

Goldman Sachs 2025 Communacopia and Technology Conference

Fireside Chat Transcript

IBM Participants:

James Kavanaugh – SVP and Chief Financial Officer

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MANAGEMENT DISCUSSION

James Schneider, Goldman Sachs: Good morning, everybody. Welcome to the Goldman Sachs Communacopia and Technology Conference. My name is Jim Schneider. I'm the IT services analyst here at Goldman Sachs. It's my pleasure to welcome IBM to the stage today and CFO, Jim Kavanaugh. Welcome, Jim. Thanks for being here.

James Kavanaugh: Thank you very much for having us. Appreciate it, Jim.

James Schneider, Goldman Sachs: Jim, I think we're still kind of in an environment right now where I think many would say there are significant macro risks. But I think it's also fair to say your tone on recent conference calls kind of changed a little bit in terms of being more positive on the macro situation. And then at the same time, it seems like your discretionary spending in some areas in terms of IT spending remains weak, and you have your finger on the pulse of the Fortune 500 as much as anyone at this conference, I think, given your kind of broad exposure across a bunch of different technology areas. So, can you maybe sort of unpack what you're seeing, how you see the tone for overall IT spending, and what you see for IBM?

James Kavanaugh: That's a great place to start. In all my conversations earlier today, it's been at the heart of each of the investors about the macroeconomic environment. But I will tell you, Arvind opened up our earnings call here in July about six weeks ago with an overarching statement around the macroeconomic environment that I think has caught many investors by surprise and, in reality, specifically changed one word. He went from cautiously optimistic to optimistic. And I think if you really take the backdrop from that, it really aligns to what we've been saying for quite some time right now around how technology is the source of competitive advantage in the world. It is the driving force behind global business and economic growth.

I would tell you, I do a lot of peer-based discussions. And over those discussions, each of those clients talk about technology and what it could do to their business. Number one, definitely scale businesses. That's what technology does, right? Two, it creates a way to drive efficiency and productivity that creates financial flexibility to invest in your business overall for growth. That's what every CFO is looking for. But, three, especially very pertinent today with the explosion in GenAI is it also allows you to capture and seize new business market opportunities, new sources of revenue growth over time. So, when you take a look at that, that really aligns to how we've laid out our strategy in IBM. And it's the four convictions we've been talking about for quite some time. One, technology is the only deflationary force. Two, AI is the most powerful form of value creation. Three, hybrid cloud is the most prevalent architecture for today's GenAI area. And, four, open source. It's a new paradigm of innovation.

And that has really influenced I think what Arvind was talking about, about moving from cautiously optimistic to optimistic, because if you look around the world, the power of technology is embedded in many global business and economic agendas. Look at Japan, reindustrializing a nation and digitizing through technology. Southeast Asia, many of the markets are growing double digits at real actual rates. You look at Middle East, they're looking at diversifying their economy by leveraging technology. And across Europe, remarkably resilient right now. And when you get underneath it, they're addressing challenges around supply chain, around cybersecurity, around defense through technology. And last, North America, they are investing significantly to drive the leadership position in AI. So, I think that's what's behind the movement to optimistic.

James Schneider, Goldman Sachs: Maybe unpack this further, what areas of spend do you see being strong? Which ones are still weak or muted at this point where people are cautious? Is this, you think, more of a timing thing, and it's a few months before clients start to kind of restart spending in discretionary a more meaningful way? And maybe what markers are you sort of watching to determine when we see an inflection or a turning point?

James Kavanaugh: Yeah. If you just build on that answer from a macro perspective, I think right now with the explosion of GenAI, by the way, the tighter linkage of hybrid cloud and GenAI, which is at the heart of IBM's strategy, it's who we are as a platform-centric company, I think it's generating tremendous interest in hybrid cloud modernizations, in agentic AI specifically around orchestration and agents. Remember, there's an explosion in AI models that are creating an explosion in AI applications. I think we said on our Investor Day that we think there's going to be a billion new applications being generated over the next handful of years. Think about that. Each of those applications are going to call on multiple agents, so enterprises are looking at how do they build a framework to manage, govern, monitor, secure, comply, and what's happening with that. And then automation is at the core of driving efficiency, productivity to free up investment. Data is going to be at the source of everything. So, I think those are major areas that we're going to continue to see incremental TAM, incremental growth factors overall.

Fueling then that investment, models are going to change. Like anything, when you have a major technological inflection shift, I always talk about this industry for decades and decades and decades follows a curve of innovation, commoditization, innovation, commo – you're going to get – disruption in major technology shifts is going to cause people to adjust business models and operating models that ultimately reestablishes a whole new set of TAM, a whole new set of growth prospects. But those areas, I mean, I would tell you, customer application is going to move to code modernization through GenAI. I would tell you, BPO is getting disrupted tremendously. Seat-based models, anything delivered with time- and material-based contracts, the whole business models are moving to outcome-based. They're moving to share/win models, and that's where some of the spending labor base, discretionary staff augmentation. Those are some of the areas, Jim, I would talk about.

James Schneider, Goldman Sachs: That's very helpful. Maybe you'll pivot right to Software because I think that's at the core of many investors' question whenever I talk to investors about IBM and its ability to again deliver growth there. So, I think it's a pivotal factor as well for your broader business, as you pointed out before. In Q2, software was about in line with the Street. But growth in the first half is running a bit below your full-year target of 10% growth. So, as we look to the back half of this year, what gives you the confidence of achieving that kind of full-year growth target?

James Kavanaugh: Yeah. Great question overall, and it's been at the heart of all of my conversations this morning; was to talk to about 100 different investors over five sessions this morning. IBM is a software-led, hybrid cloud, platform-centric company. As software grows, as the market grows, and as we compete, the IBM sentiment and valuation move. Also, behind that software, about 45% of IBM's revenue, about two-thirds of our profit in cash, 80% of that software book is high value-recurring revenue that carries high marginal profit in cash. And it's a business that's operating north of a Rule of 40 already, which we think we can get this to a Rule of 50 in a few years. And it capitalizes on a very attractive economic multiplier around our platforms. Every time we land \$1 of a platform, hybrid cloud, AI, we get \$3 to \$5 of software. So, it's an integral part of that strategy.

Now, Jim, to your point, we entered 2025 from a position of strength. And then we held our Investor Day in February. We talked about our Software growth model. And just let me reiterate what that is. Red Hat, Hybrid Cloud, mid-teens, Automation portfolio growing low double digits, our Data portfolio growing mid to high single, and Transaction Processing growing at mid single digit. And that was driven by how we entered the year. One significant investment in bringing new innovation to market that we shared at our Think conference. Two, the strength of our recurring revenue base, \$23 billion book of business growing double digits. Three, Red Hat momentum. Four, our GenAI book of business, which we just exited second quarter with over \$1.5 billion book of business inception-to-date. And then, finally, M&A growth synergies and how we've been transforming the portfolio and optimizing it to higher end-growth markets.

So, given this is the heart of the question today, let me spend a couple minutes breaking it down about how do we deliver that approaching double-digit software growth model. And I'm going to do it with relation to that investor growth profile. So, when you look at it, Red Hat. Red Hat's model, mid-teens. We accelerated growth in the second quarter. We deliver 14.5% growth, strong double-digit ACV bookings with a CRPO that's growing mid-teens overall. We've got great growth prospect opportunities in front of us today that will be long-term growth factors.

What am I talking about? Virtualization opportunity, GenAI opportunity, containerization of hybrid clouds right now in architectures and automation. And when you look at it, we've got a Red Hat OpenShift book of business that now exiting second quarter is \$1.7 billion growing high 20%. By the way, that's 15x multiple since the time of pre-acquisition. So, we feel pretty good about our software

book of business on Red Hat, and we think for the full year we're going to deliver pretty consistent to 2Q, deliver a mid-teens growth, and that's going to deliver 3.5 points of that overall software growth. So, that's one aspect.

Second, Automation; model is low double digits. When you look at through the first half, we're executing above model. That's at mid-teens. We're off to a tremendous start with HashiCorp. Couldn't be more excited about that acquisition. In the first full quarter, we doubled our bookings growth already in 90 days. Oh, by the way, we closed the integration of HashiCorp, over \$6 billion acquisition, in 60 days. We have never closed an acquisition of that size that quick. Why is that important? Off to a fast start, we entered the second half with a pipeline that's 3x up year-to-year. So, I think it talks and reflects the synergistic value of that HashiCorp and what it means to our automation portfolio. So, you bring automation for the full year, we think we're going to execute above model. We're going to grow mid-teens to high teens overall. That will contribute about 4 points to overall Software growth.

Third, Data. Data model is mid to high single digit. We're executing on that. Through the first half of this year, we just printed 7% overall. We're very excited about the GenAI momentum and acceleration around our agents, around our AI middleware, around our orchestration layer. We're seeing nice M&A synergy with data stacks overall and that new innovation we'd bring to market. We think data is going to deliver on its model. That will deliver another 1.5 points of growth to software. So, those three alone already get you north of 9%.

Then you get to TP. TP, the model is mid single digit. We're operating below model in the first half. This is entirely driven about the strength of what's happening with our mainframe launch in the second quarter. Clients are definitely prioritizing hardware purchases over software, and I would tell you that's a very good thing. Why would I say that? If you look at it, in the second quarter, 18 days' worth of business, our z17 with all the new innovation we plowed into that, with GenAI on the chips, Spyre inferencing, Quantum Safe resiliency security, we delivered 67% growth, and we shipped over 100% MIPS year-over-year in 18 days. That definitely was impacting our software because clients were prioritizing buying hardware versus buying software. By the way, no different than if you go back to our last cycle of z16, followed the same dynamics.

Why is that important, and why am I encouraged by it? Because the way we monetize TP software over the life cycle of the mainframe because it's a platform play is TP is monetized through clients consuming installed MIPS opportunity in the marketplace. We've got 125 million MIPS in the marketplace that are driving over 70% of the world's transaction volumes in terms of value. That is a tremendous TAM opportunity around it. Now, when you look at it, TP, the more capacity you put in market, shipped over 100% in the first 18 days, the more monetization opportunity you have, the more price opportunity that you have, and the more value creation opportunity you have. So, all in all, we feel pretty good about TP. It'll deliver about 0.5 point of growth this year. But we think – look at

what happened in z16 year two, year three, we accelerated that TP growth, and we're ahead of that track right now. So, we're excited about the future.

James Schneider, Goldman Sachs: Very good. Want to ask you about the sort of containerization versus virtualization space. Broadcom did a VMware acquisition. That continues to kind of spark debates about the technology future between those two competing technologies. What are you seeing from enterprise customers in terms of are they rethinking their infrastructure strategy on that front? And given the opportunity for IBM in the wake of that acquisition, how do you think you feel about the sort of revenue capture opportunity in client conversations? Are they progressing better or worse or the same as they had in the past couple of years or so?

James Kavanaugh: Yeah. Interesting how you phrase the question with regards to the Broadcom VMware acquisition. But I think what you see – what you look at is I'm a firm believer, and any disruption creates an opportunity. And it definitely is accelerating every enterprise, rethinking their platform architecture strategy. But I think when you take a step back, this plays right to the strategic thesis of why we acquired Red Hat. And if you remember back, this is 2018 when we announced the Red Hat acquisition, we had a very distinctive point of view. We said at that point in time that the world was going to be hybrid multi-cloud. And we once thought at that point in time, Jim, world was going to be 100% workloads were moving to public cloud. And we also said containers were going to win. And we put – in addition to that, that we saw the synergistic value of hybrid cloud and AI being tightly integrated a lot. That's how Arvind pivoted the strategy of IBM to a hybrid cloud AI-based company. And when you look at it, the market I think has moved our way.

When you look at today, hybrid cloud is the most dominant architecture. Over 70% of businesses run hybrid. And based on a McKinsey study, 95% of businesses are going to run containerized applications with the explosion of GenAI. So, when you take a step back, think now today's IBM, IBM plus Red Hat with its OpenShift containerization strategy plus HashiCorp, we have the de facto end-to-end industry leader, hybrid multi-cloud platform. 93% of the Fortune 500 companies leverage and buy IBM's hybrid multi-cloud products and offerings. And Red Hat, look what we've done in five year: 2.5x the revenue, 15x Red Hat OpenShift over time.

So, I take a step back, and I would say to the investors today: what is the opportunity set with regards to virtualization versus containerization? I would tell you, give or take, it's about \$5 billion worth that play. That was VMware's x86 virtualization. Do you think we could capture 10%, 20%, 30% of that opportunity given the industry-leading capability and the differentiated value proposition we bring to market? Think about how much substantial Red Hat sustainable growth profile that would be. By the way, early in the cycle, a few quarters in, we've already closed over \$300 million worth of book of business on Red Hat OpenShift with regards to containerization. We entered the second half with a pipeline that's north of \$500 million, so we feel pretty good.

By the way, Jim, as I told investors this morning, this is a long-term growth vector opportunity. This isn't just a 2025 statement. Why? We have a differentiated value proposition, Red Hat virtualization, containerization, plus our AI capabilities. When you think about our watsonx capability, Red Hat OpenShift, a consulting business at scale do application modernization, pretty powerful, and that's what clients are seeing across many different industries with that \$300 million book of business already behind us.

James Schneider, Goldman Sachs: Yeah. Interesting. I want to pivot to AI. You mentioned in the answer to last question, but we've seen a lot of AI-related product announcements from IBM even this year: watsonx Orchestrate, RHEL AI, Granite models, Consulting Advantage. And then, of course, the z17 capabilities. Can you talk about IBM's overall strategy around AI? Maybe contextualize all of the different product announcements with what your true aim here is.

James Kavanaugh: Yeah, yeah. First of all, we run an integrated platform-based strategy around a GenAI-based platform. And I would tell you, we're very pleased where we're at very early in the cycle, just exiting first half with over a \$7.5 billion dollar book of business. About 80% of that consulting, north of \$6 billion book of business that I would put up against any SI provider right now. And second, about 20% of that book is software over \$1.5 billion book of business.

But, Jim, to the heart of your question, we spent time at our Investor Day earlier this year talking about the enterprise point of view. Again, we're not talking consumer but enterprise point of view around GenAI and the critical pain points that are going to determine the rate and pace and scale and adoption. And I would put it in three buckets. Number one, cost. And that is both technical and operational costs. Clients, enterprises are looking always for more efficient solutions. Two, complexity. And I don't just mean models. We've got explosion in models, right? I mean, data applications deployed in hybrid environments with security is a big challenge.

If you think about it, the explosion of AI models, what, there's 2 million models I think I read over the weekend out there in the marketplace today. I already quoted, over the next few years, there's going to be 1 billion-plus new applications that are going to be developed. Think about those applications that are going to be calling out multiple agents, enterprises, complexity enterprises like IBM, which I could speak from experience running IT architecture underneath my role in IBM. We have to have a framework to manage and govern this explosion of GenAI.

And third is around expertise. I would tell you, in enterprise, deploying GenAI is not easy. You've got to understand and have innovative technical depth, but you also have to have domain and industry knowledge to embed GenAI into workflows of how you run your company. So, we set up a AI strategy in IBM to address those critical pain points and also deliver a differentiated value proposition.

It begins with, one, open innovation architecture. We believe in that. We have always, since the Red Hat acquisition, been investing in open source. We believe that is the fastest, most innovative way of leveraging the developer community. Two, hybrid. IBM is the only company that can build, deploy, and manage software in a hybrid cloud in AI arena. Three, multi-model. The world is going to operate. Foundation models, large language models, fit-for-purpose models, and we offer all facets at 90% better cost efficiency. Four, and this is going to get front and center to this explosion of GenAI, is orchestration. I talked about this enterprise framework needed to govern and manage. And, five, last but not least is domain expertise. We are the only company that brings an innovative tech stack, plus an ecosystem partnership with a consulting business at scale, with domain expertise, and with a Client Zero case to sit in front of customers and talk about how we're disrupting ourselves to reinvent the way we run our company.

So, we built a strong platform with a full suite of opportunities, everything from the AI platform to data services to AI middleware to agents to orchestration to AI and infrastructure on the mainframe right now to a consulting business, and we can monetize value across the board. So, I think there's tremendous opportunity for us to capture incremental TAM and growth prospects as we move forward.

James Schneider, Goldman Sachs: Yeah. And then maybe want to touch on another area of innovation for IBM, and that's Quantum. You've kind of been quietly making progress on your Quantum road map. Maybe just give investors an update on where you are in this timeline, what the early use cases for Quantum adoption, and when should we think about IBM's positioning in the market and when that becomes a meaningful revenue generator for the company?

James Kavanaugh: Absolutely. And thank you for asking the question. We are extremely excited about the emerging opportunity around Quantum. In fact, BCG did a study that we shared at Investor Day that we think, at scale, this emerging technology can create \$500 billion worth of value creation in the market, so a huge TAM opportunity, and we believe we have an industry leadership position right now. We've been investing in this for almost a decade right now. And we got a first-mover advantage overall.

When you take a look at use cases, we're into almost hundreds of use cases already, Jim – that might surprise you – across many different areas: aerospace, automotive, around AV, fluid dynamics with Bosch and Toyota; around financial services, around risk management, market simulation, fraud, AML, working with companies like Wells Fargo, HSBC, Crédit Mutual; around high-tech areas, around catalysts and materials, working with companies like Bosch and Mitsubishi Chemical; around energy and utilities, around solar, battery development, working with companies like ExxonMobil, E.ON, Woodside; and around healthcare, working with companies like Cleveland Clinic, Moderna on drug discovery. So, there is already tremendous excitement and real-world examples already around use cases.

But let me take a step back. Why are we so excited, and why do we have this first-mover advantage? We're building a platform-centric strategy around Quantum, starting with an IBM Quantum hardware platform; by the way, the most performant in the industry today. We have today over 75 Quantum computers in production scaling. Put that in perspective, that's more than the entire industry combined, yet a significant scale, speed, and cost efficiency point. On top of that hardware platform, we're building an IBM software Quantum platform that is Qiskit. By the way, very analogous to what NVIDIA did around GPUs with CUDA. This is becoming the de facto software platform for Quantum. In fact, today, based on third parties, it's the most built-upon software platform by a factor of four. So, we have a very good head start.

And then finally, on top of that software platform, we're building out an IBM services and ecosystem, leveraging the IBM Quantum Network, over 300 partners across academia, business, and government. And to your point, Jim, it might surprise many of you, inception-to-date, we've already eclipsed \$1 billion worth of bookings around IBM Quantum. So, we feel very good about this future. And to your point about technology milestones, we've been very transparent. We've said we believe and we are on track, by 2026, we are going to demonstrate Quantum Advantage and, by 2028, we are going to demonstrate the first error-corrected IBM Quantum Computer.

That's why we believe and we have said publicly we think Quantum is going to be scaling commercially by the end of this decade.

James Schneider, Goldman Sachs: Very interesting. Maybe want to touch on consulting for a second because that's an area where IBM's growth flywheel depends on multiple legs of the stool, if you will: software, infrastructure, consulting. But we've seen headwinds in consulting for some time now across the broader industry, not just IBM. So, what strategies are you employing to ensure this business can kind of regain momentum once a broader discretionary environment starts to recover?

James Kavanaugh: Yeah. Consulting, integral part of our overall platform-centric strategy, right? Why capitalize on very attractive economic multiplier? Every time we land a \$1 a platform OpenShift, watsonx, GenAI, we add \$6 to \$8 of consulting business. Second, it drives scale and adoption of our platforms, and it pulls through our technology overall. Yes, the market is going through a very dynamic, crying, buying behavior. Let's just put use those words overall. But, by the way, I would tell you, as I was speaking with investors this morning, you look at the history of the IT services consulting market. In any major technology inflection shift, be that the advent of the Internet, we did 40 years' worth of analysis. Internet globalization in the early 2000s to cloud, now GenAI, it's always followed the pattern around cyclicity of business; back to my innovation-commoditization. Why? Because clients are reprioritizing spending to invest in new technologies overall.

But we believe that and are excited about the secular growth opportunity around GenAI. I talked earlier about north of a \$6 billion book of business. This is going to create a whole new services market around a set of capabilities. I've been talking about, just as the explosion of cloud created digital transformation 1.0, I think GenAI is going to kick-start digital transformation 2.0. And we're seeing that in areas around application modernization services, AI model life-cycle management, around data transformation services, around security, governance, compliance, a whole new set of services overall. So, we've been focusing Consulting about redesigning our operating model and aligning our portfolio where those growth factors are. By the way, Jim, 85% of our portfolio is now aligned to those key growth factors of where we think the puck is moving around that.

Second, we are reinventing and moving to a human-plus-digital world; leveraging our industry-leading agentic AI platform, IBM Consulting Advantage; driving services as software; and leveraging technology and innovation arbitrage. And then finally, our strategic partnerships. We still have a lot of headroom to go as we move forward. So, we feel pretty good. By the way, look at IDC, Gartner, they're calling 2026 growth anywhere from 4% to 7% overall, and we see that growth inflecting overall. Our job is to continue to be the strategic provider of choice in GenAI; drive our backlog, which by the way at \$32 billion is up 8% exiting first half, so that's a great indicator; and continue to improve the business model efficiency. I think underappreciated, the gross profit dollar contribution in cash, our margins are up 220 basis points year-over-year. So, we feel pretty good about the future there, Jim.

James Schneider, Goldman Sachs: Yeah. Maybe I'll just end on one last question, which is about sort of your focus on productivity, internal transformation through AI. You've called that sort of using IBM as Client Zero. As you look at the scale of cost savings and productivity you've realized so far internally, how do you size the opportunity set as you kind of take these internal use cases and implement them from clients? And are there any particular regions or industries you think you can drive the most value?

James Kavanaugh: Yeah, definitely. It's great place to end because you've seen what we've done to reinvent our business and what it's done from a value creation thesis overall. But operating leverage productivity has always been essential on our financial model and investment thesis overall. I would tell you, not only is has Arvind brought in a whole fundamental cultural transformation of the IBM company around a growth mindset, portfolio, innovation, ecosystems, etcetera. He's also brought a productivity mindset into this company. Speed, value, efficiency, and productivity.

And our Client Zero, it's IBM's branding that instantiates the power of technology and how it can create sustainable competitive advantage for any company in any industry; to capitalize and drive scale, productivity efficiency, seize new market opportunities, new sources of growth, and enable you to reinvent your business. Now – and it drives a flywheel effect. Productivity generates investment flexibility to enable any CEO/CFO to drive growth. I think we bring a very differentiated competitive

advantage to the marketplace. That is, I call, the triangle, an innovative tech stack coupled with a consulting business at scale within IBM Client Zero is the ultimate use client reference case where we could sit across the table and talk about how we're leveraging technology digitization to transform our business.

And if you look at it, Jim, what's happened? Look at the value creation we've taken over the last few years. One, we just exited first half. We took up our annual exit productivity target to now \$4.5 billion in just two-and-a-half years from where we started with an original intent of \$2 billion. Two, we've taken our G&A efficiency ratios from where we started, being about 25% of the competitive benchmarking – almost embarrassing – to now we exited 2024 north of the industry median, and we think we're on a path to get to the top decile. What has that done to our business? We've grown our operating EBIT margins by 1,000 basis points in the last three years. \$33 billion of free cash flow generation cumulatively, raised our free cash flow margins by 5 points, and we've delivered significant total shareholder return over \$100 billion of market value creation, and consistently outdelivered S&P and S&P Tech over that time period.

So, Client Zero is an integral part of that operating leverage that we feel we've got much more headroom on where we can go, and that's why we laid out our model to grow revenue at 5-plus percent around our strategic horizon, grow operating leverage by about 1 point per year, and grow free cash flow in excess of revenue, generating high free cash flow margin as we move forward.

James Schneider, Goldman Sachs: Great. That's a perfect note on which to end. Thank you very much, Jim, for being with us.

James Kavanaugh: Appreciate it, Jim. Thank you.