

# Amplifying the Power of Google Ads with BigQuery

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In the digital marketing landscape, data-driven decision-making is a cornerstone for businesses aiming to optimize their advertising efforts. **Google Ads** is a leading vendor for digital marketing adopted by many firms globally to promote products and services. It helps businesses enhance their digital marketing strategies by offering targeted, measurable, and scalable advertising solutions that drive firm's growth.

Imagine a business running multiple Google Ads campaigns, aiming to pinpoint which keywords drive the most traffic and cost-effectively convert leads into customers however not able to measure the effectiveness of campaigns. To discover the most frequently used search terms but also which of these keywords yield the highest return on ad spend (ROAS), timely analysis of vast amount of advertising data generated by Google Ads is the key. Analysis also includes the impressions, clicks, conversions, and costs, across multiple campaigns.

Integrating Google Ads data with **BigQuery**, Google's managed data warehouse, enables advertisers to consolidate the data generated by Google Ads and Enterprise data sources to further slice and dice the required data sets to evaluate keyword performance and make informed improvements to the campaigns justifying the overall marketing spend.

**BigQuery** enables businesses to efficiently analyse Google Ads data at scale, leveraging it to improve ROAS, enhance audience targeting, and optimize campaign performance. In this blog we'll elaborate on BigQuery's integration with Google Ads and how it's a game changer when transforming raw data into valuable intelligence. Understanding the Power of Google Ads Data

Google Ads allows businesses to create highly targeted campaigns across Google's vast network, including search results, YouTube, and display ads. However, the success of these campaigns' hinges on an advertiser's ability to make sense of performance data. Key metrics like impressions, clicks, conversions, cost-per-click (CPC), and conversion rate offer insights into how campaigns are performing but analysing them in isolation may not provide the full picture. To maximize the potential of this generated data, businesses must adopt to a platform that can aggregate and process large datasets and provide real-time insights.

**BigQuery** allows enterprises to store, query, and analyse large volumes of data from Google Ads as well as from its different internal applications. With this integration, businesses can track performance metrics as well as correlate them with additional internal data points. It allows for complex queries, aggregating data from various campaigns, ad groups, keywords, and audience segments to understand which strategies yield the best results. This enables advertisers to make data-driven decisions, continuously refine their campaigns, and maximize advertising spend.

# The Integration: Google Ads and BigQuery

## Data Flow: From Google Ads to BigQuery

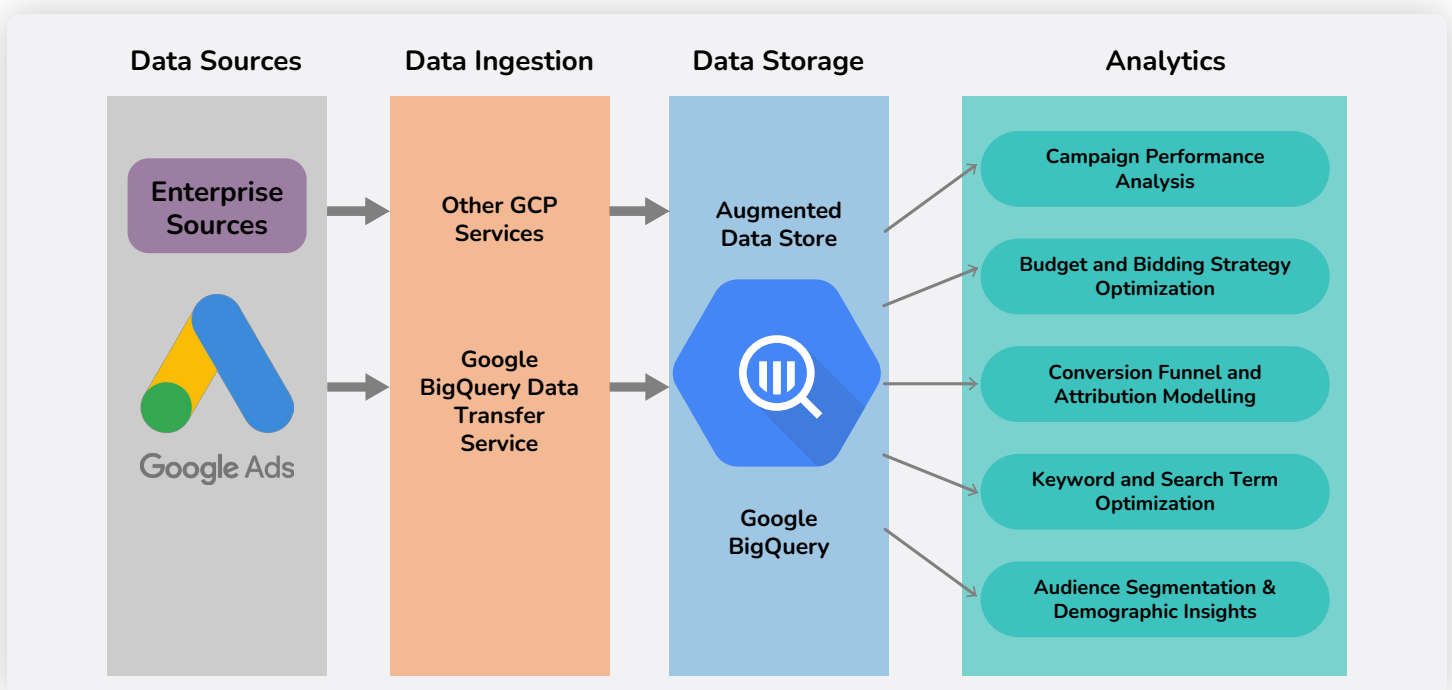
Integrating Google Ads with BigQuery involves a seamless flow of data from the advertising platform into the data warehouse. This data flow is facilitated by the **BigQuery Data Transfer Service (DTS)**, which automates the periodic ingestion of Google Ads data into BigQuery. The process involves the following steps:

- 1 Data Collection**  
Google Ads generates performance metrics from active campaigns, ad groups, and keywords.
- 2 Data Transfer**  
Using BigQuery DTS, the data is automatically transferred into BigQuery tables at scheduled intervals, ensuring the most up-to-date information is available for analysis.
- 3 Data Analysis**  
Once in BigQuery, the data is organized into layers (raw data, staging, and aggregated views) and made available for complex queries and reports.
- 4 Reporting**  
Business users can access the data through custom dashboards or business intelligence (BI) tools, visualizing key metrics and making decisions based on real-time analytics.

This structured approach allows organizations to break down performance at every level—from the high-level campaign overview to specific audience behaviour insights.

## Key Analytical Use Cases

The integration of Google Ads with BigQuery enables advertisers to dive into various types of analysis, which can drive strategic decision-making and campaign optimization. Here are some of the key use cases:



## 1. Campaign Performance Analysis

Understanding how well individual campaigns are performing is critical for businesses aiming to allocate their budgets efficiently. Through BigQuery, businesses can analyse:

- **Impressions, Clicks, CTR, and Conversions:** Track how each campaign is engaging users.
- **Cost and Return on Ad Spend:** Analyse spending efficiency by calculating how much return each dollar generates in terms of conversions.
- **Bid Strategy Performance:** Identify whether manual or automated bid strategies are yielding better results and optimize accordingly.

By querying data over different time periods, businesses can assess long-term campaign performance trends and adjust maximize outcomes.

## 2. Audience Segmentation and Demographic Insights

Targeted campaigning is the key for ensuring advertisements reaching to the right people. Google Ads provides detailed demographic data (age, gender, location) along with behavioural segments. With BigQuery, businesses achieve:

- **Demographic Segmentation:** Analyse which demographics engage the most with advertisements and yield higher conversion rates.
- **Device Performance Insights:** Compare how different devices (mobile, desktop, tablet) impact performance, enabling advertisers to adjust bids or create assets accordingly.
- **Geographical Insights:** Map out performance data by location to better understand regional differences in campaign success.

This detailed analysis helps advertisers fine-tune their audience targeting strategies, leading to higher engagement and conversion rates. This results in optimized spend on advertisements and operations.

## 3. Keyword and Search Term Optimization

Keywords drive the visibility of search ads but optimizing them is a continuous process. Through BigQuery, advertisers are enabled to analyse:

- **Keyword Performance:** Track which keywords generate the most clicks, conversions, and impressions, and adjust bids to prioritize high-performing terms.
- **Search Terms:** Reports showing the exact search queries that triggered ads, identify new opportunities, and eliminate irrelevant keywords.
- **Quality Score Optimization:** By analysing data on keyword relevance, landing page experience, and expected CTR, advertisers can optimize their Quality Score, resulting in better ad placements and lower CPC.

This granular analysis helps advertisers maintain efficient and effective keyword strategies, improving campaign ROI.

## 4. Conversion Funnel and Attribution Modelling

Understanding how users interact with ads throughout the customer journey is crucial for optimizing conversions. BigQuery allows businesses to:

- **Track Multi-Channel Funnels:** Analyse how users move through different touchpoints (search, display, video) before converting.
- **Attribution Modelling:** Assign credit to various interactions along the conversion path to determine which channels and campaigns contribute most to conversions.
- **Conversion Value Analysis:** Understand the lifetime value of customers acquired through Google Ads by combining campaign data with internal sales or CRM data.

With these insights, advertisers can allocate resources more effectively and improve the customer journey across touchpoints.

## 5. Budget and Bidding Strategy Optimization

Maximizing ROAS requires a careful balance of budget allocation and bid strategy. With BigQuery, businesses can:

- **Analyse Budget Utilization:** Identify under- or over-utilized budgets across campaigns and reallocate funds to higher-performing campaigns.
- **Bid Strategy Analysis:** Compare the effectiveness of automated vs. manual bidding strategies, fine-tune bids based on performance data, and test new bidding strategies.
- **Predictive Analytics:** Use historical data to build predictive models that forecast future performance and guide budget and bid adjustments.

These optimizations ensure that businesses are spending their ad budgets efficiently, maximizing conversions while minimizing costs.

## Blue Altair's Capability in Leveraging Google Ads and BigQuery

Blue Altair is uniquely positioned to help businesses harness the full potential of Google Ads and BigQuery. With extensive experience in data engineering and marketing analytics, Blue Altair provides end-to-end solutions that streamline the integration of advertising data into scalable analytics platforms.

### Expertise in Data Model and Integration

Blue Altair has a proven track record of helping businesses automate the transfer of data from Google Ads to BigQuery. Through its expertise in **BigQuery Data Transfer Service**, **Cloud Composer**, and **Google Ads API**, Blue Altair ensures that data is ingested, processed, and made available for analysis in real-time. With this structured approach, clients can easily track key performance indicators (KPIs) and gain insights into their ad campaigns.

### Customized Analytics and Visualizations

Beyond data integration, Blue Altair specializes in building customized **dashboards** and **BI reports using enterprise tools** that provide businesses with actionable insights. This enables business users to visualize Google Ads data accelerating the business decisions leading to increasing customer conversions, improving ROI, or advertisement optimization.



## Conclusion

As businesses continue to expand their digital advertising efforts, the ability to harness the power of data becomes increasingly important. Integrating Google Ads with BigQuery provides advertisers with the infrastructure needed to extract, analyse, and act on vast amounts of data in real-time. Whether its optimizing campaign performance, refining audience targeting, or improving ROAS, data-driven insights play a key role in achieving business success.

**Blue Altair** stands at the forefront of this transformation, providing businesses with the tools, expertise, and strategy necessary to fully leverage Google Ads and BigQuery for data intelligence. With a comprehensive approach to data integration, analysis, and optimization, Blue Altair empowers businesses to make informed decisions, optimize their advertising spend, and achieve long-term growth in an increasingly competitive digital marketplace.

## About Blue Altair

Blue Altair is a niche, industry-recognized business and technology consulting firm that assists our clients with digital transformations. We offer Assessment and Strategy, Technology Implementation, and Managed Services in API Management and Integration; Data Management; Digital Application Development; and Data Science and AI. Our Client Success capability ensures a higher-than-industry rate of successfully delivered projects, with a primary focus on program and project management, business analysis, and quality assurance. Blue Labs is our innovation hub, where we use cutting-edge technology to build offerings that deliver accelerators and solutions. Our culture is the heart of our existence, and our core values are the key drivers for our handpicked, top-tier performers.

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## About the Author

Supriya Badgujar is a seasoned Manager in Data Management at Blue Altair India, with 10 years of experience driving successful Data Engineering, AI, and software development projects. She leads and mentors data engineers, spearheading strategic initiatives. A certified professional with expertise in Big Data and Cloud technologies, Supriya holds multiple certifications across cloud platforms. Her career spans leading organizations like Persistent and Sears. She earned her Bachelor's in Electronics & Telecommunications from North Maharashtra University, Jalgaon, India, and excels in delivering innovative, high-impact solutions in data management and engineering.

