GOOGLE SERVICES

Google Services revenues consist of Google advertising as well as Google other revenues.

Google Advertising

Google advertising revenues are comprised of the following:

- Google Search & other, which includes revenues generated on Google search properties (including revenues from traffic generated by search distribution partners who use Google.com as their default search in browsers, toolbars, etc.), and other Google owned and operated properties like Gmail, Google Maps, and Google Play;
- YouTube ads, which includes revenues generated on YouTube properties; and
- Google Network, which includes revenues generated on Google Network properties participating in AdMob, AdSense, and Google Ad Manager.

We use certain metrics to track how well traffic across various properties is monetized as it relates to our advertising revenues: paid clicks and cost-per-click pertain to traffic on Google Search & other properties, while impressions and cost-per-impression pertain to traffic on our Google Network properties.

Paid clicks represent engagement by users and include clicks on advertisements by end-users on Google search properties and other Google owned and operated properties including Gmail, Google Maps, and Google Play. Cost-per-click is defined as click-driven revenues divided by our total number of paid clicks and represents the average amount we charge advertisers for each engagement by users.

Impressions include impressions displayed to users on Google Network properties participating primarily in AdMob, AdSense, and Google Ad Manager. Cost-per-impression is defined as impression-based and click-based revenues divided by our total number of impressions, and represents the average amount we charge advertisers for each impression displayed to users.

As our business evolves, we periodically review, refine, and update our methodologies for monitoring, gathering, and counting the number of paid clicks and the number of impressions, and for identifying the revenues generated by the corresponding click and impression activity.

Fluctuations in our advertising revenues, as well as the change in paid clicks and cost-per-click on Google Search & other properties and the change in impressions and cost-per-impression on Google Network properties and the correlation between these items have been and may continue to be affected by additional factors, such as:

- advertiser competition for keywords;
- changes in advertising quality, formats, delivery or policy;
- changes in device mix;
- seasonal fluctuations in internet usage, advertising expenditures, and underlying business trends, such as traditional retail seasonality; and
- traffic growth in emerging markets compared to more mature markets and across various verticals and channels.

Google Other

Google other revenues are comprised of the following:

- Google Play, which includes sales of apps and in-app purchases;
- hardware, which includes sales of Fitbit wearable devices, Google Nest home products, and Pixel devices;
- YouTube non-advertising, which includes subscription revenues from services such as YouTube Premium and YouTube TV; and
- other products and services.

Fluctuations in our Google other revenues have been and may continue to be affected by additional factors, such as changes in customer usage and demand, number of subscribers, and fluctuations in the timing of product launches.

GOOGLE CLOUD

Google Cloud revenues are comprised of the following:

- Google Cloud Platform, which includes fees for infrastructure, platform, and other services;
- Google Workspace, which includes fees for cloud-based communication and collaboration tools for enterprises, such as Gmail, Docs, Drive, Calendar and Meet; and
- other enterprise services.

Fluctuations in our Google Cloud revenues have been and may continue to be affected by additional factors, such as customer usage.

OTHER BETS

Revenues from Other Bets are generated primarily from the sale of health technology and internet services.

Costs and Expenses

Our cost structure has two components: cost of revenues and operating expenses. Our operating expenses include costs related to R&D, sales and marketing, and general and administrative functions. Certain of our costs and expenses, including those associated with the operation of our technical infrastructure as well as components of our operating expenses, are generally less variable in nature and may not correlate to changes in revenue.

COST OF REVENUES

Cost of revenues is comprised of TAC and other costs of revenues.

- TAC includes:
 - Amounts paid to our distribution partners who make available our search access points and services. Our distribution partners include browser providers, mobile carriers, original equipment manufacturers, and software developers.
 - Amounts paid to Google Network partners primarily for ads displayed on their properties.
- Other cost of revenues includes:
 - Content acquisition costs, which are payments to content providers from whom we license video and other content for distribution on YouTube and Google Play (we pay fees to these content providers based on revenues generated or a flat fee).
 - Expenses associated with our data centers (including bandwidth, compensation expenses, depreciation, energy, and other equipment costs) as well as other operations costs (such as content review as well as customer and product support costs).
 - Inventory and other costs related to the hardware we sell.

TAC as a percentage of revenues generated from ads placed on Google Network properties are significantly higher than TAC as a percentage of revenues generated from ads placed on Google Search & other properties, because most of the advertiser revenues from ads served on Google Network properties are paid as TAC to our Google Network partners.

OPERATING EXPENSES

Operating expenses are generally incurred during our normal course of business, which we categorize as either R&D, sales and marketing, or general and administrative.

The main components of our R&D expenses are:

- compensation expenses for engineering and technical employees responsible for R&D related to our existing and new products and services;
- depreciation; and
- third-party services fees primarily relating to consulting and outsourced services in support of our engineering and product development efforts.

The main components of our sales and marketing expenses are:

- compensation expenses for employees engaged in sales and marketing, sales support, and certain customer service functions; and
- spending relating to our advertising and promotional activities in support of our products and services.

The main components of our general and administrative expenses are:

- compensation expenses for employees in finance, human resources, information technology, legal, and other administrative support functions;
- expenses relating to legal matters, including fines and settlements; and
- third-party services fees, including audit, consulting, outside legal, and other outsourced administrative services.

Other Income (Expense), Net

Other income (expense), net primarily consists of interest income (expense), the effect of foreign currency exchange gains (losses), net gains (losses) and impairment on our marketable and non-marketable securities, performance fees, and income (loss) and impairment from our equity method investments.

For additional details, including how we account for our investments and factors that can drive fluctuations in the value of our investments, see Note 1 and Note 3 of the Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K as well as Item 7A, "Quantitative and Qualitative Disclosures About Market Risk".

Provision for Income Taxes

Provision for income taxes represents the estimated amount of federal, state, and foreign income taxes incurred in the U.S. and the many jurisdictions in which we operate. The provision includes the effect of reserve provisions and changes to reserves that are considered appropriate as well as the related net interest and penalties.

For additional details, including a reconciliation of the U.S. federal statutory rate to our effective tax rate, see Note 14 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Executive Overview

The following table summarizes our consolidated financial results (in millions, except for per share information and percentages):

Year Ended December 31,						
	2021		2022		\$ Change	% Change
\$	257,637	\$	282,836	\$	25,199	10%
						14%
\$	110,939	\$	126,203	\$	15,264	14%
\$	67,984	\$	81,791	\$	13,807	20%
\$	78,714	\$	74,842	\$	(3,872)	(5)%
	31%		26%			(5)%
\$	12,020	\$	(3,514)	\$	(15,534)	(129)%
\$	76,033	\$	59,972	\$	(16,061)	(21)%
\$	5.61	\$	4.56	\$	(1.05)	(19)%
	\$ \$	\$ 257,637 \$ 110,939 \$ 67,984 \$ 78,714 31% \$ 12,020 \$ 76,033	\$ 257,637 \$ \$ \$ 110,939 \$ \$ 67,984 \$ \$ 31% \$ \$ 12,020 \$ \$ \$ 76,033 \$	2021 2022 \$ 257,637 \$ 282,836 \$ 110,939 \$ 126,203 \$ 67,984 \$ 81,791 \$ 78,714 \$ 74,842 31% 26% \$ 12,020 \$ (3,514) \$ 76,033 \$ 59,972	2021 2022 \$ 257,637 \$ 282,836 \$ \$ 110,939 \$ 126,203 \$ \$ 67,984 \$ 81,791 \$ \$ 78,714 \$ 74,842 \$ 31% 26% \$ 12,020 \$ (3,514) \$ \$ 76,033 \$ 59,972 \$	2021 2022 \$ Change \$ 257,637 \$ 282,836 \$ 25,199 \$ 110,939 \$ 126,203 \$ 15,264 \$ 67,984 \$ 81,791 \$ 13,807 \$ 78,714 \$ 74,842 \$ (3,872) 31% 26% \$ 12,020 \$ (3,514) \$ (15,534) \$ 76,033 \$ 59,972 \$ (16,061)

- (1) See "Use of Non-GAAP Constant Currency Measures" below for details relating to our use of constant currency information.
- Revenues were \$282.8 billion, an increase of 10% year over year, primarily driven by an increase in Google Services revenues of \$16.0 billion, or 7%, and an increase in Google Cloud revenues of \$7.1 billion, or 37%.
- Total constant currency revenues, which exclude the effect of hedging, increased 14% year over year.
- Cost of revenues was \$126.2 billion, an increase of 14% year over year, primarily driven by an increase in other costs of revenues.
- Operating expenses were \$81.8 billion, an increase of 20% year over year, primarily driven by increases in compensation expenses due to headcount growth, third-party service fees, and advertising and promotional expenses.

Other information:

- On September 12, 2022, we closed the acquisition of Mandiant for a total purchase price of \$6.1 billion and added more than 2,600 employees. Mandiant's financial results are reported within Google Cloud as of the acquisition date. See Note 8 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K for additional information.
- On July 15, 2022, the company executed a 20-for-one stock split with a record date of July 1, 2022, effected in the form of a one-time special stock dividend on each share of the company's Class A, Class B, and Class C stock. All prior period references made to share or per share amounts throughout this Management's Discussion and Analysis of Financial Condition and Results of Operations prior to the effective date have been retroactively adjusted to reflect the effects of the Stock Split. See Note 11 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K for additional information.