JUMP TO (#)   ⌄

BigQuery

Serverless, highly scalable, and cost-effective multicloud data warehouse designed for business agility.

New customers get $300 in free credits to spend on Google Cloud during the first 90 days. All customers get 10 GB storage and up to 1 TB queries/month, completely free of charge.

Try BigQuery free (https://console.cloud.google.com/freetrial)

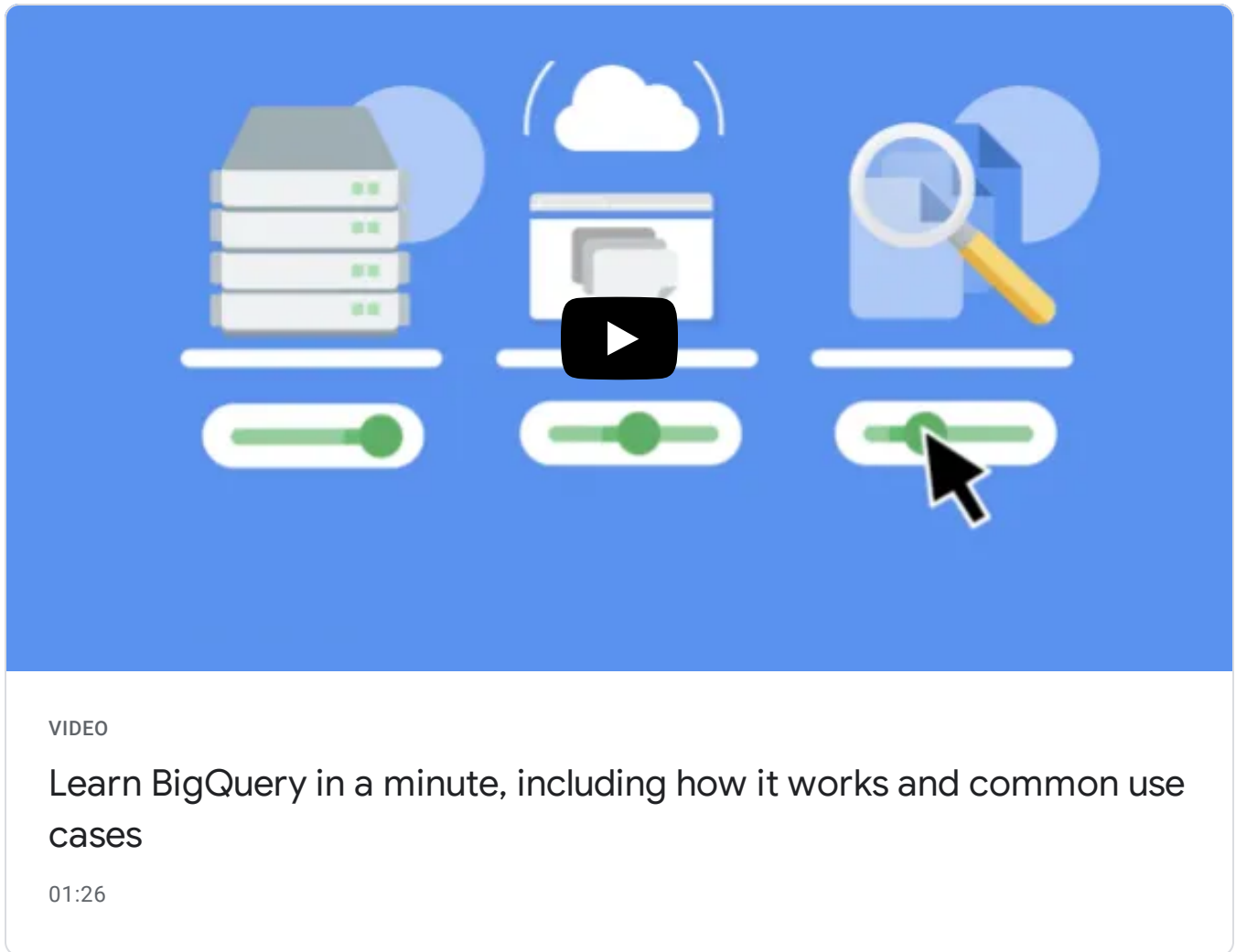**Contact sales** (https://cloud.google.com/contact)

✓ Democratize insights with a secure and scalable platform with built-in machine learning

✓ Power business decisions from data across clouds with a flexible, multicloud

✓ ud data

y_vs_cloud-based edws september_2019.pdf)

✓ Adapting to your data at any scale, from bytes to petabytes, with zero operational overhead

VIDEO

Learn BigQuery in a minute, including how it works and common use cases

01:26

(https://www.youtube.com/watch?v=CFw4peH2UwU&vl=en)

BENEFITS

Google uses cookies to deliver its services, to personalize ads, and to analyze traffic. You can adjust your privacy controls anytime in your Google settings.

More details   OK

Access data and share insights with ease

Securely access and share analytical insights in your organization with a few clicks. Easily create stunning reports and dashboards using popular business intelligence tools, out of the box.

Protect your data and operate with trust

Rely on BigQuery's robust security, governance, and reliability controls that offer high availability and a 99.99% uptime SLA. Protect your data with encryption by default and customer-managed encryption keys.

KEY FEATURES

Key features

BigQuery ML

BigQuery ML (https://cloud.google.com/bigquery-ml/docs/) enables data scientists and data analysts to build and operationalize ML models on planet-scale structured or semi-structured data, directly inside BigQuery, using simple SQL—in a fraction of the time. Export BigQuery ML models for online prediction into Vertex AI or your own serving layer. Learn more about the models we currently support (https://cloud.google.com/bigquery-ml/docs/bigqueryml-intro#supported_models_in).

BigQuery Omni

BigQuery Omni (https://cloud.google.com/blog/products/data-analytics/google-cloud-unveils-5-new-data-cloud-capabilities)
is a _____ t-effectively
and _____ SQL and
Big _____ a single pane
of g____

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More details   OK

BigQuery BI Engine

BigQuery BI Engine (https://cloud.google.com/bi-engine/docs) is an in-memory analysis service built into BigQuery that enables users to analyze large and complex datasets interactively with sub-second query response time and high concurrency. BI Engine natively integrates with Google's Data Studio (https://datastudio.google.com/overview), and now in preview (https://cloud.google.com/blog/products/data-analytics/bigquery-bi-engine-extends-integration-for-any-bi-solution), to Looker (https://cloud.google.com/bi-engine/docs/getting-started-sql-looker), Connected Sheets, (https://cloud.google.com/bigquery/docs/connected-sheets) and all our BI partners solutions via ODBC/JDBC. Learn more and enroll in BI Engine's preview (https://docs.google.com/forms/d/1x3BzNzPL0fhp_e7JxUg5URRvGWEdrjvIGHycvxvRK_k/edit). (https://cloud.google.com/blog/products/data-analytics/bigquery-bi-engine-extends-integration-for-any-bi-solution)

BigQuery GIS

BigQuery GIS (https://cloud.google.com/bigquery/docs/gis-intro) uniquely combines the serverless architecture of BigQuery with native support for geospatial analysis, so you can augment your analytics workflows with location intelligence. Simplify your analyses, see spatial data in fresh ways, and unlock entirely new lines of business with support for arbitrary points, lines, polygons, and multi-polygons in common geospatial data formats.

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Query data without a credit card: Learn how to get started with BigQuery sandbox

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Customers

P&G

CASE STUDY

Procter & Gamble delivers personalized customer experiences using real-time insights.

5-min read

ee all customers (https://cloud.google.com/customers)

What's new

Sign up (https://cloud.google.com/newsletter) for Google Cloud newsletters to receive product updates, event information, special offers, and more.

NEWS

New data analytics products unveiled at the Data Cloud Summit

(https://cloud.google.com/press-releases/2021/0526/data-cloud-summit)

DOC

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Documentation

Quickstart using the Cloud Console

Learn how to use the Google Cloud Console as a visual interface to complete tasks like running queries, loading data, and exporting data.

Learn more (/bigquery/docs/quickstarts/quickstart-web-ui)

Quickstart using the BigQuery command-line tool

Learn how to use the BigQuery command-line tool to run queries, load data, and export data.

Learn more (/bigquery/docs/quickstarts/quickstart-command-line)

Loading data into BigQuery

Learn how to ingest data into BigQuery via batch, streaming, querying, or using a third-

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Using BigQuery sandbox

Experience BigQuery and the Cloud Console without providing a credit card, creating a billing account, or enabling billing for your project.

Learn more (/bigquery/docs/sandbox)

Not seeing what you're looking for?

View all product documentation (/bigquery/docs)

Explore more docs

Get a quick intro to using this product.

(/bigquery/docs/quickstarts)
Learn to complete specific tasks with this product.

(/bigquery/docs/how-to)
Browse walkthroughs of common uses and scenarios for this product.

(/bigquery/docs/tutorials)
View APIs, references, and other resources for this product.

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Use cases

Migrating data warehouses to BigQuery

Solve for today's analytics demands and seamlessly scale your business by moving to Google Cloud's modern data warehouse. Streamline your migration path from Netezza, Oracle, Redshift, Teradata, or Snowflake to BigQuery and accelerate your time to insights. Learn more and get started with our comprehensive data warehouse migration guides. (https://cloud.google.com/solutions/migration/dw2bq/dw-bq-migration-overview)

Predictive analytics

Predictive analytics helps you predict future outcomes more accurately and discover opportunities in your business. Our smart analytics reference patterns (https://cloud.google.com/solutions/smart-analytics/reference-patterns/overview) are designed to reduce time-to-value for common analytics use cases with sample code and technical reference guides.

Learn how BigQuery and BigQuery ML can help you build an ecommerce recommendation system, predict customers' lifetime value, and design propensity to purchase solutions.

PATTERN

Ecommerce recommendation system

Build an ecommerce recommendation system by using BigQuery ML to generate product or service recommendations from customer data in BigQuery.

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More details   OK

PATTERN

Predict customer lifetime value

Predict customer lifetime value (CLV) by using Vertex AI and BigQuery.

Learn more

Build propensity to purchase solution

Build and deploy a propensity to purchase model for predicting customer purchasing behavior using BigQuery ML and Vertex AI.

Learn more

Bring any data into BigQuery

Make analytics easier by bringing together data from multiple sources in BigQuery, for seamless analysis. You can upload data files
 (https://cloud.google.com/bigquery/docs/batch-loading-data?skip_cache=true) from local sources, Google Drive (http://drive.google.com), or Cloud Storage buckets, take advantage of BigQuery Data Transfer Service (https://cloud.google.com/bigquery-transfer/docs/introduction?skip_cache=true) (DTS), Data Fusion plug-ins (https://cloud.google.com/data-fusion/plugins?skip_cache=true), or leverage Google's industry-leading data integration partnerships
 (https://cloud.google.com/bigquery?skip_cache=true#section-12). You have ultimate flexibility in how you bring data into your data warehouse.

Data Transfer Service helps you automatically load first- and third-party data into BigQuery on a scheduled or managed basis without needing to write a line of code.

Learn more

GOOGLE CLOUD BASICS

Easily deploy data pipelines into BigQuery with Data Fusion

Data Fusion's code-free data integration platform with 150+ preconfigured connectors and transformations helps you easily solve for any data ingestion need.

Learn more

GOOGLE CLOUD BASICS

Load data into BigQuery with your preferred partner tool

Choose your partner tool to ingest data from various source systems into BigQuery; SAP Data Services can support data ingestion from any SAP-supported database.

Learn more

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ALL

All features

Serverless	With serverless data warehousing, Google does all resource provisioning behind the scenes, so you can focus on data and analysis rather than worrying about upgrading, securing, or managing the infrastructure.
Multicloud capabilities	[BigQuery Omni](https://cloud.google.com/blog/products/data-analytics/google-cloud-unveils-5-new-data-cloud-capabilities) (https://cloud.google.com/blog/products/data-analytics/google-cloud-unveils-5-new-data-cloud-capabilities) allows you to analyze data across clouds using standard SQL and without leaving BigQuery's familiar interface. Its flexible, fully managed infrastructure allows your data analysts or data scientists to have a completely seamless data analysis experience.
Natural language processing	[Data QnA](https://cloud.google.com/blog/products/data-analytics/introducing-data-qna) (https://cloud.google.com/blog/products/data-analytics/introducing-data-qna) (private alpha) makes it easy for anyone to access the data insights they need through NLP —all while maintaining governance and security

spreadsheets, BI platforms like Looker, or custom-built UIs. Complete this form (https://forms.gle/75Trd6Co2QC4nUBc8) to learn more.

Built-in ML and AI integrations	Besides bringing ML to your data with BigQuery ML (/bigquery-ml/docs), integrations with Vertex AI (/vertex-ai) and TensorFlow (/tensorflow-enterprise) enable you to train and execute powerful models on structured data in minutes, with just SQL.
Foundation for BI	BigQuery forms the backbone for modern cloud BI solutions and enables seamless data integration, transformation, analysis, visualization, and reporting with tools from Google and our technology partners. To accelerate BI workloads you can turn on BI Engine (/bi-engine/docs/sql-interface-overview), an in-memory analysis service, to achieve sub-second query response time and high concurrency for popular BI tools via standard ODBC/JDBC.

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requiring SQL knowledge. Users can apply

requiring SQL knowledge. Users can apply familiar tools—like pivot tables, charts, and formulas—to easily derive insights from big data. Learn more about Connected Sheets in the getting started guide (https://cloud.google.com/bigquery/docs/connected-sheets)

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Real-time analytics	BigQuery's high-speed streaming insertion API provides a powerful foundation for real-time analytics, making your latest business data immediately available for analysis. You can also leverage Datastream, Pub/Sub and Dataflow to stream data into BigQuery.
Real-time change data capture and replication	Synchronize data across heterogeneous databases, storage systems, and applications reliably and with minimal latency with Datastream (https://cloud.google.com/datastream). Datastream integrates with purpose-built and extensible Dataflow templates (https://cloud.google.com/dataflow/docs/guides/templates/provided-streaming#datastream-to-bigquery) to pull change streams written to Cloud Storage,

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More details   OK

Automatic high availability   BigQuery transparently and automatically

provides highly durable, replicated storage in multiple locations and high availability with no extra charge and no additional setup.

Standard SQL

BigQuery supports a standard SQL dialect that is ANSI:2011 compliant, which reduces the need for code rewrites. BigQuery also provides ODBC and JDBC drivers at no cost to ensure your current applications can interact with its powerful engine.

Federated query and logical data warehousing

Through powerful federated queries, BigQuery can process external data sources in object storage (Cloud Storage) for Parquet and ORC open source file formats, transactional databases (Bigtable, Cloud SQL), or spreadsheets in Drive. All this can be done without moving the data.

Convergence of data warehouse and data lake

Run open source data science workloads (Spark, TensorFlow, Dataflow and Apache Beam, MapReduce, Pandas, and scikit-learn) directly on BigQuery using the Storage API. The Storage API

Materialized Views	Accelerate query performance and reduce costs within your environment with [BigQuery materialized views](/bigquery/docs/materialized-views). It is easy to set up, effortless to use, and best of all it's real time, allowing you to quickly get answers to your questions.
Storage and compute separation	With BigQuery's separated storage and compute, you have the option to choose the storage and processing solutions that make sense for your business and control access and costs for each.
Automatic backup and easy restore	BigQuery automatically replicates data and keeps a seven-day history of changes, allowing you to easily restore and compare data from different times.
Geospatial data types and functions	[BigQuery GIS](https://cloud.google.com/bigquery/docs/gis-intro) combines the serverless architecture of BigQuery with native support for geospatial analysis, so you can augment your analytics ... Simplify ... esh ways, ... iness with ... lygons, and multi-polygons in common geospatial data

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BigQuery data transfer service	The **BigQuery Data Transfer Service** (/bigquery/transfer) automatically transfers data from external data sources, like Google Marketing Platform, Google Ads, YouTube, and partner SaaS applications to BigQuery on a scheduled and fully managed basis. Users can also easily transfer data from Teradata and Amazon S3 to BigQuery.
Big data ecosystem integration	With Dataproc and Dataflow, BigQuery provides integration with the Apache big data ecosystem, allowing existing Hadoop/Spark and Beam workloads to read or write data directly from BigQuery using the Storage API.
Petabyte scale	Get great performance on your data, while knowing you can scale seamlessly to store and analyze petabytes to exabytes of data with ease.
Flexible pricing models	On-demand pricing lets you pay only for the ... Flat-rate ...gh-volume

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seamlessly. For more information, see **BigQuery**

seamlessly. For more information, see BigQuery pricing (/bigquery/pricing) or cost controls (/bigquery/docs/custom-quotas).

Data governance and security	BigQuery's integration with security and privacy services (https://cloud.google.com/bigquery/docs/access-control) from Google Cloud provides strong security and fine-grained governance controls, down to the column-level (https://cloud.google.com/bigquery/docs/column-level-security-intro) and row-level (https://cloud.google.com/bigquery/docs/row-level-security-intro). Rest assured knowing your data is encrypted (https://cloud.google.com/bigquery/docs/encryption-at-rest) at rest and in transit by default.
Geo-expansion	BigQuery gives you the option of geographic data control (in US, Asia, and European locations), without the headaches of setting up and managing clusters and other computing resources in-region.

Fl... ...dreds of ...s into BigQuery for free with Data Transfer Service

(DTS) or leverage data integration tools like Cloud Data Fusion (/data-fusion), Datastream (/datastream), Informatica, Talend, and more. Load and transform data at any scale from hybrid and multicloud applications.

| Programmatic interaction | BigQuery provides a REST API for easy programmatic access and application integration. Client libraries are available in Java, Python, Node.js, C#, Go, Ruby, and PHP. Business users can use Google Apps Script to access BigQuery from Sheets. |

| Rich monitoring and logging | BigQuery provides rich monitoring, logging, and alerting through Cloud Audit Logs (/logging/docs/audit) and it can serve as a repository for logs from any application or service using Cloud Logging. |

| Public datasets | Google Cloud Public Datasets (/solutions/datasets) offer a powerful data repository of more than 200 high-demand public datasets from different industries. Google |

Always-free access	The [BigQuery sandbox](https://cloud.google.com/bigquery/docs/sandbox) (https://cloud.google.com/bigquery/docs/sandbox) gives you always-free access to the full power of BigQuery subject to certain limits. You can get started without a credit card, or without creating or enabling a billing account for your project.

PRICING

Pricing

BigQuery charges for data storage, streaming inserts, and querying data, but loading and exporting data are free of charge. For detailed pricing information, please view the [pricing guide.](/bigquery/pricing) (/bigquery/pricing)

ITEM	PRICE
Storage	$0.02 per GB, per month $0.01 per GB, per month for long-term storage (https://cloud.google.com/bigquery/pricing#long-term-storage)
Streaming inserts	$0.01 per 200 MB
Loading, copying, or exporting data; metadata operations	Free

If you pay in a currency other than USD, the prices listed in your currency on Google Cloud SKUs (/skus/?currency=USD) apply.

SUBSCRIPTION TYPE	PRICE
Pay-as-you-go	$5 per TB First terabyte (1 TB) per month is free*
Flat-rate pricing	Starts at $1,700/month for a dedicated reservation of 100 slots. $4 per hour for 100 Flex slots. For more information, see flat-rate pricing. (https://cloud.google.com/bigquery/pricing#flat_rate_pricing/)

Additional details: BigQuery ML pricing (/bigquery-ml/pricing)

Non-USD prices listed on Google Cloud SKUs (/skus/?currency=USD)

* The first 1 TB of data processed with BigQuery each month is free

BigQuery sandbox (https://cloud.google.com/bigquery/docs/sandbox) provides free, limited access

BigQuery's quota policy (/bigquery/quotas) applies for these operations

iew pricing details (/bigquery/pricing)

PART

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From data integration to analytics, Google Cloud partners have integrated their big data services with BigQuery for loading, transforming, and visualizing data.

Data integration ⌃

(https://cloud.withgoogle.com/partners/detail/?id=ACkb94Z3An9b3uB-Hnfu7uPjBwqwKMQC73xXNHwl2baumNUjvOWu-A0bP8gTjuzVTois-KHjjeE-)

(https://www.hitachiconsulting.com/alliances/google-cloud.html)

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(https://www.informatica.com/solutions/explore-ecosystems/google-cloud-platform.html#fbid=xz2lCEkZTHP)

(https://cloud.withgoogle.com/partners/detail/?id=ACkb94ZmV-7Rm67r5eii3ohJHt7SI60uS9eXrPFQ1_c3cmeI8w3UOCG7gH22WEf8kkNe-dNoth0f)

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(https://www.snaplogic.com/snaps/google-bigquery)

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(https://cloud.withgoogle.com/partners/detail/?id=ACkb94bvQ_LEeHMRUz2wBh4IkBC6okPHpBJa7ahsz4xsWHDF12MI9yisNBliUrgWFmyk7yyNXnCp)

(https://cloud.withgoogle.com/partners/detail/?id=ACkb94aKDq76ckLCGK67aj9T_HNEyqP_VynMmUy5Ob2UekGuMW8Qe0rYmpB3_PFf78eouX0Gm6IK)

(https://cloud.withgoogle.com/partners/detail/?id=trifacta)

TRIFACTA

BI and data visualization ⌄

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(https://doc-archives.microstrategy.com/producthelp/10/WebUser/WebHelp/Lang_1033/Importing_data_from_Google_BigQuery.htm)

(https://help.qlik.com/en-US/connectors/Subsystems/ODBC_connector_help/Content/Connectors_ODBC/Introduction/ODBC-connector.htm)

(https://www.sapanalytics.cloud/)

SAP° Analytics Cloud

(https://cloud.withgoogle.com/partners/detail/?id=ACkb94Y7YsmXMNYl_uB1HtHHPWWkbDwQijtG_1qLqPpcgUyq3DtHF8b2jlcemZQQbfIvnpiE3Ows)

(https://cloud.withgoogle.com/partners/detail/?id=ACkb94a6eUnFZZonfmnTMmwHyEirhoY3vqG29hoNsdpeKR6J3UpClaFOfgQUe6QuxUI5J3YOg-CI)

(https://cloud.withgoogle.com/partners/detail/?id=ACkb94bKPL9NANp-797jE0s086M4Myj3dmUVcAq4MBhUgg8BzqPhEhl_wHy5wHWfWOlSGOsRwIZQ)

(https://www.zoomdata.com/partners/google-cloud-platform/)

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(https://cloud.withgoogle.com/partners/detail/?id=ACkb94bYRUFBbBJS3wcY7WWzGlzzJglHli4KaTseqc172kPyYsd5UoOE0M_ZC3_ThwGMeoCK_Y1e)

(https://cloud.withgoogle.com/partners/detail/?id=ACkb94Z0VkK_gtI1OoYjv2nRdPTuAlVDSYBBgksms3kwvyBldokl0z2WEzUsPvVM8H9uxOuBeHhS)

ww.trace3.com/)

Connectors and developer tools ⌄

(https://cloud.withgoogle.com/partners/detail/?
id=ACkb94apGnZqer8WyzmgN9QRLqiSaJvqaQc_8BcbD_zsUs3j_meaeq_mumOf8M0Y1xzeUAi1vq_G)

(/solutions/real-time/fluentd-bigquery)

fluentd

(https://www.simba.com/drivers/bigquery-odbc-jdbc/)

Simba
technologies

ee all partners (https://cloud.withgoogle.com/partners/)

A product or feature listed on this page is in preview. For more information on our product launch stages, see here
(https://cloud.google.com/products#product-launch-stages).

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Try BigQuery free (https://console.cloud.google.com/freetrial)

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Work with a trusted partner

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