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International Business Machines Corp (IBM) on Q3 2019 Results - Earnings Call Transcript

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Q3: 10-16-19 Earnings Summary

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EPS of \$2.68 beats by \$0.02 | Revenue of \$18.03B (-3.88% Y/Y) misses by \$-191.22M

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International Business Machines Corp (NYSE:IBM) Q3 2019 Earnings Conference Call

October 16, 2019 5:00 PM ET

Company Participants

Patricia Murphy - VP, IR

James Kavanaugh - SVP & CFO

Conference Call Participants

Wamsi Mohan - Bank of America Merrill Lynch

Amit Daryanani - Evercore ISI

Tien-Tsin Huang - JPMorgan Chase & Co.

Kathryn Huberty - Morgan Stanley

Toni Sacconaghi - Sanford C. Bernstein & Co.

Matthew Cabral - Crédit Suisse

James Schneider - Goldman Sachs Group

Jim Suva - Citigroup

Keith Bachman - BMO Capital Markets

Operator

Welcome, and thank you for standing by. [Operator Instructions]. Today's conference is being recorded. If you have any objections, you may disconnect at this time. Now I will turn the meeting over to Ms. Patricia Murphy with IBM. Ma'am, you may begin.

Patricia Murphy

Thank you. This is Patricia Murphy, Vice President of Investor Relations for IBM, and I want to welcome you to our third quarter 2019 earnings presentation. I'm here with Jim Kavanaugh, IBM's Senior Vice President and Chief Financial Officer.

We'll post today's prepared remarks on the IBM investor website within a couple of hours, and a replay will be available by this time tomorrow. Some comments made in this presentation may be considered forward looking under the Private Securities Litigation Reform Act of 1995. These statements involve factors that could cause our actual results to differ materially. Additional information about these factors is included in the company's SEC filings.

Our presentation also includes non-GAAP measures to provide additional information to investors. For example, we present revenue growth at constant currency throughout the presentation. In addition, to provide a view consistent with our go-forward business, we'll focus on constant currency growth adjusting for our recently divested businesses for the impacted lines of total revenue, cloud and our geographic performance. We've provided reconciliation charts for these and other non-GAAP measures at the end of the presentation and in the 8-K submitted to the SEC.

I also want to remind you that IBM's revenue, profit and earnings per share reflect the impact of purchase accounting and other transaction-related adjustments associated with the acquisition of Red Hat. These adjustments and charges are primarily noncash.

So with that, I'll turn the call over to Jim.

James Kavanaugh

Thanks, Patricia, and thanks to all of you for joining us. In the third quarter, we delivered \$18 billion of revenue, \$2.4 billion of operating net income and \$2.68 of operating earnings per share. We continued our strong cash generation with \$12.3 billion of free cash flow over the last year, which is 126% normalized free cash flow realization; and we reduced our debt balance by nearly \$7 billion since the end of June, maintaining a strong balance sheet.

This quarter, we continue to see good performance in the key high-value areas of data and AI, security, cloud and digital. We continue to bring new innovations to the market, launching our z15 mainframe and containerizing our software. And of course, we closed the acquisition of Red Hat where we've had a good first quarter, with Red Hat revenue growth accelerating to 20% on a normalized basis.

Let me give you a little more color by segment. Cloud & Cognitive Software was up 8% this quarter led by growth in cognitive applications and cloud and data platforms, including the contribution from Red Hat. In Global Business Services, revenue was up over 2%, and we expanded gross margin. Once again, we had solid performance in consulting driven by next-generation application offerings and an application modernization for the cloud.

In Global Technology Services, revenue was down 4%. We continue to have good growth in the services that help our clients to move and manage cloud workloads, and our cloud revenue in the segment was up 10%. But our GTS performance fell short of our expectations due to lower in-period revenue from client business volumes in certain markets. While the volume impact has near-term revenue and profit implications, we had good long-term signings and a solid pipeline of deals that deliver productivity to clients in this environment.

Our Systems revenue was down 14% primarily reflecting the back end of our z14 mainframe product cycle. We continue to invest to bring new innovation to our platforms, and we announced our next-generation of IBM Z, which started to ship the last week of the quarter. Our new z15 has a strong value proposition, and we had a solid start to the cycle in line with our expectations. And so IBM's performance continues to be led by areas that help our clients with their digital transformations and journeys to cloud.

Across our segments, our cloud revenue growth accelerated to 14%, and IBM's cloud revenue over the last year is now over \$20 billion. We're entering the next chapter of cloud, which will be driven by mission-critical workloads. Enterprise clients will need to securely deploy, run and manage these workloads across on-prem, private and public cloud environments. These hybrid multi-cloud environments will be based on a foundation of Linux with containers and Kubernetes.

Red Hat is at the center of this with the #1 Linux operating system, RHEL, and the leading hybrid cloud platform, OpenShift. When we bring these together with IBM's enterprise incumbency, scale and expertise, we're ideally positioned to lead in the significant hybrid cloud opportunity. We've invested to bring new innovations to market, leveraging the technology architecture of Linux, containers and Kubernetes. We have standardized on Red Hat OpenShift as our hybrid cloud platform, and we've modernized our software portfolio so that it can run on all private and public clouds. We've announced OpenShift on IBM Cloud and on IBM Z, and we've introduced consulting and technology services for Red Hat to capitalize on our expertise in digital reinventions and our leadership position in managing mission-critical workloads.

And now at the end of the third quarter, we're off to a great start. As I said, Red Hat revenue in the quarter was up 20%. That's normalized to provide a better comparability to Red Hat's historical performance. But remember, IBM's reported results also include the deferred revenue purchase accounting adjustment, which, by the way, was within \$30 million of the third quarter estimates we provided in early August.

The 20% growth is an acceleration from Red Hat's performance before we announced the transaction. This quarter, Red Hat's infrastructure business, which is predominantly RHEL, had double-digit growth and continue to take share. This is a great proof point of the

continued importance of Linux as the foundation for enterprise workloads in a hybrid cloud environment. And momentum continued in application development and emerging technologies driven by both OpenShift and Ansible. We're adding new OpenShift clients and expanding Red Hat adoption in existing clients.

For example, in the third quarter, IBM helped Red Hat expand its footprint at Visa in support of the client strategy of accelerating technology platform innovation using open source solutions. And Spanish retailer, El Corte Ingles, selected Red Hat OpenShift as the foundational technology together with IBM's migration and implementation services for its hybrid cloud strategy.

The expansion of the client base and the revenue trajectory are good indications of our clients' confidence in the value of Red Hat and IBM together. And in terms of confidence of the workforce, over the last several months, Red Hat hired about 1,000 new associates to address the growing demand for the Red Hat portfolio and hybrid cloud value proposition, while employee attrition has been stable year to year.

So let me turn to IBM's key financial metrics, which of course include Red Hat. As we discussed in the past, IBM's revenue, profit and operating earnings per share reflect the impact of the noncash deferred revenue purchase accounting adjustment, along with other transaction-related activity. Our operating gross margin was flat, though up 30 basis points when you exclude the impact from the divested businesses. You'll recall, we took a workforce rebalancing charge in the second quarter to address the foregone profit of these businesses and some stranded costs. We'll start to see more of the savings in the fourth quarter.

Our pretax income also reflects growth in expense. This operating expense increase was driven by the addition of Red Hat, both operational spending and transaction-related costs for equity, retention and higher interest expense. At the same time, our base spending reflects investments to bring our Software and Systems innovations to the market, and we had a lower level of IP income.

Our operating tax rate in the quarter was a few points less than we estimated in early August due to the timing of discrete tax items. We continue to expect the full year all-in operating tax rate of 9% to 10%, which includes Red Hat and an estimate of discrete tax

items for the year. And so the year-to-year decline in operating net income and operating earnings per share was driven predominantly by the noncash purchase accounting adjustments.

But more importantly, our cash metrics are not affected by these adjustments. We generated \$1.8 billion of free cash flow in the quarter and nearly \$6 billion year-to-date. Because our cash generation is so heavily skewed to the fourth quarter, as always, the trailing 12 months is the best way to look at our free cash flow performance. On that basis, we generated \$12.3 billion, which results in 126% normalized free cash flow realization. Our strong cash generation and focus on capital allocation resulted in a stronger balance sheet, ending the quarter with a cash balance of about \$11 billion and significantly lower debt levels versus 90 days ago.

So let me comment on how we've improved our debt profile this quarter. As you know, we took out additional debt to fund the Red Hat transaction, and at the end of June, we had \$73 billion in debt. This includes what I'll call core debt of \$48 billion and \$25 billion for our financing business, which is fully supported by our financing receivables.

Looking at our global financing debt, we're winding down our OEM commercial financing operations by the end of this year. This reduces our financing debt and improves the overall credit quality of our receivables. To accelerate reduction of our core debt, we suspended our share repurchase program. We did this in early July when we closed the Red Hat transaction. The result of these actions is a reduction in IBM's total debt from \$73 billion to \$66 billion during the quarter. That's nearly \$7 billion. And so I'd say our deleveraging plan is on track. As we look forward, our debt repayment profile provides good opportunity to continue to deleverage. And as we said, we're committed to achieving a leverage ratio consistent with a mid- to high A rating within a couple years.

So now I'll get into the segment results starting with Cloud & Cognitive Software, which was up 8% this quarter. We had strong growth in both cloud and data platforms now inclusive of Red Hat and cognitive applications, while transaction processing platforms revenue was down. Cloud revenue in the segment was up over 60% this quarter, reflecting the investments and steps we've taken to capture the hybrid cloud opportunity.

In cloud and data platforms, we delivered double-digit growth as we execute on the combined IBM and Red Hat hybrid cloud strategy. I mentioned earlier the importance of Linux, containers and Kubernetes as the platform for hybrid cloud standardizing on Red Hat OpenShift. We've containerized our software and introduced Cloud Paks containerized software solutions that incorporate OpenShift and RHEL. We're rearchitecting and optimizing our offerings, including integrating technologies from IBM Cloud Private into our Cloud Paks and into OpenShift. And now just about 90 days following the closing of the acquisition, Red Hat demonstrated strong and broad-based revenue growth this quarter. And although early, we're seeing green shoots in our newly launched Cloud Paks. We're working with over 1,800 clients with access to our container solutions, including OpenShift and Cloud Paks.

For example, CVS Health has selected multiple Cloud Pak offerings, including the Cloud Pak for Integration in support of their hybrid cloud initiatives for agile data services and improved consumer experiences. These offerings will combine the power of IBM Software with OpenShift and RHEL. Cognitive applications revenue growth of 6% was led by security software in services and industry verticals like IoT.

In security, we were just recognized again by Gartner as the #1 enterprise security vendor. We continue to see strong performance in our threat management software and services offerings like QRadar and X-Force Threat Management. We recently announced a project working with the city of Los Angeles and the LA Cyber Lab to provide threat intelligence to local businesses to proactively fight cybercrime leveraging X-Force incident response and intelligent services. And as clients are increasingly looking to migrate secure operations to the cloud, we're seeing traction with the combination of QRadar on the cloud and X-Force Threat Management for managed threat monitoring services on the cloud.

In IoT, we had traction across the portfolio, including in our Maximo and TRIRIGA offerings. We continue to invest in new offerings, and our industry-specific solutions like Maximo for Transportation, Maximo for Oil and Gas, and Maximo for Aviation have been resonating with clients. And then in our transaction processing platforms, which include software that runs mission-critical workloads on our hardware platforms, revenue declined this quarter. While much of this revenue is annuity based, in any quarter, the performance

reflects the timing of larger transactions that are tied to client buying cycles. Looking at the profit for the segment, the decline in pretax margin was primarily driven by the purchase accounting impacts from the Red Hat acquisition.

Moving to Global Business Services, revenue was up over 2%, and gross margin expanded by 110 basis points. Consulting revenue grew 5%, driven by offerings that address cognitive technology, application modernization and next-generation enterprise applications such as S/4HANA and Salesforce. Application management was flat. We had growth in our strategic areas of application modernization such as cloud application management and application development on emerging platforms offset by declines in traditional enterprise application management.

GBS brings together deep industry expertise and technology to provide clients with a holistic approach to derisk and orchestrate their digital transformation journeys. Our cloud application offerings help clients to implement cloud-centric architectures to modernize and automate their application portfolio. This is where we're seeing some early progress in synergies with Red Hat as we standardize on OpenShift as our preferred development platform. This quarter, we signed over 20 deals across industries ranging from telecommunications to banking and financial services to travel and transportation to retail, which utilize Red Hat capabilities to modernize their application portfolio. GBS also works with enterprises to leverage cognitive technologies to drive insights and process improvements as they evolve from isolated use cases to deploying AI at scale. We have good traction here with double-digit growth this quarter in our process reengineering and business decision support practices.

Turning to gross profit. GBS gross margin was 31%. The 110 basis point margin expansion was driven by continued mix shift to higher value offerings, yields on our delivery improvement, productivity and utilization initiatives, and currency benefit from leveraging our global delivery resource footprint.

In Global Technology Services, total revenue declined 4%. Last quarter, I mentioned that based on the backlog runout, we saw an inflection point in the year-to-year revenue in the second half. This was based on an improving trajectory in the runout projections over the subsequent quarters.

Revenue from backlog represents about 90% of next quarter's revenue and 85% 2 quarters out, so it is typically a good indicator of the total revenue performance. In the third quarter, the in-quarter revenue did not come in as expected. We had lower customer business volumes in certain markets and some multinational clients versus our expectations. And this impacted the growth rate by an additional point. Because this work leverages existing resources, it has a higher margin profile, and so these lower volumes impacted our gross margin, which was down about 1 point from the prior year. We have a supplemental chart that describes the revenue dynamics in more detail.

But now taking a broader perspective, we had good overall signings. Our GTS signings were up 20% this quarter, and signings are also up over the last 12 months. This results in a 1 point sequential improvement in the GTS year-to-year backlog performance. The signings growth is driven by cloud. Our cloud signings were up over 60%, and cloud now comprises over 40% of the GTS outsourcing backlog. This is up from just over 25% as we exited 2017.

Enterprises are in the early phases of their journeys to modernize their infrastructures to deliver savings, productivity and innovation. We are ideally positioned to move our clients to the cloud and derisk the journey for them. We've been shifting our portfolio to capture this opportunity, investing in our cloud capabilities while deemphasizing and exiting certain lower-value content. We realigned our offerings across our clients' cloud life cycle journey of advise, move, build and manage. We've been infusing our offerings with IP and now leveraging Red Hat's capabilities. IBM services is taking an integrated approach to application modernization for the hybrid cloud.

At the same time, we have continued to expand our cloud availability zones and data centers. And in the coming weeks, you'll hear more from us on how companies from across some of the most highly regulated industries are turning to IBM's public cloud as their preferred destination for mission-critical workloads.

The IBM Cloud offers these clients the highest level of security, leading data protection and the best infrastructure to run Red Hat OpenShift and enterprise-grade workloads. And so we're going to continue to deliver solid growth in cloud, and this will drive performance over the longer term. But in the short term, given the dynamics around the lower client

consumption, we're going to manage for margin, profit and cash. We'll continue to deemphasize low-margin offerings and contracts. We'll get more benefit from the workforce actions we took in the second quarter. We are scaling our agile services delivery model and accelerating our use of AI and automation in our delivery operations. And finally, in the near term, we're going to aggressively manage our variable spending while, of course, continuing to invest in cloud capabilities.

So now turning to Systems. Revenue was down this quarter, reflecting the back end of our product cycles. Let me walk through the dynamics across the portfolio. In the third quarter, IBM Z revenue was down 20%. This is compared to good growth we had in the third quarter of last year. The mainframe is an enduring platform. And in September, we announced our newest and most advanced mainframe, z15. As I said, we had a solid start to the cycle based on shipments in the last week of the quarter. Building on the momentum from the advanced security of z14, the new z15 capabilities extend the platform's differentiation. Encryption everywhere is the industry's first commercial data privacy and security enforcement solution, including data privacy passports, which allow for remote access management. z15 also supports private and public clouds via Linux, Kubernetes and industry-standard tools. With the introduction of Red Hat OpenShift support, this new mainframe will support cloud-native development within enterprises. And instant recovery significantly reduces the impact of planned and unplanned downtime, enabling enterprises to get back to work more quickly. Putting all of this together, we're offering clients improved productivity, security and efficiency with z15.

Power revenue was down 27% this quarter. I'll remind you, in the third quarter of last year, we had the best Power performance in some time due to the introduction of mid-range and high-end POWER9 and the rollout of our supercomputers for the U.S. Department of Energy labs in the second half of 2018. Power continues to offer clients the performance, resiliency and security capabilities of POWER9 to optimize enterprise workflows.

In Storage, revenue was down 4%. This is an improvement in the year-to-year performance compared to recent quarters driven by our high end and growth in all-flash array. We're focused on our continued innovation in Storage, and we announced the next-generation high-end system, DS8900, together with the mainframe in mid-September.

Looking at Systems profit. Pretax profit margin was down, reflecting mixed headwinds in the investments we're making to bring new hardware innovation to market. Turning to cash flow and balance sheet. As I said, we've now generated \$12.3 billion of free cash flow over the last 12 months. In the third quarter, we generated \$2.5 billion of cash from operations, excluding our financing receivables and \$1.8 billion of free cash flow. That brings our year-to-date free cash flow to \$5.9 billion, which is up about \$500 million year-to-year. These results reflect our operational performance, effective capital management and some of the expected headwinds we mentioned at the beginning of the year.

On capital expenditures, our strategy to deemphasize lower-value content across our services and financing portfolios contributed to our CapEx decline. Year-to-date CapEx also reflects the benefit from real estate sales in the second quarter.

You'll recall, at the beginning of the year, we said we expected a headwind on cash taxes. We saw some of that materialize in the third quarter and expect an additional headwind in the fourth as well. Also reflected in our performance is the impact from the software and services divestitures. I'll remind you that the proceeds from the divestitures are considered an investing activity so are not included in our free cash flow.

Finally, Red Hat had strong operational free cash flow performance, which was offset by incremental interest expense and some retention payments. As we have said, we expect Red Hat to be free cash flow accretive within 12 months of closing.

Looking at the uses of cash, over the last 3 quarters, we returned \$5.6 billion to our shareholders, including \$4.3 billion in dividends and \$1.4 billion of gross share repurchases. As we've previously disclosed, we suspended our share repurchase program when we closed the Red Hat transaction.

And then recapping the balance sheet highlights, we ended the quarter with \$11 billion in cash, which is down from \$46 billion in the second quarter with approximately \$34 billion used to close the Red Hat transaction. As I mentioned earlier, total debt was down nearly \$7 billion from the previous quarter.

So to sum up the cash and balance sheet dynamics, we continue to generate strong free cash flow. And together with the portfolio actions we've taken and the suspension of share repurchases, we're positioned to return to our targeted leverage ratios within a couple of years. In the meantime, our balance sheet is strong with the flexibility to support our business.

So I'll make a few summary comments on the quarter and the year before we move on to Q&A. During our investor webcast back in August, we shared our strategy and differentiation to address the hybrid cloud opportunity. We have been building a strong foundation, and now with Red Hat, we're even better positioned to win in chapter two of our clients' digital reinventions.

In the third quarter, you saw IBM and Red Hat are off to a great start, and across IBM, our cloud revenue growth accelerated. From a segment perspective, we had good growth in Cloud & Cognitive Software and in Global Business Services. In Systems, we had a solid start to our z15, which shipped at the end of the quarter, and we announced a new high-end storage. Global Technology Services also had strong cloud results but overall performance was weaker. I described the dynamics, and in the short term, we're going to manage this business for margin and cash.

Outside of the impact from the divested businesses, our gross margin expanded, reflecting operating leverage, which is an important element of our model. And our expense reflects a higher level of investment as we continue to bring new innovations to market. And so as we move into the fourth quarter, this is seasonally our biggest transaction quarter. It will be the first full quarter of availability for our z15, and we are expecting a normal IBM Z cycle. And we're assuming we have solid software transactional execution, and of course, we're still facing a strengthening dollar. With all of this and a steady economic environment, we continue to expect to deliver at least \$12.80 of operating earnings per share and free cash flow of \$12 billion for the year. This is consistent with the view we provided on August 2 when we updated our view of the full year for the acquisition of Red Hat.

And with that, we'll take your questions.

Patricia Murphy

Thank you, Jim. Before we begin the Q&A, I'd like to mention a few items. First, I'll remind you, the year-to-year growth rates we're providing today for Red Hat are normalized to provide comparability to Red Hat's historical performance. Second, we have supplemental charts at the end of the slide deck that provide additional information on the quarter. This includes the GTS revenue dynamics chart Jim mentioned a few minutes ago. [Operator Instructions]. So operator, let's please open it up for questions.

Question-and-Answer Session

Operator

[Operator Instructions]. Our first question comes from Wamsi Mohan with Bank of America.

Wamsi Mohan

Jim, thanks for the incremental color on the drivers of the GTS shortfall in the supplementals. What do you think is the root cause of the lower volumes in the quarter? Do you think that's a macro pause? And if you fast forward to 2020, do the backlog runoff support flat to up GTS revenue? Or are we exiting too weak in 2019 to call for that right now? And if I could, on the GTS margin front, how much of this -- I think you alluded to the lower volumes being mainly the issue, but was pricing also an issue in the quarter on GTS margins?

James Kavanaugh

Okay. Thanks, Wamsi. Appreciate the question. So let me start with the last part of that multiple-part question because, as I stated in the prepared remarks, when you look at a GTS business profile, as you know, high-value, high-annuity content business. And when we're looking in-quarter, about 90-plus percent of our revenue in-quarter comes out of that backlog. Now you also have a labor-based structure that's relatively fixed in a short period of time in 90 days. And what you saw happened, and hopefully, you have taken a look at the supplemental chart, again for enhanced transparency for all of you so you can understand the dynamics of what's happened to our business, when that in-period revenue, that remaining 10% falls away, it has tremendous de-operating impacts from a

leverage perspective overall. So that is high value, high profit, and when it hurts you at the latter part of the month, it definitely falls to the bottom line. So I'm sure we'll get into it. We're taking a lot of actions structurally. We got out ahead of that in the second quarter, and we're well positioned to return back to margins in GTS, as I stated, in the fourth quarter.

But let's go back to the first part of your question, which is that in-period 10% activity, that really comes from 2 aspects. One is based on our client business volumes that are embedded in our backlog and two, new selling bill signings that happen within a quarter, the latter being a minor part, the former being a major part. And when you take a look at what happened to us in the quarter, we did get impacted by lower client business based volumes that came out of predominantly 2 markets in Europe, that being United Kingdom and in Germany. But I would tell you, Europe overall, Europe was flat and pretty consistent with second quarter overall. So we still had good performance in our other base platforms or hardware, software. We fell short though in client base business volumes in GTS. So I wouldn't say it's per se macro, but we obviously saw less activity. But we got to improve our execution, period.

Operator

Our next question comes from Amit Daryanani with Evercore.

Amit Daryanani

I guess just on the Red Hat side, it's nice to see the robust 20% growth you guys had this quarter with Red Hat. I think the notable uptick then was Red Hat was in standalone at least. What do you think is the longer-term trend line that we should be think about Red Hat's revenue growth as we go forward under IBM both maybe on the subscription and services side? And just to kind of level set this, the 14% pretax margin drop or 14 points drop in the cognitive segment, how much of that is just transaction related versus other factors?

James Kavanaugh

Okay. Amit, thank you very much. And I appreciate you asking the question upfront here on Red Hat because obviously we're very pleased. And I think this is an instantiation and validation of the power of bringing IBM and Red Hat together and how it is better for our clients and for our shareholders overall. We definitely made some significant innovation announcements early August. We talked about our business profile at Investor Day. And I think 90 days into this, we're very pleased, 20% growth overall at a normalized basis to give you a normalized historical comparison. So we're very pleased.

But let me talk a little bit about the progress and what we're seeing within that 20% growth. And to your point, I would definitely reference for our investors pre the announcement in October of 2018, Red Hat was growing mid-teens. Just 3, 4 quarters later, at the time of closing in our first 90 days, you see the instantiation of that value given we accelerated it to 20%.

But let's talk about some of the other milestones in -- and key indicators. One, you talked about infrastructure. We had strong growth in the infrastructure led by RHEL and that return to double-digit growth of 12% if I'm not mistaken, and it's been a long time since RHEL actually was growing 12%. The application development emerging technology including OpenShift is growing mid-30s. Our OpenShift and now our newly announced containerized software, modernization of our software and Cloud Paks, we have now over an 1,800 installed base client embedded with that. Our backlog on a normalized basis, up 19%, and within the first 90 days, we talked a lot about at the Investor Day the deferred write-down that we had to take, the \$2.2 billion. We talked about, over time, the value of Red Hat's platform and technology and the high renewal rates. Well, within the first 90 days, we actually replenished almost \$0.5 billion of deferred revenue because we had very strong bookings, and those bookings were led by subscription. We actually had 11 deals over \$10 million, which was up threefold. So we're very pleased with Red Hat overall. And I guess I would conclude, most importantly, the confidence in the workforce in IBM and Red Hat. Attrition's stable, and we hired over 1,000 people. And lastly, to your point about operating margin, the entire operating margin impact was due to transactional-related cost.

Operator

Our next question comes from Tien-Tsin Huang with JPMorgan.

Tien-Tsin Huang

Maybe to build on that with Red Hat doing a little bit better, just looking at cloud and cognitive overall, that was weighed by softer transaction processing platform revenue. So should we expect, Jim, this dynamic to continue? I'm just looking for clues here on how legacy IBM Software might perform as you execute on Red Hat?

James Kavanaugh

Yes. I mean if you take a look at our third quarter performance, our Cloud & Cognitive Software, we posted 8% growth. We're very pleased with that. Now obviously that normalized Red Hat growth of 20% does not get consolidated into IBM's books as you all quite well know given the deferred revenue adjustment. In fact, as you saw in the supplementals again for transparency as I'd committed to all of you since the beginning of the year, Red Hat delivered \$371 million of revenue, a little bit better than around the \$350 million that we talked about. And within that, just to call it out right off the bat, the \$0.70 dilution that we expected in the third quarter as we stated in prepared remarks, we did about \$30 million better on the deferred revenue write-down. By the way, that's a skew over 3Q versus fourth quarter. We still expect about \$1 billion still in the second half of '19. So we're very pleased with that 8% overall. By the way, we grew organically, too.

Now to your point, we had very good growth in cloud and data platform led by our Cloud Paks off to a nice start. We grew in Db2 and our core offerings. We grew in our organic-based cognitive applications portfolio with very strong growth in security and in some of our industry verticals like Maximo and TRIRIGA, but we actually did fall short in our transaction processing platform. And as you know, as I've said many times, that's high value to us and that's high value to our clients because we run the mission-critical workloads and applications on our systems portfolio, and that's always tied to client buying cycles.

Now when you take a look, to your question, what do we see going forward in the fourth quarter? We see pretty consistent performance, high single digit in this segment. A couple of things I would call out. Number one, we have a much tougher compare. Number two,

the difference between the amount of transactional activity you do on a fourth quarter versus third quarter is obviously a big hill to climb, but we've got a nice pipeline, and it's all about execution. I would not expect our TPP to come back here in the fourth quarter. We grew I think 6%, 7% fourth quarter last year. So we will not grow in TPP in the fourth quarter, but we will have a strong growth in cloud and data platform and in cognitive apps.

Operator

Our next question comes from Katy Huberty with Morgan Stanley.

Kathryn Huberty

Jim, just given all the moving pieces with divestitures, Red Hat is at a base rate cycle, how would you expect revenue strength in the fourth quarter relative to the [indiscernible] sequentially over the last year?

James Kavanaugh

Great. Thanks, Katy. Appreciate it. I think I got the heart of your question. You were breaking up there a little bit at least in the room here and on my speaker. As you heard in the prepared remarks, we did reaffirm guidance, at least \$12.80 and about \$12 billion of free cash flow. As we look into the fourth quarter, we expect revenue to sequentially increase about 3.5 to 3.7, in that range, quarter-to-quarter. And as I just stated on the last question, it's typically our biggest transactional quarter ever -- or, excuse me, within a year.

Now a couple points to what you brought up. So it's a little bit higher than what you had asked. One, it's higher sequentially than 2018. And it's more representative of a normal mainframe cycle, which, if you go back to 2017, we were right within that. Now to your point, there's a few things I want to call out and give a little color what's underneath that. Number one, we continue to face a stronger and stronger dollar every quarter. It feels like each quarter I get up here and I talk about that, whereas 90 days ago, we were saying that basically no headwind. We're looking right now about 1 point to 1.5 points headwind in the fourth quarter based on where rates are at today.

Second, to your question, we still have a 2 point headwind, give or take, on the divesting of our software and mortgage processing based business, which was \$2 billion annually here in the fourth quarter. So those 2 are kind of headwinds.

Now when you take a look at our portfolio, our mainframe, we are very pleased with the initial start. We announced it very late in the third quarter. We, in essence, have 1 weeks' worth of shipment. It met our expectations, and most importantly, the value proposition, the strong value proposition around data privacy, encryption everywhere, cloud native apps and putting Red Hat OpenShift on our mainframe and instant recovery are resonating well, and we got a very good pipeline. And we expect a normal cycle here in the fourth quarter, and I would attach that to the high-end DS8000 that we also announced. So Systems, we feel pretty good about the innovation and about us driving the fourth quarter.

Software, I just talked about. We see consistent performance. Services, GBS, GBS continues to have great momentum. We had a good signings quarter, high single-digit signings. We continue to have good backlog runout, but again, GBS grew 7% last year. We had a strong quarter. We closed on a lot of milestone billings, but we still see growth here in GBS, albeit probably very low single digits and continuing that momentum. By the way, GBS, their backlog runout is actually improving right now as we move through 2020. So we see consistency. And in GTS, based on what I said in the prepared remarks and you could see in the supplemental chart, it's prudent right now not to plan on anything better. We are taking actions to aggressively change and adapt our portfolio, our offerings. We're seeing very good green shoots in our cloud base of business in that segment. And we're going to continue to adapt and change that, but we're also going to manage this business for margin, profit and cash, and we're going after the right structural actions going forward. So hopefully that gives you a little color about the 3.5 to 3.7.

Operator

Our next question comes from Toni Sacconaghi with Bernstein.

Toni Sacconaghi

Jim, you talked about a little bit of a different strategy focusing on cash and profitability for GTS. Given that, that's about 35% of your revenues and you're looking at maybe a more muted growth rate, are you still comfortable in talking about 4 to 5 points of growth and mid-single-digit growth for 2020? And then just related to that, maybe you can just talk about the dynamics of sort of what happened over the course of the quarter. You provided some guidance on the early April call. You fell a little short of that. And it sounds like it was mainly GTS. But at that point, did you not have a good read on what was happening with your workloads during the quarter? And I guess the question I'm asking, did it continue to decelerate from there? And what does that either say about the value proposition of GTS today for existing clients or more just about the health of your clients? So sorry I snuck 2 in there but one, just how we think of revenue growth next year in light of GTS being lower; and then two, what sort of changed from August 5 on.

James Kavanaugh

As always, Toni, thank you very much. At least it was only 2 and not 3 like last quarter, but who's counting? Anyways, let me try to take this in a couple of different components, so we can unpack this, so you can understand fundamentally what's happening to us in GTS, what happened throughout the quarter and then to your first part of your question, what do we see overall for IBM in 2020, which, by the way, we'll spend a lot more time on in January because given the amount of transactional business both on hardware and software but also on services science that we got to get done here in the fourth quarter. We got a very robust pipeline over the next couple quarters, and that will dictate more importantly how 2020 will play out.

But if you take a look at -- within the quarter. So let me talk a little bit about -- I'm not going to repeat what's on the supplemental chart. The net message in the supplemental chart is, 90 days ago, we printed down 4%, as you all know, in our GTS technology services revenue. That was basically all out of backlog in our in-period sell and bill activity, and volumes from our clients was roughly muted. It was flat. That has been consistent for quite a while. We saw at that time a backlog that ran out in third quarter but roughly down 3%, and in fourth quarter, it was down 1% to 2%. That was the driver behind calling the inflection point.

Now how did the quarter play out? The quarter actually played out through August quarter-to-date, our GTS business was improving off of that down 4% that we exited second quarter. We were hovering about down 3%, give or take. This all happened late in the quarter. And by the way, to the earlier question, that's why you see it flow through our fixed structural costs that impacted our margins overall.

So when you look at it, one, it was tied to volume-based businesses in a couple of different markets around the world; and two, it was tied to some part of our execution. I'm not going to back off that. From a credibility perspective, we've got to execute better there. We've been focusing this business on margin, profit and cash. It is a high fixed cost, high capital-intensive business, and we've got to deliver that right return to our investors given that we've chosen our capital allocation strategy with the acquisition of Red Hat and what we've done to our balance sheet to lever up, which, by the way, we made a great down payment on with the \$7 billion of debt we paid down. But it happened late in the quarter. We are taking action around that.

Now I'll conclude. Entering into 2020, we continue to see very strong performance as we continue to adapt our portfolio and our offerings in GTS to capture what we believe is that chapter 2 of hybrid cloud. One, our cloud base of business with regards to our backlog, our GTS backlog is \$80 billion. Over 40% of that backlog is cloud. By the way, and I know you've done a ton of analysis on this, over the last 5 years, our GTS backlog ex currency is flat. And within that, we went from low single-digit cloud content to 40% cloud content overall. And now with the acquisition of Red Hat and building out differentiated offering and capabilities, we expect that to accelerate as we go forward. We delivered 60% of signings growth in the fourth quarter. 40% of our backlog now is cloud, and we got a book of business on trailing 12 months in excess of \$8 billion on cloud.

So when we look to 2020, we talked about on August 2, 4 to 5 points to your point, we talked about moving IBM to a sustainable revenue path. And what I've seen play out in third quarter, while we got a headwind right in front of us on GTS in fourth quarter, nothing would change my mind with regards to 2020 on driving sustainable revenue growth overall.

Operator

Our next question comes from Matt Cabral with Crédit Suisse.

Matthew Cabral

Jim, you called out some headwinds you're seeing in Germany and the U.K. in GTS, but I'm wondering if you'd talk a little bit more broadly about the enterprise spending environment by geography and just if you're starting to see any impacts from a more volatile macro that's in -- across your business.

James Kavanaugh

Sure, Matt. Thank you very much. I mean obviously, we operate in 170 countries around the world. So we are always monitoring and analyzing the market and most importantly to the heart of your question, client buying behaviors. When you look at the IT industry, the IT industry has always been predicated on effective balance of leveraging technology for growth and leveraging technology for productivity. And over time, that balance might shift, and we are seeing a shift, and we have seen a shift by the way. It's not just right in front of us here in the month of September that clients, from a buying perspective, are shifting more and more to productivity to quick payback to ROI and also predictability of spend, which, by the way, plays to the breadth and value of our portfolio overall. And you see how that's played out in our GBS base of business, continued momentum and in our Cloud & Cognitive Software business driving the value because clients are still spending. They're spending in those key high-value areas around cloud, around digital, around data/AI and around security. Why? Because they want to create a competitive advantage to win in the marketplace. So we still see spending in those areas.

And when we look around the world -- and I can only give you the lens of IBM. When you look around the world, we had strong growth in many markets around the world: Japan, Canada, Brazil, Mexico, Italy, Spain, amongst many that grow -- that grew very nicely. We did fall short in a couple other areas around the world, and I called out in GTS specifically U.K. and Germany. But I'll tell you, overall, our Europe business was flat. So I would not say per se this is a macro-related thing. And by the way, we're selling hardware, software-based platforms all over the world. So we're acknowledging shifts in buying behavior.

We're adapting our value propositions. Clients are still spending in those key high-value areas, and that's where we're placing, as CFO I could tell you, where we're placing all of our investment and capital allocation in our business.

Operator

Our next question comes from Jim Schneider with Goldman Sachs.

James Schneider

Jim, a question on the services business. The signings rebounded nicely in the quarter, up 15%. Can you maybe talk a little bit about the composition of those signings, particularly what that means about the sustainability of growth in GBS and to what extent those signings were kind of overweighted towards GTS that would help replenish the backlog?

James Kavanaugh

Sure. Thanks for the question, Jim. I appreciate it. So let me unpack this a little on signings backlog and backlog realization. We've been talking a lot about this, I think, over the last 6 quarters. We had great signings, signings over \$9 billion up 15%. We had growth in GTS north of 20%; growth in GBS high single digits, if I'm not mistaken, about 9% growth. Within that, the composition as we all know, signings are not all the same. They're not equal on how they impact backlog, how they impact realization, but we had great signings growth above \$100 million, large deals, up 45% overall, and we had small mid-sized deals up high single digits overall. So when you take a look at our signings, that then translated into an improvement in our overall backlog position. Our backlog improved 1 point quarter-to-quarter.

And let me break it out then between GTS and GBS, and again, for enhanced transparency, you saw the supplemental chart on GTS. GTS backlog, \$80 billion. That backlog is down 2%. That improved about 1 point, 1.5 points quarter-to-quarter. We've seen relatively stable duration in GTS' backlog for a long period of time even as we continue to mix more and more to cloud. And now that cloud is over 40% of that backlog.

GBS grew signings 9%. GBS backlog is down 4, and that improved almost a couple of points quarter-to-quarter. It's this phenomenon of signings to backlog to revenue realization has really played out dramatically for the last 2-plus years in GBS. We talked about how Mark and the team have done a great job remixing the portfolio and offerings to capture where value and where spend are going. That is moving more and more to a consulting base and a cloud application modernization base area that's shorter duration. Our duration in our GBS backlog has reduced over 20% to 25% over the last couple years. And that's why you've been able to see an overall backlog that's been down mid- to high single digits, and we're delivering consistent revenue growth anywhere from 1% to 3% to 4% in that GBS base of business. So that is where you're seeing a big change.

Operator

Our next question will come from Jim Suva with Citigroup.

Jim Suva

I'm definitely not the smartest person on this call. But can you just spend maybe a brief minute going over on Slide 18 when you talk about the GTS service revenue dynamics? You've mentioned in-period business volumes, but then it looks like it continues on to Q4. What I'm more interested in is do these in-period things continue on into Q1 in 2020 or maybe help a person who doesn't fully comprehend everything better understand it.

James Kavanaugh

Sure, Jim, no problem. And hopefully, you appreciate the enhanced transparency in the chart overall. Obviously, Patricia and the team have spent a lot more time on this tonight. But as I stated earlier, the net message is in a GTS outsourcing based business, you have roughly -- you have -- as you enter a quarter, you have about 90-plus percent of that revenue that's under backlog, high annuity content-based business. It's under contract. You have a remaining 10% that is in-period sell and bill activity and also tied to the client business volumes that run off that backlog. And when you look at second quarter, it pretty much played out as we expected, down 4%. That's what the backlog said entering the quarter. Our in-period activity of sell and bill and transactional components were basically muted.

As we got into third quarter, you see the way the chart is laid out, that backlog runout said inflection point down 4%, goes to down 3%, goes down -- to down 1% to 2%. Assuming that we consistently execute both in an IBM manner and the market overall. And when you look at the third quarter, the third quarter, our in-period, that 10% was down mid-teens due to less client business volume and also execution on our small deals predominantly in Europe as I stated. That then has a flow-through because now we're starting October 1 looking at fourth quarter. Whereas we thought we were going to be down 1% to 2% in backlog, now we're down 2% to 3%. And to the extent we can go back and execute to that 10% that has a muted effect, we would end up the quarter at that level. If it plays out like third quarter, we're going to be down 3% to 4%. That's why I stated we're going to focus all of our energy at continuing to transform the offerings and portfolio and capture where spend and growth is coming from and getting after the structural cost to drive the margin expansion.

Operator

Our last question comes from Keith Bachman with Bank of Montréal.

Keith Bachman

Jim, I wanted to pick up on the duration comment you made. Does duration normalize in '20? In other words, do you think you can begin to glow -- grow, rather, services backlog? Or do you still feel like there's compression associated with the services signing on duration? And then I'll ask my second question, too. The consulting business in GBS also had a good quarter, 5% growth. Accenture's had some weak bookings frankly on consulting, and I'm just wondering how you're thinking about that business and the economic sensitivity associated with it as we seem to be facing some more headwinds here. Do you think that consulting business that you see today continue to gross low to mid-single digits over the next couple of quarters? And that's it for me.

James Kavanaugh

Okay. Keith, thanks. Good way to wrap up on the part of our portfolio that has delivered consistent operational execution. And as I stated earlier, the team really should be commended because we are capturing and we are becoming the clients' provider and

service provider of choice as they embark on their digital reinvention journeys and journeys to cloud.

But let me take your second part of your question first if I remember correctly, and that is comparison to Accenture. But more importantly, I'm not going to talk about them. I'm going to talk about our business. Our consulting business continues to execute very well. We delivered 5% growth here. By the way, off of a tougher and tougher compare as we move throughout 2018, we improved that consulting performance in GBS. We delivered 5% growth, great growth in application modernization consulting and also on our next-generation enterprise applications like S/4HANA and in Salesforce. And by the way, I talked about GBS signings up high single digits. We were up significant double digits in consulting signings, so we had a great quarter overall on signings.

And that kind of leads me to your first question. When you look at our backlog, our duration has come down, like I said, 20% to 25% over the last handful of years. I don't see that changing right now. As this world moves more and more to cloud, we are moving more and more to shorter-duration, higher consumption-based activity that's going to play to the hand in the portfolio that we've put in place overall. So I think the reason I gave enhanced disclosure between GTS and GBS on duration and overall backlog, I think you see in the fundamental differences between the 2, and the GBS will continue to impact when you just look at the printed number of IBM. But I would focus more on GTS overall as far as looking at the total backlog going forward.

So with that, again, I want to thank you for joining our call here today. A few comments just to wrap up. As I've stated, we've been investing and taking bold actions to position our business to win in chapter 2 of hybrid cloud. The acceleration in Red Hat, our early support for our Cloud Paks and modernizing our software portfolio and growth in our digital and application modernization services are all validation the actions we've taken are resonating with our clients and driving that key high-value growth areas in the IT industry. At the same time, we're continuing our disciplined financial management, which should serve us well as we head into fourth quarter and 2020. So again, I'd like to thank you for joining us today, and we look forward to the continued dialogue.

Patricia Murphy

Okay. Sheila, I'm going to put it back to you to close out the call please.

Operator

Thank you. Thank you for participating in today's call. The conference has now ended.
You may disconnect at this time.