based on customer perception. Additionally, this has helped clients regularly monitor the public perception of their brand.

Previously it would have been extremely difficult to classify all of the customer comments about a business's services, products, or brands as there was no way to automate that process. But with Google Cloud's Natural Language, Adswerve can analyze the data quickly and at scale by monitoring huge data sets and categorizing each input into the appropriate sentimental category. These insights are then stored in BigQuery via the Natural Language API, and once in BigQuery, are displayed in Data Studio. Adswerve is then able to build a report that visualizes all of a business's customer comments – helping the business quickly determine the public sentiment and inform what actions to take.

[Learn more](#)


### Use the Natural Language API

The pre-trained models of the Natural Language API enables developers to apply natural language understanding to their applications.

[Get started](#)

## Personalization engine: Customize what your customers see

With your first-party insights in Cloud, you can apply machine learning to identify recommended products or services to share with your customers. Then display customized recommendations on your website with Optimize 360 or tailor the message in your marketing campaigns with Display & Video 360 or Search Ads 360.

If you're a publisher, Cloud can help you determine which content to recommend to your readers. For example, if you manage a food recipe site, use AutoML to determine which additional recipes you display on your site to certain readers. Then, move these insights into Analytics 360 to build audiences and using the [integration between Analytics 360 and Optimize 360](#), customize your site to display the recommended recipes to only that audience.

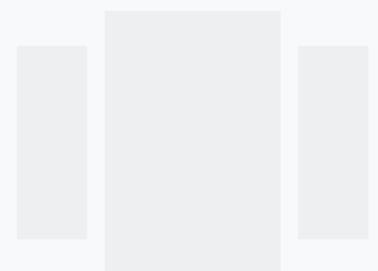
Recommendation models can also help determine the next best product or service for each site visitor. If you're a shoe retailer, use AutoML to determine which pair of shoes you should recommend to certain customers as they browse your site. Then, customize your site with Optimize 360 so that you recommend the right pair of shoes to the right customers.



### Deliver custom site experiences with Optimize 360 and Analytics 360

Create different versions of your site for your Analytics 360 audiences.

[Learn more](#)



Case study | **astro** *kasatria*

## Personalization helps Astro double audience engagement

Astro is Malaysia's leading content and consumer company, serving 75% of Malaysian households across its TV, radio, digital and commerce platforms. Its digital brands host 12.7 million digital monthly unique visitors. The publisher was eager to promote stronger site engagement and monetization potential by curating a more personal content experience for its readers by matching relevant content to each reader.

Astro partnered with Kasatria, a Google Marketing Platform partner, to help run an experimental pilot on Stadium Astro, one of Astro's portals that specializes in news on sports content. Using Tag Manager 360, Kasatria set up a process to automatically extract the content type each time a page was loaded, obtaining topic tags like "badminton," "football," or "tennis," so that it could be transmitted into Astro's Analytics 360 account. Then Kasatria exported Astro's Analytics 360 data into BigQuery where they were able to use machine learning to determine what type of personalized content to recommend to each type of audience.

This strategy not only led to a more than 200% increase in article CTR, but also helped Astro uncover an interesting insight. Astro found that readers were 55% more inclined to share the personalized content with their friends because it resonated with them. Tailoring content for each visitor based on their preferences made it possible to deliver a more relevant user experience, which resulted in a tremendous competitive advantage.

[Read the case study](#)

## Case study | UGG<sup>®</sup> Jellyfish

### Optimizing ad creative via machine learning

[Deckers Brands](#) is a global leader in designing, marketing, and distributing innovative footwear, apparel, and accessories. Its portfolio of global footwear and lifestyle brands includes UGG, Teva, Sanuk, HOKA, and Koolaburra. Deckers was finding it difficult to scale and optimize its ad creative for their UGG brand. They were forced to rely on manual checks to analyze the creative components in its ads for UGG. This process was not only subjective but also time-intensive and costly. Deckers wanted to move to a data-driven framework to improve ads for its customers.

Deckers partnered with [Jellyfish](#), its global digital partner to help. Jellyfish automated creative insights at scale by combining Google Cloud products like Cloud Run, DataFlow, Cloud Vision, BigQuery, Cloud Storage, and App Engine. This unlocked the ability to scan a variety of ad creative elements to test against performance signals, including color composition, logo, faces, objects, and text. Then the Jellyfish Data Science team built an interactive dashboard with Data Studio that allowed the Deckers team to access those creative insights. Deckers was able to answer questions like “Do ads featuring happy faces lead to higher engagement?” or “Does the number or the type of products shown impact performance?”

The dashboard helped Deckers uncover the optimum number of shoes to display in its ads. The shoe count variable was associated with a 36% lift in ad performance over other variants. And ads with the optimal number of shoes drove a 52% increase in return on ad spend. Deckers has now updated its best practices to always include the optimum number of shoes in ad creative.



## Predict marketing outcomes

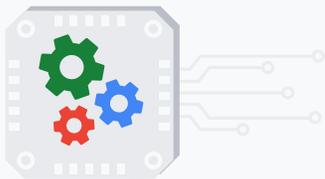
With constantly increasing volumes of data that businesses must measure and analyze, businesses are turning to serverless infrastructure that scales to meet their analytics requirements and takes care of the operational overhead. Businesses today also require an analytics platform with machine learning capabilities that support their need for predictive customer insights.

“Once you’ve got your digital tools in place and your data connected in a central repository, you can start to anticipate needs, define the shopping journey, and deliver more valuable and personalized experiences.”<sup>11</sup>

Shyam Venugopal, VP of Global Media and Data Strategy, PepsiCo

Let’s say you’re a retailer and want to reach people who are most likely to purchase from you. Previously you would have built an audience of site visitors who had recently abandoned their shopping cart on your site and then reach them with a marketing campaign to bring them back to complete their purchase. Instead of determining what actions lead to purchase, why not automate this process?

By using Google Marketing Platform and Google Cloud you can use your first-party data to help you predict future customer action. Then, you are able to better influence customer behavior and drive growth for your business.



**As the volume and complexity of data continues to grow, businesses look to maintain and expand their toolkit in parallel in a way that will stay effective as industry standards evolve. A top capability firms look for is predictive analytics.”<sup>12</sup>**

<sup>11</sup> [How one of the world’s biggest marketers ripped up its playbook and learned to anticipate intent](#)

<sup>12</sup> “The Future of Analytics”, a commissioned study conducted by Forrester Consulting on behalf of Google n=750 enterprise decision makers in U.S., U.K., France, Germany, Australia, and Japan, responsible for analytics, media or marketing business insights, 2020

## Purchase Prediction: Predict whether customers will purchase in the future

Predict the future actions of your customers by using a purchase propensity model. Propensity modeling examines numerous independent variables to predict the likelihood of future actions: how likely a lead is to convert to a customer, a customer to churn, an email recipient to unsubscribe. This technique is based largely on two key indicators: propensity scores, which measure the probability that someone will take a certain action, and propensity drivers, which are attributes and behaviors that can influence propensity scores.

You'll then use your model to build audiences in Analytics 360, share them to Google advertising platforms like Google Ads, Display & Video 360, and Search Ads 360, and then either focus your marketing solely on these customers or refine your message to them.

Here are a few ways you can use these audiences:

- **Expand your reach:** Use an audience of high purchase propensity users as a seed list to generate a new audience made up of [similar users](#).
- **Bid more strategically:** Increase your campaign bids for users with higher purchase propensity scores, while reducing bids to users with lower scores.
- **Narrow your scope:** Exclude users with a low propensity to purchase to reduce your marketing costs.



### Predictive capabilities in Google Analytics

By applying Google's machine learning models, Analytics 360 can analyze your app and website data and predict future actions people may take.

[Learn more](#)

## Case study | L'ORÉAL

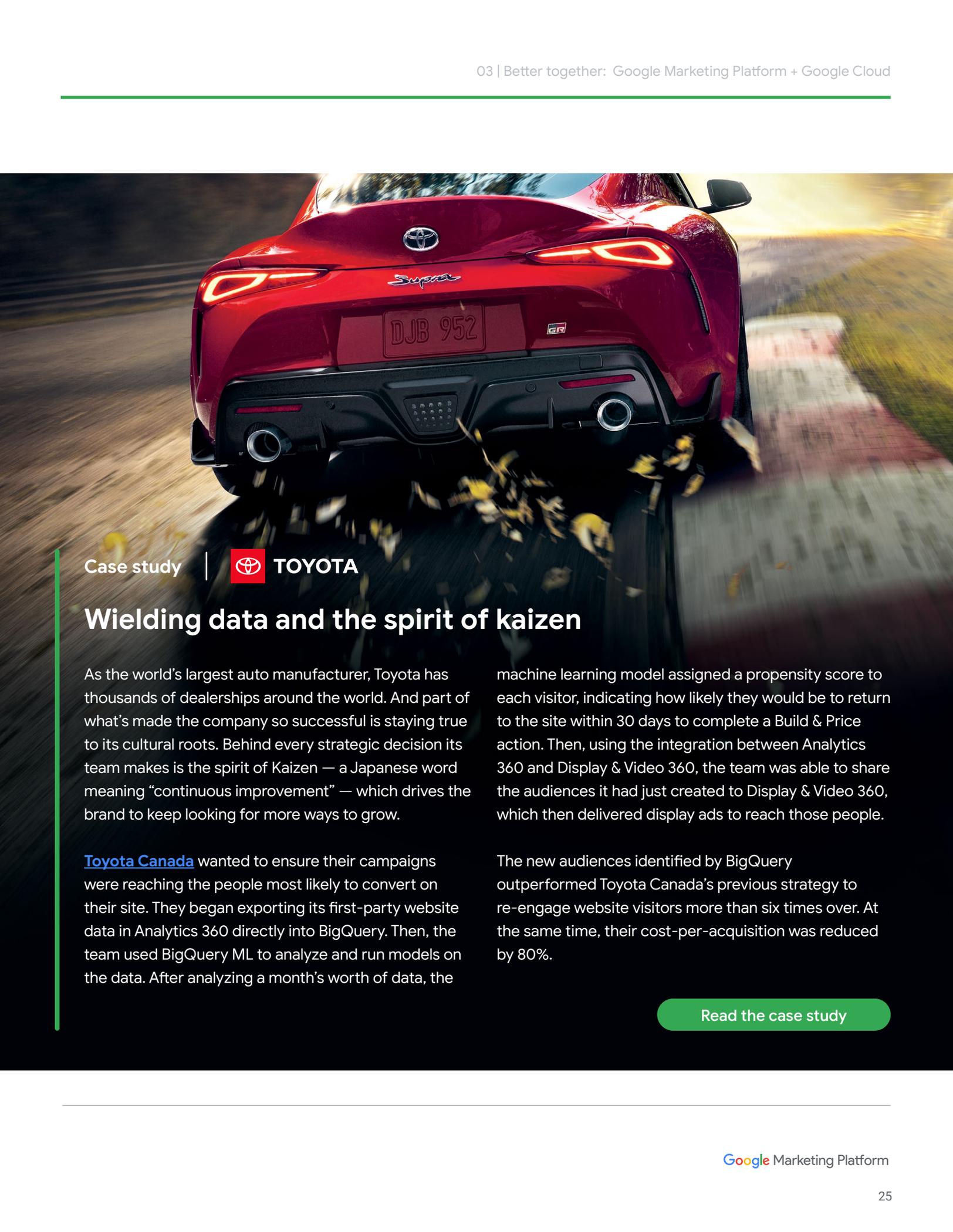
## Predictive insights helps L'Oréal reach people most likely to purchase in stores

[L'Oréal](#) is the world's largest beauty company, present in more than 150 countries around the world. Although many consumers interact with the brand online, a majority of L'Oréal's luxury product sales still occur in-store. The marketing team wondered whether its campaigns were reaching the right audiences and converting into in-store sales. L'Oréal's Google account team suggested using Google Marketing Platform and Google Cloud to focus its marketing campaigns to reach only the highest potential customers who were likely to purchase in stores.

In a Taiwan test, L'Oréal analyzed its data in BigQuery with website data from Analytics 360 and internal data without any personally identifiable information. Then using AutoML, L'Oréal was able to predict which site visitors would go in-store to purchase. Those audiences were easy to share with Google ad products Display & Video 360 and Google Ads. L'Oréal even discovered new audiences through Similar Audiences and the Audience Expansion feature in Google Ads.

Offline revenue from the pilot campaigns increased 2.5x and return on advertising spend (ROAS) grew 2.2x. The successful results from this pilot have inspired other L'Oréal teams around the world to replicate the strategy piloted in Taiwan.

[Read the case study](#)



Case study |  **TOYOTA**

## Wielding data and the spirit of kaizen

As the world's largest auto manufacturer, Toyota has thousands of dealerships around the world. And part of what's made the company so successful is staying true to its cultural roots. Behind every strategic decision its team makes is the spirit of Kaizen — a Japanese word meaning “continuous improvement” — which drives the brand to keep looking for more ways to grow.

[Toyota Canada](#) wanted to ensure their campaigns were reaching the people most likely to convert on their site. They began exporting its first-party website data in Analytics 360 directly into BigQuery. Then, the team used BigQuery ML to analyze and run models on the data. After analyzing a month's worth of data, the

machine learning model assigned a propensity score to each visitor, indicating how likely they would be to return to the site within 30 days to complete a Build & Price action. Then, using the integration between Analytics 360 and Display & Video 360, the team was able to share the audiences it had just created to Display & Video 360, which then delivered display ads to reach those people.

The new audiences identified by BigQuery outperformed Toyota Canada's previous strategy to re-engage website visitors more than six times over. At the same time, their cost-per-acquisition was reduced by 80%.

[Read the case study](#)

## Lifetime Value Prediction: Adapt your marketing to predicted customer lifetime value

The goal of lifetime value (LTV) modeling is to predict which customers have the greatest long-term value to your business. When you can better determine which segments of your customers will have the highest impact on your bottom line, you are able to better engage with them through your site and marketing messages.

Use Google Cloud products and features like AutoML or BigQueryML to create a model that predicts customer lifetime value (pLTV). With that predicted value build audiences in Analytics 360, share those audiences with your Display & Video 360, Google Ads, and Search Ads 360 account, and refine the reach of your marketing campaigns: customer behavior and drive growth for your business.

- **Existing customers:** For people who have already purchased from you, upsell and cross-sell products or features in your campaigns more effectively.
- **New customers:** For people who have just purchased from you, update your marketing message to this audience to keep them engaged.

You can also use your Cloud insights to build audiences in Analytics 360, share them with your Optimize 360 account, and customize the site experience for various audiences:

- **Existing customers:** For people who have already purchased from you, promote a free shipping offer on your site to encourage them to continue purchasing from you.
- **New customers:** For people who have just purchased from you, promote a discount on their second order when they visit your site again.

Case study



ADSWERVE™

## Using machine learning to predict which media investments deliver long-term value

Nearly 90 years ago [Alaska Airlines](#) started in Anchorage, Alaska as a small regional airline. In recent years the company acquired another airline and quickly became the airline with the most nonstop flights to and from the West Coast of the United States. Its new network, which offered thousands of potential routes, meant the company had an opportunity to optimize its marketing strategies with its first-party data.

Alaska Airlines partnered with [Adswerve](#), its Google Marketing Platform partner, to build a new marketing data warehouse in BigQuery, Google Cloud's data warehouse. This enabled them to bring together Alaska Airlines' first-party data across CRM, media, and site analytics. Then, they used machine learning to predict what media investments will deliver long-term value.

Now, Alaska Airlines is able to make smarter decisions on where to invest their marketing resources. "We are now more able to focus our marketing efforts on driving new, higher quality customers. We always strive to exceed expectations for our guests, this is helping us take one big step forward in that effort," says Owen Bickford, Paid Search Program Manager for Alaska Airlines.



# 04

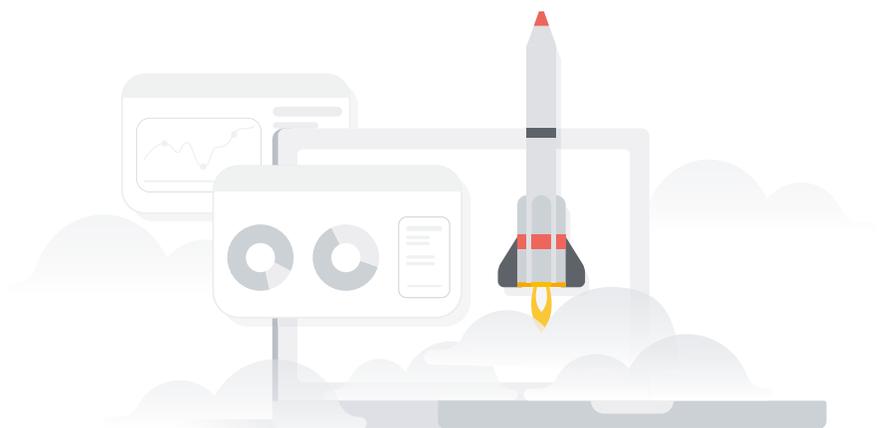
## Steps to get started

01 Smarter, faster marketing

02 Prepare for the future by anticipating customer needs

03 Better together: Google Marketing Platform + Google Cloud

04 Steps to get started



# 04

## Steps to get started

Successfully using your insights from Google Marketing Platform and Google Cloud starts with thorough planning and preparation. We've put together some steps you'll want to follow and some resources that can help your team:

### 1 Build a technology roadmap

We recommend that you put together a long-term roadmap so that your entire team and [partner teams](#) align on a common marketing technology goal. Bringing together your data across all your data sources likely will require buy-in and support from multiple teams. Then you'll likely need to engage your data science and data analyst teams in order to analyze the data and use machine learning to automate the search for customer insights. And finally you'll work with your marketing team to adjust your marketing strategy based on the insights that were found.

- **Specify your company's business objectives.** What specific goals do you want to achieve? What metrics will you use to measure them?
- **Identify which data or technology projects will help you achieve those objectives.** If for example your business objective is to improve the customer experience, the Personalization Engine technology project can help you meet your goal.
- **Build a 3 to 6 month calendar:** Plan out how long it will take to design the project, implement it, and activate on it.
- **Determine what resources you'll need to accomplish the projects.** Identify which teams at your company you'll need to engage with.



Example project calendar

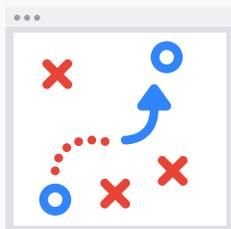
ROLE	RESPONSIBILITIES
<b>Data Analyst</b>	Analyze structured data & provide data-driven recommendations to improve campaign or site performance
<b>Data Science</b>	Develop machine learning models to answer business questions
<b>Data Engineering</b>	Manages databases to be used by Analytics & Data Scientists
<b>Analytics</b>	Defines goals and scope of campaigns / use cases in partnership with Mktg
<b>Marketing Strategy &amp; Activation</b>	Identifies strategies to improve marketing performance Activates insights and optimizes campaigns according to campaign / use case findings
<b>MarTech</b>	Owns implementation & troubleshooting of tech + tools for data collections
<b>Program &amp; Project Manager</b>	Manage milestones and project plan

Example list of roles needed to complete your technology project

## 2 Invest in your first-party data

When your customers engage directly with your business, for example, by exploring your website or using your app to purchase, you establish a direct connection with your customers and are able to collect first-party data. This gives you an opportunity to learn more about their needs so that you can better address those needs in the future.

- **Use a first-party measurement solution.** Google offers two dynamic tagging solutions that can help you collect first-party data. If you prefer to place tags directly on your site, you can use Google's [global site tag](#). Or if you need a comprehensive tag management solution, you can use [Google Tag Manager 360](#). Both solutions support all of Google's advertising and measurement products, including Google Ads, Analytics 360, Campaign Manager 360, Display & Video 360, and Search Ads 360.
- **Incorporate a software development kit (SDK) to your mobile app.** This will help you gather information from the actions your customers take when they download and interact with your app. [Google Analytics for Firebase](#) offers free and unlimited app analytics and surfaces key customer insights in your iOS and Android apps.
- **Adopt a customer relationship management (CRM) system.** A CRM tool helps you manage and organize the offline engagement you have with your customers. Keep up-to-date on call center activity and in-store visits, then link this offline data with Google's advertising and measurement tools.



### The marketer's playbook for navigating today's privacy environment

As you build relationships with your customers, you can analyze your first-party data in the cloud for insights that can help you reach audiences while protecting their privacy.

[Learn more](#)



### 3 Move data into BigQuery

Now that you have a project plan and first-party measurement solution in place, your next step is to bring together all your data into BigQuery.

#### Moving site analytics data to BigQuery

You can import [website](#) and [app](#) data from Google Analytics 360 using the direct integration with BigQuery.

1. Create a [Google API Console](#) project
2. Activate BigQuery with the Google APIs Console
3. Prepare your project for BigQuery export
4. Link BigQuery to Analytics 360 from the Admin section of your Analytics 360 property

Once the linkage is complete, data should start flowing to your BigQuery project within 24 hours. One file – containing the previous day's data – will be exported daily and another three files – containing the current day's data – will be exported daily.



#### Analytics 360 integration with BigQuery

By integrating Analytics 360 and BigQuery, you can save time and do more with your data — and unlock valuable insights that help you reach your business goals.

[Learn more](#)



If you are using another third-party analytics platform you can use the [third-party data transfer connectors](#) that are available in the Google Cloud marketplace. And once activated, they are fully integrated into the BigQuery Data Transfer Service.

## Moving media data to BigQuery

To export your Google media data into BigQuery, use the [BigQuery Data Transfer Service](#), which automates the movement of data into BigQuery on a scheduled and managed basis. The BigQuery Data Transfer Services supports the following products:

- Campaign Manager 360
- Display & Video 360
- Google Ad Manager
- Google Ads
- Search Ads 360
- YouTube

For other media data, you can use the [third-party data transfer connectors](#).



Learn how to transfer data from Google media products via the BigQuery Data Transfer Service

- [Campaign Manager 360](#)
- [Google Ads](#)
- [Google Ad Manager](#)
- [Search Ads 360](#)
- [YouTube Channel reports](#)
- [YouTube Content Owner reports](#)

## Moving CRM data to BigQuery

The [third-party data transfer connectors](#) also help you import your sales data from a CRM platform into BigQuery.

For example if you're an automobile company, you may be using Analytics 360 to measure how many people request pricing information for a new car on your site and using a CRM platform to measure how many people visit a local dealership for a test drive. Importing your CRM data into BigQuery helps ensure your analysis will be conducted on a full view of your customers' journeys.

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## Moving other data to BigQuery

For customized data or data that isn't available to import through the BigQuery Transfer Service, you can use a combination of these five options:

1. Copy the data to a Google Cloud Storage bucket using [gsutil](#) or API calls. That data can then be loaded on a recurring basis to BigQuery using the Data Transfer Service. Or simply load your data from the Cloud Storage bucket into BigQuery.
2. Direct copy your data to BigQuery using [BigQuery APIs](#).
3. Use [Cloud Data Fusion](#) to create advanced data pipelines, like an ETL (extract, transform, load) solution, to transfer data from multiple [external sources](#) into BigQuery.
4. You can also use [Cloud Dataflow](#) or [Cloud Pub/Sub](#) to move and copy large datasets programmatically.
5. There are also various external partner ETL solutions for transferring data into BigQuery, including Alouma, Informatica, Matillion, MuleSoft, and Talend.

## 4 Use machine learning in Google Cloud

Machine learning via Google Cloud offers many benefits to your business processes:

- **Scale:** You'll enjoy instant access to thousands of Google machines, allowing you to quickly train and operationalize models.
- **Speed:** Our custom hardware delivers the best performance for AI workloads.
- **Quality:** Our pre-trained AI building blocks find ideal solutions to your business needs.
- **Customization:** Google's domain expertise and Advanced Solutions Lab make it easy to customize ML models.



## Everything a marketer needs to know about machine learning

Learn how you can optimize your machine learning marketing efforts with our interactive guide.

[Access the training](#)

Based on your training, there are different ways to use these capabilities in Google Cloud. Here are some getting-started ideas for different levels of technical knowledge.

- Developers with little machine learning knowledge can still easily build and deploy models for standard use cases using Cloud [AutoML](#). It automatically creates predefined models, which, if necessary, can be retrained with more specific datasets to meet business needs that aren't provided out-of-the-box by Google. Similarly, the models behind Cloud AI APIs are predefined and can't be customized.
- Custom models, by contrast, must be created from scratch, and to do that you'll need real machine learning skills. SQL analysts with a basic understanding of ML can build and deploy custom models using SQL. Data analysts and data scientists can use [BigQuery ML](#) to build and deploy ML models on massive, structured, or semi-structured datasets directly inside BigQuery using familiar SQL.
- For data scientists who possess a deep understanding of ML and programming, they can build and deploy state-of-art custom models using our open-source machine learning library, [TensorFlow](#), and development platform, [AI Platform](#). In addition, they can also use [Dataproc Hub](#) to connect their notebook environments to the power of Spark and Presto for large scale ML for data in BigQuery.



## Smart analytics reference patterns

Check out step-by-step instructions on how to start building custom analytics use cases and solutions with your data in BigQuery.

[Learn more](#)



## 5 Bring BigQuery insights into Google Marketing Platform

You have two ways to bring your customer insights from BigQuery into Google Marketing Platform: Analytics 360 or Campaign Manager 360.

### Analytics 360

The method you use to import insights from BigQuery into Analytics 360 depends on if the data was originally captured by Analytics 360.

[Data Import](#) is a way to edit customer data originally captured by Analytics 360. It lets you move additional business data that you have in BigQuery into Analytics 360 without adding it to your site's data layer. This data could be adding detailed product information, CRM audience segmentation labels, refund data, or predictive values to Analytics 360 audiences or conversions.

Here are two examples of how you can use Data Import to bring your Cloud insights into Analytics 360:

- **Purchase Prediction.** If you have built a purchase probability model in Google Cloud, use Data Import to assign site visitors a predicted probability to purchase in Analytics 360. Then, build an audience in Analytics 360 so that you can re-engage them in a future marketing campaign.
- **Lifetime Value Prediction.** If you built a lifetime value model in Google Cloud, use Data Import to assign users in your Analytics 360 audience a predicted future value. If those audiences are shared with your Display & Video 360 campaigns you can optimize your campaigns to only reach people with the highest predicted future value.



## How to upload data with Data Import

Upload data into Analytics 360 by one of two methods:

1. From the Analytics 360 user interface, using the Admin > (Property) > Data Import option
2. Using the [Management API](#)

[Learn more](#)



[Measurement Protocol](#) lets you add new event data that isn't being measured through your site or app in Analytics 360. Some examples of event data include: in-store purchase, phone request for a quote, or credit card approval. These offline insights can also be used to build Analytics 360 audiences or conversions.

Let's say you're an insurance provider with customers that engage with you through your website and call center. You store all the customer interactions through the call center in BigQuery. In BigQuery, you can assign a score (e.g. lead score, sentiment score, or predicted lifetime value) to those events. Then using Measurement Protocol, bring those events (with the score assigned) into Analytics 360. Once in Analytics 360 share those conversion events to optimize your campaign bidding or build audiences to refine your campaign reach.



## How to use Customer Match with Google Marketing Platform

Customer Match lets you show ads to your customers based on your data about those customers that you share with Google. You can upload your list directly to Display & Video 360.

[Learn more](#)



## Campaign Manager 360

In addition to Analytics 360, you have another option to bring your insights from BigQuery into Google Marketing Platform. The [Campaign Manager 360 API](#) lets you bring offline conversions from BigQuery into Campaign Manager 360 and also edit conversions already in Campaign Manager 360. You can then share these conversion events with Display & Video 360 and Search Ads 360 to optimize your campaigns on those platforms.

If you're using Search Ads 360 to manage all your search campaigns, using the Campaign Manager 360 API to import offline conversions will enable you to use [auction-time bidding](#).

Let's say you're a hotel company and accept reservations on your website and over the phone. You want your Search Ads 360 campaigns to account for reservations that happen over the phone (offline conversions) so your campaigns drive more reservations both online and offline. Once your offline conversions are in BigQuery, you can use the Campaign Manager 360 API to bring the conversions into Campaign Manager 360. Your conversions will then automatically be shared to Search Ads 360 – allowing your campaigns to optimize towards those offline conversions.



### Auction-time bidding in Search Ads 360

By activating auction-time bidding in Search Ads 360, you can enhance your performance when bidding on Google Search, while still maintaining your cross-channel bidding strategy powered by Search Ads 360.

[Learn more](#)

## 6 Activate those insights

With your customer insights in Google Marketing Platform, you are now ready to take action. Whether you've found a new audience you want to engage with or you've uncovered a new business trend you want to share with your team, you can accomplish that within Google Marketing Platform.

### Get more value from your advertising

There are two main strategies to improve marketing performance in Google Marketing Platform – with insights from Cloud.

First, you can build detailed audiences in Analytics 360 to refine the reach of your campaigns. For example reach audiences with a high likelihood of converting and exclude audiences with a low likelihood of converting. These audiences can be used in your Display & Video 360 and Search Ads 360 campaigns. And if you've already linked your Analytics 360 account to your Google Ads account, your audiences are immediately available to use in Google Ads campaigns.

To help engage with your Analytics 360 audiences further, reach them with rich media creative from [Google Studio](#). Rich media display ads can expand, play high-definition videos, and even let players shop from your site – helping encourage people to engage with your brand even more.

Second, you can add or edit conversion events to help optimize your campaign bidding strategies. For example bring in offline conversion events so that your campaign bidding strategies can optimize for those types of events. Or assign a predicted value to online conversion events that have already occurred; then your bidding strategies bid more aggressively for conversion events with a high predicted lifetime value and bid less aggressively for lower value events.

You also have the ability to use Analytics 360 audiences – built with insights from Cloud – in your other marketing channels:

- **Google Ads.** When people want to get more information about a product or service online, they often turn to Google. [Google Ads](#) helps you get in front of those people. Google Ads is [integrated with both Analytics and Analytics 360](#) so you have the ability to reach your Analytics 360 audiences when people are searching on Google Search or Maps.

- **Google Ad Manager.** [Ad Manager](#) is an ad serving platform that helps publishers grow ad revenue and manage their entire ads business with an integrated platform. When you [link your Ad Manager account to Analytics 360](#) you gain the ability to reach your Analytics 360 audiences in Ad Manager campaigns.
- **Salesforce Marketing Cloud.** Analytics 360 is integrated with [Marketing Cloud](#). Once you have [the integration](#) enabled, you can share Analytics 360 audiences that you built with insights from Cloud to your email marketing campaigns in Marketing Cloud.

## Improve the site experience for your customer

When you use Analytics 360 with Optimize 360 you can deliver better site experiences to your customers. When you use your Analytics 360 goals as experiment objectives in Optimize 360, you're able to test different ways to improve your site's performance based on your business goals. Or when you use your Analytics 360 audiences in site personalizations in Optimize 360, you're able to personalize your site for specific customers.

You can also use insights from Cloud to inform your site optimizations:

- Let's say you're an insurance provider and want to optimize your site towards offline conversions. First you'd use Measurement Protocol to bring offline conversion events from BigQuery to Analytics 360. Then [create an Analytics 360 goal](#) based off of that conversion event. With your Analytics 360 account linked to Optimize 360, you can use the newly created goal as an experiment objective in any of your Optimize 360 experiments.



### Get started with Studio

Studio helps advertisers and creative agencies make rich media creatives that can be used in Campaign Manager 360, Display & Video 360, and Google Ad Manager.

[Learn more](#)

- Let's say you're an ecommerce retailer and want to personalize your site for people most likely to purchase. First use Data Import to assign a predicted probability to purchase score to your site visitors. Then add these people to an Analytics 360 audience. With your Analytics 360 account linked to Optimize 360, you can set your site personalization so that it's specific to the audience you designate.

## Share customer insights throughout your organization

To share insights from Google Cloud to the rest of your team, use Data Studio to build interactive dashboards and engaging reports that everyone has access to. When everyone has access to automated dashboards about your business's performance, they can focus more on what matters.

In order to visualize your data in Data Studio, you must first make sure you've added your data as a source through a Data Studio connector. Here are a few examples of connectors already built:

- **Google Marketing Platform:** [Analytics 360](#), [Campaign Manager 360](#), [Display & Video 360](#), [Search Ads 360](#), or [Surveys 360](#).
- **Google advertising products:** [Google Ads](#), [Google Ad Manager](#), [YouTube Analytics](#)
- **Database platforms:** [BigQuery](#), [Cloud Spanner](#), [Cloud SQL](#), [MySQL](#), [PostgreSQL](#)



### Optimize your Display & Video 360 campaigns based on Analytics 360 goals

Custom Bidding in Display & Video 360 lets you write a custom script to define how much an impression is worth. Then Display & Video 360 will build an algorithm that optimizes your bids for the highest performance based on that goal.

[Learn more](#)



“A/B testing is about learning about your customer.

It’s still **important that we learn our lesson from it and that’s why we want to do as much testing as possible.**”<sup>13</sup>

Joost de Schepper, Head of Conversion Optimization, Spotify

If you need to connect your other data sources like social media, CRM, or finance to Data Studio, you can find a connector from the [Data Studio Connector Gallery](#). Anyone can build their own connector to any internet-accessible data source and share it with the community.



## Get started quickly with Google marketing templates

The fastest way to start gaining insights from your data in Data Studio is to use a report template. These templates help answer some of the most common questions marketers have about their Google marketing data.

[Learn more](#)

<sup>13</sup> [Google Marketing Platform, Optimize 360: Spotify Case Study](#)

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## Conclusion

Marketing is changing as rapidly as the rest of the world, as are the tools that are needed to stay as efficient and effective as possible. The best way to meet today's "data challenge" is to combine a secure cloud-based environment with machine learning-driven customer insights – enabling you to uncover deeper customer insights that you can activate on quickly.

Together, Google Cloud and Google Marketing Platform can help you make faster, better decisions with new technologies to deliver your message as effectively as possible, and take your brand as far as possible. Combining previously siloed data can unlock insights that then lead to timely and relevant customer messaging, and surface behavioral predictions to help you invest more effectively in marketing. This creates room for strong patterns, such as meaningful customer and industry trends, to emerge.

And activating those insights is now simpler than ever. Seamless tool integration means that you can easily share learnings across teams, aligning your business on a strong marketing technology strategy. Build detailed audiences and reach out to your customers via different marketing channels, getting more value for your advertising. Most importantly, you can design a frictionless, personalized experience for your customers, elevating your brand and driving your business forward.

