

23-Aug-2023

Snowflake, Inc. (SNOW)

Q2 2024 Earnings Call

CORPORATE PARTICIPANTS

Jimmy L. Sexton

Finance Director & Head-Investor Relations, Snowflake, Inc.

Frank Slootman

Chairman & Chief Executive Officer, Snowflake, Inc.

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

Christian Kleinerman

Senior Vice President-Product, Snowflake, Inc.

OTHER PARTICIPANTS

Keith Weiss

Analyst, Morgan Stanley & Co. LLC

Mark R. Murphy

Analyst, JPMorgan Securities LLC

Kirk Materne

Analyst, Evercore ISI

Raimo Lenschow

Analyst, Barclays Capital, Inc.

Karl E. Keirstead

Analyst, UBS Securities LLC

Kash Rangan

Analyst, Goldman Sachs & Co. LLC

Brad Zelnick

Analyst, Deutsche Bank Securities, Inc.

Tyler Radke

Analyst, Citigroup Global Markets, Inc.

Brent Thill

Analyst, Jefferies LLC

Michael Turrin

Analyst, Wells Fargo Securities LLC

Patrick Colville

Analyst, Scotia Capital (USA), Inc.

Ethan Bruck

Analyst, Wolfe Research LLC

Brent A. Bracelin

Analyst, Piper Sandler & Co.

Brad Reback

Analyst, Stifel, Nicolaus & Co., Inc.

Derrick Wood

Analyst, TD Cowen

Sterling Auty

Analyst, SVB MoffettNathanson

MANAGEMENT DISCUSSION SECTION

Operator: Good afternoon, and thank you for joining the Snowflake Q2 Fiscal Year 2024 Earnings Conference Call. My name is Kate, and I will be the moderator for today's call. All lines will be muted during the presentation portion of the call with an opportunity for questions and answers at the end.

I would now like to pass the call over to your host, Jimmy Sexton, Head of Investor Relations at Snowflake. You may proceed.

Jimmy L. Sexton

Finance Director & Head-Investor Relations, Snowflake, Inc.

Good afternoon again, and thank you for joining us on Snowflake's Q2 Fiscal 2024 Earnings Call. With me in Bozeman, Montana are Frank Slootman, our Chairman and Chief Executive Officer; Mike Scarpelli, our Chief Financial Officer; and Christian Kleinerman, our Senior Vice President of Product, who will join us for the Q&A session. [Technical Difficulty] (00:00:41-00:00:51)

Operator: Excuse me, ladies and gentlemen, it does look like the speakers have disconnected. One moment while we get them reconnected. Thank you for your patience, ladies and gentlemen, we do appreciate that and we do ask that you remain holding for a few more moments while we get the speakers reconnected. Again, ladies and gentlemen, we do appreciate your patience and we do ask that you remain holding for a few more moments while we get the speakers connected again. Again, ladies and gentlemen, we do appreciate your patience and we do ask that you remain holding for just a few more moments while we get the speakers reconnected to the call. Again, ladies and gentlemen, we do appreciate your patience and we do ask that you remain holding for a few more moments while we get the speakers reconnected. Again, ladies and gentlemen, we do appreciate your patience and we do ask that you remain holding for a few more moments. Again, ladies and gentlemen, we do appreciate your patience, we do ask that you remain holding for a few more moments. Ladies and gentlemen, we have the speakers back in the call. You may proceed with the presentation.

Jimmy L. Sexton

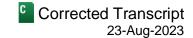
Finance Director & Head-Investor Relations, Snowflake, Inc.

Thanks. Good afternoon again, and thank you for joining us on Snowflake's Q2 Fiscal 2024 Earnings Call. With me in Bozeman, Montana are Frank Slootman, our Chairman and Chief Executive Officer; Mike Scarpelli, our Chief Financial Officer; and Christian Kleinerman, our Senior Vice President of Product, who will join us for the Q&A session.

During today's call, we will review our financial results for the second quarter of fiscal 2024 and discuss our guidance for the third quarter and full year fiscal 2024. During today's call, we will make forward-looking statements, including statements related to the expected performance of our business, future financial results, strategy, products and features, long-term growth, our stock repurchase program and overall future prospects. These statements are subject to risks and uncertainties, which could cause them to differ materially from actual results.

Information concerning these risks is available in our earnings press release distributed after market close today and in our SEC filings, including our most recently filed Form 10-Q for the fiscal quarter ended April 30, 2023, and the Form 10-Q for the quarter ended July 31, 2023, that we will file with the SEC. We caution you to not place

Q2 2024 Earnings Call



undue reliance on forward-looking statements and undertake no duty or obligation to update any forward-looking statements as a result of new information, future events or changes in our expectations.

We'd also like to point out that on today's call, we will report both GAAP and non-GAAP results. We use these non-GAAP financial measures internally for financial and operational decision-making purposes and as a means to evaluate period-to-period comparisons. Non-GAAP financial measures are presented in addition to, and not as a substitute for financial measures calculated in accordance with GAAP. To see the reconciliation of these non-GAAP financial measures, please refer to our earnings press release distributed earlier today and our investor presentation, which are posted at investors.snowflake.com. A replay of today's call will also be posted on the website.

With that, I would now like to turn the call over to Frank.

Frank Slootman

Chairman & Chief Executive Officer, Snowflake, Inc.

Thanks, Jimmy. Welcome and good afternoon. Q2 product revenue grew 37% year-over-year to reach \$640 million. Non-GAAP product gross margin expanded to 78% and non-GAAP adjusted free cash flow was \$88 million, representing 50% year-over-year growth. In Q2, we continued to execute in an unsettled macro environment, but with incremental improvement in general sentiments and engagement.

Generative AI is at the forefront of customer conversations. However, enterprises are also realizing that they cannot have an AI strategy without a data strategy to base it on. We have a head start in this race as the epicenter of highly curated, optimized and trusted enterprise data. We now have a presence with 639 Global 2000 customers.

Al reaches beyond enterprise boundaries. Models need external data to answer challenging questions.

Data Sharing makes Snowflake uniquely positioned to enable AI workloads. As of Q2, 26% of Snowflake customers are Data Sharing, up from 20% in the same period last year. Approximately 70% of the customers with more than \$1 million in trailing 12-month product revenue are Data Sharing with an average of six stable edges.

For years, we focused on the programmability of our platform via Snowpark. We are seeing momentum. In Q2, we added more than 400 Snowpark customers and our consumption grew approximately 70% quarter-over-quarter. 63% of our Global 2000 customers are using Snowpark on a weekly basis.

Document AI is now in private preview. With Document AI, customers can use natural language to ask questions of unstructured data. Legal contracts or invoices are now available for inquiry in analytics. This is an early example of how language models are expanding our opportunity.

With Snowflake Container Services, we are bringing LLM models like Reka and NVIDIA's NeMo into Snowflake. You heard in my conversation with Jensen, Snowflake is sitting on a gold mine of data. Together, we can help customers turn that gold mine into intelligence.

We announced Snowpark Container Services two months ago. Since then, hundreds of customers have requested access to the private preview. With our support of Iceberg Tables, we are expanding our data lake scope. Many customers already use Snowflake as a data lake. Large financial services customer consolidates data in Snowflake to eliminate useless extracts in transfers of data. This means new use cases are deployed 80% faster.

Iceberg Tables will bring additional scope and open file formats through Snowflake. We expect to unlock more data lake opportunities with these capabilities.

We've also reached an inflection point on the application front. At Summit, we launched so-called Native Apps in public preview. We have over 25 native application providers today. Snowflake is a safe, certified and sanctioned place to deploy applications. Grassroots support is building. We now have more than 145,000 monthly active developers on Streamlit. This represents an increase of 160% year-on-year. Our start-up program allocates resources to developers planning to build on Snowflake. Approximately 20% of new customers landed in Q2 landed on Snowflake through our startup program.

General sentiment appears to be incrementally getting better. Our Snowflake Summit in June was highlight of energy and excitement about what is becoming possible in the world of data. We hosted over 20,000 onsite and virtual attendees. This was up over 85% from last year. Next up is our Data Cloud World Tour. The World Tour brings Summit messaging to a wider audience. We expect to double the attendance of Summit. This is in 26 cities worldwide.

With that, I will turn the call over to Mike.

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

Thank you, Frank. Consumption came in line with our expectations for the quarter. In May, we saw a return to growth with strength continuing into June and July. From a booking standpoint, we saw promising signs of stabilization with new bookings outperforming our expectations. However, we believe productivity has room for further improvement.

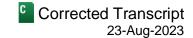
Q2 remaining performance obligations grew 30% year-over-year, totaling \$3.5 billion. Of the \$3.5 billion in RPO, we expect approximately 57% to be recognized as revenue in the next 12 months. This represents a 32% increase compared to our estimate as of the same quarter last year.

Our net revenue retention rate of 142% includes six new customers with \$1 million in trailing 12-month product revenue. We now have 402 customers with trailing 12-month product revenue greater than \$1 million. We continue to focus on growth and efficiency. We generated \$88 million in non-GAAP adjusted free cash flow, outperforming our Q2 target.

Q2 represented another quarter of continued progress on profitability. Our non-GAAP product gross margin was 77.9%, benefiting from a onetime credit from one of our cloud service providers. Non-GAAP operating margin was 8%, benefiting from tight controls on head count additions and the overachievement in product gross margin. Our non-GAAP adjusted free cash flow margin was 13%. We continue to have a strong cash position with \$4.9 billion in cash, cash equivalents and short-term and long-term investments. We did not repurchase any shares in the quarter, but plan to opportunistically repurchase shares using our free cash flow.

Now let's turn to guidance. Our forecast assumes that our largest customers will continue to be a growth headwind. We are seeing encouraging signs of stabilization, but not recovery. Our forecast calls for these customers to more closely align their consumption with their annual contract value. For the third quarter, we expect product revenues between \$670 million and \$675 million, representing year-over-year growth between 28% and 29%.

Q2 2024 Earnings Call



Turning to margins, we expect on a non-GAAP basis 4% operating margin, and we expect 364 million diluted weighted average shares outstanding. For the full year fiscal 2024, we expect product revenues of approximately \$2.6 billion, representing year-over-year growth of approximately 34%.

Turning to profitability for the full year fiscal 2024, we expect on a non-GAAP basis approximately 76% product gross margin, 5% operating margin and 26% adjusted free cash flow margin, and we expect 362 million diluted weighted average shares outstanding. We will continue to prioritize hiring in product and engineering. We still expect to add approximately 1,000 employees in fiscal 2024, inclusive of M&A.

With that, operator, you can now open up the line for questions.

QUESTION AND ANSWER SECTION

Operator: Absolutely. We will now begin the question-and-answer session. [Operator Instructions] The first question will be from the line of Keith Weiss with Morgan Stanley. Your line is now open.

Keith Weiss

Analyst, Morgan Stanley & Co. LLC

Thanks a lot. Thank you for taking the question, guys. Mike, I wanted to dig into the comment about kind of the large customer activity. You talked to us about sort of consumption coming more in line with the committed contracts. Can you give us any visibility what's happening on the contract renewals? Because as you go through these big contract renewals, are you seeing any change in their behavior of what the large customers are willing to commit to? And any impacts that we should be thinking about on how that's going to impact bookings and sort of RPO on a go-forward basis?

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

Yes. No, we're seeing customers renew. This quarter was a good renewal quarter. We had our largest customer. They renewed under their existing terms. They did \$100 million three-year renewal, even though their revenue run rate is at a higher amount than that. I think we did 9 or 10 \$10 million-plus TCV deals this quarter and most of those were renewals. And so, customers are doing that. But remember, that doesn't necessarily equate to consumption. And we do know some of our largest customers are trying to consume at their contract rate rather than going above that.

Keith Weiss

Analyst, Morgan Stanley & Co. LLC

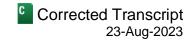
Got it. So, the dynamic is really on consumption if it's not on contracting as of yet?

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

No, it's on consumption. As I said, the contracting actually feels – the sentiment really seemed to change in July with customers really reengaging with us. And I think we'll have good bookings, but that doesn't equate to consumption. It takes time for the consumption to come in.

Q2 2024 Earnings Call



Keith Weiss

Analyst, Morgan Stanley & Co. LLC

Got it. Got it. And if I could sneak one in for Frank as well. You talked about you need a good data strategy to have a good AI strategy, and that's something we hear a lot when we're talking to customers and people out there in the field. So that really resonates. When it comes to kind of go-to-market and sort of the selling motion, does having to have the Gen AI conversation, while a long-term positive, does that disrupt the sort of typical kind of Data Cloud discussion that you guys have been having for the past like five years with these customers, does it risk or has it been elongating the sales cycles in any real way?

Frank Slootman

Chairman & Chief Executive Officer, Snowflake, Inc.

No, I wouldn't say so, Keith. I think we were actually saying that having highly organized, optimized, trusted, sanctioned data is incredibly important for deploying large language models. If you think you can just drop a model on top of a data lake and just see what happens, that's not going to end well. And that's what people are realizing. So they really got to get super serious about their foundations before we — if you don't have a good foundation, there's not much you can build on top of that. There's tons of governance issues involved as well. We spent literally decades as an industry making data highly governed. In other words, who can have access to what. So that now needs to translate into the world of large language models as well.

So there's tons of questions that are coming up that are really important for the enablement of language models in Al generally. So being extremely organized on your data is going to become a premium thing. And then we're obviously that's – we've been on that, but it's become more important as a function of this.

Keith Weiss

Analyst, Morgan Stanley & Co. LLC

Got it. Yeah, it definitely resonates with the conversation we're having as well. So thank you very much for the time, guys.

Operator: Thank you. The next question will be from the line of Mark Murphy with JPMorgan. Your line is now open.

Mark R. Murphy

Analyst, JPMorgan Securities LLC

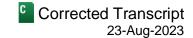
Yes. Thank you very much. Frank, I'm wondering if you can speak to the expanded Microsoft relationship. I believe you referred to it as nearly a doubling of the commitment. And I'm wondering if you're optimistic on seeing that alignment in the field coming together and perhaps unlocking some new opportunities relating to Azure or even some of the OpenAI workloads that you wouldn't have seen previously. And then I have a quick follow-up.

Frank Slootman

Chairman & Chief Executive Officer, Snowflake, Inc.

Yeah. Look, the bottom line of working with the cloud vendors is not what gets set at the top levels, the good intentions. What matters is what are the incentives, when you get 14 layers down at street level, how do we get people get paid. That determines whether they're either going to fight you and double and triple down on that or they're going to partner with you. And we see models where we've worked out really, really well, of course, with AWS, but with Microsoft, we were not in the place that we wanted to be at street level in terms of the incentives.

Q2 2024 Earnings Call



So we really took this opportunity when we were renegotiating our relationship with Microsoft to say, hey, we have to tackle this, right? And Microsoft very much wanted to be a bigger percentage of our business because they're not punching at their weight at all. They're not as big a percentage of our business as they should be based on our market share and they want to be. And this is the way to do it. It's really you need to bring alignment to the field organizations, then you're going to get partnerships and then you're going to get joint selling and then you're going to get your fair share.

Mark R. Murphy

Q

Analyst, JPMorgan Securities LLC

Okay. Thank you for that. And Mike, as a follow-up, in Q2, did you observe any customers adjusting or indexing or reducing data retention time lines? It looks like the quarter went well overall. But I'm curious if you sense any more or less of that optimization activity heading into the second half here?

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

A

In terms of customers changing their retention policy, we really didn't notice any of that. If anything, we saw growth in the amount of storage in the quarter. And I just want to call out, that was really one large customer that changed their retention from five to three years, that was pretty unusual. And in terms of optimizations, we continually work with customers on their own optimizations, but we're continuing to optimize our software as well, too, because we are really dedicated to delivering price performance for our customers. And I want to stress, we've been talking about optimizations with investors since we went public. These will always continue, optimizations, whether it's customer or us doing the optimizations, because when – history has shown when we improve price performance, more workloads come to us.

Mark R. Murphy

Analyst, JPMorgan Securities LLC



Thank you very much.

Operator: Thank you. The next question will be from the line of Kirk Materne with Evercore ISI. Your line is now open.

Kirk Materne

 \bigcap

Analyst, Evercore ISI

Yeah. Thanks very much. Mike, I was wondering if you could just talk a little bit more about the comment you're seeing stabilization in consumption, but not recovery. I'm just kind of curious, when you say that, is that the pressure from the top-down on practitioners starting to ease a little bit and they're starting to feel better about what they can consume, and there's waiting for budgets to kind of get refreshed to sort of get going on the recovery side? I'm just kind of curious if it's sort of the top-down easing or it's more that they're taking a little while to sort of ramp back up on projects that perhaps they slowed down six months ago, three months ago?

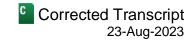
Michael P. Scarpelli

Δ

Chief Financial Officer, Snowflake, Inc.

I actually think it's both, but I definitely think the fact that we kind of saw customers more reengaging with us in July on contracts, and that continues into this quarter. I think it is easing a little bit at the top level in terms of approvals for customers and they're willing to commit. But it takes time to convert that to consumption with – as I said, consumption is good. It was really good today as an example, but that's only one data point. It's – we want

Q2 2024 Earnings Call



to see more days of that before we think the – we're into a real recovery. I think stabilization is the right term. We're not seeing customers reduce their consumption right now.

Kirk Materne

Analyst, Evercore ISI

C

Okay. And then, Frank, just as you spoke to a lot of executives at Summit, do they recognize the fact that the road to AI does require perhaps a heavier levels of investment than they were thinking 12 months ago? How do you think that factors into sort of their thinking on budgets as we go into 2024? Thanks.

Frank Slootman

A

Chairman & Chief Executive Officer, Snowflake, Inc.

Yeah. The reality is they don't really know yet in any real definitive terms what this is going to take. I mean, I think a lot of people, I think this correct, they have characterized their foray into language models as experimental, exploratory and sort of trying to get their arms around how big a bread box is this. So it's going to take a while before we get a real read on what the level of investment is that people are going to stomach to do this. I mean, one of the challenges – one of the great things about search historically has been that search also had a very potent business model to go with it to pay for it. And we cannot sort of unleash Al and have no business model to pay for and people will get tired, they're really, really guick.

So these are – but these GPUs from NVIDIA, they aren't cheap as powerful as they are. So we all have to bring that into alignment and into focus and have a sensible go-forward strategy. So, a lot of the use cases will focus on what are we getting for this, right? This is not just fun and games and planning your next trip to Yellowstone and people are going to be asking very, very hard-hitting questions, what is this doing for us?

Kirk Materne



Analyst, Evercore ISI

Thank you.

Operator: Thank you. The next question will be from the line of Raimo Lenschow with Barclays. Your line is now open.

Raimo Lenschow



Analyst, Barclays Capital, Inc.

Yes. Thank you. Great to see the stabilization as well from my end. Congrats there. Frank, one for you more is, as you – as we all realize that data is kind of the new fuel, we do see more window dressing like, oh, no, I have the data, I have the data, which kind of in a way like kind of puts them on a slightly different course than it used to be compared to your partnership. How do you see that competitive landscape evolving for you since you in theory are the natural kind of holding source for data that is used in AI? How do you see this playing out for you guys? Thank you.

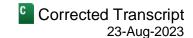
Frank Slootman

Δ

Chairman & Chief Executive Officer, Snowflake, Inc.

Well, we see it play out really well. I think we agree with you. I mean, we think that data is becoming infinitely valuable, and that's for all kinds of reasons because we can no longer run enterprises and institutions based on what we call anecdotal observation, because the world is too dynamic, too disruptive, and we have this massive

Q2 2024 Earnings Call



disintermediation happening. We no longer have all these intermediaries between us and the end customer. You can only run direct-to-consumer businesses with data.

I mean, you see that, for example, in insurance, like auto industry, companies like GEICO and then Progressive and Liberty Mutual. I mean, you can only run these businesses on top of data, telemetry data being really important. And we think every business, every institutions is going to develop a complete and total dependency, not just on data, but the ability to harness that data. So this is a full-on transformation really of how industry and institutions have operated. And we're at the leading edge of it, but we're also very much at the beginning of it.

Raimo Lenschow Analyst, Barclays Capital, Inc.	Q
Okay. Thank you.	
Operator: Thank you. The next question will be from the line of Karl Keirste.	ad with UBS. Your line is now open.
Karl E. Keirstead Analyst, UBS Securities LLC	Q
Thank you. So, Mike, just one – maybe two quickies. You mentioned there w CSPs. Are you able to define how material that was? It sounds like it might he just wanted to clarify.	
Michael P. Scarpelli Chief Financial Officer, Snowflake, Inc.	A
That was about \$4 million that hit in the quarter.	
Karl E. Keirstead Analyst, UBS Securities LLC	Q
Okay. Got it. Thanks for that. And then maybe just a follow-up, Mike, what I'm you mentioned certainly your largest customer, but perhaps others taking the ACV. So one would think that, that would result in a decent amount of headw quarter, in my judgment anyway, is relatively solid. So what's the offset? What ramping nicely to offset to some extent the headwinds from your large custom	ir usage a little bit closer to their ind. Yet your guidance for the third at customer segment might be
Michael P. Scarpelli Chief Financial Officer, Snowflake, Inc.	A
Well, we're now at 639 Global 2000 customers that are only consuming on avaround \$1.5 million, \$1.6 million. A lot of those are still doing their migrations, the larger customers. They just are not forecast to grow as quickly. They're stated to the state of the sta	and we don't see that stopping. It's
Karl E. Keirstead	\cap

Michael P. Scarpelli

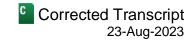
Analyst, UBS Securities LLC

Yes, Okay.

Chief Financial Officer, Snowflake, Inc.

That could – once again, this is a consumption model. That could turn around tomorrow.

Q2 2024 Earnings Call



Karl E. Keirstead

Analyst, UBS Securities LLC

Yes. I get it. Okay. Thank you, Mike.

Operator: Thank you. The next question will be from the line of Kash Rangan with Goldman Sachs. Your line is now open.

Kash Rangan

Analyst, Goldman Sachs & Co. LLC

Thank you so much. Frank, I think your fireside chat with Jensen was absolutely illuminating. He was looking at the opportunity set with structured data in the Snowflake ecosystem and almost salivating. And yet you seemed a little moderated and that you need to have a business case. So, when are we likely to reach the point where generative AI, coupled with Snowpark, could really lead to a tangible increase in consumption outside of the core Data Cloud business?

And one for you, Mike. If we were to read your comments, three months of stability, four months of stability, it looks like including August, does that mean that net expansion rates reach a bottom and could potentially start to stabilize and rebound as we head into the later part of the year. Thank you so much.

Frank Slootman

Chairman & Chief Executive Officer, Snowflake, Inc.

Well, this is Frank, Kash. I mean, in the really short term, I'm really talking days, weeks and months here, where you are going to see language model begin to immediately impact the business is that SQL generation. I mean, in other words, the analyst job is going to be up levelled so much. I mean, people are going to be able to drive queries into the data much better, much faster with far less skill requirement than they ever had before. And we're showing that off every day.

So I mean, these days, you don't even have to be literate in order to be able to have interactions with your data. So that really is an expansion vector that is just enormously – and it's very close to home because it's really how you use data and how you use a platform like Snowflake.

The other area where you're going to see drivers of workload is that people get to search for data related to what their general angle of inquiry is in a much more effective manner than they had been able before. And this is also where it's very important that you can search beyond enterprise boundaries because the context of data is not limited by your enterprise boundaries.

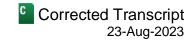
We can go on and on about use cases. There's a million of them. If you get further down, you could start asking really, really hard questions that in prior periods, prior eras, we really needed to launch whole analyst teams to go research and investigate topics where now the data will be able – or the systems will be able to generate queries in the type of data that will immediately very, very quickly begin to generate insights. And that's – by the way, that's going to become the leading edge for structured proprietary data, which is, of course, the center of our universe.

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

А

Q2 2024 Earnings Call



Yeah. And on your question on net revenue retention, I just want to remind you, I'm not going to guide to net revenue retention. But I do think over time, it is going to continue to converge closer to our growth rate. I do think it will stabilize, but I do expect it's going to come down slightly from where it's at right now just on what we're seeing today.

Operator: Thank you. The next question will be from the line of Brad Zelnick with Deutsche Bank. Your line is now open.

Brad Zelnick

Analyst, Deutsche Bank Securities, Inc.

Q

Great. Thank you so much. I've got one for Frank and one for Mike. Frank, stable edges continue to tick up, which is great to see, and I know it's an important metric for the company and its strategic vision. Anything else perhaps qualitative that you can share in terms of how Data Sharing is progressing?

And for you, Mike, great to see the margin upside, everybody's happy about it, but with such a huge opportunity, how can you be sure you're striking the right balance of investment, especially when you're up against such well-capitalized competitors? Thanks, guys.

Frank Slootman

Chairman & Chief Executive Officer, Snowflake, Inc.



Yeah. On the topic of Data Sharing, we instrument that whole side of the business very, very carefully, and we drive it on a quarterly basis, but sometimes data edges are very enterprise-specific. In other words, they do have things – the use cases that just pertain to their business. And it's – these are bilateral relationships between Snowflake accounts and different institutions.

But what gets really interesting, where you get real network effect kicking in is when you have industries or subindustries where data sharing just makes sense. And obviously, in financial institutions, because financial institutions inherently have been pumping date around at a massive, massive of volumes for literally for generations.

This is an absolute no-brainer. And we do the vast majority historically data edges have been in the financial services sector. It's become almost a standard. This is how we data from A to B to C, asset management, particularly has a really big need for that. But the other area – and again, this is an industry in supply chain management.

In the supply chain, there are multiple entities to the degree that they all have Snowflake accounts, it's very easy to get visibility in the supply chain across entities and being able to flag supply chain events much earlier and get visibility to that. So once you're in a supply chain, they need to be on Snowflake and share data with your supply chain partners is going to become very, very compelling.

And we announced at Summit and even earlier, our relationship with Blue Yonder, for example, who is really the largest software company in the world of supply chain management that they are replatforming on Snowflake. So we think that's another sort of industry/sub-industry where every manufacturer, every retailer is going to become an opportunity there for us. So, just a little bit of color on how these things develop from our perspective.

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.



Q2 2024 Earnings Call



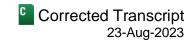
On your question on investments in the business, Brad, given the opportunity, we are investing as fast as we think we need to invest. You did see the guided margins to 4% for operating margin, where we just did 5% this quarter. And that's because we're investing as an example, we have 1,000 H100 GPUs reserve. That's an extra \$1 million a month as we're working on Al.

I'm not getting requests that people need more head count in the engineering organization. The sales and marketing, until we see an increase in productivity, we're going to be very methodical about how we add resources into those areas. So, we're definitely not under-investing in the business. I'm not getting the feedback from any of the executive team with regards to that.

Brad Zelnick Analyst, Deutsche Bank Securities, Inc.	Q
Thanks for the additional color.	
Operator: Thank you. Your next question will be from the line of T	yler Radke with Citi. Your line is now open.
Tyler Radke Analyst, Citigroup Global Markets, Inc.	Q
Yeah. Thanks for taking the question. First question just on the constarting to see better momentum there, particularly in July.	nmentary around some of the projects you're
I was wondering if you could just comment on the nature of those p see or maybe they include more generative AI or data science, give you could just kind of contrast the pickup and kind of where that's c	en all the new products that you released? If
Frank Slootman Chairman & Chief Executive Officer, Snowflake, Inc.	A
Yeah. Just – do you want to go	
Michael P. Scarpelli Chief Financial Officer, Snowflake, Inc.	A
You go ahead, Frank.	
Frank Slootman Chairman & Chief Evecutive Officer Snowflake Inc.	A

So, you shouldn't equate projects with deals, okay, because there's tons and tons of projects going on and the projects we relate to use cases and workloads and applications. And what we said in the prepared remarks is we've really seen a sort of a sentiment change from the early quarters where people were sort of trying to cut off their limbs to fit within budgetary constraint and all this kind of stuff and where - that's where you see unnatural acts to save money. That has really subsided considerably. And the conversation has really gone back to where it historically has been, is we want to do these applications, these workloads, these migrations. And of course, we're pushing the boundaries on the much more sophisticated use cases in machine learning. And obviously, people want to understand how do I deploy large language models on a Snowflake platform. And we have outlined that in excruciating detail and demonstrated, showcased how we are doing that and we're super excited about how that's unfolding for us and our customers.

Q2 2024 Earnings Call



Tyler Radke

Analyst, Citigroup Global Markets, Inc.

Great. And then a follow-up, just in terms of the Snowpark revenue, any update on kind of where you're expecting that to track as you exit this year? And then these related services, whether it's the Native App store or Container Services, would that all fall under Snowpark theoretically when that goes GA next year? Thank you.

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

In terms of Snowpark, as we said, we're – Frank talked about seeing 70% growth in Snowpark consumption. It's still relatively small, but meaningful. We have a number of customers that are in the process of doing their migrations, a few quite large ones. I do think next year, it will be more meaningful to revenue. But on \$2.6 billion in revenue, it's a couple percent of our revenue this year.

Frank Slootman

Chairman & Chief Executive Officer, Snowflake, Inc.

Once Container Services become primetime and that is part of Snowpark, obviously, that means any workload that comes to our game to be deployed on Snowflake. This is obviously, running close to the data inside our governance perimeter, it's essentially virtualization for the cloud. So we think there is enormous upside for us once those services become generally available across all our cloud platforms.

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

Which will be next year.

Tyler Radke

Analyst, Citigroup Global Markets, Inc.

Thank you.

Operator: Thank you. The next question will be from the line of Brent Thill with Jefferies. Your line is now open.

Brent Thill

Analyst, Jefferies LLC

Mike, you mentioned at the Analyst Day, you were idling back quota-carrying sales capacity on the new hire front. Have you seem any different to lean back into hiring quota reps in 2023?

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

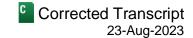
It really depends upon the territory and the opportunity. There are some territories where – kind of regions we're shrinking where it's overcapacity, and we're reshifting those heads to other more productive territories as we're – I'm not planning on adding net a lot of new ones for the balance of this year. But as we're starting to plan for next year, there is additional head count going into the quota-carrying rep area.

Brent Thill

Analyst, Jefferies LLC



Q2 2024 Earnings Call



Great. And for Frank, on the vertical side, any verticals that are showing more excitement that perhaps weren't online, that weren't firing up? Are you seeing anything change here?

Frank Slootman

Chairman & Chief Executive Officer, Snowflake, Inc.

Actually, that's a great question because we had massive outperformance by our healthcare vertical this quarter and healthcare usually runs fourth or fifth in the lineup of verticals and they massive outperformed – really excited about – it feels like that healthcare is really getting a move on, if you will. They have not traditionally been an aggressive adopter of technology. But, in the world of data, they are moving, they're moving hard and you see it on the provider side, you see it on the pharma side. So I think that's going to become a great contributing segment for us.

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

Yes. Healthcare and Life Sciences grew 61% year-over-year in revenue for us.

Frank Slootman

Chairman & Chief Executive Officer, Snowflake, Inc.

Yeah. [indiscernible] (00:40:31).

Brent Thill

Analyst, Jefferies LLC

Thanks for the color.

Michael P. Scarpelli Chief Financial Officer, Snowflake, Inc.

Very good. Sure.

Operator: Thank you. The next question will be from the line of Michael Turrin with Wells Fargo. Your line is open.

Michael Turrin

Analyst, Wells Fargo Securities LLC

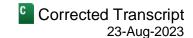
Hi. Great. Thanks. Appreciate you taking the questions. I think one of the comments mentioned new bookings outperformed expectations. I appreciate you're still seeing room for improvement, but anything you can add around what drove the improvement versus last quarter, it sounded like Healthcare from the prior commentary, but wondering if some other or certain product releases maybe also contributed there?

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

Yes. Hard to say whether it was – I don't think it was a product release. I would say we saw some nice renewals from customers with growth. We also saw two very large Cap ones, one large one in Europe, which was – Cap One is an initial deal, it was a \$22 million TCV deal in an insurance industry and we saw a large gaming company in Korea commit to \$9.5 million as a Cap One. So clearly, our message is getting across to these customers, and they see what we're doing and a lot of these want to do more in the area of Al. But first, they need to get their data

Q2 2024 Earnings Call



into Snowflake and it's going to be a journey for these people. It's not going to happen overnight, Al for our customers. .

Michael Turrin

Analyst, Wells Fargo Securities LLC

Like and appreciate those large deal stats. Maybe just quickly on the back half. If you can just help level set what's embedded in the rest of the year outlook. We've seen multiple comments around stabilization. It's not fairly consistent with what informs the outlook and maybe just any refresh on second half seasonality as expected. Thank you.

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

Well, Q4 is usually one of our largest bookings quarter and it's shaping up, but that's not necessarily consumption. And – but the sentiment within our sales team has definitely shifted from where it was in the first half of the year.

Michael Turrin

Analyst, Wells Fargo Securities LLC

Thank you.

Operator: Thank you. The next question will be from the line of Patrick Colville with Scotiabank. Your line is now open.

Patrick Colville

Analyst, Scotia Capital (USA), Inc.

All right. Thank you so much for taking my question. I just want to double-click on your comments. I think you said customers are reengaging in July. You said that in the prepared remarks. I mean, I guess, what do you mean by that? Is that new customers, existing customers, consumption, contract negotiations? And then any color you can give us on thus far in August would be helpful.

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

All three of the above. We have new customers. I just pointed out those two large Cap Ones, we usually don't do Cap Ones that big, and it was a very good quarter with some large new customers. We're seeing our existing customers. We saw some nice early renewals with customers where they were consuming faster. And we're seeing customers willing to do larger deals rather than just do a co-term to bridge them through to another period. So that's what I mean by the sentiment is changing with our customers.

Patrick Colville

Analyst, Scotia Capital (USA), Inc.

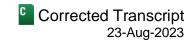
All right. I guess my kind of follow-up is, I mean, NVIDIA reported results tonight. I think looking at their numbers, I mean, data center revenue rose about 150% sequentially. But clearly, like AI spend is hitting the silicon layer. I mean, a question I get from investors is when will AI spend more clearly hit the software layer. I mean, do you have any thoughts on that?

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

A

Q2 2024 Earnings Call



I think it's going to be next year. As I said, it's going to take some time for AI and people are still struggling to get GPUs and there is a time lag between when a chip manufacturer sells their chips to it gets built into the hardware that actually gets deployed in a rack in a data center and it gets deployed to customers.

Frank Slootman Chairman & Chief Executive Officer, Snowflake, Inc.

I think you will see the leading action of that happening in months to come. But the material impact, I think most analysts out there are seeing there is a 2024 thing and we tend to agree with that.

Michael P. Scarpelli Chief Financial Officer, Snowflake, Inc.

And I would say in my prior life, when we were buying racks and servers, there's a six month delay between when we bought them and when they were actually going into production. And I don't see that...

Patrick Colville Analyst, Scotia Capital (USA), Inc.

Thank you, Mike. Thank you, Frank.

Michael P. Scarpelli Chief Financial Officer, Snowflake, Inc.

Michael P. Scarpelli Chief Financial Officer, Snowflake, Inc. ...any different with GPUs.

Operator: Thank you. The next question will be from the line of Alex Zukin with Wolf Research. Your line is now

open.

Ethan Bruck Analyst, Wolfe Research LLC

Hey, guys. This is Ethan Bruck on for Alex Zukin. I just had a quick kind of numbers question. So, if we calculate the product revenue or cRPO booking growth, it decelerated to 13% from about 30% last quarter. So just curious,

how should we think about this as an indicator of future consumption for future product growth?

So, I guided to full year revenue at \$2.6 billion, and we'll guide next year next year.

Ethan Bruck

Analyst, Wolfe Research LLC

Okay. And then I guess just to ask the August trends question in a different way. I guess, has some of the stability you called out trended into August kind of the first month of the quarter? And then just on the seasonality, is there any kind of month to note as you think about the rest of the year, like that either is seasonally strong, seasonally

weak?

Michael P. Scarpelli Chief Financial Officer, Snowflake, Inc.

Q2 2024 Earnings Call



Well, as I said, August is shaping up very good. I called out yesterday, it was actually a very good consumption, but one day doesn't make a trend. Q4 is definitely seasonality with the holidays with Thanksgiving in the US and the Christmas holidays that does impact daily consumption. From a bookings perspective, Q4 though, is clearly our largest bookings.

Ethan Bruck

Analyst, Wolfe Research LLC

Got it. Got it. Make sense. Okay. Thank you and congrats on the quarter.

Operator: Thank you. Your next question will be from the line of Brent Bracelin with Piper Sandler. Your line is now open.

Brent A. Bracelin

Analyst, Piper Sandler & Co.

Thank you. I wanted to go back to the discussion around the increase we're seeing in model training capacity. Clearly, billions of incremental dollars going into NVIDIA GPUs here, you need data to train the models. I appreciate there's going to be a lag relative to when the spend hits the data layer. But are there any technical hurdles that need to be overcome? Or do you think this cycle is different in that there are other considerations as well? Just thinking through that the investment we're seeing right now in infrastructure and thinking through what are the other factors we need to think about before it starts to impact the data layer. Thanks.

Frank Slootman

Chairman & Chief Executive Officer, Snowflake, Inc.

I'll start, and then maybe Christian can follow, even think about your question while I'm talking. You can't characterize this AI as one thing, right, because you see the things that people are doing with unstructured data and the whole notion of co-pilots and the systems and tutors and all that. It's very much focused on contextual data. And we see action with support call records, contact centers and so on. But again, you look at Snowflake, who sits on mountains of structured proprietary enterprise data that's a different [indiscernible] (00:48:23) for AI than the very text model-oriented type of inquiry.

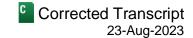
And I have to say that just from all my conversation with customers, I mean people are ensuring, I would say, the textual side [indiscernible] (00:48:42) with proprietary data, how they're going to approach that. We view that as our business, and we're driving that very hard. And hence the emphasis on getting your data [indiscernible] (00:48:53) in order because you just cannot unleash large language model and hope for the best, because of all the issues that we've mentioned before around governance and just understanding of what kind of data we are generating in the process. That's why I said the early going, you're going to see a lot of upside from AI that the analysts are going to be able to generate data far quicker, far better than they ever have been before. And we're really massively reducing the skill sophistication requirements to be able to do that. That in and of itself is going to be a big driver for us.

Christian Kleinerman

Senior Vice President-Product, Snowflake, Inc.

Yes. So, Christian here, I would add maybe two areas in addition to what Frank mentioned. The first one is around having the right data to be fed into these models. Frank started the call with no AI strategy without data strategy. And it is very [ph] important (00:49:49) that the results of traditional ML or Gen AI is a function of having the right data, the right data quality, the right metrics. The technology will be as good as the data that is fed in.

Q2 2024 Earnings Call



All of the investments that we make on data quality and cleansing and pipelines, all of that is very important. The other piece that I think will be a technical imperative for everyone doing AI and Gen AI is around the measurement and feedback, how good are the solutions? How do I know if there are potential bias into the data or are there gaps in their understanding and performance of the model? Those two are inherent parts of the life cycle and, interestingly, they all run to having a great data foundation enabled service.

Brent A. Bracelin

Analyst, Piper Sandler & Co.

Q

Helpful color. And then lastly for Mike on consumption, one follow-up. The implied Q4 product growth is, I think, 26% at the midpoint. I know there's a delta between signing growth and consumption. Exiting this year, do you think product growth stabilizes in the mid-20% range, maybe starts to reaccelerate next year, or is it just too early to tell?

Michael P. Scarpelli

А

Chief Financial Officer, Snowflake, Inc.

Let us finish Q3, and then we'll guide to Q4 and I'll see how next year is looking, but I do anticipate – there's a lot of new things coming out next year that we think are going to have a very positive impact on our consumption from, remember, we have Streamlit goes into GA, Unistore towards the end of this year.

Frank Slootman

Δ

Chairman & Chief Executive Officer, Snowflake, Inc.

Public preview.

Λ

Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

[indiscernible] (00:51:26) public preview. We have containerized services next year. There's a number of things that are happening that are all going to have a positive impact on our revenue growth rate next year. So stay tuned for that.

Brent A. Bracelin

Analyst, Piper Sandler & Co.

Helpful color. Thanks.

Operator: Thank you. The next question will be from the line of Brad Reback with Stifel. Your line is now open.

Brad Reback

Analyst, Stifel, Nicolaus & Co., Inc.

Great. Thanks very much. Gentlemen, you've talked about changing sentiment a couple of times during the call. How much of that is your sales team being better able to engage with the customers selling value, just looking at the problem from a different perspective given the macro trends versus customers just feeling better about their businesses and the macro unleashing the demand? Thanks.

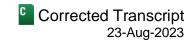
Frank Slootman

Δ

Chairman & Chief Executive Officer, Snowflake, Inc.

It's Frank. Look, it's not the sales team. [ph] There's (00:52:27) really a change in how customers engage a couple of quarters ago. And like I said earlier, people were doing unnatural acts to force that themselves into a

Q2 2024 Earnings Call



spending envelope and they were doing it almost regardless of consequence. The expectation on that reset, we obviously felt that. The change in sentiment is that that has passed. We are now sort of, okay, we're comfortable with the path that we're on.

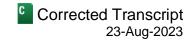
Now, we're talking again of our projects and migrations and use cases. We're trying to basically get a grip on deploying large language models, what do we have to do with the data, with the infrastructure, answering governance questions and so on. So in other words, the sentiment is very constructive and engaging on core data strategy. That's a big change from where we were a couple of quarters ago. Obviously, the sales people are perceiving that as very positive, that's [ph] where you (00:53:25) want to be.

Brad Reback Analyst, Stifel, Nicolaus & Co., Inc.	
That's great. Thanks very much.	
Operator: Thank you. The next question will be from the line of Derrick Wood wopen.	rith TD Cowen. Your line is now
Derrick Wood Analyst, TD Cowen	Q
Thanks. Mike, this was the strongest sequential growth quarter you've had in thre 6% and 6%, and this was 8.5%. Your guidance for Q3 is kind of 5.5% sequential conservatism in there. But just in terms of the Q2, were there any kind of one-tim out? Or does that just really kind of inform us that the optimization headwinds the dissipated in Q2?	I'm sure there's some level of e consumption dynamics to call
Michael P. Scarpelli Chief Financial Officer, Snowflake, Inc.	A
Yeah. Q2 has more days in it. Remember where consumption model was actually working days adjusted was the growth rate. And actually, Q3, it goes up when yo Remember, on a consumption model, where really kind of 70% is the scheduled tied to workdays that does have an impact. So there is growth next quarter in that	u look at the working days in Q3. work. There is a big piece that is
Derrick Wood Analyst, TD Cowen	Q
Okay.	
Michael P. Scarpelli Chief Financial Officer, Snowflake, Inc.	A
on a days adjusted basis working days.	
Derrick Wood	\cap

Okay. Frank or Christian, I just – I was hoping to double-click on the new Container Services. It seems like it enables you to deploy different types of third-party engines, apps, code bases directly in the platform, you can streamline a lot more workflows, which, I think when it comes to building AI model, seems pretty interesting. So I

Analyst, TD Cowen

Q2 2024 Earnings Call



was just curious, what are you most excited about in terms of this new capability and opening up new consumption, especially when it comes to AI?

Frank Slootman

Chairman & Chief Executive Officer, Snowflake, Inc.

A

Yeah. Container Services was the absolute hit, star performer at our Snowflake Summit conference, I mean, customers were just mesmerized by the possibilities that a platform capability has, because we have essentially eliminated any limitation on deployment on Snowflake.

And why do you care? I mean, the thing is, first of all, you want to deploy close to the data for all the reasons that we talk about. This enabled us, you get a fully trusted, sanctioned platform where you can deploy applications without any further questions.

I mean, one of the challenges that you have in cloud computing is, who's managing this, right? I mean, what is the safe space to deploy into? And who is really guaranteeing the high-trust enterprise-grade capabilities of that platform?

So we are bringing that. So, we're going to see a lot of services, a lot of them could be on-premise legacy engines that are going to be containerized and [ph] re-serviced (00:56:38) as a cloud service, right? So a lot of things that were old will be new again.

So the – it's virtualization for the cloud and having secure, safe, high performance, very, very efficient spaces to run services and applications in. So, the sky is the limit on this capability, and we and our customers and our partners could not be more excited about the potentials and the possibilities here.

But specific to AI and this matters a whole lot, because the containers [ph] are vehicle or (00:57:16) vessel, if you will, to deploy large language models, there's no limit on which models and how many models and for which segments of the business we can deploy.

And we can shift gears very, very quickly. And we have incredible flexibility in terms of deploying these capabilities, because you're going to see a lot of change and a lot of movement. We've already seen an enormous amount that's going to continue. So we're very, very well-positioned architecturally platform-wise to enable the AI revolution with Container Services.

Derrick Wood

Analyst, TD Cowen



Awesome. Thank you.

Operator: Thank you. And the final question will be from the line of Sterling Auty with MoffettNathanson. Your line is now open.

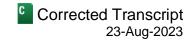
Sterling Auty

Analyst, SVB MoffettNathanson



Yeah. Thanks. Hi guys. Just one question from my side, you mentioned sales productivity a couple of times. I'm curious, how would you grade your go-to-market sales execution in a quarter? And are there any specific changes that you're making to further optimize given the environment for the back half?

Q2 2024 Earnings Call



Michael P. Scarpelli

Chief Financial Officer, Snowflake, Inc.

I think in general, our execution in Q2 on the sales side was actually quite good. It improved. But there's still pockets though, where there is room for improvement when you look in certain territories or geos.

We have a new leader in EMEA. EMEA – certain markets in EMEA are doing good; others, there's a lot of room for improvement. We have a new leader in EMEA. There are certain pockets in Asia that are doing good, but there's others that have a lot of room for improvement, so. But in general, overall, as I talked about, you can see through our bookings, it was a good execution from a bookings perspective in the aggregate last quarter.

Sterling Auty

Analyst, SVB MoffettNathanson

Understood. Thank you.

Operator: Thank you. That will conclude today's Q&A session and today's conference call. Thank you all for your participation and you may now disconnect your lines.

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 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, 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 Calistreet, 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 2023 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.