CANTOR Fitzgerald ®

Security & Infrastructure Software

Datadog Inc. (DDOG)

Key Statistics:

Symbol	NSQ: DDOG
52-Week Range	$61.34 - $184.70
Market Cap ($M)	23,401.0
ADV (3 mo)	4,571,751
Enterprise Value ($M)	24,982
Shares Out (M)	292.1

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REV ($M)

FYE Dec	2021A	2022E	2023E
1Q	$198.5	$363.0A	$482.8
2Q	$233.5	$406.1A	$532.0
3Q	$270.5	$436.5A	$571.9
4Q	$326.2	$447.0E	$613.3
Year	$1,028.8	$1,652.7E	$2,200.0
EV/REV	24.3x	15.1x	11.4x

EPS

FYE Dec	2021A	2022E	2023E
1Q	$0.06	$0.24A	$0.21
2Q	$0.09	$0.24A	$0.24
3Q	$0.13	$0.23A	$0.26
4Q	$0.20	$0.18E	$0.29
Year	$0.48	$0.90E	$1.00
P/E	NM	81.9x	73.7x

Initiating Coverage

Top Dog in Core Observability Seeking Expansion to Cloud Security & Developers' "Shift Left" Experience

Investment Summary. We are initiating coverage at Overweight and price target of $95 on Datadog (DDOG), a leader in end-to-end cloud observability that seeks to bring the same success into the adjacent security market. We believe Datadog's cloud native observability platform is best positioned to tackle monitoring functions across infrastructure, application performance, digital experience and log management; the recent addition of security and developer experience rounds out the platform, in our view. We've seen consolidation at play in cybersecurity as a recurring theme, especially across platform players such as Palo Alto Networks (PANW, OW), Fortinet (FTNT, OW), and CrowdStrike (CRWD, OW) (links to our initiation reports here: PANW, FTNT, CRWD); the same theme holds true in observability. Convergence of monitoring and security tools is a pattern we are witnessing across the industry — the "ante" to compete effectively.

Riding the Secular Tailwinds in Digital Transformation and Cloud Migration Wave. The best way to describe Datadog, in our view, is that the company is at the right place at the right time with the right product set to capitalize on the modern digitally driven economy. We believe the stars are fairly aligned for Datadog to take full advantage of key themes consisting of the ongoing cloud migration, acceleration of digital transformation even in a post-pandemic world and leveraging the powers of artificial intelligence (AI)/machine learning (ML) automation in IT operations. Datadog's advantage, in our view, is that the firm began during the nascent era of cloud adoption in 2010 and therefore the entire platform was built with full consideration of what's ahead — the rise of cloud era.

Doubling Down on Observability, The Focused Approach. CTO Alexis Le-Quoc reminded us at Dash 2022 (the company's conference held in October) that the goal for Datadog is to be the single platform for all of client's observability and security needs. Datadog started as a platform for developers plus operation teams (DevOps) but has recently expanded to include security products (Sec), hence upholding the spirit of DevSecOps. We appreciate Datadog's simplistic strategy by investing deeper into the observability stack to deliver added customer value as a prudent pathway in navigating challenging market conditions.

Top-Tier Fundamentals Balancing Growth, Profitability and Product Reach. Datadog's fundamentals earns top-tier status in the SaaS category, in our view, balancing top-line growth of ~61%, and operating margin profile at ~18%, and adjusted FCF margin at ~21%, all of which translates into a Rule of 70+ name. We envision the company can comfortably expand at a CAGR of mid-30% to low-40% in the near to medium term, clearing the $3 billion revenue mark in a little more than 2 years' time. We believe attaining these objectives is predicated on the success of the newer product sets launched since 2020.

Consolidation Strategy Supports Healthy TAM >$60B. Datadog presented a healthy TAM forecast of 10.3% CAGR to $62 billion from 2021 to 2026E focusing only on the core observability. We believe if we add on the incremental cloud security opportunity, the potential TAM may be well into the $70B mark by 2026E. We believe that if cloud migration stays healthy and digital transformation doesn't slow down substantially, then achieving Datadog's forecasted $62B target by 2026E is reasonable.

Valuation. We derive our $95 price target using a 2023 EV/Sales multiple of 14.4x. This compares to its peer group average trading at 9.1x. We believe this premium multiple is justified, as Datadog is poised to gain market share in core observability against legacy or point solution providers while gaining momentum and scale in new products categories launched since 2020 in Cloud Security and developer experience.

The Disclosure Section may be found on pages 60 - 62.

Investment Summary

Comprehensive Cloud First Observability Platform Built to Serve the Modern Economy. We believe Datadog's cloud native observability platform is best positioned to tackle monitoring functions across infrastructure, application performance, digital experience and log management; the recent addition of security and developer experience rounds out the platform, in our view. We've seen the consolidation of cybersecurity point solutions as a recurring theme, especially across platform players such as Palo Alto Networks (PANW, Overweight), Fortinet (FTNT, OW), and CrowdStrike (CRWD, OW) [link to our recent initiation reports here: PANW, FTNT, CRWD]; the same theme holds true within the software observability, or monitoring, space. Datadog started as a solid infrastructure monitoring provider a decade ago, then added application performance monitoring (APM) in 2017 and log management the year after that. This convergence of monitoring tools is a pattern we are witnessing across the industry — the "ante" to compete effectively in the observability space, in our view.

We had the chance to chat directly with customers at Datadog's Dash Conference NYC held in October, and the clear consensus of the customers we polled demands consolidation of point product solutions. Customers want a holistic platform approach, especially across the three core pillars of observability in infrastructure monitoring, APM and log management that can aggregate signals or data points gathered from any one source into actionable intelligence or alerts. We find this approach much more powerful than a point product solution that captures single data points but doesn't have the ability to correlate the issues found in other areas. Datadog has what we believe is a leading, "out-of-the-box" cloud observability platform that has proven to serve the voluminous data demands of the modern economy requiring the need to scale up or down instantaneously, especially in eCommerce.

Exhibit 1: Datadog Offers a Comprehensive, Cloud Native, Consolidated Observability & Security Platform
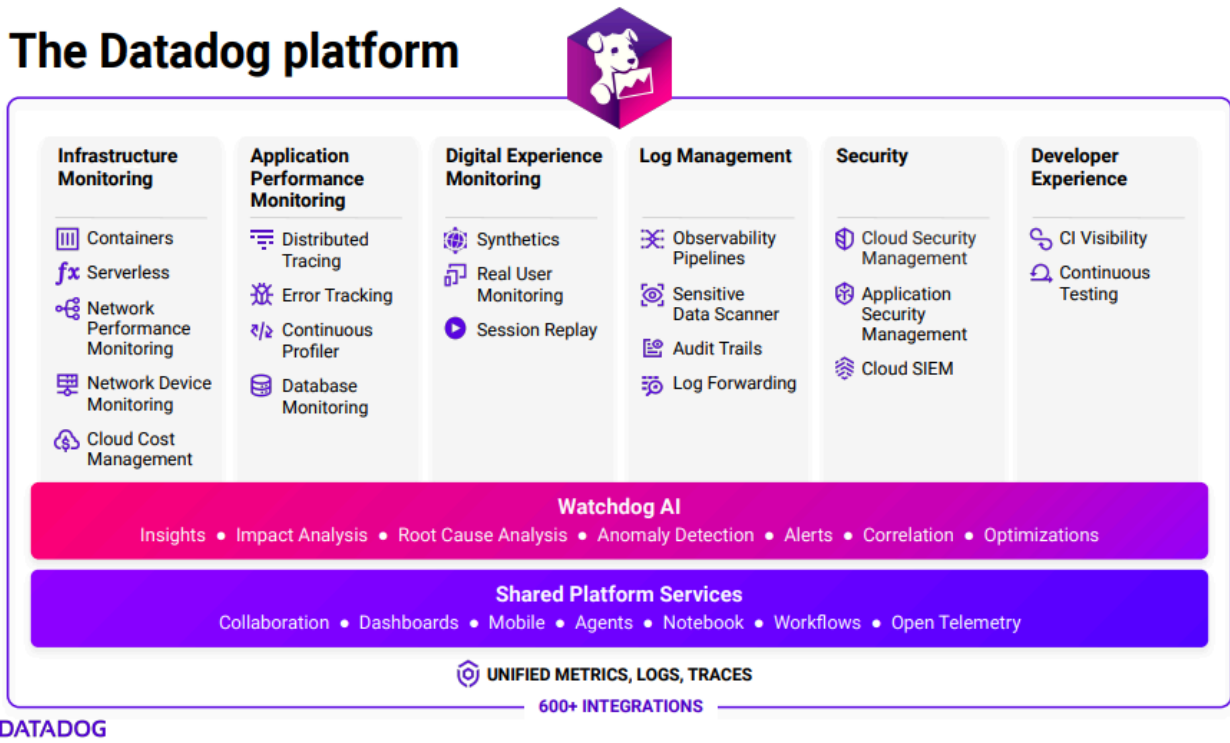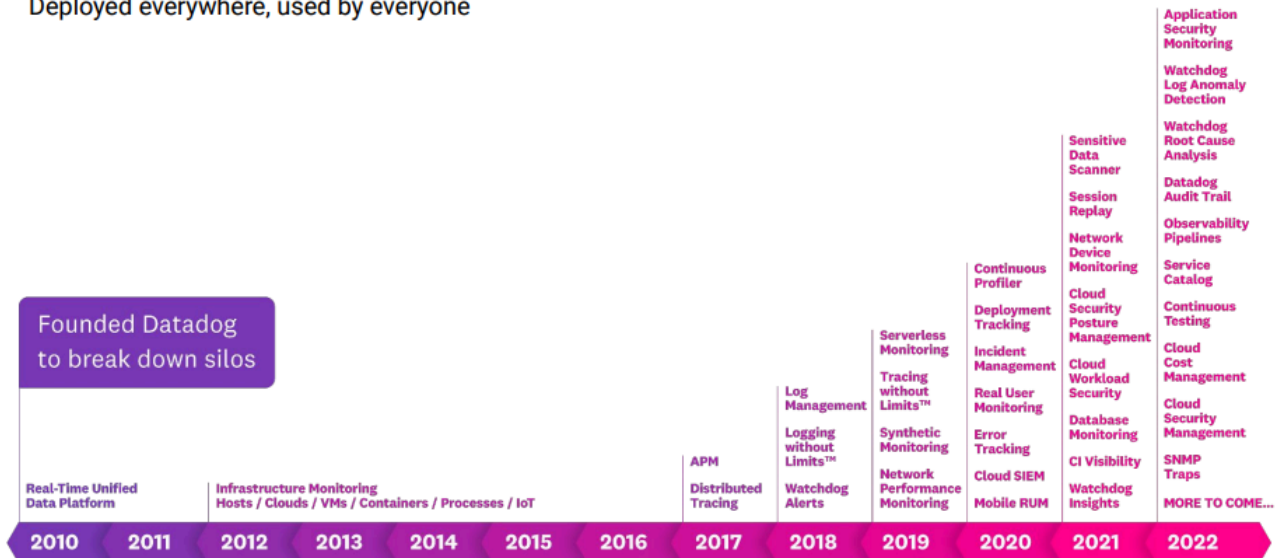

Source: Company reports

We are monitoring for signs of customers' preference for a convergence/consolidation platform in both observability and cybersecurity versus the alternative approach of patching disparate point product solutions together. The volatile market conditions affected by record-high inflationary pressure (since 1982), tightening interest rate cycle, the energy crisis, and the conflict in Ukraine leading to signs of recession have caused various industries to marginalize IT spending budgets. The current theme surfacing through the sector is greater scrutiny for larger transactions, driving an elongated sales cycle and sometimes pullback in contractual size. We view Datadog's consolidated platform in cloud observability as a competitive alternative for customers seeking to save on IT expenditures. For cost-conscious customers, they can explore eliminating certain point product observability solutions and opt instead to turning on additional features made available by Datadog's extensive monitoring portfolio to realize potential product-bundling discounts.

Consolidation of point product solutions drives cost savings, which most investors realize; however, we wish to highlight a second factor in product innovation in which Datadog excels. Since 2017, Datadog has substantially accelerated the pace of product innovation and is a leader in bringing new products to market annually. There were 2, 3, 4, 7, 8 and 10 generally available product launches from 2017 to 2022 YTD, respectively. (See the history of innovation exhibit that follows.) Datadog's culture of product-led growth infuses the platform with a broad menu of service offerings minimizing the need for customers to visit other vendors in order to fill in any missing gaps. We believe the product solutions theme will continue to play out in the immediate to at least medium term (2-3 years forward) as we face uncertain, challenging market conditions, and we think Datadog, whose platform is a consolidator of observability tools, is well positioned to take advantage of this setup.

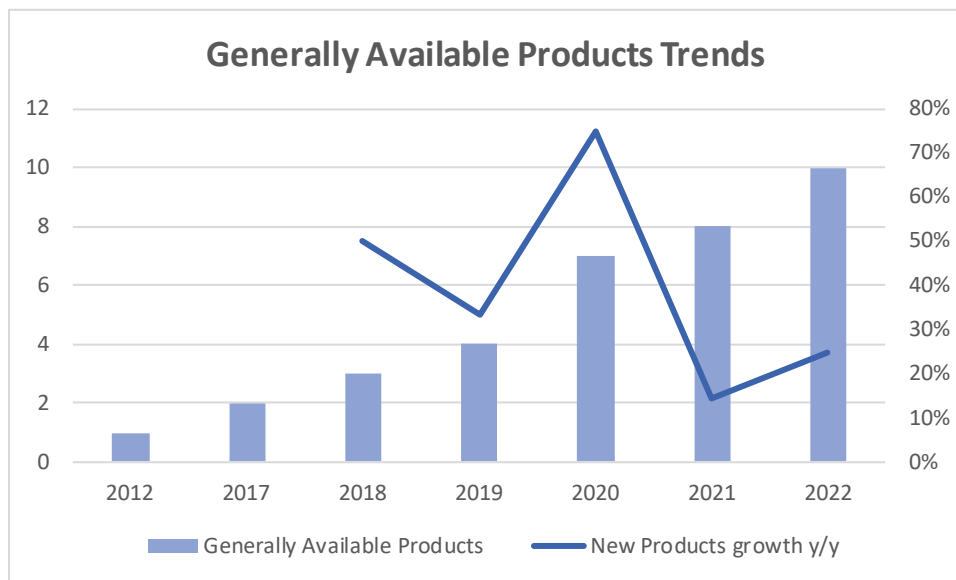**Exhibit 2: Culture of Product Innovation & Development**

Source: Company reports

Exhibit 3: Rapid Pace of Product Releases Fuels Innovation and Expands Market Reach


Source: Company reports and Cantor Fitzgerald

Riding the Secular Tailwinds in Digital Transformation and Cloud Migration Wave. The best way to describe Datadog, in our view, is that the company is in the right place at the right time with the right product set to capitalize on the modern digitally driven economy. We believe the stars are fairly aligned for Datadog to take full advantage of key themes consisting of the ongoing cloud migration, acceleration of digital transformation even in a post-pandemic world and leveraging the powers of artificial intelligence (AI)/machine learning (ML) automation in IT operations. Datadog's advantage, in our view, is that the firm began during the nascent era of cloud adoption in 2010, and therefore the entire platform was built with full consideration of what's ahead — the rise of cloud era.

There is one thing certain in the financial markets — unpredictability — and the same can be said for technological advancement. That said, we know for certain that complexity continues to evolve. Thinking back to two decades ago, our work laptops probably weighed more than five pounds and likely had less computing power than the most sophisticated smart phone of today. Similarly, the traditional infrastructure hardware setup two-plus decades ago were large mainframe computers running the data center; however, in today's infrastructure environment this function can be outsourced to the major cloud service providers that can deliver the solution at a lower cost with the added convenience to scale up or down as the business specifications change. The explosion of technological advancement drives complexity that requires on-premise to cloud/software as a service (SaaS) adoption and frequent release of software updates to meet the demanding needs of modern enterprises.

Per Datadog's public cloud spend analysis, the company estimates 2022E cloud spend to be almost $500 billion — an approximate 10% of estimated total global IT spending. By 2026E, Datadog estimates cloud spend to double from 2022E to $1 trillion — an approximate 20% of estimated total global IT spending. Based on Datadog's cloud spend assumption, we calculate CAGR from 2022E to 2026E to be approximately 18.9% for cloud spend. Cross referencing Datadog's cloud spend data, we reviewed Gartner's Worldwide infrastructure as a service (IaaS) Public Cloud Services Market data by aggregated revenue, where they say the cloud market grew 41.1% y/y to $90.9 billion in 2021. Gartner indicates that the global top five cloud service providers (see Exhibit 5 below) make up over 80% of the market share, and we believe this oligopoly-like structure will continue in the medium term. However, we believe Amazon Web Services/AWS (AMZN, NC) will probably lose market share to fierce competition coming from Microsoft Azure (MSFT, NC) and Google Cloud Platform/GCP (GOOGL, NC), yet the total market share of these top three U.S.-based cloud titans should hold at roughly the 75-80% level.

Exhibit 4: Datadog Estimated Cloud Spend Doubling to $1T by 2026E
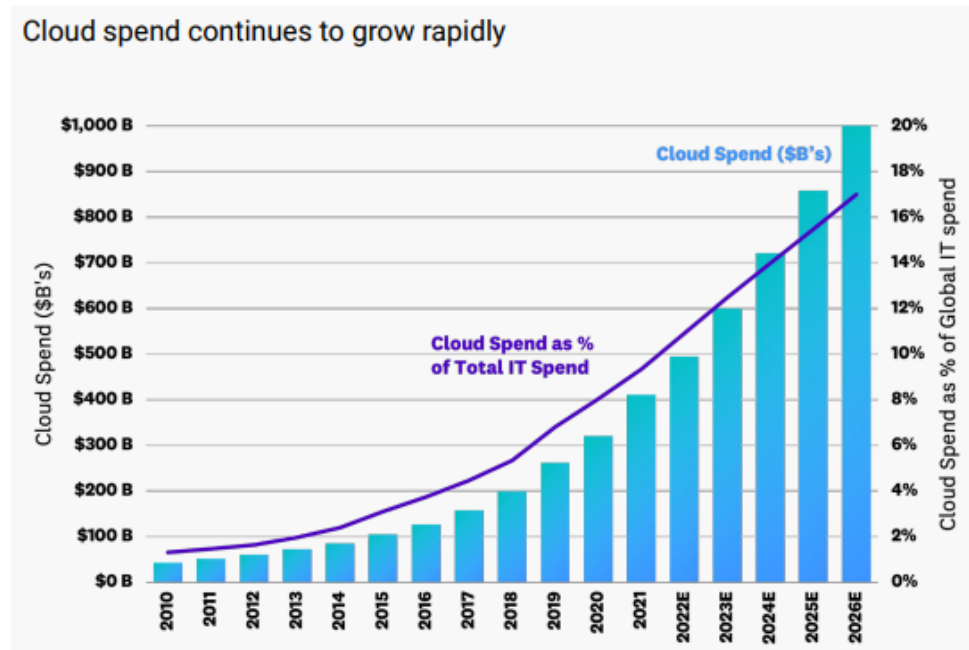
Source: Company reports

Exhibit 5: Gartner Worldwide Public Cloud Services Market Share 2021

Company	2021 Revenue	2021 Market Share (%)	2020 Revenue	2020 Market Share (%)	2020-2021 Growth (%)
Amazon	35,380	38.9	26,201	40.8	35.0
Microsoft	19,153	21.1	12,659	19.7	51.3
Alibaba	8,679	9.5	6,117	9.5	41.9
Google	6,436	7.1	3,932	6.1	63.7
Huawei	4,190	4.6	2,681	4.2	56.3
Others	17,056	18.8	12,697	19.8	34.3
Total	**90,894**	**100.0**	**64,286**	**100.0**	**41.4**

Source: Gartner's Worldwide Infrastructure as a Services (IaaS) Public Cloud Service Market Share, published 6/2/22

The takeaways from both exhibits 4 and 5 is that the public cloud market represents significant spend and that growth momentum is still accelerating at a healthy pace, although we saw signs of cloud spend moderation in the 3Q22 earnings reports. AWS, Azure and Google Cloud are still averaging a healthy growth rate of 36%, in our view, although we saw deceleration from AWS and Azure throughout 2022. As long as the cloud titans are holding growth above the 30% level y/y, then we think global IT spend will support the secular cloud migration theme calling for the need in cloud observability solutions like those offered by Datadog.

Exhibit 6: Cloud Titans' Growth Trends YTD 2022

y/y growth rate	1Q22	2Q22	3Q22
Amazon Web Services	37%	33%	27%
Google Cloud Platform	44%	36%	38%
Microsoft Azure	49%	46%	42%
Average Growth y/y	**43%**	**38%**	**36%**

Source: Company reports and Cantor Fitzgerald

Digital transformation is the second pillar fueling the secular growth for Datadog, in our view. Digital transformation is the process of leveraging modern technologies to create new or change existing business processes, customer experiences, and/or culture to meet the fluid demands of customers. Digital transformation uses a combination of AI/ML, automation, multi-cloud and other ad hoc digital tools to optimize data knowledge learned to drive efficient workflows, better decision making and flexible response to market changes. Although we believe digital transformation is a net positive to drive business efficiencies/output, there is an unintended consequence of added complexity through increased use of technologies, as we've alluded to earlier in this discussion. We believe that the journey to achieve digital transformation will power the momentum to adopt cloud observability tools such as those offered by Datadog.

Digital transformation is in its infancy stage, and we believe it is still in its early innings, providing ample room for organizations to adopt the optimal mosaic of technologies specific to their business requirements. Per McKinsey's survey titled, "The new digital edge: Rethinking strategy for the post pandemic era" published on 5/26/2021, a mere 11% of the total 1,140 respondent acknowledge their business would remain economically viable without any changes to the business model. A staggering 85% of respondents believes their company needs to embed or build new digital technologies in their business. Data from McKinsey suggest businesses across all industries require change, and those able to take advantage of this shift can reap the benefits of separating themselves from competitors. The McKinsey survey also pointed to data that indicates funding of digital/tech initiatives has increased during the pandemic despite spending pullback in other areas of the business.

Exhibit 7: McKinsey Advises That Companies Need to Build New Digital Businesses to Stay Economically Viable in 2023
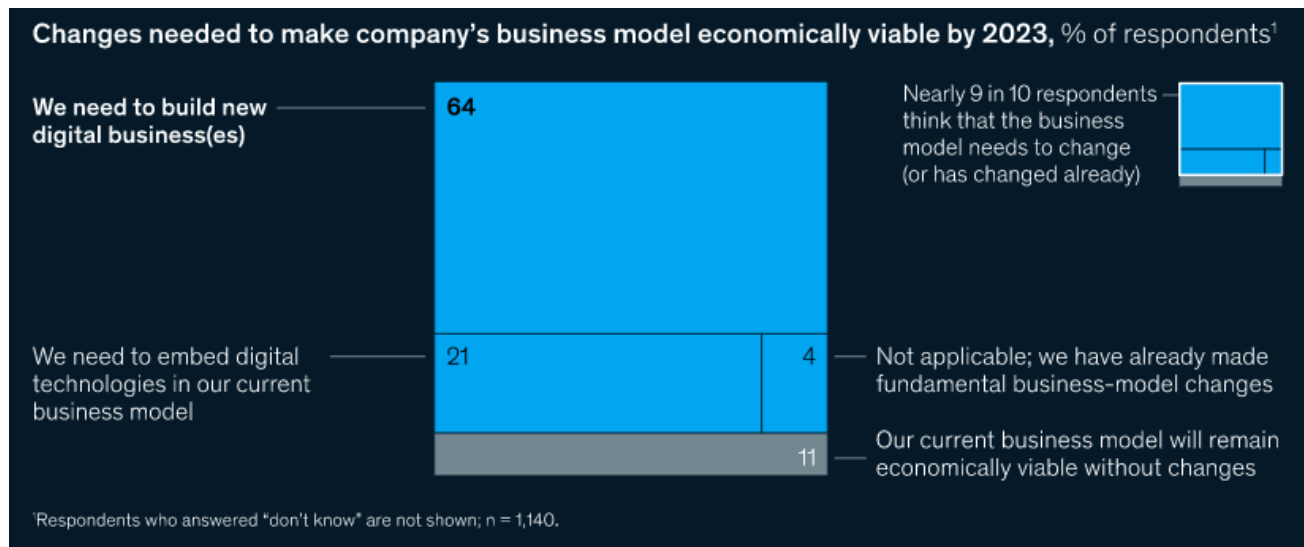
Source: McKinsey & Company, "The new digital edge: Rethinking strategy for the post pandemic era" published on 5/26/2021

Exhibit 8: Digital & Technology Spend Increased During the Pandemic, While Other Types of Spend Experienced Cuts
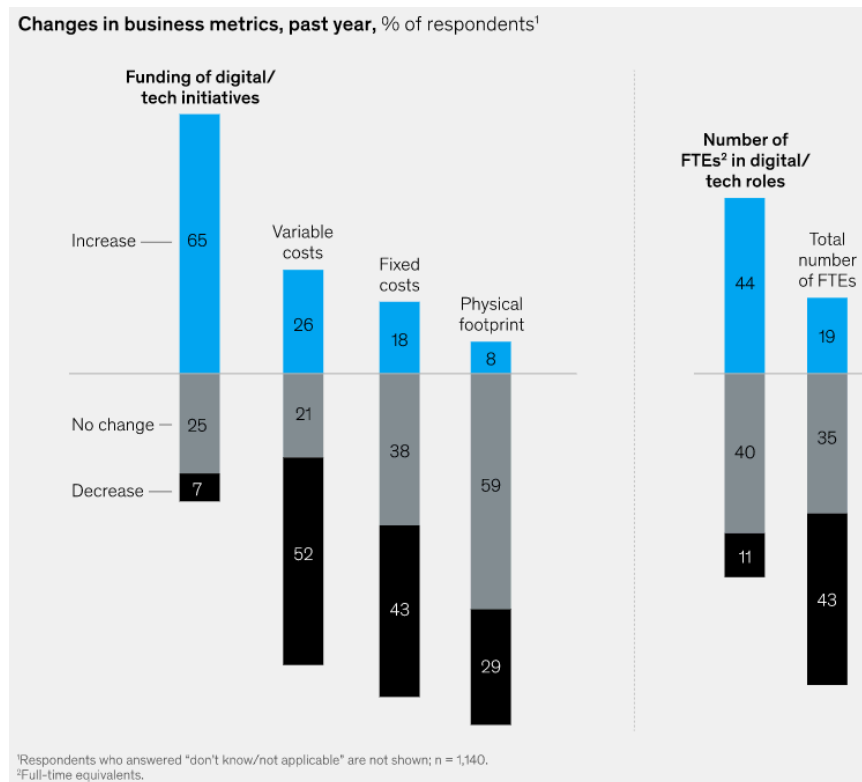
Source: McKinsey & Company, "The new digital edge: Rethinking strategy for the postpandemic era" published on 5/26/2021

The findings in these studies indicate to us that digital transformation is a key initiative high on corporate executives' radar and those that can make the transition while leveraging suitable technologies can reap the efficiencies against competitors. Digital transformation like the cloud migration journey requires myriad new technologies, software or systems to make it work. We believe the nascent adoption of full digital transformation will provide a solid second pillar of secular tailwind for Datadog to ride on the momentum for years to come.

Doubling Down on Observability — the Focused Approach. Datadog's CTO Alexis Lê-Quôc reminded us at Dash 2022 that the goal for Datadog is to be the single platform for all of client's observability and security needs. Datadog started as a platform for developers plus operation teams (DevOps) but recently expanded to include security products (Sec), so is now a provider of DevSecOps. We appreciate Datadog's strategy to keep it simple by doubling down on investing deeper into the observability stack. We see this as a prudent pathway (and perhaps the safest approach), since branching out to uncharted territories whether via acquisitions or organically building it from the ground up could prove costly, especially in this uncertain economic environment.

The slew of products announced during the Dash conference in October speaks to the company's focus on delivering efficiency, ease of use, convenience, data portability, or time and cost savings to customers, in our view. Datadog supports the OpenTelemetry (OTel) project, which allows the platform to instrument, generate, collect and export telemetry data (metrics, events, logs and traces) in a portable manner, giving customers more control of their data. Newly announced Resource Catalog is an impressive product, in our opinion, as it can accurately pinpoint the origin of an issue while providing full detail of the performance and service request "owner" to know who is on call/responsible for the issue. Cloud Cost Management offers visibility to an organization's cloud spend, and Continuous Testing manages end-to-end web application testing for developers/engineers to substantially reduce time allocated to quality assurance by testing for any incremental code changes, not the entire compilation. Finally, Cloud Security Management brings together capabilities from Cloud Security Posture Management (CSPM) and Cloud Workload Security (CWS) to truly

round out the security aspect in achieving DevSecOps. While we aren't intending to list every single product introduced from Dash 2022, we wanted to highlight for our investors what Datadog means to double down on observability and why we think this strategy works. A majority, if not all, of the various product launches offer enhancements intended to bring value to customers, whether it be in the form of time savings or direct monetary savings by monitoring a client's cloud spending. We believe the focused approach to reinvest in observability will bear fruit, especially during challenging economic conditions with IT budgets potentially shrinking.

**Exhibit 9: Product Announcements at Dash Conference on October 2022**

PRODUCT / FEATURE	PRODUCT AREA	PHASE	PRODUCT / FEATURE	PRODUCT AREA	PHASE
Cloud Cost Management	Platform	General Availability	Heatmaps	Real User Monitoring	Beta
Cloud Security Management	Security	General Availability	Intelligent Test Runner	CI Visibility	Beta
Continuous Testing	CI Visibility / Synthetics	General Availability	Workload Security Profiling	Cloud Security Management	Beta
SNMP Traps	Network Device Monitoring	General Availability	Resource Catalog	Cloud Security Management	Beta
Powerpacks	Platform	General Availability	Native Protection	Application Security Monitoring	Beta
Log Forwarding	Log Management	Limited Availability	Workflow Automation	Platform	Beta
CoScreen	Platform	Limited Availability	Event Correlation	Platform	Beta
Netflow Monitoring	Network Device Monitoring	Beta	Data Stream Monitoring	APM	Beta
Mobile App Testing	Synthetics	Beta	Dynamic Instrumentation	APM	Beta

Source: Company reports

We attribute the success of Datadog's consistent stream of product rollouts to the outsized commitment of the Research & Development (R&D) function. Datadog's R&D costs surpassed $300 million in 2021 and are expected to well exceed $400 million, closer to the tune of $500 million, by our estimates, in 2022E. During the Dash conference, CFO David Obstler reiterated the team's commitment to continue investing organically in the platform, which aligns to the strategy of doubling down on observability. We view the R&D investments as Datadog's way of expressing that. Datadog augments organic investment with acquisitions to accelerate products to market. Since 2017, we note that Datadog has engaged in eight transactions to support six product launches.

Exhibit 10: Significant R&D Budget at ~30% of Revenue Fueling Innovation

$ mil.	2017A	2018A	2019A	2020A	2021A	2022E	CAGR '22E v '17
Revenue	100.8	198.1	362.8	603.5	1,028.8	1,652.7	**75.0%**
Revenue y/y growth		*96.6%*	*83.2%*	*66.3%*	*70.5%*	*60.6%*	
R&D	23.6	53.5	104.6	172.5	309.7	494.8	**83.8%**
R&D y/y growth		*127.1%*	*95.5%*	*64.9%*	*79.5%*	*59.8%*	
Opex	77.3	157.6	279.1	412.6	638.2	1,025.6	**67.7%**
Opex y/y growth		*103.8%*	*77.0%*	*47.8%*	*54.7%*	*60.7%*	
R&D as a % of Revenue	**23.4%**	**27.0%**	**28.8%**	**28.6%**	**30.1%**	**29.9%**	
R&D as a % of Opex	30.5%	34.0%	37.5%	41.8%	48.5%	48.2%	
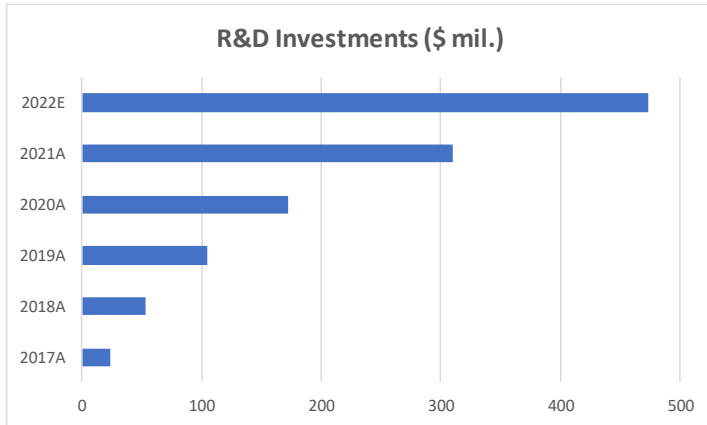
Source: Company reports and Cantor Fitzgerald

Exhibit 11: Acquisitions Accelerated Time to Market in Five of Sixteen Generally Available Products
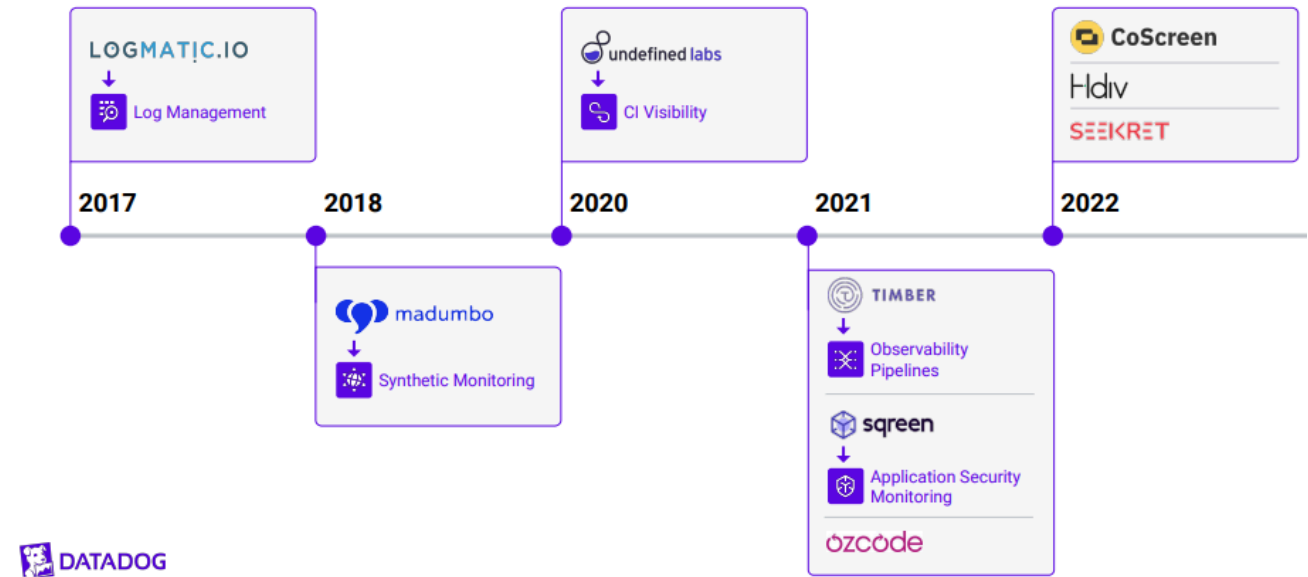
Source: Company reports

Datadog reminds us of cloud-first cybersecurity leader CrowdStrike ([our initiation report here](#)), especially on the frictionless go-to-market (GTM) approach driving acceleration in product modules adoption rate. We believe Datadog's module growth dynamics validate its platform positioning as a leader in the space. Similar to CrowdStrike, Datadog's ability to innovate and introduce new services quickly based on customer needs aided by a bottom's-up freemium sales motion, we believe, is a strategic approach in mirroring the best-in-class software leaders in the space..

Evidence of Datadog's success in making headway into the observability space is in module adoption, we are seeing gradual growth in customers using 2-, 4-, and 6-plus products. We estimate (see Exhibit 2) that Datadog grew from about 10 generally available (GA) modules in 2019 at the time of IPO to about 35 modules or GA product offerings as of 2022, a more than three-fold increase in three years. More recently we tracked customers with 2-, 4-, and 6-plus products and found usage increased by 300, 900 and 800bps y/y to 80%, 40% and 16%, respectively. Further cross-sell opportunities within the entire suite of products, especially those launched since 2020, in our view, would drive these customer adoption metrics higher.

Exhibit 12: Multiple Product Adoption Is Accelerating as More Products Are Added to the Platform
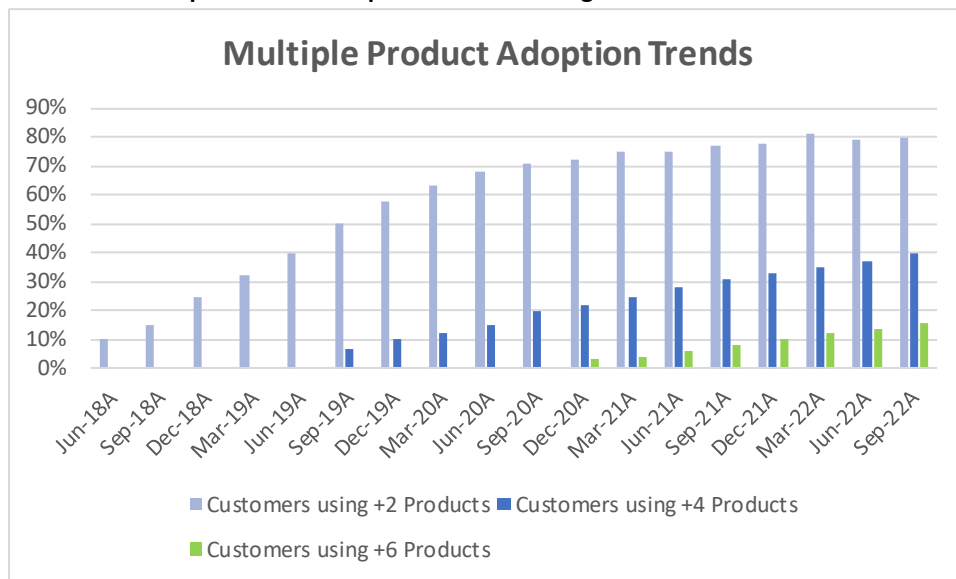
Source: Company reports and Cantor Fitzgerald

Finally, the frictionless, go-to-market (GTM) sales motion supports a market-leading Magic Number of over 2x, based on our calculation. We attribute the acceleration of the GTM sales strategy to the ease of use/consumption of Datadog's platform, a key trait we observe as a hallmark of successful SaaS vendors. Datadog leverages several marketing tactics that contribute to a highly efficient and successful sales motion, including high-velocity inside sales augmented by trial-to-pay, in-store app trials, strong resellers, global advisory firms and large public cloud marketplace partnership programs. We applaud the company for its focus on GTM, as it seeks to further eliminate consumption-related friction to drive growth in commercial and small- & medium-sized business (SMB) market segments. The overall success with these efforts has contributed to a Magic Number (a calculation of sales efficiency defined as a change in the most-recent quarterly subscription revenue figure multiplied by four, divided by the prior-quarter S&M expense) of 2.2x as of 3Q22, a top-quartile ranking across SaaS vendors. Unsurprisingly to us, Datadog's subscription customer count has grown to 22,200 in 3Q22, from 3,785 as of December 2016, a 5.9x expansion.

Exhibit 13: Customer Growth Expanded Almost Six-Fold at a Market-Leading Magic Number of ~2.2x
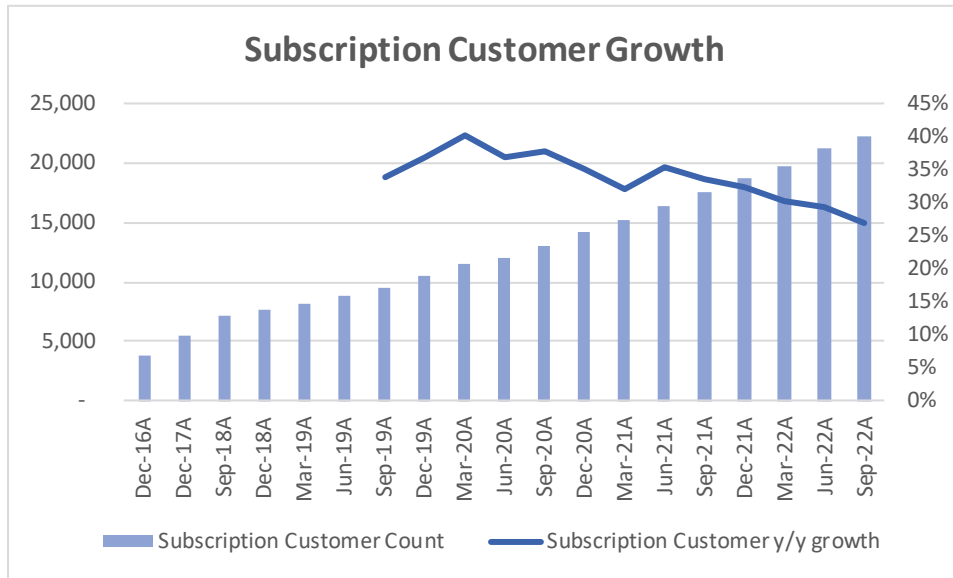
Source: Company reports and Cantor Fitzgerald

Expanding to Adjacent Areas & Use Cases Beyond Observability. We view Datadog's current cloud security product offerings as nascent yet compelling and expect the company to continue to enhance its security capabilities to augment its market-leading core observability suite. Adding cloud security to the core observability product make sense to us, as the original Datadog platform already served the developers and operation teams (DevOps). Augmenting security in the equation is a natural extension since the industry is emphasizing a "Shift Left Security" culture. To shift security left means to implement security controls earlier on in the software development lifecycle (SDLC) process rather than waiting until the end of the cycle. The benefit of introducing security in conjunction with the software design function is to detect and fix security issues and vulnerabilities early in the software development process to minimum failure and cost.

We are positive on Datadog's pivot to target the cloud security market, as we believe the market is highly underappreciated. Going back to an investor briefing analysis performed by CrowdStrike in 2020, we agree with CrowdStrike that industry research firms are undervaluing the true potential of the cloud security market size. CrowdStrike illustrated that if organizations spend 5.7% of their cloud IT expenditures on security, the cloud security opportunity would be $12.4 billion in 2023E, a calculation based on IDC's estimate for IaaS and PaaS vendor revenue of $217.7 billion in that year. Notable to us is the fact that, also according to IDC, world-wide hybrid cloud security revenue in 2020 was estimated at $1.2 billion, which represents just 1.1% of IDC's estimate for IaaS and PaaS vendor revenue in 2020 of $106.4 billion. The estimated cloud security spend as a percentage of total cloud IT spend as depicted by the industry market research analyst at $1.2 billion in 2020 expanding to a mere $2.0 billion by 2023E is clearly insufficient, in our view. We agree with CrowdStrike's suggestion that an organization should expend a minimum of 5-10% of its IT budget on security, which is over 6x the amount of $2.0 billion estimated by industry analysts.

Exhibit 14: Cloud Security Market Size Potential May Be Underappreciated by Industry Analysts


Source: CrowdStrike company reports

We believe there is still a steep learning curve to understanding intricacies of all the risks associated with cloud computing as well as the suitable vendors to best address those risks based on the client's infrastructure environment. Our discussions with industry practitioners during our fieldwork suggest that cloud-related security conversations in 2022 leading to 2023 are becoming much more strategic as end-users look to build their understanding of the market and the innovation roadmap across different vendors. We envision the cloud security market is sizable enough to support multiple vendors that can prove their products are best in class to secure the specific functionality requested. We believe Datadog starting with its position in end-to-end cloud observability is prime to target the adjacent market in cloud security, thereby delivering a holistic DevSecOps solutions for customers in the years to come.

Top-Tier Fundamentals Balancing Growth, Profitability & Product Reach. Datadog's current fundamentals would earn a spot in the top-tier SaaS category, in our view, with the company balancing top-line growth of ~61%, and operating margin profile at ~18%, and adjusted FCF margin at ~21%, translating into a Rule of 70 plus name. While Datadog hasn't provided long-term financial targets, we envision the company can comfortably expand at a CAGR of mid-30% to low-40% in the near to medium term, clearing the $3 billion top line mark in a little more than 2 years' time. During the same time frame, we expect the company's operating margin and adjusted FCF margin will incrementally expand by approximately +100 bps. We believe attaining these medium-term objectives is predicated on the success of the newer product sets, Digital Experience Monitoring (2019), Cloud Security (2020) and Developer Experience (2021), gaining market traction.

The diversity of the business operations across geographies and comprehensive product portfolio serves as another pillar of strength during challenging market conditions, in our view. We have witnessed the diversified asset base accelerate through the pandemic headwind in 2020 unscathed and then come out even stronger in 2021, leading with international expansion. In the "post-pandemic" era this year to date, the momentum of the business isn't showing any signs of a slowdown, displaying balanced growth domestically and globally and approaching the year end towards low-60% y/y growth, coming off a low-70% growth the previous year. We believe Datadog's pure SaaS offering will prove to be essential to investors in providing a sense of stability in the current challenging macro environment while faced with geopolitical uncertainty, inflationary pressure influenced by energy shortages and general IT spending curtailment.

Datadog's geographic revenue exposure is approximately 70% domestic and 30% international, which we believe is fairly in line with the industry average mix. Reviewing the last five plus years of historical data, we are seeing faster expansion of the International region versus the United States. International revenue mix expanded by 414 bps from 2017 to 2022E, by our estimate. Over the last six years, Datadog's average y/y growth rate in the U.S. is 73.6% vs. International at 81.1%.

Exhibit 15: Geographically Diversified — International Taking on a More Significant Role

Geographic Revenue Mix 2017

Geographic Revenue Mix 2022E
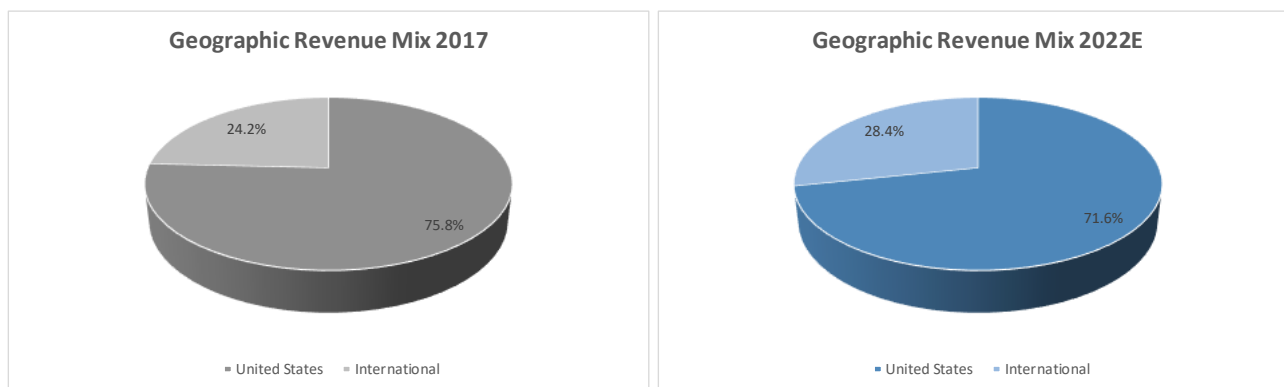
	2017A	2018A	2019A	2020A	2021A	2022E	Average 2017-22E
Revenue by Geography							
United States	76.4	150.9	272.2	449.9	736.2	1,183.9	
International	24.4	47.1	90.6	153.6	292.6	468.8	
Total	**100.8**	**198.1**	**362.8**	**603.5**	**1,028.8**	**1,652.7**	
Y/Y Growth by Geography							
United States		97.7%	80.3%	65.3%	63.6%	60.8%	**74%**
International		93.1%	92.2%	69.5%	90.5%	60.2%	**81%**
Total		**96.6%**	**83.2%**	**66.3%**	**70.5%**	**60.6%**	**75%**
% of Total Revenue by Geography							
United States	75.8%	76.2%	75.0%	74.6%	71.6%	71.6%	**74%**
International	24.2%	23.8%	25.0%	25.4%	28.4%	28.4%	**26%**
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100%**

Source: Company reports and Cantor Fitzgerald

Consolidation Strategy Supports Healthy TAM, Which Datadog Estimates Is >$60B. Datadog presented a healthy TAM forecast of 10.3% CAGR to $62 billion from 2021 to 2026E, focusing only on observability. We believe Datadog's one-stop shop, or holistic platform, in delivering end-to-end observability offers optimal user experience vs. the alternative of piecing together disjointed point products, leading to ineffective visibility if the disparate telemetry originated from various sources is not properly integrated. Datadog's converged observability suite can instrument any telemetry data set (metrics, events, logs and traces) to provide complete visibility in a single pane of glass to generate actionable intelligence. We believe that Datadog's forecasted $62 billion revenue target by 2026E is reasonable as long as cloud migration stays healthy and other drivers such as digital or SaaS transformation do not slow substantially. Our tracking of the three largest U.S. cloud service providers show an average above 30% y/y growth . As we overlay our revenue estimates to Datadog's observability TAM, we arrive at just 2.7% in 2021 expanding to just under 6% by 2024E.

Exhibit 16: Datadog Projects Core Observability to Expand at a CAGR of 10.3% to $62B by 2026E

$ in mil.	2021A	2022E	2023E	2024E	2025E	2026E	CAGR '21 to '26
DDOG's Est. Observability TAM	38,000	41,000	45,000	51,000	56,000	62,000	**10.3%**
y/y change %		7.9%	9.8%	13.3%	9.8%	10.7%	
Revenue per Cantor's Est.	1,029	1,653	2,200	2,900			
y/y change %		60.6%	33.1%	31.8%			
Cantor's Rev. Est. per DDOG' TAM	**2.7%**	**4.0%**	**4.9%**	**5.7%**			

Source: Company reports and Cantor Fitzgerald

As we alluded to in our investment thesis, Datadog is moving beyond observability to capture adjacent opportunities in cybersecurity, a highly lucrative market, in our opinion. Our recent initiations of Fortinet and Palo Alto Networks both suggest an estimated TAM exceeding $100 billion. The highly rewarding cybersecurity TAM is well supported by macro tailwinds from increasing pace/sophistication of attacks, expanding attack surface area, migration to the public cloud/SaaS, greater regulatory scrutiny (e.g., General Data Protection Regulation/GDPR, California Consumer Privacy Act/CCPA), cybersecurity talent shortage, and remote/hybrid work settings). The previous $62 billion TAM forecasted by 2026E as presented by Datadog management at Dash accounts only for core observability and has not yet accounted for the incremental cloud security piece. Zscaler's (ZS, Neutral) recent pivot into the cloud security arena from the launch of Zscaler Cloud Protection (ZCP) did provide an uplift to the serviceable addressable market (SAM) to the tune of $23.3 billion out of a total ~$72 billion SAM (see our recent ZS initiation here). Our thought process here is that we leverage the cloud workload protection SAM as estimated by Zscaler and take a 50% discount to arrive at a starting TAM for Datadog's opportunity in cloud security. We estimate an additional incremental TAM of $15.5 billion for cloud security to the original $62 billion for core observability to arrive at our new Datadog consolidated TAM of $77.5 billion, expanding at a CAGR of 10.2% from 2021 to 2026E. By adding cloud security to the overall TAM, our revenue estimates for Datadog's consolidated TAM (observability + cloud security) increases from a mere 2.2% in 2021 to just 4.5% by 2024E.

Exhibit 17: Cantor's Consolidated Observability + Cloud Security TAM Estimated to Reach >$77B by 2026E

$ in mil.	2021A	2022E	2023E	2024E	2025E	2026E	CAGR '21 to '26
DDOG's Est. Observability TAM	38,000	41,000	45,000	51,000	56,000	62,000	**10.3%**
y/y change %		7.9%	9.8%	13.3%	9.8%	10.7%	
Est. Cloud Security TAM (per ZS)	9,607	10,568	11,625	12,788	14,066	15,473	**10.0%**
y/y change %		10.0%	10.0%	10.0%	10.0%	10.0%	
Est. Observability + CloudSec TAM	**47,607**	**51,568**	**56,625**	**63,788**	**70,066**	**77,473**	**10.2%**
		8.3%	9.8%	12.6%	9.8%	10.6%	
Revenue per Cantor's Est.	1,029	1,653	2,200	2,900			
y/y change %		60.6%	33.1%	31.8%			
Cantor's Rev. Est. per DDOG' TAM	**2.2%**	**3.2%**	**3.9%**	**4.5%**			

Assumptions:

1) Our Est. Cloud Security TAM is based on Zscaler's estimate from its F4Q22 (July 2022) earnings presentation discounted by a factor of 50%. ZS estimated Workload Protection SAM is $23.3 billion and we assumed 1/2 of that amount is realized in 2023E.

2) Assumed a standard 10% increase or decrease in cloud security spending on an annual basis for modelling.

Source: Company reports and Cantor Fitzgerald

Industry Overview

What is observability and why it is important?

Observability is the art of proactively measuring the internal states of a system through collecting and analyzing data distributed across an organization's IT systems to better understand the complex behavior of the digital environment. Observability solutions detect and analyze the importance of events occurring in an enterprise's digital landscape such as IT operations, software development life cycles, application security and digital end user experiences. A system can only be observable if the current state of the system can be forecasted based on sensor data produced from the system. To simplify this definition, we view observability in the software industry as simply the art of collecting information from other technology sources such as IT systems or software tools with the ultimate goal to determine the overall health of the system. A proper analogy would be an individual performing a regular health checkup at the doctor's office, and the doctor or her assistant would run a set of procedures or maybe even extract specimens such as blood samples or x-rays to gather additional information on the patient for a thorough preventative assessment. Observability is similar to a doctor's checkup, except the observability process is performed continuously in an automated fashion through high tech software so that engineers and software developers can understand the exact state of the IT environment before any "symptoms" surface that may potentially cause inefficiency from downtime.

Observability is important since modern IT systems are highly complex, running on open-source, cloud-native infrastructure services such as AWS, Azure or Google Cloud platforms in the form of microservices such as Kubernetes clusters, serverless and other container technologies. The benefits of these cloud-native technologies are the enablement of developers and operation teams (DevOps) getting software delivered in record speed leveraging the power of the distributed cloud; however, the possibility of a failure has substantially increased too. This is much different than the traditional days of IT infrastructure predominately running on mainframes and on-premise data centers, where when something breaks, it was easy to get a handle on the problem since most issues were similar in nature and mainframes usually had a manageable set of known issues to monitor, such as computing processing units (CPUs), memory storage capacity and networking connectivity. However, today's IT ecosystem involves a uniquely distributed and dynamic complex cloud architecture.

The cloud environment is an entirely different thing, as components and processes can break at any point in the software supply chain or distributed IT systems, requiring a professional observability tool. Distributed systems are a computing environment that involves multiple components disseminated across multiple computers or (computing devices) operating across a network medium, which is the internet, or together along with the systems commonly known as the cloud. The challenge in trying to monitor distributed systems is the vast interconnected points of potential failure that are updating continuously. Practitioners say there are simply too many "unknown unknowns" in the cloud environment as opposed to "known unknowns" in the legacy infrastructure setting. As a result, legacy monitoring tools struggle to provide effective visibility since the pathway of communication interdependencies are untracked in these complex digital architecture environments, calling for modern cloud observability software.
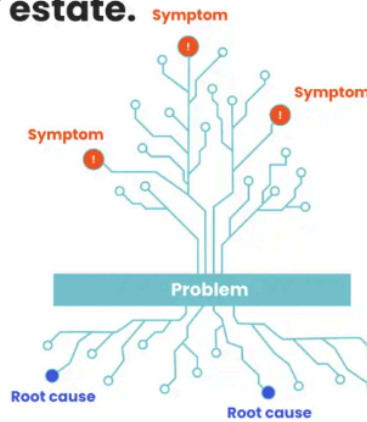
Exhibit 18: Depiction of What Observability Is

Source: New Relic website

Observability versus monitoring

Observability is an approach to better understand an infrastructure environment of an organization. Observability measures the effectiveness of how well the state of the internal systems can be implied by gaining an understanding of the external data outputs generated by the systems. In order to achieve observability, appropriate monitoring techniques (see next paragraph) need to be in place first. Bottom line, observability allows tech leaders or managers to determine what's important to track in an IT system or environment over time through probing relevant metrics/indicators.

Monitoring is the action of observing a system's performance by collecting and analyzing relevant system data outputs over time and turning this data into meaningful intelligence. An example of a monitoring tool is Application Performance Monitoring (APM), used to monitor the performance of a SaaS application such as a financial software package like Oracle (ORCL, NC) to determine if there is any lag time that could result in a bigger issue like system outage. Monitoring scenarios can be preconfigured to generate alerts in a dashboard display to assist system administrators, site reliability engineers (SREs), IT operations analysts and/or developers to enhance the user experience for customers or end users.

The basic building blocks and primary data classes used in observability

Observability has four fundamental components that make up an observability system. Observability starts with open instrumentation or simply measuring tools to collect telemetry data (MELT: metrics, events, logs and traces) from sources such as applications, cloud containers, microservices, data centers or host systems. The second step is making sense of the telemetry data by applying correlation and analysis to provide context to discern any patterns causing the anomalies to arise. Next, the organization would need the flexibility in creating customized applications unique to its business goals for incident management, response and automation. For example, an ecommerce company would likely need vital signs on website failures or delays in loading a page, both of which have a direct effect in serving its customers. The key is to obtain the data associated with the outages in an automated manner and alert the right technical personnel to troubleshoot the situation. Lastly, AI Operations (AIOps) is the automation of incident response using machine learning to prioritize and troubleshoot any bottle necks in a speedy manner. The goal is to accelerate mean time to detection and/or resolution (MTTD/MTTR), minimizing any revenue impact to the business.

Exhibit 19: Steps to Implement Observability: Instrumentation → Data Correlation → Incident Response → AIOps
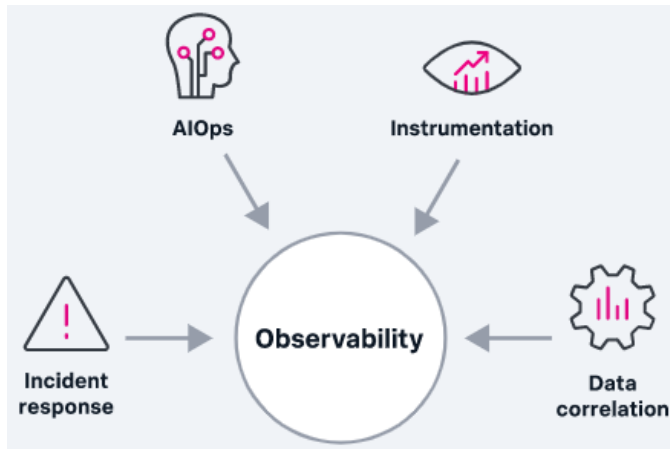
Source: Splunk website

Primary Data Classes:

Observability uses four main types of telemetry data set (MELT: metrics, events, logs and traces), gathered from distributed IT systems or applications to allow teams to gain visibility of the issues in order to improve performance. Together metrics, events, logs, and traces are the core pillars in providing observability.

- Logs are text records of events that occurred at a specific point in time and include a timestamp; they are usually the primary place to visit when there's a system break/outage. Logs can come in three formats (plain text, structured or unstructured logs, and binary). While plain text is the most common due to its simplicity, structured logs include additional data and metadata that make it easier to query. Think of logs as the flight recorder commonly known as the "black box" that rescue/search teams seek after an accident. The flight recorder records all relevant flight data including conservations happening in the cockpit.

Exhibit 20: Logs Are Akin to Flight Recorder in an Airplane

HCR-25 Cockpit Voice Recorder (CVR)   HCR-25 Flight Data Recorder (FDR)

Source: Honeywell

- Metrics is a measurement of numerical value over a period of time that include specific characteristics such as name, timestamp, key performance indicators (KPIs) and value. Metrics differ from logs and, by default, are formatted as structured data, which provides an advantage versus logs as it can be easily queried for analysis

and optimized for storage over a longer period of time in a cost-effective manner. A suitable analogy to metrics is the odometer in the car, it shows the distance the car travels miles/kilometers per hour over time (speed). Metrics, like the information shown in the odometer, offers a value in the specified range to gauge the magnitude of the impact so the technician/user knows if certain values are out of the ordinary range and therefore require further attention.

Exhibit 21: Metrics Are Similar to the Odometer in a Car, Providing Information on Values that May Require Action

Source: https://www.wikimotors.org/what-is-an-odometer.htm

- Traces can be described as the act of following a process or the tagging of a particular request or transaction through a distributed system or application. Span is the term for any operations the request or transaction has performed through the system, and it's tagged with specific markers (identifiers, timestamps, logs, events, indexes) along the way when the operations are performed. One analogy is of a hiker planting flags along the way to mark the trail to help her find her way back.

Exhibit 22: Traces Are Like the Flags Planted by a Hiker Along the Trail to Mark the Path Taken
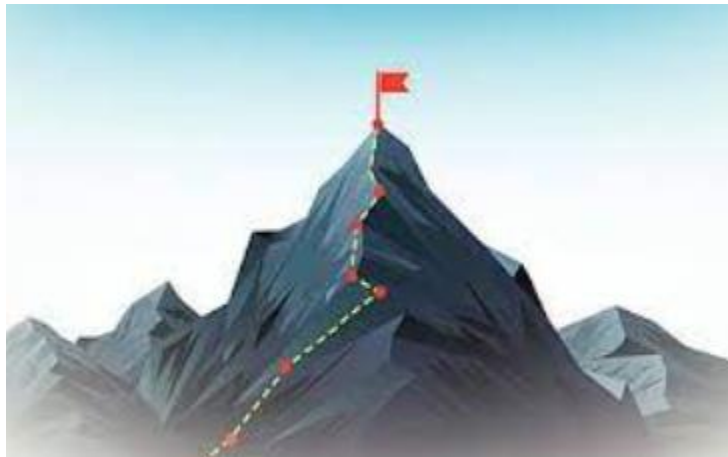
Source: CanStockPhoto.com

- Events can be defined as a specific action occurring at a moment in time. Events describe when a particular action occurs at a certain time, and it is documented with a set of useful attributes. For example, it may be useful to document certain characteristics of vending machine transactions, such as time, event type, item description and the value of the item. This basic set of data would offer context to allow the user, owner or technician to follow up on any matter if necessary.

Exhibit 23: Events Offer Details to Specific Transaction Occurring at a Point in Time (Using Vending Machine Data)

Timestamp	EventType	ItemPurchased	ItemCategory	Value	PaymentType
2/21/2019 15:34:00	PurchaseEvent	BBQ chips	Snacks	1.00	Cash
2/21/2019 16:37:00	PurchaseEvent	Pretzels	Snacks	1.00	Cash
2/22/2019 07:14:00	PurchaseEvent	Sour cream chips	Snacks	0.75	CreditCard
2/24/2019 11:52:00	PurchaseEvent	Water	Drinks	1.50	Cash

Source: https://newrelic.com/platform/telemetry-data-101

Key Takeaway: While each of the telemetry sources (MELT: metrics, events, logs and traces) may provide useful information independent of each other, they may not offer full efficacy if the data are siloed. A more effective approach is to integrate the MELT data as a single unit to gain better visibility. To stay competitive, an advanced observability solution should integrate all key pillars of telemetry straight out of the box, in our view.

Open Telemetry (OTel) Project: Standardizing Telemetry Data

OpenTelemetry (OTel) is a collection of open-source tools, application programming interfaces (APIs) and software development kits (SDKs) used to instrument, generate, collect and export telemetry data (metrics, events, logs, and traces) to enable engineers/tech analysts to analyze a software's performance and behavior. OpenTelemetry essentially enables observability, which is the understanding of what's happening inside a system from data gathered from external data sources (telemetry data). OTel was founded as an incubating project of the Cloud Native Computing Foundation (CNCF) permits the portability of data and puts the customers back in the drivers' seat over the control of their own data. OTel provides a standard for collecting telemetry in cloud environments and reputable software vendors, including Microsoft, Google, Datadog, Dynatrace (DT, Not Covered), Splunk (SPLK, NC) and New Relic (NEWR, NC), are all part of this community. Adaption of this standard takes the friction away from collecting rich data from any sources and enables universal portability.

Exhibit 24: OpenTelemetry Instrumentation Flow Diagram

Source: https://opentelemetry.io/docs/
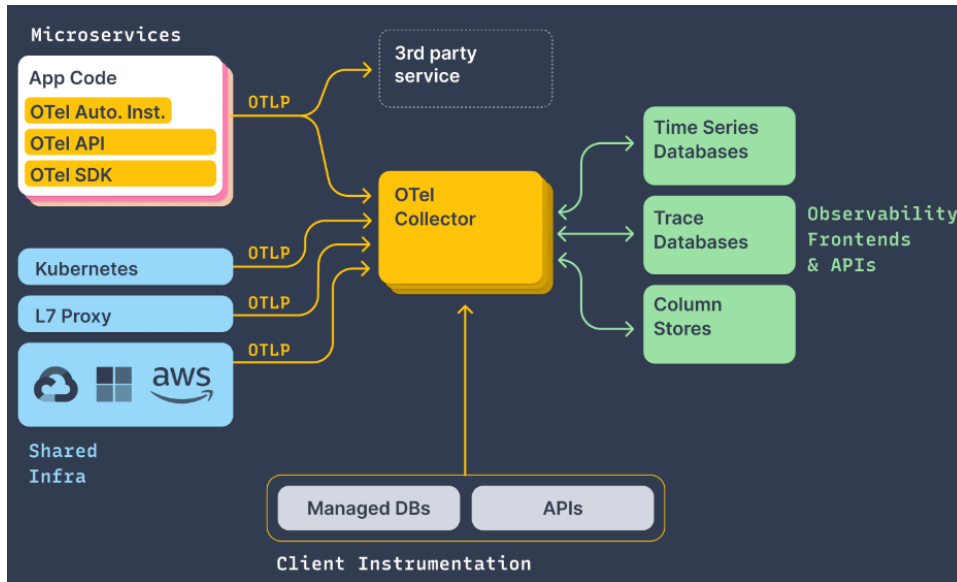
OpenTelemetry expands telemetry collection and ingestion for observability platforms that offer instrumentation, automated discovery and topology mapping. Open Telemetry empowers developers and IT operation teams to achieve a consistent view of the health across various IT infrastructure environments. The benefit of OTel is that it provides a common standard for collecting observable instrumentation to cloud native applications. Before the OTel project came about each organization would need to allocate resources to collect critical telemetry from all of the systems or applications to properly instrument them into the observability platform. OTel eliminates the need to spend time on this administrative task so that IT Operations teams can get straight to analyzing the data. We liken OTel to the U.S. railroad system in the 19th Century, where the width of the railroad track ranged from two to six feet. This led to issues with trains unable to connect among the different regions, therefore goods needed to be unloaded and reloaded to continue the journey. The development of the standard U.S. track gauge at a length of 4 ft, 8.5 in alleviated this issue.

The OpenTelemetry project, announced in 2019, was created to merge two different standards: OpenTracing, which debuted in 2016, and OpenCensus by Google in 2018. OTel subsequently joined the Cloud Native Computing Foundation and the first beta version of OTel was launched in March of 2020 and became the second most popular project by CNCF after Kubernetes, the standard for container orchestration. The basic OTel components consist of APIs that connect to the applications used to instrument a library, SDKs as the bridge from the APIs to the exporter feeding into the Collector that receives/processes/exports the telemetry data, and lastly the Exporter to forward the telemetry to the back-end apps. The current status of the OTel project has over 100 companies contributing to this open-source telemetry initiative, and we envision more organizations will join hands around this project in the future.

Exhibit 25: OpenTelemetry Architecture and Extensibility
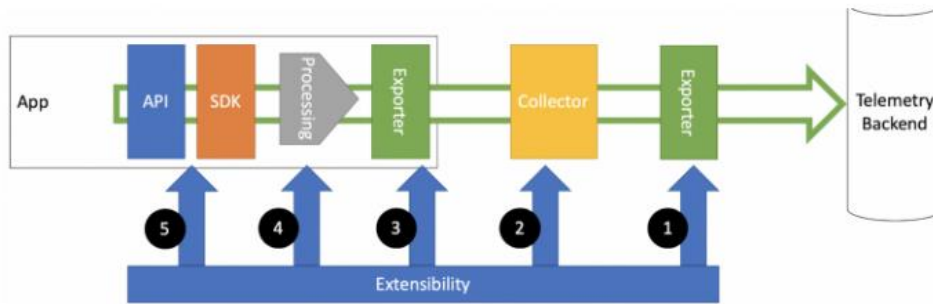
OpenTelemetry layers and extensibility points

Source: https://medium.com/opentelemetry/opentelemetry-beyond-getting-started-5ac43cd0fe26

Benefits of Adopting an Observability Tool, Use Cases and the Associated Challenges

Benefits of adopting observability tools include enhancing experiences of external and internal customers, especially in complex digital environments. Observability tools can enable site reliability engineers (SREs) and developers to better service external customers to ensure a company's digital footprint, such as a website, is always up and running. For internal customers, it can assist developers to get new products to the market at an accelerated pace with fewer bugs, promoting a culture of quality assurance, innovation and collaboration.

Use Cases in Observability:

- Infrastructure, containers (Docker, Kubernetes, etc.) & microservices — observability can offer visibility into the health of the application uptime plus performance in the production state so that developers can pinpoint and resolve issues in a timely way. Containers and microservices offer a unique characteristic in the ability to break apart applications into independent services, enabling developers to modify and redeploy a specific service rather than affecting the entire application. With this added deployment flexibility comes greater challenges in tracking the myriad numbers of interdependencies of microservices across host systems, as the infrastructure scales simultaneously in the production environment.

- Applications — quoting a well-known venture capital investor, Marc Andreesen, "software is eating the world." His prediction in 2011 was that software companies would disrupt traditional industries, and since then, we've seen large software/internet companies transforming traditional industries such as Amazon with ecommerce and Uber (UBER, NC) and its gig economy upending the transportation industry. More than a decade after Andreesen's famous quote, software continues to "eat the world", and observability provides visibility as to the performance of all of these applications that run everyday businesses. End-to-end observability across applications is called application performance monitoring (APM).

- Hardware, host systems, data centers — although the migration to the cloud and SaaS movement is accelerating rapidly, we still believe there is room for traditional systems, including data centers, creating what we deem as a hybrid infrastructure to play an important role. We believe the more sensitive industries such as financial services and healthcare institutions requiring added oversight for data privacy would opt for these legacy solutions since the organization appears to have deeper control of an on-premise data center than outsourcing to an external cloud vendor. While we appreciate that cloud and SaaS migration is rapidly underway, we do believe there will always be a certain level of residual hardware infrastructure surviving. We estimate these hardware tools, host systems or data centers could comprise up to 20% of the total IT infrastructure globally, which will still need to be monitored for performance or optimization. In the long term, we believe hardware will still play a role in IT infrastructure and require observability, albeit in a less significant role.

- Mobile, 5G devices, IoT/OT — the advancement in 5G/6G telecommunications and networking enables mobile and IoT/OT devices to digitalize the modern economy. This has led to the proliferation of exponential growth in mobile devices also requiring observability solutions to ensure they are running smoothly. Unlike the hardware on-premise IT infrastructure segment that appears to be sunsetting, we believe the mobile/5G, devices/IoT & OT is a new dawn that will continue to expand at a healthy pace, supporting observability tools able to service this niche market.

- End User Experience — leveraging observability tools to spot deterioration of user experience can enhance a company's reliability and perhaps, reputation as a trusted service provider. Imagine a rideshare app malfunctioning when one urgently needs to rush to the airport. This situation would certainly lead to a poor impression of the app and could result in customer attrition. A poor end user experience like this could have potentially been prevented with professional site reliability engineers and IT operation teams working together to stay on top of performance optimization before any failure arises.

- Business Analytics — the output of observability statistics can be tied to business performance to ensure certain services are always up and running while optimizing to meet or exceed service level agreements (SLAs). This use case is relevant to the business/front office side such as arming the customer success team on analytical data to keep customers happy.

Users of Observability Tools:

- Site Reliability Engineers (SREs), IT Operations and Project Managers are in charge of keeping applications online continuously; however, the hard work on the back end to keep these complex systems up and running and to prevent any outages from occurring is often overlooked.

- Software developers and engineers use observability to drill down into the telemetry data to understand in a timely way when and why errors occur in the software development process or systems.

- DevOps teams may establish service-level objectives (SLOs) using observability to minimize down time by continuously testing the relevant systems in production and investigate any issues identified before they become problems. Benefits of observability in DevOps include better visibility (for apps in production), better alerting (to discover and fix issues faster), better workflow (contextualization of journey request), better efficiencies (less time to track down information), and accelerated developer velocity (increase application delivery speed). Software engineers benefit from the insights collected across the entire infrastructure, enabling issues to be pinpointed in real time in conjunction with software deployment.

Exhibit 26: Observability Plays a Critical Role in DevOps Delivery Speed
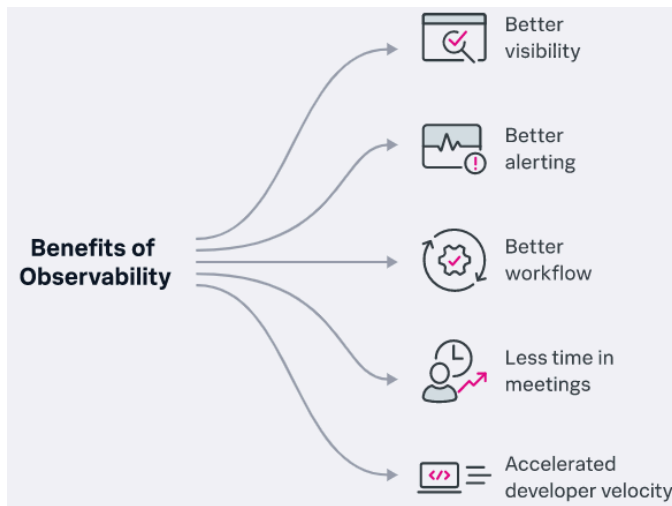
Source: Splunk website

Challenges of Adopting Observability:

- The proliferation of cloud adoption has exponentially increased the volume and complexity of raw data collected from every modern cloud environment such as AWS, Azure and GCP. Containers or Kubernetes generated from these cloud service providers can spin up or down fluidly placing heavy demands on tools to monitor for such rapid never-ending change.
- Data silos created by separate agents and disparate data sources coming from various IT environments such as data centers or multiple clouds could make collecting a single source of master data difficult. The lack of a single true data set could make analyzing data impossible.
- Instrumentation issues can arise when telemetry data can't be imported with ease. These problems can be solved with the adoption of standards such as Open Telemetry. (Refer to our discussion on Open Telemetry earlier in this section for more detail.)
- Lack of visibility in user experience could make it difficult for engineers to pinpoint the root cause of an issue, thereby making it difficult to troubleshoot the situation. Real user monitoring tools can be adopted to gain visibility over the path of the user experience like a video recording so engineers can track, replay and fix.

Observability Forecast Survey 2022 (New Relic) – Key Observations

The New Relic 2021 Observability Forecast survey found that 90% of respondents believe observability is important and strategic to their business. An even higher 94% of respondents believe it is important to their role, but only 26% said their observability practice was mature. The survey also confirmed outages are on the rise yet monitoring tools are fragmented with 72% of respondents having to toggle between at least two tools and a surprising 13% between ten different tools to monitor their IT systems' health. Unsurprisingly, only half of the 1,300 software engineers, developers and IT leaders surveyed said their business was in the process of implementing observability.

Fast forward to this year's New Relic 2022 Observability Forecast survey that polled 1,614 respondents in 14 countries across North America (31%), Europe (44%), and Asia Pacific (25%) with a mix of 65% practitioners and 35% IT decision markers (ITDMs). The survey highlights the challenges and opportunities in observability. Some of the challenges highlighted were that monitoring is a fragmented market and most organizations don't monitor their full technology stacks. The survey showed that 82% of respondents used more than four observability tools while less than 2% used a single tool and only 27% achieved full stack observability. The opportunities created include improving service-level metrics and creating value accretive to organizations. These opportunities are supported by survey respondents

suggesting 73% of C-suite executives are advocates of observability and 72% expected to increase or maintain observability budgets next year. New Relic indicates achieving full stack observability would result in fewer outages, faster mean time to detection (MTTD), and faster mean time to resolution (MTTR).

Exhibit 27: New Relic Observability Forecast 2022 – Challenges and Opportunities

Challenges

Monitoring is fragmented. Most organizations do not currently monitor their full tech stacks.

82%	33%	27%	5%	<2%
used 4+ observability tools	still detected outages manually or from complaints	had achieved full-stack observability	had a mature observability practice	used a single observability tool

Opportunities

Observability improves service-level metrics.
Organizations see its value—and expect to invest more in it.

88–97%	73%	72%	50+%	47%
of 17 different observability capabilities should be deployed by 2025	said C-suite execs are advocates of observability	expected to increase or maintain observability budgets next year	said observability enables core business goals	preferred a single, consolidated observability platform

Prioritizing/ achieving full-stack observability = fewer outages, faster MTTD, faster MTTR

Source: New Relic's 2022 Observability Forecast Spotlight

The survey indicates that greater than 50% of respondents are using observability monitoring capabilities for network, security, database, infrastructure and log management to obtain timely alerts. Emerging technology areas such as Kubernetes monitoring, ML model performance monitoring, synthetic monitoring, distributed tracing, and AIOps are cited to be deployed less often, at lower than the 40% range. The takeaway here, in our view, is that the observability tools adoption curve is highly focused on mature use cases rather than the nascent emerging technologies.

Exhibit 28: Observability Capabilities Deployed

Network monitoring	56.6%
Security monitoring	55.7%
Database monitoring	53.8%
Alerts	51.5%
Infrastructure monitoring	51.0%
Log management	50.3%
Browser monitoring	48.6%
Error tracking	48.5%
Custom dashboards	46.7%
APM	45.4%
Mobile monitoring	43.3%
Serverless monitoring	38.2%
AIOps	37.3%
Distributed tracing	36.3%
Synthetic monitoring	34.2%
ML model performance monitoring	34.1%
Kubernetes monitoring	33.7%
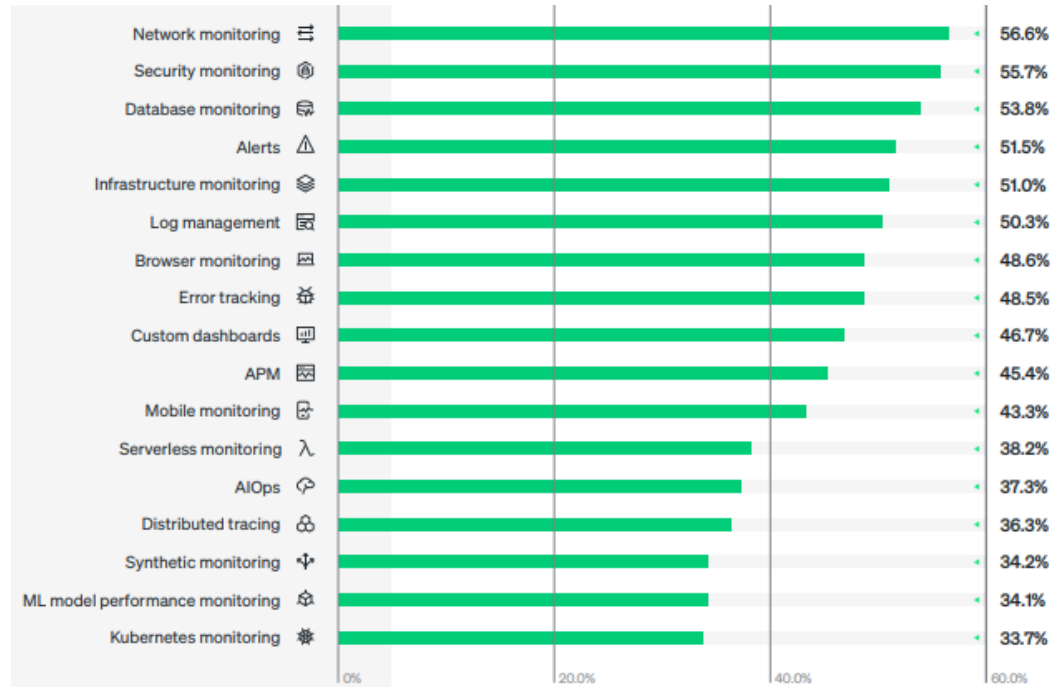
Source: New Relic's 2022 Observability Forecast Spotlight

According to the 2022 survey, the top three trends driving the need for observability include the focus on security, cloud-native application development, and focus on customer experience management. Once again, evolving technologies such as containerization and serverless computing are less significant reasons for observability at this juncture.

Exhibit 29: Trends Driving the Need for Observability
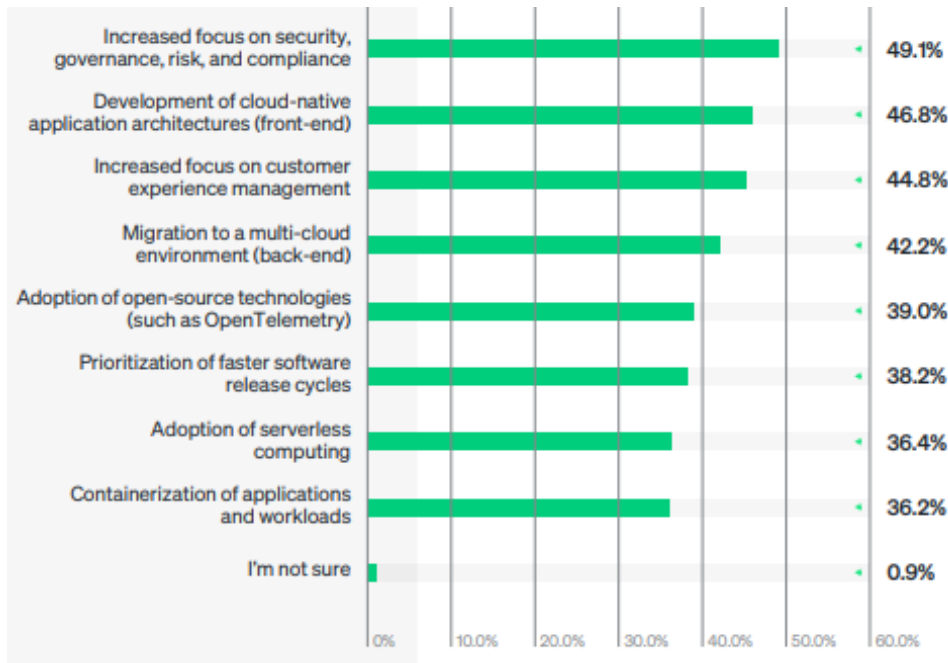
Source: New Relic's 2022 Observability Forecast Spotlight

Putting this together, the New Relic 2022 Observability Forecast survey offered insights to top strategies/trends driving the needs, benefits and use cases for observability. Key benefits for observability are uptime performance, reliability, operational efficiency and customer experience. The need for observability tools is clear, yet there are still challenges faced by IT professionals to find a single, mature, consolidated platform that can provide full stack observability capabilities. We view this as an industry tailwind for key industry players able to deliver.

Exhibit 30: Top Observability Insights
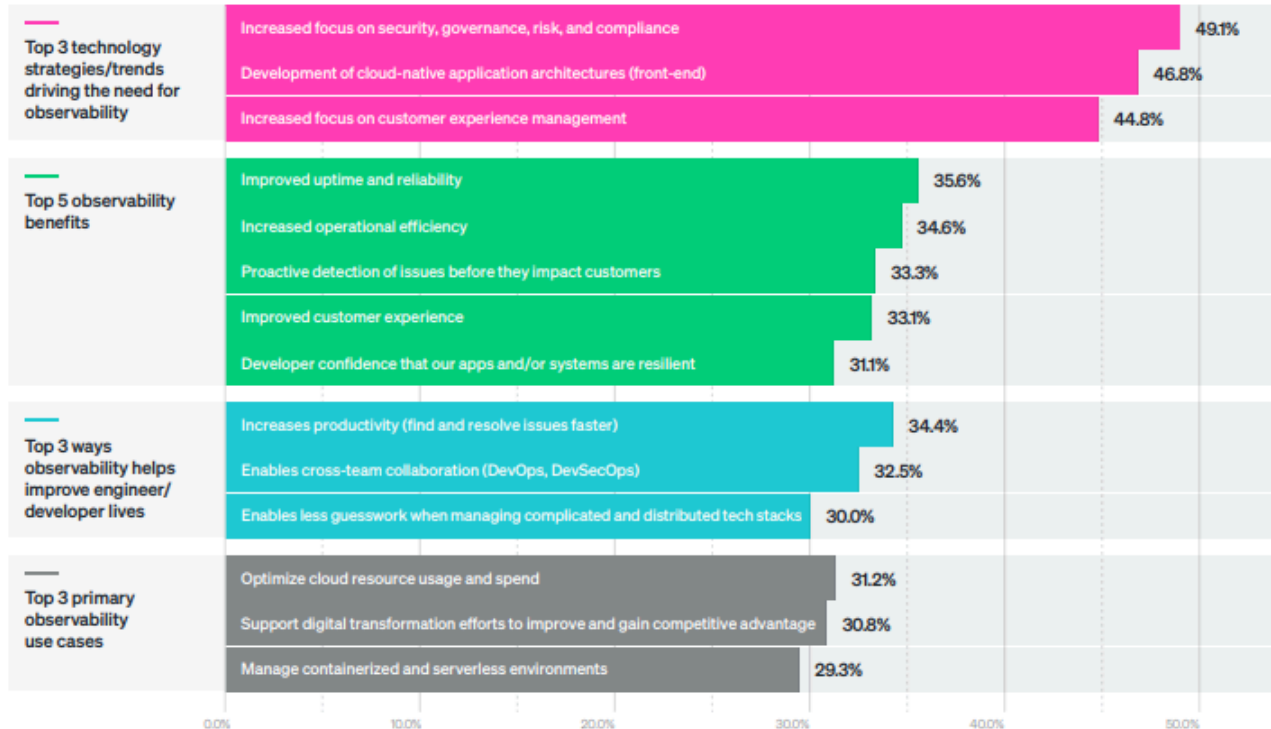
Source: New Relic's 2022 Observability Forecast Spotlight

Convergence of observability, cybersecurity and DevOps/digital experience

Convergence is a popular theme observed in the cybersecurity space, as we have seen with the merging of networking and security functionality (see Fortinet initiation, Palo Alto Networks initiation here). The convergence phenomenon in the observability space is a theme we've been following for years. Observability started as a monitoring tool for traditional IT infrastructure systems and has since branched out into the IT security space. This evolution makes sense to us, as the industry transition to the cloud has opened myriad levels of complexity to potential points of failure and vulnerabilities in the IT environment. (For further detail, see our earlier discussion in the section titled "What is observability and why it is important?") The complexity leading to additional points of failure and security risk in IT systems is primed for advanced observability tools to monitor for these areas of shortfall. For an observability vendor to branch to an adjacent area in cloud and application security offers an attractive value proposition since the data intelligence gathered from the monitoring function would be instrumental in trouble shooting cloud/app vulnerabilities. As such, we are seeing a trend for observability platform players to include select capabilities in cloud and application security.

In 2020, both Datadog and Dynatrace (DT, NC) started their journeys to protect the cloud. Datadog began with the introduction of the Cloud Security Incident & Event Management (SIEM) in 2020 then continued the following year with the launch of Cloud Security Posture Management (CSPM) and Cloud Workload Security. At Datadog's Dash conference, the company announced the launch of Cloud Security Management and Cloud Cost Management, making deeper headway in this field. Dynatrace entered the cloud security market in December 2020, when it launched Application Security (AppSec), which offers runtime application self-protection (RASP) for applications in production, preproduction, Kubernetes architectures and DevSecOps use cases. Sumo Logic (SUMO, NC) introduced Cloud Security Monitoring & Analytics in 2021 similar to Datadog the year before. Sumo Logic's security portfolio includes Cloud Security Monitoring & Analytics; SIEM; and Security Orchestration, Automated & Response (SOAR). We view a pattern of the advanced

observability players moving to service the adjacent field in next-gen cloud and application security, while leaving the traditional network or firewall market intact.

Development Operations (DevOps) and digital experience are the other adjacent markets that observability companies are targeting to help software developers do their job more efficiently. We are seeing observability players pivoting into the developers experience market by launching products such as real user monitoring, synthetic monitoring, session replay, database monitoring and mobile/IoT monitoring, among others, to help developers or site reliability engineers better serve customers. The benefit of having these digital experience tools in place is that the engineers can pinpoint exactly to where in the software development process breaks down. For example, if a customer shopping online is stuck in the checkout page then these digital monitoring tools can replay the situation to the engineers, just like a video surveillance camera. With this intelligence, the software engineers can troubleshoot the situation at the exact location of breakage and not waste time trying to figure out where the breakage occurred.

The future of observability — what's next: front end digital experience, automation and big data analytics beyond traditional IT use cases

The value of observability doesn't stop at mature use cases such as network, security or database monitoring, but can go far beyond the emerging technology use cases, in our view. Once the IT operations team begins collecting and analyzing observability telemetry, this powerful set of data may provide a valuable window of intelligence into the business impact of the organization's front-end digital services. An observability solution should extend beyond the traditional IT infrastructure monitoring side to big data analytics use cases, in our view. Observability could analyze user experience by leveraging synthetic and real-user monitoring to discover problems before they affect the users to enhance the design of better user experiences based on real-time feedback. We believe the future of observability should extend beyond the "back office or IT operations" use case and be a critical part of the front office digital user experience. We envision observability offering visibility to optimize customer conversion rate, measuring user experiences that affect service-level objectives for software development and prioritizing business decisions based on AI/ML algorithm to determine what matters most to the bottom line.

Automation is another pillar to the future of observability, in our view, as we believe observability can reduce the mean time to detection or response (MTTD or MTTR) rate. The DevSecOps teams can leverage the observability tools to detect systems or applications that are deteriorating in performance before an outage occurs. We think that automating the incident response workflows can promote enhanced operational efficiency across an organization, since the DevSecOps teams can be brought on to troubleshoot any issues before they fully impact the system. With better visibility into the software development lifecycle process, the DevSecOps teams can rapidly deploy software at a higher quality and with fewer errors.

Finally, in the long term, we think observability may be combined with big data analytics to further refine the intelligence beyond the IT/technology side and toward commercial opportunities. For example, the strategic finance group of an organization can learn what is most important to the customers if it has visibility to views and clicks on its website. The finance team, along with other front office professionals such as sales & marketing, can use this intelligence to structure targeted deals.

Dynatrace's Grail is an example of this new use of observability in action. Grail causational data lakehouse extends Dynatrace's software intelligence platform to power business analytics use cases. The Dynatrace platform can ingest business data from first- and third-party applications at scale without requiring engineers/technical specialists or advanced coding. Grail enables business and IT teams to drive cost efficiency from automation and analytics for deeper insight. The effect raises the bar for customer satisfaction and automation of standard business processes. Hence, we view combining big data analytics to observability may potentially bring an additional audience of business professionals to the mix.

**Drivers to watch: Digital Transformation and Cloud Adoption**

Going back to the basics, the main drivers to monitor in the observability space are digital transformation and cloud adoption trends, in our view. Sure, an analyst could add a third factor of legacy systems or data centers, but we envision that telemetry data coming from this side is gradually declining over time as cloud migration ramps. That said, we don't believe the demands from legacy systems will decrease to zero since the more sensitive industries, such as financial services and healthcare institutions, require added data privacy measures due to regulatory requirements such as Payment Card Industry Data Security Standard (PCI DSS) or Healthy Insurance Portability and Accountability Act (HIPAA).

The COVID-19 pandemic declared in March 2020 has expedited digital transformation by approximately three to five years, in our estimation. Digital transformation is the process of leveraging technologies to modify existing business processes or culture to meet the changing needs of the modern economy. A practical example is retailers who had only a physical store front transitioned almost overnight to building an eCommerce platform. Investors interested in the observability space should keep a finger on the pulse of enterprise digital transformation, in our view. The more advanced the digital transformation process, the greater the volume of telemetry data that needs to be analyzed. We believe this digital transformation secular trend should be a key pillar to drive observability demands over the next decade.

Cloud migration is the secondary pillar driving healthy demands for observability platforms. As discussed earlier in the industry overview section, companies are transitioning from legacy mainframes or data centers to a distributed cloud environment, since this modern architecture can offer real-time updates globally. Enterprises are migrating to SaaS applications from on-premise systems for the same reason, as the architecture is more agile and flexible, especially for a hybrid workforce. The adoption of cloud infrastructure such as AWS, Azure (or GCP) or SaaS applications should also lead to a proliferation of telemetry data to monitor. We advise investors to keep an eye on industry cloud and SaaS application adoption trends, as we believe these factors should drive healthy demand for the next decade.

Datadog's 2022 Container Report is a great resource to gain a general understanding of cloud adoption trends. The report is based on usage data from more than 1.5 billion containers operated by tens of thousands of Datadog's customers. The top three takeaways are: Kubernetes is the most popular container management system and is used by about half of container organizations, serverless technologies make up about 36% of container usage, and larger enterprises work in a multi-cloud environment. The use of multiple cloud providers reaching over 30% for container organizations using 1,000 or more hosts is an interesting data point, in our view, since the industry is pivoting towards a multi-cloud environment as organizations expand. As the percentage of container organizations using multi-cloud grows, we believe the need for a commercial-grade observability solution will be more crucial.

Exhibit 31: Enterprises Are Pivoting Towards Multiple Cloud Usage and Driving Demand Higher for Commercial-Grade Observability Solutions

Source: https://www.datadoghq.com/container-report/
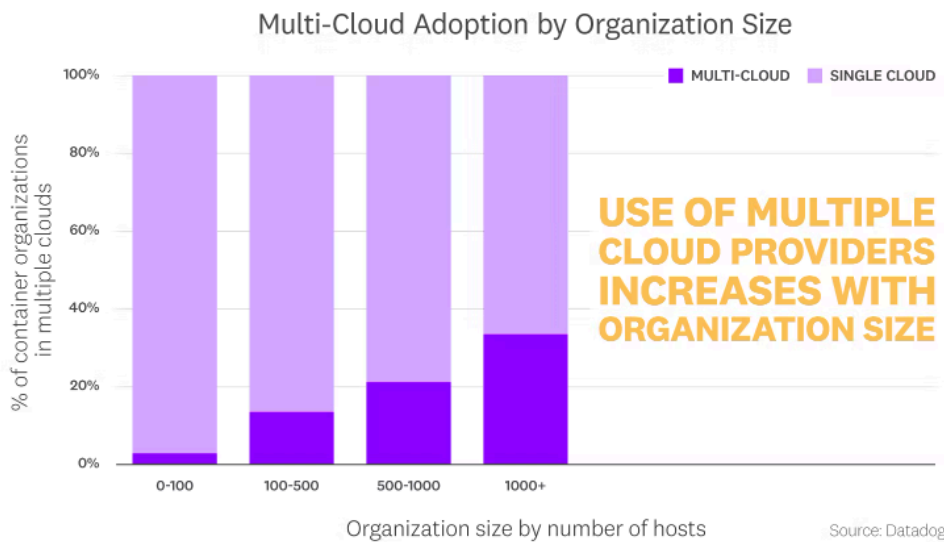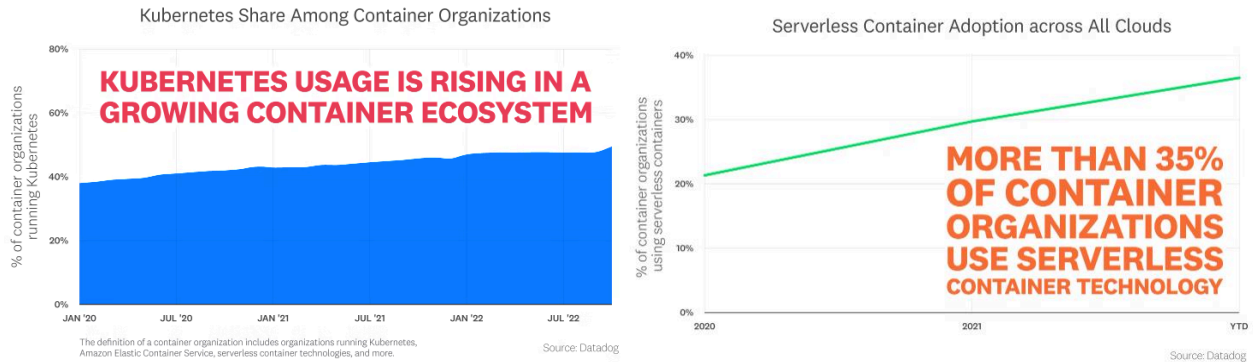
Company Background

Datadog is a monitoring/observability and security platform built for cloud applications. Datadog is a software as a service (SaaS) platform that automates infrastructure monitoring, application performance monitoring and log management to provide a real-time unified view of the customer's comprehensive technology stack. Datadog empowers digital transformation and cloud migration by driving collaboration while breaking down IT department silos. Datadog was founded in 2010 by Olivier Pomel (CEO & Co-Founder) and Alexis Lê-Quôc (CTO & Co-Founder), both of whom worked at Wireless Generation previously.

The founders' goal in 2010 was to build a real-time integration platform to ingest data from disparate sources and turn this "noise" into actionable insights, while the target audience was to break down silos between developers and operation teams. Infrastructure monitoring was the company's first product launched, in 2012, to provide visibility to the ephemeral cloud native architecture. Since 2017, Datadog has launched a new category of product annually. Datadog became a bona fide holistic observability platform by 2018, since it has the ability to process metrics, traces, logs, and other telemetry data on over 600 integrations to other software vendors. Datadog started the observability journey with infrastructure monitoring and has since included application performance monitoring (APM) and log management to capture a unified view of the entire IT environment. The Datadog platform is designed to be cloud agnostic geared towards modern technology stacks for easy, frictionless deployment.

Exhibit 32: New Product Launches Ramped Up Starting in 2017
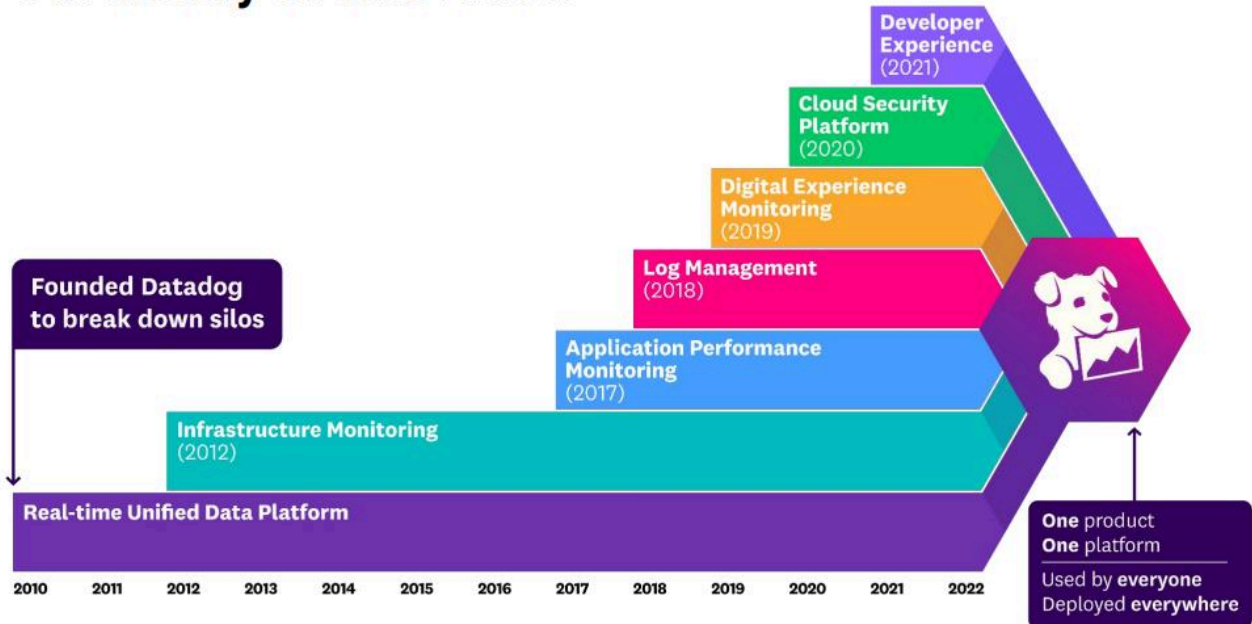
Source: Company reports

Before 2021, we characterize Datadog's average M&A was one company every 18 months. Since 2021, Datadog's M&A activities have picked up substantially, with three deals closing in 2021 and three so far in 2022 with a fourth deal's closing date pending. We believe this acquisition strategy of acquiring specific technology helps it to maintain its leadership position in cloud observability and now in cloud security. While we don't have full visibility on the valuation of all the transactions, we don't believe Datadog paid a substantial premium for them, since we think a majority of the tuck-in acquisitions are earlier-stage companies requiring some commitment from Datadog's engineering team to fully integrate them into the unified platform.

Exhibit 33: Datadog's M&A Transactions Picked Up Speed Since 2021

Announce Date	Close Date	Target	Acquirer	Transaction Value ($ mil.)
03 Nov '22	03 Nov '22	Cloudcraft, Inc.	Datadog, Inc.	-
04 Aug '22	04 Aug '22	Seekret Software Security Ltd.	Datadog, Inc.	70
05 May '22	Pending	Hdiv Security SL	Datadog, Inc.	-
10 Feb '22	10 Feb '22	CoScreen, Inc.	Datadog, Inc.	-
21 Oct '21	21 Oct '21	OzCode, Inc.	Datadog, Inc.	-
11 Feb '21	11 Feb '21	Timber Technologies, Inc.	Datadog, Inc.	-
11 Feb '21	12 Apr '21	Sqreen SAS	Datadog, Inc.	-
06 Aug '20	06 Aug '20	Undefined Labs, Inc.	Datadog France SAS	-
28 Sep '18	28 Sep '18	Madumbo SAS	Datadog, Inc.	1.6
07 Sep '17	07 Sep '17	Focusmatic SAS	Datadog, Inc.	-
11 Feb '15	11 Feb '15	Mortar Data, Inc.	Datadog, Inc.	-

Source: FactSet and Cantor Fitzgerald

We find interesting the rapid pace of Datadog monetizing its acquisitions — in most cases within a year. For example, LOGMATIC.IO was acquired in 2017 and the Log Management product was launched a year later. Madumbo, a synthetic monitoring tool, was acquired in 2018 and the year after Datadog launched Digital Experience Monitoring. In 2021, the acquisitions of Sqreen known for application security monitoring and Timber for observability pipeline further enhanced the Cloud Security Platform originally announced in 2020. Recent acquisitions iSeekret and Hdiv (closing date TBA) formed the base for the CoScreen launch this year to assist engineers in real-time collaboration across applications with an interactive screen sharing function. The pattern we can draw from Datadog's recent years uptick in the pace of M&A transactions is we believe Datadog is leveraging its profitable cash flow and healthy balance sheet to engage in strategic acquisitions to accelerate product releases, creating a flywheel for revenue growth.

Putting all this together, we have seen the convergence of point product theme unraveling in the cybersecurity space especially in networking, security, and cloud security, now we are seeing the same trend happening in observability. Datadog is adopting the consolidated platform approach to observability in delivering infrastructure monitoring, application performance monitoring, log management, digital & developer experience, and cloud security in a single pane of glass (unified platform & display). The outcome is a seamless user experience delivering real-time health of IT systems/appliances intelligence to customers so actions can be taken timely to prevent any disruption. Point product solutions that do one of the listed capabilities well will have a difficult time in consolidating the intelligence together in delivering actionable insights at such scale, in our view.

Datadog's headquarters are in New York City, and the company has an R&D presence in New York and Paris. As of December 31, 2021, the company had approximately 1,500 employees in the sales & marketing organization, 1,400 employees in the R&D function, and 3,200 total employees operating across 31 countries with 39% of employees located in France. Datadog completed its initial public offering on September 19, 2019, at a price of $27.00 per share.

Technology & Product Overview

Datadog is a cloud first observability platform offering real time insights into IT infrastructure performance and software applications. Datadog's SaaS architecture is set up to be modular, which integrates and automates:

- infrastructure monitoring
- application performance monitoring (APM)
- log management
- cloud security
- digital & developer user experience monitoring
- network performance monitoring
- incident response management

The consolidated platform includes shared features such as:

- modern dashboards
- advanced analytics
- collaboration tools
- alerting capabilities

The observability insights empower enhanced user experiences, quicker problem detection and resolution, and more informed strategic business decisions. Datadog's holistic platform leverages the Watchdog artificial intelligence/machine learning (AI/ML) technology to successfully navigate through the complexity of today's IT infrastructure environment. Watchdog AI is instrumental in anomaly detection homing in on the impacted area to determine the root cause quickly while prompting alerts to the engineering teams to prevent IT disruptions. Unlike traditional observability framework, where point solutions are purchased and merged into the mosaic of other monitoring products in an organization, Datadog takes a convergence approach to tackle this problem. Datadog' consolidated open architecture platform is

designed to be highly flexible in integrating with third-party solutions directly supporting over 600-plus out of the box integrations from multiple cloud solutions to on-premise hardware equipment.

Datadog 's products can be deployed individually per module, or the customer can choose to deploy multiple modules at once, reaping the benefit of automatic cross-correlation of product intelligence. Hence, an IT professional could either adopt Datadog's holistic platform by turning on a switch in the console, or he/she could procure individual observability software from various external vendors and would need to stitch the individual tools together to create visbility from a mosaic of tools. Differing from the point product solution approach, where the IT/Tech leaders must figure out how to integrate the various monitoring solutions to generate usable insights, Datadog already has a majority of the observability tools straight out of the box. If a customer chooses to deploy the consolidated Datadog platform, it can provide superior visibility across the IT infrastructure environment to applications for rapid troubleshooting if necessary.

The key features shared across Datadog's platform includes a single cloud-based multi-tenant SaaS platform that allows for real-time ingestion of a massive volume of data at scale, and the results can be displayed in a single pane of glass/dashboard for more convenient analysis by the user. The user need not toggle between multiple displays to find the answer, as it is all displayed in a unified view. The platform relies on a single agent to ingest any type of telemetry data (i.e., metrics, events, logs, traces) into a single data model that offers the ability to cross correlate insights in all of the customers' IT environments. Watchdog AI predicts and identifies sources of performance or availability issues affecting customers before they impact the systems/application, and real-time automated alerts are sent to customers if required. In the section to follow, we will discuss the portfolio of products that can be deployed individually or as part of a unified bundle solution directly from Datadog. In addition, customers can also access partner-built solutions via the Marketplace.

Exhibit 34: Data Platform Offers 15 Integrated Products Across Developers & IT Operations, Security and Business & Support Teams
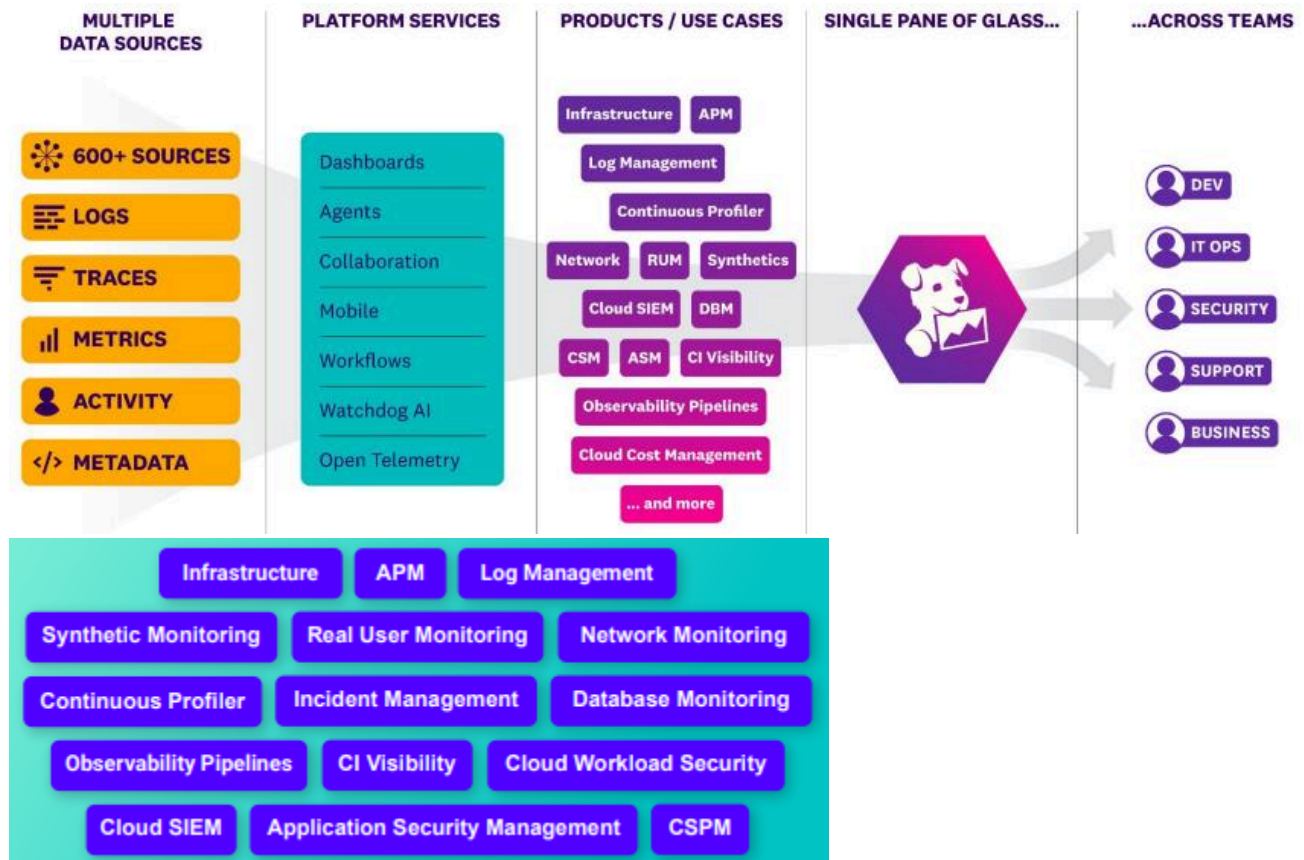
Source: Company reports

Products – this section includes discussion of key products offered by Datadog

Datadog product portfolio could be disaggregated into six categories:

- Infrastructure Monitoring
- Application Performance Monitoring (APM)
- Digital Experience Monitoring
- Log Management
- Security
- Developer Experience

Exhibit 35: Datadog Leverages the Power of Watchdog AI and a Shared Services Platform to Enhanced User Experience
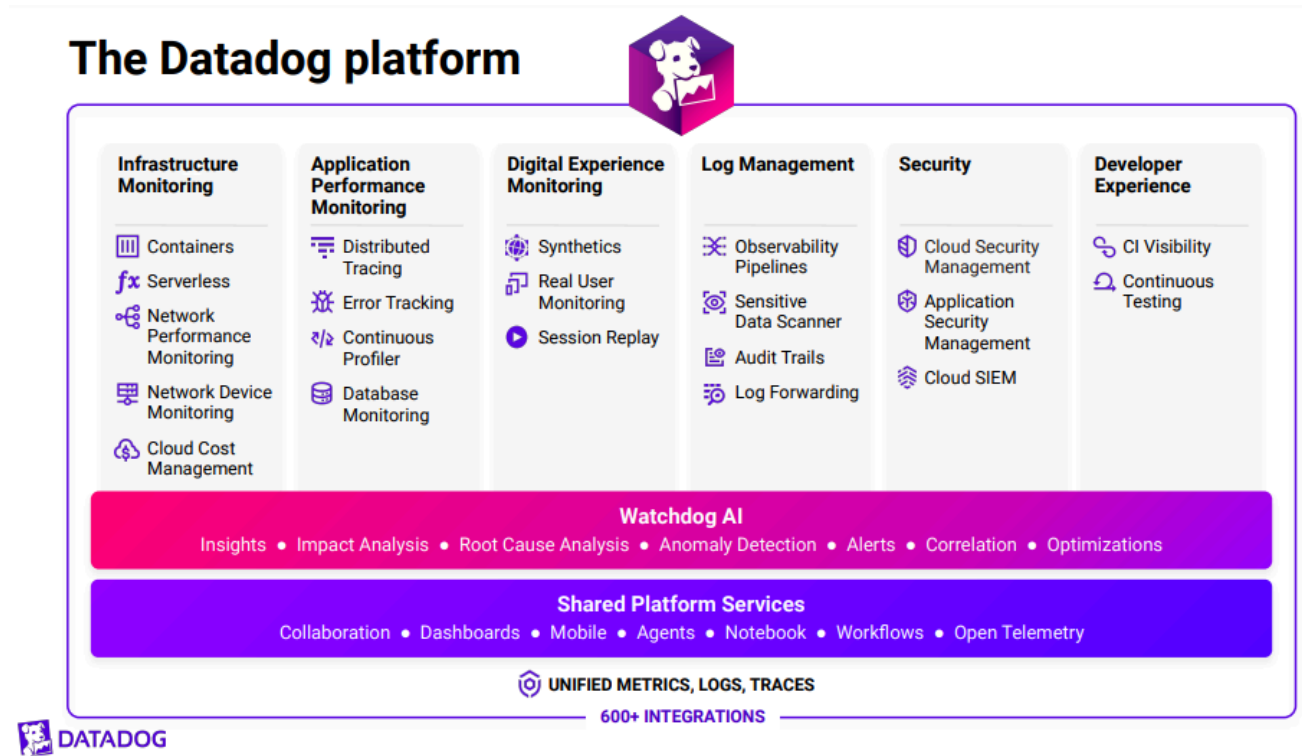
Source: Company reports

Infrastructure Monitoring
Infrastructure Monitoring provides real-time monitoring of IT infrastructure to ensure performance and availability of systems and applications. The infrastructure monitoring suite offers visibility across public cloud, private cloud and hybrid IT settings; the tool can also monitor modern environments such as containers and serverless architectures. All infrastructure data collected goes into a single repository for automatic cross correlation of actionable insights shared in the entire IT ecosystem.

| Network Performance & Device Monitoring | Enables the analysis and visualization of network traffic flow in cloud or hybrid IT infrastructure environments. The agent is very lightweight, placing minimum demands on computing resources. The launch of Network Device Monitoring in 2021 extends monitoring to network hardware, such as routers, switches and firewalls. Network Monitoring allows full technology stack dependencies mapping, which offers maximum visibility of the IT environment to users. |

Exhibit 36: Infrastructure Monitoring Offers Complete Coverage of Any Technology Stacks
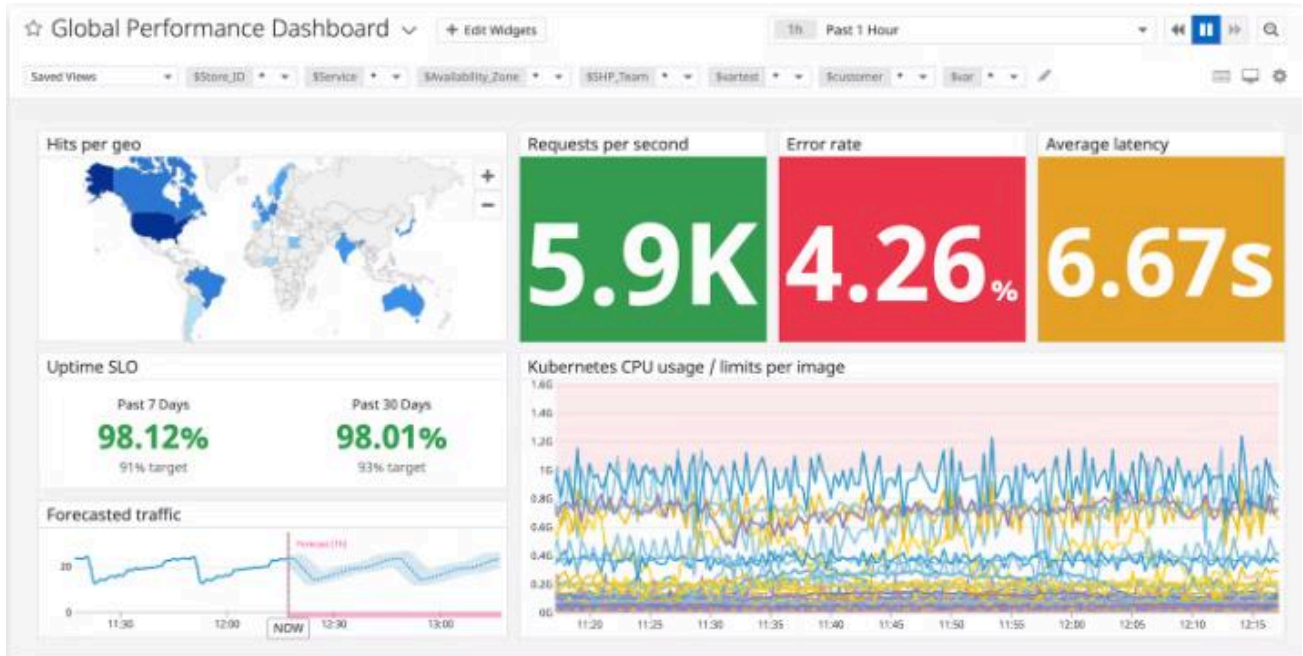
Source: Company website

Application Performance Monitoring (APM)	
Application Performance Monitoring offers full visibility into the health and functioning of applications agnostic to the method of deployment environments (i.e., public or private cloud, hybrid IT). APM conducts distributed tracing across microservices, hosts, containers and serverless computing for deep insights into application performance.	
Continuous Profiler	Measures code-level performance for any IT infrastructure environment to quickly identify and optimize the most resource-demanding portion in application code. Continuous profile seeks to improve the mean time to resolution, enhance user experience and reduce cloud provider cost.
Database Monitoring	Enables customers to analyze query and database usage metrics in a unified view. The user can rapidly pinpoint inefficient and slow-running queries to drill in precise execution details to address any performance bottlenecks, such as resource constraints on database.

Exhibit 37: Application Performance Monitoring Provides End-to-End Distributed Tracing Correlated to All Telemetry
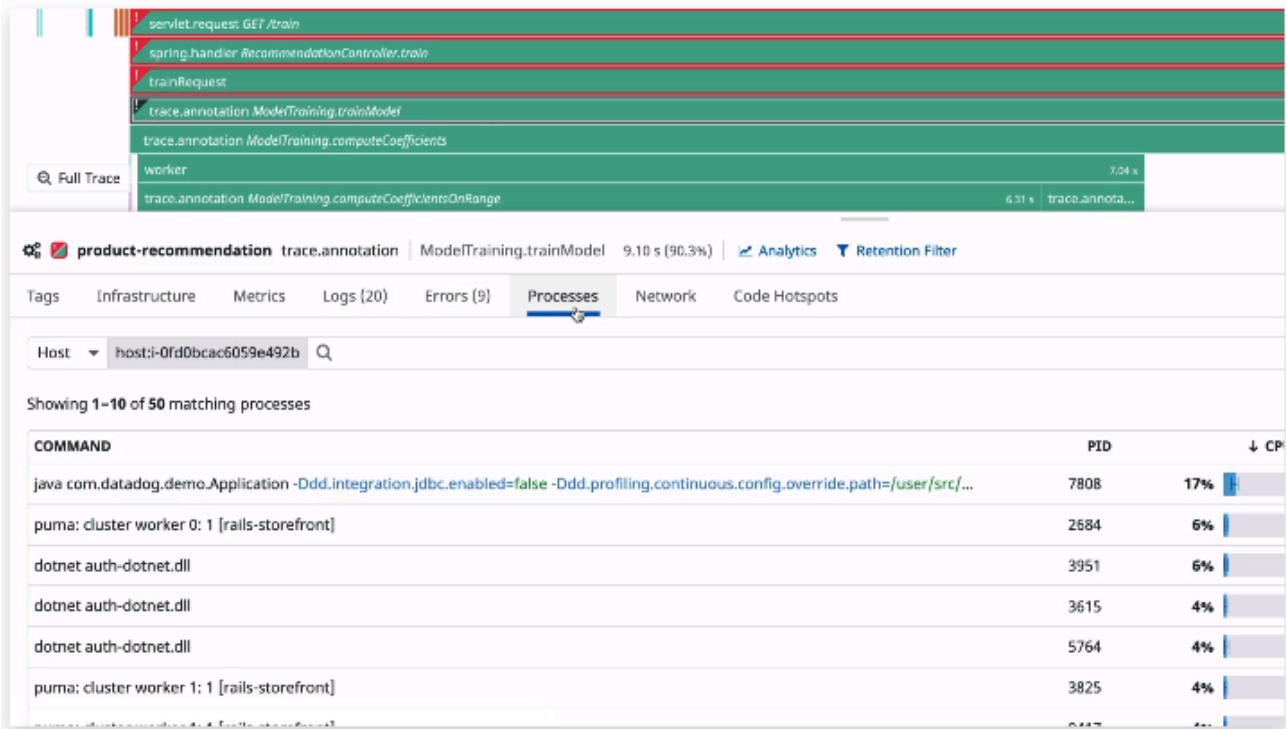
Source: Company website

Log Management
Log Management ingests data from disparate sources (across applications, systems and cloud platforms) then creates, indexes and enables querying of the logs for visualizations and alerting to provide immediate insight into any performance issues identified. Datadog's Logging Without Limits product offering allows customers to cost-effectively collect a massive volume of logs and selectively process those requiring additional monitoring procedures. Logging Without Limits provide the customer with the optionality to ingest all telemetry on a cost-free basis while decoupling the cost of log ingestion from processing.

Observability Pipelines	Empowers both the IT/operation and security teams to cost-effectively collect, transform and route logs, metrics and traces from any source to any destination at petabyte scale. Pipeline offers full control of the observability data collected by allowing organizations to affordably manage and scale observability.

Exhibit 38: Logging Without Limits — Ingest & Archive Everything, Decide Afterwards What Logs to Retain Any Time
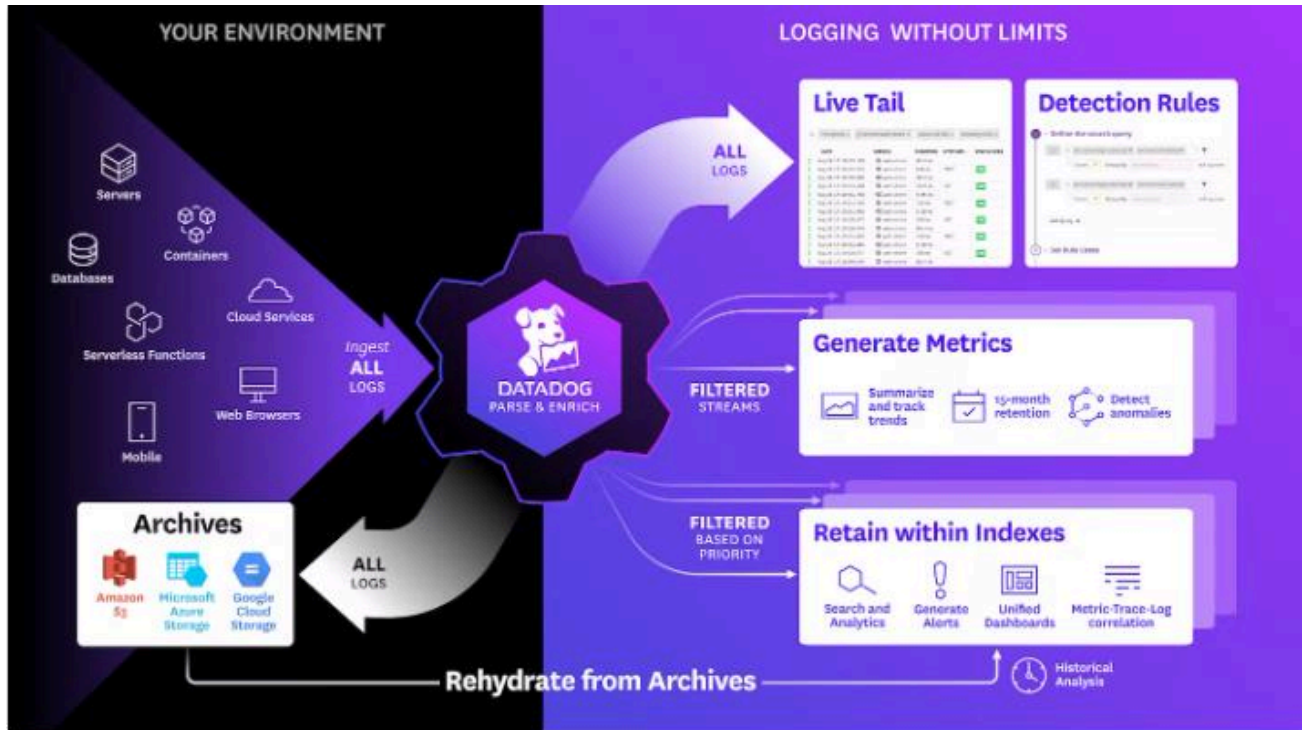
Source: Company reports

Digital Experience Monitoring	
Digital Experience Monitoring provides visibility up the technology software stack to monitor the customers' digital experience. Digital Experience Monitoring is comprised of two core products: Synthetics and Real User Monitoring (RUM).	
Synthetic Monitoring	Allows customer to create code free tests to proactively simulate user transactions to track application performance and API network endpoints, ensuring uptime is met.
Real User Monitoring (RUM)	Provides analysis and visualization as experienced by an actual user journey's performance of front-end applications (web or mobile apps).

Exhibit 39: Real User Monitoring Delivers End-to-End Visibility to User Journeys for Web and Mobile Applications
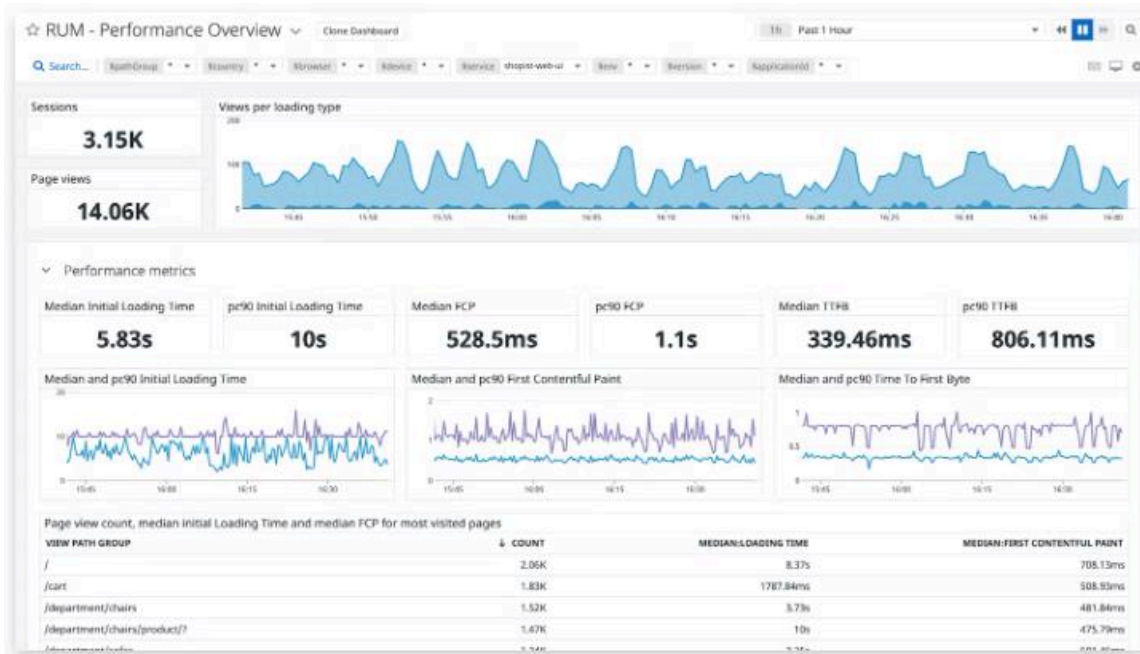
Source: Company website

Cloud Security Management	
Cloud Security Management delivers real-time threat detection and continuous configuration audits across the entire cloud infrastructure in a single, unified view for seamless collaboration and faster remediation. Security and DevOps teams can leverage the shared context of observability data and security risks to timely assess the effect of a threat.	
Cloud SIEM (Security Information and Event Management)	Provides the entire engineering organization, inclusive of developers, operations teams and security teams, visibility into common data sources (e.g., metrics, traces, logs) in order to detect threats in real time and investigate security signals to better operationalize IT security.
Cloud Security Posture Management	Offers visibility to assess the current and historical state of security to the cloud environments, enabling any cloud misconfigurations to be prevented. Cloud security posture management monitors cloud vulnerabilities prone to attacks and provides automated audit evidence collection for compliance requirements.
Cloud Workload Security	Performs thorough, in-kernel analysis of workload activity across customers' hosts and containers to uncover threats or vulnerabilities.
Application Security Management (ASM)	Delivers deep, real-time visibility by leveraging Datadog's distributed tracing capabilities into attacks that target web applications and application programming interfaces (APIs). ASM uncovers the attacker's movements to determine specifically which Open Web Application Security Project (OWASP) threats trigger abnormal application behavior. ASM offers source code-level context that enables actionable insights for quicker remediation; the module also promotes collaboration best practices in development, security and operations teams.

Exhibit 40: Resource Catalog Scans the Entire Cloud Infrastructure Environment for a Complete Mapping of the Relationships in All Cloud Resources

Source: Company website

Developer Experience	
Developer Experience provides visibility down the technology software stack all the way to the source code to monitor the experience of the software engineer or developer activities.	
Incident Management	Allows users to report incidents for further investigation of root causes and dependencies. The Datadog platform offers a unified view of the incident, from initial collaboration to resolution, with auto-generated post-mortem documentation to meet compliance standards.
CI (Continuous Integration) Visibility	Drives deep visibility into the health and performance in the early stages of the CI process (software development lifecycle/SDLC approach of testing each change to codebase automatically). Datadog automatically instruments pipelines and tests, freeing customers to dive into analyzing traces for problematic builds and execution issues. CI can scope data by repository, branch or commit to uncover any unusual patterns and resolve issues in a timely way. CI provides a comprehensive view of all CI activities, which makes it easier for engineers/developers to resolve bottlenecks, reduce CI costs and enable an overall better SDLC experience.

Exhibit 41: CI Visibility Monitors Pipeline Issues and Supports 10+ Programming Languages
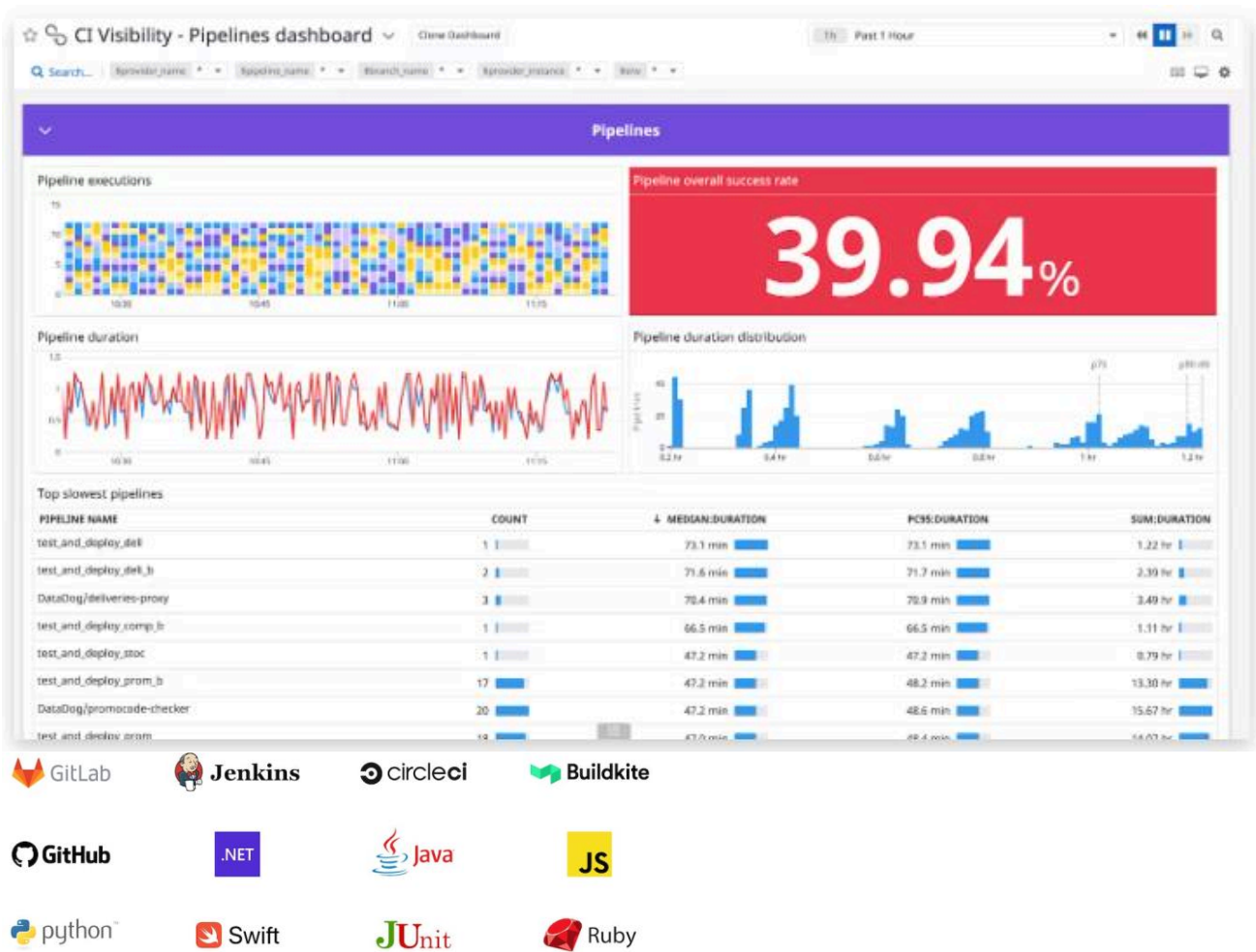
Source: Company reports and website

Professional Services lays sleeping. Due to the simple SaaS delivery through a cloud-based subscription consumption model, the deployment process of Datadog's products generally don't require the use of extensive professional services, unlike legacy on-premise competitors. Hence the revenue recognized from such services is insignificant.

Product Pricing Model

Datadog's product pricing is generally based on a consumption/usage model and value-delivered basis on the number of host or devices serviced. The exhibit that follows summarizes the general pricing concept for key product categories.

Exhibit 42: Datadog's Pricing Model Is Generally Based on Usage and Host/Device

PRODUCT	PRICING		PRODUCT	PRICING
Infrastructure	per host		Network Monitoring	per host / per device
APM	per host		Incident Management	per user
Logs	per ingested GB / per indexed event		Security Monitoring	per GB of analyzed logs
Synthetics	per test run		Cloud Security Posture Management	per host
Real User Monitoring	per session			
Serverless	per invocation		Cloud Workload Security	per host
Database Monitoring	per host		CI Visibility	per user

Source: Company reports

Management

Olivier Pomel, Chief Executive Officer & Co-Founder

Olivier Pomel Co-Founded Datadog in 2010 with CTO Alexis Lê-Quôc and serves as the CEO. Prior to founding Datadog, Mr. Pomel built data systems for K-12 teachers as a VP of Technology for Wireless Generation, where he grew the development team to about 100 engineers in New York until the company was acquired by News Corp. Previous to Wireless Generation, he held the role of software engineering at IBM Research and several internet startups. Mr. Pomel is an original author of the VLC media player. He holds a Master of Science in Computer Science from the Ecole Centrale Paris.

Alexis Lê-Quôc, Chief Technology Officer & Co-Founder

Alexis Lê-Quôc Co-Founded Datadog in 2010 with CEO Olivier Pomel and serves as the CTO. Prior to founding Datadog, Mr. Lê-Quôc served as the Director of Operations for Wireless Generation, where he built the team and infrastructure that served more than 4 million students across 49 states. Previous to Wireless Generation, Mr. Lê-Quôc spent several years as a software engineer at IBM Research, Neomeo and Orange. He is a frequent presenter on cloud monitoring and server performance at various conferences, including AWS re:Invent, Monitorama, DevOpsDays, Velocity and PyCon. He holds a Master of Science in Computer Science from the Ecole Centrale Paris.

Amit Agarwal, President

Amit Agarwal is the President of Datadog and has more than 15 years of experience in enterprise software, serving in various business strategy and technical management roles to bring new products to market. Prior to Datadog, Mr. Agarwal was the Director of Product Management at Quest Software (now Dell), where he led the team responsible for application performance monitoring. Previously, he held product management roles at enterprise software firms including Datamirror (now IBM) and Embarcadero Technologies, as well as technical positions with 3D-medical imaging and mobile encryption software companies. Mr. Agarwal holds an MBA from the Schulich School of Business and a Master's in Computer Science from Dalhousie University.

David Obstler, Chief Financial Officer

David Obstler is the CFO of Datadog and brings more than three decades of operational finance experience, with over two decades focused on technology companies. Prior to Datadog, Mr. Obstler served as CFO of TravelClick, where he led the global financial operations. Mr. Obstler was appointed to the board of Braze (BRZE, NC) in 2021. He has also held CFO roles at OpenLink Financial, MSCI Inc., Risk Metrics Group, and Pinnacor. Prior to his CFO roles for various companies, Mr. Obstler held investment banking positions at JPMorgan, Lehman Brothers and Goldman Sachs. He has a BA from Yale University and an MBA from Harvard Business School.

Growth Strategy

As we alluded to in our investment thesis discussion, Datadog's fundamentals are best in class as compared to observability peers, striving to uphold a long-term top-line growth rate of +30%, an operating margin profile of approximately +15%, and an adjusted free cash flow margin at an even higher +20% range. All said, the growth plus margin algorithm comfortably exceeds the Rule of 40 and is now operating under the Rule of 50. While Datadog currently doesn't present a long-term operating model, as the company exits 2022E we envision expansion at mid- to high-50% top-line growth and operating and free cash flow (FCF) margins of +16% and ~20%, respectively. We forecast the mid-term financial targets to approximate 30-35% revenue growth at operating and free cash flow (FCF) margins of +15% and +20%, respectively. In the long term, we envision growth gradually decelerates to +30%, albeit at a larger scale, while operating and free cash flow (FCF) margins inflect higher, to the tune of +20% and +25%, respectively, as the expense base matures, realizing economies of scale.

Exhibit 43: Projected Long-Term Operating Model

	2021A	2022E	Mid Term Operating Model	Long Term Operating Model
Revenue	1,029	1,620		
y/y change %	70.5%	57.5%	+30-35%	+30%
Operating Income (Loss)	165	265		
Operating margin %	16.0%	16.4%	+15%	+20%
Free Cash Flow	251	320		
FCF margin %	24.4%	19.8%	+20%	+25%
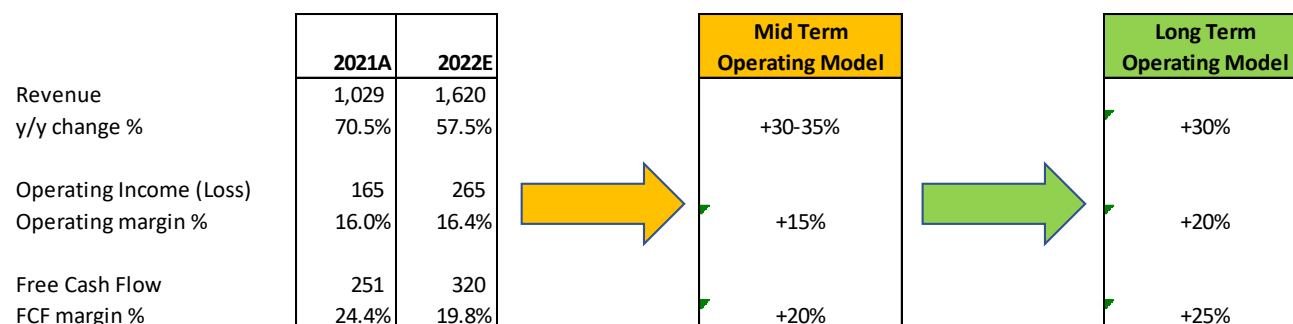
Source: Company reports and Cantor Fitzgerald

Applying our estimated long-term growth forecast, we are targeting revenue to exceed $5 billion by 2026E, growing at a CAGR of ~32.5% from FY2022E to FY2026E. The balanced profitable growth approach is well-supported by a combination of the frictionless SaaS subscription revenue momentum from the simple product consumption model, product innovative-led growth, and improving margin at scale. We advise investors to track Datadog's success making headway in the observability space from its module adoption rate, where we are seeing gradual growth in customers using +2, +4, and +6 products. Post 3Q22, we tracked customers with 2-, 4-, and 6-plus products and found usage increased by 300, 900 and 800bps y/y to 80%, 40% and 16%, respectively. Further cross-sell opportunities within the entire suite of products, especially those launched since 2020, in our view, would drive these customer adoption metrics higher.

As a result of this product-led growth strategy, we note Datadog has had more than 50% growth rates since becoming public in 2019. The diversity of the business profile across geographies (~70% United States and ~30% International) and product mix (we name six major product categories in the Technology & Product Overview section) would be a valuable pillar of strength during volatile market conditions. Our discussion to follow zeroes in on how Datadog can sustain our projected long-term financial targets of +30% CAGR to exceed $5 billion in revenue by 2026E and an attractive operating/FCF margin of greater than 20%.

Current Opportunities. Current market opportunities are driven by an explosion of activities in cloud/SaaS migration and enterprise digitalization to meet the demanding requirements to competitively operate in the modern economy. CTO Alexis Lê-Quôc reminded us at Dash 2022 that the goal for Datadog is to be the single platform for all of client's observability and security needs; hence, Datadog's strategy to double down on investing deeper into the observability stack makes sense to us. During the Dash conference, Datadog announced a series of product updates such as OpenTelemetry (OTel) support, Resource Catalog (to pinpoint cloud issues), Cloud Cost Management (CCM) and Cloud Security Management, all of which align to the doubling down approach to observability. We attribute the success of Datadog's innovative culture of product release to the strong Research & Development (R&D) franchise, which we estimate at greater than $400 million as the company exits 2022E.

We are monitoring for signs of customers' shift to a convergence/consolidation approach in observability and cloud security versus point product solutions. The volatile market conditions impacted by record high inflationary pressure, looming energy crisis, tightening interest rate cycle, and the conflict in Ukraine have caused various industries to marginalize IT spending budgets. While we are hearing through our channels that certain sectors such as energy and financial services are faring better, other verticals such as large tech and retailers are facing cuts. The current theme surfacing through the sector is greater scrutiny for larger transactions, driving an elongated sales cycle. See our recent Security Channel Trends Update (note here). Although this piece is focused on the cybersecurity sector, we are expecting similar dynamics to play out in the neighboring observability space too. We view Datadog's consolidated cloud-first observability platform as a competitive edge for customers seeking to save on IT budgets. Cost-conscious customers can explore eliminating certain point product monitoring or cloud security solutions and opt instead to turn on additional features made available in Datadog's extensive portfolio to realize potential product-bundling discounts.

Datadog's immediate strategy, we believe, is to focus on its leadership position in advancing adoption of its next-generation cloud observability family of products. By harnessing the company's strength in achieving success in the core markets, Datadog can use the excess cash flow generated from these categories to invest in the nascent part of the product portfolio, which are Cloud Security Management and Developer Experience. Near term, we expect Datadog to end 2022 as a Rule of 70 company, consisting of 55%+ revenue growth and 15%+ operating margin. Post the 3Q22 results, Datadog maintained strong full-year 2022E revenue guidance slated to increase 57.5% y/y targeting $1.62 billion at the midpoint despite a challenging macro environment.

Longer-Term Path to Cross $5B in Revenue. The path to achieve our projected goal of a $5 billion revenue target by 2026E will require consistent execution on the mature core product pillars in infrastructure monitoring, APM and log management. We believe Datadog has a strong enough product roadmap in place and a credible record to achieve this financial target. Datadog's strategy to double down on the core observability product strength and reallocate its excess resources into Cloud Security Management and drilling deeper in serving the developers community is a sound plan, in our view. The secular migration trend from on-premise to cloud workloads should drive healthy demands for Datadog's differentiated cloud-first platform focus on providing customers with a lower total cost of ownership (TCO) through product consolidation.

Investing in the partner channels is key to Datadog's sales motion since it is listed as one of the four key sales pillars for the company. The four revenue-generating areas include:

- an enterprise sales team that focus on large businesses
- a high velocity inside sales team that is focused on new customers acquisitions
- a customer success team that manages new customer onboarding and upsell to existing customers
- a channel partner team that works with value-added resellers, system integrators, managed service providers, cloud service providers and referral partners

Datadog's partner network, launched in 2020, is focused on building deep business relationships with experienced IT software solutions-oriented distributors and resellers. The network benefits channel partners by providing go-to-market

collaboration support and training for product implementation. We are seeing evidence of global strategic partnerships ramping up, for example, from large cloud providers like AWS announced in January and Azure in March.

The path to $5 billion in revenue, we believe, will continue to be driven by the same catalysts in the near term, consisting of greater attention to cloud/SaaS migration wave, digital transformation adoption, convergence of observability & security and vendor consolidation. We view Datadog's expansion into the adjacent areas and use cases beyond observability to cloud security and developer experience to be pivotal in achieving the $5 billion long-term revenue goal. We view Datadog's current cloud security product offerings as nascent yet compelling and expect the company to continue to enhance its security capabilities, as demonstrated in Dash 2022 with the Cloud Security Management suite, to augment the core observability platform. We believe adding cloud security to the core observability product is a natural extension of the original Datadog platform already serving the developers and operation teams (DevOps). Furthermore, adoption of newer product such as CI Visibility will strengthen Datadog's capabilities on shifting left to catering to the grass root developer's community. Cloud, SaaS and digital transformation require a versatile consolidated platform that provides flexibility to work in complex infrastructure settings, providing Datadog with a competitive moat in winning deals, in our view. Mid- to longer term, we view talent shortages in skilled IT professionals and the pressure to reduce costs to drive prospective/existing customers to adopt Datadog's holistic platform, leveraging AI/ML automation to observability and beyond.

Exhibit 44: Cloud Security Management Is a Cloud-Native Application Protection Platform (CNAPP) That Secures Cloud Native Apps from Development to Run Time
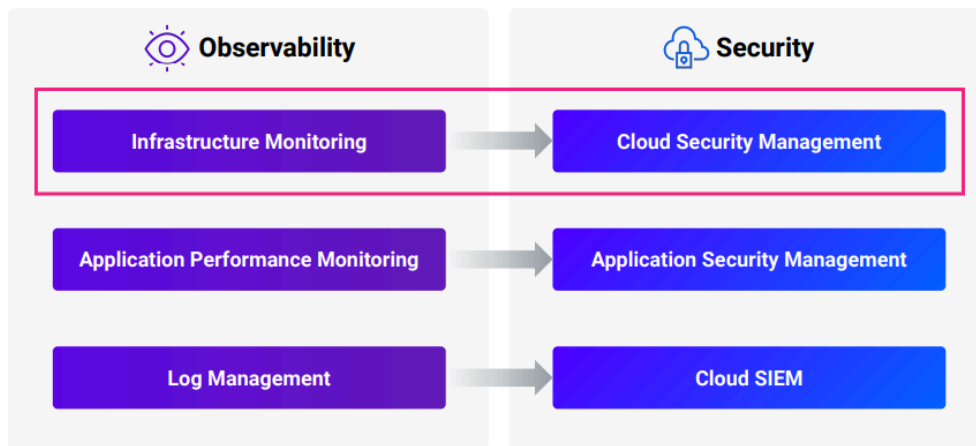
Source: Company reports

Grow the Customer Base & Cross-/Upsell. We see substantial opportunity for continued expansion in Datadog's existing and prospective customer base. Recent 3Q22 subscription customers count is 22,200, and customers above $100K accounts for 2,600 or 11.7% of the total; however, this cohort makes up 85% of total annual recurring revenue (ARR). From this datapoint, we surmise that Datadog serves the upper enterprise end of the market. We envision a majority of the cross- and upsell opportunities into the existing customer base will start from this lucrative enterprise customer cohort.

As of 4Q21, Datadog disclosed it had 216 greater than $1 million ARR customers. Even if the number of those customers doubled to 432 by end of 2022, this is a rather insignificant ~2% of total customers. Based on our back of the envelope analysis, it appears there are plenty of cross- and upsell opportunities for Datadog to increase the number of $1 million ARR customers. The number of those customers expanded at a CAGR of 155% over a five-year period to 216 in 2021 from 2 in 2016. We believe large enterprise deals should be viewed as a significant key performance indicator (KPI) to monitor, given our belief that the company's converged platform delivering observability & cloud security at a reasonable TCO when the solutions are packaged together would be a competitive alternative to point product solutions priced at a premium cost individually.

Exhibit 45: Plenty of Opportunities Remain to Expand Customer ARR Spend Towards the $1 Million ARR Cohort
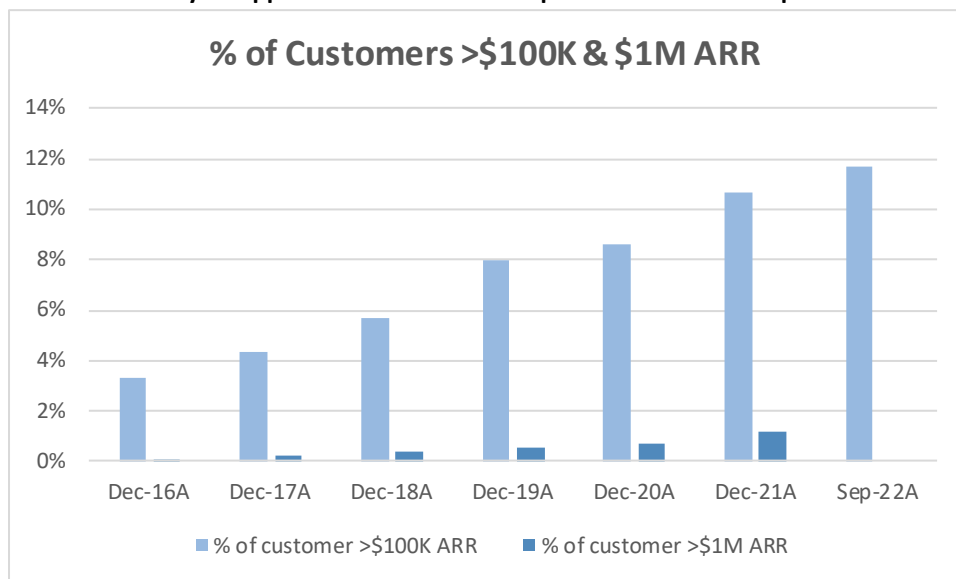
Source: Company reports and Cantor Fitzgerald

Possible Growth Inhibitors

<u>Failure to gain customer traction on new products.</u> Since inception, Datadog has been able to rapidly introduce innovative products on a consistent basis, via both organically developed channel and inorganic acquisitions to speed the product development process. Datadog's notable end-to-end cloud observability platform can be easily integrated to external best-of-breed software providers to deliver a seamless user experience at a reasonable TCO when accounting for vendors eliminated through consolidation. The company leans on its product leadership position from its holistic cloud observability platform while seeking opportunistically to expand to adjacent areas such as Cloud Security Management and developer experience, the "shift left" approach.

The much broader portfolio addresses the convergence of core observability infused with Watchdog's shared proprietary artificial intelligence/machine learning capabilities, while further extending reach to capture mindshare in less proven Cloud Security and developers' initiatives. While we acknowledge Datadog's stronghold in the core cloud observability leadership position, we are still monitoring the market reception of the product launches in the past three years such as Cloud SIEM, Real User Monitoring, Cloud Security Posture Management, CI Visbility, Application Security Monitoring, Observability Pipeline, Cloud Cost Management, etc. We believe a slowdown in the growth of large cloud service providers (AWS, Azure, GCP, etc.) could potentially lead to headwinds for Datadog.

<u>Gradual Deceleration of Cloud Growth.</u> As we have alluded to in our investment thesis section, we are tracking signs of cloud spend moderation in the latest 3Q22 reports. Amazon Web Services, Microsoft Azure and Google Cloud Platform are still averaging a healthy growth rate of 36%, albeit at a decelerating pace for AWS and Azure throughout 2022. We believe that as long as the cloud titans are holding growth above the 30% level y/y then it should support a still respectable expansion for Datadog's cloud observability solution.

Exhibit 46: Cloud Titans Growth Trends in 2022

y/y growth rate	1Q22	2Q22	3Q22
Amazon Web Services	37%	33%	27%
Google Cloud Platform	44%	36%	38%
Microsoft Azure	49%	46%	42%
Average Growth y/y	**43%**	**38%**	**36%**

Source: Company reports and Cantor Fitzgerald

Datadog has a decent network of clientele with more than 22,000 customers and 2,600 of them larger enterprises generating over $100K in ARR. Datadog could target the existing customers base to test these emerging technologies first, including the ability to receive feedback from beta users before rolling them out on a larger scale. The failure of emerging products to gain market validation could serve as a risk to Datadog's growth opportunities and long-term operating goals. As Datadog ventures into these new market opportunities, we believe it may be necessary to provide some level of education to customers on why Datadog is the preferred vendor, especially in the as yet unproven adjacency area of security. Datadog's experience in managing a product-led growth culture dating back to 2017, when the company began its journey in rapid new product launches annually, serves as good brand recognition to the market, in our view. However, compared to incumbent point product solutions that have been in the market longer, we believe Datadog could have some difficulty displacing the competition. Ultimately, we believe market adoption of Datadog's emerging products is crucial to the long-term growth success of the company, and any failure to develop innovative products for which the market sees a need may hurt growth prospects.

Competition

Datadog shows up in the June 2022 Leaders category in Gartner Magic Quadrants for Application Performance Monitoring and Observability. In the APM and observability category, it is essentially a three-horse race among Datadog, Dynatrace and New Relic, ranked in that order. Although an argument could be made that Dynatrace is leading, New Relic remains a distant third, although we would characterize the company as highly competitive. Datadog edges Dynatrace slightly on the Gartner Magic Quadrant in the ability to execute, while Dynatrace edges Datadog slightly in the completeness of vision. The other two leaders cited are Instana (wholly owned by IBM) and Honeycomb (private).

During our fieldwork, we often come across the following peers we believe are worth mentioning: Splunk, Sumo Logic, AppDynamics (wholly owned by CSCO), and Elastic (ESTC, NC). Splunk, we hear from our channels, is highly competitive in the field of log management, and Sumo Logic is often positioned as a modern observability tool built for the cloud/digital era. AppDynamics was a market leader perhaps a decade ago, but we think the company is a share donor to the leaders in this space. While we believe Elastic is a leader in the enterprise search space, we note it is gradually gaining traction in expanding to the adjacent areas of observability and security.

Notable mentions are the two large cloud service providers, Amazon Web Services and Microsoft. Although both have a native observability tool aimed at gaining visibility within their own cloud environments, we don't believe they are best of breed products but rather a workable solution for customers to consider as a starter. Competition from cloud titans is always a risk since this group of players has the balance sheet strength to invest in any area of the technology stack. At the moment, we don't believe this group is a threat to Datadog, but we will continue to monitor it.

We believe the most direct competitors to Datadog, in order, are Dynatrace, New Relic, Splunk and Sumo Logic. Dynatrace and New Relic's revamped cloud observability offering are highly competitive to Datadog's platform, in our view. Splunk is often brought into the mix, especially in log management, and we think Sumo Logic will always try to stay relevant in the lower end of the market. We advise investors to stay highly alert to the two closest rivals in Dynatrace and New Relic while maintaining focus on the rest of the market for any competitive dynamic changes.

Exhibit 47: Datadog Is Named a Leader in Gartner's Magic Quadrant for APM and Observability

Source: https://www.dynatrace.com/gartner-magic-quadrant-for-application-performance-monitoring-observability/

A GigaOM Radar report on AIOps, Observability and Log Monitoring Vendors in 2021 has cited Datadog as a Fast Mover in the Leaders category. However, GigaOM ranked Splunk as the only Outperformer within the Leaders category. The findings in the GigaOM Radar are similar to Gartner's Magic Quadrant in that Datadog, Dynatrace and New Relic are highlighted in the Leaders space. Datadog is characterized by GigaOM as a platform play that is down the maturity spectrum. We believe it is worth noting that Datadog ranks farthest to the right on the platform attribute amongst the Leaders. The report also mentioned Elastic, VMware (VMW, NC) and Logz.io (Private) as part of the Leaders group.

Exhibit 48: Datadog Is Named a Leader in GigaOM Radar on AIOps, Observability and Log Monitoring Vendors in 2021
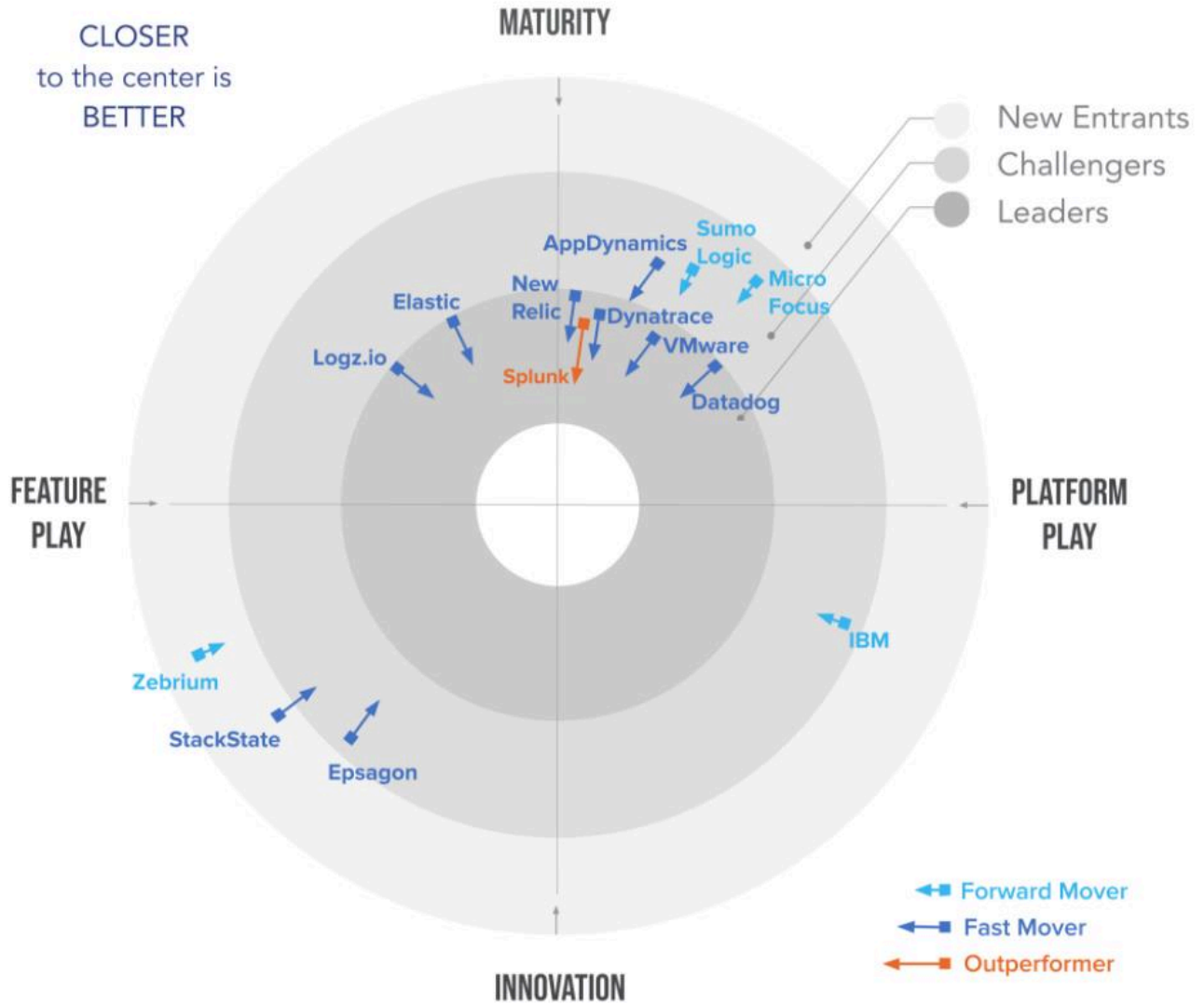
Although a bit dated, from 4Q 2020, Forrester Wave ranked Datadog on the cusp of the Leaders group for AIOps. In terms of market presence, Datadog, Dynatrace and New Relic are cited as the largest players. Within the Leaders category there are Dynatrace, Devo (Private) and ScienceLogic (Private). We believe Devo is more widely known as a SIEM provider, and ScienceLogic does operate in the AIOps monitoring space for multiple environments.

Exhibit 49: Datadog Among the Strong Performers/Leaders Cohort in The Forrester Wave for AIOps in 4Q2020

Source: https://www.datanami.com/2021/03/04/whos-winning-in-the-17b-aiops-and-observability-market/
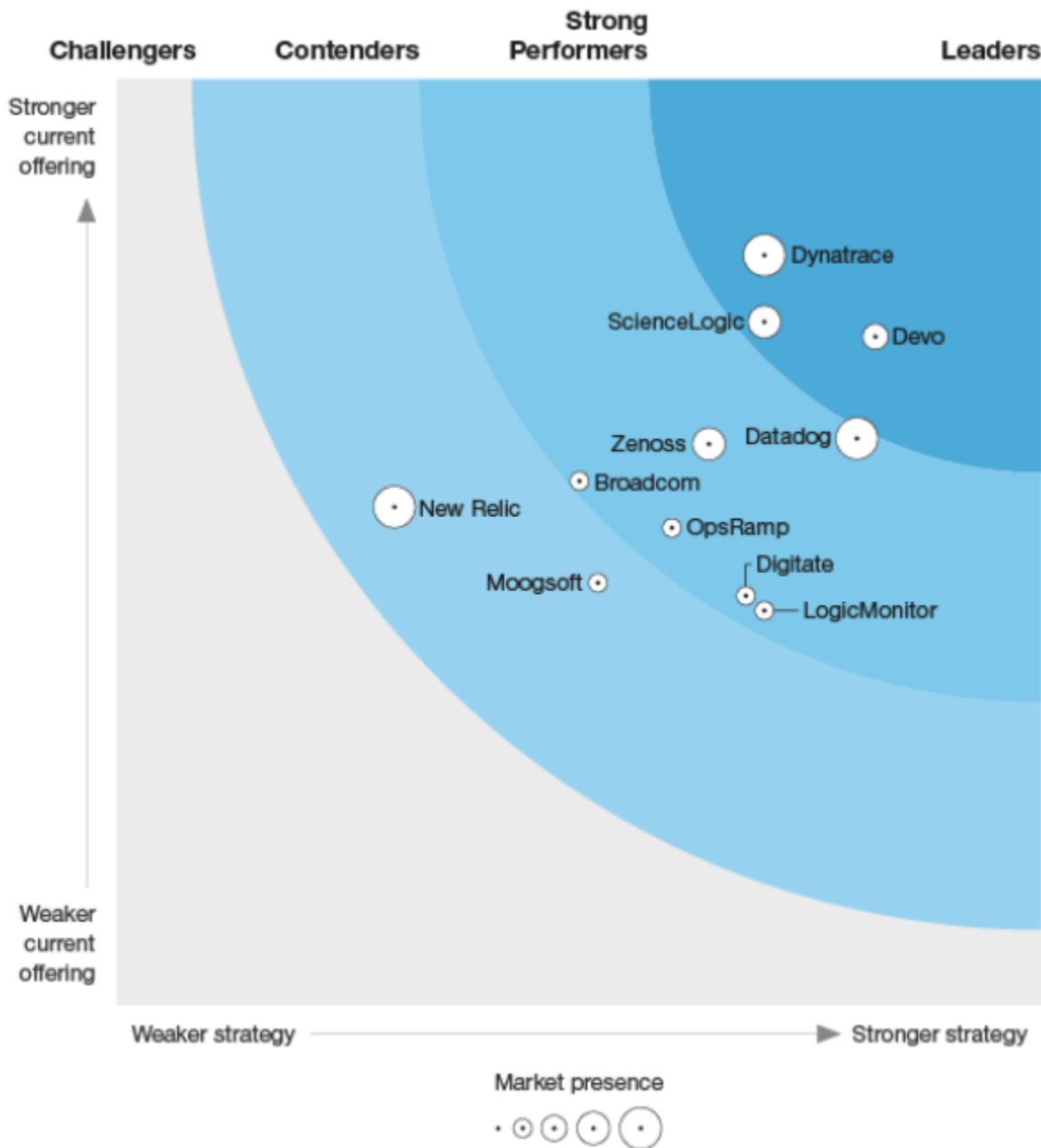
Datadog seeks to compete in two main markets: core observability and cloud security. Given the substantial coverage Datadog seeks to go up against, it is expected that competition will be significant in both markets. However, we believe Datadog should be able to maintain a respectable 30-35%-plus top-line growth rate while garnering high profitability metrics (15-20%+ operating margin and 20-25%+ FCF margin), earning a spot in the upper echelon of cloud observability companies. This balanced approach is a rare gem, in our opinion, especially acting as a hedge against volatile market conditions. A balanced approach offers investors a sense of security, since we believe the company will likely continue to generate excess cash instead of burning cash in these uncertain times, when cash is king.

Although it is difficult to pinpoint exactly which markets Datadog is taking share in given that the company does not break out revenue to specific product lines and not even on the professional services revenue. However, we do believe it is likely Datadog will gain share in the most mature infrastructure monitoring offering while gradually cross-/upselling to customers on the APM and log management products. The competitive strategy utilizes the strength in the core observability family of products, especially on infrastructure monitoring, and reallocates excess resources to target the nascent areas in cloud security plus developer experienced markets.

In the future, we see the majority of enterprises as likely to continue their journey to gradually transition IT infrastructure in a stepwise function to the cloud/SaaS and engage in digital transformation to stay competitive in the modern economy. We therefore see this transition process serving as a tailwind to Datadog, since the company is committed to investing in a multi-cloud environment. Admittingly, we do acknowledge Datadog faces strong competition in the markets it serves; however, we do see potential for the company to take share against legacy competitors failing to invest in product innovation. We believe Datadog has a solid advantage over legacy or pure single-solution cloud players that lack a broad enough platform to address complex use cases. At present, we are monitoring Datadog's success in protecting its core observability market while it gradually pivots its product portfolio to growth areas in Cloud Security and drills deeper into developer experience.

Financial Performance and Outlook

Datadog reports revenue in a single line item since it is generated from the sale of subscriptions to customers using the company's cloud-based platform. Generally, customers enter into a subscription agreement on a monthly, annual or multi-year contract basis; we note that a majority of Datadog's revenue comes from annual subscriptions. Customers are usually subscribed to committed contractual terms based on expected usage, and if there are any overages, those customers are charged incrementally for excess service delivered. Unlike other traditional peers, professional services fees are usually not required, since the deployment of the product is rather simple via a SaaS/cloud consumption installation, hence, professional services fees are insignificant to Datadog.

Datadog has invested consistently in the sales & marketing (S&M) and research & development (R&D) organizations, and we are seeing the total dollar amount invested increase on a q/q basis over the years. General & Administrative (G&A) expenses as a percentage of total revenue continues to decline to about 6% as the company realizes the benefit of operating leverage and scale. An interesting trend we are seeing is that S&M used to comprise the lion's share of the operating budget from 2017 to 2020, and then R&D took precedence over S&M since last year. We believe it is typical for R&D expenditures to increase in Datadog's product innovation-led culture for, but we do expect S&M to accelerate when/if the macro conditions improve.

Non-GAAP S&M expenses are expected to increase 80.5% y/y to $465 million and R&D is expected to grow 52.8% y/y to $473 million in 2022E, per our estimates. Although R&D edges out S&M slightly based upon our projection in 2022E, comprising 29.2% and 28.7% of total revenue, respectively, we envision these two categories can easily trade places depending on market condition. We are observing a priority emphasis on investing in the technology platform as depicted by the greater number of dollars invested in R&D spending compared to S&M, but S&M did grow faster y/y to keep pace with R&D. We believe Datadog's priority will remain on doubling down investing in the core observability suite, while hiring both R&D and S&M talents to capture the expanding TAM opportunity estimated by the company at greater than $60 billion by 2026E.

Exhibit 50: R&D/Tech Expenditure Commands a Higher Percentage of the Operating Budget as Datadog Invests in Capturing Adjacent Growth Market Opportunities

	2017A	2018A	2019A	2020A	2021A	2022E
Gross Margin	**77.4%**	**76.9%**	**75.8%**	**78.9%**	**78.1%**	**80.3%**
Research & Development	23.4%	27.0%	28.8%	28.6%	**30.1%**	**29.2%**
Sales & Marketing	**42.9%**	**43.9%**	**38.9%**	**31.5%**	25.0%	28.7%
General & Administrative	10.5%	8.7%	9.1%	8.3%	6.9%	6.1%
Operating Margin	**0.6%**	**-2.7%**	**-1.1%**	**10.5%**	**16.0%**	**16.4%**

Source: Company reports and Cantor Fitzgerald

Recent Results

3Q22 Results: Datadog ended 3Q22 with revenue of $436.5 million, an increase of 61.4% y/y and above FactSet consensus of $414.8 million. Non-GAAP gross margin was 79.7%, above consensus of 79.5%; non-GAAP operating margins of 17.1%, above consensus of 13.5%; and non-GAAP EPS of $0.23, above consensus of $0.16.

4Q22E Guidance: Datadog guided 4Q22E revenue to $447 million, a 37% y/y increase, and operating margin of 13% both at the midpoint. EPS is expected to range from $0.18 to $0.20.

2022E Guidance: Datadog guided 2022E revenue to $1,652 million, or a 60.5% y/y increase, and an operating margin of 18.3%, both at the midpoint. EPS is expected to range from $0.90 to $0.92.

Exhibit 51: 4Q22E and 2022E Guidance (as of November 3, 2022)

	4Q22	FY22
Revenue	$445-449M	$1,650-1,654M
Non-GAAP operating income[2]	$56-60M	$300-304M
Non-GAAP EPS[2]	$0.18-0.20	$0.90-0.92
Weighted average diluted shares	Approx. 347M	Approx. 346M

Source: Company reports

Long-term Operating Model

Datadog's fundamentals are first class, in our view, with the company striving for a long-term top-line growth rate (three to five years out) of 30%+, an operating margin profile of approximately 15%+, and an adjusted free cash flow margin at an even higher 20%+ range. The revenue growth plus margin algorithm comfortably exceeds the Rule of 40 and is now operating under the Rule of 50. While Datadog doesn't commit to a long-term financial target, we forecast the long-term operating model to accelerate at a respectable 30%+ top-line growth, albeit at a larger scale, while operating and free cash flow (FCF) margins inflect higher, to the tunes of 20%+ and +25%+, respectively. We believe our long-term operating targets can be achieved if Datadog sticks to the narrative in taking market share in the core observability strength, and that with expansion into the adjacent use cases in cloud security and developer experience margins should gradually improve along with steady, high-quality growth.

Valuation

We are initiating coverage on Datadog with an Overweight rating and $95 price target. We derive our 12-month price target using a 2023E EV/Sales multiple of 14.4x. This multiple compares to a mean peer multiple of 9.1x 2023E EV/Sales, with its peers having a similar growth rate. Overall, we believe the premium multiple is justified, as Datadog has a steady foundational business in cloud observability generating healthy cash flows to invest in the accelerating adjacent market opportunity in Cloud Security and drilling deeper into developer experience ("shift left"). We believe Datadog is poised to gain market share in the core observability business against legacy or point solution providers while gradually gaining stronger momentum and scale in the accelerating new products categories launched since 2020 (includes, but not limited to Cloud SIEM, RUM, Cloud Security Management, CI Visibility, AppSec Monitoring, etc.).

Exhibit 52: Price Target Table ($M)

EV/Sales	14.43x
Sales	2,200.0
EV	31,756.2
Net Debt (Cash)	(1,028.3)
Market Cap	32,784.5
Shares	345.1
Price Target	**95.0**

Source: Company reports, FactSet, and Cantor Fitzgerald

Exhibit 53: Comparable Table

$ in millions, except per share data

Company	Ticker	Price 1/24/2023	Price Target	Rating	Mkt Cap	EV	Performance		Revenue			Rev Growth		EV/Rev		FCF			EV/FCF		FYE
							YTD	TTM	FY22E	FY23E	FY24E	FY23E	FY24E	FY23E	FY24E	FY22E	FY23E	FY24E	FY23E	FY24E	
Datadog	DDOG	$73.69	$95.00	OW	$23,401	$22,471	0.3%	(41.3%)	$1,653	$2,200	$2,900	33.1%	31.8%	10.2x	7.7x	$348	$440	$605	NM	37.1x	12/31
Datadog	**DDOG**	**$95.00**	**$95.00**	**OW**	**$32,785**	**$31,756**			**$1,653**	**$2,200**	**$2,900**	**33.1%**	**31.8%**	**14.4x**	**11.0x**	**$348**	**$440**	**$605**	**NM**	**NM**	**12/31**
Atlassian	Team	$151.70	NA	NC	$38,762	$38,551	17.9%	(46.4%)	$3,479	$4,322	$5,539	24.2%	28.2%	8.9x	7.0x	$715	$985	$1,299	39.2x	29.7x	6/30
Dynatrace	DT	$36.98	NA	NC	$10,645	$10,363	(3.4%)	(23.7%)	$1,123	$1,331	$1,605	18.5%	20.6%	7.8x	6.5x	$314	$364	$447	28.5x	23.2x	3/31
Cloudflare	NET	$46.67	$65.00	N	$15,337	$15,258	3.2%	(47.3%)	$974	$1,300	$1,750	33.4%	34.6%	11.7x	8.7x	$0	$25	$50	NM	NM	12/31
CrowdStrike	CRWD	$104.60	$240.00	OW	$24,518	$22,844	(0.7%)	(36.5%)	$2,230	$3,050	$4,000	36.8%	31.1%	7.5x	5.7x	$670	$910	$1,100	25.1x	20.8x	1/31
Gitlab	GTLB	$47.35	NA	NC	$7,086	$6,207	4.2%	(21.0%)	$421	$591	$807	40.3%	36.5%	10.5x	7.7x	-$67	-$36	$5	NM	NM	1/31
HashiCorp	HCP	$29.02	NA	NC	$5,451	$4,193	6.1%	(50.8%)	$464	$593	$760	27.7%	28.2%	7.1x	5.5x	-$115	-$107	-$58	NM	NM	1/31
SentinelOne	S	$14.50	NA	NC	$4,099	$3,425	(0.6%)	(63.8%)	$421	$651	$946	54.9%	45.2%	5.3x	3.6x	-$198	-$46	$49	NM	NM	1/31
Snowflake	SNOW	$145.79	NA	NC	$46,886	$43,210	1.6%	(45.5%)	$2,053	$3,004	$4,203	46.3%	39.9%	14.4x	10.3x	$418	$678	$945	NM	45.7x	1/31
Zscaler	ZS	$122.65	$160.00	OW	$17,688	$17,082	9.6%	(49.3%)	$1,495	$1,940	$2,425	29.8%	25.0%	8.8x	7.0x	$320	$420	$670	40.7x	25.5x	7/31
Mean						$17,904	4.2%	(42.7%)	$1,407	$1,865	$2,448	34.6%	32.1%	9.1x	6.9x	$229	$355	$501	33.4x	29.0x	
Median						$15,258	3.2%	(46.4%)	$1,123	$1,331	$1,750	33.4%	31.1%	8.8x	7.0x	$314	$364	$447	33.8x	25.5x	
Max						$43,210	17.9%	(21.0%)	$3,479	$4,322	$5,539	54.9%	45.2%	14.4x	10.3x	$715	$985	$1,299	40.7x	45.7x	
Min						$3,425	(3.4%)	(63.8%)	$421	$591	$760	18.5%	20.6%	5.3x	3.6x	-$198	-$107	-$58	25.1x	20.8x	

NC = Not Covered. All estimates for non-covered companies are from FactSet.

Source: Company reports, FactSet, and Cantor Fitzgerald

Risks

Portfolio expansion may weigh on the core business segment. Although we are onboard with Datadog's strategic plan to expand its product portfolio into adjacent growth areas in Cloud Security Management and Developer Experience ("shift left" approach), we do acknowledge the inherent execution risk involved. Possible concerns include diverting resources away from Datadog's cloud observability segment to other areas of growth, leading to potential slippage in execution in the foundational core business. However, we believe the combination of an experienced, founders-led management team and success as a leader in observability will mitigate this potential risk. Also, the expansionary area Datadog is targeting is a neighboring extension to the core business, hence, we don't believe the risk is elevated since the newer products are complementary to the company's existing portfolio. We have reasonable conviction that Datadog can focus its attention on the core observability product while investing resources to other adjacent growth areas deemed strategic to the overall portfolio.

New product portfolio fails to gain traction. Market competition for the growth areas of the product portfolio in Cloud Security Management and Developer Experience ("shift left" approach) markets are significant. While Datadog is a proven leader in the cloud observability space, it still requires a certain degree of education to existing or prospective customers to adopt the newer growth products, especially ones launched within the last three years. Failure to attract customers to gain adoption for the growth products will result in Datadog falling short of investors' demanding long-term financial targets and will likely have a negative impact on the stock's performance.

Macroeconomic risk. Datadog is susceptible to macroeconomic risks, as IT customers tend to delay new investments during economic downturns.

Adoption of cloud. Datadog operates using its cloud-based architecture. We note that a large portion of enterprise environments continue to be on-premise, despite the rapid adoption of the public cloud. Accordingly, the failure of enterprises to continue to adopt cloud technologies at an accelerated pace would pose a material risk to Datadog's business.

Platform / network service disruption. As a provider of observability and monitoring services, Datadog could be exposed to network disruptions and / or system failures that could impact service availability, leading to reputational risk and possibly loss of customers.

Competition. The next-generation APM and observability markets are dominated by three players: Datadog, Dynatrace and New Relic, ranking in this order, with New Relic being a distant third. Datadog and Dynatrace can arguably both be tied as co-first place. Datadog shows up in the June 2022 Leaders category in Gartner Magic Quadrants for Application Performance Monitoring and Observability. Datadog edges Dynatrace slightly on the Gartner Magic Quadrant in the ability to execute while Dynatrace edges Datadog slightly in the completeness of vision. New Relic lags behind as a distance third, but we would characterize New Relic to be highly competitive in the mix. During our fieldwork, we often run into the following peers worth highlighting: Splunk, Sumo Logic, AppDynamics and Elastic. While we believe the dominant three discussed earlier are direct competitors, we advise investors to keep an eye on this extended group for any market dynamic changes.

Integration risk. Datadog from time to time engages in tuck-in acquisitions to enhance the product portfolio or speed the product development launch to market. Datadog generally targets companies in their earlier stage of development, and hence the technology platform of the early start ups may not be as mature as other companies that have been in operation for a longer period of time. The risk of unsuccessful integration may lead to delays in new product launches, resulting in missed financial opportunities.

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Datadog, Inc. *($ and Shares in Millions, Except Per Share Figures)*

Income Statement (Non-GAAP)	2021A	Mar-22A	Jun-22A	Sep-22A	Dec-22E	2022E	Mar-23E	Jun-23E	Sep-23E	Dec-23E	2023E	2024E
Revenue	1,028.784	363.030	406.138	436.533	447.000	1,652.701	482.830	532.041	571.858	613.271	2,200.000	2,900.000
y/y change %	*70.5%*	*82.8%*	*73.9%*	*61.4%*	*37.0%*	*60.6%*	*33.0%*	*31.0%*	*31.0%*	*37.2%*	*33.1%*	*31.8%*
q/q change %			*11.3%*	*11.9%*	*7.5%*	*2.4%*		*8.0%*	*10.2%*	*7.5%*	*7.2%*		
Cost of Revenue	225.543	71.294	78.018	88.487	88.070	325.869	95.143	104.929	113.514	121.090	434.675	573.232
Gross Profit	**803.241**	**291.736**	**328.120**	**348.046**	**358.930**	**1,326.832**	**387.687**	**427.112**	**458.344**	**492.181**	**1,765.325**	**2,326.769**
GP margin %	*78.1%*	*80.4%*	*80.8%*	*79.7%*	*80.3%*	*80.3%*	*80.3%*	*80.3%*	*80.1%*	*80.3%*	*80.2%*	*80.2%*
Research & Development	309.684	102.615	121.561	138.268	132.396	494.840	144.234	161.071	173.616	184.174	663.094	874.733
R&D % of revenue	*30.1%*	*28.3%*	*29.9%*	*31.7%*	*29.6%*	*29.9%*	*29.9%*	*30.3%*	*30.4%*	*30.0%*	*30.1%*	*30.2%*
Sales & Marketing	257.513	85.259	96.869	107.520	140.805	430.453	140.021	148.971	160.120	168.650	617.762	721.777
S&M % of revenue	*25.0%*	*23.5%*	*23.9%*	*24.6%*	*31.5%*	*26.0%*	*29.0%*	*28.0%*	*28.0%*	*27.5%*	*28.1%*	*24.9%*
General & Administrative	70.986	20.183	25.021	27.419	27.704	100.327	29.210	32.839	35.314	37.709	135.071	178.352
G&A % of revenue	*6.9%*	*5.6%*	*6.2%*	*6.3%*	*6.2%*	*6.1%*	*6.0%*	*6.2%*	*6.2%*	*6.1%*	*6.1%*	*6.2%*
Total Operating Expenses	638.183	208.057	243.451	273.207	300.905	1,025.620	313.464	342.881	369.049	390.532	1,415.927	1,774.863
Operating Income (Loss)	**165.058**	**83.679**	**84.669**	**74.839**	**58.025**	**301.212**	**74.223**	**84.231**	**89.295**	**101.650**	**349.398**	**551.906**
Operating margin %	*16.0%*	*23.1%*	*20.8%*	*17.1%*	*13.0%*	*18.2%*	*15.4%*	*15.8%*	*15.6%*	*16.6%*	*15.9%*	*19.0%*
Interest Expense	(17.703)	(4.407)	(3.699)	(2.885)	(2.891)	(13.882)	(2.895)	(2.899)	(2.903)	(2.908)	(11.605)	(11.673)
Interest Income & Other, net	21.786	5.687	7.669	12.011	11.039	36.406	9.272	9.947	10.335	10.912	40.467	45.937
Income (Loss) Before Income Taxes	169.141	84.959	88.639	83.965	66.173	323.736	80.599	91.279	96.727	109.654	378.259	586.170
Provision for Income Taxes	2.323	1.116	4.868	2.926	3.970	12.880	6.045	6.846	7.255	8.224	28.369	58.617
Net Income (loss)	166.818	83.843	83.771	81.039	62.203	310.856	74.555	84.433	89.472	101.430	349.890	527.553
Non-GAAP EPS	**0.48**	**0.24**	**0.24**	**0.23**	**0.18**	**0.90**	**0.21**	**0.24**	**0.26**	**0.29**	**1.00**	**1.50**
WA Shares Outstanding Diluted	343.997	345.668	344.854	345.100	347.000	345.655	347.867	348.737	349.609	350.483	349.174	352.679
Total Non-GAAP Adjustments	187.563	74.105	88.650	107.024	79.224	349.003	82.198	84.932	85.618	82.273	335.022	326.010
GAAP Net Income (Loss)	(20.745)	9.738	(4.879)	(25.985)	(17.022)	(38.148)	(7.644)	(0.499)	3.854	19.157	14.868	201.543
GAAP EPS	(0.07)	0.03	(0.02)	(0.08)	(0.05)	(0.12)	(0.02)	(0.00)	0.01	0.06	0.05	0.62

Reconciliation to GAAP Net Income	2021A	Mar-22A	Jun-22A	Sep-22A	Dec-22E	2022E	Mar-23E	Jun-23E	Sep-23E	Dec-23E	2023E	2024E
Non-GAAP Net Income/(Loss)	**166.818**	**83.843**	**83.771**	**81.039**	**62.203**	**310.856**	**74.555**	**84.433**	**89.472**	**101.430**	**349.890**	**527.553**
Reconciliation Adjustments												
SBC Expense	(163.737)	(66.884)	(82.399)	(101.362)	(76.753)	(327.398)	(81.849)	(85.591)	(86.389)	(82.645)	(336.474)	(337.242)
Amort. of Intangibles Assets	(4.392)	(1.616)	(1.688)	(2.108)	(1.710)	(7.122)	(1.780)	(1.821)	(1.855)	(1.792)	(7.248)	(7.262)
Tax Adj. & Other	-	-	-	-	-	-	-	-	-	-	-	-
Employer Payroll Taxes	(16.085)	(4.765)	(3.721)	(2.711)	(3.892)	(15.089)	(3.772)	(3.524)	(3.475)	(3.666)	(14.436)	(14.362)
Amort. of Debt Discount & Issuance Costs	(3.349)	(0.840)	(0.842)	(0.843)	(0.841)	(3.366)	(0.842)	(0.842)	(0.842)	(0.842)	(3.367)	(3.367)
Provision (Benefit) for Income Taxes	-	-	-	-	3.970	3.970	6.045	6.846	6.942	6.671	26.504	36.223
Total Non-GAAP Adjustments	**(187.563)**	**(74.105)**	**(88.650)**	**(107.024)**	**(79.224)**	**(349.003)**	**(82.198)**	**(84.932)**	**(85.618)**	**(82.273)**	**(335.022)**	**(326.010)**
GAAP Net Income/(Loss)	**(20.745)**	**9.738**	**(4.879)**	**(25.985)**	**(17.022)**	**(38.148)**	**(7.644)**	**(0.499)**	**3.854**	**19.157**	**14.868**	**201.543**

Source: Company Reports and Cantor Fitzgerald

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Datadog, Inc.

Margin Analysis	2021A	Mar-22A	Jun-22A	Sep-22A	Dec-22E	2022E	Mar-23E	Jun-23E	Sep-23E	Dec-23E	2023E	2024E
Subscription % of Total Rev	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Gross Margin	78.1%	80.4%	80.8%	79.7%	80.3%	80.3%	80.3%	80.3%	80.1%	80.3%	80.2%	80.2%
Research & Development	30.1%	28.3%	29.9%	31.7%	29.6%	29.9%	29.9%	30.3%	30.4%	30.0%	30.1%	30.2%
Sales & Marketing	25.0%	23.5%	23.9%	24.6%	31.5%	26.0%	29.0%	28.0%	28.0%	27.5%	28.1%	24.9%
General & Administrative	6.9%	5.6%	6.2%	6.3%	6.2%	6.1%	6.0%	6.2%	6.2%	6.1%	6.1%	6.2%
Operating Margin	**16.0%**	**23.1%**	**20.8%**	**17.1%**	**13.0%**	**18.2%**	**15.4%**	**15.8%**	**15.6%**	**16.6%**	**15.9%**	**19.0%**
Pre-Tax Margin	16.4%	23.4%	21.8%	19.2%	14.8%	19.6%	16.7%	17.2%	16.9%	17.9%	17.2%	20.2%
Effective Tax Rate	1.4%	1.3%	5.5%	3.5%	6.0%	4.0%	7.5%	7.5%	7.5%	7.5%	7.5%	10.0%
Net Income Margin	16.2%	23.1%	20.6%	18.6%	13.9%	18.8%	15.4%	15.9%	15.6%	16.5%	15.9%	18.2%
Free Cash Flow Margin	24.4%	35.8%	14.8%	15.4%	20.4%	21.1%	28.5%	15.0%	20.5%	17.2%	20.0%	20.9%
Year-on-year (y/y) Growth Rates												
Revenue	70.5%	82.8%	73.9%	61.4%	37.0%	60.6%	33.0%	31.0%	31.0%	37.2%	33.1%	31.8%
Gross Profit	68.7%	90.6%	84.0%	65.8%	37.0%	65.2%	32.9%	30.2%	31.7%	37.1%	33.0%	31.8%
Research & Development	79.5%	67.1%	71.1%	64.8%	41.9%	59.8%	40.6%	32.5%	25.6%	39.1%	34.0%	31.9%
Sales & Marketing	35.6%	51.8%	59.1%	66.5%	85.5%	67.2%	64.2%	53.8%	48.9%	19.8%	43.5%	16.8%
General & Administrative	41.4%	27.0%	61.3%	57.2%	25.1%	41.3%	44.7%	31.2%	28.8%	36.1%	34.6%	32.0%
Operating Income	159.5%	327.9%	174.3%	70.0%	-17.8%	82.5%	-11.3%	-0.5%	19.3%	75.2%	16.0%	58.0%
Net Income	133.1%	316.1%	159.9%	83.1%	-11.4%	86.3%	-11.1%	0.8%	10.4%	63.1%	12.6%	50.8%
Diluted EPS	125.0%	312.0%	158.0%	82.7%	-11.6%	85.5%	-11.6%	-0.3%	9.0%	61.4%	11.4%	49.3%
WA Shares Outstanding Diluted	3.6%	1.0%	0.7%	0.2%	0.3%	0.5%	0.6%	1.1%	1.3%	1.0%	1.0%	1.0%
Sequential (q/q) Growth Rates												
Revenue		11.3%	11.9%	7.5%	2.4%		8.0%	10.2%	7.5%	7.2%		
Gross Profit		-1.1%	-10.8%	-16.9%	3.1%		-10.9%	-6.1%	0.0%	20.0%		
Research & Development		10.0%	18.5%	13.7%	-4.2%		8.9%	11.7%	7.8%	6.1%		
Sales & Marketing		12.3%	13.6%	11.0%	31.0%		-0.6%	6.4%	7.5%	5.3%		
General & Administrative		-8.9%	24.0%	9.6%	1.0%		5.4%	12.4%	7.5%	6.8%		
Operating Income		18.5%	1.2%	-11.6%	-22.5%		27.9%	13.5%	6.0%	13.8%		
Net Income		19.5%	-0.1%	-3.3%	-23.2%		19.9%	13.3%	6.0%	13.4%		
Diluted EPS		19.6%	0.1%	-3.3%	-23.7%		19.6%	13.0%	5.7%	13.1%		
WA Shares Outstanding		-0.1%	-0.2%	0.1%	0.6%		0.3%	0.3%	0.3%	0.3%		

Source: Company Reports and Cantor Fitzgerald

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Datadog, Inc. *In Millions*

Balance Sheet	2021A	Mar-22A	Jun-22A	Sep-22A	Dec-22E	2022E	Mar-23E	Jun-23E	Sep-23E	Dec-23E	2023E	2024E
Assets												
Cash & Equivalents	270.973	271.686	238.859	294.815	385.848	385.848	523.467	603.214	720.596	825.848	825.848	1,430.848
ST Investments	1,283.473	1,399.323	1,464.681	1,471.448	1,468.542	1,468.542	1,466.011	1,463.838	1,461.805	1,459.394	1,459.394	1,450.351
Accounts Receivables, net	268.824	275.342	305.501	348.830	355.070	355.070	400.749	436.273	446.049	492.003	492.003	516.930
Deferred Contract Costs, current	23.235	24.688	27.345	29.873	29.873	29.873	29.873	29.873	29.873	29.873	29.873	29.873
Prepaid Exp. & Other Current Assets	24.443	32.632	33.202	31.603	25.735	25.735	36.406	38.190	39.623	30.335	30.335	35.042
Total Current Assets	**1,870.948**	**2,003.671**	**2,069.588**	**2,176.569**	**2,265.069**	**2,265.069**	**2,456.507**	**2,571.388**	**2,697.946**	**2,837.453**	**2,837.453**	**3,463.044**
PPE, net	75.152	90.713	97.791	110.889	117.965	117.965	124.777	131.391	137.938	144.700	144.700	181.387
Operating Lease Assets	61.355	61.921	64.016	88.930	88.930	88.930	88.930	88.930	88.930	88.930	88.930	88.930
Goodwill	292.176	292.032	334.687	332.649	332.649	332.649	332.649	332.649	332.649	332.649	332.649	332.649
Intangible Assets, net	15.704	14.088	17.960	15.616	15.616	15.616	15.616	15.616	15.616	15.616	15.616	15.616
Deferred Contract Costs, noncurrent	42.062	42.753	46.840	50.154	56.301	56.301	61.520	67.508	73.306	79.094	79.094	102.157
Restricted Cash	3.490	3.424	3.214	3.019	3.019	3.019	3.019	3.019	3.019	3.019	3.019	3.019
Other Noncurrent Assets	19.907	20.413	20.391	19.777	17.167	17.167	22.952	24.135	25.249	19.422	19.422	22.305
Total Assets	**2,380.794**	**2,529.015**	**2,654.487**	**2,797.603**	**2,896.715**	**2,896.715**	**3,105.970**	**3,234.636**	**3,374.653**	**3,520.884**	**3,520.884**	**4,209.106**
Liabilities and Equity												
Accounts Payable	25.270	18.629	47.650	27.625	24.963	24.963	34.736	41.020	38.339	30.101	30.101	34.970
Accrued Exp. & Other Current Liabilities	111.284	108.211	111.622	146.290	100.789	100.789	136.823	148.813	160.646	118.386	118.386	137.544
Operating Lease Liabilities, current	20.157	20.320	22.357	21.751	21.751	21.751	21.751	21.751	21.751	21.751	21.751	21.751
Deferred Revenue, current	371.985	454.812	444.247	478.742	557.788	557.788	637.335	654.410	686.230	776.646	776.646	872.347
Total Current Liabilities	**528.696**	**601.972**	**625.876**	**674.408**	**705.290**	**705.290**	**830.645**	**865.994**	**906.965**	**946.885**	**946.885**	**1,066.613**
Operating Lease Liabilities, noncurrent	52.106	51.817	51.771	76.934	81.892	81.892	86.941	92.148	97.339	102.441	102.441	123.021
Debt, noncurrent	735.482	736.318	737.160	738.003	738.844	738.844	739.686	740.527	741.369	742.211	742.211	745.578
Deferred Revenue, noncurrent	13.896	12.798	14.526	9.455	13.410	13.410	14.485	15.961	18.299	19.625	19.625	24.010
Other Noncurrent Liabilities	9.411	9.253	10.034	9.364	8.108	8.108	10.838	11.538	11.969	9.210	9.210	10.588
Total Liabilities	**1,339.591**	**1,412.158**	**1,439.367**	**1,508.164**	**1,547.545**	**1,547.545**	**1,682.594**	**1,726.169**	**1,775.943**	**1,820.371**	**1,820.371**	**1,969.809**
Total Stockholders' Equity	1,041.203	1,116.857	1,215.120	1,289.439	1,349.170	1,349.170	1,423.376	1,508.467	1,598.711	1,700.513	1,700.513	2,239.297
Total Liabilities & Equity	**2,380.794**	**2,529.015**	**2,654.487**	**2,797.603**	**2,896.715**	**2,896.715**	**3,105.970**	**3,234.636**	**3,374.653**	**3,520.884**	**3,520.884**	**4,209.106**

Source: Company Reports and Cantor Fitzgerald

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Datadog, Inc. *In Millions*

Cash Flow Statement	2021A	Mar-22A	Jun-22A	Sep-22A	Dec-22E	2022E	Mar-23E	Jun-23E	Sep-23E	Dec-23E	2023E	2024E
Cash Flow from Operations												
Net Income	(20.745)	9.738	(4.879)	(25.985)	(17.022)	(38.148)	(7.644)	(0.499)	3.854	19.157	14.868	201.543
Depreciation & Amortization	22.938	7.394	8.118	9.313	7.925	32.750	8.188	8.386	8.453	8.238	33.264	33.313
Amort. of Debt Discounts/Premiums on Mark	16.236	3.959	2.738	0.520	2.906	10.123	2.531	2.174	2.033	2.411	9.148	9.043
Amort. of Issuance Costs	3.349	0.840	0.842	0.843	0.841	3.366	0.842	0.842	0.842	0.842	3.367	3.367
Amort. of Deferred Contract Costs	17.866	6.022	6.558	7.361	6.313	26.254	6.563	6.699	6.734	6.577	26.573	26.595
Stock Based Compensation	163.737	66.884	82.399	101.362	76.753	327.398	81.849	85.591	86.389	82.645	336.474	337.242
Noncash Lease Expense	17.201	4.411	5.275	5.550	4.958	20.194	5.049	5.208	5.191	5.101	20.549	20.580
Allowance for Credit Losses on AR	2.311	0.798	1.133	1.998	-	3.929	-	-	-	-	-	-
(Gain)/Loss on Disposal of PPE	0.274	0.823	0.326	0.003	-	1.152	-	-	-	-	-	-
Other Noncash Adj. to Net Income	-	-	-	-	-	-	-	-	-	-	-	-
Funds Flow from Operations	223.167	100.869	102.510	100.965	82.674	387.018	97.377	108.400	113.496	124.971	444.243	631.683
Accounts Receivable	(107.112)	(7.319)	(30.781)	(45.638)	(6.240)	(89.978)	(45.678)	(35.525)	(9.776)	(45.953)	(136.932)	(24.927)
Deferred Contract Costs	(42.775)	(8.166)	(13.303)	(13.202)	(12.459)	(47.130)	(11.783)	(12.687)	(12.533)	(12.365)	(49.367)	(49.658)
Prepaid Exp. & Other Current Assets	(0.737)	(8.391)	(4.238)	1.349	5.868	(5.412)	(10.671)	(1.784)	(1.433)	9.287	(4.600)	(4.706)
Other Assets	(2.627)	(0.805)	(0.947)	(0.168)	2.610	0.690	(5.785)	(1.183)	(1.114)	5.827	(2.255)	(2.882)
Accounts Payable	3.078	(7.624)	30.803	(20.696)	(2.662)	(0.179)	9.773	6.284	(2.681)	(8.237)	5.138	4.869
Accrued Exp. & Other Liabilities	37.270	(2.911)	(1.399)	31.660	(46.757)	(19.407)	38.764	12.690	12.264	(45.019)	18.699	20.536
Deferred Revenue	176.281	81.735	(9.685)	29.348	83.001	184.399	80.623	18.551	34.158	91.742	225.073	100.086
(Inc.) Dec. in Operating Working Capital	63.378	46.519	(29.550)	(17.347)	23.360	22.982	55.242	(13.653)	18.886	(4.719)	55.756	43.317
Net Cash Flow from Operations	**286.545**	**147.388**	**72.960**	**83.618**	**106.034**	**410.000**	**152.620**	**94.747**	**132.382**	**120.252**	**500.000**	**675.000**
Free Cash Flow	**250.520**	**129.901**	**60.166**	**67.100**	**91.033**	**348.200**	**137.620**	**79.747**	**117.382**	**105.252**	**440.000**	**605.000**
Cash Flow from Investing Activities												
Purchases of ST Investments	(1,125.519)	(329.706)	(389.079)	(348.947)	-	(1,067.732)	-	-	-	-	-	-
Maturities of ST Investments	1,046.560	199.703	317.051	340.439	-	857.193	-	-	-	-	-	-
Proceeds from Sale of ST Investments	67.749	2.007	(0.001)	0.084	-	2.090	-	-	-	-	-	-
Capex, Purchase of PPE	(9.956)	(9.514)	(5.987)	(9.706)	(9.593)	(34.800)	(8.750)	(8.750)	(8.750)	(8.750)	(35.000)	(45.000)
Capitalized Software	(26.069)	(7.973)	(6.807)	(6.812)	(5.408)	(27.000)	(6.250)	(6.250)	(6.250)	(6.250)	(25.000)	(25.000)
Acquisition Cost, net of cash	(226.505)	(4.871)	(34.695)	(0.736)	-	(40.302)	-	-	-	-	-	-
Other Investing Activities	-	-	-	-	-	-	-	-	-	-	-	-
Net Cash Flow from Investing	**(273.740)**	**(150.354)**	**(119.518)**	**(25.678)**	**(15.001)**	**(310.551)**	**(15.000)**	**(15.000)**	**(15.000)**	**(15.000)**	**(60.000)**	**(70.000)**
Cash Flow from Financing Activities												
Proceeds from Exercise of Options	14.907	4.245	2.206	1.816	-	8.267	-	-	-	-	-	-
Proceeds from Issurance ESPP	20.278	-	13.557	-	-	13.557	-	-	-	-	-	-
Employee Payroll Taxes ESPP	(0.245)	-	-	-	-	-	-	-	-	-	-	-
Debt Proceeds, net of issuance costs	-	-	-	-	-	-	-	-	-	-	-	-
Debt Repayment	-	(0.003)	-	-	-	(0.003)	-	-	-	-	-	-
Other Financing Activities	-	-	-	-	-	-	-	-	-	-	-	-
Net Cash Flow from Financing Activities	**34.940**	**4.242**	**15.763**	**1.816**	**-**	**21.821**	**-**	**-**	**-**	**-**	**-**	**-**
FX Effect	(1.993)	(0.629)	(2.242)	(3.995)	-	(6.866)	-	-	-	-	-	-
Beginning Cash Balance	228.711	274.463	275.110	242.073	297.834	274.463	388.867	526.486	606.233	723.615	388.867	828.867
Total Change in Cash	45.752	0.647	(33.037)	55.761	91.033	114.404	137.620	79.747	117.382	105.252	440.000	605.000
Ending Cash Balance	**274.463**	**275.110**	**242.073**	**297.834**	**388.867**	**388.867**	**526.486**	**606.233**	**723.615**	**828.867**	**828.867**	**1,433.867**

Source: Company Reports and Cantor Fitzgerald

Company Description

Datadog is a monitoring/observability and security platform built for cloud applications. Datadog is a software as a service (SaaS) platform that automates infrastructure monitoring, application performance monitoring, and log management to provide a real-time unified view of the customer's comprehensive technology stack. Datadog empowers digital transformation and cloud migration by driving collaboration while breaking down IT department silos. Datadog was founded in 2010 by Olivier Pomel (CEO & Co-Founder) and Alexis Lê-Quôc (CTO & Co-Founder), both of whom worked at Wireless Generation previously.

Disclosures Appendix

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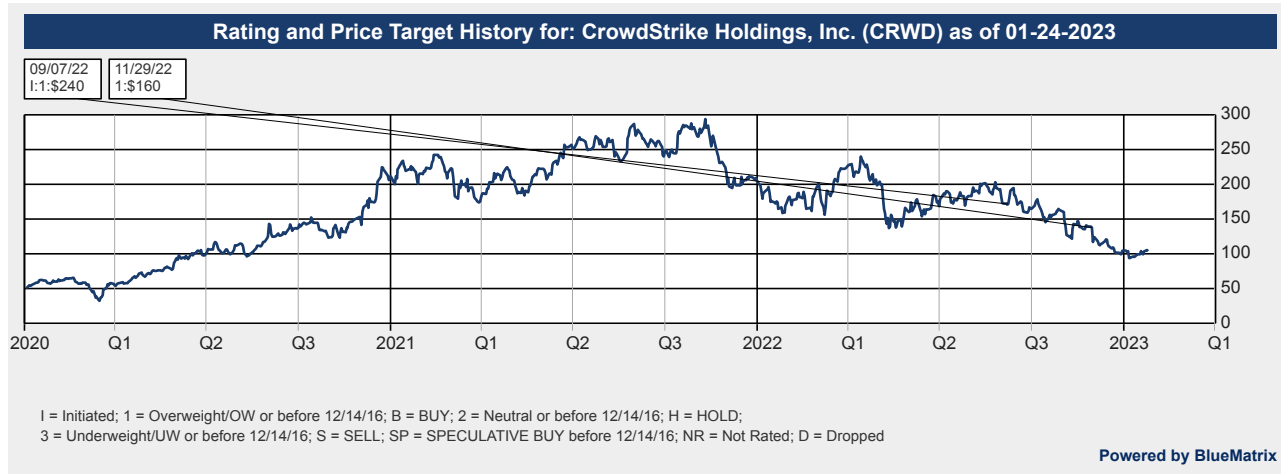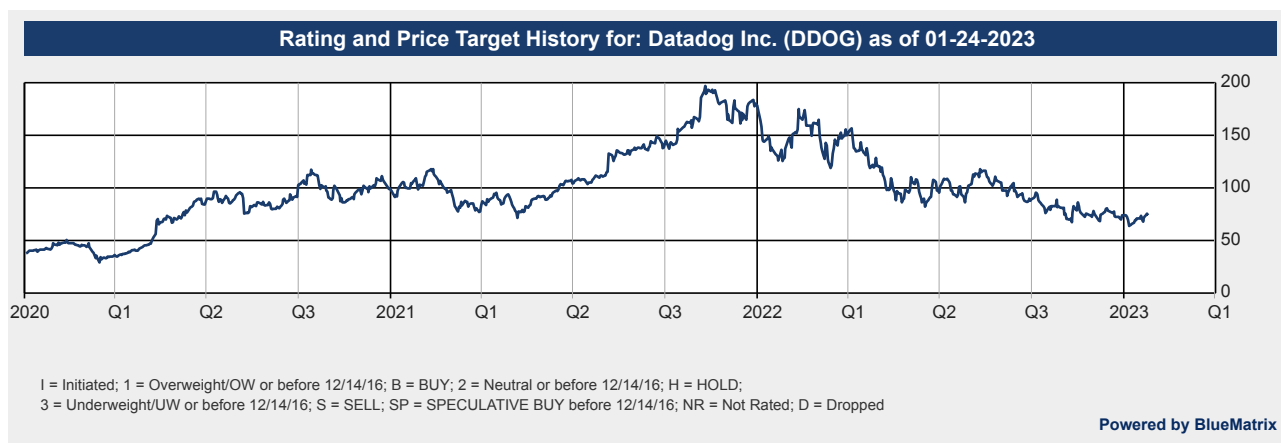
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Rating and Price Target History for: Datadog Inc. (DDOG) as of 01-24-2023

I = Initiated; 1 = Overweight/OW or before 12/14/16; B = BUY; 2 = Neutral or before 12/14/16; H = HOLD;
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09/07/22
I:1:$70

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10/20/22
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10/20/22
I:2:$160

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Distribution of Ratings/Investment Banking Services (IB) as of 01/25/23

Cantor

Rating	Count	Percent	IB Serv./Past 12 Mos. Count	IB Serv./Past 12 Mos. Percent
BUY [1/B]	235	83.63	169	71.91
HOLD [2]	46	16.37	25	54.35
SELL [SL/3]	0	0.00	0	0.00

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