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## SoundHound AI, Inc. (SOUN): Talk is Cheap

We are short SoundHound AI, Inc. (“SOUN”, “SoundHound”, “the Company”), a flailing AI wannabe claiming to have revolutionary technology, a growing restaurant business, and a massive backlog of contracts. In our view, SoundHound has misled investors on each of these items: the Company’s AI simply doesn’t work – it relies on call centers staffed by humans; SoundHound’s foray into restaurants is a disaster; the Company’s backlog figures are bogus. Just days ago, SoundHound filed a \$400 million shelf, and our read of the subsequent 8-K implies that the Company burned at least \$16.3 million in Q2 2023, up from \$14.5 million in Q1, despite the Company’s reassurances that profitability would ramp throughout 2023. Meanwhile, executives have sold \$9.8 million in stock in the past 6 weeks alone. We think they see the writing on the wall, and shares are headed lower.

SoundHound is a 17-year-old company that has racked up an accumulated deficit of \$529 million and continues to torch through investor cash, now staking its promotion on the restaurant space. SoundHound claims its AI technology will revolutionize phone and drive-thru ordering, but we think this foray is an utter failure which management has misrepresented as a growing success.

- SoundHound claims that once a restaurant is onboarded, *“it can be nearly immediate for us to scale across the full fleet.”* However, the Company still names only one major restaurant group as a customer – White Castle. We spoke with former SoundHound employees who indicated that **this deal – signed in 2020 – was merely a trial run, and 3 years later, this trial remains confined to just 3 of White Castle’s 300+ restaurants. Rather than “immediate scaling”, SoundHound at White Castle has remained stagnant.**
- Similarly, SoundHound’s SPAC presentation promoted a relationship with Sonic Drive-In for AI ordering. However, today, Sonic is conspicuously missing from SoundHound’s investor materials, as well as the Company website which features its top restaurant customers. Since November 2021, Sonic has never been mentioned by the Company in any press releases, SEC filings, or earnings calls, suggesting to us that at best, Sonic has also failed to “immediately scale” as SoundHound claims, and at worst has ditched SoundHound entirely.
- **The reason why SoundHound’s restaurant business is stagnant appears obvious to us: the AI simply doesn’t work.** Two former SoundHound employees told us that the AI filled anywhere from 30% to 50% of orders incorrectly, whereas restaurants looked for failure rates less than 10%. Customer reviews at SoundHound’s first White Castle location also suggest frustration, as customers specifically call out, for example, that *“the robot order always messed up”, “the automated window did not get my order right and I could not correct it”, “the new drive thru ordering system is a pain”,* and the *“AI got [the] order all wrong.”*
- Furthermore, SoundHound management claims that, in contrast to peers, *“our AI customer service solutions are fully autonomous.”* **Yet multiple former employees told us that when the AI fails, customers are routed to an outsourced call center managed by SoundHound.** Indeed, as recently as May 2023, SoundHound posted jobs seeking a “Merchant Operations Manager” who would be responsible for “growing the SoundHound for Restaurants business.” **The first three bullet points in the job description stated that the manager would be responsible for: contracting with and managing call centers, ensuring correct call forwarding from the AI to the call centers, and managing call center staff.**

SoundHound has also promoted a Voice AI assistant app, yet much like the Company’s restaurant business, we’ve found the app to be wholly useless. In May 2023, management claimed the app had reduced *“undesired”* responses *“by over 90% to a negligible amount.”* However, when we used the app, SoundHound’s AI gave

nonsensical responses, even to the very same queries that SoundHound used as examples in its promotional materials. For example, the app told us that “*the first*” President of the United States was Joe Biden, and when we asked it for restaurants open late at night, it showed us a list of “*several restaurants which are open right now*”, yet each of the locations were in fact closed. In short, SoundHound’s AI simply isn’t up to the task.

SoundHound claims to have built up a \$336 million bookings backlog, up 45% year-over-year and consisting of signed contracts averaging 6.5 years in length. Our view, *based on the Company’s own disclosures*, is that these figures are totally bogus.

- At IPO, SoundHound guided to \$110 million in 2023 revenues while claiming its backlog was “understated.” Since then, reported bookings backlog has come in *higher than expected* yet SoundHound now guides to just \$43 to \$50 million in 2023 revenues, a ridiculously massive whiff of over 50% from its original guide – SoundHound’s bookings backlog is not translating to revenues as the Company previously told investors.
- SoundHound claims its \$336 million backlog contains “*contracts*” with a weighted-average length of 6.5 years, up from 4.0 years as of Q1 2022. However, this extension in length implies that over the past several quarters, SoundHound has been booking contracts from 12 to 20 years in length. Not only is this not believable, but the Company discloses that its sole largest contract is just over 9 years long. **As such, SoundHound’s own backlog claims cannot all possibly be true – the numbers literally do not add up.**
- Three former employees we spoke with corroborated that the backlog consisted not of signed contracts, but included “*potential revenue based on potential engagements*” wherein “*what’s going to be delivered might be vague.*” Another employee stated that “*Bookings reflect expected value of things that are generally expected but may not actually happen.*” A third former employee told us that “*if they [customers] miss projections... I don’t know if they [SoundHound] will receive all that money.*”
- To that end, SoundHound has touted a laundry list of partnerships which appear to have subsequently evaporated, failed, or otherwise fallen apart. For example, SoundHound announced a partnership with Deutsche Telekom to bring AI to DT’s Magenta smart speaker, yet as of June 30, 2023, DT told users it would no longer support the device as it “*has not been able to establish itself on the market as hoped.*” Similarly, in December 2021, SoundHound announced a partnership with Netflix for voice-enabled set-top boxes, but 2 years later, no such products are available that we’re aware of. At CES 2018, SoundHound promoted a litany of consumer products, many of which never ended up actually going into production.
- SoundHound’s auditor is none other than Armanino LLP, now famous for auditing FTX US and various other scams and promotions both in the cryptocurrency and public company spaces. Coincidentally, Armanino’s 2021 PCAOB inspection found deficiencies related to revenue recognition and the fair value of a significant account, both areas of importance for a concentrated, backlog-heavy business like SoundHound.

SoundHound pretends to be a cutting-edge AI business, but the Company is floundering. Despite cutting 40% of its workforce in January 2023 and constantly reassuring investors that profits are coming, the Company’s [recent 8-K implies](#) to us that the Company burned \$16.3 million in Q2, up from \$14.5 million in Q1. Insiders are selling stock, and SoundHound’s Chief Revenue Officer left the Company in February 2023 after just a year. At the time, the Company said his hiring was “a critical step” to becoming “a global leader” in voice AI, yet SoundHound has not yet hired a new CRO several months later. We think that as the Company’s overstated backlog and flailing restaurant business are better understood by investors, shares will trade lower.

## SoundHound's Restaurants Dreams are Dead: The Solution Simply Doesn't Work

SoundHound de-SPAC'ed in April 2022, and raised just \$90.7 million in net proceeds. SoundHound was brought to market by [EarlyBirdCapital](#), a bucket shop also responsible for a laundry list of garbage SPACs such as:

- American Virtual Cloud Technologies (AVCT), which [filed for bankruptcy protection](#) in January 2023,
- Tattooed Chef (TTCF), which [filed for bankruptcy protection](#) in June 2023, and
- Akazoo (SONG), which [settled with the SEC](#) for defrauding investors out of tens of millions of dollars by grossly misrepresenting its user base and financial profile as being in the millions when *"in reality, the company allegedly continued to have limited operations, no subscribers, and marginal revenue..."*

SoundHound shares have avoided a similar fate and even continue to trade at an absurd multiple of 22x revenues because the Company has told investors that it is revolutionizing the restaurant industry with its Voice AI solutions, and that it has a large and rapidly growing backlog.<sup>1</sup> Unfortunately, neither of these things are true, in our view.

Per the Company's January 2023 [press release](#), restaurants are now *"the foundation for accelerated growth in 2024."* CEO Keyvan Mohajer even laughably compared SoundHound to Amazon on the Q1 2023 conference call, claiming that the Company – which was founded 17 years ago and has racked up an accumulated deficit of \$529 million – has in fact *"always envisioned"* restaurants as its true foundation:

*"We have always envisioned that restaurants are to SoundHound what books were to Amazon. They started by selling books, then over time, expanded to other categories, eventually everything from A to Z."*

We think SoundHound's foray into restaurants has once again been an utter failure.

### SoundHound's White Castle "Win" Was a Small Trial Run Which Has Failed, In Our View

On the Company's Q1 2023 conference call, CFO Nitesh Sharan claimed that once SoundHound onboards one restaurant, it can be *"nearly immediate"* to scale the remaining full fleet:

*"Since January, we rapidly extended that progress into mid-market and enterprise, who typically have more than 100 locations each. Although these enterprise deals take slightly longer to close, once we onboard one location, it can be nearly immediate for us to scale across the full fleet."*

However, our conversations with former employees and our review of the Company's deals with White Castle and Sonic Drive-In suggest exactly the opposite – SoundHound for restaurants is dead in the water.

SoundHound has touted its drive-thru automation partnership with White Castle – which has over 300 restaurants in the US – [since September 2020](#). Yet as of May 2023, the pilot remained limited to [three locations](#), in contrast to management's claims of "immediate scaling."

In the meantime, SoundHound has been leap-frogged by competitors [such as SYNQ3](#), which was founded only in 2020, but now touts its presence in over 10,000 locations. Elsewhere, [Wendy's](#) is piloting a drive-thru chatbot with Google, [McDonald's](#) is working with IBM for 24 of its drive-thrus in a deal that has expanded over time, Kea AI handles AI [phone ordering](#) for all 100+ Newk's corporate locations, Del Taco and Checkers & Rally are using [Presto](#)

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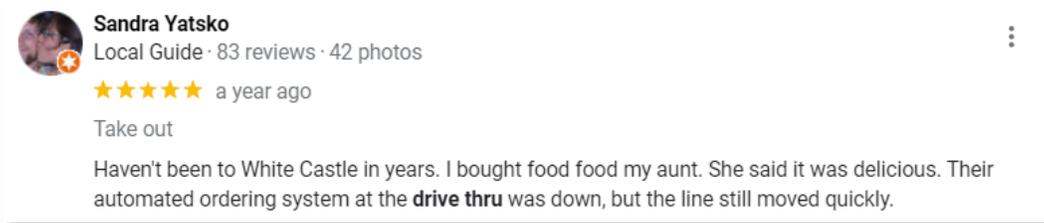
<sup>1</sup> 22x multiple on LTM revenues, assumes fully diluted market cap after accounting for: Class A and Class B common stock, stock options, RSUs, warrants, Series A preferred stock, and ESPPs.

[Automation](#), Wingstop is trialing voice ordering [with ConverseNow](#), and Panera is working with [OpenCity AI](#) to pilot drive-thru ordering.

We understand that SoundHound was first deployed at the White Castle located in Merrillville, Indiana, which a former employee characterized as “*the one location where the [SoundHound’s] attention was placed.*” Almost three years later, it’s clear to see why White Castle hasn’t employed SoundHound across its full restaurant base: the product sucks, at least according to reviews from [Merrillville White Castle’s customers](#):

The screenshot displays a vertical list of six Google reviews for White Castle in Merrillville, Indiana. Each review includes the reviewer's profile picture, name, and statistics (reviews/photos), followed by a star rating and the date of the review. The review text describes various frustrations with the automated drive-thru ordering system, such as incorrect orders, long wait times, and the inability to correct mistakes.

- Jay Me** (Local Guide · 34 reviews · 30 photos): 4 stars, a week ago. Review: "The robot order always messed up. I got the number 1 meal. Asked no onions. Got no onions on only 1 of the 4 sliders included in meal combo."
- Gayle VanLoon** (8 reviews): 3 stars, 2 months ago. Review: "I hated it. The automated window did not get my order right and I could not correct it. The pay **system** was awful. If I could give zeros, I would. I will never go back. Rotten **system**."
- Stoli's VinylEmporium** (Local Guide · 105 reviews · 7 photos): 3 stars, 3 months ago. Review: "30 minutes in **drive thru**, called inside, finally assistance... couldn't go inside, doors locked... Order \$50 worth of food... Get to window to be told 20 minutes for reboot of system!? 45 minutes waiting to leave elsewhere 🙄"
- Mark Spencer** (Local Guide · 18 reviews · 1 photo): 3 stars, 4 months ago. Review: "Went through drive-through and talked to an AI that got order all wrong."
- Juan Castillo** (20 reviews · 4 photos): 3 stars, 6 months ago. Review: "White Castle's food was what we missed (if you know, you know), hate the voice control **drive thru**. Felt it was easier to cancel order, back up, and go inside to place my complicated order than to figure it out. Staff was very friendly once I made it inside."
- Adam Brachna** (Local Guide · 49 reviews · 936 photos): 3 stars, a year ago. Review: "The new drive thru ordering **system** is a pain. Took me 5 minutes to place an order."



Wall Street Journal reporters also [visited the restaurant](#) and found that three out of ten customers at the drive thru asked to speak to a human, with one customer calling the ordering system a “*pain in the butt*” and another complaining that the order came out wrong. This widespread frustration was corroborated by two former employees we spoke with. **One employee opined that the AI got orders wrong over half the time:**

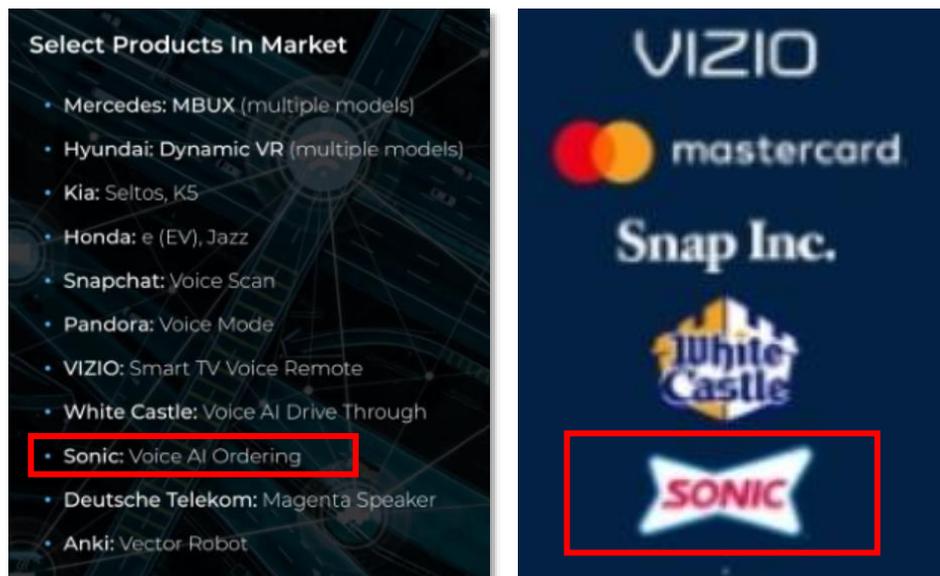
*“I surmise it was a pretty high percentage initially, especially at the independent restaurants that could have vastly different menus ... **over half initially**, but that would improve when engineers would understand the problems.”*

And another former employee estimated that in the end, the AI could only complete 60 to 70% of orders:

*“I want to say we felt like it was... 60 to 70% could get handled by AI.”*

### Sonic No Longer Listed as a Customer: Gotta Go Fast!

SoundHound also promoted a relationship with Sonic Drive-In, yet it seems to us like this relationship has also fallen by the wayside. See that the Company’s November 2021 [investor presentation](#) highlighted Sonic twice:



Today however, SoundHound does not mention Sonic among any of its [top customers](#), has removed the Sonic logo from its investor presentations, and in fact Sonic has not been mentioned in any SEC filings or conference calls since November 2021.

## SoundHound’s Restaurant Pipeline: Customers “Onboard in Days”, But Where are the Customers?

SoundHound has promoted its restaurants business as having an expanding pipeline where deals are struck and technology is deployed rapidly. On the Q2 2022 conference call in August 2022, CEO Mohajer claimed:

*“What excites me the most about SoundHound for Restaurants is that the time to customer adoption is extremely fast. We have already seen customers up and running in a matter of days, and this should only improve as we scale into thousands of customers ... the demand from restaurants is significant ... we’re seeing **tremendous traction** ... now that scaling significantly has been on the ground, talking to a lot of customers, a lot of restaurants, and there’s just almost **insatiable demand**...”*

On the Q3 2022 conference call in November 2022, CEO Mohajer made various bombastic claims of the success of its restaurant business:

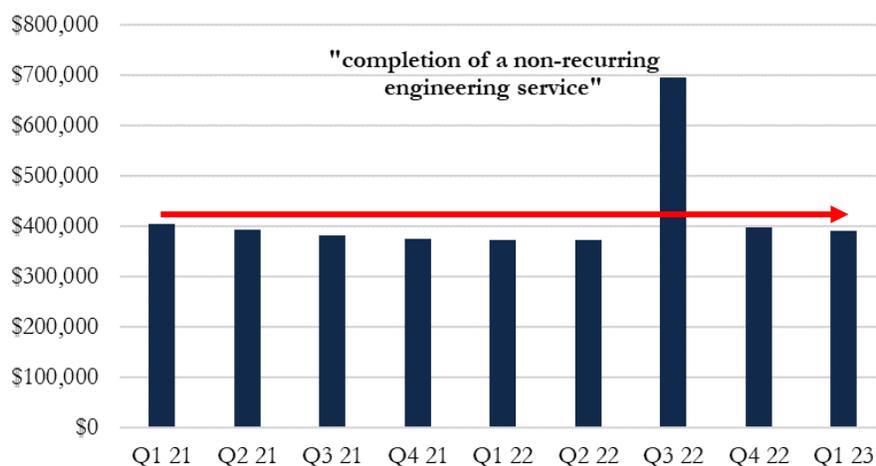
*“Because our voice AI technology can help restaurants simultaneously grow sales and save costs, SoundHound for Restaurants has been an **instant success** ... we see customers live in a matter of days... I’m pleased to report that our technology is being **implemented at a rapid rate**...”*

On the Q4 2022 conference call in March 2023, CFO Sharan then claimed that SoundHound had hundreds of restaurants operating on its technology:

*“We have hundreds of restaurants signed up already. So beyond the pipeline stage that are operating, and we’re quickly scaling those. So as I mentioned in the prepared remarks, the time from sort of initial conversation to cash flow or monthly recurring revenue indicates for us, can be very rapid.”*

Given SoundHound’s supposedly massive pipeline, insatiable demand, and ability to implement its solutions rapidly, we’d expect that the Company has been reporting substantial revenue growth from its restaurant business. **However, none of this supposedly massive success has shown up in SoundHound’s financials.<sup>2</sup> SoundHound’s Service Subscription revenues, where restaurant revenues are housed, has been stagnant quarter after quarter:**

### Service Subscription Revenues: Where's the Beef?



<sup>2</sup> In Q3 2022, the Company completed a “non-recurring engineering service for a specific customer” which was called out by SoundHound (Form 10-K, page 47) as having a \$0.3 million contribution.

## Meet SoundHound's Real "AI": Outsourced Call Centers

**So where do customers turn when the AI fails? In direct contradiction to its claims, SoundHound utilizes live fully staffed call centers.** Per CEO Keyvan Mohajer on the Company's Q1 2023 conference call, the Company supposedly differentiates itself by being "*fully automated*" in contrast to competitors which require human intervention:

*"It's important to note that our AI customer service solutions are fully autonomous, which is different from the human-assisted AI solution that other vendors are offering in this particular field."*

This same bogus claim was reiterated later in the call by CFO Nitesh Sharan:

*"And a real key differentiator when you look more broadly at the players that are trying to enter the space... they have a lot of humans operating in the background, and **it's not apples-to-apples versus ours is fully automated**, and we can get that level exceeding human performance with some of the restaurants we've been working with for a long time now **really fully automated.**"*

However, two former employees told us that that customers are continually redirected to SoundHound's call centers when the AI fails. Per one former employee:

*"There'd always be a person available in a call center in case the order wasn't working out."*

Per the second former employee, these referrals damage SoundHound's economics, as the Company doesn't get paid for such orders:

*"The offsite call center is also run by SoundHound, but SoundHound doesn't get money for those calls."*

**Don't just take our word for it, or the word of former employees, believe SoundHound themselves!** As recently as May 25, 2023, the Company [posted job listings](#) for "Merchant Operations Managers" who represent "*the appointed leader for all things related to a growing and strategic part of the SoundHound for Restaurants business.*" And what might this role more practically entail? **Setting up and managing call centers:**

In this role, you will:

Contract with and manage nearshore and offshore call centers to provide qualified and cost-effective labor services for SoundHound Restaurants line of business.

Ensure that the external merchants are correctly forwarding calls to and from the Voice AI platform and the call center.

Manage various dedicated staff analysts, call center supervisors and leads to ensure the smooth operation of the organization.

## **SoundHound's Feeble AI as Demonstrated by its Knockoff Chat GPT App**

Emblematic of the ragtag nature of SoundHound's AI abilities, the Company's [Chat AI app](#), described as a "new generative AI voice assistant platform and mobile app", appears to us to be merely a relaunch of the company's

old Hound assistant app, which remains functionally useless. See that the app history shows the app underwent no changes for 7 months, then suddenly in March 2023, SoundHound uploaded a new version of the app which supposedly integrated “generative AI support” and allowed the Company to issue a [press release](#) touting as much.

Version History	
<b>3.6.1</b> - Generative AI support - Knowledge domain enhancements	Apr 4, 2023
<b>3.6</b> - Generative AI support - Knowledge domain optimizations - UI refresh	Mar 23, 2023
<b>3.4.1</b> Bug fixes and improvements.	Aug 11, 2022

On the Q1 2023 conference call, CEO Mohajer droned on about the app’s supposed accuracy, claiming that it has reduced “undesired” responses “by over 90% to a negligible amount.”

*“We address the risk of AI hallucinations using our proprietary SoundHound Chat AI platform. AI hallucination is one of the major weaknesses of Generative AI models when these models produce incorrect, misleading and at times harmful responses that are deceptively convincing. On a large benchmark of real usage data, we have reduced the undesired AI hallucinations by over 90% to a negligible amount compared to a prominent off-the-shelf model.”*

Our experience once again suggests this claim is totally bogus. SoundHound’s AI struggled to answer seemingly simple queries – even ones that the Company showcases itself in its promotional materials. For example, SoundHound [makes itself out](#) as a trivia and study aide, yet the app was stumped by even the most basic questions:

**SoundHound Chat AI**

**who was the first president of the united states**

Joe Biden is the president of United States of America.

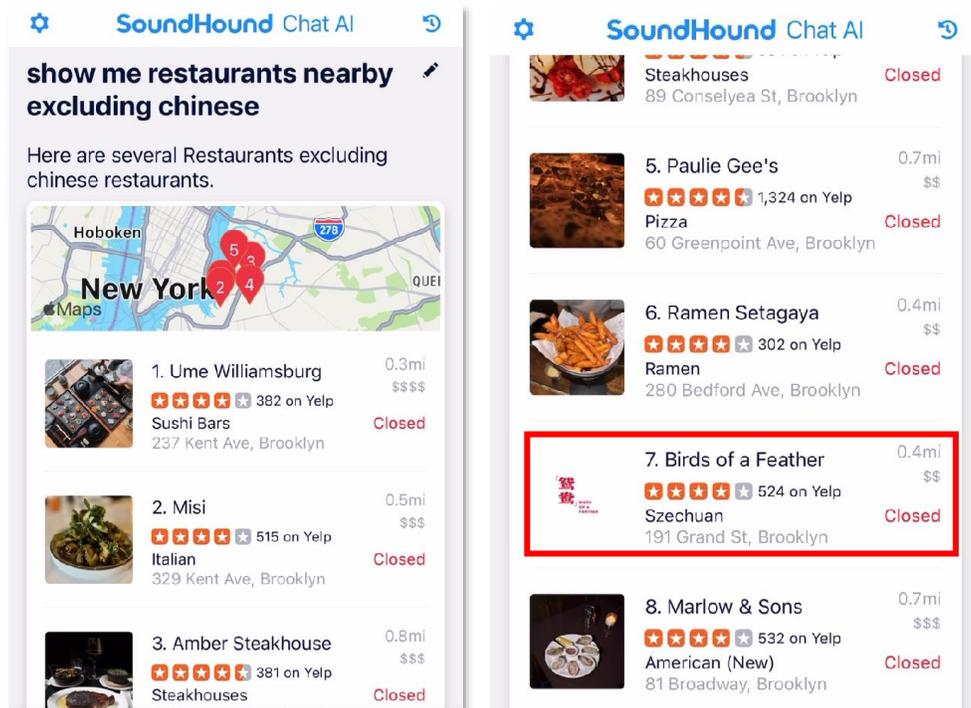
**SoundHound Chat AI**

**what is the capital of new york**

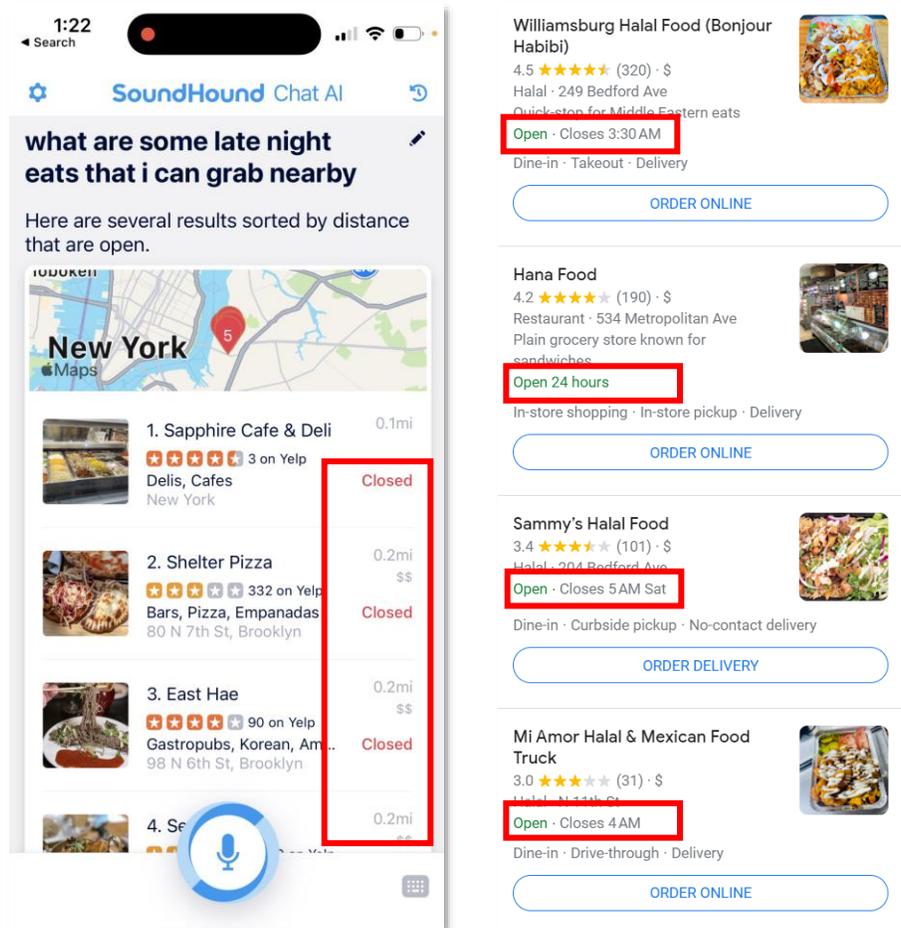
The Capital of New York is not in my database.

New York	
Population	8,537,673
Area	468 square miles
Country	United States
Continent	North America
Time Zone	America/New_York
Elevation	10 meters
First Administrative Division	New York
City	New York

SoundHound also makes a big deal out of the ability to omit items from queries, such as “Restaurants near me *excluding* Chinese.” However, when we replicated this query, the app returned a list *including* a Chinese restaurant:



Other seemingly easy queries also came up with false results: “*what are some late night eats*” turned up only stores that were closed, despite the app claiming that it was providing us with a list of open restaurants. We assure you that New York City does have restaurants open at 1am (see a simple Google Maps query, by contrast):

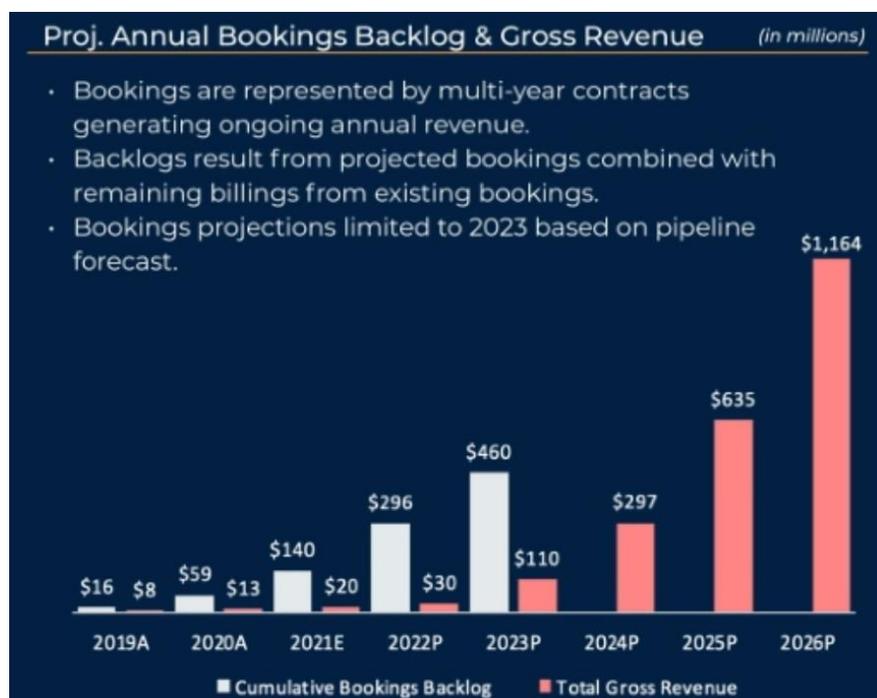


## We Think SoundHound's Bookings Backlog Figures are Bogus

Apart from its dead in the water restaurant business, SoundHound promotes a supposedly massive backlog of contracts in its automotive and device businesses. The Company has characterized this backlog as containing "contracted" revenues which flow through to revenues "automatically." We think these notions are entirely bogus.

### SoundHound Claimed an "Understated" Backlog, Then Missed its 2023 Revenue Guide by Over 50%

In the Company's [original SPAC presentation](#), SoundHound called for a bookings backlog of \$140 million in 2021 and \$296 million in 2022, which would in turn drive revenues of \$30 million in 2022 and \$110 million in 2023. As shown, the Company claimed that bookings are represented by "multi-year contracts."



Again in an [April 2022 interview](#), CEO Keyvan Mohajer justified the Company's rosy outlook by claiming that "we have proven adoption and massive contracts." SoundHound also offered reassurances that its backlog is actually "understated." See for example from CFO Nitesh Sharan in the Company's November 2021 presentation ([link](#)):

*"Our bookings backlog represents contract values that will be realized over subsequent years. These are **mostly committed contracts that consist of minimum guarantees** and forecasted product volumes provided by customers. In our experience, these estimates **are generally understated**. They do not include monetization and they do not include overages ... Supported by bookings, we anticipate GAAP revenue will surpass **\$100 million in 2023** and a billion dollars in 2026. We have also projected our bookings backlog for the next two years until 2023 based on the visibility we have from our pipeline."*

Management reiterated on the Q4 2022 call that the backlog gave the Company "high confidence" in its guidance:

*"the \$332 million of cumulative bookings backlog that I noted earlier, gives us high confidence on revenue that will either automatically roll into the P&L in accordance with software revenue recognition guidance, or as a result of expected customer unit volumes, upon which we generate royalty revenue streams."*

However, the Company is [now guiding](#) for a mere \$43 to \$50 million in 2023 revenues, less than half of the earlier anticipated \$110 million. At the same time, the Company's cumulative bookings backlog has come in *higher* than expectations, suggesting that the Company's backlog is not actually translating to revenues.

	Original Guide	Actual/Today	Difference
2021 Bookings Backlog	140.0	207.9	49%
2022 Bookings Backlog	296.0	331.5	12%
2022 Revenues	30.0	31.1	4%
<b>2023 Revenues (guide)</b>	<b>110.0</b>	<b>46.5</b>	<b>-58%</b>

## SoundHound's 6.5-Year Backlog Claims Literally Don't Add Up – They Cannot Possibly Be True

Over the past year, SoundHound claims to have both added \$139.7 million in new bookings to its backlog, while expanding the weighted-average length of that backlog from just 4.0 years to 6.5 years, implying that the new contracts are significantly longer in length than those in the existing backlog.<sup>3</sup> **In fact, these new bookings are so long that they defy reason – SoundHound's disclosures do not add up.** See our analysis below – based on SoundHound's own disclosures – implies that SoundHound is booking 20-year contracts, in some quarters.<sup>4</sup>

	Q3 21	Q4 21	Q1 22	Q2 22	Q3 22	Q4 22	Q1 23
Reported backlog (start of Q / end of prev. Q)		89.1	207.9	229.8	283.4	302.2	331.5
Revenues		5.2	4.3	6.2	11.2	9.5	6.7
Implied ending backlog		84.0	203.6	223.7	272.2	292.7	324.8
Actual ending backlog		207.9	229.8	283.4	302.2	331.5	336.0
Implied new bookings		124.0	26.2	59.8	29.9	38.8	11.2
Wtd. Avg. Length of backlog, no new bookings		3.75	3.75	3.75	4.25	4.75	6.25
Actual length of quarter-end backlog	4.00	4.00	4.00	4.50	5.00	6.50	6.50
Gross change in length of backlog		0.25	0.25	0.75	0.75	1.75	0.25
<b>Implied Weighted Average Length of New Bookings</b>		<b>4.2</b>	<b>5.9</b>	<b>7.3</b>	<b>11.8</b>	<b>19.7</b>	<b>13.8</b>

However, at the same time, SoundHound has disclosed that its longest contracts are far shorter than what its backlog claims imply above. On the Q3 2022 call, CFO Nitesh Sharan claimed that:

*“The contracts underlying our bookings backlog range from 1 year to more than 7 years with a roughly 5-year weighted average contract length.”*

On the Q4 2022 call, Sharan's revised commentary implied that the Company signed at least one contract of 9+ years in length:

*“The contracts underlying our bookings backlog now range from 1 year to more than 9 years, with a roughly 6.5-year weighted average contract length.”*

However, consider that SoundHound added \$38.8 million in bookings in Q4 2022. **Even if we assume that all \$38.8 million in bookings represented contracts 9 years in length, then the Company's weighted average length of its backlog would have expanded from 5.0 years as of Q3 2022 to just 5.5 years in Q4 2022, rather than the 6.5 years that SoundHound claims.** Indeed, there seems to us to be no possible way that SoundHound's own claims can all be true. A former SoundHound employee also corroborated our concerns, stating that:

*“A 10-plus year deal is out of the question, automakers just don't do deals that way, they don't want to be tied down for that long.”*

<sup>3</sup> We assume SoundHound's reported weighted-average contract length ought to naturally decline by 0.25 on average, each quarter, due to the passage of time. Thus, even for this figure to merely remain stable over time, the Company must be adding new, longer contracts each quarter.

<sup>4</sup> Implied length of new bookings is calculated as follows: [(ending backlog \* length of ending backlog) – (implied ending backlog \* weighted-average length of backlog assuming no new bookings)] / implied new bookings

## Former Employees Corroborate Our View on SoundHound's Backlog Issues

We spoke with several former employees of the Company to understand why SoundHound's bookings backlog, which is supposedly represented by "multi-year contracts" and is "understated," has not translated to revenues. In the words of one former high-level employee focused on the Company's device division, the backlog is filled not entirely with signed deals, but "potential" revenues which "can change pretty significantly":

*"That \$300 million [backlog] is potential revenue that is going to come in based on potential engagements that will come with potential customers... There are some things that are signed, but the nature of what's going to be delivered might be vague. There's a lot of concepts of what people might like to do, but those concepts can change pretty significantly."*

A second employee corroborated that very same risk:

*"Bookings reflect expected value of things that are generally expected but may not actually happen ... The second year, the commitment could be adjusted to reflect that they [the customer] weren't shipping the amount they had expected."*

As did a third former employee:

*"Let's say they're a TV company or a new fitness brand launching. What if they miss projections and don't sell as many...I don't know if they [SoundHound] will receive all that money."*

## SoundHound Continually Touts Partnerships Which Seem to Disappear

To that end, over the past 6 years, SoundHound has touted various partnerships which seem to us to go on to vanish or otherwise flounder. For example:

- In December 2021, SoundHound [announced](#) a partnership with Netflix for voice-enabled RDK based set-top boxes ("RDK STB"). This is part of Netflix's "Da Vinci" program which is seeking to make it easier for Pay TV operators to integrate Netflix on set-top boxes. NFLX's other partners in this program include set-top box manufacturers Innopia, CommScope, Skyworth and chipmaker Amlogic. We have not seen any additional updates regarding SoundHound's potential role in this program since the initial announcement.
- In October 2019, SOUN announced a partnership with [Deutsche Telekom](#) in which the Company brought "advanced voice AI capabilities" to DT devices. SOUN's [November 2021 Investor Presentation](#) specifically calls out Deutsche Telekom's Magenta smart speaker, which utilized the "Hallo Magenta" voice assistant. This product appears to be yet another flop, as DT posted a [notice](#) on its website announcing that this product and its features would no longer be supported, stating that, "the offer has not been able to assert itself in the market as hoped. Due to the low number of users, **we will not continue to invest in voice control via the Telekom Smart Speaker.**" Support for the speaker's voice control feature and the Hallo Magenta app are being pulled at the end of June and July 2023, respectively.
- In October 2018, SoundHound [announced](#) it would be powering music recognition and the "Moto Voice" personal assistant on Motorola's G6 and Z3 phones. The following year, Motorola released successor models, the [G6](#) and [Z4](#), yet both phones featured Google's Assistant. Today, SoundHound does not name Motorola in any of its SEC filings or customer lists, again suggesting that the relationship likely frayed.

- At the Consumer Electronics Show (“CES”) in 2018, SOUN [introduced a barrage of consumer products](#) with many of its partners at the time. Yet as far as we can tell, the vast majority of these products failed:
  - o **The “Kuri” robot** would be manufactured by Mayfield Robotics, but Mayfield [went out of business](#) 7 months after CES.
  - o **The iPal Robot** from AvatarMind used Houndify’s voice controls, but AvatarMind suffered a similar fate, filing for Chapter 7 bankruptcy protection in August 2019.<sup>5</sup>
  - o **A smart speaker from HUMAX**, was meant to “leverage SoundHound Inc.’s powerful Houndify platform” yet we found no evidence that this speaker was ever produced with SoundHound’s personal assistant. Later in the year, HUMAX released a comparable speaker and projector called the [Vision](#), which instead featured Google Assistant. HUMAX also later produced a [voice assistant](#) set-top box and Wi-Fi gateway which again featured Amazon’s Alexa.
  - o **A BUNN Sure Immersion Coffee Machine** was meant to be voice-activated using SoundHound’s tech, yet we again could not find any record of this product after the initial CES promotion. BUNN’s Sure Immersion [catalog](#) does not mention any coffee makers featuring voice controls.
  - o **A PhotoSpring digital photo frame** that included SOUN’s voice assistant. PhotoSpring does not appear to have ever introduced a voice-control option in its [products](#). An [article](#) on PhotoSpring’s frames from 2018 makes no mention of voice control.
  - o **The ModiFace augmented reality mirror**, featuring SoundHound voice functionality. However, again none of ModiFace’s [products](#) ever appear to have implemented SOUN’s voice controls, and the product [demo video \(linked infra\)](#) was removed from YouTube.
  - o **Onkyo’s “AI smart wearable” neck speaker** called the [VS-NX01](#). This product appears to have never made it past the [prototyping](#) stage.

### SoundHound’s Auditor is Armanino LLP – The Same Auditor Which Signed off on FTX US

Against the backdrop of these pervasive backlog issues, the auditor responsible for signing off on SoundHound’s numbers is the problematic Armanino LLP. Armanino is now famous for auditing the US arm of one of the largest alleged frauds of the past several years, FTX US. Armanino’s COO explained away responsibility for FTX, [saying](#):

*“We definitely stand by the FTX US work...we were never engaged to audit internal controls. That happens with public companies. It’s not required by the standards for US private company audits.”*

On the public company side, however, Armanino’s client list is not much better, characterized by former high-flyers, now micro-caps down massively from highs:

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<sup>5</sup> California Northern Bankruptcy Court case 5:2019bk51557

Ticker	Market Cap (\$Ms)	All-Time High	Current Share Price	% Return
VAXX	375	\$22.70	\$2.61	-87%
JSDA	20	\$32.60	\$0.20	-99%
DYNR	64	\$4.95	\$2.99	-42%
GREE	49	\$117.56	\$6.80	-93%
RVPH	105	\$15.10	\$4.62	-68%
ICU	7	\$22.00	\$0.50	-98%
PNT	1,003	\$21.44	\$8.99	-57%
UTGN	123	\$40.00	\$29.60	-26%
AUMN	11	\$28.90	\$1.33	-94%
AQMS	117	\$22.75	\$1.43	-94%
TNON	7	\$59.89	\$0.29	-99%
PXLW	100	\$51.75	\$1.70	-97%
MNTS	32	\$29.18	\$0.42	-99%
GAIA	46	\$30.73	\$2.20	-93%
ACMR	801	\$48.27	\$12.79	-72%
ARC	158	\$39.00	\$3.68	-91%
ATEN	1,067	\$19.79	\$14.47	-27%
ASTC	22	\$688.50	\$12.45	-98%
RAVE	30	\$16.20	\$2.14	-87%
IREN	402	\$28.00	\$6.79	-74%
<b>Average</b>				<b>-80%</b>

A 2021 [PCAOB inspection](#) of Armanino showed audit deficiencies in both of the audits reviewed. These deficiencies related to revenue recognition and the fair value of a significant account, both areas of importance for a concentrated, backlog-heavy business like SoundHound. Armanino is now quitting the public company audit business entirely, per its [recent resignation notice](#) to busted de-SPAC Momentus Inc (MNTS), which was [also charged and settled](#) with the SEC for misleading claims of its technology.

Armanino has also been involved in various other controversies. For example, the firm was [sued](#) by former clients in Dallas alleging that Armanino failed to flag an accounting discrepancy that would have increased the sale price of their business, and that Armanino received a kickback from the investment banker it recommended. Armanino has also provided attestation services for cryptocurrency businesses such as Nexo, which ceased operations in the US, is currently [suing](#) its cofounder over \$12 million in alleged stolen assets, and was fined \$45 million by the SEC for offering an unregistered crypto asset lending product.

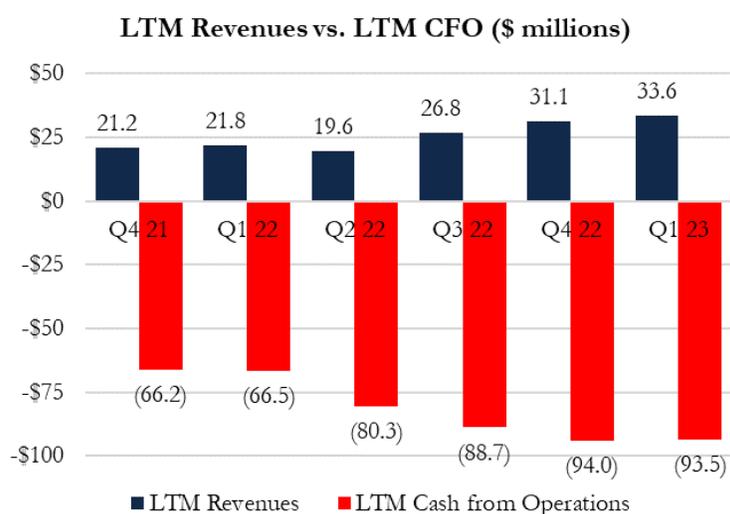
## SoundHound Is Incinerating Cash, Continues to Mislead Investors on Profitability

SoundHound's flailing business model has continually bled more and more cash despite management's constant empty promises to the contrary. See per CFO Sharan on the Company's Q1 2023 conference call:

*"In terms of the pathway on profitability, similar to what I answered to Mike's question is we were going through the adjustments on our cost structure in Q1, those have largely been completed. So now **entering Q2, by and large, we're sort of at the right level from an operating standpoint.** We expect to be able to scale meaningfully with this sort of cost footprint. So as you get into the ramping of revenue, and we also said like **we expect revenue to build every quarter**, meaning Q2 will be higher than Q3, Q3 will be higher than Q2, Q4 will be higher than Q3. We model that as getting to adjusted EBITDA in Q4 positive."*

Sell-side notes we reviewed seemed to indicate that analysts have bought into this notion, as analysts expect losses to decline throughout 2023 and the Company to become EBITDA breakeven in Q4 2023.

Yet just days ago, SoundHound filed a \$400 million shelf offering, the magnitude of which suggests to us that this is the best it's ever going to get for the Company – raise now, or forever hold your peace. Moreover, the **Company's subsequent Form 8-K filed on July 25, 2023 suggests to us that SoundHound's cash burn has actually worsened quarter-over-quarter in Q2:** in Q1 2023, SoundHound held \$46.3 million in cash, and in April 2023 raised \$100 million from Atlas Credit Partners, implying that by the end of Q2, the Company should have \$146.3 million in cash.<sup>6</sup> However, the 8-K disclosed that as of the end of Q2, SoundHound held just \$130 million in cash, **implying that the Company burned \$16.3 million in cash in Q2, up from \$14.5 million cash burn in Q1. This bait-and-switch is nothing new for SoundHound: the Company has been dangling profitability in front of investors ever since it came public, yet results only worsen:**



- In April 2023, SoundHound raised \$100 million and on the May 2023 conference call claimed that the proceeds would *“fund us well beyond profitability.”*
- On the March 2023 conference call announcing Q4 2022 results, management suggested that the Company was *“on a path to profitability”* or *“becoming”* profitable on 5 occasions.
- In January 2023, SoundHound raised just \$25 million in preferred equity, with 14% paid-in-kind interest and a convertible feature at \$1.00 per share. Yet still, SoundHound claimed that it had *“fully fund[ed] its business plan in anticipation of being GAAP operating cash flow positive by the end of 2023.”*
- In November 2022, CFO Sharan [claimed that](#) *“We’re thoughtfully channeling investments to the areas that matter most, while accelerating our path to profitability.”*
- In April 2022, CEO Mohajer continued to claim that the Company had sufficient cash: *“We’ve raised enough money in the [SPAC] transaction to execute., and we just focus on executing, and if we deliver the value that we think we’re going to deliver long-term, then we should get credit for it.”*

<sup>6</sup> The Atlas agreement held an extra \$25 million in on-call capital. We do not know whether or not the Company has utilized any of that \$25 million, but we, Company-favorably, assume that they did not.

SoundHound also utilized [equity purchase agreements](#) with CF Principal Investments, a Cantor Fitzgerald affiliate. Companies affiliated with CF seem to have a death wish, as the average stock has declined 75% post-SPA:

Company	Ticker	SPA date	SPA size (\$Ms)	Price on Date of SPA	Current Price	% change
SpringBig Holdings	SBIG	4/29/22	\$50	\$9.91	\$0.38	-96.2%
Appreciate Holdings	SFR	5/17/22	\$100	\$9.83	\$0.30	-96.9%
Near Intelligence	NIR	5/18/22	\$100	\$9.96	\$1.66	-83.3%
TH International	THCH	3/11/22	\$100	\$9.87	\$2.66	-73.0%
FOXO Technologies	FOXO	2/24/22	\$40	\$10.00	\$0.18	-98.2%
Intuitive Machines	LUNR	9/16/22	\$50	\$9.85	\$8.78	-10.9%
Embark Technologies	EMBK	5/31/22	30M shares	\$29.60	\$2.87	-90.3%
SatixFy Communications	SATX	5/8/22	\$75	\$10.00	\$0.39	-96.1%
MSP Recovery	LIFW	5/17/22	\$1,000	\$10.40	\$0.26	-97.5%
View Inc	VIEW	8/8/22	\$100	\$2.37	\$0.15	-93.7%
Wejo Group	WEJOQ	2/14/22	\$100	\$4.19	\$0.03	-99.4%
Lucid Diagnostics	LUCD	3/28/22	\$50	\$3.05	\$1.35	-55.7%
Tempo Automation	TMPO	3/16/22	\$100	\$10.06	\$0.30	-97.0%
Roivant Sciences	ROIV	2/14/22	\$250	\$7.20	\$11.63	61.5%
Starry Group Holdings	STRYQ	8/8/22	\$100	\$4.07	\$0.01	-99.9%
PAVmed Inc	PAVM	3/28/22	\$50	\$1.54	\$0.41	-73.6%
<b>Average return</b>						<b>-75.0%</b>
<b>SoundHound</b>	<b>SOUN</b>	<b>8/16/22</b>	<b>25M shares</b>	<b>\$3.68</b>		<b>???</b>

Despite massive layoffs and the departure of SoundHound's newly hired Chief Revenue Officer, the CEO's brother, Kamyar Mohajer, still [holds himself out](#) as a Senior Executive Advisor at the Company. Meanwhile, SoundHound insiders are voting with their feet. CEO Mohajer [dumped \\$4.9 million](#) of stock in June, while SoundHound's CTO Tim Stonehocker and VP of Engineering Majid Emami both adopted 10b5-1 stock sale plans in March 2023, joining Stonehocker who adopted his plan in August 2022. In all, executives have sold \$11.5 million in stock in the past 9 months.<sup>7</sup> We're short and think shares continue lower.

Date	Insider	Shares Sold	Price per Share	Value
6/30/2023	VP Engineering, Majid Emami	550,000	\$4.48	\$2,465,210
6/30/2023	VP Engineering, Majid Emami	68,333	\$4.42	\$302,162
6/29/2023	CTO, Timothy Stonehocker	10,000	\$5.00	\$50,000
6/26/2023	CTO, Timothy Stonehocker	10,000	\$4.50	\$45,000
6/23/2023	CPO, James Ming Hom	500,000	\$3.61	\$1,806,350
6/20/2023	CEO, Keyvan Mohajer	192,099	\$3.57	\$685,236
6/20/2023	CEO, Keyvan Mohajer	387,461	\$3.60	\$1,396,719
6/20/2023	CTO, Timothy Stonehocker	50,000	\$4.00	\$200,000
6/16/2023	CEO, Keyvan Mohajer	812,539	\$3.51	\$2,854,856
6/16/2023	CTO, Timothy Stonehocker	50,000	\$3.50	\$175,005
6/14/2023	CTO, Timothy Stonehocker	50,000	\$3.07	\$153,450
6/13/2023	CTO, Timothy Stonehocker	50,000	\$3.12	\$156,225
2/7/2023	CTO, Timothy Stonehocker	10,000	\$4.48	\$44,750
2/6/2023	CTO, Timothy Stonehocker	15,000	\$3.77	\$56,600
12/1/2022	CPO, James Ming Hom	661,192	\$1.25	\$826,490
10/28/2022	CTO, Timothy Stonehocker	66,539	\$2.57	\$170,865
10/27/2022	CTO, Timothy Stonehocker	22,600	\$2.75	\$62,227
10/3/2022	CTO, Timothy Stonehocker	2,779	\$3.50	\$9,727
9/16/2022	CTO, Timothy Stonehocker	8,082	\$3.59	\$28,976
	<b>Total</b>			<b>\$11,489,848</b>

<sup>7</sup> Including class A and class B shares, we Company-favorably exclude stock sales related to tax withholding obligations.