SNAP INC. Q4 2021 TRANSCRIPT

BETSY FRANK, SENIOR DIRECTOR, INVESTOR RELATIONS

Thank you, and good afternoon, everyone. Welcome to Snap’s Fourth Quarter 2021 Earnings Conference Call. With us today are Evan Spiegel, Chief Executive Officer and Co-Founder, Jeremi Gorman, Chief Business Officer, and Derek Andersen, Chief Financial Officer.

Please refer to our investor relations website at investor.snap.com to find today’s press release, slides, prepared remarks, and our updated investor presentation.

This conference call includes forward-looking statements which are based on our assumptions as of today. Actual results may differ materially from those expressed in these forward-looking statements, and we make no obligation to update our disclosures. For more information about factors that may cause actual results to differ materially from forward-looking statements, please refer to the press release we issued today, as well as risks described in our most recent Form 10-Q, particularly in the section titled Risk Factors.

Today’s call will include both GAAP and non-GAAP measures. Reconciliations between the two can be found in today's press release. Please note that when we discuss all of our expense figures they will exclude stock-based compensation and related payroll taxes as well as depreciation and amortization and non-recurring charges. Please refer to our filings with the SEC to understand how we calculate any of the metrics discussed on today’s call.

With that, I'd like to turn the call over to Evan.

EVAN SPIEGEL, CHIEF EXECUTIVE OFFICER AND CO-FOUNDER

Thank you for joining our call. The fourth quarter marked the end of an exciting and productive year for Snap. We grew our community, expanded our product offerings and demonstrated the power of our augmented reality platform, both inside and outside of the Snapchat application. We faced some fresh challenges in 2021 but posted strong results, reflecting substantial progress on our journey to sustainable growth and positive cash flow generation. We grew revenue 64 percent year-over-year in 2021, including 42 percent year-over-year growth in the fourth quarter. We achieved adjusted EBITDA profitability for the second consecutive year; we recorded our first full year of positive free cash flow; and Q4 marked our first quarter of positive net income. Achieving positive free cash flow for the full year is an important milestone as we are increasingly able to self fund our investments in the future, which positions us well to accelerate our vision for computing overlaid on the world through augmented reality.
In Q4, our community grew by 20 percent year-over-year to 319 million Daily Active Users. We grew sequentially in each of our three regions. While North America and Europe represent our largest monetization opportunities in the near and medium term, Rest of World represents our largest community growth opportunity. We've made a concerted effort over the past year to organize our team and make investments in our products to realize these monetization and community growth opportunities. Our expansion efforts in India continue to prove successful and we are using our learnings to inform how we approach community growth in new geographies.

Our desire to build a better way of communicating visually through our camera has evolved into a leading platform for augmented reality. Our AR products and services are driving major impact at scale today, as Snapchatters use our services to shop, play, learn, explore, and entertain themselves. Over 200 million people engage with augmented reality on Snapchat every day, and our community now plays with AR Lenses an average of more than 6 billion times per day. This momentum, and the creative energy of the Snapchat community, makes us incredibly excited about the future of augmented reality.

At our Lens Fest AR developer event in December we gave an update on the strength and diversity of our AR developer community, which continues to grow. There are now over 250,000 Lens Creators from more than 200 countries and territories who use Lens Studio to build AR experiences. They have made more than 2.5 million Lenses that have been viewed by Snapchatters now more than 3.5 trillion times, and over 300 creators have each reached more than a billion views of their Lenses. As Snapchatters explore new AR experiences to enhance what they see and do in their daily life, we will continue to develop tools to empower Lens Creators to push the boundaries of what is possible through the Snapchat Camera.

At Lens Fest we also shared the ways that we are supporting Creators and evolving the tools they use to build for our platform. We introduced a Lens Call-To-Action feature that lets Creators include a link within a Lens, making it easy to drive Snapchatters to a new destination, like a shop, from within the AR experience. We’ve made a catalog of licensed music and audio clips available to integrate into Lenses so that Creators can build more immersive experiences. We rolled out our Gifting feature, which lets Snapchatters directly support Lens Creators through Story Replies, and announced Ghost, our AR innovation lab providing grants of up to $150,000 and Snap team support for creative AR projects.

In addition to the momentum with augmented reality on Snapchat, we are very excited by the growing demand from businesses who want to bring Snap’s AR capabilities into their own apps and websites. We are meeting this growing demand through Camera Kit, which enables partners to easily integrate our AR technology and Creator ecosystem in ways that meet their business objectives. With their Camera Kit integration, DRESSX invites users to try on and wear digital fashion in real time, supporting unique experiences that combine the physical and digital realms. DRESSX has seen incredible success and engagement, as 75 percent of their total app users engage with AR Lenses, and users try on AR
Looks 22 times per day on average. By extending the reach of their AR Lenses onto the DRESSX Public Profile within Snapchat, DRESSX drove a 120 percent increase in their Public Profile subscriptions.

This quarter we made significant progress with our Spectacles AR glasses, the fourth generation of a product line that we first introduced more than five years ago as a fun, hands-free camera designed to help capture your perspective while staying in the moment. Hundreds of Creators from 30 countries have now developed AR Lenses for Spectacles, overlaying computing on the world in an immersive and interactive way. We have continued to make software improvements and offer new capabilities for developers, including Connected Lenses, which link multiple Spectacles users to participate in the same AR experience together, and Location Triggers, which lets Creators customize Lenses to adapt as they visit specific locations.

Our Content business comprises two of the five main screens of our application: Stories and Spotlight. Despite substantial competitive pressure over the years, Stories remain our largest driver of revenue. It’s a platform where Snapchatters share Snaps with their friends in narrative form via Friend Stories, and watch content from professional publishers and influencers in Discover. Spotlight, our newest platform, surfaces the most entertaining Snaps from our community, and we’ve been overwhelmed by the positive response from viewers and, increasingly, Creators.

On our Discover platform, our content partners continue to find success. In Q4 2021, 25 different Discover partners each reached over 50 million unique Snapchatters globally. This captures a wide range of genres, from Universal Music’s Rebel Labs, to social publisher Jungle Creations’ lifestyle content, Team Whistle’s sports content, and Creator-driven Shows from Jellysmack. We are also introducing more locally relevant partners worldwide. We added more than 160 new channels in the quarter from Discover partners outside of the U.S. and onboarded new partners including Seven.One Entertainment Group in Germany and Canal+ in France.

We are also investing in content from underrepresented voices through the 523 Content Accelerator program we launched in Q4 to support and promote small, minority-owned content companies that lack access and resources relative to their larger competitors. Snap Originals are another successful element of our strategy to reflect the diversity of our community through our content. In 2021, over 50 percent of Snap Originals featured diverse leads or hosts. We rolled out successful new shows including the Me and You Show which stars Snapchatters and their friends using our Cameos feature, and reached over 50 million viewers in Q4.

In Q4 2021, the number of content viewers on Snapchat continued to grow at a significantly faster rate year-over-year than overall time spent watching content, as a decline in time spent watching Stories created by friends was offset by growth in time spent watching premium content in Discover as well as content in Spotlight. This is a continuation of the trend we have observed throughout the pandemic, and friend story posting and viewing per Daily Active User have not returned to pre-pandemic levels.
While we are hopeful our community will in time return to the friends story behaviors that we observed prior to the pandemic, we are focused on innovating on our content offerings to better serve our community today. With so many different types of content on Snapchat from friends, Creators, and media companies, we want to make it easier for Snapchatters to find what they want to watch, when they want to watch it. We're optimistic about the results we're seeing from early experiments, and look forward to rolling out more product changes this year.

We also continue to make progress building out Spotlight. We have learned a lot from our Creator community that will drive the evolution of the overall Snapchat content experience, including the relationship between Spotlight and Discover. Already, more than 20 Spotlight Creators are syndicating Shows on Discover. This supports our vision of Spotlight as a platform where audiences can discover new Creators, topics, and communities, and then engage with them more deeply on Discover. We have also been able to effectively utilize Creator incentives to grow and diversify Spotlight content. In its first year, we rewarded more than 12,000 Creators through a variety of programs. More recently, we have shifted our incentives to reward a broader range of content across categories and geographies. We are focused on supporting a diversity of platform-native content creation in order to build robust, sustainable content supply.

In Q4, we prioritized helping Creators reach new audiences, and we saw the number of Spotlight viewers subscribing to Creators more than double versus the prior quarter. These efforts have also improved the viewer experience, with the number of Snapchatters favoriting Spotlight Snaps increasing by 20 percent sequentially. Since launch, we have seen our Creator community grow dramatically in scale, and we have been particularly encouraged by how creators are investing in the platform. Today we see 3x as many monthly posts per Creator than we did when Spotlight launched a year ago. We created Spotlight to amplify the best of Snapchat, and today over 65 percent of Spotlight submissions use one of Snapchat’s AR Lenses or Creative Tools.

We are adding utility in other areas of Snapchat as well. We’ve made our Map even more personal by launching our first two Layers, Memories and Explore, which allow users to view their saved Snaps by location and explore new Snaps submitted around the world. These Layers been used over 100 million times since launch. We also continue to build engagement by making Places easy to discover, favorite and share with friends.

Within our Communications platform, we continue to add new Games and Minis to further promote shared experiences with friends and add additional utility for our community. Developers are finding opportunity and success with Games on Snapchat. For example, we signed a deal with partner Voodoo Games to build at least 20 games for Snapchat in 2022, on the heels of five new games built in 2021. Another partner, MojiWorks, released their second hit game, Trivia Party, following their hit Ready Chef Go. MojiWorks has now reached nearly 100 million players across the two games.
We’ve rolled out new use cases for Minis, with partners ranging from startups to established brands finding success on our platform. For example, after a successful Greetings Card Mini, Givingli recently launched a Gift Card eCommerce Mini that enables Snapchatters to buy branded gift cards such as Sephora, DoorDash, or Taco Bell and easily gift them to their friends on Snapchat.

Given the enormity of the opportunity in front of us, both in terms of the Snapchat application as well as our augmented reality platform, 2022 will be a significant investment year for us as we work to accelerate our roadmap and deliver against our long term vision of computing overlaid on the world. We will continue to remain focused on doing the right thing to promote the safety and wellbeing of our community, investing in new technologies and teams to protect Snapchatters and ensure they have a positive experience with our products. The trust of our community is essential to us, and we don't take it for granted. We work every day to improve and we are always learning how we can better support our community.

I’ll now turn it over to Jeremi to discuss more about our business.

**JEREMI GORMAN, CHIEF BUSINESS OFFICER**

Thanks Evan. In 2021, we delivered strong results amidst several challenges to our industry, and demonstrated the resilience of our team and our business, while investing in the future of our platform. We generated $4.1 billion in full year revenue, an increase of 64 percent year-over-year, which is an acceleration of 18 percentage points over 2020. In Q4, we generated total revenue of $1.3 billion, an increase of 42 percent year-over-year, amidst headwinds to both our Direct Response and Brand businesses. On the Direct Response side, we continued to work through challenges presented by Apple’s ATT-related changes and we are making solid progress. As anticipated, on the Brand side, macro headwinds related to supply chain disruptions and labor disruptions materialized, and remain unresolved in the new year. Despite all of this, we continued to onboard new advertisers, which drove our active advertiser count to another all time high.

We remain focused on our many opportunities to support our community and advertising partners, which we believe will be driven by three key priorities. First, driving ROI through optimization and measurement. Second, investing in our sales and marketing functions by continuing to train, hire, and build for scale. Third, building innovative ad experiences around video and augmented reality. Our unwavering commitment to these three priorities, along with our unique reach and growing, global audience, allows us to drive performance at scale for businesses around the world.

Our sales team is working hard to help advertisers adapt to the new measurement paradigms brought about by Apple’s iOS privacy related changes. Our advertising partners who prefer to leverage lower funnel goals, such as in-app purchases, have been most impacted by these changes. We are seeing these advertisers migrate to mid-funnel goals where they have greater visibility, such as install or click.
Advertisers who optimize via web-based goal-based bids, or GBBs, have been less impacted given that many of them have adopted the Snap Pixel.

Many of our advertisers have enabled both Apple’s SKAdNetwork, or SKAN, as well as our own first party measurement solutions, which we broadly refer to as Advanced Conversions, or AC. While SKAN has benefits in its ability to report deduped results across multiple platforms, AC offers our performance advertisers much more flexibility and more advanced features. We continue to improve Advanced Conversions with features such as Estimated Conversions, which augments observed conversion data with real-time data to help in better decision making. Ultimately, first party integrations allow us to build out measurement solutions based on advertiser input and directly connect to how our formats and targeting work, so that businesses have the most accurate view of ROI. These allow us to preserve the privacy of our community while helping advertisers weather the disruption from platform changes.

We believe it will take time to achieve broad enablement, utilization, and full confidence in these measurement solutions among our advertiser base; however, we are pleased with the early progress we’ve made with many advertisers thus far as these new solutions are now enabled for advertisers that represent more than 75 percent of our Direct Response Revenue.

Right now we are focused on helping advertisers gain confidence in these new solutions. This includes helping them perform lift studies which can take multiple weeks or more depending on the scale of an advertiser’s campaign. As mobile ads measurement moves to more holistic, cross-platform views, we are seeing positive results with solutions including media mix modeling and multi-touch attribution performed by advertisers in-house or through the wide range of measurement partners with which we are integrated.

Our Direct Response business continues to account for the majority of our revenue. This positions us well for the long term as we believe that driving measurable performance and ROI makes Snapchat an essential part of the growth strategies of businesses worldwide. Over time we’ve seen strong results when advertisers test with us, gain confidence in our ability to demonstrate meaningful return on ad spend, move us into their always-on budgets, and expand our share over time.

Over the years we’ve partnered with Hollister to help them leverage many of our ad formats, such as Snap Ads, Lenses, and Commercials, which have all proven to be effective at driving strong business results. This quarter, Hollister went a step further and began testing Dynamic Ads to drive conversions during the holiday period. They initially saw strong return on ad spend and with the introduction of our new multi-format delivery solution, we were able to double Hollister’s return on ad spend while simultaneously bringing down overall CPMs.
Advertisers seeking to drive web-based conversions have remained relatively resilient through ATT, as many had already implemented our Snap Pixel and built confidence in our first party measurement solutions. As an example, this quarter, eCommerce fashion company Pangaia leveraged our Pixel purchase optimization via Snap Ads, Story Ads, and Dynamic Ads, which resulted in a 5x return on ad spend and was above their 2x target.

We continue to invest in our sales and sales support teams to better service our advertising partners globally. Three years ago in North America we moved away from a regional sales structure and verticalized our sales team, which allowed us to become hyper-focused on the specific support advertisers needed in different industries.

While we have been undergoing the same transformation globally, due to smaller team sizes outside of North America, we’ve been slower to verticalize, and international teams have worked without the levels of surrounding support we’ve provided our sales team in North America. In 2021, we made substantial investments in over ten markets outside of North America that represent a combined digital ad market of over $270 billion. At its core are three investment principles. First, we are investing in markets where Snapchat reaches more than 70 percent of 13 to 34 year olds and there are large and established digital ad markets. These are the markets where we see an opportunity to grow our share of budgets internationally over time. Second, the incremental resources will improve local and regional decision making authority. The faster we are able to make decisions, the better we can service our advertising customers and the faster we can grow our business. Lastly, we have seen that when a region has a ‘full-stack’ of cross functional resourcing, including functions like business marketing, measurement, and product marketing, we are more relevant in-market and can drive revenue growth more quickly. We’ve made a lot of progress in getting these resources in place this year and are excited about their potential to make a meaningful impact.

We continue to invest heavily in our video advertising products. We partnered with the global Dentsu team on their Attention Economy study, where Snapchat Commercials were shown to be more than twice as likely to be viewed and had 6x the attentive seconds per one thousand impressions versus the digital ad platform average. Commercials have been a popular ad format with both large brands as well as performance advertisers. For example, Cash App ran a Multi-cell Brand Lift study exploring the multi-product effect of Commercials in addition to Snap Ads. Users exposed to Snap Ads and Commercials saw a 12 pt increase in Brand Awareness, a 13 pt increase in Ad Awareness and a 5 pt increase in Action Intent.

Augmented reality represents one of our most exciting long term revenue opportunities. AR is unique in that it is a fully immersive and interactive experience that delivers a measurable and repeatable return on investment for advertisers. In Q4, we saw many advertisers increase their investments into AR advertising by leveraging our GBB Pixel purchase optimization for AR to bring unique experiences to
Snapchatters, spanning verticals like makeup, retail, streaming, food delivery, technology, and ecommerce.

We’ve invested heavily into building tools and capabilities to make it easier for advertisers to create, manage, and deploy their AR experiences. For example, cosmetics company MAC utilized our self-service Lens Web Builder tool, which is now broadly available to all beauty brands, to build several AR try-on makeup Lenses. The campaign ultimately drove 1.3 million try-ons, a 2.4x higher lift in Brand Awareness, a 9x higher lift in Intent, and among female Snapchatters, a 17x higher lift in Purchases.

These types of results are emblematic of a larger shift we are seeing, with AR transforming ecommerce. We believe that AR represents a consumer-centric shift in how our community shops and experiences new products, with virtual try-on and visualization allowing consumers to make the leap from “this looks good” to “this looks good on me.” This leap could help lower returns and increase conversion rates for retailers. Our focus is to reduce the friction in creating and distributing AR experiences on and off Snapchat.

After a successful beta program, last week, we fully rolled out our new Catalog-powered Shopping Lenses, a completely new format built to enable shopping through the use of augmented reality. Each Lens features a product card, where Snapchatters are able to see real-time information about a product’s name, price, and description. It also gives product-level insights into the performance of specific SKUs, allowing much richer feedback for the advertiser. This supports our priority of driving ROI for advertising partners as it gives them much richer signals for delivery and optimization. For example, Ulta Beauty has been activating an “always-on” AR approach to beta testing Catalog-powered Shopping Lenses. This campaign generated $6 million in purchases on Snapchat, and over 30 million product try-ons. More early adopters are seeing Lenses drive significant increases in return on ad spend and conversion with this new format, and we’re excited to invest in this for 2022.

We demonstrated the resilience of our business, our team, and our advertising solutions in 2021 in the face of ongoing macro challenges and changes in the digital advertising industry. These challenges are not behind us, but we are increasingly confident in our ability to navigate them. We have a large and engaged audience, and we remain focused on supporting our advertising partners by driving ROI through optimization and measurement, investing in our sales and marketing functions, and building innovative ad experiences around video and augmented reality. We are confident in our long-term trajectory and excited to execute against our priorities in 2022.

And with that, I’d like to turn the call over to Derek.
DEREK ANDERSEN, CHIEF FINANCIAL OFFICER

Thanks Jeremi. Our Q4 financial results reflect our priorities of growing our community, making focused investments in the future of our business, and scaling our operations efficiently in order to drive towards profitability and positive free cash flow.

As Evan mentioned earlier, our community grew to 319 million Daily Active Users in Q4, an increase of 54 million or 20 percent year-over-year. In North America, DAU grew by 5 million or 6 percent year-over-year to reach 97 million. In Europe, DAU grew by 8 million or 11 percent year-over-year to reach 82 million. In Rest of World, DAU grew by 40 million or 41 percent year-over-year to reach 140 million as we continue to execute against the international growth playbook we laid out at our investor day one year ago, including investments in local language support, local content, local marketing partnerships and support for local Creator communities.

Total revenue for Q4 was $1,298 million, an increase of 42 percent year-over-year, down from 57 percent in the prior quarter, but exceeding our expectations entering the quarter. At a high level, the macro headwinds we anticipated entering the quarter materialized largely as we expected, but our Direct Response advertising business began to recover from the impact of the iOS platform changes quicker than we anticipated.

The macro headwinds included supply chain disruptions and labor related factors, which impacted our Brand advertising business most directly, with the Consumer Packaged Goods and Restaurants sectors of the Brand business being impacted most significantly. These headwinds, and their impact on growth rates for upper funnel objectives commonly utilized as part of Brand campaigns, such as impressions and views, were the largest contributors to the sequential decline in year-over-year growth in Q4. Excluding the Restaurant and CPG sectors, revenue from our Brand Advertising business grew at approximately 49 percent year-over-year, indicating what we believe to be continued strong underlying momentum in areas not impacted by the supply chain and labor issues noted earlier.

In Q4 we experienced better than anticipated demand from Direct Response advertising partners, and our Direct Response advertising business was once again the largest driver of our growth. We observed that advertisers began to recover from the initial disruption caused by the iOS platform changes, and their resultant impact on the ability of our advertising partners to measure the results of their advertising investments. Entering Q4, third party solutions such as SKAdNetwork, or SKAN, were already widely enabled by our advertising partners. By the end of Q4, our first party Advanced Conversions measurement solution was enabled for advertisers representing more than 75 percent of Direct Response advertising revenue.

We experienced strong growth across a variety of mid and lower funnel goal-based bidding objectives such as app install, Pixel purchase, Pixel sign-up, and swipes, with revenue from each growing at 50
percent or better year-over-year in Q4. Our app install objective had been among the most negatively impacted GBBs in the prior quarter and its return to 50 percent year-over-year growth was a key driver of our results exceeding our expectations entering the quarter. A smaller subset of lower funnel app based GBBs, such as in-app-purchase, which have historically comprised a smaller portion of the Direct Response business, continue to be the most impacted by the limitations of SKAN, such as relatively high volume thresholds to return any result for a campaign. With the rapid enablement of our first party measurement solutions, we are cautiously optimistic that the partners who utilize these lower funnel GBBs will begin to benefit from the more complete and timely measurement of results that these solutions afford. While we are pleased with the progress we have made with our Direct Response business in Q4, we expect that it will be at least a couple more quarters before advertisers have broadly utilised these tools for optimization and measurement of their campaigns, calibrated the results against the lift they see in their business, and ultimately built confidence in these solutions as a result.

Average eCPM increased 46 percent year-over-year in Q4 driven in large part by the increase in aggregate demand. We shared last quarter that we had experienced rising Cost per Action, or CPA, in Q3 as we navigated the impact of the iOS platform changes. We made significant progress on this front in Q4 resulting in improved CPA trends. For example, in North America we observed a sequential decline in the average CPA for both Pixel purchase and app install despite rapid sequential growth in demand for each. Continuing to improve our optimization and measurement solutions is a top priority as we seek to deliver attractive returns on advertising spend for our advertising partners.

Gross margins were 66 percent in Q4, an increase of approximately 7 percentage points year-over-year, and 6 percentage points sequentially. Infrastructure cost per DAU was $0.66 in Q4, down from $0.69 in the prior year and consistent with the prior quarter. With Global ARPU growing at 18 percent year-over-year, and Infrastructure per DAU declining by 4 percent over the same period, efficient scaling of our cloud infrastructure was the largest driver of expanding gross margins. Content costs as a percentage of revenue declined by approximately 4 percentage points year-over-year and was the next largest driver of the gross margin improvement. During Q4 we completed a new multi-year agreement with one of our cloud infrastructure partners, and we anticipate concluding a new agreement with our other large cloud partner this year, which we expect will help contribute to further unit cost reductions in the future.

Operating expenses were $530 million in Q4, up 44 percent year-over-year. As expected, our rate of hiring stepped up in Q4. Total employee related costs were up 42 percent year-over-year driven by a 47 percent increase in full time headcount. This reflects ongoing investments in our team as well as the integration of acquisitions made over the past year, which contributed approximately 11 percentage points of the year-over-year growth in full time headcount. Marketing was the next largest driver of year-over-year operating expense growth as we continue to invest in marketing programs to build on
the momentum we have established in growing our community of Snapchatters and advertising partners.

Adjusted EBITDA was $327 million in Q4, an improvement of $161 million year-over-year. We delivered adjusted EBITDA leverage of 42 percent in Q4 as we continue to invest in the future of our business, while making progress towards sustained profitability and positive free cash flow.

Net income was $23 million in Q4, an improvement of $136 million over the prior year, representing net income leverage of 35 percent, and marking our first quarter of GAAP profitability. This reflects the flow through of the $161 million improvement in adjusted EBITDA as well as $32 million higher gains on investments driven largely by unrealized gains on now publicly traded investments, and $25 million lower interest expense reflecting the impact of the change in accounting standards for convertible notes. These factors were partially offset by $77 million higher stock based compensation. While headcount growth is the largest driver of this expense, the impact of long term retention associated with acquisitions, and the impact of higher payroll related taxes due to our higher stock price relative to the prior year, also contributed to the increase.

While we have continued to grow our team, and leverage stock based compensation strategically to foster an ownership culture and drive long term retention, we have remained focused on managing these programs responsibly. Total fully diluted shares grew 4.4 percent year-over-year with the vast majority of this growth driven by $1.1 billion of early conversions of our outstanding convertible notes completed in 2021. Excluding dilution related to convertible notes, the rate of growth was 1.2 percent in Q4, compared with 1.3 percent in the prior quarter and 3.4 percent in the prior year. While we are pleased with the progress we have made on this metric it is important to note that the dilution rate, in particular as it relates to SBC, tends to move inversely with our stock price all else being equal, and thus can be subject to market forces over time.

Free cash flow for Q4 was positive $161 million, or a $230 million improvement versus the prior year, driven primarily by the improvement in adjusted EBITDA noted earlier as well as improvements in net working capital. We ended the quarter with $3.7 billion in cash and marketable securities, up from $2.5 billion in the prior year, as the proceeds of convertible notes issued over the past year more than offset the investments we have made to grow the business over the same period.

Before we discuss the quarter ahead, I’d like to provide an update on our full year results. Growth in our community accelerated in 2021 with full year average DAU up 22 percent year-over-year, compared to 19 percent in 2020. Revenue reached $4.1 billion in 2021, an increase of 64 percent year-over-year, which is the highest rate of annual growth we have observed as a public company. Our revenue has more than doubled since 2019 with a two-year topline CAGR of 55 percent. While we have invested aggressively in the future of our business in 2021, we expanded our gross margins by 5 percentage points and delivered 35 percent of our incremental revenue to the adjusted EBITDA line over the past
year. We have now been adjusted EBITDA profitable for two consecutive years and produced our first quarter of net income profitability in Q4.

In 2021 we achieved our first full year of positive free cash flow at $223 million. This marks a critical turning point as we now have the ability to self fund the investments in the future of our business, which positions us better than ever before to pull forward our roadmaps to deliver for our community and our partners. Lastly, we made further progress in strengthening our balance sheet in 2021, ending the year with $3.7 billion in cash and marketable securities, $2.3 billion in outstanding convertible notes, and with no debt maturing prior to 2025. We close out 2021 with strong momentum across our platforms and a business that is well positioned for the future.

As we look forward to Q1 the operating environment remains challenging. Many of the supply chain and labor related headwinds our advertising partners faced in Q4 remain challenges as we enter Q1. In addition, while we made significant progress in navigating the iOS platform changes in Q4, we believe that it will take at least a couple more quarters for our advertising partners to build full confidence in our new measurement solutions. Lastly, the prior year comparisons are incrementally tougher as we enter 2022 with revenue growth having accelerated by 4 percentage points in Q1 of 2021.

Given the progress we have made toward sustainable free cash flow generation, and the abundance of opportunities we see to invest productively in our business, we expect 2022 to be a significant investment year. When the impact of new investments in 2022 are combined with the full year impact of investments made in 2021, we expect that a smaller share of incremental revenue will flow through to adjusted EBITDA and net income in the year ahead. That said, we remain committed to sustained positive free cash flow generation and continued responsible management of our fully diluted share count.

For Q1, our financial guidance assumes that DAU will be approximately 328 to 330 million in Q1. On the monetization side, we currently estimate Q1 revenue will be between $1,030 million and $1,080 million, implying year-over-year growth of between 34 percent and 40* percent in Q1. Given our revenue guidance, and our planned level of investment, we expect to be approximately breakeven on adjusted EBITDA in Q1. Thank you for joining our call today and we will now take your questions.

OPERATOR

That concludes the prepared remarks for today's earnings call. And we will now begin the question and answer session. Our first question comes from Brian Nowak with Morgan Stanley. Please go ahead.

BRIAN NOWAK, MORGAN STANLEY

Hi, it's Brenda Duverce on for Brian Nowak. Thanks for taking our questions. We have two. The first question we have is you have made a lot of progress around IDFA. And it seems like it will still take at
least a couple quarters to rebuild full confidence. Can you talk to us about the key technological or go-to market areas you need to execute on in order to further close the IDFA measurement and attribution challenges and work to return ad growth closer to the analyst day targets of last year? And our second question is any update on new advertiser growth contribution in 4Q and how you think about advertiser growth contribution to 1Q? Thank you.

JEREMI GORMAN, CHIEF BUSINESS OFFICER

Sure. Thank you for the question. This is Jeremi. You're right that we expected it could take at least a couple more quarters for our advertising partners to calibrate to these new measurement solutions against the results that they see in their businesses. They're utilizing a litany of different triangulation tactics right now, including lift studies, AB studies and these kinds of things. And so, we do expect it to take some time for them to gain full confidence in these new tools.

But with that being said, we are certainly pleased with the progress that we've made with our advertising partners in Q4. Advertisers that represent more than 75 percent of our DR revenue have now enabled our first party measurement solutions and can use these tools alongside the third party measurement solutions I just mentioned to optimize and measure their campaigns. I think it's important to think of it as sort of a three step journey. So first, advertisers need to enable which makes it possible to use the tools. Then, they need to actively use them. And then, they need to build the trust and the competence in these tools before there's broad adoption across the board.

While we expect the changes to continue to impact our business, and we anticipate there could be additional platform changes ahead, we remain confident in the long term growth prospects from our direct response advertising business, as you've heard, and our ability to deliver results for our advertising partners in a privacy safe environment, which is increasingly important. Our teams are really focused on helping advertisers adopt our first party solutions. We've talked about that a bit, which is Advanced Conversions.

And just to reiterate what that is, Advanced Conversions utilizes cryptographic techniques to measure aggregate conversion data. And it doesn't directly connect off-platform activities, such as app install or visiting a website, back to specific Snapchatters. We're leveraging privacy safe data processing pipelines and techniques such as cohorting to match impression data provided by the advertiser. And we continue to improve Advanced Conversions with features such as Estimated Conversions, which augments observed conversion data with real time data to help our advertisers to make better decisions with their advertising dollars. So, we're really focused on helping advertisers adopt those solutions.

And then, to answer your second question regarding new advertiser growth contribution and how we think about that. As mentioned in our prepared remarks, Q4 saw active advertisers reach another all-
time high. And we don't give guidance on the number of active advertisers, but it is certainly our goal as part of the advertising demand flywheel to continue to grow the number of active advertisers on our platform. The more selection that we have of ads from which to choose for every impression, the more relevant that impression can be to the Snapchatter. And the focus on optimization, and measurement continues to ensure that the Snapchatters are seeing the most relevant ads for them, and then subsequently, better conversion rates.

And so, over the course of 2021, we beta tested several products to bring even more advertisers onboard and grow their business on Snapchat organically, which include Public Profiles for businesses, and we're rolling that out more broadly, and then, of course, AR shopping lenses, which we talked about, and businesses can create and experiment with those outside of advertising. And we're really excited about all of these in 2022 and beyond. Thanks for the question.

OPERATOR

Our next question comes from Eric Sheridan with Goldman Sachs. Please go ahead.

ERIC SHERIDAN, GOLDMAN SACHS

Hi, I want to know if we can ask a quick question following up on the front part of the call. The long term initiatives you're looking at on product and content and partnerships, can we get a little deeper on what that might mean for '22 and '23 and how it flows back into the investment cycle? Thank you.

EVAN SPIEGEL, CHIEF EXECUTIVE OFFICER AND CO-FOUNDER

Yeah. Sure. Thanks for the question. We're really excited about the long term here. And in particular, what we're seeing is a lot of momentum around augmented reality today on Snapchat. So, you know, there are over 200 million people engaging with AR every day. I think people are playing with lenses on Snapchat over six billion times, you know, using our camera every day. And what we're doing now is taking all this technology and not only continuing to improve it for developers, but also to make it much more accessible for businesses, and to help them, specifically in ecommerce and retail, help consumers try on their products and convert easily through our camera.

So, a lot of our investments in the near and medium term are really around smartphone augmented reality because we just see such a massive opportunity there. And then, looking at a little bit further out, we're definitely excited about the evolution of our Lens Studio developer tools and how that will support augmented reality on our Spectacles glasses in the future. We released our first version of standalone AR glasses last year. And we're continuing to build on that and evolve that platform. So, a lot to do on smartphone AR today in the near medium term, and then, of course, building to the long term future of computing overlaid on the world.
OPERATOR

Our next question comes from Justin Post with Bank of America. Please go ahead.

JUSTIN POST, BANK OF AMERICA

Great. Thanks for taking my question. A couple. You've made a lot of ARPU progress over the last two years. But still, some surfaces aren't monetized yet. So maybe give us a refresher on where you are in the ARPU journey. And then, of course, the question of the day is, it looks like your IDFA related headwinds could be less than peers'. Maybe you could talk a little bit more about why that could be. Thank you.

DEREK ANDERSEN, CHIEF FINANCIAL OFFICER

Hi Justin, it's Derek speaking. I'll take these two. I think the first question related to ARPU, we're still really early in our journey here. And I believe we continue to have a lot of room to grow on the ARPU side. Today, we generate most of our revenue from our content business. And with continued optimization, eCPM growth, and the expansion of the content business by Spotlight, we continue to see lots of room to grow here.

I think importantly, as you mentioned, we already have a lot of engagement on screens that are currently either monetized relatively little or not at all, including the camera and the map in particular. And we do monetize the camera today, but given that our app opens to the camera and the vast majority of Snapchatters engage with AR every day, we already have immense inventory potential on the screen. And we're investing heavily to build out our AR advertising products there.

On the map, we're not monetizing today. But we are working on the building blocks of utility for the approximately 30 million places that populate our map. And we're excited about the potential for the map to be an on ramp to a new category of advertisers over time. So, there's a lot to do. And we're investing heavily in executing against what we believe is a well-organized plan in order to capture that ARPU opportunity over time, which we see ahead of us.

So, the second question on the IDFA related headwinds, I think we built our business with privacy by design at the core of our products, including our advertising platform. And as a result, the impacts of the changes that we've seen on the iOS platform are likely to be experienced differently for our business than perhaps for others. ATT significantly disrupted the way in which our advertising partners have been accustomed to targeting and measuring the results of their advertising investments.

This had significant disruptive impacts on their businesses and advertising demand for us as a result when those changes were implemented. And we see those impacts manifesting themselves in two real primary ways. The first is in how we're able to optimize advertising for our partners, including how we
get the right ad in front of the right Snapchatter at the right moment in a privacy safe way. We began working on that part of the problem more than a year ago. And as a result, we were able to make a lot of progress before those iOS platform changes disrupted the market.

In many cases, we believe that we were able to make significant progress in closing those gaps, in part, because we've been focused and nimble, but in part, also, because our business starts from a privacy safe set of principles. That said, we are still very early in the journey on optimization and have significant headroom to deliver more advertiser value over time. The second impact is really around measurement. And we spoke last quarter about how we saw this as the most pressing issue for our business as the iOS platform changes were implemented.

We believe then and we believe now that our ad platform continues to deliver results for advertising partners, but that our advertisers would need to adopt new tools to measure and see those results. Entering the quarter, SKAN, or SKAdNetwork, was already broadly enabled for advertisers. But over Q4, we saw progress on enablement of our first party solutions. And by the end of the quarter, advertisers that represent more than 75 percent of our DR revenue were enabled for our first party measurement solutions.

So, we still have more work to do to drive wide utilization of these new solutions and build full competence in them amongst our partners. But we're pleased with the progress we've made so far. So, I hope that gives you a little bit more context on what we're seeing in this area and how we've approached it over time.

OPERATOR

Our next question comes from Rich Greenfield with Lightshed Partners. Please go ahead.

RICH GREENFIELD, LIGHTSHED PARTNERS

Hi. A couple of questions. Thanks for taking them. One, you know, DAUs obviously looked good, I mean, I guess solid is the best word to say it. But you know, I think if you could maybe just help us a little bit understand what's going on under the surface, especially in the U.S. as you think about sort of time spent, engagement, however you want to think about it, sequentially, and year-over-year. Obviously, investors have been very concerned over the last 24 hours about what TikTok is doing to companies like Meta.

What's actually happening in terms of time spent and engagement on the Snapchat platform, especially in the U.S. where your monetization is so outsized? And then, two, in the prepared remarks, I think Jeremi called out that brand spend in terms of the headwinds that you saw in Q4, And I think you talked about CPG and restaurants being key areas. Was wondering, I know you're still seeing supply
chain issues, but has there been any improvement in Q1 through the first, essentially, month of Q1 versus what you saw in Q4 on the brand spend side?

EVAN SPIEGEL, CHIEF EXECUTIVE OFFICER AND CO-FOUNDER

Thanks, Rich, for the question. I can talk a little bit about engagement. I think, we've worked really hard over the years to diversify our product offering beyond just communicating with friends and family, into Stories, of course, and our map and now with Spotlight. And I think what we're seeing with the growth of our user base overall is that people are coming to Snap for all sorts of different reasons and then migrating across our different products.

So, while we certainly compete with TikTok and Instagram and YouTube for video entertainment, we also have different areas of our service, like our map or our AR platform, where we see really strong engagement. And I think as it pertains to Stories, in particular and growth, in video, I talked a little bit, following on some of our prior earnings calls about the trends we're seeing throughout the pandemic where we are seeing people post fewer Stories for their friends, view fewer Stories from their friends. But at the same time, we've seen folks watching more premium content, watching more content in Spotlight.

So there is a bit of a mix shift there. You know, some of our user studies, for example, we talk to our community, they say, gosh, during the pandemic, I haven't been able to do as many cool things with my friends so I'm posting less Stories or Stories are less interesting because my friends aren't doing as many cool things.

So, we'll have to see how that progresses. Obviously, the Omicron thing was a little bit of a setback there for us. But overall, the core of Snapchat is really about friends and family. And I think we offer really differentiated product, not only with Stories and some of our entertainment products, but across our entire service and all of our different platforms.

JEREMI GORMAN, CHIEF BUSINESS OFFICER

I can take the second part, Rich. Thank you very much for the question. You talked about restaurants as well as CPG. And the reality is that we haven't seen a lot of change in those particular areas. The supply chain disruptions and labor disruptions did materialize as expected. And they still remain unsolved in the new year, unresolved in the new year. But I think that when you look at the revenue and you kind of break it down, excluding the restaurant and CPG sectors, revenue from our brand advertising business grew at, give or take, 49 percent year-over-year.

And that indicates what we believe to be continued, strong underlying momentum in our areas not impacted by supply chain and labor issues noted earlier. We expect this to continue, these macro conditions to continue to impact advertising demand. As in many cases, just practically speaking, their
businesses don't have the inventory or operational capacity to support incremental demand brought on by marketing. But in addition, we have plenty of categories, particularly with brands that aren't as reliant on supply chain.

We've redeployed resources for many of those verticals. And they continue to perform well. Examples of that are travel, streaming, financial services, amongst others. And it's really great that we've been able to develop these nimble and agile teams and support them and train them on categories that may not be their core competency to ensure that we can take advantage of the tailwind categories and shift some things away from the headwind categories.

But it's really important for us to continue to support the categories that may be facing some headwinds as they are long term absolutely our partners. And we continue to invest in them, learn with them, grow with them, and pivot our resources accordingly to make sure we can take advantage of areas where there are tailwinds. But thank you for the question.

OPERATOR

Our next question comes from Ross Sandler with Barclays. Please go ahead.

ROSS SANDLER, BARCLAYS

Hey, Jeremi. I guess just following up on that last question. So, if we had to size the revenue bucket that's still in the iOS negative impact zone, I guess these lower funnel GBB campaigns you mentioned earlier. Is that like 25 percent to 30 percent of Snap’s business? And how much has the revenue growth been impacted in that area? And then, you know, alternatively, if we look at the other 70 percent, 75 percent of revenue at Snap that's not in the impact zone, is it fair to say that that's growing kind of consistent with your 50 percent long term goal now and in the foreseeable future?

And then, the second question is when you guys say that DR recovered faster than expected, is it that the monthly spend from these DR advertisers is actually increasing right now as they adopt new tools and make these changes with Pixel et cetera? Or do they just have better visibility and the spend is going to increase in a couple of quarters when the recovery and revenue actually happens? Thanks a lot.

DEREK ANDERSEN, CHIEF FINANCIAL OFFICER

Hey, Ross. It's Derek speaking. I'll take those questions as best I can remember all of them. So, I think the first question was just around the components of our business and how many of them are really impacted by the various headwinds. I think it's fair to say that in Q4, the headwinds we faced were contained to a limited portion of our business. And the top line results reflect that obviously. At a high level, we anticipated that we would likely face some macro headwinds related to supply chain factors and labor factors in Q4. And we did see that. And as I mentioned in prepared remarks, that was largely
contained to a couple of sectors within our brand advertising business, in particular, the restaurants and CPG categories that are impacted by labor and supply chain and input cost factors, respectively.

Importantly, though, outside of those two sectors, revenue from our brand advertising business grew at nearly 50 percent year-over-year, indicating what we believe to be pretty strong continued underlying momentum in that business. And then, on the DR side, similarly, we saw really strong return and growth across a number of our mid and lower funnel goal based bidding objectives, things like app install and Pixel purchase and so on, with a large number of those growing at rates of 50 percent, or better in some cases, year-over-year in Q4.

But we did similarly see pockets of the DR business and, in particular, the lowest down funnel, app-based objectives, such as in app purchase, were ones that were continuing to be impacted most directly by some of the iOS platform changes, including the limitations of SKAN where there are relatively high thresholds to return any results for a campaign. And so, there's obviously work that we're doing there, as I mentioned in prepared remarks, around the enablement of our first party measurement solutions, which helped to fill in some of those measurement gaps, including the limitations of that threshold.

So, when I think about our results, overall, you can see the big parts of the DR business growing at those elevated rates and big parts of the brand business growing at elevated rates. But we're dealing with a couple of headwinds at the same time across those businesses and the macro factors and the platform changes. And so, you've got pockets of the business and the minority of each side that are impacting things.

So, hopefully, that gives you a good sense of what's happening and what pockets of the business it's limited to. Thanks very much. And hopefully that gives you the context you need there.

OPERATOR

Our next question comes from Doug Anmuth with J.P. Morgan. Please go ahead.

DOUG ANMUTH, J.P. MORGAN

Hi. This is Katie on for Doug. Thanks for taking the questions. First, I just want to dig into users. Your annual DAU net adds improved in both 2020 and again in 2021. So, I'm curious how you're thinking about net adds into 2022 relative to pre-pandemic levels we saw in 2019. Then, second, I'm curious, just your updated views regarding competition. It feels like many social peers have called out competition intensifying broadly in the industry. How are your efforts in visual communication differentiating the product and experience relative to others in the space? Thanks.
DEREK ANDERSEN, CHIEF FINANCIAL OFFICER

On the first part of the question, I believe in terms of net adds you're thinking about, specifically DAU in that area and our growth in that sector, so one, I think, you know, we laid out at our investor day a little over a year ago our international playbook in investments that we plan to make in order to grow the community globally. We've continued to execute against that plan over the last year, including significant investments in local content, local marketing, partnerships, and building our local creator community. And we continue to execute against that plan and seeing strong results as a result of that.

In particular, I would note that this was our fifth consecutive quarter of 20 percent or better year-over-year growth, including 54 million total DAU adds. So good momentum on the community base there. We're going to continue to execute against that playbook and invest in our platform and our products in order to support the growth of our community over time. So hopefully, that gives a little perspective about what we're seeing there.

EVAN SPIEGEL, CHIEF EXECUTIVE OFFICER AND CO-FOUNDER

And I can speak a little bit to just competition and how we think about it. It's a highly competitive industry. It always has been. When we created Snap, Facebook and Instagram and YouTube and WhatsApp, all those products already existed and were already really, really big. And so, Snap has always been able to grow really through our continuous product innovation and focusing on our community. And we identified really early on that people want to express themselves visually through our camera.

We then took that and built that into our Stories product where people can share about their day in a narrative fashion. We learned that people wanted to see what was happening all around the world, so we built our map. And more recently, of course, we've built Spotlight to highlight the best of Snapchat. And so, we're continually innovating and evolving our products. We believe that's the only way to compete long term in the tech industry.

And we're very excited about the future of augmented reality where we're investing a lot of our time. And that's really where a lot of our growth over the longer term is unconstrained in terms of our innovation as we're building out new products, like Spectacles and continuing to evolve our AR platform. So, we're really excited about our ability to continue this product momentum. And ultimately, you know, our ability to win here in the long term is going to come down to innovation, as it always has.

OPERATOR

Our next question comes from Lloyd Walmsley with UBS. Please go ahead.
LLOYD WALMSLEY, UBS

Great. Two questions on the AR advertising side. I guess, first, what are you guys seeing in terms of advertiser adoption? Are you seeing it pick up amongst DR advertisers and through the self-serve platform? Or is it still mostly bought on an awareness basis? And then, second one from kind of the client perspective, what are you seeing in terms of maybe revenue retention? Do advertisers come, spend on lenses, and keep growing that? And how is kind of catalog shopping changed conversations with advertisers? Thanks.

JEREMI GORMAN, CHIEF BUSINESS OFFICER

Thank you so much for the question. I'm very happy that you asked it. We certainly believe that the camera and augmented reality represent our most exciting long term revenue opportunity. And we are seeing that with brands. They're starting to build always on AR strategies for their businesses. And we're delivering results against that.

But the great thing about augmented reality is that it's a fully immersive experience that Snapchatters choose to engage with versus something that's passive or served to them. And it's now delivering a return on investment for businesses that's both measurable and repeatable. So, to your point, that's something that's incredibly important for direct response advertisers. And that is encouraging more and more businesses to invest in augmented reality.

You're right that when we initially launched AR for advertisers, it was kind of seen as this next shiny thing, a big brand moment, something that was a little bit more fun and irreverent. But over time, we've been evolving the way that businesses think about it as more than just an ad format, but an experience that brands can build to grow their businesses. We've invested really heavily into building the tools and capabilities to make it easier to create augmented reality, which then allows it to be a part of people’s always on ecosystems, to manage those, deploy their AR experiences.

And you heard in the prepared remarks us talk about results from the likes of MAC and Ulta, who are starting to see just incredible results with it. 1.3 million try-ons, for example, on the MAC lens that was using our Lens Web Builder tool I think is the best example of that. And when advertisers start to see results like that you can imagine it is highly retentive and look-alike advertisers want to start doing a lot of the same work so that they can get cost per try-on down utilizing augmented reality.

These types of results that we're seeing from those two particular companies are emblematic of a larger shift that we're seeing with AR transforming ecommerce. And ecommerce is obviously a secular trend that we expect to continue to grow. And we will grow right alongside it with AR as these consumer-centric shifts continue to happen. And we're really excited about the future of augmented reality as an
ad product, particularly as it delivers results for incredible advertisers with great measurement solutions.

OPERATOR

Our next question comes from Brent Thill with Jefferies. Please go ahead.

BRENT THILL, JEFFERIES

Derek, a couple quick ones for you. One on the mix of price versus impression growth, if you could just give us your thoughts and what you're seeing there. And secondarily, everyone realizes that the goal you gave at investor day is most likely on ice in the short term for 50 percent plus revenue growth. But how are you and the team thinking about the long term still on that commitment to that goal? Thanks.

DEREK ANDERSEN, CHIEF FINANCIAL OFFICER

Hey, Brent. It's Derek speaking. Thanks for the question. In terms of the impression and pricing growth, I think, first obviously, we did observe rising eCPMs in Q4. We were up 46 percent year-over-year driven by the really significant sequential and year-over-year rise in demand. At a high level, we continue to think of eCPM at least in part as an output metric at this stage in our growth. We still believe we have room to grow eCPM across many of our ad units. But there are several competing forces that influence eCPM, many of which we have influence over and then can put downward pressure on eCPM.

So, one such factor is growth in our community. And our community has grown at rates of 20 percent or better for five consecutive quarters now. The second is the potential to expand our inventory opportunity by expanding monetization of highly engaged areas of our application, including the camera, Spotlight, and map among others that we talked about earlier today. And then, each of these screens, they're at different levels and stages of their evolution or monetization. We are monetizing the camera today. And we're heavily investing in the advertising capabilities for the long term there.

But we've not yet begun to monetize Spotlight or the map. And we don't feel urgency to do so in the very near term. But we are investing to grow these platforms today and are excited about the potential for those screens to expand our inventory and ARPU over time. On the other side of this equation, there's improvements in optimization and measurement of our direct response business, which can help us to utilize our inventory more efficiently. And that tends to put upward pressure on eCPMs.

So, for example, in our most recent quarter in North America, we observed a sequential decline in the average CPA for both Pixel purchase and app install GBBs, despite the rapid sequential growth in demand for each of those. So, continuing to evolve and adapt our optimization and our measurement solutions over time is important to helping us deliver attractive return for advertisers and also has
impacts on eCPMs. So hopefully, that gives you a little bit of an understanding of how we see the dynamics under the hood there on pricing over time.

So, in terms of the longer term potential, I think the first thing I would say here is, we continue to believe that the building blocks supporting our longer term opportunity remain intact as we described them at our investor day. And as a result, where we believe we can go as a business over the next few years remains unchanged. So, for example, on the building blocks, our community is growing at some of the fastest rates we have reported in more than four years. We continue to have deep penetration of hard to reach audiences and some of the most attractive advertising markets in the world.

And we continue to have significant opportunities to expand the monetization across our screens, as we just talked about. But as I said when we met last quarter, the path to getting to that longer term ARPU opportunity and the longer term monetization potential the platform was never expected to be and isn't a straight line. We've now delivered a two year CAGR on top line revenue of 55 percent. But over that two year period, we've had quarters where year-over-year revenue growth was as low as 17 percent and as high as 116 percent, as we navigated our way through macro headwinds, platform changes, and a pandemic.

So throughout all of this, you know, we've been and we're going to continue to be focused on executing against what we believe is a really well-organized plan in order to deliver on that long term potential that we see ahead. So hopefully that gives you some context on how we think about this and what we see ahead.

OPERATOR

This concludes our question and answer session, as well as Snap, Inc.’s Fourth Quarter 2021 Earnings Conference Call. Thank you for attending today’s session. You may now disconnect.