



## Danger Zone: LivePerson Inc. (LPSN)

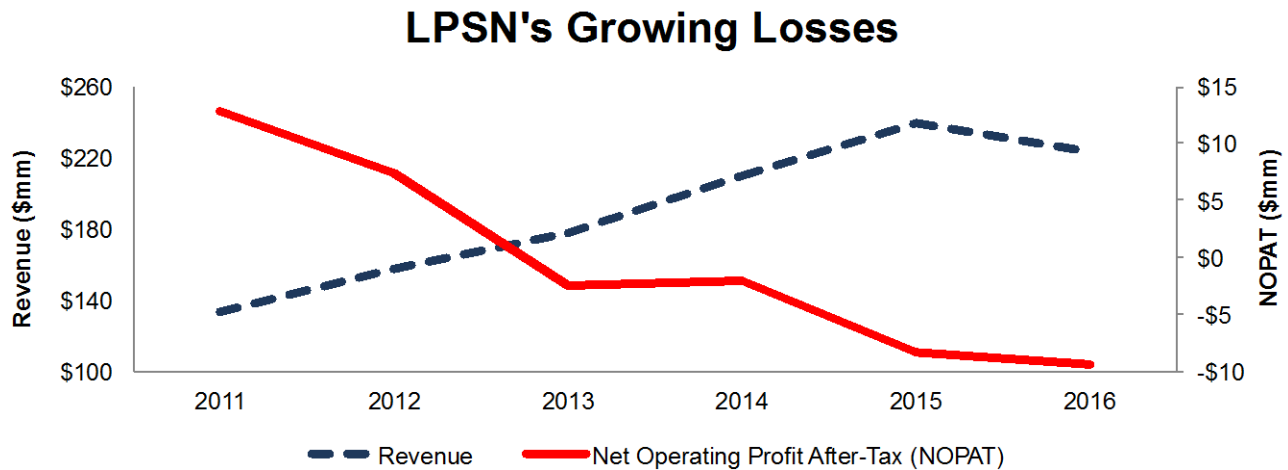
Check out this week's [Danger Zone interview](#) with Chuck Jaffe of [Money Life](#) and Marketwatch.com

This week's Danger Zone pick has seen its profitability decline as new competition has entered the scene. As the market commoditized, this firm's negative margins and limited service offering undermined its ability to compete. Despite trading at less than half its 2012 highs, this stock is up 21% over the past year and is now pricing in unlikely improvements in profitability and revenue growth. LivePerson (LPSN: \$7/share) is in the [Danger Zone](#) this week.

### Revenue Growth Without Profits Is Meaningless

LivePerson's after-tax profit ([NOPAT](#)) declined from \$13 million in 2011 to -\$9 million in 2016. This profit decline comes despite revenue growing 11% compounded annually over the same time, per Figure 1. LivePerson's NOPAT margin has also fallen from 10% in 2011 to -4% in 2016.

**Figure 1: LivePerson's NOPAT Falls Despite Revenue Growth**



Sources: New Constructs, LLC and company filings

The company's return on invested capital ([ROIC](#)) is currently a bottom-quintile -5%, which is down from 12% in 2011. Despite positive [free cash flow](#) in 2016, LivePerson has burned through a cumulative \$86 million (23% of market cap) in FCF over the past five years. With only \$55 million in cash and a three year average cash burn of \$23 million, LivePerson has just over two years before it would run out of money. All told, LivePerson's fundamentals are trending in the wrong direction.

### Executive Compensation Plan Incentivizes The Wrong Metrics

LivePerson's executive compensation incentives are [not aligned](#) with shareholders' interests. Misaligned compensation plans can create situations where executives are rewarded despite destroying shareholder value.

LivePerson's executives are eligible for base salaries, cash incentives, and long-term equity awards. Cash bonuses are tied to adjusted EBITDA and "non-metric strategic goals" such as product development, talent recruitment, and litigation management. Adjusted EBITDA, a non-GAAP metric, removes stock-based compensation expense and is not correlated with real profits or shareholder value creation.

Long-term equity awards are given in a mix of restricted stock units and stock options. Stock options are granted with a service-based vesting schedule. Restricted stock units are granted based on individual and company performance at the discretion of the compensation committee. In either case, executives are given stock awards more as a supplement to salaries than a performance bonus. Furthermore, investors should be [wary of heavy](#)

[use of stock price as an incentive](#). Decisions can be made to maximize stock price in the short-term while the long-term best interests of the business go ignored.

We've demonstrated through [numerous case studies](#) that ROIC, not adjusted EBITDA or “non-metric strategic goals”, is the primary driver of shareholder value creation. Without major changes to this compensation plan (e.g. emphasizing ROIC), investors should expect further value destruction.

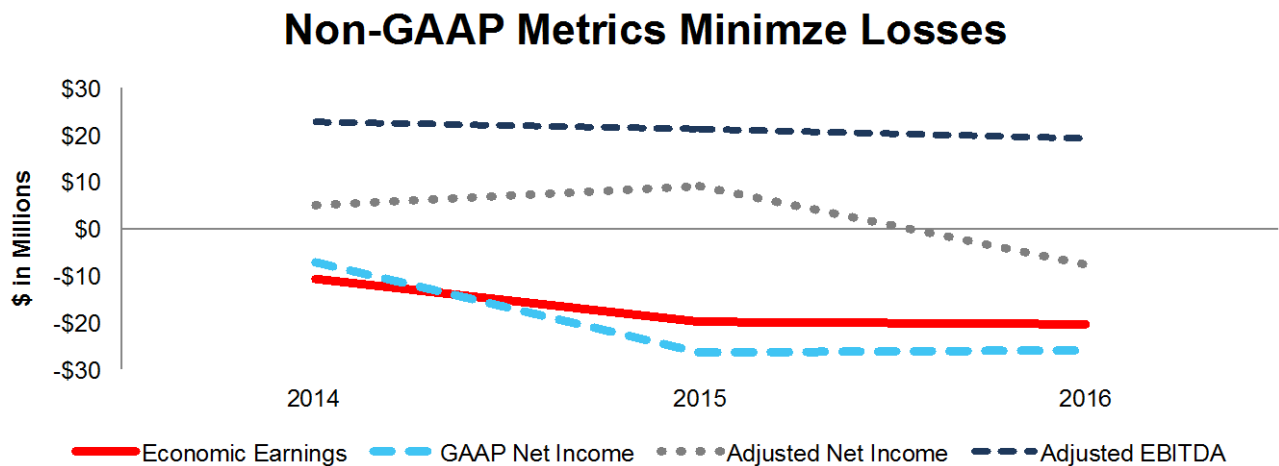
### Non-GAAP Metrics Can No Longer Hide Losses

LivePerson uses [non-GAAP metrics](#) such as adjusted EBITDA and adjusted net income to mask its losses. Prior to 2016, the firm was able to report non-GAAP profits while the true cash flows of the business were negative. Below are some of the items LivePerson has removed when calculating its adjusted net income and adjusted EBITDA:

1. Stock-based compensation expense
2. Restructuring costs
3. Acquisition costs
4. Amortization of purchased intangibles

These adjustments have a large impact on the disparity between GAAP net income, adjusted net income, and [economic earnings](#). In 2016 and 2015, LivePerson removed nearly \$10 million (4% of revenue) and \$12 million (5% of revenue), respectively, in expenses related to stock-based compensation to calculate adjusted net income. When added with the other adjustments, LivePerson reported 2016 adjusted net income of -\$8 million. Per Figure 2, GAAP net income was -\$26 million and economic earnings were -\$20 million in 2016.

**Figure 2: Disconnect Between Non-GAAP & Economic Earnings**



Sources: New Constructs, LLC and company filings

### Negative Profitability In A Fragmented Market

LivePerson's service began in 1998 and gave the company a head-start to shape the customer service experience. This first-mover advantage eroded over time and profitability issues arose as competition entered the market. In today's customer support software market, LivePerson faces competition from Oracle (ORCL), Nice Systems (NICE), Nuance Communications (NUAN), salesforce.com (CRM), Genesys, Avaya, Cisco (CSCO), and eGain (EGAN). In addition, the company faces competition from many more online messaging applications, such as FreshDesk, Olark, LiveChat, and Zendesk Chat. The company also notes the potential for tech firms such as Facebook (FB) or Alphabet (GOOGL) to leverage existing technology to offer a competing service. It is clear to see from this non-exhaustive list that this market is filled with firms competing for the same business. The chat function within customer service grows more commoditized with each new entrant.

Per Figure 3, LivePerson's ROIC and NOPAT margin fall well below its competition. The firms with the highest profitability, such as Oracle and Cisco, have built customer support solutions into their larger, more profitable

enterprise offerings. These firms can provide discounts or even take a loss on these offerings and still profit from their overall cloud, customer relationship, enterprise management, or security platforms.

Meanwhile, LivePerson's focus on chat support while doing away with "1-800 customer service lines" puts it at a competitive disadvantage. If LivePerson is unable to convince potential clients that call centers are no longer needed, it risks losing business to providers such as inContact, which provide integrated call center and chat support solutions.

**Figure 3: LivePerson's Negative ROIC & Margins**

Company	Ticker	Return On Invested Capital (ROIC)	NOPAT Margin
Facebook Inc.	FB	26%	32%
Oracle Corporation	ORCL	20%	28%
Alphabet Inc.	GOOGL	27%	22%
Cisco Systems	CSCO	17%	21%
Nice Systems	NICE	15%	14%
Nuance Communications	NUAN	2%	5%
salesforce.com	CRM	2%	2%
8x8 Inc.	EGHT	-2%	-1%
eGain Corp	EGAN	-3%	-3%
LivePerson Inc.	LPSN	-5%	-4%

Sources: New Constructs, LLC and company filings

### Bulls Case Ignores LivePerson's Inability to Scale Profitably

LivePerson bulls will point to customer dissatisfaction with traditional customer support services (1-800 numbers) as reason to buy into LivePerson's potential. In fact, an Amdocs consumer survey found that 76% of consumers would rather use a mobile app than call a contact center. However, the bulls' belief assumes chat is the only option for customer support while ignoring LivePerson's inability to scale its business in a profitable manner.

If LivePerson were a new tech firm, it would be easier to justify the firm's growing expenses. One could argue that the firm was rapidly expanding its services to disrupt an industry or change an entire market. However, LivePerson has been operating since 1995, and expense growth continues to outpace revenue growth. Per Figure 4, LivePerson's sales & marketing, general & administrative, and product development costs have grown 18%, 15%, and 15% compounded annually respectively since 2011. Over the same time, revenue has grown just 11% compounded annually. In 2016, general & administrative and product development costs grew YoY despite revenue falling 7%.

**Figure 4: LivePerson's Expenses Growing Quicker Than Revenue**

Operating Item	2011	2016	CAGR
Sales & Marketing	\$39	\$89	18%
General & Administrative	\$21	\$43	15%
Product Development	\$20	\$40	15%
Revenue	\$133	\$223	11%

Sources: New Constructs, LLC and company filings

LivePerson's business model is also not creating the traditional benefits of a software based business, namely increased profitability as the business scales up. Sales & marketing, general & administrative, and product development costs were 60% of revenue in 2011 and 78% of revenue in 2016. A successful software business model is expected to become more profitable over time, but LivePerson's is getting less profitable.

These growing costs are a byproduct of the firm's dependency on new customer growth. Per the company's 10-K, a client's first order is usually for a small number of services and low dollar amount; so the firm depends heavily on new customer sales and up-selling. This dependency ensures high marketing spend is required to keep the revenue growing. LivePerson's business model is not working.

Cost issues aside, the market's expectations baked into LivePerson's stock price imply that the firm will grow much faster than the firm's expectations while also taking nearly all market share, as we'll show below.

### **LivePerson Is Already Priced For More Growth Than Management Expects**

Despite more than halving from its all-time highs in 2012, LPSN is up 21% over the past year, which outpaces the 16% gain of the S&P. At current prices, LPSN is significantly overvalued. To justify its current price of \$7/share, LPSN must achieve NOPAT margins of 4% (compared to -4% in 2016) and [grow revenue by 10% compounded annually for the next 12 years](#). In this scenario, LivePerson would be generating nearly \$700 million in revenue 12 years from now. For reference, [Technavio estimates](#) the entire live chat software market will be worth \$819 million by 2020. This scenario also seems unlikely given that LPSN's revenue fell 7% in 2016 and is expected to fall 8% in 2017. Furthermore, competitive pressures noted above make it unlikely to spur revenue growth while also improving profitably in a commoditized market.

Even if we assume LivePerson can achieve a 4% NOPAT margin and [grow revenue by 8% compounded annually for the next decade](#), the stock is worth only \$5/share today – a 29% downside. Each of these scenarios also assumes LivePerson is able to grow revenue and NOPAT/free cash flow without spending on working capital or fixed assets. This assumption is unlikely but allows us to create very optimistic scenarios that demonstrate how high expectations in the current valuation are. For reference, LPSN's [invested capital](#) has grown on average \$14 million (6% of 2016 revenue) per year over the last five years.

### **Is LPSN Worth Acquiring?**

The largest risk to our bear thesis is what we call "[stupid money risk](#)", which means an acquirer comes in and pays for LPSN at the current, or higher, share price despite the stock being overvalued. Prior [Danger Zone pick](#) and competitor Interactive Intelligence was acquired by Genesys in mid 2016. Many are betting that LivePerson could be the next M&A target, but a review of recent acquisitions makes a similar white-knight acquisition of LivePerson less likely.

Many competitors have already acquired smaller services that compete with LivePerson. In 2016, Nuance Communications acquired TouchCommerce and Nice Systems acquired inContact. Less recent, Oracle acquired RightNow Technologies in 2011 and has integrated it into its public cloud offering.

The key point from each of the acquisitions, including Interactive Intelligence, is that the acquired firm offered more than just chat-based customer support. The acquired firms integrate online support with call support, analytics, and more. These omni-channel offerings provide more value for an acquiring firm.

Furthermore, the willingness to overpay for an add-on chat based provider is diminished since the acquisition would provide marginal benefits over existing services. We see an acquisition as possible only if an acquiring firm is willing to ignore prudent stewardship of capital and destroy substantial shareholder value. We show below how expensive LPSN remains even after assuming an acquirer can achieve significant synergies.

To begin, LivePerson has liabilities of which investors may not be aware that make it more expensive than the accounting numbers suggest.

1. \$25 million in [off-balance-sheet operating leases](#) (6% of market cap)
2. \$17 million in [outstanding employee stock options](#) (4% of market cap)

After adjusting for these liabilities we can model multiple purchase price scenarios. Even in the most optimistic of scenarios, LPSN is not worth the current share price.

Figures 5 and 6 show what we think Cisco (CSCO) should pay for LivePerson to ensure it does not destroy shareholder value. Cisco could immediately integrate LivePerson into its call center software and bolster its customer support offering to increase competitiveness within the market. However, there are limits on how much CSCO would pay for LPSN to earn a proper return, given the NOPAT of free cash flows being acquired.

Each implied price is based on a 'goal ROIC' assuming different levels of revenue growth. In each scenario, the estimated revenue growth rate in year one and two equals 5%, which is the consensus estimate of revenue growth in 2018. For the subsequent years, we use 5% in scenario one because it represents a continuation of next year's expectations. We use 10% in scenario two because it assumes a merger with CSCO could create revenue growth through increased client base and usage.

We conservatively assume that Cisco can grow LivePerson's revenue and NOPAT without spending on working capital or fixed assets. We also assume LivePerson immediately achieves a 4% NOPAT margin, which is below large tech firms from Figure 3 with other business lines but above cloud platforms eGain and 8x8. For reference, LPSN's NOPAT margin is -4%, so this assumption implies immediate improvement and allows the creation of a truly best case scenario.

**Figure 5: Implied Acquisition Prices For CSCO To Achieve 6% ROIC**

To Earn 6% ROIC On Acquisition		
Revenue Growth Scenario	LPSN's Implied Stock Value	% Discount to Current Price
5% CAGR for 5 years	\$3	53%
8% CAGR for 5 years	\$4	47%

Sources: New Constructs, LLC and company filings.

Figure 5 shows the 'goal ROIC' for CSCO as its weighted average cost of capital (WACC) or 6%. Even if LivePerson can grow revenue by 5% compounded annually with a 5% NOPAT margin for the next five years, the firm is worth less than its current price of \$7/share. It's worth noting that any deal that only achieves a 6% ROIC would be only value neutral and not accretive, as the return on the deal would equal CSCO's WACC.

**Figure 6: Implied Acquisition Prices For CSCO To Achieve 17% ROIC**

To Earn 17% ROIC on Acquisition		
Revenue Growth Scenario	LPSN's Implied Stock Value	% Discount To Current Price
5% CAGR for 5 years	\$1	84%
8% CAGR for 5 years	\$2	81%

Sources: New Constructs, LLC and company filings.

Figure 6 shows the next 'goal ROIC' of 17%, which is Cisco's current ROIC. Acquisitions completed at these prices would be truly accretive to CSCO shareholders. Even in the best-case growth scenario, the most CSCO should pay for LPSN is \$2/share (81% downside). Even assuming this best-case scenario, CSCO would destroy over \$300 million by purchasing LPSN at its current valuation. Any scenario assuming less than 8% CAGR in revenue would result in further capital destruction for CSCO.

### Weak Business Model Makes Expensive Valuation Even Riskier

Investors are willing to overlook losses for an extended period of time when a firm is growing revenue at a rapid pace. When that revenue growth stops, the resulting cut in valuation can be drastic. Over the past year, LPSN's stock price has not reflected the deteriorating fundamentals of its business. Now the firm is guiding for a revenue decline in 2017, which makes us wonder if the 21% increase in share price has only set LPSN up for a fall.

LivePerson is betting its future on the ability to convince clients that its standalone messaging service is better than the integrated solutions in other platforms. Per above, we've seen the rapid decline in profitability brought on by competitors and as of yet, LivePerson has shown no signs of returning to profitability. As the deteriorating fundamentals come into focus, we believe LivePerson is only one earnings miss away from seeing a significant cut to its valuation.

Essentially, LPSN's valuation implies it will grow revenues at over 8% (consensus expectations are for revenues to fall 8%) while also reversing falling and negative margins. While we don't attempt to predict exactly when the market will recognize the disconnect between expectations and reality, we know the impact missing expectations can have on the stock price.

When LivePerson reported 2Q16 EPS below expectations, the stock fell 15% the following day. In 4Q16, when LivePerson released guidance below consensus estimates, the stock fell 18% the next day. With the revenue growth story ending, LPSN must consistently beat expectations or see its valuation fall to more rational levels.



### Insider Action and Short Interest Are Minimal

Over the past 12 months, no insider shares have been purchased and 196 thousand have been sold for a net effect of 196 thousand insider shares sold. These sales represent less than 1% of shares outstanding. Additionally, there are 1.8 million shares sold short, or 3% of shares outstanding.

### Impact of Footnotes Adjustments and Forensic Accounting

Our [robo-analyst technology](#) enables us to perform forensic accounting with scale and provide the [research needed](#) to fulfill fiduciary duties. In order to derive the true recurring cash flows, an accurate invested capital, and a real shareholder value, we made the following adjustments to LivePerson's 2016 10-K:

Income Statement: we made \$16 million of adjustments with a net effect of removing \$16 million in non-operating expense (7% of revenue). We removed \$16 million related to [non-operating expenses](#) and there were no adjustments related to [non-operating income](#). See all the adjustments made to LPSN's income statement [here](#).

Balance Sheet: we made \$135 million of adjustments to calculate invested capital with a net increase of \$46 million. The most notable adjustment was \$44 million (31% of reported net assets) related to [asset write-downs](#). See all adjustments to LPSN's balance sheet [here](#).

Valuation: we made \$86 million of adjustments with a net effect of decreasing shareholder value by \$1 million. The most notable adjustment to shareholder value was \$17 million in [outstanding employee stock options](#). This adjustment represents 5% of LPSN's market cap.

### Dangerous Funds That Hold LPSN

There are no funds that receive our Dangerous-or-worse rating and allocate significantly to LivePerson Inc.

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*Disclosure: David Trainer, Kyle Guske II, and Kyle Martone receive no compensation to write about any specific stock, style, or theme.*

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2. Standard for all companies.
3. A more accurate representation of the true underlying cash flows of the business.

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