



PALANTIR TECHNOLOGIES IN 2021: EXPANDING FROM THE GOVERNMENT TO THE COMMERCIAL SECTOR

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In the middle of the COVID-19 pandemic, countries around the world looked for help from one of the most secretive companies in Silicon Valley, Palantir Technologies. The company was primarily known for its work in counterterrorism and was used by several Western governments. Palantir's CEO, Alex Karp, claimed that the company stopped several attacks that would have had catastrophic political consequences:

*"I believe that Western civilization has rested on our somewhat small shoulders a couple of times in the last 15 years."*¹

Palantir provided countries with a free-trial of its software platform so they could fight and control the COVID-19 pandemic. The speed and flexibility with which Palantir could be set up made it clear that its software platforms could be used for more than fighting terrorism. By April 2020, roughly a dozen countries were using the company's software to track and contain the virus. Palantir's high exposure highlighted transparency and perception issues as the company transitioned into the commercial sector.² Palantir's work with Immigration and Customs Enforcement (ICE) and secretive contracts with the Department of Defense (DoD) had raised concerns amongst critics in the United States.

Palantir meant something different to everyone. To Karp, Palantir was the convergence of software and hard positions. To some commercial companies, Palantir was the key to unlocking higher levels of efficiency and profits. To activists, Palantir was the embodiment of everything

wrong with the Big Data revolution and an accessory to human rights violations. Palantir was viewed as a complicated and mysterious company as it transitioned into the commercial sector.

THE SOFTWARE INDUSTRY

Companies in the software industry had primary activities that include developing and publishing software for video games, cellular phones, computers, firmware, and middleware. Major products and services in the software industry were application software publishing, system software publishing, custom application design and development, resale of computer hardware and software, and technology consulting and training.

CHALLENGES

High competition was a challenge in the software publishing industry. Companies that produced software, such as operating systems, video games, and productivity tools, experienced competition and were threatened by competition from open-source software. Another emerging source of competition was cloud computing, which was favorable at the enterprise level as businesses could store vital information in a single location with offsite backups.³ Palantir's direct competition in the industry were companies offering products and services for predictive analytics, big data (BD), and artificial intelligence (AI). Competitors in the BD & AI space were some of the most powerful companies in the world. Tech behemoths such as Amazon, IBM, Alphabet (Google), and Microsoft offered standardized cloud-computing solutions for data analysis and artificial intelligence.

Newly emerged threats were expected to bring about an increase in predictive analysis and artificial intelligence. The COVID-19 pandemic altered the expectations and requirements of

businesses and governments by highlighting the importance of quickly responding to a rapidly changing situation. This shift motivated organizations to significantly expedite their digital transition and take advantage of predictive analysis, big data, and artificial intelligence.⁴

Businesses were expected to use these software solutions to analyze data to predict customers' wants and needs, measure the influence of social media on their products, maximize employee productivity, and detect and prevent threats.⁵

Privacy and information security were also challenging for the software publishing industry. Largely due to the COVID-19 pandemic, businesses moved towards more remote workplaces and required continual upgrades to handle the ever-changing threats from viruses and hackers that came with the increase in networked workplaces. Finance, insurance, and healthcare companies were increasingly resorting to security software to protect their data. Artificial intelligence software was expected to further strengthen and improve security.⁶ Palantir offered government grade security with its products, and was one of six software companies with Impact Level (IL) 5 clearance with the Department of Defense, granting them the authority to store and/or process data for Controlled Unclassified Information (CUI) and National Security Systems (NSS).⁷ The other companies with IL-5 clearance were Microsoft, Amazon Web Services (AWS), International Business Machines (IBM), Oracle, and Defense Information Systems Agency (DISA). The company had goals to become the first software-as-a-service (SaaS) company to achieve IL-6 for Classified Secret National Security Systems.⁸

MARKET SIZE AND FORECASTED GROWTH

According to Dan Cook of IBISWorld, the industry revenue in 2021 was estimated at \$396.7 billion. The industry encountered remarkable revenue growth of 12.6% as the COVID-19

pandemic, incentivizing businesses to increase spending on software for remote operations and consumers, increased spending on social and entertainment software offerings. Total industry revenue was \$396.7 billion, while profit margins fell slightly from 30.2% in 2016 to 29.8% in 2020. The average industry profit margin was expected to account for 29.2% of revenue in 2021. Annual revenue growth from 2016 through 2020 was 7.8% and was projected to be 2.8% from 2021 to 2026. The number of businesses in the software publishing industry rose 18.3% from 2016 to 2021 and was expected to rise 9.7% from 2021 to 2027 as seen in Exhibit 1.⁹

Computation of big data enabled companies to extract valuable insights. The global economic impact of data analytics and AI is expected to reach \$15.7 trillion by 2030.¹⁰ According to McKinsey, AI and analytics have the potential to unlock a global total of \$10 trillion to \$15 trillion in value – and this potential value lies in core activities of business, such as sales and marketing or supply-chain management.¹¹

Palantir has estimated that the total addressable market (“TAM”) for its software in the commercial sector was \$56 billion. The company was focused on cultivating partnerships with commercial enterprises, becoming the industry default, and establishing its proprietary platforms as the central operating system for entire industries.¹² In 2020, Palantir generated 107% revenue growth from its U.S. commercial customers, and in Q4 2020, it signed several large deals across industries such as automotive, energy, healthcare, insurance, mining, shipping, and more. The COVID-19 pandemic provided Palantir with positive results. In Q1 2021, it grew revenue by 49% year-over-year, generating \$341 million in revenue across its government and commercial contracts. In that same period, its total US revenue grew by 81% year-over-year and commercial opportunities in the US and UK increased by 2.5x.¹³

MAJOR PLAYERS

The four largest companies in the software publishing industry accounted for a combined 36.8% of industry revenue. These four major players were Microsoft Corporation, International Business Machines (IBM), Apple Inc., and Oracle Corporation. Minor players, such as Palantir Technologies, Splunk Inc., and Salesforce.com Inc., made up the remaining 63.2% of industry revenue.¹⁴

MAJOR MARKETS

As for the software industry's major buyers, government entities accounted for 10.9% of industry revenue, households accounted for 25.4%, and businesses accounted for 63.7%. The COVID-19 pandemic had unique effects on each market segment. As a share of the industry revenue, both business and government software purchases expanded from the year before, while household purchases decreased. According to IBISWorld industry analyst Dan Cook, the software publishing industry was expected to continue to expand through 2026.

COMPETITORS

Palantir faced a diverse range of competitors offering similar products. Palantir built and deployed software platforms that served as the central operating system for data for customers. Palantir's platforms integrated clients' existing solutions into its central operating system without having to rebuild an entire data infrastructure. Exhibit 2 shows the 36 different industries that Palantir operated in across government and commercial sectors. Palantir had a variety of competitors spread across all 36 industries. Private companies in competition with Palantir were Centrifuge Systems Inc., Digital Reasoning Systems Inc., Quid Inc., and Recorded Future Inc.¹⁵ Some of the public companies competing with Palantir were Google, IBM, Amazon, Splunk Inc.,

Alteryx, Zscaler Inc., and Tyler Technologies. Google and Amazon offered standardized artificial intelligence solutions that kept clients locked into their networks. Splunk Inc., Alteryx, Zscaler Inc., and Tyler Technologies offered high-end customized solutions that did not require clients to be locked in to one particular network.¹⁶ Palantir competed with these companies, though none of them offered products with the exact same functionalities. Palantir primarily competed with its customers' desires to build their own solutions internally. See Exhibit 3 for a list of competing artificial intelligence software companies' revenues between 2017 and 2019. See Exhibit 4 for a depiction of the top ten companies in terms of market share.

Palantir's main direct rivals in the AI space included Tyler Technologies, Inc., which provided information management solutions and services, accounting systems, and billing systems geared toward the public sector. The company's data and insight solutions enabled collaboration, created data visualizations, and generated insights for human operators.

Zscaler Inc. was a software-as-a-service (SaaS) company offering security solutions. This company helped clients adapt to cloud computing technologies and provided cyber-security services. Those clients were spread across both commercial and government sectors, primarily in the United States.

Splunk Inc.'s products and business model closely resembled that of Palantir's. Splunk's products analyzed high volumes of real-time data to create a repository for indexing, searching, creating visualizations, and generating actionable insights. Its software platforms created insights and allowed customers to get the most out of their data. Splunk offered solutions for the government and public sectors.

Alteryx Inc. provided data science and analytics platforms for enterprises. Its product facilitated disparate data access, analytics, and data science via a code-free and code-friendly platform via cloud, on-premises, and hybrid computing.

To stay one step ahead of these rivals, Palantir provided software platforms for human-driven machine-assisted analysis of real-world data. Its platforms provided an infrastructure of data modeling, search and compute, and artificial intelligence and machine learning (AI/ML). This infrastructure allowed users to create interactive visualizations and user interfaces in a code-free environment. The company differentiated its platforms from its competitors in a number of ways. One way was by establishing cross-industry data pools with purpose-based access controls.¹⁷ This allowed its clients to both collaborate and secure sensitive data from misuse. Another way was that Palantir's platforms did not replace any pre-existing tools owned by the client. Its platforms bound together the client's enterprise IT landscape and augmented that technology and data to maximize its value. Palantir considered its platform capabilities, product functionality, data security and privacy, speed of adoption, use and deployment, product innovation, pricing and cost structure, customer experience, and brand awareness and reputation to be major competitive assets.

MARKET OPPORTUNITY

Palantir's software platforms addressed a wide variety of problems, including data management, integration and orchestration, application development, security, system and service management, analytics and artificial intelligence, supply chain management, enterprise resource management, and content and workflow management. The company estimated the total addressable market (TAM) for its software to be \$119 billion, which included \$56 billion from the commercial sector and \$63 billion from the government sector. This estimate included

commercial and government sectors around the world, including the United States, its allies, and other countries whose values aligned with liberal democracies. This estimate excluded potential customers or governments whose positions it considered inconsistent with its mission to support Western liberal democracy and its strategic allies. Karp stated in the S1 filing:

“Our leadership believes that working with the Chinese communist party is inconsistent with our culture and mission. We do not consider any sales opportunities with the Chinese communist party, do not host our platforms in China, and impose limitations on access to our platforms in China in order to protect our intellectual property, to promote respect for and defend privacy and civil liberties protections, and to promote data security.”¹⁸

Palantir had been criticized for its high customer concentration. Its business was heavily dependent on government contracts with its top 20 customers accounting for 67% of its 2019 revenue, and its top three customers made up 28%.¹⁹ But these customers were happy, which was made clear by Karp stating in an interview, “Well over 90% of our growth in the first half of the year came from existing clients. Our existing clients, the most important clients in the world, are really happy.”²⁰

A BRIEF HISTORY OF PALANTIR TECHNOLOGIES

Palantir was founded in 2003 by Peter Thiel, Joe Lonsdale, Stephen Cohen, Nathan Gettings, and Alex Karp. Peter Thiel, a venture capitalist and ideological libertarian, was a co-founder of PayPal and thought that the company’s fraud-recognition software could have applications in stopping terrorist attacks.²¹ Thiel personally invested \$40 million and bankrolled engineers Lonsdale, Cohen, and Gettings to carry out this idea and build a product. After an interview with

Lonsdale and Cohen, Alex Karp was selected to become Palantir's CEO. Alex Karp was a self-described progressive warrior with a law degree from Stanford University and a doctorate in social theory from Goethe University in Frankfurt. Karp had a decades-long friendship with Thiel that stemmed from their political and philosophical discussions in the hallways of Stanford Law School. Although Thiel and Karp were diametrically opposed politically, they were united in focusing Palantir's ambitions towards two things. The first was to make software that could help keep the country safe from terrorism. The second was to show that public safety and civil liberties could be balanced with a technical solution.

The C.I.A invested early in Palantir through its In-Q-Tel venture capital firm and became its first customer. The company then began to acquire contracts with different agencies, such as the NSA, Department of Defense, and FBI.²² In 2016, Palantir filed and won a lawsuit challenging the U.S. Army's decision to build its own software solution for its battlefield intelligence system, arguing that the Federal Acquisition Streamlining Act (FASA) of 1994 was not being enforced. In 2018, the U.S. Court of Appeals upheld that ruling, which required the Army to review commercially available applications before building its own. Exhibit 5 shows Palantir's growth in revenue from the U.S. Army before and after this ruling. Other government agencies were also bound to this ruling, which increased Palantir's Total Addressable Market (TAM) within the government sector.

In early 2020, Palantir was spotlighted for helping countries track and contain the spread of COVID-19. The company filed to go public through a direct listing in the fall of 2020. At the time of its IPO, Palantir's platforms were used by 125 customers across 36 industries in more

than 150 countries. Although Palantir's government work was limited to defense and intelligence operations in the United States and its allies abroad, the company's goal was to become the default modern operating system for the U.S. government. Palantir worked with a diverse range of companies across several industries in the commercial sector, including the energy, transportation, financial services, and healthcare sectors.²³

CONTROVERSIES

The very nature of Palantir's work was controversial. Palantir harnessed the power of Big Data to produce powerful insights by finding useful connections in disparate data systems that were owned and operated by different federal agencies. According to Drexel University's Thomas R. Kline School of Law professor Anil Kalhan, legislation following 9/11 authorized and encouraged federal agencies to share information and the scope and limits of that authority were not clearly spelled out. Analyzing information from disparate data systems raised questions and concerns about privacy and personal information. Palantir claimed that it did not store or sell client data and had incorporated robust privacy control. Its platforms enabled users to request cross-industry information from other Palantir clients to leverage more data. These requests had to be approved by the receiving agency or business. Palantir did not police the use of its products and left it up to customers to determine who gets to see what and how vigilant to be in implementing security controls. In 2018, a JP Morgan Chase employee used Palantir's software for nefarious purposes. The employee spied on fellow employees – even executives – by reading emails, browser histories, GPS locations from company-issued smartphones, printer activity, and transcripts of phone conversations.

Also controversial was one of Palantir's software platforms, Gotham. Gotham was sold to major metropolitan police departments, such as the New York Police Department (NYPD), the New Orleans Police Department (NOPD), and the Los Angeles Police Department (LAPD). Gotham enabled police departments to employ data-driven techniques, such as predictive policing, facial recognition, and voice recognition, on American streets. For example, users of the software could identify individuals who were likely to commit or fall victim to a crime in the future. Concerns were raised by activists and both the NYPD and NOPD stopped using Gotham, while the LAPD did not. Palantir's work with police departments was an example of how military grade technology used for warfare was being deployed on the streets of America.²⁴

Palantir's work with Immigration Customs Enforcement (ICE) began in 2014 under the Obama administration and was largely viewed as controversial. Palantir provided a customized software platform to ICE called Investigative Case Management (ICM). ICM had the capability to search information on a given person across a wide range of government databases, such as those maintained by the Drug Enforcement Agency, the Bureau of Alcohol, Tobacco, Firearms and Explosives, the Federal Bureau of Investigation, and other federal and private agencies. This enabled ICE to quickly access information on a subject's schooling, family relationships, employment information, phone records, immigration history, foreign exchange program status, personal connections, biometric traits, criminal records, and home and work addresses. Palantir's work with ICE continued through Obama's presidency and into Donald Trump's. During his time as president, Donald Trump's rhetoric on border control and mass deportations put ICE's use of Palantir's software in the spotlight.²⁵ The company was also criticized for co-founder and board member Peter Thiel's relationship to Trump. Thiel had previously donated to and been a

vocal supporter of Trump in his campaign for the presidency. In 2020, progressive activists and members of Congress expressed concern that Palantir's technology could be used to bolster the Trump administration's immigration crackdown. Palantir employees confronted the CEO over the company's partnership with ICE and civil rights groups protested outside the company's offices.²⁶ Karp did not change course and renewed the company's relationship with ICE with a \$42 million contract. In response to concerns that were raised, Karp said that he was deeply sympathetic to people who were concerned about the use of Palantir's software and understood that there were really important questions that needed to be answered about how the technology should be used, but that those questions need to be answered by our government, and not activists. In an interview with Bloomberg News in 2019, Karp said

"I believe that every single one of those questions has to be decided by society, in an open debate, and the enforcement of which has to be clear and transparent. I do not believe that these questions should be decided in Silicon Valley by a number of engineers at large platform companies... We at Palantir have a view that in societies with functioning democracies – meaning that there are checks and balances enforced by a judiciary – we have supplied the software and will continue to provide the software."²⁷

The decision to renew its contract with ICE was troubling to outside parties. Thousands of college students from universities around the US, where Palantir had sponsored recruitment programs, stated that they would never work for Palantir while the company was engaged with ICE. The world's largest women's computing conference, the Grace Hopper Celebration, dropped Palantir as a sponsor.

Palantir's work with the Department of Defense (DoD), known as Project Maven, was also seen as controversial. Project Maven was an effort by the DoD to integrate artificial intelligence and machine learning more effectively to update its national security and defense capabilities over increasingly capable adversaries and competitors.²⁸ Project Maven was considered as urgent and important as America's race to develop a nuclear weapon during World War II.²⁹ Google was initially contracted to work on the project, but the company eventually backed out due to a signed petition from 3,100 employees – roughly 5% of its 70,000 employees – asking its CEO to back-out of the project immediately.³⁰ Palantir's co-founder and board member Peter Thiel was highly critical of Google's decision to withdraw from working with the US Government while simultaneously starting an AI lab in China. At the time, China employed an aggressive national strategy known as "military-civil fusion" that eliminated the barriers between the commercial, military, and defense sectors and viewed AI as the key piece to military dominance in the next revolution of military affairs.³¹ Google later withdrew from the AI project with China. Thiel's public statements regarding this subject were a part of Palantir's strong stance in supporting US national defense and intelligence agencies. Karp himself was critical of other Silicon Valley companies' unwillingness to support the US government and expressed his position on the matter in an interview with CNBC's Wilfred Frost:

"I believe that the West – America in particular – needs the best software systems precisely so we don't have conflicts...I believe if one country has nuclear bombs and the other has a set of dull knives, the country with the nuclear bombs is going to define how the world works."

During an age where political activism was prominent in the US, Palantir was working to expand from the government sector into the commercial sector. Other leading companies in the software publishing industry, such as Amazon, Google, Microsoft, and Salesforce, also faced ethical and moral issues that were brought up when attempting to balance their employees concerns with supporting the US government and military. Microsoft, for example, allowed employees that did not want to work on projects that supported a strong US defense to move to other projects.³² Another tech giant, Google, backed out of a contract that was thought to be this generation's Manhattan Project with the Department of Defense. In contrast, Palantir took a firm stance by supporting the security interests of the US and its allies and publicly opposing the viewpoints of its Silicon Valley neighbors. Karp stated:

“Software projects with our nation’s defense and intelligence agencies, whose missions are to keep us safe, have become controversial, while companies built on advertising dollars are commonplace. For many consumer-internet companies, our thoughts and inclinations, behaviors and browsing habits, are the product for sale.”³³

PALANTIR’S BUSINESS MODEL

Palantir built software platforms and customers paid to use them. Its platforms were priced between \$10 million to \$100 million annually. Pricing for these software platforms was based on the anticipated value Palantir expected its software would produce for customers. Customer contracts were generally multi-year agreements and included terms that allowed the customer to terminate the contract for convenience. The company had an engineering-forward mindset when

it came to running the business. Karp stated this in an interview with Evelyn Rusli of TechCrunch in 2004:

“We don’t hire salespeople. We typically don’t hire non-technical people very often. We don’t have a marketing department, and we don’t plan to get any of them.”³⁴

Not having a sales or marketing team allowed Palantir to focus on creating long-term value for its customers instead of short-term value for investors. Palantir had made clear in its S-1 filings that it planned to increase the size of its direct sales force. In Q1 2021, the company hired roughly 50 new salespeople.

ACQUIRE, EXPAND, AND SCALE

To acquire and grow accounts, Palantir’s applied a business model with three phases: (1) Acquire, (2) Expand, and (3) Scale.³⁵

Palantir operated at a loss in the Acquire phase because it was focused on engaging in discussions with existing and potential customers and proving the value of its software in a short-term pilot deployment at little to no cost. Customers were considered to be in the Acquire phase if Palantir had recognized less than \$100,000 in revenue from the customer at the end of the calendar year.³⁶

Palantir contributed significant financial investment in the Expand phase to understand customer challenges and ensure that its software delivered value and results to the customer. Customers were acknowledged as being in the Expand phase if Palantir recognized more than \$100,000 in

revenue in a calendar year and that account had a negative contribution margin during that same year. Palantir operated at a loss in this phase.³⁷

The Scale phase occurred after software had been installed and configured across an entire enterprise and customers became more autonomous in the use of Palantir's platforms. During this phase, customers still benefited from operations and maintenance (O&M) support.

Customers were acknowledged as being in the Scale phase if Palantir recognized more than \$100,000 in revenue in a calendar year and that account had a positive contribution margin during that same year. Customers found the most value in this stage. In 2020, Palantir generated \$613.4 million in revenue with a contribution margin of 70%.

SOFTWARE PLATFORMS

Palantir Technologies provided human-driven machine-assisted analysis to create data-driven decisions. The company did not control, collect, store, or sell data. Instead, it was a platform that enabled customers to make data-driven decisions with their already existing data. Palantir built data fusion platforms for integrating, managing, and securing any kind of data at massive scale. These platforms enabled customers to collect, process, and analyze data to make data-driven decisions and predict outcomes. On top of these platforms, the company layered custom applications for interactive, human-driven, machine-assisted analysis.³⁸ See Exhibit 6 for a comparison of products offered by Palantir and its peers.

Palantir's first software platform, Gotham, was tailored to the needs of each client and was intended for defense and intelligence agencies. It enabled users to ask questions about their data and receive answers in a language they understood.³⁹ Foundry was Palantir's commercial

application that reimagined how people use data. The software platform was more generic than Gotham and intended for commercial clients. Foundry enabled users with varying technical ability and subject matter expertise to work meaningfully with data.⁴⁰ Apollo was the platform that powered Palantir's software-as-a-service (SaaS) platforms, Foundry and Gotham. The platform made it possible to bring a unified SaaS to its entire customer base. Palantir claimed that it did not sell features, tools, or one-off applications, but built software platforms that became part of the institutions it served.⁴¹

Palantir Unlock was a program ran by the company to emancipate customer's enterprise data from legacy systems. The program started in the wake of Palantir Foundry's success in aiding countries to achieve a successful response to the COVID-19 pandemic. Palantir reached out to the commercial sector and offered Foundry for free if that company was: (1) core to the economy, (2) employed large numbers of people, (3) crucial to the restart.

SUCSESSES AND FAILURES

Palantir experienced both successes and failures in its initial expansion into the commercial sector. One success story was a partnership with British Petroleum (BP), established in 2014 and renewed for another five years in 2021. BP utilized Palantir's Foundry to gain a competitive advantage by increasing oil production in the North Sea by 10% and planned to apply it to the company's low-carbon business. Aerospace manufacturer Airbus partnered with Palantir in 2016 as a part of its digital transformation. Airbus realized several hundred million dollars in cost savings as a result of the partnership. Palantir's software collected information from 130 airlines throughout the world and was used for everything from improving on-time performance to manufacturing and maintenance. Airbus' CEO Tom Enders called the decision to work with

Palantir one of the greatest decisions of his career. Success stories were not guaranteed.

Corporations such as Home Depot, Hershey, Coca-Cola, and American Express dropped Palantir after trial use of the platform, claiming that Palantir's software was too expensive or could more cost-effectively be developed in-house.⁴²

FUTURE DIRECTIONS

The effectiveness of Palantir's software during the COVID-19 pandemic had thrust the company into the spotlight. The sudden focus of attention evoked the company's mysterious past and ethical questions about the use of its technology. Karp needed to make several decisions before expanding his company's reach in the commercial sector.

Karp believed that the U.S. needed the best software systems in the world precisely to eliminate conflict. He continued his support of the West with the intention of Palantir becoming the modern default operating system for data across the U.S. government.

The company was focused on building relationships with innovative companies in large markets that could make use of its data tools.⁴³ In this regard, another decision to be made was whether or not to invest in innovative companies such as special purpose acquisition companies (SPAC), that is, companies that raised money to buy a private entity through a reverse merger and then went public with the help of financing from additional investors.⁴⁴ A private investment in public equity (PIPE) could guarantee Palantir ownership of stock in the acquired company once the transaction closed and shares started trading.

Karp also needed to consider whether or not to continue to grow Palantir's sales and marketing team. Several openings existed in its sales department in the U.S., U.K., France, and Japan. A strategic sales partnership with International Business Machines (IBM) was also under

consideration, which could expand the reach of its sales force. If successful, this partnership could potentially triple Palantir's sales force to about 100 people.⁴⁵

Still, as of Q1 2021, Palantir remained unprofitable, even though its revenue growth had increased over three consecutive years. The company had generated \$5.8 million per customer during the first nine months of 2020. As its software was so expensive, Karp needed to consider if the most prudent course of action was to continue to work solely with governments and large corporations, or to diversify its product line to make it more affordable for smaller companies to purchase. Karp was mindful of the social attitudes towards privacy, security, and data protection. Social activism could adversely affect Palantir's future business.

Exhibit 1 - Software Industry Performance Data Outlook

Year	Revenue (\$ million)	IVA (\$ million)	Establishments (Units)	Enterprises (Units)	Employment (Units)	Wages (\$ million)	Number of mobile internet connections (Million)
2018	318,112	226,580	14,188	10,374	672,286	116,535	324
2019	341,277	250,148	16,971	12,686	752,840	130,786	331
2020	384,187	281,426	20,099	15,433	838,240	148,500	337
2021	396,706	290,793	21,895	16,903	886,715	156,338	341
2022	410,760	302,205	23,986	18,618	941,221	165,134	344
2023	428,433	316,252	26,453	20,639	1,004,730	175,469	346
2024	437,504	324,250	29,027	22,785	1,055,506	183,306	347
2025	446,900	332,523	31,332	24,707	1,101,390	190,468	348
2026	456,394	340,632	33,867	26,835	1,149,429	197,923	349
2027	466,405	348,958	36,282	28,863	1,195,330	205,115	349

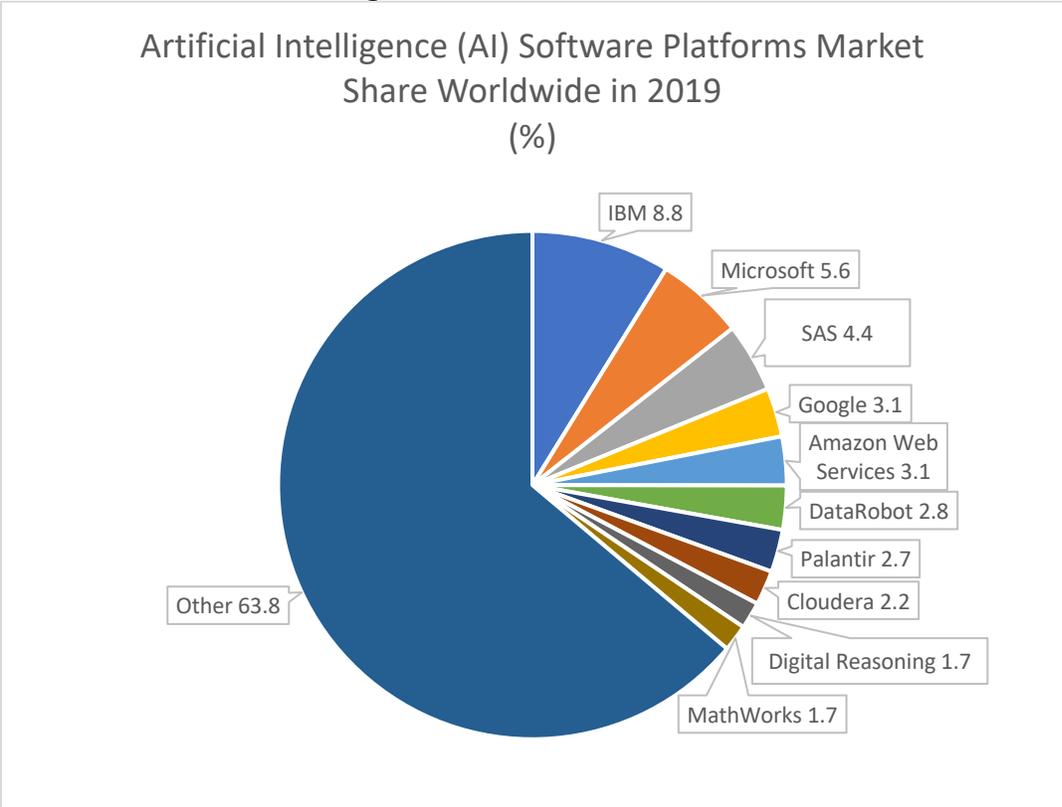
Recreated from source: Schubmehl, D. (2020). *Worldwide Artificial Intelligence Software Platforms*. IDC.

Exhibit 3 - Worldwide Artificial Intelligence Software Platforms Revenue by Vendor, 2017-2019 (\$M)

	2017	2018	2019	2019 Share (%)	2018 - 2019 Growth (%)
IBM	191.2	242	303.8	8.8	25.5
Microsoft	37.6	89	192.7	5.6	116.5
SAS	43.5	89	150.5	4.4	69.1
Google	34.2	61.2	107.2	3.1	75.0
Amazon Web Services	27.4	56.4	106.3	3.1	88.3
DataRobot	58.4	80	98.5	2.8	23.1
Palantir	71.2	74.5	93.4	2.7	25.3
Cloudera	32.9	45.9	77.4	2.2	68.6
Digital Reasoning	38.1	49.8	59.2	1.7	18.9
MathWorks	42.2	46.9	57.2	1.7	22.0
IPsoft	26.8	41.1	53.6	1.6	30.7
C3.ai	18.9	27.8	42.8	1.2	54.0
iFLYTEK	13.0	26.1	37.8	1.1	45.1
Banjo	23.6	28.9	33.9	1.0	17.2
CognitiveScale	17.0	24.5	32	0.9	30.6
Veritone	9.1	15.7	31.8	0.9	102.4
Nuance Communications	13.2	13.5	27.7	0.8	104.7
Tencent	2.2	6.6	27	0.8	308.1
Ayasdi	14.5	20.2	27	0.8	33.6
SenseTime	4.4	9.2	25.8	0.7	180.9
Baidu	0.4	3.7	25.8	0.7	589.1
AppZen	15.7	19.3	25.8	0.7	33.8
Amdocs	8.8	20	25.6	0.7	28.0
SAP	4.1	14.8	23.9	0.7	61.3
Verint Systems	16.5	19.3	21.4	0.6	10.9
Megvii	5.9	12.8	21.2	0.6	64.8
Xiaoi	1.6	3.2	18.8	0.5	482.8
YITU	0.8	1.7	15.1	0.4	765.6
Aspen Technology	10.6	12.6	14.2	0.4	13.2
Alibaba Group	1.7	5	13.5	0.4	171.0
CloudWalk	0.7	1.7	12.9	0.4	637.0
Clarifai	8.2	10.6	12.7	0.4	20.2
Other	1,332.9	1491.5	1641.2	47.5	10.0
Total	2,127.2	2664.8	3457.9	100.0	29.8

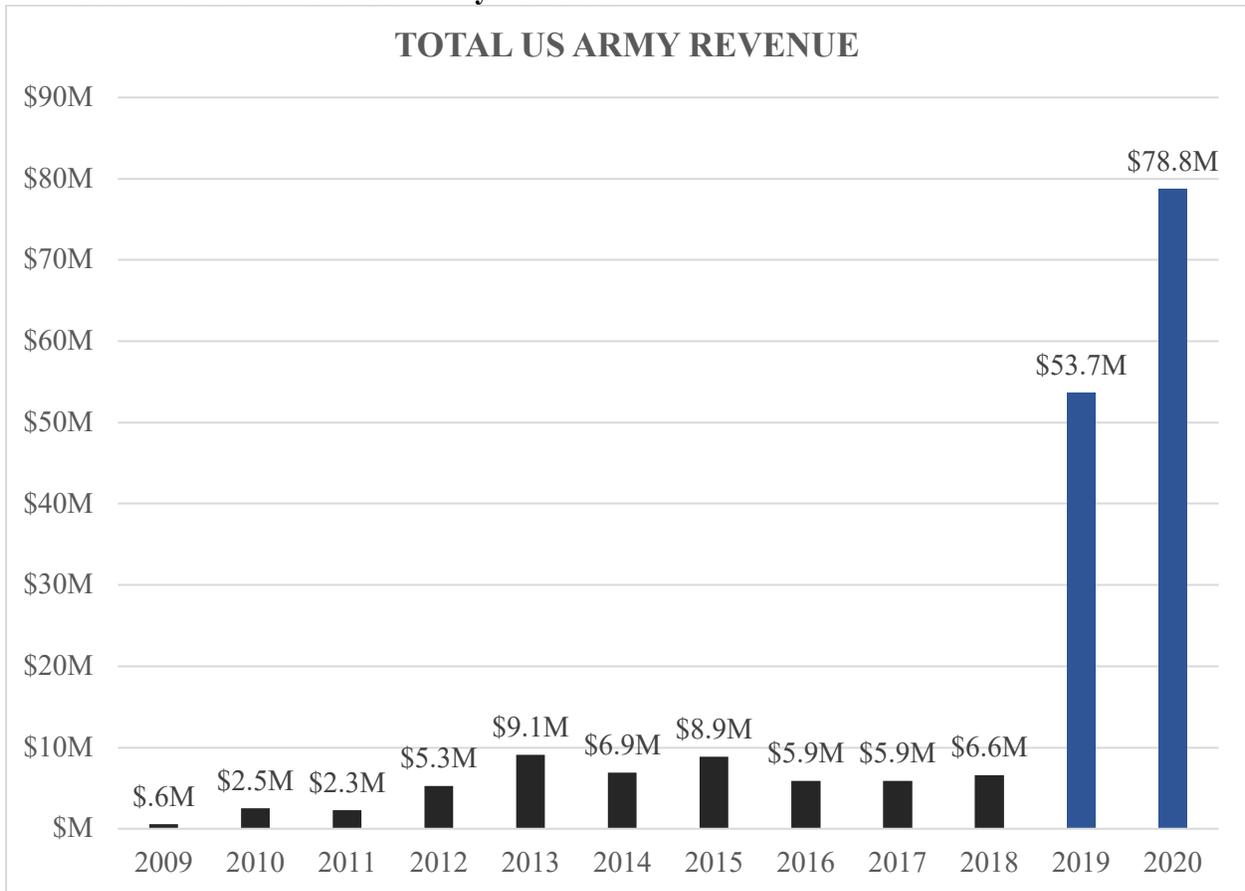
Recreated from source: Schubmehl, D. (2020). *Worldwide Artificial Intelligence Software Platforms*. IDC.

Exhibit 4 - Artificial Intelligence Software Platforms Market Share in 2019



Recreated from source: Schubmehl, D. (2020). *Worldwide Artificial Intelligence Software Platforms*. IDC.

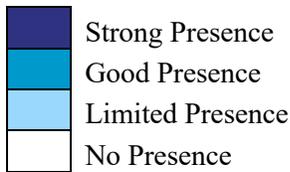
Exhibit 5 – Palantir Total US Army Revenue



Recreated from source: Palantir Technologies Inc., "2020 S1 Filing," 2020. [Online]. Available: <https://www.sec.gov/Archives/edgar/data/1321655/000119312520230013/d904406ds1.htm>.

Exhibit 6 – Company Product Comparison – Business Intelligence (BI) and Analytics

Vendor	BI				Analytics											
	BI Tools	Performance Management	Embedded BI	BI Platform	Analytics Platform	Interactive Data Visualization	Predictive Analytics	IT/Log-Analytics	Real-time Analytics	Machine Learning	AI Cognitive Computing	Text Analytics	Statistical Computing	Geo Intelligence	Voice Analytics	Image Analytics
Palantir					Strong Presence	Strong Presence	Strong Presence							Strong Presence		
IBM	Strong Presence	Limited Presence	Limited Presence	Strong Presence	Strong Presence	Limited Presence	Strong Presence	Limited Presence	Strong Presence	Strong Presence	Strong Presence	Strong Presence	Strong Presence	Limited Presence		
Oracle	Strong Presence	Good Presence	Limited Presence	Strong Presence	Strong Presence	Limited Presence	Strong Presence		Strong Presence			Limited Presence	Good Presence	Limited Presence		
SAP	Strong Presence	Strong Presence	Limited Presence	Strong Presence	Strong Presence	Limited Presence			Strong Presence			Limited Presence	Limited Presence			
Microsoft	Strong Presence		Good Presence	Strong Presence	Strong Presence	Limited Presence			Good Presence	Good Presence	Limited Presence	Limited Presence	Limited Presence	Limited Presence		
Tibco	Good Presence		Good Presence			Good Presence	Limited Presence	Good Presence	Good Presence				Good Presence	Limited Presence		
SAS	Good Presence	Limited Presence		Strong Presence	Strong Presence	Strong Presence	Good Presence	Limited Presence	Limited Presence	Strong Presence	Good Presence	Good Presence	Strong Presence			
Salesforce	Good Presence					Good Presence	Limited Presence		Limited Presence	Limited Presence						
Google					Strong Presence	Good Presence	Limited Presence		Strong Presence	Good Presence	Good Presence			Good Presence		Strong Presence
MicroStrategy	Strong Presence		Limited Presence	Strong Presence	Good Presence	Good Presence	Limited Presence						Good Presence	Strong Presence		
Amazon	Good Presence			Good Presence	Limited Presence	Limited Presence	Limited Presence			Limited Presence						
Software	Limited Presence	Limited Presence							Strong Presence							
Qlik	Strong Presence		Limited Presence			Good Presence	Limited Presence							Limited Presence		
Tableau	Good Presence					Strong Presence								Good Presence		
FICO						Limited Presence	Strong Presence		Limited Presence	Limited Presence						



Recreated from source: Kulkarni, R. (2017). *Palantir: Redefining Analytics, Augmenting Intelligence, & Unlocking Secrets*. SharesPost, Inc.

Palantir Technologies

Quarterly Income Statement

(All numbers are in thousands)

As Reported Quarterly Income Statement					
Report Date	03/31/2021	09/30/2020	06/30/2020	03/31/2020	09/30/2019
	1st Quarter	3rd Quarter	2nd Quarter	1st Quarter	3rd Quarter
Currency	USD	USD	USD	USD	USD
Audit Status	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited
Consolidated	Yes	Yes	Yes	Yes	Yes
Revenue	341,234	289,366	-	229,327	190,541
Cost of revenue	74,111	149,340	-	64,294	65,073
Gross profit (loss)	267,123	140,026	-	165,033	125,468
Sales & marketing expenses	136,097	334,911	-	98,653	119,666
Research & development expenses	98,471	313,915	-	65,800	75,880
General & administrative expenses	146,569	338,977	-	70,765	74,062
Total operating expenses	381,137	987,803	-	235,218	269,608
Income (loss) from operations	(114,014)	(847,777)	-	(70,185)	(144,140)
Interest income	376	494	-	3,267	3,390
Interest expense	1,840	2,085	-	4,594	173
Change in fair value of warrants	-	(9,201)	-	13,695	784
Other income (expense), net	(4,894)	(3,293)	-	6,100	2,305
Income (loss) before provision for income taxes	(120,372)	(861,862)	-	(51,717)	(137,834)
Provision (benefit) for income taxes	3,102	(8,543)	-	2,557	2,026
Net income (loss)	(123,474)	(853,319)	-	(54,274)	(139,860)
Net income (loss) attributable to common stockholders	-	(853,319)	-	-	(139,860)
Less: change in fair value attributable to participating securities	-	-	-	7,773	-
Net income (loss) attributable to common stockholders	(123,474)	(853,319)	-	(62,047)	(139,860)
Weighted average shares outstanding - basic	1,821,158	905,462	-	591,850	580,105
Weighted average shares outstanding - diluted	1,821,158	905,462	-	594,363	580,105
Year end shares outstanding	1,860,607	1,726,686	736,635	-	573,435
Net earnings (loss) per share - basic	(0)	(1)	-	(0)	(0)
Net earnings (loss) per share - diluted	(0)	(1)	-	(0)	(0)

Palantir Technologies
Quarterly Balance Sheet
(All numbers are in thousands)

Report Date	03/31/2021	09/30/2020	06/30/2020
	1st Quarter	3rd Quarter	2nd Quarter
Cash & cash equivalents	2,339,437	1,800,190	1,497,591
Restricted cash	37,106	43,800	37,069
Accounts receivable	151,400	162,269	106,131
Prepaid expenses & other current assets	61,755	388,165	39,414
Total current assets	2,589,698	2,394,424	1,680,205
Leasehold improvements	85,303	88,198	94,961
Computer equipment, software, & other	22,978	18,722	33,705
Furniture & fixtures	9,957	9,596	10,955
Construction in progress	710	5,817	4,216
Property & equipment, gross	118,948	122,333	143,837
Less: accumulated depreciation & amortization	91,570	92,964	114,450
Property & equipment, net	27,378	29,369	29,387
Restricted cash, noncurrent	71,933	86,343	102,355
Equity method investments	-	-	25,287
Operating lease right-of-use assets	213,331	-	-
Other assets	111,845	93,576	55,126
Total assets	3,014,185	2,603,712	1,892,360
Accounts payable	17,234	22,221	16,078
Accrued payroll & related expenses	113,513	342,191	14,014
Accrued other liabilities	68,090	124,808	78,297
Accrued liabilities	181,603	466,999	92,311
Deferred revenue	186,498	172,066	215,438
Customer deposits	250,181	280,901	280,289
Operating lease liabilities	32,110	-	-
Total current liabilities	667,626	942,187	604,116
Deferred revenue, noncurrent	44,998	67,064	74,276
Customer deposits, noncurrent	70,768	102,231	118,584
Deferred rent, noncurrent	-	197,753	34,255
Principal amount debt	200,000	-	300,000
Unamortized discount	(1,815)	-	(2,424)
Debt, noncurrent, net	198,185	-	297,576
Warrants liability	-	-	32,616
Operating lease liabilities, noncurrent	222,429	-	-
Other noncurrent liabilities	4,236	42,724	1,560
Total liabilities	1,208,242	1,351,959	1,162,983
Redeemable convertible preferred stock	-	-	33,569
Convertible preferred stock	-	-	2,094,509
Common stock	1,860	1,727	737
Additional paid-in capital	6,892,046	6,065,869	2,563,354
Accumulated other comprehensive income (loss)	865	1,168	900
Retained earnings (accumulated deficit)	(5,088,828)	(4,817,011)	(3,963,692)
Total stockholders' equity (deficit)	1,805,943	1,251,753	(1,398,701)

Endnotes

1

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