Good afternoon, and welcome to the Fiscal year 2023 First Quarter Financial Results Conference Call for Dell Technologies Incorporated. I'd like to inform all participants this call is being recorded at the request of Dell Technologies. This broadcast is the copyrighted property of Dell Technologies Incorporated. Any rebroadcast of this information in whole or part without the prior written permission of Dell Technologies is prohibited. (Operator Instructions)

I’d like to turn the call over to Rob Williams, Head of Investor Relations. Mr. Williams, you may begin.

Robert L. Williams - Dell Technologies Inc. - SVP of IR

Thanks, Jermiria. And thanks, everyone, for joining us. With me today are Jeff Clarke, Chuck Whitten, Tom Sweet and Tyler Johnson.

Our earnings materials are available on our IR website. And I encourage you to review these presentation materials, which include rich content to complement our discussion this afternoon. Guidance will also be covered on today’s call.

During this call, unless otherwise indicated, all references to financial measures refer to non-GAAP financial measures, which include non-GAAP revenue gross margin, operating expenses, operating income, net income, earnings per share and adjusted free cash flow. A reconciliation of these measures to the most directly comparable GAAP measures can be found in our web deck and press release.
Growth percentages refer to year-over-year change unless otherwise noted. Statements made during this call that relate to future results and events are forward-looking statements based on current expectations. Actual results and events could differ materially from those projected due to a number of risks and uncertainties, which are discussed in our web deck and SEC filings. We assume no obligation to update our forward-looking statements.

During the call today, Jeff will recap Q1 and innovation highlights from Dell Technologies World, along with the current demand and supply chain environments. Chuck will cover detailed Q1 CSG and ISG operating performance. And Tom will cover our Q1 financial results, capital allocation and guidance.

Now I’ll turn it over to Jeff.

Jeffrey W. Clarke - Dell Technologies Inc. - Co-COO & Vice Chairman

Hello, everybody. Thanks for joining us. Following a record FY ’22, we continue to execute quite well in a complex macro environment. We are focused on our long-term strategy while continuing to innovate, enhancing existing solutions and creating new ones for our customers.

For Q1, we delivered record revenue of $26.1 billion, up 16%, with strong, balanced growth across CSG and ISG. We also improved our profitability in the quarter, and we will continue to focus on disciplined cost management. As a result, diluted EPS was $1.84, a record, up 36%. Over the last 12 months, we have generated $5.8 billion of cash flow from operations. We are grateful to succeed alongside our customers.

At Dell Technologies World, customers like CVS Health, USAA, General Motors and Boeing talked about reinventing their processes and their industries while unleashing innovation productivity and sustainability with Dell as a key technology partner.

We highlighted our role in the multi-cloud future, announcing a steady stream of innovation that places us at the center of our customers’ multi-cloud world. Specifically, we made a series of announcements that demonstrate the work we are doing to build a multi-cloud ecosystem that includes all major public clouds. We shared Project Alpine, which brings enterprise-class data services into the public cloud for cloud bursting, test and development, cloud-based analytics, data and container mobility. We are also unlocking the power of data through our partnership with Snowflake, the first of its kind that provides direct access to Dell object storage on-prem, and we are including cybersecurity throughout.

In addition, we also announced over 500 software enhancements to our industry-leading storage portfolio. For PowerMax, the world’s most secure, mission-critical storage, we introduced a new intelligent NVMe multi-node, scaled out architecture with isolated cyber-vaults, 65 million immutable snapshots in the industry’s first data compression for mainframes.

For PowerStore, we added ease and integration, significantly boosted mixed workload performance deepened VMware integration and added native metro sync replication. And with PowerFlex, we have the only software-defined infrastructure that scales almost limitlessly, for compute and storage while supporting bare metal, all hypervisors and file and block storage services on a single platform with increased cyber resiliency and multi-cloud extensions.

These software-driven innovations enable a continuously modern storage experience with highly-adaptable storage architectures, comprehensive cyber resiliency and multi-cloud ecosystem flexibility.

And lastly, we announced a range of APEX offers that further expand our subscription and as-a-service capabilities. To date, the transition towards multi-cloud and a highly-distributed architecture is playing out much like we thought. It’s clear our strategy is resonating across our customers and partner ecosystem.

Turning to the supply chain. We experienced a wide range of semiconductor shortages that impacted CSG and ISG in Q1. In addition, the COVID lockdowns in China caused temporary supply chain interruptions in the quarter. As a result, backlog levels were elevated across CSG and ISG exiting the quarter.
We expect backlog to remain elevated through at least Q2 due to current demand and industry-wide supply chain challenges. Q1 component costs were deflationary across key commodities, but logistics spend remained elevated due to higher rates and a mix of expedited parts.

Turning to Q2. We expect component cost to turn inflationary and logistics costs remain at elevated levels. That all said, Dell Technologies is well positioned to navigate these supply chain challenges just as we have over the past 3-plus years.

The big picture. As we previously noted, we are seeing a shift in spend from consumer and PCs to data center infrastructure. IT demand is currently healthy. However, there are a number of uncertainties out in the broader macro that we continue to monitor: geopolitical issues, inflation, ongoing supply chain challenges, chip constraints and COVID shutdowns.

What we've shown over the years is that regardless of the environment, we are agile and built to outperform. We are able to quickly lean into opportunities and focus on what we can control, executing our strategy for growth, innovating for our customers, motivating our teams, building better communities and delivering for our stakeholders.

And with that, I'd like to turn it over to Chuck for a deeper dive into our segment results.

Chuck Whitten - Dell Technologies Inc. - Co-COO

Thanks, Jeff. Great to be here with all of you and excited to share the details of our Q1 business unit performance.

Starting with ISG, we delivered another record Q1 with 16% growth and $9.3 billion of revenue. It's our fifth consecutive quarter of growth as widespread digital transformation continues to support growth and infrastructure spend.

ISG profitability was up with operating income growing 39% and operating margins expanding 200 basis points to 11.7%. Servers and networking revenue grew 22%, and storage revenue grew 9% as 4 consecutive quarters of demand growth has now made its way into the P&L. We were particularly pleased with the breadth of strength in storage. In Q1, we saw storage demand growth across our portfolio, including data protection, HCI, unstructured, entry, high end and PowerStore, our marquee mid-range solution and still the fastest-growing storage architecture in company history.

Turning to Client Solutions. CSG also delivered a record Q1 with revenue of $15.6 billion, up 17% on top of a strong prior year comp of 20% growth. This was outstanding absolute and relative performance. We gained 190 basis points of PC unit share in calendar Q1 based on IDC results, the most among the top 4 industry vendors.

We have now gained unit share in 33 of the last 37 quarters. But as we've highlighted, not all PC units are created equal. Our focus on the commercial segment paid off in Q1 as commercial demand was solid and we saw softness in Consumer and Chrome as expected.

Commercial CSG revenue grew 22%, while Consumer grew 3%. We also saw continued strength in software and peripherals as customers continue to seek exceptional PC experiences in the "do anything from anywhere" world. Our market-leading display business, for example, grew 20% and gained 370 basis points in calendar Q1 according to preliminary IDC data.

The net of strong commercial performance, peripheral growth and disciplined cost management with strong profitability. The business delivered an op inc margin of 7.2%, and we have delivered roughly $1 billion of op inc or better over the last 7 quarters.

Looking ahead, we are seeing a rotation in IT spending from CSG to ISG. Despite economic uncertainty, digital transformation and automation efforts are being used to solve the pressing challenges at the moment as technology and business strategies emerge, benefiting our infrastructure business. We expect ISG growth for the full fiscal year.
And PCs are now a C-suite issue. In the world of hybrid work and in a fiercely competitive talent market, the PC is the gateway to the employee experience and a visible symbol of a company’s commitment to technology. We do, however, expect CSG growth to moderate over the course of the year as the Consumer portion of the market slows.

Q1 is proof of the benefits of having a strong geographically and sector diverse business covering the end-user to the edge, to the core data center, to the cloud. We are central to our customers’ technology agendas, creating predictability, durability and flexibility in our business to pursue growth wherever it materializes in the IT market.

As Jeff stated, there is some macro uncertainty right now. but we have shown time and time again the ability to navigate any market environment by focusing on our customers, our employees, our long-term strategy and our stakeholders.

With that, let me turn it over to Tom.

**Thomas W. Sweet** - Dell Technologies Inc. - Executive VP & CFO

Thanks, Chuck. As Jeff highlighted earlier, we delivered record Q1 revenue of $26.1 billion, up 16%, driven by strong growth in both CSG and ISG. We have previously highlighted that we thought fiscal year ’23 would see a more robust infrastructure investment cycle while PC growth would shift back towards historical patterns. To date, this appears to be how fiscal year ’23 is shaping.

Gross margin was $5.9 billion, up 9% at 22.7% of revenue. Gross margin as a percentage of revenue was 150 basis points lower, primarily due to increased component and logistics cost. However, it was up 190 basis points sequentially due to improvement in both CSG and ISG gross margin percentages as more of our prior pricing actions took effect. We also saw a richer PC and server configurations and stronger storage performance in the quarter.

Operating expense was $3.8 billion, up 3% at 14.5% of revenue as a result of investments in our team members and targeted investments in our growth areas, including capabilities to support our evolving business model. We will balance these investments with prudent cost discipline given the uncertainties in the current environment.

Operating income was a Q1 record of $2.1 billion, up 21% at 8.2% of revenue. Net income was $1.4 billion, up 36%, primarily driven by growth in operating income and a decline in interest expense due to our lower debt balances. Our tax rate was 19.3%.

Fully diluted earnings per share was $1.84, up 36% with diluted share count decreasing sequentially to 780 million shares as a result of repurchases.

Our recurring revenue was approximately $5.3 billion a quarter, up 15%. Our remaining performance obligations, or RPO, is approximately $42 billion, up 14% and includes deferred revenue plus committed contract value not included in deferred revenue.

Dell Financial Services originations were $2.1 billion, up 9% and DFS ended the quarter with $13.2 billion in total managed assets.

Turning to our cash flow and balance sheet. Our use of cash from operations was $300 million in Q1, primarily driven by our annual bonus payout and seasonal revenue decline. As a reminder, Q1 is often a use of cash given the seasonality in our business and the timing of our annual incentive compensation payments.

The team did a nice job on working capital management in the quarter, minimizing the increase in inventory due to supply chain challenges and reducing receivables. Our core debt balance is $16.5 billion, and we ended the quarter with $8.5 billion in cash and investments, down $2.8 billion sequentially principally due to seasonally low free cash flow and $1.75 billion in shareholder capital returns.

We repurchased 28.8 million shares of stock in Q1 for $1.5 billion and issued $250 million in dividends. Going forward, we will continue our balanced capital allocation approach, repurchasing shares programmatically to manage dilution while maintaining flexibility to be opportunistic like we were in Q1.
Turning to Q2 and fiscal year ’23. Digital transformation is a top priority for our customers, and it’s fueling our growth as our customers look for a partner in their multi-cloud journey. Global IT spend is projected in the mid-single digits. And with what we see today, the current demand environment supports this. Against that backdrop, we expect Q2 revenue between $26.1 billion and $27.1 billion, up 10% at the midpoint with both CSG and ISG growing. We expect foreign currency to be a headwind for both Q2 and for the full year.

We do expect gross margin rates to decrease sequentially as CSG mix increases and we managed through inflation and currency dynamics with an elevated backlog. OpEx will remain roughly flat to Q1 as a percentage of revenue. For our non-GAAP tax rate, you should assume 20%, plus or minus 100 basis points. We expect diluted share count to be roughly 760 million to 765 million shares. Netting this out, we expect diluted earnings per share of $1 to $1.15 and non-GAAP diluted earnings per share in the range of $1.55 to $1.70, up 10% at the midpoint.

As you know, we are coming off a record fiscal year ’22 and a good start to fiscal year ’23. Last quarter, we talked about our long-term value creation framework of 3% to 4% of revenue growth and EPS growth of 6% or better as a starting point for the year.

As we look at the balance of fiscal year ’23, we’re watching a few macroeconomic dynamics, including the geopolitical environment, inflation, interest rates, slowing economic growth, currency and continued COVID impacts disrupting supply chains and business activity. While we believe these macro dynamics will have some impact on overall IT investment spending, with what we know today, our updated framework has revenue growth of approximately 6% with both CSG and ISG growing for the year and earnings per share growth faster than revenue in the range of 12% or better.

In closing, we delivered a strong quarter with record Q1 revenue, operating income and diluted earnings per share. We remain focused on executing our strategy to consolidate and modernize our core and build new growth engines that enable our customers’ multi-cloud future while delivering revenue and EPS growth with strong free cash flow to our shareholders over time.

Now I’ll turn it back to Rob to begin Q&A.

Robert L. Williams - Dell Technologies Inc. - SVP of IR
Thanks, Tom. Let’s get to Q&A. (Operator Instructions) Jermiria, can you please introduce the first question?

QUESTIONS AND ANSWERS

Operator
We will take our first question from Krish Sankar with Cowen and Company.

Krish Sankar - Cowen and Company, LLC, Research Division - MD & Senior Research Analyst
I just had a clarification not the question. Just want to make sure you said a FY ’23 revenue growth of 6% and EPS, 12-plus percent. And then the question is either for Jeff or Chuck, the CSG slowing makes sense due to the consumer and you said you’re monitoring macro data points, but you’re confident on the strength in ISG, especially at the time when tech companies are slowing hiring. I’m kind of curious, when you talk to your customers, your CEOs and CIOs, what gives us confidence in continuing this IT spending into the back half? Or is this more a soft spending target that could change as the macro type?

Thomas W. Sweet - Dell Technologies Inc. - Executive VP & CFO
Krish, it’s Tom. Let me -- I will confirm that I did say for fiscal year ’23 revenue growth approximately 6%, and then the EPS growth of 12% or better. So yes, you heard that properly. Jeff, Chuck, I don’t -- Jeff, do you want to jump in on the ISG question?
**Jeffrey W. Clarke** - Dell Technologies Inc. - Co-COO & Vice Chairman

Sure. The macro question was kind of CSG making sense slowing down and then the implications to ISG. Maybe break those down as we think about those particular businesses. In CSG, we -- I think we've called out before that we thought heading into this year that we would see the growth rate in CSG temper, and what we thought is indeed happening.

And it's happening in the areas that we happen to be less -- we participate less in, most notably Chrome, which is down significantly; and the low-end and mid-range price bands and Consumer, which are down. But what we see today, we see good growth in Commercial or enterprise PCs, whatever you prefer to call them. We continue to see that as we look forward. But it is a much lower growth rate than last year. There's no question.

I don't know what else to add to that. There's categories we would tell you. Why would that be the case? Well, we certainly have people going back to the office. We have this notion of a hybrid worker requiring a more capable and powerful machine. We have still a number of folks that are working in this hybrid market that need more mobility, i.e., more notebooks.

We would tell you that not all PCs are created equal, meaning that the commercial and enterprise generally have higher ASPs, richer content and configuration, greater opportunity to attach things. That's what drives our business.

And then if we flip it over to the ISG side, look, I'd be remiss if I didn't call out. We just posted 22% growth in servers and 9% growth in storage. That's the sixth consecutive quarter of server growth and the fourth consecutive quarter of orders growth for storage, the first P&L that we've been indicating. We thought it would flip, and we saw that flip in our P&L. For P&L growth of 9% in storage after 4 quarters of orders growth.

What's fueling that? Continued digital transformation. The fact that in this data economy and data world, you need more compute assets and storage assets to be able to accelerate that digital transformation. We continue to see that. Certainly, the demand environment we see today indicates that continues. I hope that helped, Krish.

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**Operator**

We'll take our next question from Aaron Rakers with Wells Fargo.

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**Aaron Christopher Rakers** - Wells Fargo Securities, LLC, Research Division - MD of IT Hardware & Networking Equipment and Senior Equity Analyst

Congratulations on the really solid results and guide. I guess what really stands out to me is the growth that you're seeing in servers. And especially given some of the recent concerns that we've heard from, I think, one of your peers actually this morning talking about supply chain constraints. So I guess maybe you can help us appreciate what you're seeing, particularly around the server piece of the business. And how the company has managed kind of the pass-through? How much of the growth is driven by pricing versus maybe unit growth?

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**Jeffrey W. Clarke** - Dell Technologies Inc. - Co-COO & Vice Chairman

Sure. Maybe Chuck and I will ham and egg this together. But if you take a look at that 22% server growth that I just alluded to and mentioned sixth consecutive quarter, if you look at where some of that growth is coming from, it's coming from content expansion. It's coming from ASP expansion. It's coming from mix of the portfolio, which are all good signs, one that we're penetrating deeper into the enterprise. We're taking on more high-value workloads, our GP, GPU or AI accelerator of growth rate was very strong in the quarter, and that's continued to bolster the performance of our server business. I think that leads to some of that. Chuck, anything to add?
Chuck Whitten - Dell Technologies Inc. - Co-COO

No. I mean, I think building off of the prior question, we just see continued strength in the infrastructure markets right now. We said it in our prepared remarks and you mentioned it in your first answer, Jeff.

There's a rotation right now of budgets from client to infrastructure, and that's across the board in our portfolio, whether it's our fifth consecutive overall growth in ISG, our sixth consecutive quarter of server P&L growth for this question, 9% storage revenue growth after 4 consecutive quarters of demand growth. And so despite the macro uncertainty that is out there right now, what we don't see is an immediate move to go after a reduction in IT budgets. I mean, right now, it is a very healthy infrastructure environment.

Jeffrey W. Clarke - Dell Technologies Inc. - Co-COO & Vice Chairman

And I think maybe to put a bow on it, I think our supply chain team has done a very good job of positioning our company with the available parts that are out there, which there is a shortage of parts for servers, and we've been able to work our way through that and be able to deliver for our customers. Ultimately, that's the name of the game, and I think our supply chain continues to distinguish itself in being able to fulfill and meet the commitments we give to our customers.

Operator

We will take our next question from Samik Chatterjee with JPMorgan.

Samik Chatterjee - JPMorgan Chase & Co, Research Division - Analyst

Congrats on the strong results here. I guess I just wanted to ask on the margin. You had very strong margins in both segments. As we sort of -- how should we think about sustainability of these margins? I know you pointed out the component costs going up, but I can also think about sort of pricing that property finds its way in a bigger magnitude through the P&L through the year. So maybe just help us through sort of thinking about sustainability of these margins on a segment basis. And what are the sort of different drivers to keep in mind here?

Thomas W. Sweet - Dell Technologies Inc. - Executive VP & CFO

Samik, it's Tom. Let me sort of walk you through how we think about margin frameworks as we move forward. So we talked about -- obviously, we're very pleased with the margin performance in Q1, which -- when we talk -- if you recall back in the Q4 conversation we had at the end of February, we talked about the fact that we thought we would see margins move upward coming out of Q4. We did see that driven by, I think, the strong performance in the client business, particularly the commercial business, also the strong storage growth that we saw, a 9% revenue growth.

And the pricing actions that we had been talking about in commenting on the fact that those needed to work their way through the backlog started to manifest themselves in Q1, and so really pleased with the margin performance in Q1.

I think the dynamic as we look at Q2 is this, that we do expect that we are going to get a heavier mix of CSG in the second quarter. We are going to continue to work and fight through inflation, right? So we do expect higher overall input cost in Q2, which we'll have to price for. And you know that with an elevated backlog that, that will take some time to work its way through. And then as we also think about the FX environment that we're going to be in, where currency is going to be a headwind of somewhere between roughly 400 basis points for the quarter, so that's going to be something we're going to have to price for. But again, you don't get all of that pricing dynamic in the current quarter, and so the macro has some headwinds that we're going to have to continue to execute our way through.

I think at an individual business unit level, as we think about clients that -- we should see a bit more Commercial client in the quarter coming from the elevated backlog, but that's going to have some headwinds on cost as we talked about in pricing. And then the server storage mix, I think, is going to continue to be an interesting area.
We do expect elevated backlogs in Q2, so particularly in the ISG space. As Jeff mentioned, the server supply chain continues to be challenging. I'll say it like that, with shortages in [NICs] and power supplies and other components. And so that will be something we'll have to work our way through. We're cautiously optimistic about storage, but we had a very strong storage quarter, and we just got to go out and continue to execute it.

So overall, that's the dynamic that we're looking at as we think about Q2. You fast forward through the rest of the year, and I would tell you that we would expect -- if margins are dipping a bit in Q2, we expect them to be relatively flat in Q3 and come back a bit in Q4 as we think about how the mix of the business shifts towards an ISG mix at the end of the year given some of the seasonality of the business.

So that's a broad stroke at what margins look like from our perspective. But again, I would just tell you that, look, we're going to have to work our way through inflation for the year. We'll price it as appropriate. We'll have to watch the market positioning on pricing. And currency is going to be a headwind, roughly somewhere between 300 to 400 basis points for the year. So those are all some of the dynamics that we're working our way through.

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**Operator**

We'll take our next question from Sidney Ho with Deutsche Bank.

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**Shek Ming Ho - Deutsche Bank AG, Research Division - Director & Senior Analyst**

Congrats on the great quarter. I have a bigger quick -- bigger picture question on customer behavior. Well, there has been a lot of cross currents in terms of supply constrained environment but also in terms of macro uncertainties. Have you seen any change in customer order behavior in terms of volume and commitment because of supply constraints, but at the same time, may be shifting away from on-prem to the cloud? Then how do you manage those trends from supply chain and R&D or maybe? Just generally speaking OpEx perspective for the year.

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**Chuck Whitten - Dell Technologies Inc. - Co-COO**

Well, maybe I'll start and just say, look, the environment that we've been in, in the last 6 months, we have not seen a fundamental change in customer behavior in terms of order patterns. So despite long lead times, we haven't seen material differences in our cancellation rates, whether that's across our CSG business or our ISG business. And the long-term trend of where am I choosing to put a workload, per our conversations that we had at Dell Technologies World most recently is almost entirely with customers around the multi-cloud opportunities.

So while there are certainly workloads that continue to go to the public cloud, increasingly, the conversation that we have with customers is about operating in a multi-cloud environment. They see the right workload in the right place at the right cost is the objective of their environment. And so broadly, that's the trends that we're seeing in infrastructure.

In terms of how we manage it from a supply chain standpoint, obviously, I'll defer to Jeff on that portion.

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**Jeffrey W. Clarke - Dell Technologies Inc. - Co-COO & Vice Chairman**

Yes. Look, maybe a slightly different perspective. I think the order pattern has changed slightly but not in the way that you described. People are coming to Dell because there's confidence in our supply chain to deliver. If you think about our performance now 6 quarters in a row of server growth and the shortage of parts and servers as customers are working to build out on-prem, to build out their digital transformation, as Chuck said, build out their multi-cloud infrastructure and certainly our architecture and strategic drive to be at the center of that, customers continue to come to Dell because our commitment to delivery date is pretty darn high.
As Chuck mentioned, our cancellation rates have not moved over a long period of time, which while we may not give the exact date they want because we have products on extended lead time, the date we give customers is the date the product shows up. And they can count on it, they can count out on their integration and deployment of technology and their build-out of their projects.

So probably not the answer you're looking for an order pattern, but I think it's a reinforcer of what's been happening in our business. And then we take that demand signal, which is the beauty of our direct model, and we act upon that in our supply chain. I think I've made mention in before this notion that we have digitized our supply chain where we have put together advanced planning and modeling techniques, data transparency and the ability to do predictive analytics and anticipate the needs of what we have.

And I think we respond faster and ask quicker than perhaps others, and that puts us in a better position to ensure we have the supply, what's available, for our customers. That's the linkage between -- and how our model works, it's very different than perhaps others is the connection between the demand signal, the supply signal and, quite frankly, what we design.

And that tightly coupled ecosystem is a differentiator for the Dell business model. And clearly, in these times, when they're stressed in the supply picture, we're able to use our early indication of what demand is, be able to schedule that, plan that in the supply chain. And then ultimately, if we have to pivot to requalify or add a different part in our designs, we're able to quickly do that.

**Operator**

We'll take our next question from David Vogt with UBS.

**David Vogt** - UBS Investment Bank, Research Division - Analyst

I have a clarification question and a bigger picture question. So clearly, 90 days ago, you guys were really optimistic about the outlook. A lot has changed since then, and it appears that you guys have handled sort of the disruptions in April better than most companies that we've talked to over the last couple of weeks. Can you kind of share with us kind of what you saw in April, kind of what set you apart, where the component issues were and how you guys navigated that better than most?

And then on a clarification issue, I think last quarter, you talked about a potential make-whole payment in the fiscal fourth quarter of $150 million to $200 million. Do you still expect that in the fourth quarter? And is that sort of factored into the guidance that's Tom gave for the full year?

**Jeffrey W. Clarke** - Dell Technologies Inc. - Co-OO & Vice Chairman

Sure. Maybe I step into the supply chain component of that. Look, it's very important for us I think we've consistently communicated this. We are encountering what everybody else is encountering in this industry. There is a wide-scale semiconductor shortage across a vast number of components. I think I rattled off all sorts of components on previous earnings calls, it's still the same.

The most stressed networks tend to be the trailing nodes, 40-nanometer, 55, 60 nanometer, the 8-inch network. That's increasingly interesting is now the new factories are being delayed in their deployment because they can't get the equipment needed. This cascades itself into categories of servers or automotive that's growing very fast. That's taking the very same components that we all need, which tend to be around the microcontrollers, the power subsystems, which are needed to build certainly the devices we have.

That's for everybody. We are encountering that. I think we've talked about our long-term relationships. I just mentioned in the previous answer our ability to plan and anticipate and do predictive modeling, and we act with speed. I think one of the things that separates our ability in the supply chain is to see this earlier and decide quicker and adapt and provide and overcome with what is thrown at us.
In terms of what happened in April, we all read about lockdowns. By the way, they started in March, mid-March with Shenzhen. They can make their way into Shanghai with various stages of lockdown. We had our own challenges here in the state of Texas with some border crossing issues. So we continue to adapt and improvise along the journey. It’s what we do.

Fortunately or unfortunately, depending on your perspective, we’ve had 3-plus years of practice at this or getting good at our game. And our team is nimble. It’s flexible. We’re able to move material. We’re able to use our vast network of 25 factories, 50 different fulfillment centers around the globe that allow us essentially to move any order to any factory to be able to build it.

Now we can’t do that instantaneously overnight. You got to get material. You got to move orders. But our ability to use our global network and to see it, I think, quicker than others is why I think we’re able to continually deliver. And again, I’d be remiss to say, I didn’t do my job, but we built backlog. We did not build more than we sold.

Chuck Whitten - Dell Technologies Inc. - Co-COO

I think you did your job really well, Jeff. I’d just also underscore per your last answer, it’s also our business model integrated to that incredible supply chain performance. So our sales engine that’s able to not just take that -- take a demand signal and feed it back to the supply chain but also shape to availability, which we’ve been doing for the last couple of years, and we certainly did since March. Our product teams that are designing modularity and being able to respond to the parts that are available. So we like to say it’s not one thing, it’s our integrated business model.

Thomas W. Sweet - Dell Technologies Inc. - Executive VP & CFO

Let me take that, David. Let me just comment on the make-whole payment question that you put there at the end of that question. I think you’re referring to -- we talked about last quarter the fact that as we thought about our capital allocation framework for the year and the fact that we might do some incremental debt pay down during the course of the year that if we were to do some of those -- some of that debt would have a make whole payment on it and sort of.

And so as we think about it now, we sort of have P&L for the year model at right around $1.5 billion. So you think about Q1 at 3.48x, plus we’ve stuck in a $100 million make-whole thought, if you will, into the ethanol for the year. We’ll have to work -- as we go through the year, we will keep looking at does that makes sense to do and is that the right use of capital at the time. But -- so that’s the context around that.

Operator

We’ll take our next question from Simon Leopold with Raymond James.


This morning on the call Broadcom hosted, they talked about a strategy to take more of the VMware sales direct, a focus on the top 1,500 customers. Now you’ve got a meaningful chunk of VMware revenue that flows through your business. I just want to get a better understanding of how you see the potential for VMware being part of Broadcom affecting your top line, and I assume it doesn’t do much to the bottom line, but just want to understand what you’re expecting.

Thomas W. Sweet - Dell Technologies Inc. - Executive VP & CFO

Simon, let me start with just saying, look, obviously, we’re not part of the transaction between VMware and Broadcom if that is to come to fruition. We have a 20-year relationship with VMware. As you know, we -- with all of the work that’s been done with them and the close collaboration over the last 5 years or so and the whole posture around, VMware is first and best as we lead.
Our expectation is that, that relationship continues. We have a commercial framework agreement that we negotiated with VMware as we did the spin at last year. And we would expect that those -- that continues. And the mutual benefit that we both received from the commercial framework -- they -- with the go-to-market reach we have in some of our technology and our benefit with some of their solution technology should continue. So that's our expectation as we look at it today.

**Operator**

We'll take our next question from Rod Hall with Goldman Sachs.

**Roderick B. Hall** - Goldman Sachs Group, Inc., Research Division - MD

I just wanted to clarify that last response, Tom. So the commercial framework, the legal framework, does it have any kind of an M&A clause in it that would cause it to need to be renegotiated assuming the deal closes? And then I had a question on PCs as well.

**Thomas W. Sweet** - Dell Technologies Inc. - Executive VP & CFO

I guess I would just tell you that I'm not going to get into all the commercial (inaudible) terms, but there is a change in control provision that allows that -- the commercial frameworks continues on with the change in control.

**Roderick B. Hall** - Goldman Sachs Group, Inc., Research Division - MD

Okay, okay. And then on PCs, I just wanted to ask, it sounded like -- I'm not sure how to interpret your PC commentary in terms of comparison to last quarter. I mean it sounded a little bit more cautious to me, but commercial is still pretty good. Could you guys just maybe update us on what you're thinking on PC units? I know AMD has come out and talked about high single-digit unit declines now. Are you on board with that idea? Do you think units in the industry are flat? Just curious what you're kind of thinking about industry units here.

**Jeffrey W. Clarke** - Dell Technologies Inc. - Co-COO & Vice Chairman

Sure. I mean I'll take this, and Chuck certainly can build upon this. Look, I think we continue to talk about a marketplace that was going to slow down. It is slowing down. We saw that in the IDC Q1 results, which remind you, I think we outperformed the market significantly in that calendar Q1 period.

Our own internal modeling, IDC just came out with a new set of projections last night. Our modeling is a little more positive than that or a little bigger than that, if you want to say. I'll be very specific with you. We have the market somewhere around 330 million units. We have Chrome falling fast. We have consumer in the high single digits. And we have -- on a unit basis, we have the commercial hanging in there. That's how we get to 330 units.

When you look at the composition of our business, the places where the market is strongest is the places we have the greatest exposure. I think our mix of commercial was 77% in Q1, which is up 3 points year-over-year. So more exposed to the place that's doing better. That's what we -- clearly, where we've built our product portfolio or our relationships and customer base is, and that's how we tend to look at the market.

**Chuck Whitten** - Dell Technologies Inc. - Co-COO

Yes, Jeff, I think net the forecast, the IDC forecast, our forecast, they do reflect the structural reset of the PC market to a higher level that we've talked about. And as you said, given our focus on the commercial segment, which we think fares better than Chrome and Consumer the rest of the year, we feel well positioned no matter the sort of unit market environment.
Obviously, part of our view that we would see moderating growth this year coming off a 27% growth in CSG last year is we're lapping some pretty strong compares in second half performance. But again, to just underscore our commentary, we expect CSG to grow for the year. We expect CSG to grow at a multiple to our long-term growth framework, and we expect to keep gaining share.

**Operator**

We'll take our next question from Wamsi Mohan with Bank of America.

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**Ruplu Bhattacharya** - BofA Securities, Research Division - Director & Research Analyst

It's Ruplu filling in for Wamsi today. Is there a way to quantify how much the supply chain issues, including the component shortages and logistics costs, how much that negatively impacted your revenues and margins in fiscal 1Q? And is there an estimate for the impact on the top line for the full year? And Tom, you're guiding fiscal '23 revenues now to be -- to grow higher at 6% year-on-year. Does that come with higher working capital requirements? And so do you think free cash flow in fiscal '23 now can be higher than what you thought 90 days ago?

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**Thomas W. Sweet** - Dell Technologies Inc. - Executive VP & CFO

Ruplu, since we're probably not going to answer your first question, maybe we'll focus on the second question.

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**Jeffrey W. Clarke** - Dell Technologies Inc. - Co-COO & Vice Chairman

Yes, I was going to answer the first question of, look, we have a backlog. It's elevated. We're going to continue to work through it as we always do. We won't disclose or parse it down into the impact of this quarter or any future periods in time. They are elevated. You can see that in our RPO level when you look at that versus previous periods, and it's our job on the supply chain to get supply matched up with demand and actually catch up a little bit. That's what we're going to try to do.

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**Thomas W. Sweet** - Dell Technologies Inc. - Executive VP & CFO

I was going to answer it, but I mean I -- on your working capital question, look, we are -- we did adjust our framework upward, and we had told you we would continue to look at that as we go through the year. So we -- right now, we see the total year at 6% with both CSG and ISG growing sort of mid-single digits for the year.

I think if you do the math on that, you would obviously see that we do expect the back half to be slower than the first half as we think there continues to be. We're lapping from a CSG perspective, some pretty tough comps in Q3 and Q4 of last year. So that will, I think, be a bit of a -- as you think about the performance of the business, that would be something to consider.

I do think from a CSG perspective that we expect sort of ASPs to be flat to slightly declining as we go through the year, but we don't see significant movement there given some of the inflationary pressures. But again -- and we'll have to monitor that relative to the pricing environment and what's going on in the market.

I think -- we think we're very -- we're optimistic about this, the ISG space. Infrastructure spending is holding up with what we can see today. Implicit in my guidance, when you would think about the fact that I am slowing ISG in the back half of the year some, it's still growing but at sort of low to mid-single digits Q3 to Q4. But I think that's just being prudent given the uncertainty that's out there in the market right now. And we'll continue to update you as we go through the year.

As it relates to working capital, look, we have a -- if you haven't looked at our balance sheet lately, we have a lot of inventory right now. So I'm up $2.4 billion year-over-year. In fact, Jeff and I were just talking about that.
**Jeffrey W. Clarke** - Dell Technologies Inc. - Co-COO & Vice Chairman

You remind me.

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**Thomas W. Sweet** - Dell Technologies Inc. - Executive VP & CFO

I reminded you that it needs to come down, right? So -- and look, so I don't see a specific need for incremental working capital. Actually, what I'm challenging the organization to is begin to bring that inventory down as that's going to be obviously very much dependent upon how the supply chain sort of behaves in the second half, but I think there's opportunity to actually squeeze that down some. So I think overall, I'm not concerned about working capital in the second half.

Tyler, I know I probably just stepped all over you, but...

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**Amit Jawaharlaz Daryanani** - Evercore ISI Institutional Equities, Research Division - Senior MD & Fundamental Research Analyst

I guess I have 2 as well. I guess the first one is if I look at your full year guide, right, you’re going to do fairly robust growth in the first half. But you’re sort of implying that back half growth will be, I think, flattish for the most part. So maybe just touch on why do you think the back half will be flattish. It will be fairly unique if it happens. And do you expect to exit the year with a higher backlog than you’re sitting on right now? Or do you -- are you anticipating working down the backlog? So I’d love to understand kind of the back half assumptions there.

And then Jeff, I would love to hear on the storage side. This was a very sizable inflection that you folks had in April. I guess one data point won’t make a trend. But what’s the durability of the growth that you just saw on the storage side? And how much of that do you think was share gain versus end markets doing well?

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**Thomas W. Sweet** - Dell Technologies Inc. - Executive VP & CFO

Well, let me start, Amit, on the full year guide. I think if you just break down the piece parts of this, clearly, CSG was 17% in Q1. We do expect it to grow again in Q2. But I think we just talked about the fact that the environment is slowing and the fact that we have some tougher compares in the back half of the year when you think about year-over-year comparison and year-over-year growth. So look, I think it’s just prudent to be a little bit cautious and -- as we think about the back half of the year. Clearly, if the opportunity to grow faster is there, we will do so thoughtfully.

On the ISG side, with what we see, we're sort of looking at sort of mid-single digits. If you think about IT, the forecast for IT spending in the infrastructure space in the back -- in the year, it's sort of mid-single digits to upper single digits. That's how we think about it as well. I think the question that we're working our way through is just does that -- how does that manifest itself, and I just would like to have the year progress a little
bit further before we think whether there’s any incremental strength there. So right now, I've got the year at 6%. It implies that ISG is a little softer in the second half. We'll watch it, and we'll update you again at the -- at our Q2 call. So there’s just too many uncertainties out there right now to be so exact at this point in the year.

Jeffrey W. Clarke - Dell Technologies Inc. - Co-COO & Vice Chairman

Yes. And maybe to build on that with storage. Look, we’ve talked about 4 quarters in a row now of storage orders growth. Now 9% P&L growth in Q1. Our orders growth in Q1 was in excess of the P&L growth. Let’s call it double. All geographies grew storage. We grew storage on our high-end price bands, our mid-range price bands, our low-end price bands. We grew in HCI. We grew in data protection. Most notably in data protection in the area of cybersecurity, where we have a very advantaged position with our cyber-based products. Customers continue to look for us to help them in this world that we live in today with cyber and cyber resiliency.

PowerStore group. PowerStore continues to be our fastest-growing, new architecture we put in the marketplace. Just got 500 new features into the marketplace across our portfolio. We have a mainframe refresh that will come throughout the year, and our PowerMax is unmatched in its capability. One of my favorite features there is the first time we have mainframe compression in the industry on our product waiting for the mainframe update.

I like a lot of what’s going on. It’s 4 quarters in demand of Chuck [and I’s] team. We modeled this. Tom just mentioned it, mid- to high single-digit market growth. Obviously, we want to take share. We’re taking share with the performance that we just delivered, midrange in particular, which is where the largest swath of the market is. Our unstructured product continues to do well.

It’s hard for me to tell you if that’s going to continue. I like all of the signs, 4 quarters of growth. I think of the strategy that we have, which is continue to drive the consolidation and the high-end innovate and disrupt in the mid-range, which we’re doing, and take our leadership position in software-defined storage and continue to drive our leadership position even further there, whether that’s our VxRail asset or our own PowerFlex asset, both grew nicely in orders in Q1.

So I hope that answered the question. And it’s hard for me to have a crystal ball what that means in Q4. But certainly, what we've performed to date and as we look at the market as a whole, we're positioned nicely.

Operator
We'll take our next question from Steven Fox with Fox Advisors.

Steven Bryant Fox - Fox Advisors LLC - Founder & CEO

Just one question for me. To the extent you can sort of talk about your own pricing into your customers, where do you think you’re able to continue to get price and pass on inflation? And where maybe does it get more difficult, especially if some verticals are facing their own end market challenges going forward? Any help on pricing recently and what you’re thinking about in the future would be helpful.

Jeffrey W. Clarke - Dell Technologies Inc. - Co-COO & Vice Chairman

Sure. Maybe I’ll take a stab, and Chuck and Tom can come over the top. But we’ll start with PC. So if you look at the pricing environment in PC that’s back to what I mentioned earlier, this is kind of [3 tails]. In Chrome, pricing is largely back to pre-COVID normal levels. It’s aggressive. There’s lots of inventory out there. It’s an aggressive pricing market.

In those price bands in consumer, the low end or at the low price points, the midrange price points, there’s a fair amount of inventory out there. You saw promos being run through the holidays. They continued into Q1. The pricing towards the burst deals towards the second half of the year.
are already underway in those price bands, and they’re quite aggressive. In the higher end part of consumer, whether that be our XPS area or Alienware, things are a little more stable.

Commercial, it’s a more favorable pricing environment. There’s still a lot of mismatch sets out there, meaning that there aren’t enough components. Everybody doesn’t have the right set of components to build a finished system. So pricing is more stable, more favorable. And we’re taking the inflation that we see, and we’re certainly trying to pass it through.

I think Chuck talked a little bit about this earlier, but if you look at broadly across our PC space, ASPs are boosted by the fact that we have a configuration dynamic, those buying PCs need a more capable PC to work in a hybrid modern world. We have content going up, and we’re attaching more things with them.

If I look at storage, storage is a favorable pricing place where we can take the rising input costs, and we can -- we are passing that through. And that’s not unique to us, the industry is. The same is true on servers, which makes a lot of sense given there are not enough parts to match the server demand today, hence our growing backlog, and that’s a favorable environment where we can pass along the cost increase.

Our ASP performance. I think we mentioned earlier, we [stood out] by the fact that we have pricing and inflation and then we have this content dynamic. We’re selling servers deeper into the enterprise, higher-value workloads, more GPUs, more DRAM, more NAND per server. That adds up to a higher ASP.

Our teams are making adjustments as we speak. Tom referenced this earlier, foreign exchange rates, They’re changing when we have to price. Pricing is underway to do that. We’ll try to capture as much as we can along the journey. He called that out as a, perhaps, challenge in the quarter. And then we have a variety of metrics that look at our relative position to our competitors. And we largely say with everything that I just said, we are in price position in the marketplace.

**Operator**

We’ll take our next question from Toni Sacconaghi with Bernstein.

**A.M. Sacconaghi** - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

I just have a couple of follow-up clarifications. You explicitly noted that order growth was stronger than revenue growth in storage. Was that also the case this quarter in servers and PCs?

Secondly, you noted that you were opportunistic in your share repurchases this quarter and bought back $1.5 billion. Your share price, even with the strength in the aftermarket, is well below the average price that it was during Q1. Why shouldn’t we expect you to be just as opportunistic in terms of buybacks in Q2?

And then finally, just on free cash flow, do you expect free cash flow to be higher than net income, consistent with your long-term model for fiscal '23?

**Robert L. Williams** - Dell Technologies Inc. - SVP of IR

Yes. We’ll take the first 2, Toni. We don’t forecast cash flow, so we’ll lay out the last one. We’ll take the first 2 relatively quick, please.
Jeffrey W. Clarke - Dell Technologies Inc. - Co-COO & Vice Chairman

Sure. We mentioned that storage orders were ahead. They were. Server orders and server P&L performance were largely the same. And CSG, P&L revenue performance was ahead of orders performance.

Thomas W. Sweet - Dell Technologies Inc. - Executive VP & CFO

What was the second part of that? I was (inaudible).

A.M. Sacconaghi - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Share buyback.

Jeffrey W. Clarke - Dell Technologies Inc. - Co-COO & Vice Chairman

Opportunistic versus [problematic].

Thomas W. Sweet - Dell Technologies Inc. - Executive VP & CFO

Look, Toni, I mean if you think about what we did in Q4, Q1, it was all around, we had a significant amount of dilution coming through the VMware spin transaction. And since we weren’t in the market for last year given the beam we’re spent, we thought it was appropriate. And part of our goal with the share buyback is to control dilution. And so that focus, plus the fact that share price did obviously evolve through the quarter, was the impetus to continue to be into the market a bit.

I think what we’re trying to balance as we go through the remainder of the year is the cash balance has obviously come down as we spent a fair amount of cash in Q1 on share buyback. So my point of view on this right now is that we’re going to continue to be programmatic, and I will be opportunistic where it makes sense. But I don’t think that pace that you saw in Q1 should be how you model the whole year, so that’s how we’re thinking about it right now.

Operator

We’ll now take our final question from Jim Suva with Citigroup.

James Dickey Suva - Citigroup Inc., Research Division - MD & Research Analyst

A clarification question for Tom and more of a strategy question probably -- I guess, it would probably be for Jeff or Chuck. But Tom, a clarification. You talked about pricing in a deflationary environment turning to inflationary for your components. I guess everywhere around the world for the past 3 months, I haven’t seen pricing going up, and you talked about favorable deflationary. Was that like some longer-term contracts you had or agreements that are now kind of being rightsized to market? Or was it like displays or memories? I’m kind of scratching my head here about what really helped you.

And then more of the strategy question either for Jeff or Chuck. It seems like on storage, which you touched on earlier, you had a couple of past quarters of kind of flattish growth. And now storage was up 9%, and you talked about we’re in a bit of a high-performance compute/mainframe pause before it starts. Am I right we’re at a new chapter of -- after several quarters of flattish storage growth actually kicking it into high gear for storage?
**Thomas W. Sweet** - Dell Technologies Inc. - Executive VP & CFO

Jim, it's Tom. Let me take the first part of your question. Let me tell you what I believe I said, which was we expect input costs to be inflationary as we end Q2, right? And that's the entire basket of component plus logistics costs. So we do expect that to be an inflationary pressure in Q2, somewhat into the back half of the year depending upon some of the demand signals.

**Chuck Whitten** - Dell Technologies Inc. - Co-COO

Yes. And then to wrap up on storage. Look, as we said in the last few quarters, we've seen healthy storage demand growth. Translating that to the P&L takes time because we have a significant amount of our storage content that is deferred software and services. And so as we said, the key performance indicator we've been watching is the consecutive quarters of demand growth. And so after posting 4, we are now seeing that start to translate into the P&L at 9% storage revenue growth.

On the mainframe refresh question or the high end, look, we did see demand growth in the high end in Q1. And if you'll recall, we saw high-end growth in Q4 as well. We would not attribute that right now to the mainframe refresh. We're #1 in high end and have a number of customers that refresh from time to time, and that's really what we've seen over the last couple of quarters. But that said, as Jeff called out, we are incredibly well positioned for the mainframe refresh that is sort of starting right now, and we tend to see the benefit a quarter or 2 later in our business. And as Jeff called out, the new PowerMax that adds the industry's first data compression for mainframes positions us really well for that demand cycle. So that's where we are in storage. Obviously, incredibly pleased with both our P&L performance, but more importantly, as Jeff called out, the strong demand we saw in all parts of the portfolio.

**Robert L. Williams** - Dell Technologies Inc. - SVP of IR

All right. Well, as a quick reminder, we'll be at the Bernstein Strategic Directions -- Decisions Conference in New York, the Bank of America Global Technology Conference in San Francisco and the JPMorgan Global Leaders Forum in Toronto in June. We'll have other events during the quarter. Check the website. Thanks for joining us today.

**Operator**

This concludes today's conference call. We appreciate your participation. You may now disconnect.