

C O R P O R A T E P A R T I C I P A N T S

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Joshua Bixby, *Chief Executive Officer*

Adriel Lares, *Chief Financial Officer*

C O N F E R E N C E C A L L P A R T I C I P A N T S

Jonathan Ho, *William Blair & Company*

Robert Majek, *Raymond James*

Tim Horan, *Oppenheimer*

Rishi Jaluria, *D.A. Davidson & Co.*

Jeff Van Rhee, *Craig-Hallum Capital Group*

Ray McDonough, *Credit Suisse*

Charlie Erlikh, *RW Baird*

James Fish, *Piper Sandler*

Walter Pritchard, *Citigroup*

Tal Liani, *Bank of America*

P R E S E N T A T I O N

Operator

Good afternoon. My name is David, and I will be your conference operator today. At this time, I would like to welcome everyone to the Fastly Fourth Quarter 2020 Earnings Conference Call.

All lines have been placed on mute to prevent any background noise. After the speakers' remarks, there will be a question-and-answer session. If you would like to ask a question during this time, simply press star, followed by the number one on your telephone keypad. If you'd like to withdraw your question, press the pound key. Thank you.

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I would now like to turn the conference over to Maria Lukens, Vice President of Investor Relations. Please go ahead.

Maria Lukens

Hi, everyone. Thank you for joining our Fourth Quarter and Full Year 2020 Earnings call.

We have Fastly's CEO, Joshua Bixby; and CFO, Adriel Lares, with us today.

Before we start, I want to remind everyone about the usual format of our call. We published a Shareholder Letter on our Investor Relations website and with the SEC about an hour ago. Since the letter provides a lot of details, we will make some brief opening remarks and reserve the rest of the time for your questions.

During this call, we will be making forward-looking statements, including statements related to the expected performance of our business, future financial results, the integration of Signal Sciences, strategy, long-term growth and overall future prospects. These statements are subject to known and unknown risks, uncertainties and assumptions that could cause actual results to differ materially from those projected or implied during the call. Please take a look at our filings with the SEC, and our Q4 2020 Shareholder Letter for a discussion of the factors that could cause our results to differ. Also note that the forward-looking statements on this call are based on information available to us as of today's date. We disclaim any obligation to update any forward-looking statements except as required by law.

Also, during this call, we will discuss certain non-GAAP financial measures. Reconciliations to the most directly comparable GAAP financial measures are provided in the Shareholder Letter on our Investor Relations website. These non-GAAP measures are not intended to be a substitute for our GAAP results.

Finally, this call is being webcast and will be archived on our website shortly afterwards.

With that, I'll turn the call over to Joshua.

Joshua Bixby

Thanks, Maria. Hi, everyone, and thanks for joining us today.

We had a busy and successful quarter and is reflected in our results. We delivered 40% year-over-year top line growth with revenue of nearly \$83 million.

Last year, our world changed and businesses changed with it. We saw many companies invest more heavily in their digital presence than ever before. Subsequently, we've added new customers, while our existing customer base grew. These customers include Blackboard, a top tier learning management system; UC Davis, a higher education institution; an enterprise tech company, and one of the world's largest telecommunication companies, among others. We're also gaining traction in the rapidly growing gaming vertical, and one new and additional business with two leading gaming companies.

We also see our customers go above and beyond to help their communities during these challenging times. Two stories that encourage me are from Gannett and [redacted].

Gannett, a leading media and publishing company, launched Support Local, which allows people to support their neighborhood businesses through gift cards, as well as Take Action, which provides

resources to those looking to step up when it comes to social and racial justice. We're proud to have supported them in getting these sites up and running in a matter of days.

[Redacted], a company that helps medical professionals virtually connect to patients, saw double-digit user growth and a 30 times increase in traffic on their secure calling feature within just a few weeks at the onset of the pandemic. They turned to our security offerings, which gave them the control they needed to block malicious traffic, all while providing reliable connectivity to patients at a time when it was needed the most.

Our other customers delivered breaking news during the crucial election, brought people together through virtual gatherings, helped entertain and educate through gaming and schooling and enabled a busy holiday shopping season, all online.

On a Fastly-only basis, we've continued to demonstrate the stickiness of our platform, resulting in dollar-based net expansion rate of 143%, average enterprise customer spend of \$782,000, and a very impressive annualized revenue retention rate of 99%.

Like others, we transitioned our cornerstone customer event Altitude online for the first time in November. The community around developer empowerment was reflected in the audience, which nearly doubled from previous in-person events. We heard from leading digital brands, such as USA Today, VOX, PayPal, Grubhub, Adorama, Ted, and the Massachusetts Institute of Technology based in Cambridge. The event made it clear that edge innovation and security enabled their digital transformations and their successes during the challenging year.

Adriel will cover our financial performance for both the fourth quarter and full year in more detail. But before he does, I want to take a moment to provide an update on two core pillars of our comprehensive edge cloud platform - compute and security.

As we announced last quarter, Compute@Edge is in the market running production traffic in multiple verticals. We've seen some incredibly innovative use cases from developers. I've recently seen an edge-native multi-player version of the popular video game Doom, a machine learning product used to identify objects in an image at the edge, and a system that automatically simplifies the text on a website for new language learners. One of the most compelling use cases I've seen is a dynamic ad insertion product focused on personalized video ads based on user specific criteria, all done in real-time at the edge. Developers use three key languages to build out these use cases - assembly script, which is a great entry point for Javascript and Typescript developers, as well as C and Rust.

We continued our investment in technical talent by hiring several key open source and community leaders, including the co-creators of Web Assembly. They will continue working on impactful open source projects, such as Wasmtime, the Rust language and the Web Assembly standard itself, all of which are key technologies for the future of Compute@Edge.

On the security front, I'm very excited about the progress we have made since we closed our transaction with Signal Sciences last quarter. The cross-sell and up-sell of our new security portfolio exceeded our expectations in the quarter and the pipeline is strong. There is no security without usability and Signal Sciences' single, intuitive, easy to use interface has begun to impress our existing customer base and prospects, and was recognized industry-wide by Gartner as a visionary in its annual Magic Quadrant. We continue to see excellent customer reviews on Gartner peer insights, a popular pure driven rating and review platform.

We are gaining momentum with these two pillars and the increased interest and enthusiasm from our customers is very exciting. The demand for Fastly's platform remains strong as more companies are

beginning to realize the tremendous potential at the edge. Both our compute and secure offerings will continue to be key areas of focus and investment for us going forward.

Before I turn it over to Adriel, I also want to welcome Brett Shirk to Fastly as our new Chief Revenue Officer. He will be starting officially on February 22. Brett brings extensive experience in building and scaling revenue organizations at cloud and security companies, and has more than 25 years of technology experience, having recently served as CRO at Rubrik. Brett is a highly experienced, purpose-driven executive and is acutely aligned with our values and mission. We are happy to have him on board.

With that, I'll turn it over to Adriel to go over the financials.

Adriel Lares

Thank you, Joshua, and thank you, everyone, for joining us today.

We rounded out the year with another strong quarter driven robust customer demand, particularly from both new and existing enterprises that are continuing to integrate Fastly's modernized platform and to their systems.

As I go through the numbers, I want to point out, as we noted in the Shareholder Letter, that the contribution of Signal Sciences following our acquisition has been consolidated into our fourth quarter financial information, so the revenue and margin numbers I'm about to give include Signal Sciences. However, we have not yet included Signal Sciences in most of our key metrics this quarter and intend to report consolidated metrics later in 2021. In order to see the incremental contribution on customer growth from Signal Sciences, we have provided their total customer counts and number of enterprise customers as of Q4 2020.

This quarter, we generated \$83 million in revenue, net of the \$2 million deferred revenue write-down related to purchase accounting adjustments from the Signal Sciences acquisition, representing 40% year-over-year growth. For the full year 2020, we generated \$291 million in revenue, up 45% year-over-year.

We're continuing to drive leverage in the business. GAAP gross margin was 59.2% for the quarter, up from 56.7% in the same quarter a year ago, and 58.7% for the full year, up from 55.9% for 2019. Non-GAAP gross margin, which excludes stock-based compensation and amortization of acquired intangible assets, was 63.7% for the quarter compared to 57.6% in the same quarter last year. Full year non-GAAP gross margin was 60.9% compared to 56.6% for 2019.

While our gross margin will continue to be impacted by the timing of personnel and infrastructure related investments, as well as fees and usage by customers on our platform, we remain confident in our ability to deliver incremental annual gross margin expansion as we have done in the past, driven by our continued scale and the acquisition of Signal Sciences. We believe the strong gross margin profile of Signal Sciences provides us with additional opportunities to invest and accelerate our growth trajectory.

We believe we have a tremendous opportunity to invest in growth in 2021 and plan to do so in a disciplined manner while keeping long-term profitability in mind.

In terms of the balance sheet, we ended the quarter with \$216 million in cash, restricted cash, and investments.

As I said on our last call, we used approximately \$200 million of cash at the beginning of the quarter upon closing of the Signal Sciences acquisition. As we continue to see strong growth and increased demand

for our edge cloud platform, we aim to capitalize on this opportunity and continue investing in initiatives to drive revenue growth, network utilization and scale.

Our 2021 outlook reflects our continued ability to deliver strong top line growth, our ongoing commitment to annual gross margin expansion, our ongoing investments in cloud computing and security, and the expense of our expanded team from the Signal Sciences acquisition.

Similar to last year's approach, we base our revenue guidance on the visibility that we have today, and given our usage-based business model, we expect to gain additional visibility as the year progresses.

For the first quarter, we expect revenue in the range of \$83 million to \$86 million; non-GAAP operating loss in the range of negative \$14 million to negative \$10 million; non-GAAP net loss per share in the range of negative \$0.13 to negative \$0.09.

For the full year 2021, we expect revenue in the range of \$375 million to \$385 million; non-GAAP operating loss in the range of negative \$50 million to negative \$40 million; and non-GAAP net loss per share in the range of negative \$0.44 to negative \$0.35.

Before we turn the call over to Q&A, I want to reiterate Joshua's conviction about the future of Fastly. We're extremely excited about the opportunities that lie ahead. As we continue to augment our compute and security offerings, we believe we are well-positioned for long-term growth and success as we help enterprises innovate through developer empowerment. The quality of our offerings as well as our teams' ability to execute will continue to move us forward as we work to build a more trustworthy internet for our customers.

With that, I'll turn it back to the Operator to take your questions.

Operator

At this time, I would like to remind everyone in order to ask a question, press star, then the number one on your telephone keypad. We'll pause for just a moment to compile the Q&A roster.

Your first question comes from the line of Jonathan Ho with William Blair. Your line is open.

Jonathan Ho

Hi. Congratulations on the strong quarter. I just wanted to start out with maybe your guidance on the cap ex side of things and just trying to understand why you have sort of the confidence level to sustain at a higher level just given some of the headwinds that you're facing from a capacity standpoint from that large customer last year as well as maybe some of the tougher COVID comparisons.

(Multiple speakers)

Adriel Lares

Sorry, Joshua. Jonathan, are you saying why is the number not higher or lower? I just wanted to make sure I understand the crux of the question.

Jonathan Ho

In terms of sustaining above the 10% sort of long-term target, what's giving you the confidence to keep that number higher?

Adriel Lares

Oh, I see. Got it. Yes, I mean, I think where that's really coming from is just the makeup of the customers that we have brought on board and some of the guidance that they're giving us with respect to what they're trying to do, what we're seeing in the customers themselves. As you've heard from me in the past, the cap ex as a percentage of revenue that we have today is still meaningfully lower than what you see in some legacy providers that already exist out there. In our long-term model, we think we can get to 10% while still growing relatively quickly.

So, we're, in some respects, keeping in mind what we've seen so far, particularly in Q4, but also some of the signals that our customers that are currently telling us today which is built into our guidance.

Jonathan Ho

Got it. Just in terms of a follow-up, can you give us a little bit of an update on your large customer and maybe what your expectations at this point are in terms of either a headwind for 2021 or contribution from that customer? Thank you.

Joshua Bixby

Hey, Jonathan, it's Joshua here. Appreciate the question. As we've talked about throughout this process, they remain an important customer to us, they continue to rely on us for important workloads and that hasn't changed. As you know, they peaked above 10% for a short period at the start of the pandemic. But we have a number of large customers and a handful who may come in and out of that 10% category as they grow. As you know, when your services are software based, global and infinitely scalable on the edge, and you're dealing with customers who are growing at unprecedented rates on a usage-based model, you're going to have variations over time. These customers, as you know, rely on us for performance, security reliability, and we're really proud to continue to be the solution that they trust.

So, we have modeled into our guidance the relationship—we have a strong relationship, we've modeled in exactly what we've heard from that customer and that's modeled into our guidance. So we feel optimistic.

Jonathan Ho

Great. Thank you.

Joshua Bixby

Thank you.

Operator

Your next question comes from the line of Robert Majek with Raymond James. Your line is open.

Robert Majek

Great. Thanks. Just wondering if you can give us any more color on Signal Sciences' revenue contribution in the quarter and what's baked into your guide for next year? Then on the expansion metrics, understand that you'll give us updated numbers that include Signal Sciences later in the quarter, but can we just say that Signal Sciences would have added to the net expansion rate?

Joshua Bixby

Adriel, do you want to go over those two?

Adriel Lares

Sure. I'll sort of take the second part of your question first. It's more likely later in the year. The challenge for us is Signal Sciences is a subscription based product and we're working through how we want to continue to offer that, as well as at the same time continue to offer the usage-based model that our Fastly historical customers have been used to.

So I think it's going to take us a little bit of time just to sort of make sure we are thoughtful about how we report those metrics together, especially as they begin to contribute together as we have so far.

Related to what the contribution was for Signal Sciences in Q4, I think you'll recall when we started the quarter we had about an \$8 million deferred revenue, there was—that we had that we thought we would recognize over Q4. We took about a \$2 million deferred haircut related to a purchase price acquisition related to that. So that should give you some sense kind of where we ended up. As for the year, we're modeling in clearly what we had seen from a growth standpoint that we've seen historically, and especially as well as in Q4, and trying to build in that into the current guidance today. It's a little bit difficult to kind of ascertain how much of that will exactly be from Signal Sciences, partially because we're already beginning to sell in a bundled fashion with them, where historically that's very similar to what we've done before.

Robert Majek

Great. Thanks. Maybe just one more from me. Voice chat rooms like Club House and Twitter spaces have been getting a lot of attention lately. It's widely speculated that Agora serves the traffic for Club House. I'm just wondering if this vertical's a potential opportunity for Compute@Edge just given how latency sensitive this traffic is.

Joshua Bixby

Yes, it's Joshua here. Robert, I think that's—we're seeing really interesting opportunities in all of these latency sensitive environments. I'd call your attention to what we talked about in the opening and what we talked about in the letter around gaming, which for the high value games latency is critical. One of the reasons that we're making really strong inroads in that vertical is because of our performance and reliability of that performance. But also, as you mentioned, what edge compute can bring to the table here.

So, I would say, I can't specifically about any customers, but I would say I think the advent of this as a medium is good for our business and good for compute.

Robert Majek

Thanks a lot. Appreciate the color.

Joshua Bixby

Thank you.

Operator

Your next question comes from the line of Tim Horan with Oppenheimer. Your line is open.

Tim Horan

Thanks guys. Can you give us at a high level maybe a sense of how bookings and just overall customer interest has been maybe in the second half of this year versus last year just given the COVID impacts. Secondly, can you maybe just give us a little more color around revenue, maybe what percentage of revenue is kind of tied to application delivery or maybe the volumes versus subscription at this point. I know things are moving around a lot. Thank you.

Joshua Bixby

Sure. Let me start on the first question. I think that overall, the revenue that we have continues to grow as you saw in the quarter. I think that continues to stay in that same range. We've talked in the past about half of our revenue is committed that that remains the same, half of it is usage. When you look at the bookings and customer interest in the second half of the year versus last year, we're really happy and excited. I talked about this in the opening remarks about the strength that we saw in the security side of the business that continues to build on itself, the pipeline continues to build.

We're also starting to see a lot of interest in the compute capabilities that the business brings to the table. I've been personally talking to customers where the security of our compute, the scale of our compute, the performance of our compute. Those three factors are really, really important in purchasing decisions. There are a lot of cross-sell opportunities that we're bringing as we start bringing these multiple products to the table, and given that we're the cloud on-ramp to the three major clouds and we sell a full suite of transport, security, Compute@Edge products and other services, we continue to see that grow.

So, really confident, optimistic in terms of how we saw that.

Adriel, I'll turn it to you in terms of percentage of revenue. Do you want to add some color there?

Adriel Lares

Yes, sure. Thanks, Joshua. Tim, I think if you're purely thinking Signal Sciences, because we do have security revenue outside of that, but if you're just thinking Signal Sciences it was less than 10% in Q4, primarily just from the standpoint if you take sort of the top level number, the amount of deferred that were going into it but what actually got recognized, minus the \$2 million.

So it's sub 10% today. It's clearly growing quickly. Again, we're selling together with Signal Sciences so it's going to be a little bit more difficult as we continue to sort of march through 2021 to separate the two, but at least it gives you a good sense of sort of where we're starting from.

Tim Horan

Thank you.

Operator

Your next question comes from the line of Rishi Jaluria with D.A. Davidson. Your line is open.

Rishi Jaluria

Hey guys. Thank you so much for taking my questions, and nice to see a continued strong results. Wanted to first ask about the net retention in the quarter. If we look at NRR even on a trailing 12 month basis, it did decline sequentially from Q3. Wondering if you could just give us a little bit more color on how—what's going on in that metric? Is that driven just by fewer expansions than maybe we've historically seen? Is that the large customer that we've talked about on the call disproportionately responsible for that? Any color would be helpful. Then I've got a follow-up.

Joshua Bixby

Sure. Adriel, do you want to take a first crack at that?

Adriel Lares

Certainly. Hey Rishi. Recall that the NRR takes the ending month. In particular, last year, sort of our denominator that impacts that number for Q4, we did have a decent sized live event that was nice and is good for the ending quarter of Q4 2019 but it did impact that particular month and that's why you sort of see a decline. It wasn't necessarily related directly to sort of our previously disclosed largest customer. However, two points I'd like to make in addition to that.

If you look at the LTM in our version, which we also published, which is 136.5%, that still showed good strength 2020 over 2019, but as we move further into 2021, there will be some instances. We have, especially as we move into Q2, Q2 was a particularly strong growth, particularly related to COVID. So you may see some impacts in that quarter in NRR and DBNER. I just wanted to sort of give you some sense of some of the impacts that you may see. But at least for Q4 there's nothing there that I saw as sort of negative. I saw that much more optimistically especially when you consider the LTM version of that.

Rishi Jaluria

Got it. That's helpful. Then, Joshua, you highlighted both on the prepared remarks and in the Shareholder Letter some of the strength that you saw in gaming. I believe historically this hasn't been a huge vertical for you, but clearly seem to be getting a lot of real traction there. How are you thinking about the gaming opportunity long term, and maybe what's changed that it's made it a more attractive and presumably less commoditized opportunity than maybe historically has been? Thanks.

Joshua Bixby

Yes. Rishi, great question. I think you know this market, it has two sides to it, right, as the media market does, which is there is a commodity side, and as you know Fastly spends our time and energy certainly on the value side. I think what's changed is two things. The first is, gaming companies are realizing that the performance and particularly the low latency aspect of performance just is more and more important than it ever was. So, there's an element there where as you are trying to drive latency out, reliability up, you start looking around the market and as you know there are not a lot of options to do that at scale and at a global scale.

So that's one element. I think the other element that's really interesting is the opportunities for compute in this market, where traditionally we have seen this market do a lot at the server side and in a lot of markets, this one included, people now are seeing this incredible opportunity to bring logic and compute to the edge, and that's sparking a real transformation, the imaginatory process for people, like what if? And what if, I mentioned it, but I saw a multiplayer version of Doom all running on compute at the edge. When you look at those types of use cases that really transforms how gaming can work in the future and gaming companies, as you know, are always reaching for the future. I mean, they often are the

trailblazers in this area. So I think there's a trailblazing element, which has grabbed attention through compute and there's also this need for low latency and high performance which just continues to amp up.

Those are two reasons that we're certainly seeing and I'm seeing in the discussions I'm having. It's exciting.

Rishi Jaluria

Right. Wonderful. That's really helpful. Thank you so much guys.

Joshua Bixby

Thank you.

Operator

Your next question comes from the line of Jeff Van Rhee with Craig-Hallum. Your line is open.

Jeff Van Rhee

Great, thanks. A couple of quick questions. First, I guess, Adriel, as it relates to '21, if I look at the non-GAAP operating loss, it looks like there's about maybe, I don't know, \$20 million or so more spend in there relative to where the Street was. Just curious if you break that down by line item, where you think that's going to fall, what exactly are you spending more on? Just a little color there would be helpful.

Then, congrats on the hire. Obviously, Brett joining the team brings a lot of skills. Just curious any previews in terms of additional areas of focus out of the gate, things that might change here.

Joshua Bixby

Sure. Adriel, why don't you go ahead and take the spend one and I'll go take the Brett question after?

Adriel Lares

Sounds good. Yes. Primarily the driver for the spend, if you look at our Q4 non-GAAP operating burn, it basically gives you a bit of a preview with our expanded acquisition and the expenses brought on with the Signal Sciences team. It's really sort of an acceleration investment into that, but it's really driving where we are in 2021. Another way to sort of put this in perspective as well is, our non-GAAP operating loss in 2019 was at minus 17%. If you look at the year of 2020, it was minus sort of nearly 6%, about 5.8%.

So there's a little bit—if we kind of—it got a little further ahead and sort of a scheduled preview at scale what this could look like, but we still want to invest and we're still on a path to eventually get to profitability and I think 2021 is still within that path. But in terms of sort of how it breaks down, I don't know that the category's going to look all that different than they were historically. We want to spend certainly more into brand and marketing to go after the security TAM that we're going after as well as Compute@Edge. So we've got some spending in there, the R&D effort with the engineers that we brought on with Signal Sciences and certainly some additional investment around question two.

I think G&A is an area where we do want to get some leverage that's going to take us a little bit longer in 2020. We want to make some investments there so that we could continue to scale that area. But right now, I'm comfortable with just our ultimate path. Again, Q4 was a good sort of preview for the launching pad for 2021.

Jeff Van Rhee

Mm-hmm.

Joshua Bixby

Yes, and on Brett, I'm thrilled about that announcement. As you know, this has been a process for us to really get the right person. In terms of focus areas, we see just a tremendous opportunity on this security-led story arc here. I've started to talk to customers who are not only using us for their web and API security, but certain of their IT applications and IT workloads. I think that's a really interesting area of expansion for us. If you think about us being the on-ramp to the three major clouds and a full suite of transport, security compute features, there's still a lot to do in terms of getting out there and having that message be heard.

So, a really strong focus on landing new customers, a continued focus on ensuring that the customer experience that we have - and that's highlighted by 99% revenue retention rate, which is tremendous - that we keep that as we grow.

So, as Adriel said, we're going to continue to invest here. We are just over the moon with the Signal Sciences team and feel so thrilled that they're here. There's still work to do in terms of integrating them. But I'm really excited about the security-led side.

And then when we look at the compute side of our business, that really allows us to democratize some of our work. So, where can we attract more developers at scale? I think those are two areas that he's definitely going to be focused on.

Jeff Van Rhee

Great. Very helpful. Thanks a bunch.

Joshua Bixby

Thank you.

Operator

Your next question comes from the line of Brad Zelnick with Credit Suisse. Your line is open.

Ray McDonough

Great. Thanks. This is Ray McDonough on for Brad. Maybe one for Joshua to start. In the Shareholder Letter you briefly mentioned that you've developed methods to leverage the platform to deliver streaming traffic in a more scalable and profitable way. Can you provide some color on what those methods entail, how that might impact if at all the type of traffic you're willing to take on, and if that changes the way you think about the price points at which you're willing to take on on various types of traffic?

Joshua Bixby

Yes. Ray, it's a great question. I'm really proud of the work that we're doing there. So we talked about a few components of that. Precision Path is one of them. We have since the start of Fastly been asking ourselves the question, how can we deploy the most efficiently? How can we get the most value out of

our network, out of the bandwidth that we have? And how can we bring these sort of self-healing capabilities into our network so that we can do this efficiently? If you look at the number of POPs, the number of servers, the number of people we have, efficiency and optimization has always been front and center.

So, I think the answer is we are looking to continue to spend our time and our energy focusing on the high value side of this market. When you bring value, and that's demonstrated by the gross margin leverage that we demonstrated in Q4 with the growth, there's a lot of high value business out there. As I talked about earlier, in the gaming sector, more and more people are realizing that performance really matters. This is a process that is going to take—is going to continue to take hold, but we're really seeing that 2020 was a year where that became really, really in focus.

I would say, examples of that would be Precision Path. We talked about our support of Quick. All of this is about better, faster, more reliable. And then we're constantly looking at efficiency. I mean, from the first days that the business started how can we get the most out of our hardware.

I don't think it changes our focus. It doesn't change the types of customers we go after. It really doesn't focus on sort of opening up the bottom end of this market or the low value side of this market. We're going to continue focused exactly where we are and, as Adriel said, we'll continue to show gross margin leverage towards our mid term model of 70% gross margin and we're making traction in that regard.

Ray McDonough

That's helpful. If I could, maybe a follow-up for Adriel. Just to build on Robert's question around guidance and what's included from a Signal Sciences perspective, is it fair to grow what seems like a \$6 million contribution this quarter to something where we get to something like a \$30 million or \$40 million inorganic contribution from Signal Sciences in '21? Maybe you can kind of comment on that gross margin impact. Should we expect incremental expansion on the core Fastly business as we think about 2021 and layering in Signal Sciences?

Adriel Lares

Yes. I would think about it, just given that it's early in the year, and as you recall, last year when I gave guidance for 2020, clearly, you know I had the idea of sort of coming up for all of us, but I kind of guided at sort of a 30-ish percent annual range for growth. I'm trying to take a similar tack this year for the overall business, and that's actually including Signal Sciences. They were growing clearly quite fast when the acquisition was first announced, and I think for now, just given that it's early and we are trying to really emphasize the cross-sell possibilities here, I would sort of stick at least for now at a high level just kind of incorporated in together with us, and then as we get a little bit further into the year, we can give you a little bit more perspective in terms of what we're seeing. This last quarter was great in terms of just the initial indications about our ability to sell together with Signal Sciences, but we're now sort of one team and I think at least for guidance sake I'd sort of just keep to where we are today.

Ray McDonough

Okay. Great. Any thoughts on just core Fastly margins and the expansion there?

Adriel Lares

Yes, I think from a sort of core margin standpoint, there's certainly, as Joshua just pointed out, there's reasons for optimism. I mean, at this point, going to think about it from an overall gross margin standpoint in 2021. I still feel good about adding somewhere a hundred bps and more, but again I want to sort of see

the mix. For us where it really matters, what's the mix both in the type of traffic we have and that we have Signal Sciences which will be incremental to that and additive to that, I want to see how the mix of them growing with us can possibly accelerate that, but we've got a little bit more time as we get further into the year.

Ray McDonough

Makes sense. Thanks for the color. Appreciate it.

Joshua Bixby

Thanks, Ray.

Operator

Your next question comes from the line of Will Power with Baird. Your line is open.

Charlie Erlikh

Hey. This is Charlie Erlikh on for Will. Thanks for taking the question. I was hoping to ask you a question about guidance and maybe just what's contemplated in the revenue guide in terms of the macro environment, COVID-19 in terms of opening up and potentially starting to work from the office and whatnot. Hoping you can maybe talk about some of the assumptions you're making in the 2021 guidance in terms of those factors.

Joshua Bixby

Sure. Adriel, why don't you start?

Adriel Lares

Sure. I mean, kind of based on answer previously that I gave, I think we're being conservative just in terms of what we—how much visibility we can see at this point. Certainly, we've got a bit more visibility into Q1 in terms of what we see so far. In terms of sort of the macro perspective, I think we do see—we've certainly taken note of what folks have chosen, some other legacy CDM (phon) providers have noted about, their assumptions of the world. I think vaccines are rolling out. I think we hope for, personally I hope for sort of more normalized year and I think for now we're not assuming anything faster than that at this point.

So I think that's why you kind of see the guidance numbers are what they are. Again, as we get a little further into the year we'll have a little bit more sense of kind of what world are we going into and how much of a faster or a slower growth rate than what we originally thought.

Charlie Erlikh

Okay. Yes, that makes sense. Is there any way to maybe think about potential contribution from Compute@Edge in 2021 revenue, or is it just mainly ramping in 2021 and seeing more meaningful impact in '22? How should we think about the contribution from that?

Adriel Lares

Yes. My perspective on that is that we were always, at least from my perspective, always thinking about this was a year to learn. In 2021 we've certainly gotten some early learnings so far from some early customers. There could be some meaningful contribution but if there would be it would be in the latter half of the year. Again, I'm thinking about 2021 as much more just learning what are the use cases, what are the verticals that we can use to learn as we lean into 2022 and beyond.

Charlie Erlikh

Makes sense. Thanks, Adriel.

Joshua Bixby

Thanks, Charlie.

Operator

Your next question comes from the line of James Fish with Piper Sandler. Your line is open.

James Fish

Great guys. It's our understanding there are a few larger media renewals up in Q4 and actually for the first half of the year. How have you and are you approaching those renewals and specifically what are you guys seeing around pricing given a lot of the noise out there?

Joshua Bixby

Yes, it's Joshua here. I think that we have renewals all the way through the year including in Q4. What you see in Q4, obviously with the increase in gross margin and the increase in usages, is we feel confident about what we saw in the past. I think when we look forward, as we've talked about, our innovations continue to drive value. There is a commoditized delivery business in the market. We have stayed away from that. I think that's proven to be a prudent choice.

We continue to look for customers who care deeply about the performance of their content, who care about the security of their content, and want it to be reliable. So we've always taken a balanced approach here. I don't think that that's going to change going forward. We simply don't do deals that we think are bad for the business.

And premium content, we think, demands that performance and reliability. So nothing in the future that would be unusual in that regard, and we continue to remain optimistic.

James Fish

Got it. Understood. And then obviously, Brett comes from a good background at Rubrik. I guess what made you guys pick Brett? Is it for his background on sort of the storage and security side, as you start to think about edge computing and edge services or is it more like the enterprise experience or something else?

Joshua Bixby

Yes. It's really a combination of all of that, plus. I mean if you think about the VMware experience, if you think about the security experience and the Rubrik experience, what you get is you get that enterprise,

you understand security infrastructure, you understand compute, you've seen fast-charging growth start-ups, you've seen around the corner to billions of revenue. All of that was really valuable to us.

So I think we understand as we grow that we need to continue to invest and optimize. That's certainly going to be a theme for 2021. And he's the right leader for that. So really, it's a combination of all of those plus. Very excited about it.

James Fish

Thanks, Joshua.

Joshua Bixby

Thank you.

Operator

Again, if you would like to ask a question, press star, then the number one on your telephone keypad.

Your next question comes from the line of Walter Pritchard with Citi. Your line is open.

Walter Pritchard

Hi. Thanks. Just want to make sure we're totally clear here on this Signal Sciences contribution. So you had modeled \$8 million coming off the balance sheet, and it ended up being \$6 million because of the write-down rate.

As you go into Q1, is it fair to say that you have that sort of \$6 million rolling off as well at that rate? And then I think that probably doesn't include kind of new business that you're signing—either that Signal Sciences are doing on their own or you're doing on a bundled basis. I'm just trying to get a sense as to the balance sheet piece and then the new business that would roll into Q1 and then as we proceed throughout the year.

Joshua Bixby

Hey, Walter. Yes. You got that methodology correct. As anything booked post-October 1st since the acquisition has no purchase price accounting adjustment, so you get clearly a full revenue credit moving forward.

So from our standpoint, it really nails how successful are we together and sort of bringing on those new bookings together. So that's a good methodology, at least a good way to think about it.

Walter Pritchard

As we think about Q4, the contribution to revenue, I mean, the six plus, there was another piece there, and then Q1. Is there any way you could help us understand kind of what that total picture is? Because I think that's really the piece that people are going to try to get to understand the underlying growth rate of Fastly pre-Signal Sciences?

Adriel Lares

Yes. And I think that's the part where it begins to meld in with some of the combination selling that we do together. So I'll try to give you just a ballpark for now, and your methodology is probably ballpark correct. And I think as we move into Q1 and in Q2 of this year, those are going to begin to blend together.

So it's not going to be distinctively Signal Sciences or distinctively Fastly. They're going to be sold together. Many of our customers buy delivery and security. They want to sort of secure that Fastly is at.

And so they'll buy sort of one blended rate. From our standpoint, we're beginning—I want to give you sort of a starting point, at least a direction to go. But at least as we begin to move forward, we're not going to break those out at this time.

Walter Pritchard

Then just on headcount, I think somebody had asked earlier on the spending, any sense as to where headcount may end the year? Just so we can sort of understand kind of that picture in totality, understanding there's a Signal Sciences piece layered in and your organic growth as well.

Adriel Lares

Yes. We added about—in Q4, we added about 150 folks from the Signal Sciences team. I'd say, given where we ended the year at about 939, we're going to certainly add a number of folks. I don't think we're going to add at the sort of the same clip as we did in Q4.

Clearly, that was a nice bump, and we're probably going to ameliorate that. But given that the leverage—or sort of the operating burn that we just experienced in Q4 is more indicative for the year, we'll probably grow the rates more similarly. Although the idea is that by the end 2021, we're going to sort of reassess where we are at that point, how fast we're growing, what are we getting for that investment in headcount? And if we continue to see great returns on that, then we'll sort of reconsider where we are at that point. But hopefully, that gives you some sense as to kind of how we're thinking about the year.

Walter Pritchard

Great. Thanks, Adriel. Okay. Thank you.

Joshua Bixby

Thanks, Walter.

Operator

Your next question comes from the line of Tal Liani with Bank of America. Your line is open.

Tal Liani

Hi, guys. I wanted to ask about the core growth that a lot of people already asked. And I'm trying to understand the—if you can quantify the impact of COVID, and I don't know if it's possible at all. But I looked at your revenues last year, 4Q was—I'm generalizing.

4Q was \$60 million, 1Q was \$63million, and then it jumps to \$75 million and \$71 million. And there was also TikTok in the mix. And I'm trying to understand if you saw an increase post-COVID, post work from home, which would be natural for your kind of business. And if that's the case, wouldn't the growth rates

decline this year just because of the tougher comps? So I don't know if you can quantify for us a little bit of the TikTok contribution kind of throughout the year or something or talk about it just qualitatively?

Joshua Bixby

Yes, Tal. It's a great question. Obviously, it's hard to look in a crystal ball for next year. I think what we've seen is a few phenomenon.

The first is that every industry is different, but we're seeing more people use the Internet. And you've seen that and we've seen it and behavior and habits have changed. So I think the first element of this is we believe that there are sustainable changes that have happened to the digital transformers. They will maintain additional market share and continue to grow.

Is there a new normal? We don't know. We're trying to be conservative in how we look at it, but we certainly look at the future optimistically. We believe that those who are digitally transforming are taking an outsized share of market, and that outsized share continues to grow. So that's one element.

I think the other element that's important here, and we've been talking about it, is just the role that security plays here. As we continue to innovate, bring fast and reliable digital experiences to all people around the world, what we're seeing is additional threats. Right? So naturally, these threats in security needs to follow the traffic. And what we are seeing is that it takes a totally different tool to fight against these attackers.

Attackers are developers, too. They're not bogged down with the limits of legacy solutions. They're nimble. They're using modern tools, modern workflows.

They're digitally transforming, too. And so there's two elements here which are driving our optimistic view of the future. The first is this digital transformation and additional market share. The other element of this that's important is around security and what we're seeing there.

So as Adriel said, we're guiding conservatively, and we think that that's prudent. And we're seeing these tailwinds that we're really enthusiastic about. So I don't know if that totally answers your question, but that's how we're looking at it right now.

Tal Liani

Can I have a follow-up? Last quarter, there were questions about it throughout the quarter, and maybe you can speak about—and again, I don't know how much you can share with us, but the more you share, the better. You can share with us kind of the role of TikTok—or your role in the network of TikTok. Meaning is the traffic gone completely? Or are there types of traffic that they can remove and types of traffic that can—that has to stay on your network? So can you talk about your role in the service of a company like TikTok, and again, as specific as you can?

Joshua Bixby

Sure. Yes. And they remain an important customer. They continue to rely on us for important workloads.

As you know, they peaked above 10% for a short period at the start of the pandemic, but we have a number of large customers and a handful, as I said, who may come in and out of this 10% category as we grow and as they grow. So ultimately, we have a strong relationship. We continue to be very close to them. We've modeled in what we see for the year.

But we have, in the quarter and over the last few months, continued to diversify and get more large enterprise customers. There may be more 10% customers in the future, but our model is really built on a handful of these and continued growth. So I think as enterprise business, that's part of our growth.

Tal Liani

Got it. I'll take it off-line because I'm trying to understand what kind of—when they go down, what kind of services they have to keep on your network because you provide something unique they cannot find anywhere else and what kind of traffic they can remove out of your network because it's more of the commodity part. So we can take it offline to discuss it.

Joshua Bixby

Thanks, Tal. Appreciate it.

Operator

There are no further questions at this time. Mr. Bixby, I turn the call back over to you for closing remarks.

Joshua Bixby

Before we sign off, I want to thank our employees, customers, partners, and investors. I'm extremely proud of all that our team has accomplished in a year filled with such uniquely challenging circumstances and unexpected road bumps. And we're humbled to be both a witness and enabler for how we've supported our customers, many of them thriving even under incredibly difficult circumstances. I look forward to seeing what lies ahead for all of us this year, and I hope to connect with many of you at the upcoming Morgan Stanley TMT conference.

Thank you.

Operator

This concludes today's conference call. You may now disconnect.