

EQUITY RESEARCH

November 3, 2023

Price: \$41.72 (11/2/2023)

Price Target: \$44.00 (Prior \$47.00)

MARKET PERFORM (2)
ESG SCORE: 52/100
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Key Data

Symbol	NASDAQ: APPN
Beta:	1.60
52-Week Range:	\$53.90-\$31.12
Market Cap:	\$1.7B
Net Debt (MM):	\$39.0
Cash/Share:	\$(1.45)
Dil. Shares Out (MM):	73.0
Enterprise Value (MM):	\$3,086.3
BV/Share:	\$1.10
Dividend:	\$0.00
Yield:	0.00%

FY (Dec)	2022A	2023E	2024E
EPS			
Year	\$(1.23)	\$(1.11)	\$(0.62)
Prior Year	-	-	\$(0.58)
Consensus EPS	\$(1.23)	\$(1.13)	\$(0.70)

Consensus source: FactSet

Revenue (MM)

Q1	\$114.3	\$135.2A	\$153.4
Prior Q1	-	-	\$154.4
Q2	\$110.1	\$127.7A	\$142.7
Prior Q2	-	-	\$143.2
Q3	\$117.8	\$137.1A	\$154.1
Prior Q3	-	\$135.9	\$155.7
Q4	\$125.7	\$141.3	\$166.0
Prior Q4	-	\$143.6	\$169.2
Year	\$467.9	\$541.4	\$616.1
Prior Year	-	\$542.6	\$622.6
EV/S	6.6x	5.7x	5.0x

EARNINGS UPDATE
MIXED QTR & GUIDE; MACRO REMAINS CHALLENGING
THE TD COWEN INSIGHT

APPN reported a slight 3Q beat w/ Cloud growth of 27% above our 26% est & total rev growth of 16% above our 15% est, but billings growth was below our est and continues to track well below rev growth. 4Q Cloud guide of 19-21% was below our 22% est as macro impacts linger and uncertainty surrounding gov't funding and Middle East tensions weigh on visibility. Maintain Market Perform. PT to \$44.

Our Key Takes

- APPN reported 3Q Software rev growth of 17% cc (vs. 19% last qtr), in-line with our estimate, with Cloud slightly above and on-prem slightly below. That said, billings growth of 8% fell short of consensus of 13%, and the mid-point of 4Q guide of \$138-\$143m was below Street at \$142.8m, with 4Q Cloud growth guide of 19-21% slightly below our 22% estimate. Positively, NRR up-ticked to 117% (vs. 115% last qtr), but mgmt called out continued macro challenges leading to longer sales cycles, and that given uncertainties surrounding gov't funding and Middle East tensions, visibility is more constrained heading into 4Q.
- APPN highlighted a strong qr with public sector customers (revs up 16% against a tough comp), helping drive APPN past the 100-customer mark for \$1m+ ARR customers. Mgmt noted its Government Acquisition Mgmt solution has "added a spark" to its Gov't sector growth and anticipates this to carry into next year. APPN also called out strength in financial services, with pre-built solutions around Case Mgmt and Insurance seeing strong adoption as well. AI remained a focus point in the qtr, with mgmt highlighting over 100 customers using its Appian AI. APPN continues to focus on its private AI, and highlighted an Australian wealth fund manager that trained its own AI on the platform to enhance email operations.
- Overall, we thought it was a mixed qtr and guide, driving shares down 7% in AH. Cloud growth decelerated from 30% in 2Q to 27% in 3Q and mgmt is modeling 20-21% in 4Q as it sees macro headwinds building and FX tailwinds fading. Progress is being made on improving EBITDA losses, but we still don't model EBITDA breakeven until 4Q24. At ~6x EV/CY23E Software Sales (AH) against ~20% Software growth and a FCF burn profile, we view valuations as relatively full. Maintain Market Perform. Lower PT to \$44 (~6.5x EV/CY23E Software Sales).

Numbers

- 3Q Cloud sub growth was 24% cc, a deceleration from 27% cc last qtr. YTD, Cloud was ~80% of new software bookings vs. ~85% in 1H and ~80% in FY22, demonstrating some stabilization in onprem-to-cloud conversions in 3Q. Subscription retention rate was 117% (vs. 115% last qtr, 115% a yr ago). On-prem growth was 1%, below our +7% estimate, while professional services growth of +6% was above our +2% estimate.

AT A GLANCE

Our Investment Thesis

APPN is well positioned within the emerging digital transformation trend as customers increasingly look to automate data-driven processes. While we remain constructive on the company's low code opportunity, we also believe this is being captured by APPN's current valuation.

Base Case Assumptions

- Cloud subscription revenue growth of ~25% cc in FY23
- Negative low-teens operating margins
- ~115% net revenue retention rates

Upside Scenario

- Cloud subscription revenue growth of upper 20% cc in FY23
- Negative 10% operating margins
- ~118% net revenue retention rates

Forthcoming Catalysts

- 4Q Earnings

Downside Scenario

- Cloud subscription revenue growth of lower 20% cc in FY23
- Negative high-teens operating margins
- ~112% net revenue retention rates

Price Performance



Source: Bloomberg

Company Description

APPN is an enterprise-focused software company that offers a platform as a service (PaaS) for rapid application (incl. mobile app) development and business process management (BPM). APPN's platform enables large organizations to, in turn, build powerful custom apps that can help to transform their businesses. While the BPM software market is somewhat mature, APPN's platform has evolved to facilitate "low-code" rapid application development, which features a graphical "drag and drop" approach to programming. This can enable experienced developers to build applications ~10x faster than by traditional means.

Analyst Top Picks

	Ticker	Price (11/2/2023)	Price Target	Rating
Adobe Systems	ADBE	\$558.71	\$625.00	Outperform
ServiceNow	NOW	\$599.43	\$670.00	Outperform
Samsara	IOT	\$22.71	\$33.00	Outperform

TD COWEN ESG SCORES

Appian Corporation
NASDAQ: APPN

ESG Score: 52/100

ESG Industry Percentile: 25th

Appian Corporation (APPN) ESG Material Category Rankings as of November 3, 2023

Top 3 Material ESG Categories	Dynamic Materiality™	Score
Business Ethics	36%	36
Customer Privacy	20%	70
Data Security	8%	50

Appian Corporation (APPN) ESG Score History as of 11/03/2023



ESG performance is scored on a 0 to 100 scale. A score of 50 represents a neutral impact. Scores above 50 indicate more positive performance, and scores below reflect more negative performance. A blank chart means the company has an ESG performance score of N/A. A score of N/A means not enough data is available on the company to generate a score.
Source: Truvalue Labs

ESG MATERIALITY

Establishing **materiality** is critical to evaluating a company's ESG performance. Factors most material in one sector (or to a particular company) may not be as important to another. In addition, the factors that are material – and the degree to which factors are material – can change over time.

Applying data to frameworks established by SASB (the Sustainability Accounting Standards Board) and by Truvalue Labs, we present in the chart above the three most material ESG factors that investors should focus on for the company that is the subject of this report; the Dynamic Materiality™ of each factor (i.e., what percentage of overall materiality the category represents for the subject company); and a Score for the subject company in each of these three categories (on a 0 to 100 basis, with 50 being average).

We also calculate an **overall ESG Score** for the subject company, which is presented above (in green) and on the cover of this report. A full explanation of how this ESG Score is derived is presented below.

HOW ARE TD COWEN'S ESG SCORES CALCULATED?



TD Cowen leverages technology from Truvalue Labs to generate our ESG scores. Truvalue Labs uses artificial intelligence to capture the stakeholder view of how companies are performing on ESG metrics, using the Sustainability Accounting Standards Board (SASB) materiality framework (www.sasb.org). These data are leveraged to calculate a score for each company, which allows TD Cowen to have a **common framework** and uniform way to approach ESG discussions with our clients. TD Cowen ESG scores appear on Company and Company Quick Take notes and are updated daily.

HOW DOES THE PROCESS WORK?

The process begins with capturing unstructured data from more than 100,000 sources, in 14 languages. These data are culled from a wide range of sources with varied perspectives, including industry publications, news outlets, NGOs, trade unions, government sources, legal and regulatory filings, and academic publications.

Natural language processing is used to interpret semantic content from the original sources and generate analytics by applying criteria consistent with established sustainability and ESG frameworks. Performance is scored on a 0 to 100 scale. **A score of 50 represents a neutral impact.** Scores above 50 indicate more positive performance, and scores below reflect more negative performance. A score of NA means not enough data is available on the company to generate a score.

- Gross margin of 75.0% (highest since IPO) was above our 74.6% estimate, while EBITDA of (\$5.3)m was well ahead of guide of (\$16)m-(\$12)m due to a push-out of expenses into 4Q. FCF of (\$65m) was well below our (\$24m) estimate due to a one-time insurance policy payment (\$67m) pertaining to its litigation against PEGA (\$2.1b judgement against PEGA for willful and malicious trade secret misappropriation). More specifically, the policy provides that if the final judgment against PEGA after all appeals are exhausted is reduced below \$500m, APPN will receive a payment for the difference between the Judgment and \$500m. Appeal arguments will be held in a couple of weeks and judgement is likely a few months after that.
- U.S. grew 10% (vs. 10% last qtr) and Int'l grew 31% (vs. 27% last qtr). Gov't revs grew 16% Y/Y (vs. 28% last qtr), while its top-3 Fed agencies revs were -3% (vs. +3% last qtr). Commercial grew 16% (vs. +13% last qtr).

Guidance

- 4Q cloud sub revs guide of \$78.6-\$79.6m (+19-21%) was below our prior estimate of \$80.3m (+22%). 4Q total revs guide of \$138-\$143m (+10-14%) was below our estimate of \$143.7m and EBITDA guide of (\$16.1)-(\$12.1)m was below our (\$10.6m) estimate.
- FY23 cloud sub revs guide was raised from \$299-\$301m (+26-27%) to \$300-\$301m (+27%). FY23 total revs guide was maintained at \$538-\$543m (+15-16%). FY23 EBITDA guide was raised from (\$67)-(\$63)m to (\$62)-(\$58)m. As a reminder, mgmt did a small RIF in 1Q & will slow opex growth for the remainder of FY23 & expects EBITDA to be better than its -10% target in 2H. For the full year, we slightly lowered revenue (still forecasting 14% cc growth) and increased EBITDA estimates.

Figure 1 : TD Cowen Estimates vs Consensus

\$ in millions	Q3	Q3			Est. %	Est. Value	
CURRENT QUARTER (Q3:FY23)	Estimate	Actual	Consensus	Guidance	Change	Change	
Cloud Subscription	\$76.5	\$77.2		\$75.5-\$76.5	1.0%	\$0.7	
On-Premise	\$27.7	\$26.6			(4.0)%	(\$1.1)	
Subscription, Software & Support	\$104.1	\$103.8	\$102.9		(0.3)%	(\$0.3)	
Professional Services	\$31.9	\$33.3	\$32.4		4.4%	\$1.4	
Total Revenue	\$136.0	\$137.1	\$135.3	\$134-\$136	0.8%	\$1.1	
Operating Income	(\$15.7)	(\$7.7)	(\$16.8)		NM	\$8.0	
Operating Margin	-11.5%	-5.6%	-12.2%		594 bp	NM	
EBITDA	(\$13.2)	(\$5.3)	(\$14.0)	(\$16)-(\$12)	-59.4%	\$7.8	
Net Income	(\$17.5)	(\$14.6)	(\$18.5)		NM	\$2.9	
EPS	(\$0.24)	(\$0.20)	(\$0.26)	(\$0.28)-(\$0.23)	-16.5%	\$0.04	
Billings	\$144.5	\$139.5	\$146.4		-3.4%	(\$4.9)	
Free Cash Flow	(\$23.8)	(\$65.5)	(\$33.8)		175.0%	(\$41.7)	
NEXT QUARTER (Q4:FY23)	Old Q4 Estimate	New Q4 Estimate	Consensus	Guidance	Est. % Change	Est. Value Change	
Cloud Subscription	\$80.3	\$79.6		\$78.6-\$79.6	(0.9)%	(\$0.7)	
On-Premise	\$32.2	\$31.5			(2.1)%	(\$0.7)	
Subscription, Software & Support	\$112.4	\$111.1	\$110.9		(1.2)%	(\$1.3)	
Professional Services	\$31.2	\$30.3	\$32.2		(3.1)%	(\$0.9)	
Total Revenue	\$143.7	\$141.3	\$142.8	\$138-\$143	(1.6)%	(\$2.4)	
Operating Income	(\$13.2)	(\$14.7)	(\$12.9)		NM	(\$1.5)	
Operating Margin	-9.2%	-10.4%	-9.1%		-120 bp	NM	
EBITDA	(\$10.6)	(\$12.3)	(\$10.7)	(\$16.1)-(\$12.1)	16.2%	(\$1.7)	
Net Income	(\$15.5)	(\$18.0)	(\$15.2)		NM	(\$2.5)	
EPS	(\$0.21)	(\$0.24)	(\$0.19)	(\$0.29)-(\$0.24)	16.2%	(\$0.03)	
Billings	\$185.3	\$175.2	\$176.5		-5.5%	(\$10.1)	
Free Cash Flow	(\$4.3)	(\$2.7)	(\$3.8)		-37.2%	\$1.6	
THIS FISCAL YEAR (FY:23)	Old	New	Consensus	Old Guidance	New Guidance	Est. % Change	Est. Value Change
Cloud Subscription	\$300.9	\$300.9		\$299 - \$301	\$300-\$301	0.0%	\$0.0
On-Premise	\$108.4	\$106.7				(1.6)%	(\$1.7)
Subscription, Software & Support	\$409.3	\$407.6	\$406.6			(0.4)%	(\$1.7)
Professional Services	\$133.3	\$133.8	\$134.8			0.3%	\$0.5
Total Revenue	\$542.6	\$541.4	\$541.2	\$538-\$543	\$538-\$543	(0.2)%	(\$1.2)
Operating Income	(\$74.1)	(\$67.6)	(\$74.6)			NM	\$6.5
Operating Margin	-13.7%	-12.5%	-13.8%			118 bp	NM
EBITDA	(\$64.3)	(\$58.2)	(\$65.1)	(\$67)-(\$63)	(\$62)-(\$58)	NM	\$6.1
Net Income	(\$81.3)	(\$80.8)	(\$81.3)			NM	\$0.5
EPS	(\$1.11)	(\$1.11)	(\$1.10)	(\$1.16)-(\$1.10)	(\$1.13)-(\$1.07)	NM	\$0.00
Billings	\$587.8	\$572.8	\$589.0			(2.6)%	(\$15.1)
Free Cash Flow	(\$73.1)	(\$113.2)	(\$81.1)			NM	(\$40.1)
NEXT FISCAL YEAR (FY:24)	Old	New	Consensus	Old Guidance	New Guidance	Est. % Change	Est. Value Change
Cloud Subscription	\$371.3	\$370.0				(0.3)%	(\$1.3)
On-Premise	\$124.1	\$120.3				(3.1)%	(\$3.8)
Subscription, Software & Support	\$495.4	\$490.3	\$494.2			(1.0)%	(\$5.1)
Professional Services	\$127.3	\$125.8	\$130.5			(1.2)%	(\$1.5)
Total Revenue	\$622.7	\$616.1	\$628.0			(1.1)%	(\$6.6)
Operating Income	(\$33.2)	(\$31.1)	(\$40.1)			NM	\$2.1
Operating Margin	-5.3%	-5.0%	-6.7%			28 bp	NM
EBITDA	(\$22.5)	(\$21.6)	(\$31.3)			NM	\$0.9
Net Income	(\$43.1)	(\$45.9)	(\$47.3)			NM	(\$2.8)
EPS	(\$0.58)	(\$0.62)	(\$0.61)			NM	(\$0.04)
Billings	\$670.5	\$651.9	\$510.4			(2.8)%	(\$18.6)
Free Cash Flow	(\$26.1)	(\$35.5)	(\$28.4)			NM	(\$9.4)

Source: TD Cowen; Thomson Reuters; Company Reports

Figure 2 : Metrics (in \$ mln)

	FY21A Total	Mar Q1:22A	Jun Q2:22A	Sep Q3:22A	Dec Q4:22A	FY22A Total	Mar Q1:23A	Jun Q2:23A	Sep Q3:23A	Dec Q4:23E	FY23E Total	Mar Q1:24E	Jun Q2:24E	Sep Q3:24E	Dec Q4:24E	FY24E Total
Revenue & Billings																
Revenue	\$369.3	\$114.3	\$110.1	\$117.9	\$125.8	\$468.0	\$135.2	\$127.7	\$137.1	\$141.3	\$541.4	\$153.4	\$142.7	\$154.1	\$166.0	\$616.1
Q/Q Growth		9%	-4%	7%	7%		8%	-6%	7%	3%		9%	-7%	8%	8%	
Y/Y Growth	21%	29%	33%	28%	20%	27%	18%	16%	16%	12%	16%	13%	12%	12%	17%	14%
Q/Q Change	\$32.5	(\$4.5)	\$4.9	\$11.5	\$35.8	\$47.7	(\$1.7)	(\$3.2)	\$2.4	\$33.8	\$31.4	(\$6.6)	\$0.7	\$7.4	\$34.2	\$35.7
Deferred Revenue		\$148.1	\$153.1	\$164.6	\$200.3		\$198.7	\$195.4	\$197.8	\$231.7		\$225.0	\$225.7	\$233.2	\$267.4	
Q/Q Growth		-3%	3%	8%	22%		-1%	-2%	1%	17%		-3%	0%	3%	15%	
Y/Y Growth		34%	31%	32%	31%		34%	28%	20%	16%		13%	16%	18%	15%	
Billings	\$401.7	\$109.8	\$115.0	\$129.4	\$161.5	\$515.7	\$133.6	\$124.5	\$139.5	\$175.2	\$572.8	\$146.7	\$143.4	\$161.6	\$200.2	\$651.9
Q/Q Growth		-17%	5%	13%	25%		-17%	-7%	12%	26%		-16%	-2%	13%	24%	
Y/Y Growth	20%	38%	29%	29%	22%	28%	22%	8%	8%	8%	11%	10%	15%	16%	14%	14%
Geography																
Domestic	\$243.6	\$76.6	\$71.6	\$81.0	\$81.9	\$311.1	\$90.0	\$78.7	\$88.7							
Q/Q Growth		15%	-7%	13%	1%		10%	-13%	13%							
Y/Y Growth	21%	27%	33%	29%	23%	28%	18%	10%	10%							
International	\$125.7	\$37.7	\$38.5	\$36.9	\$43.8	\$156.9	\$45.2	\$49.0	\$48.4							
Q/Q Growth		-1%	2%	-4%	19%		3%	8%	-1%							
Y/Y Growth	22%	32%	31%	25%	15%	25%	20%	27%	31%							
Total Revenue	\$369.3	\$114.3	\$110.1	\$117.9	\$125.8	\$468.0	\$135.2	\$127.7	\$137.1							
Q/Q Growth		9%	-4%	7%	7%		8%	-6%	7%							
Y/Y Growth	21%	29%	33%	28%	20%	27%	18%	16%	16%							
% of Revenue																
Domestic	66%	67%	65%	69%	65%	66%	67%	62%	65%							
International	34%	33%	35%	31%	35%	34%	33%	38%	35%							
Other																
Dollar-Based Net Expansion Rate		117%	116%	115%	115%		115%	115%	117%							
Net Adds	338					509										
Total Headcount					2,307											
Y/Y Growth					28%											
Government Revenue	\$72.4	\$20.7	\$20.0	\$25.0	\$24.2	\$89.9	\$27.7	\$25.7	\$28.9							
Q/Q Growth		5%	-3%	25%	-3%		15%	-7%	13%							
Y/Y Growth	31%	11%	22%	41%	23%	24%	34%	28%	16%							
Commercial Revenue	\$296.9	\$93.6	\$90.0	\$92.9	\$101.6	\$378.1	\$107.5	\$102.0	\$108.2							
Q/Q Growth		10%	-4%	3%	9%		6%	-5%	6%							
Y/Y Growth	19%	33%	35%	24%	19%	27%	15%	13%	16%							
% of Revenue From Govt Agencies	20%	18%	18%	21%	19%	19%	21%	20%	21%							
% of Revenue From Top 3 Govt Agencies	6%	5%	5%	6%	3%	5%	4%	5%	5%							

Source: TD Cowen; Company Reports

Figure 3 : Income Statement (in \$ 000)

11/2/2023 NASDAQ - APPN	FY21A Total	Mar Q1:22A	Jun Q2:22A	Sep Q3:22A	Dec Q4:22A	FY22A Total	Mar Q1:23A	Jun Q2:23A	Sep Q3:23A	Dec Q4:23E	FY23E Total	Mar Q1:24E	Jun Q2:24E	Sep Q3:24E	Dec Q4:24E	FY24E Total
Revenue																
Cloud Subscription	179,415	53,379	57,083	60,621	65,839	236,922	69,692	74,442	77,247	79,564	300,945	85,134	90,668	94,294	99,952	370,048
On-Premise	84,323	30,341	19,585	25,899	27,405	103,230	29,265	19,352	26,556	31,488	106,661	35,819	19,901	29,329	35,243	120,292
Subscriptions, Software and Support	263,738	83,720	76,668	86,520	93,244	340,152	98,957	93,794	103,803	111,053	407,607	120,953	110,568	123,624	135,195	490,340
Professional Services	105,521	30,546	33,395	31,356	32,542	127,839	36,278	33,921	33,291	30,295	133,785	32,415	32,091	30,487	30,792	125,785
Total Revenue	369,259	114,266	110,063	117,876	125,786	467,991	135,235	127,715	137,094	141,348	541,392	153,369	142,660	154,110	165,986	616,125
Cost of Revenue																
Subscriptions, Software and Support	26,131	8,027	8,279	9,029	9,658	34,993	10,176	10,530	11,054	11,359	43,119	12,208	12,967	13,478	14,222	52,875
Professional Services	73,632	21,653	23,435	23,046	23,768	91,902	24,054	24,559	23,269	22,115	93,997	22,691	23,106	22,255	22,324	90,376
Total Cost of Revenue	99,763	29,680	31,714	32,075	33,426	126,895	34,230	35,089	34,323	33,474	137,116	34,899	36,073	35,733	36,546	143,251
Gross Profit	269,496	84,586	78,349	85,801	92,360	341,096	101,005	92,626	102,771	107,873	404,275	118,470	106,587	118,377	129,441	472,874
Operating Expenses																
Sales and Marketing	162,426	44,128	53,900	52,245	60,839	211,112	60,645	59,809	52,422	61,486	234,362	60,581	63,484	56,250	63,075	243,389
Research and Development	92,293	27,525	30,779	34,169	34,116	126,589	37,998	36,833	34,205	36,750	145,786	38,342	40,658	41,610	42,327	162,937
General and Administrative	58,440	18,064	20,438	24,017	24,169	86,688	20,526	23,056	23,826	24,312	91,720	23,005	24,252	24,658	25,728	97,643
Total Operating Expenses	313,159	89,717	105,117	110,431	119,124	424,389	119,169	119,698	110,453	122,548	471,868	121,928	128,394	122,518	131,129	503,969
Operating Income	(43,663)	(5,131)	(26,768)	(24,630)	(26,764)	(83,293)	(18,164)	(27,072)	(7,682)	(14,675)	(67,593)	(3,458)	(21,807)	(4,141)	(1,689)	(31,095)
Depreciation and Amortization	5,743	1,773	1,800	1,759	1,965	7,297	2,342	2,364	2,340	2,394	9,440	2,449	2,402	2,356	2,282	9,490
Adj. EBITDA	(37,920)	(3,358)	(24,968)	(22,871)	(24,799)	(75,996)	(15,822)	(24,708)	(5,342)	(12,281)	(58,153)	(1,009)	(19,405)	(1,784)	594	(21,605)
Other																
Interest & Other Income	(3,956)	(861)	(6,213)	(5,965)	7,820	(5,219)	(428)	(869)	(6,856)	(2,700)	(10,853)	(2,850)	(2,855)	(2,860)	(2,865)	(11,430)
Pre-Tax Income	(47,619)	(5,992)	(32,981)	(30,595)	(18,944)	(88,512)	(18,592)	(27,941)	(14,538)	(17,375)	(78,446)	(6,308)	(24,662)	(7,001)	(4,554)	(42,525)
Income Tax Expense	778	(1,573)	394	255	1,617	693	1,135	1,094	266	617	3,112	1,285	974	328	767	3,354
Non-recurring items	8,053								1,485		1,485					
Net Income	(48,204)	(4,419)	(33,375)	(30,850)	(20,561)	(89,205)	(19,727)	(28,495)	(14,628)	(17,992)	(80,842)	(7,593)	(25,636)	(7,329)	(5,321)	(45,879)
Net Income (GAAP)	(88,641)	(23,154)	(49,354)	(43,996)	(34,417)	(150,921)	(36,829)	(42,355)	(22,251)	(29,903)	(131,338)	(19,504)	(37,797)	(19,590)	(17,982)	(94,873)
EPS (GAAP)	(\$1.19)	(\$0.31)	(\$0.66)	(\$0.58)	(\$0.46)	(\$2.01)	(\$0.49)	(\$0.56)	(\$0.29)	(\$0.39)	(\$1.73)	(\$0.26)	(\$0.50)	(\$0.26)	(\$0.23)	(\$1.24)
EPS	(\$0.68)	(\$0.06)	(\$0.46)	(\$0.43)	(\$0.28)	(\$1.23)	(\$0.27)	(\$0.39)	(\$0.20)	(\$0.24)	(\$1.11)	(\$0.10)	(\$0.35)	(\$0.10)	(\$0.07)	(\$0.62)
Shares Outstanding (Diluted, Reported)	71,036	72,217	72,390	72,503	72,703	72,453	72,869	73,041	73,178	73,471	73,140	73,691	73,912	74,134	74,356	74,023
Billings	401,716	109,782	115,000	129,386	161,548	515,716	133,563	124,469	139,533	175,191	572,756	146,723	143,368	161,553	200,229	651,872
Revenue Mix																
Subscriptions, Software and Support	71.4%	73.3%	69.7%	73.4%	74.1%	72.7%	73.2%	73.4%	75.7%	78.6%	75.3%	78.9%	77.5%	80.2%	81.4%	79.6%
Professional Services	28.6%	26.7%	30.3%	26.6%	25.9%	27.3%	26.8%	26.6%	24.3%	21.4%	24.7%	21.1%	22.5%	19.8%	18.6%	20.4%
Margins																
Subscriptions, Software and Support	90.1%	90.4%	89.2%	89.6%	89.6%	89.7%	89.7%	88.8%	89.4%	89.8%	89.4%	89.9%	88.3%	89.1%	89.5%	89.2%
Professional Services	30.2%	29.1%	29.8%	26.5%	27.0%	28.1%	33.7%	27.6%	30.1%	27.0%	29.7%	30.0%	28.0%	27.0%	27.5%	28.2%
Total Gross Margin	73.0%	74.0%	71.2%	72.8%	73.4%	72.9%	74.7%	72.5%	75.0%	76.3%	74.7%	77.2%	74.7%	76.8%	78.0%	76.7%
Sales and Marketing	44.0%	38.6%	49.0%	44.3%	48.4%	45.1%	44.8%	46.8%	38.2%	43.5%	43.3%	39.5%	44.5%	36.5%	38.0%	39.5%
Research and Development	25.0%	24.1%	28.0%	29.0%	27.1%	27.0%	28.1%	28.8%	25.0%	26.0%	26.9%	25.0%	28.5%	27.0%	25.5%	26.4%
General and Administrative	15.8%	15.8%	18.6%	20.4%	19.2%	18.5%	15.2%	18.1%	17.4%	17.2%	16.9%	15.0%	17.0%	16.0%	15.5%	15.8%
Operating Margin	-11.8%	-4.5%	-24.3%	-20.9%	-21.3%	-17.8%	-13.4%	-21.2%	-5.6%	-10.4%	-12.5%	-2.3%	-15.3%	-2.7%	-1.0%	-5.0%
EBITDA	-10.3%	-2.9%	-22.7%	-19.4%	-19.7%	-16.2%	-11.7%	-19.3%	-3.9%	-8.7%	-10.7%	-0.7%	-13.6%	-1.2%	0.4%	-3.5%
Tax Rate	-1.6%	26.3%	-1.2%	-0.8%	-8.5%	-0.8%	-6.1%	-3.9%	-1.8%	-3.6%	-4.0%	-20.4%	-3.9%	-4.7%	-16.8%	-7.9%
Net Margin	-13.1%	-3.9%	-30.3%	-26.2%	-16.3%	-19.1%	-14.6%	-22.3%	-10.7%	-12.7%	-14.9%	-5.0%	-18.0%	-4.8%	-3.2%	-7.4%
Sequential Growth																
Cloud Subscription		4.3%	6.9%	6.2%	8.6%		5.9%	6.8%	3.8%	3.0%		7.0%	6.5%	4.0%	6.0%	
On-Premise		23.3%	-35.5%	32.2%	5.8%		6.8%	-33.9%	37.2%	18.6%		13.8%	-44.4%	47.4%	20.2%	
Subscriptions, Software and Support		10.5%	-8.4%	12.9%	7.8%		6.1%	-5.2%	10.7%	7.0%		8.9%	-8.6%	11.8%	9.4%	
Professional Services		4.6%	9.3%	-6.1%	3.8%		11.5%	-6.5%	-1.9%	-9.0%		7.0%	-1.0%	-5.0%	1.0%	
Total Revenue		8.8%	-3.7%	7.1%	6.7%		7.5%	-5.6%	7.3%	3.1%		8.5%	-7.0%	8.0%	7.7%	
Billings		-17.3%	4.8%	12.5%	24.9%		-17.3%	-6.8%	12.1%	25.6%		-16.2%	-2.3%	12.7%	23.9%	
Gross Profit		8.7%	-7.4%	9.5%	7.6%		9.4%	-8.3%	11.0%	5.0%		9.8%	-10.0%	11.1%	9.3%	
Operating Income		NM	NM	NM	NM		NM	NM	NM	NM		NM	NM	NM	NM	
Net Income		NM	NM	NM	NM		NM	NM	NM	NM		NM	NM	NM	NM	
EPS		NM	NM	NM	NM		NM	NM	NM	NM		NM	NM	NM	NM	
Year-Over-Year Growth																
Cloud Subscription	38.8%	36.7%	34.4%	29.8%	28.6%	32.1%	30.6%	30.4%	27.4%	20.8%	27.0%	22.2%	21.8%	22.1%	25.6%	23.0%
On-Premise	21.3%	22.8%	35.4%	26.1%	11.4%	22.4%	-3.5%	-1.2%	2.5%	14.9%	3.3%	22.4%	2.8%	10.4%	11.9%	12.8%
Subscriptions, Software and Support	32.7%	31.3%	34.6%	28.7%	23.0%	29.0%	18.2%	22.3%	20.0%	19.1%	19.8%	22.2%	17.9%	19.1%	21.7%	20.3%
Professional Services	-0.3%	21.8%	28.2%	24.5%	11.4%	21.2%	18.8%	1.6%	6.2%	-6.9%	4.7%	-10.6%	-5.4%	-8.4%	1.6%	-6.0%
Total Revenue	21.2%	28.6%	32.6%	27.5%	19.8%	26.7%	18.4%	16.0%	16.3%	12.4%	15.7%	13.4%	11.7%	12.4%	17.4%	13.8%
Billings	19.8%	38.4%	29.0%	28.6%	21.7%	28.4%	21.7%	8.2%	7.8%	8.4%	11.1%	9.9%	15.2%	15.8%	14.3%	13.8%
Gross Profit	23.5%	27.7%	34.3%	27.9%	18.7%	26.6%	19.4%	18.2%	19.8%	16.8%	18.5%	17.3%	15.1%	15.2%	20.0%	17.0%
Operating Income	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Net Income	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
EPS	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Source: TD Cowen; Company Reports

Figure 4 : Cash Flow Statement (in \$ 000)

	FY21A	Mar Q1:22A	Jun Q2:22A	Sep Q3:22A	Dec Q4:22A	FY22A	Mar Q1:23A	Jun Q2:23E	Sep Q3:23A	Dec Q4:23E	FY23E	Mar Q1:24E	Jun Q2:24E	Sep Q3:24E	Dec Q4:24E	FY24E
Net loss	(88,641)	(23,154)	(49,354)	(43,995)	(34,417)	(150,920)	(36,829)	(42,355)	(22,251)	(29,903)	(131,338)	(19,504)	(37,797)	(19,590)	(17,982)	(94,873)
Depreciation and amortization	5,743	1,773	1,800	1,759	1,965	7,297	2,342	2,363	2,341	2,394	9,440	2,449	2,402	2,356	2,282	9,490
Gain on disposal of equipment	79	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
Bad debt expense	410	(2)	1	562	737	1,298	120	299	271	0	690	0	0	0	0	0
Stock-based compensation	23,844	6,943	9,148	11,336	11,403	38,830	11,056	11,148	11,011	11,411	44,626	11,911	12,161	12,261	12,661	48,994
Change in FV of available-for-sale securities	0	111	(111)	0	0	0	0	0	0	0	0	0	0	0	0	0
Deferred income taxes	(498)	(1,073)	(229)	(247)	460	(1,089)	357	(875)	(290)	0	(808)	0	0	0	0	0
Fair value adjustment for warrant liability	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amortization of Debt Issuance Costs	0	0	0	0	43	43	70	153	119	0	342	0	0	0	0	0
Changes in assets and liabilities:																
Accounts receivable	(33,904)	8,416	3,716	(21,246)	(28,808)	(37,922)	17,609	11,054	2,002	(30,057)	608	16,687	7,088	(12,936)	(28,371)	(17,532)
Prepaid expenses and other current assets	2,094	(3,579)	(1,755)	(1,389)	4,696	(2,027)	(8,803)	3,879	(56,631)	8,090	(53,465)	(10,018)	104	(559)	5,222	(5,251)
Deferred commissions	(21,588)	(1,383)	(394)	(3,938)	(6,583)	(12,298)	(314)	437	(179)	(3,072)	(3,128)	20	(373)	(3,545)	(6,751)	(10,650)
Accounts payable and accrued expenses	11,467	2,338	(240)	(5,752)	365	(3,289)	(1,878)	2,597	(1,376)	1,340	683	(2,792)	1,755	735	1,783	1,482
Accrued compensation	12,598	(6,798)	1,875	6,557	4,948	6,582	(9,369)	3,129	(431)	3,846	(2,825)	(7,330)	311	3,954	5,369	2,303
Other current liabilities	(444)	18	(413)	12	119	(264)	1,582	(516)	(3,092)	84	(1,942)	91	(80)	109	114	234
Deferred revenue	33,378	(3,764)	6,754	12,424	32,120	47,534	(2,177)	(4,397)	3,388	33,843	30,657	(6,646)	708	7,443	34,242	35,747
Operating lease liabilities	1,544	(450)	(455)	220	356	(329)	969	1,147	122	0	2,238	0	0	0	0	0
Net Cash Provided by Operating Activities	(\$53,918)	(\$20,604)	(\$29,657)	(\$43,697)	(\$12,593)	(\$106,551)	(\$25,265)	(\$11,937)	(\$64,996)	(\$2,025)	(\$104,223)	(\$15,133)	(\$13,722)	(\$9,772)	\$8,570	(\$30,057)
Purchases of property and equipment	(6,058)	(3,390)	(1,295)	(1,176)	(3,234)	(9,095)	(4,421)	(3,384)	(473)	(654)	(8,932)	(1,321)	(1,348)	(1,375)	(1,402)	(5,446)
Payments for acquisitions, net of cash	(30,729)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Purchases of investments	(41,870)	(16,240)	(14,974)	0	(34,069)	(65,283)	(24,184)	(29,259)	0	0	(53,443)	0	0	0	0	0
Proceeds from sale of investments	120,593	21,729	14,744	20,944	27,225	84,642	16,289	19,587	26,714	0	62,590	0	0	0	0	0
Proceeds from sale of equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Cash Provided by Investing Activities	\$41,936	2,099	(1,525)	19,768	(10,078)	\$10,264	(12,316)	(13,056)	26,241	(654)	\$215	(1,321)	(1,348)	(1,375)	(1,402)	(\$5,446)
Proceeds from exercise of common stock options	2,786	24,404	626	175	227	25,432	131	428	105	500	1,164	500	500	500	500	2,000
Proceeds from debt issuance, net	0	0	0	0	120,000	120,000	92,000	0	0	0	92,000	0	0	0	0	0
Repayment of long-term debt	0	0	0	0	(625)	(625)	(750)	(937)	(938)	0	(2,625)	0	0	0	0	0
Dividend Payments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	(1,940)	(1,940)	(3,237)	(1,949)	(2,465)	0	(7,651)	0	0	0	0	0
Payment of initial public offering costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Cash Provided by Financing Activities	\$2,786	\$24,404	\$626	\$175	\$117,662	\$142,867	\$88,144	(\$2,458)	(\$3,298)	\$500	\$82,888	\$500	\$500	\$500	\$500	\$2,000
Effect of exchange rate on cash and cash equivalents	694	40	(245)	(1,489)	1,535	(159)	15	294	(988)	0	(679)	0	0	0	0	0
Net increase in cash and equivalents	(\$8,502)	\$5,939	(\$30,801)	(\$25,243)	\$96,526	\$46,421	\$50,578	(\$27,157)	(\$43,041)	(\$2,179)	(\$21,799)	(\$15,954)	(\$14,570)	(\$10,647)	\$7,668	(\$33,503)
Cash, cash equivalents, and restricted cash, beginning of period	\$112,462	\$103,960	\$109,899	\$79,098	\$53,855	\$103,960	\$150,381	\$200,959	\$173,802	\$130,761	\$150,381	\$128,582	\$112,628	\$98,058	\$87,411	\$128,582
Cash, cash equivalents, and restricted cash, end of period	\$103,960	\$109,899	\$79,098	\$53,855	\$150,381	\$150,381	\$200,959	\$173,802	\$130,761	\$128,582	\$128,582	\$112,628	\$98,058	\$87,411	\$95,079	\$95,079
Operating Cash Flow	(\$53,918)	(\$20,604)	(\$29,657)	(\$43,697)	(\$12,593)	(\$106,551)	(\$25,265)	(\$11,937)	(\$64,996)	(\$2,025)	(\$104,223)	(\$15,133)	(\$13,722)	(\$9,772)	\$8,570	(\$30,057)
OCF Margin	-15%	-18%	-27%	-37%	-10%	-23%	-19%	-9%	-47%	-1%	-19%	-10%	-10%	-6%	5%	-5%
Y/Y Growth	NM					NM					NM					NM
Free Cash Flow	(\$59,976)	(\$23,994)	(\$30,952)	(\$44,873)	(\$15,827)	(\$115,646)	(\$29,686)	(\$15,321)	(\$65,469)	(\$2,679)	(\$113,159)	(\$16,454)	(\$15,070)	(\$11,147)	\$7,168	(\$35,503)
FCF Margin	-16%	-21%	-28%	-38%	-13%	-25%	-22%	-12%	-48%	-2%	-21%	-11%	-11%	-7%	4%	-6%
Y/Y Growth	NM					NM					NM					NM
Operating Cash Flow Per Share	(\$0.76)	(\$0.29)	(\$0.41)	(\$0.60)	(\$0.17)	(\$1.47)	(\$0.35)	(\$0.16)	(\$0.89)	(\$0.03)	(\$1.42)	(\$0.21)	(\$0.19)	(\$0.13)	\$0.12	(\$0.41)
Y/Y Growth	NM					NM					NM					NM
Free Cash Flow Per Share	(\$0.84)	(\$0.33)	(\$0.43)	(\$0.62)	(\$0.22)	(\$1.60)	(\$0.41)	(\$0.21)	(\$0.89)	(\$0.04)	(\$1.55)	(\$0.22)	(\$0.20)	(\$0.15)	\$0.10	(\$0.48)
Y/Y Growth	NM					NM					NM					NM

Source: TD Cowen; Company Reports

VALUATION METHODOLOGY AND RISKS

Valuation Methodology

Software:

Our valuation methodology is primarily based on Enterprise Value to Free Cash Flow (EV/FCF), followed by Price-to-Earnings (P/E). However, this varies by company; for instance, we will often use Enterprise Value to Revenue (EV/Revs) or a discounted cash flow (DCF) analysis for software companies that are primarily subscriptions-based, or for growth companies that have recently entered the public equity markets.

We make investment recommendations on certain early stage, pre-revenue companies based upon an assessment of their business model, technology, probability of market success, and the potential market opportunity, balanced by an assessment of applicable risks. Such companies may not be assigned a price target.

Investment Risks

Software:

The global economy or specific end markets significantly worsen, contracting IT spending and impairing software growth. The rate of SaaS/Cloud adoption slows, resulting in prolonged sales cycles and higher-than-anticipated quarterly volatility across much of our coverage universe. Competition increases materially, driving deflationary pricing pressure and compressing margins. In particular, innovation by new entrants in the software sector often produces solutions with similar or better functionality at materially lower prices than incumbents' legacy offerings.

Risks To The Price Target

Upside risks: Expanded sales force meaningfully accelerates new customer acquisition. Existing customers start aggressively deploying Appian Platform for low-code use cases. Mega vendors don't further develop their own low-code offerings. APPN is acquired.

Downside risks: Expanded sales force has limited incremental impact. Existing BPM customers decide not to use low-code features. Mega vendors aggressively develop their own low code platforms. Low code freemium vendors migrate upmarket to enterprise customers.

ADDENDUM

Stocks Mentioned in Important Disclosures

Ticker	Company Name
ADBE	Adobe Systems
APPN	Appian Corporation
IOT	Samsara
NOW	ServiceNow

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Outperform (1): The stock is expected to achieve a total positive return of at least 15% over the next 12 months

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Underperform (3): Stock is expected to achieve a total negative return of at least 10% over the next 12 months

Assumption: The expected total return calculation includes anticipated dividend yield

TD Cowen Equity Research Rating Distribution

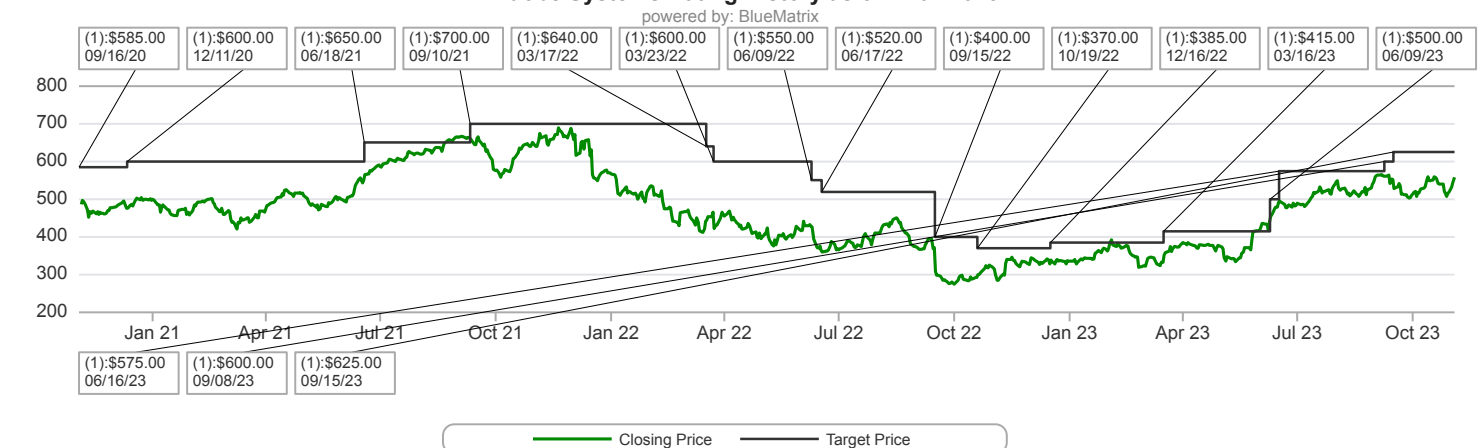
Distribution of Ratings/Investment Banking Services (IB) as of 09/30/23

Rating	Count	Ratings Distribution	Count	IB Services/Past 12 Months
Buy (a)	620	67.10%	173	27.90%
Hold (b)	298	32.25%	48	16.11%
Sell (c)	6	0.65%	2	33.33%

(a) Corresponds to "Outperform" rated stocks as defined in Cowen and Company, LLC's equity research rating definitions. (b) Corresponds to "Market Perform" as defined in Cowen and Company, LLC's equity research ratings definitions. (c) Corresponds to "Underperform" as defined in Cowen and Company, LLC's equity research ratings definitions. Cowen and Company Equity Research Rating Distribution Table does not include any company for which the equity research rating is currently suspended or any debt security followed by TD Cowen Cross-Asset Research.

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Legend for Price Chart:

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