## **DCLL**Technologies

Dan Knauff:	Hey everyone. Thanks for being with us. Before we start here I've just been asked to read a quick safe harbor statement. Dell Technologies statements that relate to future results and events are forward looking statements and are based on Dell Technologies' current expectations. Actual results and events, and future periods may differ materially from those express for imply by these forward looking statements because of a number of risks, uncertainties, and other factors, including those discussed in Dell Technology periodic reports filed with the SCC. Dell Technologies assumes no obligation updates forward-looking statement. This presentation may include information about non-GAAP operating income, which is not a measurement of financial performance prepared in accordance with US generally accepted accounting principles. Dell has provided reconciliation of the non-GAAP measure to the most directly comparable GAAP measure in slides caption, supplemental non-GAAP measures available on the company's fiscal year 22 third quarter results eventPage@investors.delltechnologies.com. That out of the way, I'm pleased to be here-
Jeff Clarke:	Wow. I don't think I've heard it done that quickly. Well done.
Dan Knauff:	I know. Yeah. I know everyone was really paying a lot of attention there. So, I got through it, but I'm pleased to be joined by Jeff Clarke, vice chairman and co- CEO of Dell Technologies. Jeff, thanks for coming in and being with us here today.
Jeff Clarke:	My pleasure. Thanks for having us.
Dan Knauff:	Absolutely. To start off, I was hoping maybe you could just talk about having just come off your third quarter results last week, can you maybe walk us through what you're seeing in terms of IT spending priorities and what you're hearing

from customers and maybe any differences you're seeing across enterprise, SMB and the public sector space?

Jeff Clarke: Sure. Maybe quickly to reflect on Q3. Q3 for us was a record quarter. We grew 21%. We had our ISG business, grew 5%. Our CSG business grew 35%. We saw growth in all geographies, all segments. So the business is performing at a high level, and we're pretty excited about that. And what's driving it is a consistent demand coming from our commercial customers. We've seen roughly six priorities that we've continued to track through this pandemic that continue to be reinforced. The first is, companies are working through how to modernize their environments and their workforce to the way we're going to work today and going forward. Secondly, they're looking for opportunities to simplify IT. I think many got caught in the early portion of the pandemic with more complexity than they realized, so simplifying IT is a priority. The third priority is multi-cloud. How do I deal with all of the cloud assets that I'm using both public private, some of those off premise, like a co-location center, and how does that play out?

> The fourth would be around data management, and all the data that's coming their way, what to make of it. The next one would be how to drive more insights, how to drive better business outcomes, and then lastly would be security. So if you think of those as the six challenges, and by the way, it's the same different priorities, different magnitude from the largest companies in the world to the smallest companies in the world. But those six generally resonate pretty consistently. In addition to that, what we see has happened is digital transformation has been accelerated. If there's any one thing the pandemic has consistently demonstrated is technology's never been more important and companies see that and have accelerated their digital transformation activities coming through the pandemic and light at the end of the tunnel going forward.

- Dan Knauff: And in addition to accelerating digital transformation with the pandemic, and just the increase in demand, we've also have seen one of the dynamics, which is top of mind, is some of the global supply train change challenges that we've seen with constraints impacting the electronics and technologies industry this year. Specifically I see, and some of the logistics bottlenecks that we've all heard about, how have you guys managed these challenges? And can you talk about your expectation for when we might begin to see things start to improve on this front?
- Jeff Clarke: Sure. Look, the challenges that we've all read about and have all experienced, they're not different for us. We're not immune to it. We have the same challenges that everybody else's talks about. I think what is distinguishing us is our model. We have the, we refer to as a durable, competitive advantage, the way that we operate. The way we operate, being a direct based company, a direct manufacturer, selling directly to end users is we think our model allows us to have greater insight. So we see where demand is going we believe faster than others. We have millions of customer contacts any given period. And the ability to take those customer insights and then put it into our planning machine,

which is we've digitized our supply chain over the past three years, we're able to model, we're able to do some scenario planning to understand what available supply we have based on the demand signal and then shape the demand.

Very unique to us. We didn't build it and hope someone will buy what we built. We build what customers want, and we can help shape that. And then we have an R and D model that has spent a fair amount of years refining itself, that we have a lot of leverage and reuse. So there's a lot of commonality in the building blocks of our products. That's in PCs, notebooks and desktops. That's in servers, that's in our storage products. The transformation that we've gone through in the past four years has allowed us to do that, which then leads to flexibility, which then allows us to have less complexity. In this kind of environment, complexity kills. We have less complexity, it's allowed us to be more nimble. You couple that with a heritage of running a high paced high velocity supply chain that prides itself on being nimble and fast, long term supplier relationships. That's how we believe we've navigated the environment.

The issues are real. If you're buying components or need components out of the old eight inch network, Silicon network, it's problematic. If 12 inch 60 nanometer, 55 nanometer, 40 nanometer, it's problematic. If you need products and whether it's audio amps, [CodeDX 00:05:58], TCONs, TPMs, USB type C controllers, power ICs, driver ICs, MOS vets, et cetera. Those are all challenged pieces of Silicon. And, I don't see that going away anytime soon. But the caveat, as long as global demand stays in the same approximate zip code that it is across all industries, the world's desire to put more Silicon and its products has never been higher and it continues. And there's not enough new capacity coming online in the near term to fulfill that need. So I think my view is we, or through this environment or into this environment all through next year.

- Dan Knauff: One of the other things that the supply chain has been impacting is component cost, and we've seen component cost rise this year. Can you talk about how you guys are navigating the inflationary component cost environment and your expectations for component cost as we begin to look into next year?
- Jeff Clarke: Sure. I think in our earnings call eight days ago, we made a reference that the quarter over quarter cost increase in our environment was the largest the company has ever encountered. So it was inflationary in Q3. We believe cost will be inflationary in Q4. How we're navigating that is clearly trying to price in advance or knowing that the cost is coming and getting that pricing in position. I think one of the things that we talked about was with an elevated backlog, even pricing with the latest cost you get trapped with what you sold at the previous price, but you're fulfilling at the current cost. And that's been sort of the delicacy we've been driving through or managing through. I think largely have done a good job at it, but it's, I think going to remain a challenge. And particularly when you look at the commodities that drove it in Q3 were DRAM, SSD, displays, logistics. It's the same culprits in Q4, logistics, SSDs, displays, batteries and some other technologies.

The logistics one, I think I even used the word on our earnings call is a wild card. Our logistics costs have gone up tremendously. For several reasons, one, rates are generally up. You don't have to look very far to understand that sea rates are up, or sea freight rates are up. Air lift capacity has been challenged therefore air rates are up. So rates are up. And then the mode of transportation for us has changed.

Typically we have a nice blend between air and sea. We have more air because factories are running hand in mouth. So our inbound freight costs are up. Our expedite freight costs are up because we have to move more material through the air. Which has allowed us to navigate the very supply chain challenges we talked about earlier, but add cost. And it's now being able to price that in which we have, the prices that are in effect today are our best estimate of our cost through the quarter. As we head into next year? I think it's going to be a challenge. I do. I think some commodities will go through a period of decline while others offset it. I think that's the environment that we're looking to or looking into for next year.

Dan Knauff: Maybe digging into some of the company specific fundamentals for Dell, and starting with the infrastructure segment, can you talk about what you've seen in your server business this year? Your expectations as you begin to look into next year for this business? And then kind of bigger picture the durability of demand given the rising rate of public cloud adoption?

Jeff Clarke: Sure. Look, we just reported, as we've been talking about the fourth consecutive quarter of server growth. Memory serves me right, 3% a year ago, 9% Q1 of this year, 6% in Q2, 9% of the just reported quarter. We think the characteristics driving the server demand are durable. If you go back calendar 18, the server industry grew significantly. Our server business grew 28% and fiscal 19 equivalent to calendar 18. There was a year of digestion in calendar 19. We expected a build out in 20. The pandemic hit that was deferred. We're seeing that build out happen now, calendar 21, fiscal 22, and then it's been amplified. So we had the plan build out. And then on top of that, what we've seen is the very issues that I talked about a little earlier is digital transformation has been accelerated. Customers that were further along in their digital information, generally whether the pandemic better than those that did not, or had not invested as much. So those companies that were leading, what we call a digital transformation leader are investing more.

Those companies that were behind are investing more to catch up and you have this massive acceleration in digital transformation projects, on top of what was supposed to be a plan build out. Then if you build on top of that, we believe the multi-cloud phenomenon that I talked about earlier is live and well. 92% of customers have multiple clouds. Average is five. We think that's just icing on the cake. So we don't think it's a public versus private. We think it's going to be public, plus on prem, plus off prem [co-lo 00:11:23] Plus what we believe is the third premise called the edge. So multi-cloud, plus edge, plus 5G, plus what we believe is this data era that we're in, where data's being created everywhere, is going to require more compute resources. So we're probably more bullish than the average industry pundit on the opportunity that's in front of us in the compute side of our business.

Dan Knauff: Switching over to storage within the infrastructure segment. I think this part of the business has more been more mixed over the last year or two. So can you walk us through some of the dynamics of what's been going on in the business and your plan to drive consistent growth and storage going forward?

Jeff Clarke: Sure. Mixed you're maybe being a little kind. I am pleased to say that storage returned to growth in Q3, the first time in a while. But there's some really, I think good underlying characteristics of the business. Many of you have heard over the past four years we've gone through a transformation and rebuild of our storage business. We've gone from a very complex product line with a lot of repetition and redundancy into a more common platform approach. We've gone from 88 platforms down to 20, incredible leverage. Most of the engineering organization now is spending its time on innovation rather than replicating work. That's beginning to take fold. Well, why do I have confidence it's taking fold? Mid-range, the efforts were targeted around mid-range storage. And mid-range storage is important because it's 60% of the market price spans five through eight, \$25,000 to \$250,000 raise is what we're talking about here.

It's the area that we had lost most share in. Power store, which I think I've spoken to many people over the years, was our answer to change our trajectory in the mid-range, the last four quarters in mid range. We agreed 23% last Q, or excuse me, 8% last Q4, 23% in Q1, 17% in Q2, and then 18% in the last quarter. That's pretty exciting. We now have a trend of four quarters in a row of growing orders in our mid-range business. We had to translate orders into the PnL, will come to that in the moment, but the notion of our storage business is growing and we're seeing it in the mid-range. And we took share in the last reported quarter, which was Q2 190 basis points of mid-range storage share. It gives us great, I think, or should say, increased confidence that we're beginning to turn.

The priorities in our storage business are consolidate the high end, which we have the largest position in the marketplace. Innovate and take share in the mid-range, which power stores the innovation, taking share it's happening, and then lead in the transition of HCI and software defined storage, which we have the leading asset in that category. So I like where we are. We need to see it demonstrated so it's not mixed results your words, where it's consistent growth in our business. But I like our hand. Number one player in the marketplace. Number one player in the high end, mid-range, entry, unstructured, object, HCI data protection, larger than number two, three and four combined. Sometimes we forget that as an industry. And now we have an innovation engine that has been geared towards building upon that, so we can reclaim some lost share while taking advantage of our leadership positions in the high end, as well as in the new modern architecture HCI. So I think it bodes well for the future. We ultimately have to put wins on the board here. 1% growth, can return to growth, more to do, but I'm optimistic.

Dan Knauff: And you mentioned it in, I think for a couple guarters now you've talked about some pretty nice growth rates in the mid-range and some of the other areas, the portfolio. I guess the one area that seems like it's still a bit of a headwind is kind of on the higher end. Can you maybe talk about some of the dynamics on the high end, in terms of the cyclicality there and how you think about this playing out going forward? Jeff Clarke: Yeah. In fact, I'm often asked, well, if you throw out all those numbers, all those things growing, well, what's not growing? Well, what's not growing is the high end. And it's a large portion of our business. We have, I think the trailing 12 month share in the high end price bands. We have a little over 43% market share. So when that business doesn't grow, or that segment doesn't grow, we struggle to grow. And it's a large percentage of our business. So that has been the headwind. And it's a very cyclical business. We saw pulling of demand in the first half of the pandemic. So, back in the first half of 2020, and we've been in this trough sense of a decline. We believe there's a mainframe refresh cycle that occurs in the first half of next year that generally drags the high end storage with it. So that's the cyclical nature of that business. Underneath that, as you mentioned, I talked about the mid-range performance rattled off a bunch of numbers. I think we also talked about in our Q3 earnings work, our HCI business grew 47%, our data production business group 26%. So again, there are these green shoots of growth in our business. We have to translate that orders demand into PnL revenue, which is the 1%. And that gap is what we are working on as an organization. Dan Knauff: One of the other big things that you guys continue to highlight is this multicloud paradigm that we've shifted into. Can you expand on the multi-cloud portfolio that Dell has today, and how you guys help customers manage workloads and gain the insights they need across multiple IT environments? Jeff Clarke: Yeah. Maybe a little bit of background as well, because I think oftentimes we're caught up in even one of the earlier questions about public cloud momentum, and public versus private. That's not the discussion anymore. And then we got, well, let's talk about hybrid. That's not the discussion anymore. The discussion now I have with customers is what workloads should be on what clouds, and no doubt the public clouds play a role. But what customers have also determined is running private clouds, whether on their premise or on a co-location center, is a very important part of their portfolio. And then as I mentioned, we believe a third premise, the edge, is going to evolve here, is evolving as we speak. So now you have multiple clouds, you have, in some cases data silos, you have inconsistent service SLAs between these clouds. You have workloads stuck in some clouds. How does a customer navigate that? We believe we have a set of solutions that allows customers to navigate, manage, automate, how they build in multi-cloud environment. And you're beginning to see us put the assets in place to do that. Our power scale, we, the

operating system for power scale is OneFS is now, has been available at GCP.

We just made an announcement with Amazon on their container strategy. You have our data protection asset. There's a virtual edition that exists in the public cloud, you've seen the work that we're doing with Azure. You've seen the work that we're doing with VMware. The work that we just announced with them are APEX cloud services with VMware cloud. I know it's a mouthful that we announced that, and VMworld is a multi-cloud answer. You'll see us continue to build out that portfolio that allows us to help our customers navigate the complexity that's going to grow with many, many clouds in their environment. Dan Knauff: You've also talked about some of the new growth opportunities for Dell at, I think you just mentioned it, at the edge and also in the telecom space. Can you help the audience maybe understand what the opportunity is for Dell there, thinking about market sizing, and then why you guys are well positioned to succeed in this area? Jeff Clarke: Sure. At a macro level, our core markets are roughly 650 billion in size growing at 3%. We have identified a series of adjacent markets which are roughly the same size, 670 billion to be specific, growing at 8%. What's in that 670 billion opportunity? telecom and edge are two of the biggest that you just described. The edge marketplace is like \$114 billion growing at 16, 17%. And it's the natural evolution of what's happening in our industry. Digital sensors are being put everywhere. Data's being collected on everything. Data needs to be processed where it's collected in a real time to drive better business outcomes. You can't afford the latency to move it up into a series of higher level clouds if you will, you have to triage the information where it's created. We believe that presents a huge opportunity for our company. Think about bottom of mind, an oil platform, a smart city, a smart hospital, a smart factory, all of that data being collected, all of that data needs to be stored and processed. We think that's going to happen locally. Back to this notion of a highly distributed environment. That highly distributed environment plays to what we do well. We ship servers all over the place to many customers in many places, not just to a handful of sites. Then there's the

architectural component of it, which we've laid out a series of offers that we announced throughout the fall that allow us to build a solution. Because what customers are challenged with in the edge is marrying the physical world with the digital world, and then also trying to better understand the siloed nature of that and the fragmentation. They're looking for someone to bring a package solution together. We think we can do that.

On the telecom side, it's 110 billion opportunity. Not growing particularly fast, but it's going under massive transformation. The massive transformation is with 5G, CSPs are looking to modernize, virtualize, containerize, to bring a cloud operating model on standardized technology into their environments. They're opening the ecosystem. They're just aggregating the architecture, which allows us then to put industry standard components into areas that we've never participated in before. So it's a door opened that never existed. 70% of that opportunity is in the radio. The radio is going to be disaggregated. You may have

heard of industry buzzwords like O-RAN. O-RAN is the activity that disaggregates the radio that puts it in the standard building blocks. That's what we're focused on.

- Dan Knauff: Maybe we can switch over to the CSG segment. And as we look out into next year, can you talk about maybe how you see PC demand playing out? I know, at the analyst day you outlined some longer term growth opportunities for CSG. And I'm just curious if you could touch on what gives you confidence that this business can continue to grow after the elevated levels of demand that we've seen over the past year or so.
- Jeff Clarke: Sure. I think you have to look in the rear view mirror a little bit. Pre COVID, the industry was around 265 million units for five years. It was not growing. We now have three years of growth this year. The industry will ship somewhere between 340, 350 million units. That's a pretty significant uptake. We think the market grows from there because we've reached new levels of usage. What's driven new levels of usage? To do anything from anywhere, environment of work from home, game from home, learn from home, buy from home, entertain from home. Do whoever it is you do from home. What we believe is real. And it's driving sort of in a... Putting the PC back in front of people as an essential device in their lives.

We believe because we're doing things in different places and remotely, it drives a higher mobile content, a higher mobile content drives a faster refresh rate or replacement rate if you prefer. We believe that when people go back to the offices, for example, we will open our doors in countries that aren't open today. On January the 4th, people will go back into offices to old computers. Those old computers aren't modern, to work in the modern work environment we've created over the past 20 months. We think that's an upgrade cycle.

We think that we're moving towards an environment where we used to call success one PC per household. Now it's one PC per person. We think in today's world, all children need to have a computer to be equally educated. There's a big opportunity. There's still many countries around the world where the PC penetration rate for children, the youth isn't significant enough. So you package that all together, you take a 2 billion unit TAM, with 700 million units that are four years or older, add windows 11 to it now, and you think we have a recipe for growth. We're a little ahead of the industry pundits, but we're pretty excited about the growth prospects that this continues to grow from this 340, 350 range that we've talked about that we land at this year.

Dan Knauff: If we take a step back maybe, and think about the portfolio as a whole, and the position that you guys are in now following the VMware spinoff, and special dividend, and sale of Boomi, with an investment grade balance sheet, you now have a lot more flexibility from a financial standpoint. And one thing I would be interested in talking a little bit about is just the way you're thinking about M & A for Dell going forward. What areas do you want to focus on and what are the

financial factors that we should maybe think about when we think about deal potential here? Jeff Clarke: Sure. And, I know Tom Sweet's listening, so I have to pull my inner CFOness out of me here. We've been investment grade for 29 days. So it's, I think sort of an achievement that we've been on and that's clearly a targeted and stated goal that we will remain at investment grade going forward. We rolled out in September, a capital allocation strategy that we communicated to the broad investment community. Had roughly three big components, right? A dividend component, a stock repurchase component and a targeted discipline M & A component. We will use M & A in a very targeted fashion aligned to our business strategies. I think I even may have offered a kind of a recipe where those would be, or zip codes. We call them the big six technology trends that are undeniable in our marketplace. Multi-cloud, Edge, 5G, telecom, data management, AI, ML, and security. That's going to be the zip code of any targeted M & A we do, that'll be aligned to the business strategies. I have none to announce today. 29 days post the close and spin, but it is a tool and capability that we will have, that we haven't had the same opportunity in the past. So I think that is something you will see, very disciplined, very targeted, very specific to our business strategies. Dan Knauff: Got it. And, another shift that we've been seeing in the broader buying patterns is the market is, is the move to consumption based pricing and consumption based models. You guys have obviously introduced APEX, and maybe you can talk to the audience a little bit about why APEX is differentiated from what some of your competitors offer. And then just as you think about the shift in buying, the magnitude of= the shift, and as you go forward, how much of a transition do you think we ultimately could've move to over the next several years in terms of the model in which people are buying? Jeff Clarke: Sure. I think a couple of things that we've learned along the way. One, we always had a more manual process to be able to sell a consumption model, most notably through our DFS component or arm of the company. But very one off, very custom, what APEX did, and what it's done for us is to be able to do that at scale. Being able to position the company to be able to sell its entire portfolio over time as a subscription. As we launch the products or the offers in early May, and what we've learned since, is that thesis, if you will, of being able to run a subscription model, sell our products and offers as a service, has been validated by our customers. They want more, they want a broader part of the portfolio, and we've seen success particularly in some of our custom cloud solutions as part of our APEX offer. So we're very encouraged about the prospects of where we can go with as a service in our company. As far as how far this could go, well customers are ultimately going to dictate that. If you look at some of the industry literature out there, 30, 40, 50% of the infrastructure business by 2025 could be consumed as

a service. I see a path to that. I don't think that's that far to the question, but

ultimately it will be what customers want. What I do know is we're going to have an offer that allows customers to buy in the historical way, and we're going to have an offer that is really optimized to bring a modern consumption experience, a modern delivery of our features. So continuous integration and continuous delivery, and a cloud managed service model. Those three components that largely make up APEX and its full flare, we believe work across our entire portfolio and where the investments are going in the organization.

Dan Knauff: Maybe going back to the financial model for a second, and thinking about operating margins, obviously been very strong in CSG and the one area that you've talked about trying to drive back into growth is storage. Where, obviously have a lot of leverage being the highest margin area of the business. If we think about some of the financial targets that you've put out there in your analyst day, can you talk about some of the puts and takes and, I guess it could be viewed arguably as some, as conservative targets. Can you talk about what you've baked into that, and how you're thinking through that?

Jeff Clarke: Yeah. I won't comment on the conservative target comment. Look, and in our mind, the way we look at this, the nearest term lever to change the fundamental operating profit of the company, gross margin, is storage business, storage growth. PC business continues to grow well. It's performing well. I just mentioned servers has grown four quarters in a row. I think the prospects of servers growing are, it's a pretty durable market out there. The question that the likes of this room has that we hear consistently is can you grow storage? Because we all know if we grow storage, the margins are better. And it builds in the nearest term, the quickest way to improve the operating performance of the company. So that's job one. Job two is to build growth. We made a commitment during our September meeting about growing ahead of the marketplace.

> So grow and consolidate, and modernize in our core businesses, big opportunity. But then these adjacent businesses open the door for growth. They're generally pretty attractive marketplaces. So telecom being one of those as we talked about edge being in another. So, building scale as quickly as we can and these new growth opportunities provide operating leverage. And the third one we just talked about, overall, the as a service financial model, once you get through it is quite attractive. And drawing on the fact that you can begin to see a predictable revenue stream, you get the offers to that you put in place used at the right rate, it's financially accretive, but that's a longer term place. If you think about it as the nearest term of storage growing in the new things is sort of the next stage. And then over time, the longer transformation as a service, that's sort of the recipe for operating margins across the company.

Dan Knauff: Terrific. Unfortunately I think we're out of time. We're going to have to leave it here, but Jeff thanks so much for being here with us.

Jeff Clarke: My pleasure. Thanks for having me.

Dan Knauff: Good.