

30-Nov-2021

# NetApp, Inc. (NTAP)

Q2 2022 Earnings Call

## CORPORATE PARTICIPANTS

**Kris Newton**

*Vice President, Investor Relations, NetApp, Inc.*

**George Kurian**

*Chief Executive Officer & Director, NetApp, Inc.*

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

---

## OTHER PARTICIPANTS

**Jason Ader**

*Analyst, William Blair & Co. LLC*

**Katy L. Huberty**

*Analyst, Morgan Stanley & Co. LLC*

**Rod Hall**

*Analyst, Goldman Sachs & Co. LLC*

**Karl Ackerman**

*Analyst, Cowen and Company, LLC*

**Steven B. Fox**

*Analyst, Fox Advisors LLC*

**Simon Leopold**

*Analyst, Raymond James & Associates, Inc.*

**Nikolay Todorov**

*Analyst, Longbow Research LLC*

**Jim Suva**

*Analyst, Citigroup Global Markets, Inc.*

**Tim Long**

*Analyst, Barclays Capital, Inc.*

**Sidney Ho**

*Analyst, Deutsche Bank Securities, Inc.*

**Nehal Chokshi**

*Analyst, Northland Securities, Inc.*

**Wamsi Mohan**

*Analyst, Bank of America Merrill Lynch*

**Amit Daryanani**

*Analyst, Evercore ISI*

**Ananda Baruah**

*Analyst, Loop Capital Markets LLC*

**Samik Chatterjee**

*Analyst, JPMorgan Securities LLC*

## MANAGEMENT DISCUSSION SECTION

**Operator:** Good afternoon, ladies and gentlemen. Welcome to the NetApp Second Quarter Fiscal Year 2022 Earnings Call. At this time, all participants are in a listen-only mode. Later, we will conduct a question-and-answer session and instructions will be given at that time.

I would now like to turn the call over to Kris Newton, Vice President, Investor Relations.

---

### Kris Newton

*Vice President, Investor Relations, NetApp, Inc.*

Thank you for joining us. With me today are our CEO, George Kurian; and CFO, Mike Berry. This call is being webcast live and will be available for replay on our website at netapp.com.

During today's call, we will make forward-looking statements and projections with respect to our financial outlook and future prospects, such as: our guidance for third quarter fiscal year 2022; our expectations regarding future revenue, profitability and shareholder returns; the value we bring to customers; our ability to drive growth in our Hybrid Cloud segment and scale our Public Cloud segment; and our ability to manage through the current supply chain environment, all of which involve risk and uncertainty.

We disclaim any obligation to update our forward-looking statements and projections. Actual results may differ materially for a variety of reasons, including macroeconomic and market conditions, such as the continuing impact and uneven recovery of the COVID-19 pandemic, including resulting supply chain disruptions and the IT capital spending environment, as well as our ability to gain share in the storage market, grow our cloud business and generate greater cash flow.

Please also refer to the documents we file from time to time with the SEC and available on our website, specifically our most recent forms 10-Q and 10-K, including in the Management's Discussion and Analysis of Financial Condition and Results of Operations and Risk Factors sections. During the call, all financial measures presented will be non-GAAP, unless otherwise indicated. Reconciliations of GAAP to non-GAAP estimates are posted on our website.

I'll now turn the call over to George.

---

### George Kurian

*Chief Executive Officer & Director, NetApp, Inc.*

Thanks, Kris, and welcome, everyone, to our Q2 fiscal year 2022 earnings call. We delivered another strong quarter, with results all at the high end or above our guidance. Building on the momentum of last year and the previous quarter, revenue grew 11% year-over-year, with Public Cloud segment revenue growth of 85% and Hybrid Cloud segment revenue growth of 8%. Product revenue grew 9% year-over-year, the third consecutive quarter of year-over-year growth. Gross margin, operating margin and earnings per share are all at record highs for the first half of the fiscal year.

Our performance reflects continued broad-based customer demand created by the sizable and long-term trends of cloud and data-driven digital transformation, where NetApp is playing an increasingly important role in helping customers achieve their business and hybrid cloud transformation goals. NetApp is uniquely positioned to solve

organizations' most significant challenges in both modern and traditional applications, on-premises and in hybrid multi-cloud environments.

As I've said many times, our Public Cloud services not only allow us to participate in the rapidly growing cloud market, but they also make us a more strategic data center partner to our enterprise customers, driving share gains in our Hybrid Cloud business. We are seeing this play out in the strong results from both our Public Cloud and Hybrid Cloud segments. In Q2, we had a number of announcements that further solidify our leadership position as we continue to drive growth in our Hybrid Cloud segment, while scaling our Public Cloud segment.

Public Cloud revenue grew 85% year-over-year, driven by Azure NetApp Files, Cloud Insights and Spot by NetApp. Public Cloud ARR grew to \$388 million, an increase of 80% year-over-year and Public Cloud dollar-based net revenue retention rate remains healthy at 179%.

During Q2, we advanced our cloud agenda significantly and we remain confident in our ability to achieve our goal of reaching \$1 billion ARR in fiscal year 2025, with a gross margin profile that is accretive to the corporate average.

In Q2, Amazon Web Services, AWS, announced the general availability of Amazon FSx for NetApp ONTAP, a native, fully managed AWS storage service powered by ONTAP. This new first-party product is fully integrated into the AWS console, and it's sold, supported, run and billed by AWS, making it easy and cost-effective for customers to take advantage of NetApp's suite of enterprise-grade data services while running in an AWS native experience.

As we saw with Azure NetApp Files, it will take time for FSx for NetApp ONTAP to ramp, but we are extraordinarily pleased with the early indicators and the number of customers piloting this service.

Additionally, Google Cloud announced that NetApp will provide storage infrastructure for its Google Distributed Cloud Hosted, where data resides in customer-owned data centers and colocation facilities. Google is previewing the integration of Google Cloud VMware Engine with NetApp Cloud Volume Service, a fully managed service that helps organizations meet their needs for storage and disaster recovery.

We also expanded availability of Cloud Volumes Service in the Google Cloud. Much like any other Google Cloud native service, Cloud Volumes Service can be provisioned and consumed against existing Google Cloud agreements, making it easier for customers to expand their cloud engagements with both Google and NetApp.

Finally, Microsoft announced that whitelisting has been removed from Azure NetApp Files. Azure NetApp Files has been generally available since May 2019, with customers around the world relying on it to run their most demanding enterprise workloads in the Azure Cloud.

Now, customers can instantaneously leverage Azure NetApp Files to accelerate the deployment of mission-critical applications to Azure. Additionally, we expanded the backup/restore service and cross-region replication capabilities for Azure NetApp Files.

We now have fully integrated services with all the major public cloud providers to give organizations the benefits of our storage and data management expertise and experience, no matter which cloud they choose.

We have deepened each partnership and co-engineered services directly with the cloud providers, enabling their customers to buy directly from them. This level of integration streamlines purchasing, billing, operations and support, and eliminates the complexity of additional contracts, product installations, or patching.

Importantly, for NetApp, these partnerships create a new and massive go-to-market growth engine as three of the largest and most innovative companies in the world are reselling our technology. Each of these announcements represent years of hard work, partnership and continuous innovation, bringing ONTAP to the cloud at cloud speed and represent the opportunity for continued expansion. We're now the first and only storage environment that natively integrated into each of the major Public Cloud providers.

We also made significant enhancements to the Spot portfolio. We introduced Spot Security, a new product designed to keep cloud infrastructure secure. Delivering continuous, automated AI-based security, Spot Security analyzes, detects and prioritizes threats to surface the most critical vulnerabilities and provides actionable compliance, remediation and prevention.

We also released intelligent traffic flow, a new functionality to Spot Elastigroup, which further enhances our customers' ability to optimize their applications by intelligently managing and controlling incoming network traffic for optimal instance utilization and high performance.

Additionally, we announced Spot PC, a fully managed, secured and continuously optimized desktop service built together with Microsoft to provide a complete solution for Windows 365 and Azure Virtual Desktop.

At the beginning of Q3, we closed the acquisition of CloudCheckr, whose industry-leading cloud billing analytics and cloud configuration management, monitoring and assessment solutions will augment the full suite of Spot Services. In addition to being a solid technology acquisition, CloudCheckr will enhance our partner strategy for cloud, and we will leverage the CloudCheckr platform to build and extend distributor and partner businesses in both the private and public sectors.

Also in Q2, we held our annual flagship customer event, INSIGHT, with more than 10,000 attendees and we introduced NetApp TV to stay engaged with customers throughout the year. At INSIGHT, we announced enhancements to our Hybrid Cloud portfolio with the latest version of ONTAP that delivers even better performance for SAN and modern workloads like AI and analytics, expanded capabilities for object storage, increasingly automated storage system management, and autonomous ransomware protection based on machine learning.

The strength of our storage offerings was recognized by Gartner, which named NetApp once again as a leader in the 2021 Magic Quadrant for Primary Storage. Gartner called out our robust product and cloud service portfolio, as well as Keystone Flex Subscription, our comprehensive and flexible storage as a service offering. We were also recognized among this year's top vendor solutions evaluated in the 2021 Gartner Critical Capabilities for Primary Storage across all use cases.

Growth in our Hybrid Cloud segment was driven by strength in object storage for the rapidly growing unstructured data and analytics use cases, and our all-flash array portfolio. In Q2, our all-flash array business reached a record high annualized run rate of \$3.1 billion, an increase of 22% year-on-year. All-flash arrays now compose 30% of our installed base systems.

We see substantial headroom to continue to help existing and new customers modernize their storage environments. Based on our continued strong revenue growth, I am confident that we once again gained share in the enterprise storage and all-flash array markets.

Like everyone in our industry, we are faced with a challenging supply environment. While the situation is dynamic and continues to evolve, we are doing everything we can to mitigate the supply chain headwinds. We believe that we can continue to manage through them and address the substantial customer demand. As Mike will explain, we have factored the ongoing supply chain uncertainty into our guidance for Q3 and the full year. I am pleased with how we have navigated these challenges and want to thank our suppliers for their support and the NetApp team for their hard work in this environment.

In summary, our Q2 results reflect healthy momentum, a clear vision, and exceptional execution across our business. As we close the first half of fiscal year 2022, I'm proud of our team and what we have accomplished. We continue to bring industry-leading capabilities to market, further enhancing our differentiated position in cloud and software. As our customers accelerate their digital transformation and their adoption of hybrid cloud and hybrid work strategies, we believe we are well-positioned to capture the sizeable opportunity ahead.

Before I turn the call over to Mike, I want to invite you all to join us for our Investor Day on March 22, 2022. Please mark your calendars and stay tuned for more information.

I'll now turn it over to Mike.

---

## Michael J. Berry

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

Thank you, George. Good afternoon, everyone, and thank you for joining us. As a reminder, I'll be referring to non-GAAP numbers, unless otherwise noted.

Before we go through the financial details, I think it would be valuable to walk you through the key themes for today's discussion. Number one, Q2 was another strong quarter with results at the high end or above our guidance. Number two, our business model continues to show significant operating leverage as we grow our operating profitability and margins. Number three, our cloud business had another outstanding quarter as we march towards the \$1 billion ARR target. And number four, we are increasing our full year guidance for revenue, EPS and Public Cloud ARR, driven by the outperformance in Q2, the addition of CloudCheckr, and a healthy demand pipeline for the second half of our fiscal year.

Now to the details. In fiscal Q2, we delivered strong revenue, gross margin and operating leverage across the entire business. Outstanding execution by the NetApp team yielded Q2 billings of \$1.55 billion, up 7% year-over-year. Revenue came in at \$1.57 billion, up 11% year-over-year. Our solid Q2 results were driven by healthy demand across both our Hybrid Cloud and Public Cloud segments. Gross margin, operating margin and EPS all came in above the high end of guidance.

Total Hybrid Cloud segment revenue of \$1.48 billion was up 8% year-over-year. Within Hybrid Cloud, we delivered product revenue growth for the third consecutive quarter and expect this momentum to continue throughout fiscal 2022.

Product revenue of \$814 million increased 9% year-over-year. Consistent with the trends we've seen over the last year, software product revenue of \$475 million increased 14% year-over-year, driven by the continued mix shift towards our all-flash portfolio. Total Q2 recurring support revenue of \$590 million increased 7% year-over-year.

As George highlighted, our all-flash revenue run rate, which includes both product and support revenue, eclipsed \$3 billion for the first time in the company's history and was up 22% year-over-year. Public Cloud ARR exited Q2 at \$388 million, up 80% year-over-year and 15% sequentially, driven by strong growth in Azure NetApp Files, Spot and Cloud Insights.

Public Cloud revenue recognized in the quarter was \$87 million, up 85% year-over-year. The growing scale of our Public Cloud platform continues to positively impact the overall growth profile of NetApp, delivering 3 of the 11 points in revenue growth. Recurring support and Public Cloud revenue of \$677 million was up 13% year-over-year, constituting 43% of total revenue.

When combined, software product revenue, recurring support and Public Cloud revenue totaled \$1.2 billion and increased 13% year-over-year, representing 74% of total revenue, up from 72% in Q2 2021.

We ended Q2 with \$3.9 billion in deferred revenue, an increase of 6% year-over-year. Q2 marks the 15th consecutive quarter of year-over-year deferred revenue growth, which is the best leading indicator for continued recurring revenue growth.

Total gross margin was 68%, reflecting the value of our software portfolio and Public Cloud platform. Total Hybrid Cloud gross margin was also 68% in Q2. Within our Hybrid Cloud segment, product gross margin was 55% and benefited from the continued mix shift towards software-rich all-flash systems. Our recurring support business continues to be very profitable, with gross margin of 92%.

Public Cloud gross margin of 71% was accretive to the overall corporate average. We expect Public Cloud gross margins to continue to trend towards our long-term goal of 75% to 80%, as an increasing percentage of our Public Cloud business will be built on software-only solutions.

We recently introduced the new FSx for ONTAP product with AWS, and also closed the CloudCheckr acquisition; both are software-only offerings and support our long-term margin goal.

Q2 highlighted the tremendous leverage in our operating model, with operating margin of 24%, an all-time company high. EPS of \$1.28 was up 22% year-over-year and also represented a new quarterly record for the company.

Cash flow from operations was \$298 million, and free cash flow was \$252 million. DSO in Q2 was an impressive 38 days, highlighting a strong collections process and healthy linearity throughout the quarter.

Year-to-date free cash flow of \$443 million is up 43% year-over-year. During Q2, we repurchased \$125 million in stock and paid out \$112 million in cash dividends. In total, we returned \$237 million to shareholders, representing 94% of free cash flow. We closed Q2 with \$4.5 billion in cash and short-term investments.

As you all know, the dynamic supply chain headwinds have intensified recently. Our excellent supply chain and procurement team continues to work closely with our partner ecosystem, with the goal of meeting as much customer demand as possible. Towards this goal, we will continue to invest incremental dollars into inventory and longer-term commitments.



That said, we do anticipate the supply chain challenges facing the overall technology industry to impact our product revenue and product gross margins in the second half of fiscal 2022. These supply chain headwinds and our ongoing actions to mitigate them have been factored into our Q3 and updated full year guidance.

With our strong execution in Q2, the addition of CloudCheckr, and a healthy demand pipeline for the second half of our fiscal year, we are raising our fiscal 2022 revenue guidance. We now expect revenues to grow 9% to 10% year-over-year, even with the challenging supply chain environment.

We also have growing confidence in our expanding Public Cloud opportunity, driven by enhanced go-to-market activities, deeper and broader cloud partnerships and continued product innovation. As a result, we are raising the guidance on our organic Public Cloud ARR, with a new range of \$475 million to \$500 million.

As you know, we closed the CloudCheckr acquisition early in Q3. We anticipate CloudCheckr to contribute an additional \$35 million to \$40 million in Public Cloud ARR exiting the year. In total, our new guidance for exit fiscal 2022 Public Cloud ARR is \$510 million to \$540 million, which at the midpoint, implies a 74% increase year-over-year.

For fiscal 2022, we continue to forecast total gross margin to be approximately 68%. However, the current supply chain challenges with temporarily higher freight and expedite charges, will pressure product margins in Q3 and Q4. We now anticipate product margins to be approximately 54% for the full year.

We are reaffirming our full year operating margin guidance of 23% to 24%. We are forecasting operating expenses to range between \$2.795 billion and \$2.815 billion, driven by investment in revenue-generating activities, including expanding our Public Cloud portfolio and investments in both our cloud and customer success sales teams.

Our new OpEx guidance also includes \$10 million per quarter from CloudCheckr. As we discussed at our Investor Day last September, we remain committed to growing revenue faster than operating expenses.

We are raising our fiscal 2022 EPS guidance. We now expect EPS to range between \$4.90 and \$5.10, representing 23% year-over-year growth at the midpoint. Implied in this guidance is our expectation that other income and expense will be a negative \$60 million, and our effective tax rate will remain at 19%.

We remain committed to delivering more than \$1.2 billion in free cash flow in fiscal 2022 as our Hybrid Cloud business continues to fund the growth in our Public Cloud platform.

Now on to Q3 guidance. We expect Q3 net revenues to range between \$1.525 billion and \$1.675 billion which, at the midpoint, implies a 9% increase year-over-year. We anticipate consolidated gross margin to range between 67% and 68% and operating margin to be approximately 23%.

Assumed in this guidance are Q3 operating expenses of \$705 million to \$715 million, which includes CloudCheckr. We expect earnings per share for Q3 to range between \$1.21 and \$1.31 per share. Assumed in our Q3 guidance is our expectation that other income and expense will be a negative \$15 million, and our tax rate will be approximately 19%.

In closing, I want to thank the entire NetApp team for the outstanding execution in the first half of our fiscal year. The team stayed focused on our core priorities and were not distracted by external events out of their control.



We are excited to build on that momentum as we continue to scale a truly differentiated Public Cloud platform, while maintaining an unwavering focus on the Hybrid Cloud business. As George mentioned, we plan to host an Investor Day in the spring, where we will further discuss the long-term value drivers for our shareholders, customers and partners.

I'll now hand it back to Kris to open the call for Q&A. Kris?

---

## Kris Newton

*Vice President, Investor Relations, NetApp, Inc.*

Thanks, Mike. Let's open the call for Q&A. Please keep to just one question so we can get to as many people as possible. Operator?

---

# QUESTION AND ANSWER SECTION

**Operator:** Thank you. [Operator Instructions] Our first question comes from the line of Jason Ader with William Blair. Your line is open.

---

## Jason Ader

*Analyst, William Blair & Co. LLC*

Q

Yes. Thanks. Hey, guys. I guess my question for you, George, is as we think about the cloud services business, there's a lot of different elements within there. You had just announced the FSx for NetApp ONTAP. Obviously, Azure NetApp Files is going well, you have the whole Spot business and now CloudCheckr. I guess it's hard to figure out, from our perspective, I think, which are going to be the most important, let's call it three to five years from now. How would you help us think about that just in terms of magnitude? And in particular, I'm curious about the FSx business. I mean, how should we be thinking about how important that particular service will be to your cloud services ARR over time?

---

## George Kurian

*Chief Executive Officer & Director, NetApp, Inc.*

A

I think, first of all, we saw strong performance this past quarter from all three important pieces of our cloud portfolio, Cloud Volumes, which is cloud storage services; Cloud Insights, which is monitoring; and our Spot portfolio, which is dynamic optimization of compute and storage in the cloud. All of them had really strong quarters, and we're really pleased.

In terms of FSx for ONTAP, I will just say that it's very early days, but we are extraordinarily pleased. Listen, if you look at the cloud file storage market, the public data suggests that Amazon Web Services is the dominant player in that market and having a native first-party ONTAP enterprise file storage service in the Amazon Cloud is an enormous opportunity.

We are doing the innovation and the enablement work to scale that business. We're really pleased with the early results, but we have a long kind of – we'll see that play out over the next several quarters, right? Just like Microsoft Azure NetApp Files is now a really stellar product for us.

---

## Jason Ader

*Analyst, William Blair & Co. LLC*

Q

Thanks.

**Operator:** Thank you. Our next question comes from the line of Katy Huberty with Morgan Stanley. Your line is open.

**Katy L. Huberty**

*Analyst, Morgan Stanley & Co. LLC*

Q

Yes. Thank you, Mike, you sized the profit impact of the supply chain constraints, but what is the impact to product revenue in the back half? And should we think of any shortfall in revenue just contributing to fiscal 2023 growth?

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

Sure. Thanks for the question, Katy. So, hey, let's put it in context a little bit as we did the guidance for the full year. We feel really good about how Q3 and the fiscal year is shaping up. Coming off a really strong Q2, we've raised the revenue growth, even with the tougher supply chain situation. And we're calling for growth across both product and cloud.

As we said in the prepared remarks, we've baked all of that into our guidance. We'll work very diligently with our supply chain team, our customers, our partners to make sure we're able to fulfill as much as we can. But we're not going to break out, hey, what was the implication of supply chain. Candidly, we don't want to have two guidance numbers. We fully baked that in.

As it relates to fiscal 2023, we'll have to see how the second half goes, really in terms of does it continue into our fiscal 2023, at what level, and how does it work its way through the rest of this fiscal year.

**Katy L. Huberty**

*Analyst, Morgan Stanley & Co. LLC*

Q

Thank you.

**George Kurian**

*Chief Executive Officer & Director, NetApp, Inc.*

A

I think broadly speaking, our team has managed the environment really well. And I think if you look at the second half guidance, my expectation is you should see a continued progression of the first half trends, with product and cloud services growing quickly and our services business growing a little bit slower than that in the overall revenue mix.

**Katy L. Huberty**

*Analyst, Morgan Stanley & Co. LLC*

Q

Thank you.

**Operator:** Thank you. Our next question comes from the line of Rod Hall with Goldman Sachs. Your line is open.

**Rod Hall**

*Analyst, Goldman Sachs & Co. LLC*

Q

Yes, great. Thanks for the question. I wanted to dig back into the cloud services, George, a little bit. A couple of questions for me. One thing we've seen in the industry kind of emerging is direct hardware sales into some application in hyperscalers for low-cost flash storage. And I wonder if – I know that you're amortizing hardware as-a-service sort of in some of these instances. But I wonder if you see an opportunity to maybe directly sell hardware into some of these things for specific applications?

And I'm also curious just strategically, I know the question was asked earlier, what of these three services are going to be bigger. But where do you take this strategically? Can you give us some way to think about kind of where you're taking the as-a-service part of the business, where the opportunities lie, where you think the most opportunity is? Thanks.

---

**George Kurian**

*Chief Executive Officer & Director, NetApp, Inc.*

A

Listen, I think with regard to our approach to serve customers, together with the cloud providers, we look at a broad range of opportunities. I think they don't exist solely in the Public Cloud. I think you could see, for example, in my prepared remarks, the commentary on working with Google around a distributed cloud platform.

And so, you'll see us continue to broaden the range of innovation opportunities that we deliver with the hyperscalers, so that we can truly build a hybrid multi-cloud data management and infrastructure services management platform with them.

I think, within the Public Cloud, there are going to be continued opportunities for substantial growth. I think, as I said, we feel really, really good about the progress towards the \$1 billion ARR targets that we had laid out. We will share more about the specific updates to our long-term plans at our analyst conference, right? But let me just say, cloud storage is a massive opportunity. Cloud file storage alone is a very rapidly growing multibillion-dollar opportunity. And we are positioned at the sweet spot of that alongside the biggest three cloud providers in the world.

Second, cloud compute management and cloud cost management is another massively important customer priority, and Spot plus CloudCheckr gives us a differentiated platform to go after that set of use cases. And we see more and more types of workloads collapsing onto these two important elements of Infrastructure as a Service. And Cloud Insights, our monitoring platform helps customers not only deploy those infrastructure services, but also monitor them. So I feel really, really, really good about our cloud progress.

---

**Rod Hall**

*Analyst, Goldman Sachs & Co. LLC*

Q

Great. Thank you.

---

**Operator:** Thank you. Our next question comes from the line of Karl Ackerman with Cowen. Your line is open.

---

**Karl Ackerman**

*Analyst, Cowen and Company, LLC*

Q

Yes. Thank you. I was hoping you could discuss how you plan to integrate CloudCheckr into your Cloud Insights and Spot portfolio.

And as you address that question, as you grow the cloud business toward this \$1 billion target and drive gross margins into the high 70s, should we expect the cloud business can achieve operating margins maybe in line with

the corporate average? Or could that actually happen earlier, given the go-to market appears to be shifting to your cloud partners, rather than relying simply on your own sales force? Thanks.

**George Kurian**

*Chief Executive Officer & Director, NetApp, Inc.*

A

Listen, I think with regard to CloudCheckr, what Spot allows customers to do is to optimize their cloud spend by dynamically deploying cloud computing and storage environments on the most efficient platform available, right? So, we address about 70% of the customer spend using the Spot technology.

What CloudCheckr allows customers to do, is to first be able to analyze and prioritize which of those environments they should move to Spot first and most quickly, so that they can get the best savings. And then subsequently, also gives them an integrated bill for their entire environment, now optimized with Spot. So we're excited about what CloudCheckr brings from a technology perspective.

From a route-to-market perspective, it has a strong footprint in public sector and in managed service providers, who use it as an integrated billing and analytics platform for all of their downstream customers, and so it expands our reach into the marketplace.

With regard to cloud operating margin, today we don't break out operating margins. I would just tell you that we are a highly leveraged operating model for the company. If you look at the first half of this year, more than 50% of total revenue growth fell to the bottom line. We see the opportunity in cloud to be a fast-growing, high gross margin opportunity, and we are going to invest to capture that but we are doing so while continuing to drive the operating margin profile of the total company. So, I'm excited about the possibilities ahead and the continued increase in margin-rich software and cloud services in our portfolio. Mike, do you have anything else?

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

Yes. Thanks, George. Karl, I would just add a couple of things to what George said. We do benefit in a couple ways as it relates to the cloud business. One is, there's a lot of synergies in R&D because, as you know, ONTAP goes across both of those. So that will help as you called it, the operating margin, even though we don't break it out.

The other thing we've talked about is yes, the route-to-market and the hyperscaler sales channel certainly helps. We also have our own sales team as well. They will get more and more efficient, especially as we build up that customer success team. So as we look at that \$1 billion target, as we've talked about, you look at the comps that have about \$1 billion of ARR. And certainly, those operating margins are very near our corporate average today.

**Karl Ackerman**

*Analyst, Cowen and Company, LLC*

Q

Thank you.

**Operator:** Thank you. Our next question is from the line of Steven Fox with Fox Advisors. Your line is open.

**Steven B. Fox**

*Analyst, Fox Advisors LLC*

Q

Hi, good afternoon. Just one more cloud question for you. George, you talked about how you now have fully integrated services with all the cloud service providers. How do you think you start to leverage that? Can you sort

of give us a road map for how that builds upon itself and where you would see initial success from having that full portfolio and then maybe later success? Thanks.

**George Kurian**

*Chief Executive Officer & Director, NetApp, Inc.*

A

Yeah. Certainly, we have three ways that we drive success in the cloud business. The first is technology certification and workload expansion. So, we work with the cloud providers to qualify more and more and more workloads that can be best served using our technology. An example that I cited recently is the VMware Cloud in Google now being certified to use NetApp Cloud Volumes as a primary data store, which has enormous benefits to VMware customers of NetApp and VMware to be able to now expand to the cloud, as well as new customers that want to deploy mission-critical environments on the VMware Cloud, right? So that's one, workload certifications and expansions.

The second is additional regions and enablement for the go-to-market engines. You've seen us grow the Azure NetApp Files business steadily and very successfully over a period of time. Amazon and Google are behind that but we know the recipe and we're working to scale that.

And then finally, cross-selling and upselling a customer once they get on our service, dollar-based net retention rate is a very healthy 179%. It's early days in our customer base. So over time, that should come down, but it shows that once a customer uses one of our services, they expand dramatically and then we get to sell them a portfolio of more services. So, lots of ways to grow our cloud business ahead. We're super excited. And we worked really, really hard to get here, and we're going to capitalize on the opportunity.

**Steven B. Fox**

*Analyst, Fox Advisors LLC*

Q

Thanks for that. That's very helpful.

**Operator:** Thank you. Our next question comes from the line of Simon Leopold with Raymond James. Your line is open.

**Simon Leopold**

*Analyst, Raymond James & Associates, Inc.*

Q

Thanks for taking the question. I want to see if you could maybe unpack a little bit of the trends you're seeing in the traditional storage market. In particular, we're seeing very strong growth from your all-flash business, which would imply that there are [ph] aspects (00:40:30) that are declining and at least one of your competitors seems to be suffering some steep declines at the high end. I'm wondering if maybe midrange and flash is encroaching on more high-end performance? And how do you see the subsegments trending for NetApp? Thank you.

**George Kurian**

*Chief Executive Officer & Director, NetApp, Inc.*

A

Yes, absolutely. I think, we have said for a long time that midrange systems with clustering software will cannibalize the high-end frame array business of some of our competitors. And you are seeing that play out. The midrange systems offer the sweet spot from a price performance standpoint for customers. And with clustering, you can build enormously large environment to consolidate a range of different workloads, and we expect that trend to continue going forward. The days of the frame array are over to be completely transparent. And so we'll continue to see that trend going on over time.

With regard to how these – within our business, all-flash arrays will have an important and growing part of the customer's data center. Hybrid flash arrays will continue to have a long-term position in the data center. So today, in our installed base, for example, all-flash is about 30% of the installed base. We expect as more flash technologies come to play, that number to grow to about 70% over time.

I think, however, we do not subscribe to the theory that hard disk drives no longer have value. They will have enduring value for certain sets of workloads that they are built for, capacity-oriented workloads, backup and archival, media retention, images, things like that. So we feel good about our position in the market. We're going to stay focused and continue to execute against our all-flash array business and our object storage business as priorities for the enterprise storage environment.

---

**Simon Leopold**

*Analyst, Raymond James & Associates, Inc.*

Q

Thank you.

---

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

Thank you.

---

**Operator:** Thank you. Our next question comes from the line of Nik Todorov with Longbow Research. Your line is open.

---

**Nikolay Todorov**

*Analyst, Longbow Research LLC*

Q

Yes. Thanks and congrats on another great quarter. Another question on the Hybrid Cloud side. It sounds to me that you're seeing accelerated demand there. So the question is given the supply chain challenges, how much visibility do you have from a pipeline perspective? I think you talked about seeing a very strong second half. Also, are you seeing any abnormal backlog at this point? And what kind of impact do you think that could have on your model in the second half and forward? Thanks.

---

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

Hey, Nik, it's Mike. Thanks for the question. Yes, we feel very good about the demand environment as we look at the second half. We certainly have a much better view at this point now of our pipeline going into the second half. And as we've talked about, a lot of what's baked into the guidance is really a result of supply chain. Again, we feel really good about the overall demand environment.

As we look at backlog, there's really been no significant shift there. And I do also want to make sure [ph] and note (00:43:52), we haven't seen any, what I would call unusual pull-ins either as it relates to purchasing behavior. On a quarterly basis, there is always pull-ins and push-outs. We haven't seen anything unusual there either. So going to the second half, feel really good about what the pipeline looks like and the buying behavior of our customers. And hopefully that continues as we go forward into next year.

---

**Nikolay Todorov**

*Analyst, Longbow Research LLC*

Q

Sounds great. Thanks, guys. Good luck.

**Operator:** Thank you. Our next question comes from the line of Jim Suva with Citigroup. Your line is open.

**Jim Suva**

*Analyst, Citigroup Global Markets, Inc.*

Q

Thank you. George and Mike, now as hopefully society is getting back to a little bit of more normalcy post the pandemic, hopefully, can you compare and contrast like the purchasing trends that you're seeing pre versus post? Is it longer lead times because of the supply chain? Do you think that might be here for good or more of a push to cloud or all-flash array? I'm just trying to compare and contrast of what you saw maybe pre-pandemic versus now in the discussions you're having with customers? Thank you.

**George Kurian**

*Chief Executive Officer & Director, NetApp, Inc.*

A

We see continuing trends for digital transformation, hybrid work and hybrid IT. Those have been our long-term perspective on how business architectures and technology architectures evolve. That has certainly come sharper into focus with COVID, but they have always been part of the long-term road map of our customers.

We have seen the acceleration of cloud-based environments for certain workloads, especially workloads like virtual desktops, or in schools for the ability for teachers to be able to use cloud-based environments to conduct classrooms, and we think those will continue and endure going forward as the future of work remains hybrid.

Within the enterprise storage environments, we've always believed that flash will have a growing part of the customer data center as the economics of flash and the ability to consolidate and simplify your data center environment grows. That being said, there are workloads like I've mentioned earlier in the call that will continue to stay on hard drives. And I think the big early draft to flash is now sort of stabilizing and people understand what flash is going to be used for and understand what HDDs are going to be used for. And so, we see a more steady pattern there.

With regard to lead times and transactions and things like that, as Mike mentioned, we didn't see anything unusual. We have been able to meet customers through a variety of mechanisms, digital conferences, using video-conferencing mechanisms, as well as now starting to meet some customers in person. And so, we expect that to continue going forward for a period of time at least.

**Jim Suva**

*Analyst, Citigroup Global Markets, Inc.*

Q

Thank you so much, and congratulations to you and your teams. Thank you.

**George Kurian**

*Chief Executive Officer & Director, NetApp, Inc.*

A

Thanks, Jim.

**Operator:** Thank you. Our next question comes from the line of Tim Long with Barclays. Your line is open.

**Tim Long**

*Analyst, Barclays Capital, Inc.*

Q



Thank you. I was hoping you could talk a little bit about the pricing environment and strategy, given commodity moving prices and, obviously, inflation that you're facing on the supply chain side. Could you just talk a little bit about how you see that kind of flowing through the model over the next few quarters here and what do you think competitors will be doing? And will there be any differentiation in how some – you – NetApp and some of your peer companies are going to tackle these challenges in a market where sometimes pricing is somewhat of a factor? Thank you.

---

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

Hey, Tim. It's Mike. So, yeah, so thanks for your question. We have not seen much of a change in the pricing environment. As we've talked about before, it's still a relatively rational market. Every once in a while, somebody does something to grab a [ph] customer (00:48:00) or keep one, but that's going to certainly be an unusual event.

As we've looked forward, look, I won't speak for any of our competitors, I think everybody is looking at their business saying, hey, costs have gone up across the board, especially in freight component costs. We're all dealing with that. So I do expect that you'll continue to hear folks talk about doing price increases. I think a lot of this depends on how long we're in this situation.

Again, from a NetApp perspective, we've looked at that. We have implemented a price increase, and we do expect that to start to have an impact later in our fiscal year. I would expect to continue to see that across our competitors. But again, I don't want to speak for them. I think a lot of this depends on how long this short – supply chain shortage lasts and as well our component manufacturers, how they approach the market as well.

---

**Tim Long**

*Analyst, Barclays Capital, Inc.*

Q

Okay. Thank you.

---

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

Thank you.

---

**Operator:** Thank you. Our next question comes from the line of Sidney Ho with Deutsche Bank. Your line is open.

---

**Sidney Ho**

*Analyst, Deutsche Bank Securities, Inc.*

Q

Thanks for taking my question. I have a question on the free cash flow. So based on your full-year guidance, it would imply about 60% of the full-year free cash flow will happen in the second half of the fiscal year. That's below the five-year average of, call it, about 70%. It's definitely low since maybe 2015. First of all, is my math right? Second, if so, anything you would highlight that may change this cash flow seasonality? And particularly, do you expect supply constrain being a factor in terms of cash flow generation? Thanks.

---

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

All right. Hey, awesome. Thanks for the cash flow question, Sidney. So, yeah, let's talk about it and let's start at the top. We did guide for free cash flow \$1.2 billion or greater. So let's do operating cash first. That would imply

full-year operating cash of, call it, \$1.425 billion. To your point, we've already generated \$540 million. So what you saw in Q2 was a record for us, low DSOs. We had a great collections quarter in Q2. That did pull forward some collections into Q2.

So as we look at the second half of 2022, you should expect to see the seasonality, as you called it, be a little bit lower in the second half because of the really strong Q2, still getting to at least that \$1.4 billion operating cash number.

As – on your question about supply chain, we have baked in an assumption that we'll continue to invest in inventory. You saw that our inventory turns went from 17 in Q1 to 13 in Q2. That was planned. We talked about that with you folks as well for the last couple of quarters. And we have baked that into our assumption.

Going forward, I think you should expect to see kind of the seasonal averages return. Again, it was just in a very, very good Q2 from a collections perspective, and I wouldn't expect that to continue into the future. So, again, thanks for that question. Hopefully, that answers your question.

---

**Sidney Ho**

*Analyst, Deutsche Bank Securities, Inc.*

Q

It does. Thank you.

---

**Operator:** Thank you. Our next question comes from the line of Nehal Chokshi with Northland Capital. Your line is open.

---

**Nehal Chokshi**

*Analyst, Northland Securities, Inc.*

Q

Yeah. Thanks. And congrats on the strong Public Cloud services. That's great to see. On the overall business, billings did decelerate pretty materially on a year-over-year basis. Can you talk to what were the dynamics behind that? And then, why do you say you feel good about the pipeline, given the billings?

---

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

Sure. So thanks for that, Nehal. So as we talked about in Q1, billings grew by about 20%. In Q2, billings grew by about 7%. Keep in mind that – so on a year-to-date basis, right around 12% to 13% growth. That number is going to jump around a little bit each quarter, based on the dynamics of deferred revenue as well as FX as well. So we calculate billings as net revenue in the quarter, and then quarter-over-quarter change in deferred, excluding the impact of FX in deferred.

So that's going to move the numbers a little bit. There's a little bit of seasonality to that. So looking forward, we would expect to continue to see billings overall grow at or above the revenue number. And again, I would encourage you – and take a look at the year-to-date number or the trailing 12 months, billings will jump around a little bit based on the components of our billings, mix matters, as well as seasonality.

---

**Nehal Chokshi**

*Analyst, Northland Securities, Inc.*

Q

Got it. Great. Thank you.

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

Thank you.

**Operator:** Thank you. Our next question comes from the line of Wamsi Mohan with Bank of America. Your line is open.

**Wamsi Mohan**

*Analyst, Bank of America Merrill Lynch*

Q

Yes. Thank you. On your guide for Q3 and Q4, maybe you can express this a little differently on the puts and takes from Q3 to Q4 trajectory. Are you expecting component issues to be resolved through Q3 and that drives better seasonality Q3 to Q4? Or is there something else, like a better pipeline – or for Q4, Mike, you also mentioned increased pricing as well. So maybe you could bridge Q3 to Q4, that would be helpful.

**George Kurian**

*Chief Executive Officer & Director, NetApp, Inc.*

A

Q4 is the finish of our fiscal year. As you might know, we run a semiannual plan. And so, we had a strong Q2, and we'll have a strong Q4. So that reflects the seasonality in our business, driven by our compensation planning as well as customer buying through the year.

I think with regard to margins, I'll have Mike cover that in terms of the supply chain and the margin profile. I would just tell you we do not expect a near-term resolution of the supply situation. What we have seen through excellent execution with our teams and our partners is that component costs for the full year are largely flat year-on-year.

There are some elements of the components that are up year-on-year and others that are down year-on-year. But as we have said before, component costs are largely flat on a year-on-year basis. I think what we see is really the expedite and freight costs that are at a premium now. And that is reflected in the pricing lift that we have implemented at the start of November and which will take some time to flow through our systems.

I'll let Mike characterize.

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

Great. Thank you, George. And just to add to that, on the specific question, Wamsi, if you go from Q3 to Q4, a couple things to keep in mind. One is, hey, the services revenue will continue to grow. You're going to see cloud support, hopefully professional services. That adds to that quarter-on-quarter growth.

As we look at Q4 versus Q3, to George's point, always our seasonally high quarter, we're doing a lot of work not only in supply chain, but in engineering and other things to make sure that we can deliver as much as we can in Q4. And then, certainly, the price increase, it will take a little bit of time to work its way through the system. So add all those together, and that's what added up into our guidance – our implied guide for Q3 and Q4.

**Wamsi Mohan**

*Analyst, Bank of America Merrill Lynch*

Q

Thank you.

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

Thank you.

A

**Operator:** Thank you. Our next question comes from the line of Amit Daryanani with Evercore. Your line is open.

**Amit Daryanani**

*Analyst, Evercore ISI*

Perfect. Thank you and thanks for taking my question. I guess the question is around the cloud services business. And, George, I was just wondering how – when you think of the AWS partnership, and I know it's somewhat in the early stages, how would you stack that up against Azure at this time? Just anything in terms of number of pilots or the workload that you're doing with AWS right now versus what you're doing with Azure.

Q

And then, really, when I think about this \$1 billion road map that you'd given us a while back, did you envision a AWS partnership, especially how fully integrated NetApp is on the console and the fact that AWS is proactively selling NetApp. Did you envision all this in the \$1 billion road map, or is this incremental to that narrative?

**George Kurian**

*Chief Executive Officer & Director, NetApp, Inc.*

Listen, I think, first of all, AWS and Azure have enormous scale and reach into the customer base. These are \$1 trillion corporations with enormous impact on the IT market, and we are honored to work with both of them. They have different approaches to their customer base and different ways and different strengths. And so, we're excited to work with Amazon and Microsoft. I think the overall opportunity set reflects their scale in the market, right?

A

So Amazon has massive market presence and market share. I think in the file space, they are a very large part of the files market. So the fact that we have a play with them gives us enormous scale into the file storage market. I think, from an execution standpoint, listen, we've learnt a lot over the last few years. We know what it takes to scale a business. And we've done that in partnership with Microsoft. We continue to scale that with innovation and co-engineering and go-to-market. But we are also taking some of those lessons learned into how we can scale other services more quickly.

With regard to the \$1 billion plan, listen, we always believed that we would be working with multiple hyperscalers. I don't think you should assume that we're [indiscernible] (00:58:03) to say that we have that in the bag, but we have that as part of our road map, and we're honored to have the partnership with AWS. I think as I said, I feel very, very good about where we are in our road map to \$1 billion. We'll tell you more about the timing and the mix and all of that when we get to Analyst Day, right? But I feel really good about where we are.

**Operator:** Thank you. Our next question comes from the line of Ananda Baruah with Loop Capital. Your line is open.

**Ananda Baruah**

*Analyst, Loop Capital Markets LLC*

Hey. Good afternoon, guys. Thanks for taking the question. George and Mike, I guess, on lines on the business model, how do you guys think about the interplay or the trade-off maybe – interplay/trade-off now that the margins continue to expand? I think you guys are actually absorbing like 100 to 200 basis points of op margin sort of expense, supply chain kind of components, et cetera, which really has the margins already be in the mid-20%

Q

[indiscernible] (00:59:12) 25% or so. How do you guys think about the interplay between investing in growth, investing in M&A as the margins continue to go up seemingly towards 30%? Appreciate it. Thanks.

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

Sure. So, hey, Ananda. Great question. So as we've talked about for the last couple years is, our goal is to continue to invest in the business to drive growth, being fully cognizant of investing in operating expense and COGS at a lower rate than revenue to drive up margins. You saw an incredible, really, operating leverage so far this year. And if you take the midpoint of the guide, revenue is up almost \$550 million year-over-year on \$118 million or \$120 million, pick your favorite number, OpEx number. So we're continuing to drive really good scale while investing in the business.

We will continue to do that going forward, very much focused not only on where we need to invest, but what does that return. That's why we're so focused on cloud, as well as incremental sales and product development. So you should expect to see us continue to invest going forward.

Now, outside of OpEx, we've talked about it before, we will continue to be active in M&A. And we're still allocating at least 30% of our free cash flow, plus we have a very nice cash balance and a lot of flexibility on the balance sheet to fund acquisitions. So, yeah, you should expect to see us continue to increase OpEx to drive growth as well as be active in the M&A market.

**Ananda Baruah**

*Analyst, Loop Capital Markets LLC*

Q

So it sounds like opportunity to keep accelerating revenue growth, expanding margins and get bigger in M&A if the free cash flow goes up, Mike?

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

And doesn't that sound like fun? That's exactly what we're focused on.

**Ananda Baruah**

*Analyst, Loop Capital Markets LLC*

Q

Thanks, guys.

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

Thank you.

**Operator:** Thank you. Our final question comes from the line of Samik Chatterjee with JPMorgan. Your line is open.

**Samik Chatterjee**

*Analyst, JPMorgan Securities LLC*

Q

Hi. Thanks for taking my question. I guess my question was just following up on the pricing discussion earlier. You mentioned you've taken some pricing and the flow-through would take a bit of time. Just how should we think about the stickiness of those price increases? As supply chain kind of eases, do those prices increase, they

have competed away? And I'm just trying to think how much of a benefit can they be to, like, the next fiscal year as they take time to flow into the P&L? Or how sticky can they be? Thank you.

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

Yeah. Great question. So as you look at the rest of this fiscal year, and I'll work it into next year, you shouldn't really expect to see much of a benefit in Q3. There's lot of [indiscernible] (01:01:59). It takes a while for that to take effect. So we expect to start to see some of that in Q4. And as we roll into 2023, I think it depends on a lot of things, the earlier question on what are your competitors doing, what's the overall pricing environment, what happens with component costs and freight. I think there's a lot in that for us to be able to say, hey, we think X amount sticks.

Certainly, we are very disciplined around our pricing and we want to ensure that we are doing the right things for our customers while we are taking care of covering our costs as well. So we'll be very focused on it. We'll talk to you as we guide to next year on the impact of that. But I did want to be clear just on the impact of 2022.

**Samik Chatterjee**

*Analyst, JPMorgan Securities LLC*

Q

Thank you.

**Michael J. Berry**

*Chief Financial Officer & Executive Vice President, NetApp, Inc.*

A

Thank you.

**Operator:** Thank you. Ladies...

**George Kurian**

*Chief Executive Officer & Director, NetApp, Inc.*

Thank you. We have delivered a solid first half with great operating leverage in our business model as we grow revenues and margins. We're gaining share in the key markets of all-flash and object storage, while rapidly scaling our Public Cloud business. The innovation we bring to market and our unique and deep cloud partnerships position us well to execute against the significant opportunity ahead. We increased our full-year guidance for revenue, EPS and Public Cloud ARR, driven by the outperformance in Q2, the addition of CloudCheckr and a healthy demand pipeline for the second half of our fiscal year.

Thank you. I look forward to speaking with you all again next quarter and at our upcoming Investor Day in March.

**Operator:** Ladies and gentlemen, this concludes today's conference call. Thank you for your participation. You may now disconnect.

Disclaimer

The information herein is based on sources we believe to be reliable but is not guaranteed by us and does not purport to be a complete or error-free statement or summary of the available data. As such, we do not warrant, endorse or guarantee the completeness, accuracy, integrity, or timeliness of the information. You must evaluate, and bear all risks associated with, the use of any information provided hereunder, including any reliance on the accuracy, completeness, safety or usefulness of such information. This information is not intended to be used as the primary basis of investment decisions. It should not be construed as advice designed to meet the particular investment needs of any investor. This report is published solely for information purposes, and is not to be construed as financial or other advice or as an offer to sell or the solicitation of an offer to buy any security in any state where such an offer or solicitation would be illegal. Any information expressed herein on this date is subject to change without notice. Any opinions or assertions contained in this information do not represent the opinions or beliefs of FactSet CallStreet, LLC. FactSet CallStreet, LLC, or one or more of its employees, including the writer of this report, may have a position in any of the securities discussed herein.

THE INFORMATION PROVIDED TO YOU HEREUNDER IS PROVIDED "AS IS," AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, FactSet CallStreet, LLC AND ITS LICENSORS, BUSINESS ASSOCIATES AND SUPPLIERS DISCLAIM ALL WARRANTIES WITH RESPECT TO THE SAME, EXPRESS, IMPLIED AND STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, ACCURACY, COMPLETENESS, AND NON-INFRINGEMENT. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, NEITHER FACTSET CALLSTREET, LLC NOR ITS OFFICERS, MEMBERS, DIRECTORS, PARTNERS, AFFILIATES, BUSINESS ASSOCIATES, LICENSORS OR SUPPLIERS WILL BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING WITHOUT LIMITATION DAMAGES FOR LOST PROFITS OR REVENUES, GOODWILL, WORK STOPPAGE, SECURITY BREACHES, VIRUSES, COMPUTER FAILURE OR MALFUNCTION, USE, DATA OR OTHER INTANGIBLE LOSSES OR COMMERCIAL DAMAGES, EVEN IF ANY OF SUCH PARTIES IS ADVISED OF THE POSSIBILITY OF SUCH LOSSES, ARISING UNDER OR IN CONNECTION WITH THE INFORMATION PROVIDED HEREIN OR ANY OTHER SUBJECT MATTER HEREOF.

The contents and appearance of this report are Copyrighted FactSet CallStreet, LLC 2021 CallStreet and FactSet CallStreet, LLC are trademarks and service marks of FactSet CallStreet, LLC. All other trademarks mentioned are trademarks of their respective companies. All rights reserved.