# TRANSCRIPT

DELL - Q4 2022 Dell Technologies Inc Earnings Call

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## PRESENTATION

**Operator**

Good afternoon, and welcome to the Fiscal Year 2022 Fourth Quarter and Year-end Financial Results Conference Call for Dell Technologies Inc. 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 Inc. Any rebroadcast of this information in whole or part without the prior written permission of Dell Technologies Inc. is prohibited. (Operator Instructions)

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

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

Thanks, Erica, 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 guidance will be covered on today's call.

During this call, unless otherwise indicated, all references to financial measures refer to non-GAAP financial measures, including non-GAAP revenue, gross margin, operating expenses, operating income, net income, earnings per share, EBITDA, adjusted EBITDA and adjusted free cash flow. A reconciliation of these measures to their most directly comparable GAAP measures can be found in our web deck and press release. All financial numbers in our earnings materials are now presented on a continuing operations basis, unless otherwise noted. See Appendix C in our presentation for a recast of our P&L numbers. Growth percentages refer to year-over-year change unless otherwise specified.

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 FY '22, the demand environment heading into FY '23 and supply chain dynamics in CSG. Chuck will cover ISG and our growth initiatives. And Tom will cover our Q4 financial results, capital allocation and guidance.

Now I'd like to turn it over to Jeff.

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

Thanks, Rob. FY '22 was a historic year for Dell Technologies. In fact, the best in our company's history. We reached more than $100 billion in revenue and grew 17%, a huge achievement for a company of our scale and ahead of our long-term value creation growth rates. And our opportunity continues to grow as we look ahead to FY '23. We are more vital than ever to our customers in an expanding market fueled by digital transformation.

IT investments remain a top priority for our customers as technology has become even more essential to their business. It's how you turn data into insight and action into better customer experience and competitive advantage. Customers also want choice and a trusted partner. Our position at the center of our customers' digital agenda and at the center of the technology ecosystem makes Dell the logical choice.

You can see in how we're winning with the customers like the Miami Dolphins, AT&T and Vodafone, with the world's largest reinsurer, Munich Re, and one of India's largest manufacturers, Greenpanel, across data storage, hyperconverged infrastructure and in adjacent opportunities like multi-cloud, as-a-service, edge and telecom.

We are continuing to gain share in our core businesses and these emerging opportunities where we can bring our advantages to bear. We have differentiated ourselves through consistent performance across different economic environments, unprecedented challenges and unforeseen events, and we have leaned into new opportunities always with an eye toward our customers.

In FY '22, we delivered record revenue of $101.2 billion, record operating income of $7.8 billion, diluted EPS of $6.22 and record cash flow from operations of $7.1 billion, truly a record year.

And Q4 was no different. We saw 17% growth in demand of our products and services in the quarter with broad growth across geos, industry vertical and business units. As a result, we delivered record revenue up 16%.

Operating income was a record, up 1%, but slightly below our November guidance as we optimized our performance based on customer needs, parts availability and backlog dynamics.

Being trusted partners to our investors and lenders as well as our customers is important to us. And in FY '22, we unlocked shareholder value by the spin of VMware; simplifying our capital structure; deleveraging our balance sheet, returning to investment-grade ratings; approving a share buyback program for up to $5 billion; and today, announcing a quarterly dividend at an initial annual rate of $1.32 a share.

Now let me shift gears and share a little color on the current supply chain dynamics, and then we will move into BU performance. The global supply chain shortage of semiconductors and global logistics challenges for goods and components continues to impact just about every industry. We are still experiencing shortages of integrated circuits across a wide range of devices, including network controllers and microcontrollers, that go into our products and solutions. The result, we are seeing an impact across client systems, servers and storage.

In addition, freight costs have continued to rise due to increased logistics rates, a higher mix of air due to ocean network congestion and increase in part expedites to meet customer needs. We have reduced our PC backlog over the last 2 quarters, and it is nearing the high end of its normal range. However, we expect PC backlog to grow in Q1.

Our higher-margin ISG backlog increased again in Q4 to a record level due to a combination of very strong demand and the lack of compounded availability. We expect our ISG backlog to remain elevated through at least the first half of the year as part shortages continue.

As we head into Q1, we do expect component cost to improve with modest deflation while freight costs remain elevated. We are awaiting information from the recent NAND contamination announcement from Kioxa and Western Digital to evaluate the impact on Dell.

Our supply chain speed, agility and flexibility has enabled us to meet customer needs in this environment though challenges remain. And our supply chain continues to be a durable competitive advantage as we navigate the unprecedented supply uncertainty.

Turning to CSG. Our PC business logged another record year. We delivered record revenue of $61.5 billion, up 27%; record operating income of $4.4 billion or 7.1% of revenue; record unit shipments of 59.3 million units in calendar '21, up 18%, growing faster than any of the top 3. And calendar year 2021 commercial share growth was up 70 basis points, more than any of the top 3, and has now been up 470 basis points over the last 5 years.

Turning to Q4. We delivered our sixth consecutive record CSG revenue quarter with $17.3 billion, up 26%, with healthy demand, up 21%. Operating income was a record of $1.2 billion. We shipped a record 17.2 million PCs in calendar Q4, up 9%, and now have gained share in 32 of the last 36 quarters. Our leading innovation continues to build a strong foundation for future CSG results.

We won 47 awards at CES in January where we introduced our new XPS 13, our thinnest-ever gaming notebook, the Alienware 14, and an advanced commercial notebook concept built around sustainability, recyclability and reuse. Hybrid work, learning, shopping, socializing, entertainment and travel is all here to stay. And we expect commercial PC and premium consumer growth in FY '23, albeit at moderating rate relative to a record year.

Clearly, CSG had a fantastic year, and we are well positioned heading into FY '23 as the client systems TAM has reset to a higher level.

I am very proud of our FY '22 results, our team and the company and the culture we've created. And I'm incredibly excited about the road ahead with all of you. We expect another year of growth as we modernize the data center with automation and intelligence, deploy IT at the edge and simplify multi-cloud for our customers.

And with that, I'll turn it over to Chuck for some color on ISG and our growth initiatives. Chuck?

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

Thanks, Jeff. FY '22 was, indeed, one for the record books. We're in a privileged strategic position. We ended the year with great momentum, and we're incredibly optimistic about FY '23 and beyond.

Turning to full year ISG results. Fiscal '22 revenue was $34.4 billion, up 4% for the year and underpinned by 4 consecutive quarters of growth. Widespread digital transformation continues to accelerate growth in infrastructure spend, and we were encouraged by growing demand across our portfolio of ISG solutions.

Specifically, FY '22 storage orders grew at the fastest rate since the EMC acquisition, and all geographies grew storage for the year. Midrange storage orders were up double digits in FY '22, and PowerStore remains the fastest-ramping storage product in our company's history. And demand for our leading server products accelerated over the course of the year, culminating with record server demand in Q4.

ISG operating income was $3.7 billion, flat year-over-year as both ISG revenue and margin were gated by supply constraints and corresponding backlog growth. As Jeff highlighted, we will continue to navigate the challenging supply environment with our differentiated business model, our advantaged supply chain, our product design flexibility, and our unique direct go-to-market, which creates a high-quality demand signal and gives us the ability to shape demand to where we have supply.

Turning to Q4. Our final fiscal quarter of FY '22 was a microcosm of ISG's year, with strengthening demand across our storage and server portfolios. ISG demand was up 17% with revenue up 3% to $9.2 billion. Storage demand growth was up for a third consecutive quarter and in the high single digits.

Our leading storage portfolio, where we're #1 in high-end, midrange, entry, unstructured, object, all-flash, HCI and data protection, enabled us to capture growth across a variety of storage architectures and customer sizes. For example, we saw double-digit demand growth in the high end, driven by select enterprise customers, 25% demand growth for our unstructured storage solutions and 8% growth for HCI despite a tough year-over-year comparison.

Within midrange, PowerStore demand continued to ramp in Q4, up 34% sequentially and now approximately 50% of our midrange SAN mix. Encouragingly, 26% of PowerStore buyers are new to Dell storage, and 29% were repeat buyers, important leading indicators of future growth. Servers and networking revenue was up for a fifth consecutive quarter, up 7%.

Storage revenue was roughly flat year-over-year due to the aforementioned backlog build and storage software and services content that gets deferred and amortized over time. ISG operating income was $1.1 billion, down 7% due primarily to backlog growth, component inflation and logistics costs. We continue to take pricing actions to mitigate cost increases, though component shortages and turbulent logistics markets remain risks that we are actively managing.

In summary, FY '22 was a solid year for ISG as infrastructure markets rebounded, the business returned to growth, our leading indicators of server and storage demand were ahead of revenue, and our integrated business model continues to deliver despite challenging supply dynamics. ISG is poised for a strong FY '23, given the momentum in the business. Tom will share thoughts on forward guidance in a moment.

Before handing over to Tom, let me touch briefly on our priority growth initiatives. At our September analyst meeting, we highlighted multiple growth opportunities both inside and outside our core business, including over $650 billion in TAM adjacent to our core, where our asset positions and durable competitive advantages give us a right to win. These are distinct markets like edge and telco but also growth opportunities like our APEX branded as-a-service solutions that provide a modern consumption experience to our customers. Customers can buy our solutions, subscribe to our solutions and select from different types of services, including fully managed service offerings, depending on their needs.

FY '22 was an important year as we launch solutions in these spaces, engage customers and made investments that positioned us for future growth. We were pleased with our strategic technical and commercial momentum in these businesses. In particular, we saw a rapid acceleration of our APEX Flex on Demand subscription offering as the year progressed, an important market indicator that our APEX strategy is resonating with customers. We also delivered a steady stream of innovations and customer wins in edge and telco in FY '22, giving us conviction in our long-term strategy.

Noteworthy in Q4 was the expansion of our APEX Cloud Services portfolio with 2 new offers: APEX Multi-cloud Data Services, which delivers storage and data protection as-a-service with simultaneous access to all major public clouds through a single console. The solution allows customers to access the cloud services they want while maintaining control of their data on-premise, avoiding lock-in and egress fees and enabling customers to meet regulatory and compliance requirements; and APEX Backup Services, which provides scalable, secure data protection with centralized monitoring and management for SaaS applications, endpoints and hybrid workloads. The solution offers all-in-one protection with backup, disaster recovery and long-term data retention in a 100% SaaS-based offering with no infrastructure to manage.

FY '23 will be about continuing to push the innovation agenda in APEX, telco, edge and multi-cloud. As these growth initiatives become more actually material, we will provide more detail.

In closing, we enter FY '23 in a solid demand environment across our businesses and with a lot of confidence.

And with that, I will turn it over to Tom.

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

Thanks, Chuck. In Q4, we delivered record revenue of $28 billion, up 16%, driven by another record quarter for CSG and continued growth in ISG, with demand for servers and storage well ahead of revenue.

Gross margin was $5.8 billion, flat year-over-year at 20.8% of revenue. Gross margin as a percentage of revenue was 320 basis points lower primarily due to higher-than-anticipated component and logistics costs and higher CSG mix. We continue to take pricing actions to manage the impact of commodity and logistics cost variability. Part shortages and supply chain risks remain across the economy, and we expect ISG backlog to remain elevated through at least the first half of fiscal '23.

Operating expense was $3.6 billion, roughly flat year-over-year at 13% of revenue with the full year fiscal year '22 OpEx rate at 14.7%. We continue to invest for long-term growth but did benefit from lower compensation and benefits in the period.

Looking ahead to fiscal year '23, we expect OpEx as a percentage of revenue to be slightly higher than fiscal year '22 as we invest in the business, employees return to work, and we engage in more business-related travel.

Operating income was a record $2.2 billion, up 1% at 7.8% of revenue. This was slightly lower than our November guidance given the impact of supply chain disruptions.

Net income was $1.4 billion, up 2%, with growth in operating income and a decline in interest expense due to the reduced debt balances, offset by an increase in our effective tax rate.

Our tax rate was 25.1%, higher than we expected at the time of our Q3 earnings call. The higher rate was driven by corporate transactions, including the refinancing and tender we executed in December. The combined effect reduced income in higher tax jurisdictions, resulting in lower utilization of available tax credits. The total tax impact was a reduction of approximately $0.19 to diluted non-GAAP EPS.

Fully diluted EPS was $1.72, down 2%, with diluted share count increasing to 810 million shares as a result of the VMware spin.

Adjusted EBITDA was $2.7 billion, up 3% at 9.6% of revenue and was $9.7 billion, up 12%, for the full year.

Our recurring revenue is approximately $5 billion a quarter, up 12%. Our remaining performance obligations, or RPO, is approximately $42 billion, up 20%, and includes deferred revenue plus committed contract value not included in deferred revenue.

Dell Financial Services originations in Q4 were $2.7 billion, up 12%. DFS ended the quarter with $13.5 billion in total managed assets.

Turning to our cash flow and balance sheet. We generated strong cash flow as our cash flow from operations was $3.1 billion in Q4, mainly driven by top line growth and $2.7 billion of adjusted EBITDA. Q4 adjusted free cash flow was $3 billion.

We are happy with the disciplined management of our working capital, although we continue to see higher inventory levels given the supply chain dynamics and component availability. We expect inventory balances to come down as the supply chain situation improves over the coming year.

We repaid $10.6 billion of debt in Q4, funded primarily with $9.3 billion in VMware dividend proceeds, and retired $1.7 billion in existing long-dated, high-coupon notes, funded through $2.25 billion in new bonds and balance sheet cash. The refinancing activity will save approximately $70 million in annual interest expense.

We exited Q4 with a core debt balance of $16.1 billion and a cash and investments balance of $11.3 billion.

Turning to capital allocation. As we have previously mentioned, we intend to return, on average, 40% to 60% of our adjusted free cash flow to shareholders over time. We repurchased 11.6 million shares of Class C common stock in Q4, totaling $659 million. And our intent is to continue

buying shares going forward programmatically as we manage dilution and opportunistically return capital to shareholders, consistent with our capital allocation framework.

Additionally, since the end of Q4 and through the close of business last Friday, we have repurchased an additional 4.2 million shares for $248 million. Program to date, we have repurchased approximately 5.4% of the outstanding Class C common stock. To complement our share repurchase program, our Board has approved a Q1 dividend of $0.33 per share.

We expect the cash impact of our quarterly dividend payments to be approximately $1 billion or roughly $1.32 per share for the full year, and we expect to have the opportunity over time to grow our dividend at least consistent with our long-term EPS growth in each case, subject to future Board approvals.

For more details on the dividend announcement, please review today's press release and Form 8-K. Alongside capital return to shareholders, we will continue to invest in the business, delever toward our 1.5x gross core leverage goal and pursue targeted M&A.

Before I provide thoughts on Q1 and full year guidance, I would like to invite Jeff back for a few comments on Ukraine.

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

Thanks, Tom.

Regarding Ukraine. First and foremost, our thoughts are with those families who have lost loved ones and all who are impacted. Our top priority at this time is supporting our Ukrainian team members as they attempt to relocate to a safe and secure environment. We are closely monitoring things and are working with employees to address their personal and family situations.

As for business operations in the region, the situation is rapidly evolving, and we will share more details as they become available.

Back to you, Tom.

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

Thanks, Jeff.

Turning to Q1 and fiscal year '23. We're optimistic about the overall macroeconomic environment with global IT spending projected in the mid-single digits. Digital transformation is a top priority for our customers, and it's fueling our growth as our customers look to Dell as their partner in their multi-cloud journey.

Against that backdrop, we expect Q1 revenue between $24.5 billion and $25.7 billion, up 11% at the midpoint, with CSG and ISG growing.

For non-GAAP tax rate, you should assume 20% plus or minus 100 basis points, driven by higher overall U.S. tax on foreign earnings and lower interest expense going forward. This guidance assumes U.S. rates are not affected by any tax reform. And based on my earlier share repurchase commentary, we expect Q1 diluted share count between 785 million to 790 million shares.

Netting this out, we expect non-GAAP diluted EPS in the range of $1.25 to $1.50, up 2% at the midpoint. I recognize that our EPS range is slightly wider than normal, but given a more dynamic component availability in logistics environment and elevated backlog, particularly in ISG, I believe it is appropriate.

For fiscal year '23, we're coming off a very strong year with record performance in fiscal year '22. As a starting point, we suggest you align fiscal year '23 financial expectations with our long-term value creation framework, and we will provide an updated perspective on the year as we move forward.

As a reminder, that's revenue growth in the 3% to 4% range and EPS growth at 6% or better over the long term. We also expect to deliver solid free cash flow and return significant capital back to shareholders with our announced dividend and share buybacks.

As we think about Ukraine, I will reiterate that, first and foremost, our thoughts are with everyone who has been impacted and supporting our team members in the region as we closely monitor the developing news there. While our direct revenue exposure to Ukraine and Russia is minimal on a percentage basis, it is too early to determine any broader potential impact to our Q1 guidance and our initial thoughts on fiscal year '23.

In closing, we delivered an extraordinary year with record revenue, operating income, EPS and cash flow. We delivered significant shareholder value through the spinoff of VMware, the sale of Boomi and disciplined and consistent debt paydown, resulting in an investment-grade rating. We also introduced a comprehensive capital allocation framework and began shareholder capital return actions with share buybacks and the announcement of a dividend.

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.

With that, I'll turn it back to Rob to begin Q&A.

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## QUESTIONS AND ANSWERS

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

Thanks, Tom. Let's go to Q&A. (Operator Instructions) Erica, can you introduce the first question?

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**Operator**

We'll take our first question from Shannon Cross with Cross Research.

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**Shannon Siemsen Cross** - Cross Research LLC - Co-Founder, Principal & Analyst

I was wondering if you can talk about how -- in general, how you're managing price increases. And given the pressures you're seeing on components and obviously, the questions geopolitically and everything that's going on right now, how should we think about timing of the benefit of these price increases to run through both CSG and ISG? And also, if you can talk about whether or not you think the moves will be sufficient enough to offset inflation and the component costs or if there -- at some point, you -- or maybe nobody knows, but at some point, you start to see some pushback because of elasticity of demand.

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

Shannon, let me chat a little bit about that, then I'll ask Jeff and potentially Chuck to weigh in as well. So Look, in general, as you think about management of price increases, what we have been doing as we see costs that are -- that have been moving upward on us, effectively, given the volatility we're seeing particularly in the semiconductor space and the dynamics of when parts are arriving at our various factories, we have been adjusting prices as appropriate. I think part of the dynamic that we're seeing right now, though, is that given the fact that we do have elevated backlog, any price increases you're seeing are generally somewhat muted as you think through the impact to the P&L, given that it's got a flow-through backlog.

And so to the extent you have elevated backlog, which we clearly do in ISG and we're at the upper end of what we would characterize as the new normal in CSG, that's going to be a bit of a headwind in terms of the pricing activities ultimately manifesting themselves in the P&L.

But our perspective is, look, to adjust prices as appropriate, we're always mindful of the market dynamic, to your point around elasticity, but we're also in an inflationary environment, which we're in, and we see that across multiple industries, as you would all know, it's appropriate that we readjust pricing and make sure that we're getting appropriate value for our solutions.

Jeff or Chuck, I don't know if you would add anything to that.

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

Maybe a couple of comments, Shannon. One is, as we look at total input costs, we just went through an inflationary period in Q4. We think component costs go down slightly in Q1, offset by a flat to probably slightly increasing logistics costs to move material around to the factories when they're delivered. So one of our biggest challenges that we've been working through is chasing those costs that are associated with the volatility, the uncertainty of when parts show up out of factories that we can move them to our subassembly facilities to turn them ultimately into finished products.

And it's that volatility, if you will, or uncertainty that we're -- certainly is catching us a little bit, maybe a surprise. We didn't see as much expedites of moving material around, which led to some of the compression in margin that you -- we've talked about. And so it's that precise thing that we're trying to get even more accurate about.

When you look at the pricing environment that we're operating in today, as costs go up, it's being transferred into price. Whether that's commercial PCs, whether that's the premium consumer side of our business, we're seeing the same thing broadly across the server base, and the same is true in our storage base. So that cost is being transferred into price as efficiently as we can where we understand it and we could be planful and mindful. It's that volatility and uncertainty that is, I don't know if it's the right word to describe it, that it can't plan for it and we're responding as fast as we can. And the higher levels of backlog, it's less efficient at capturing it. I hope that helped.

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**Operator**

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

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

So just maybe when we think about the context of the full year from a demand perspective and all of the different moving pieces from a supply chain, I think Tom and Jeff and Chuck all mentioned, the second half of the year is at the earliest we're going to see some improvement. Is that what's sort of underpinning sort of the long-term framework sort of the reiteration that we're thinking about? And if so, is there a way to quantify potentially what that revenue impact is from supply chain right now? I know it's sort of a difficult question to answer, but just trying to get a sense for how revenue is being held back by the supply chain at this point.

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

David, I think you have to think about it like that. And as we think about the year right now, and let me reiterate that we're optimistic about the year from a demand environment perspective with what we know today, that we do expect -- the guidance I gave you around Q1 revenue and a midpoint of 11% year-over-year growth, we will continue to work our way through the supply chain dynamics. But particularly within -- first with ISG, we do expect those headwinds to be with us at least through the first half of the year, right?

And so I think you've got -- as we laid out the long-term guidance for you, I want you to think about how your sequentials interact as we go through the year, but I think a good starting point is the long-term framework. And clearly, as the situation becomes clearer in terms of the logistics dynamics that -- and the supply chain that we're seeing, we'll update you.

The other point I'd like to make, though, is around -- although we've talked about ISG backlog being at an elevated level, we do expect, quite frankly, a little bit of headwind in the CSG space in Q1 with -- particularly with desktops, given some of the component shortages we're seeing. So those are the navigation that we're going to have to do as we work our way through the first quarter and, quite frankly, I think the first half, but optimistic about the year. And as you work your way through your modeling, I think just keep in mind that the concept of perhaps normal sequentials aren't quite as -- it's been a few years of variability as we've worked our way through the year. But again, I think the year, as we see it today, we're optimistic about the full year framework that we've laid out.

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**Operator**

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

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**Wamsi Mohan** - BofA Securities, Research Division - MD in Americas Equity Research

Jeff, you noted growth in commercial PC and premium consumer to continue into fiscal '23. I was wondering how you're thinking about the growth. How concerned are you about inventory levels? I know you noted that CSG backlog is expected to improve -- increase here in the near term. And any help you can give us about how you're thinking about ASP trends as well, given the moving pieces on the commodity environment?

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

Sure, Wamsi. I think that was 3 different questions. I'll try to get to all of them. So first off, if we step back and we look at the environment, we've just gone through 3 consecutive years of growth getting the PC industry back to roughly 350 million units, and the TAM we believe has been reset. And if you look at where a large percentage of that growth has come from, it's come from commercial PCs and consumer PCs, generally an area that we're very strong in. Commercial PCs represent roughly 75% of our revenues.

Our view is those 2 premium sectors continue to grow. In calendar '22 or fiscal '23, we have commercial PCs growing mid-single digits, and we have premium consumer PCs growing low single digits. We obviously expect to take share on top of those numbers. Where the pressure will be is in low end and mid-consumer price bands and in Chrome. You've heard us probably talk about this. Not all units are created equal. Some units are more valuable than others. We believe we play in the most valuable space, commercial PCs and premium consumer PCs. So we're optimistic that we grow those valuable sectors, so the market grows in those valuable sectors, and we can continue to be a consolidator there.

If we look at the ASP trends, the ASP trends have continued to move up as the commodity base has been inflationary. And then clearly, what I mentioned earlier, the increased cost in moving material, moving parts associated with logistics costs, have certainly driven a pricing action as well.

The pricing environment that we see today that I mentioned a little bit earlier is there is pressure as inventory levels come back to norm on midrange to low-end consumer price bands and into Chrome. We still see challenges in getting all of the material for the premium price points in consumer and in commercial. So that's why Tom just made a reference, for example, in desktops and displays, we actually see backlog building demand ahead of supply, if you will, in Q1 as we've spent the last 2 quarters, reducing the backlog of our PC business.

And in terms of absolute inventory, we've continued to take material we know that we need because if you don't take it, it's going somewhere else. That environment largely exists in the most valuable commodities.

I think I got all those answered.

**Operator**

Your next question comes from the line of Tom Sacconaghi with Bernstein.

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

It's Toni Sacconaghi. I just wanted to peel back the guidance a little bit more. So if I look at Q1, you're guiding for down about 11% sequentially, you're typically down 8%, I think, is the average over the last 5 years. It sounds like you're going to build backlog in PCs. Are you anticipating that your ISG backlog is also going to grow? Or is there -- is it solely attributable to PCs?

And then, again, thinking about the full year, if you're guiding for 11% growth in Q1 and you have kind of normal seasonality in Q2, it calls for negative growth in the second half. And it sounds like ISG will get stronger over the course of the year. So that means pretty negative growth in PCs overall. Is that the message you're trying to communicate? Or what's wrong with my logic there?

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

Yes. Look, I don't think we see negative growth in PCs overall, Toni. And I think what we see...

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

In the second half.

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

Right. I just think -- as I said, we expect ISG and CSG to grow in Q1. Yes, there are headwinds, and we do expect ISG backlog to expand in Q1. And with what we understand about PC component availability, we do expect some PC backlog growth. That's the reason for some of the caution in, one, in the revenue dynamics I gave you; but more importantly, in some of the EPS spread that I gave you, just given some of the variability that we see.

As we work our way, if you think about sort of the midpoint of that guidance, I think that we see positive growth through the remainder of the year overall with what we know today. So we can take this off-line from a modeling perspective, but that's our thinking right now. We're optimistic about the year. The trends are in our favor. There is some short-term navigation we need to do with the supply chain dynamics.

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**Operator**

We'll take our next question from Jim Suva with Citigroup.

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

I just have 1 question. And that is you commented on your prepared comments about assessing the Western Digital situation. I just wanted to get some colors of I assume it's not that you got some contaminated bad drives out into your inventory and into the system; I assume it has more to do with supply availability and maybe even pricing. Is that right? And I assume -- or can you let us know that you have more than 1 supplier for that and kind of what you meant by those commentaries for the various outcomes?

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

Happy to answer, Jim. Yes, we have multiple partners in the world of NAND and SSDs for both client and enterprise class products. The reference that I was making is the announcement by Kioxa and Western Digital about the contamination that occurred in their factories, which means product in the factories today is contaminated. And sometime in the future, there's going to be a gap. Typically, when there's a gap of supply in a commodity that is in great demand, we see pricing pressure.

So what we're trying to communicate is there's an unknown of a reasonably large size. Those 2 companies represent a large percentage of output, and that output is at risk with the contaminated factories that will have a supply impact in the future, and we're just signaling that going forward.

I hope that -- did I answer it? I hope. I think I did.

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

That was great color.

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**Operator**

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

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**Simon Matthew Leopold** - Raymond James & Associates, Inc., Research Division - Research Analyst

You've made this comment about having drawn down some of the backlog in PCs but then expecting backlog to build after the quarter. And I guess, I'm trying to really split hairs a bit and understand, is the rebuild of a backlog the result of demand or supply constraints or a combination? If you could unpack what's leading to backlog rising again.

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

Do you want me take that, Tom?

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

You start, Jeff, and I'll jump in.

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

If we look at each of the categories, what we're signaling is the semiconductor shortage that we've been talking about for a long time persists. Trailing nodes, whether it be a 40-nanometer node, a 55-nanometer node, 60-nanometer node, et cetera, a plethora of parts that go across all our devices continue to be in short supply. The output of that supply is nonlinear, meaning that sometimes it comes and sometimes it doesn't, sometimes it shows up on time, sometimes it's delayed. Working through that and taking advantage of our assembly capacity is ultimately the challenge in timing and the optimization that we're running through.

So what we're signaling is that semiconductor shortage continues to hit our CSG product, most notably in our high-end display business and desktops, as Tom called out. And demand -- we see demand continuing, and our supply is short of that demand, hence, the backlog growth.

On the server side, same sort of thing with network controllers and microcontrollers and power ICs, those have been the ones that I've called out into the past. They continue to be in short supply, and demand is ahead of that supply, hence, the backlog build. And then a very similar trend,

which we saw in Q4, we believe continues through the first half of this year, which is in storage, which is notably around the FPGAs and CPLDs, all of the high-speed programmable logic devices that are in those controllers that we need, again, demand ahead of supply, backlog build.

So that's what we're signaling. We're signaling, I think, in Chuck's remarks and my remarks, growth in our businesses, but it's challenged with the supply.

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**Simon Matthew Leopold** - Raymond James & Associates, Inc., Research Division - Research Analyst

So just to paraphrase, to make sure we all understand, demand is stable, supply chain is worse?

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

Supply chain continues to be challenged. It's pretty dynamic. There's a fair amount of uncertainty. It has worsened in Q4 in servers and in storage. We think that continues into the first half and after 2 years -- or 2 quarters, excuse me, of backlog burn down on the PC side. In those 2 categories of displays and desktops, it has worsened.

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**Operator**

We'll take our next question from Amit Daryanani with Evercore.

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

I guess I have 1 as well. If I think about the EPS growth in fiscal '22 and certainly, you talk about long-term framework of 6% EPS growth, how does that break up, you think, in '22 between stock buybacks versus operating profit dollars growth? And maybe on the operating profit dollars growth, you can just talk about, do you see CSG and ISG margins going up in '23? Or what are the puts and takes there? That would be helpful.

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

Yes. Amit, as it relates to the EPS growth that we chatted about are 6%-plus, right? So Look, I think you got to think about it like this. When we introduced -- if you remember the capital -- as you recall, the capital allocation framework, which is 40% to 60% shareholder capital return through a combination of share buyback and dividends, obviously, we've enacted that. We are using the share buyback program to manage dilution principally coming out of the LTI programs and the dilution that came out of the VMware spin.

And so from our perspective, as you move forward, if you think about our Q1 guidance, for instance, I do think that you should expect that we're in the quarter somewhere around 785 million to 790 million shares from an EPS, our share count perspective. And then will be somewhat programmatic as we move forward. And so while I don't want to get into forecasting share buyback, I will tell you that we will be thoughtful about how we do that.

We do expect -- as it relates to operating profit margin, look, I think overall, on an overall annual basis, somewhere in the -- I think if you look at consistently, we've been around $7.7 billion, $7.8 billion over the last number of years from an op inc perspective. I think we're probably somewhere $7.7 billion maybe slightly right around that range if you look for the year.

I don't want to get into overall op margins by business. That's not something we give guidance on. But I will tell you that, look, I mean, part of what's going to be interesting for us is as we continue to drive storage demand, there is opportunity for operating margin and ISG to continue to expand. Obviously, from a CSG perspective, the last couple of years have been quite strong from an operating margin perspective. More historically, they have not been quite as strong. Some of this -- there will be some variability this year as we work our way through supply chain, the mix of the business and the demand dynamics. But overall, we think profitability should be reasonable.

**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 ask about the implied margin trajectory into fiscal Q1 in the guidance. It looks like you're guiding at least down at the EBT level, that margin down a little bit. And I wonder whether or at least you'd be willing to say that that's kind of where you see the bottom on margins. Or do you think there's potential for margins to deteriorate further? And then I have a follow-up to that.

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

Rod, I would think as you think about our guidance for Q1, I think if I walk the P&L for you a little bit, we gave you a revenue range, obviously, of $24.5 billion to $25.7 billion. We did talk about a tax rate of 20%. I gave you some indication on where we think OpEx needs is probably going to trend for the year. But I would think in Q1, that's pretty consistent as you bring OpEx up from that 14.7% by roughly, call it, 40 basis points, 40 to 50 basis points, as we move through the year. And then you think about the EPS I gave you, you've gotten the tax rate.

I think interest and other is an area that we should chat about quickly just because, if you did Q4 times 4, given the amount of debt repay, you get somewhere around $1.3 billion of interest and other. I do think there will be, at some point during the year, probably later in the year, as we continue to focus on delevering, as we've talked about trending -- moving to 1.8x down to 1.5x core leverage that we will do some debt repayment. That probably -- since I've used -- I don't have any more prepayable debt, that's probably somewhere -- there will be a make well premium there. So somewhere in the -- probably safe to say somewhere in the $150 million to $200 million for the full year on -- for I/O, so you're closer to 1.5.

I think if you put all of those pieces together, you're going to come up to an operating -- or gross margin in Q1 that's slightly higher than where we ended Q4, given some of the mix of business as we look at it today. So that's -- I think that's generally how we're thinking about Q1.

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

I'm going to try and keep moving here just in the interest of folks to get on the call for a question. So I appreciate your question.

**Operator**

We'll take our next question from Samik Chatterjee with JPMorgan.

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

My question was really on the VMware relationship or the reseller relationship here. If I'm doing my math right, it does look like the revenue is translating to the profit line, roughly an operating loss in the quarter of about $70 million or so. So I just wanted to check if I'm doing the math right there, and if that's the quarterly run rate we should be assuming going forward. Or is there some seasonality to it that we should be mindful of? And certainly, how to think about sort of getting that back to a positive run rate in the future, what time period we should be thinking about?

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

Yes, Samik, it's -- $70 million is what's the total of that other business, which includes both principally VMware resell. It also has Virtustream and SecureWorks in it. I think on the broader frame in terms of VMware and what that resell relationship looks like, we've spent the last 5 years growing

that business and that relationship with VMware. And we've taken the VMware revenue -- the Dell contribution of VMware revenue up to somewhere roughly sort of in the 30% -- mid-30% range in terms of VMware total contribution.

As we've talked about in the past, we -- our focus over that last -- that period of time was about velocity of VMware in terms of driving revenue and margin with -- on the VMware solution capability. So with that said, as we now have separated, if you will, through the VMware spin, we do have work to do on pricing and on working our way through the 5 years of those VMware relationships and contracts with our customers, and we are focused on resetting pricing and process over time.

So I do think that it's going to take us a bit of time to move that needle in terms of the operating loss you're seeing, which is, to be fair, principally, a lot of that is the -- most of that is the VMware resell dynamic. And so I think that's probably at least a 24-month journey as we think about how do we move that forward. I view it as an opportunity. We've got opportunity to improve that and drive better profitability there over time, but it will -- it's going to take some work there.

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**Operator**

We'll take our next question from Krish Sankar with Cowen and Company.

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**Krish Sankar** - Cowen and Company, LLC, Research Division - MD & Senior Research Analyst

My question is more about like the forecast. I think, Jeff or Tom or Chuck, you mentioned about 3% to 4% revenue growth. And given the fact that demand is exceeding supply, supply constraint and you kind of missed the gross margin numbers, I'm kind of curious, like Dell is historically being known for excellent inventory management. So how much of the demand forecast is actually tied to supply? And could supply concerns impact your demand forecast at this point?

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

Well, look, I -- and Jeff and Chuck should jump in here. I tend to think about it like that. Supply is constrained right now. But our job, working with our -- our selling organization working with our customers just to try and capture demand and bring demand in-house and make sure we're selling the configurations that we believe we have component availability for. So I think the team does a great job with that. And if you think about our model being roughly 50% direct and 50% through the channel, we have the opportunity to shape demand.

That said, I mean, there are supply constraints throughout the industry that are impacting us and are causing incremental cost, as Jeff highlighted, as given the logistics chain as parts are arriving late and we're having to move product around. So there has been some pressure on gross margin, and you noticed that in Q4.

Look, I think that's something that we're pricing for as we see it. Pricing efficiency as long as you have an elevated backlog, well, is a bit challenging. And ultimately, that pricing will manifest itself through the P&L as we clear backlog. So look, I think -- overall, I think as we think about gross margin for the year, I do think that our perspective is that it does tend to trend up gradually over the course of the year, not -- but there's work to do to get it there.

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

I mean, Tom, maybe an addition to that is, look, we spent the quarter looking at the part profile and optimizing shipments, taking care of our customers and the commitments we gave to our customers. We know we incurred incremental cost to do that. There's no question. And we were chasing cost with price. And with a building backlog with the demand that we spoke to, we didn't catch it. But we know we made the right decision in the best long-term interest of the company by serving our customers.

Our business, our Dell model, we'll work through this. This is what our supply chain team does. Our model is differentiated. We have, we believe, the purest demand signal in the marketplace. We transmit that to our supply chain quicker and better than most in the industry. We're capable of demand shaping with our direct selling model. And our product leverage and product development model allows us to move and qualify more material, which is what we've been doing.

I think we've navigated the last 2 years quite well as much. As we may be saying backlog wins or headwinds in front of us, our supply chain team loves this stuff. This is what they do, and we're going to serve our customers, and we will find a way to overcome.

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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

I wanted to ask a little bit about backlog. I know in the slide deck you talk about, I think it was $41 billion or $42 billion of remaining performance obligations. And if I look at that number, last quarter, I think you actually disclosed that, that was $36 billion, but today, you're disclosing that was $41 billion. So I guess, I'm curious of what the difference is, if there's a change in the accounting of that.

And then when I look at that, that difference of that RPO relative to deferred, that $14 billion, that's up from $9.4 billion a year ago. Is that how we should think about the backlog that you've built? And do you think that you exit this next year at a more normalized backlog level? And what would that maybe look like?

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

Well, look, Aaron, it's Tom. So as you think about RPO, if I look at Q3 backlog, our RPO, I apologize, it was $41 billion, moved to $42 billion, right? So -- and you look at the ins and outs of that, which is we had talked about the fact that backlog build was pretty significant at the end of Q3. What you saw happen in Q4 was we actually took -- we were actually able to reduce backlog in the client space, but we built backlog in the ISG space. And as you might imagine, that has -- those businesses have different margin profiles, which was one of the sort of constraints or impacts on Q4 gross margin and profitability that was recorded in the P&L.

In terms of what's in the RPO, I mean, there's backlog change, plus there's deferred revenue component of that, plus long-term contracts that we have not yet recognized in deferred revenue but where we have performance obligations remaining. So there's a mix of types of services and capabilities in there. And so we can take that. We can further go through that with you, if that would be helpful, so.

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**Operator**

We'll take our final question from Erik Woodridge (sic) [Erik Woodring] of Morgan Stanley.

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**Erik William Richard Woodring** - Morgan Stanley, Research Division - Research Associate

Maybe I'll just end the Q&A with a question on cash flow, right? Maybe how should we think about cash flow growth tracking relative to operating your net income next year? I realize you don't guide to it, but just any qualitative or quantitative thoughts that you can share there. And then any specific puts and takes we should be thinking about as we go through the year, either on a seasonal basis or just overall for the year? But that's it for me.

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

Yes. Look, we -- and Erik, welcome, by the way. But as we think about cash flow, we don't guide on cash flow, but if you remember, our long-term financial framework where we talked about adjusted free cash flow being at least 100% or better from -- of net income, I think that trend holds true. If you look at our historical performance, you'd be somewhere around 1.1 to 1.3 sort of ratios there over the last number of years. It's probably a reasonable proxy to think about for the coming year.

Look, I think we do have seasonal patterns in our cash flow. I think you realized that, right? Q1 typically is our weakest cash flow quarter. Q2 and Q4 have generally been our stronger cash flow quarters based upon seasonal patterns of revenue, and Q3 has been relatively a little bit softer. Those are historical patterns.

Having said that, I'll tell you that over the last few years, some of those patterns have changed on us given how demand has flown in the -- and given the effects of the pandemic. But I think, overall, we feel really good about our cash flow generation ability. If you look over the last 4 years, our -- on average, we've grown adjusted free cash flow by roughly 9% CAGR over that period of time while growing revenue at a 6% CAGR and growing EPS at a 16% CAGR.

So our cash flow generation, I think, is quite strong. I think the team has done a nice job of managing their way with the balance sheet or managing and discipline in the balance sheet. And so I feel good about our cash flow generation.

I don't know, Tyler, if you would add anything to that at this point?

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**Tyler W. Johnson** - Dell Technologies Inc. - Senior VP & Treasurer

I think you gave a pretty good overview. So no, Tom, nothing to add.

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

All right. All right. Thanks, everyone. We'll see you in 2 weeks in Morgan Stanley in San Francisco and Raymond James in Orlando and look for information from us on a technology-based discussion from Dell Technology World in early May.

That wraps it. Talk to you soon.

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**Operator**

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

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