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**Pareteum (TEUM)**
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**BUY iPass merger complete; 2019 off to good start**
*Pareteum provides mobility cloud platform and software solutions*
**Investment Highlights**

1) Pareteum has completed its acquisition of iPass, with a final consideration of 1.17 shares of Pareteum stock for each share of iPass, with the shares accepted representing approximately 67% of iPass' outstanding shares of common stock. The agreement had originally been announced in November 2018, and the merger will unite the two firms who had previously announced a worldwide license purchase agreement to fully embed iPass' SmartConnect technology into the Pareteum Global Cloud Services Platform earlier in May 2018. The merger is forecast to add approximately \$50 million in annual revenues initially to Pareteum, and at the time of the initial merger announcement Pareteum management estimated that \$15 million in annual cost synergies would be realized - with much of this amount to be seen soon after the merger is completed in early 2019. Relatedly, following the closure of the merger Pareteum announced that a number of the former iPass executive team members have joined the Company as key management team members or, in one case, a member of the Pareteum Advisory Board.

2) The Company also recently provided an update on business development and growth following the most recent Q3/18 quarterly financial results, most notably the closing of twelve new agreements in January 2019, including both signing new accounts and upselling existing clients. The new business included a number of new contracts in the US, primarily centered on Mobile Virtual Network Operators (MVNO), and altogether adding \$49 million in revenue to the Company's 36-month contract backlog. Concurrently, the company announced production began in January on six of its existing customer agreements as part of its 36-month backlog, with contracts geographically diverse contracts in the US, Europe, Asia and the Caribbean. Previously, following the completion of the Artilium merger but before iPass operations were included, the Company announced that its 36-month backlog stood at \$615 million as of December 31, 2018.

**Current Price \$3.76**
**Price Target \$5.00**

Estimates	F2016A	F2017A	F2018E
Revenue(\$000s)	\$12,856	\$13,548	\$32,000 E
1Q March	3,274	2,795	4,113 A
2Q June	3,267	3,239	6,003 A
3Q September	3,171	3,499	8,008 A
4Q December	3,144	4,015	9,495 E
EPS	(\$4.67)	(\$0.84)	(\$0.11) E
1Q March	(0.66)	(0.14)	(0.04) A
2Q June	(0.43)	(0.10)	0.03 A
3Q September	(0.08)	(0.16)	(0.07) A
4Q December	(3.50)	(0.44)	(0.03) E
P/E (x)	N/A	N/A	N/A

EBITDA/Share	\$0.20	\$0.13	(\$0.01)
EV/EBITDA (x)	17.6	27.4	N/A X

Stock Data	
52-Week Range	\$1.45-\$3.86
Shares Outstanding (mil.)	97.3
Market Capitalization (mil.)	\$365.8
Enterprise Value (mil.)	\$347.0
Debt to Capital (9/18)	0.3%
Book Value/Share (9/18)	\$0.29
Price/Book	13.2 X
Average Trading Volume (3-month) Mill	1.32
Insider Ownership	8.0%
Institutional Ownership	15.2%
Short interest (mil.)	8.6
Dividend / Yield	\$0.00/0.0%



Price target and ratings changes over the past 3 years:  
 Update - September 22, 2017 - Buy - Target \$2.10  
 (from Target of \$2.25 or \$56.25 after 1-25 reverse split)  
 Update - BUY - April 4, 2018 - Target increased \$3.10  
 Update - BUY - October 25, 2018 - Target increased \$5

**Please find Important Disclosures beginning on Page 5.**

**3) We are maintaining our estimates for Pareteum for the upcoming Q4/18, set to be reported in March,** of revenues of \$32.0 million, which include part of one quarter of operations of Artidium, while adjusting bottom line numbers for 2018 to a loss of \$8.6 million, or (\$0.11) per share. Expenses in 2018E are expected to include approximately \$2.0 million in restructuring and acquisition costs. At the end of the third quarter, Pareteum held \$18.4 million in cash and equivalents on their balance sheet, with very little long-term debt. We are also adjusting estimates for 2019E for the Company following the recently completed merger with iPass to \$100.0 million in revenues and breakeven or (\$0.00) earnings per share for the year as a whole. Additional financial metrics on the Pareteum-iPass combination may be forthcoming at the time of the announcement of Q4/18 earnings, or perhaps later when Q1/19 is reported, which would be the first quarter to be reported with combined operations. We hope to implement more detailed estimates for Pareteum later in the year as more information on the impact of the most recent merger can be gained.

### Conclusion/Stock Valuation

With a new, experienced management team, growing revenues and increased backlog stressing recurring revenue and higher-margin contracts, an improved balance sheet and successful cost-reduction program, long-term investors have much to like about Pareteum, while short-term investors may have to be patient due to the recent increase in stock price and until impact of the iPass merger is more completely ascertained. All-in-all, though, we are maintaining our BUY rating on Pareteum and our 12-18-month price target of \$5.00 per share. (For a more complete analysis of our stock valuation methodology on TEUM shares please refer to our Company Update on TEUM dated October 25, 2018).

### Risk Factors

**In addition to normal economic and market risk factors that impact most equities and the common risks shared by Pareteum with other companies in the industry, we believe an investment in TEUM involves the following risks:**

- **Reliance on key management** – At present, TEUM relies on several key members of its management team who have been in key executive positions for an extended period of time. Should one or more of these key executives leave the Company, TEUM could find it difficult to replace their long-standing knowledge of operations and industry expertise.
- **Reliance on partnerships** – To date, TEUM has signed a number of distribution and joint venture partnerships for its technologies and services. Thus, in the future certain factors related to sales and new product development may be determined by third parties and out of the control of Company management.
- **Limited stock liquidity** – Trading volume in TEUM stock is comparatively light and these shares have a relatively limited history of trading on major US stock exchanges compared with other technology stocks. As such, news regarding TEUM, its target market, partners and/or competitors could lead to significant volatility in the stock price.
- **Competitive Markets** – The Company and its partners compete in its target mobile telecom services market with a number of companies, many of which are considerably larger than the Company. There can be no assurance that the Company and its partners will be able to successfully compete and launch new products into these competitive markets in the future.
- **Regulatory risks** – TEUM and its partners are subject to regulatory review for its ongoing service and new market development activities, both in the US and internationally. Any negative correspondence

from US or other regulatory agencies could have an adverse effect on the ongoing operations of the Company.

- **Lack of historic profitability** - TEUM did not achieve operating profitability on a quarterly basis for several years, and according to our forecasts is expected to do so in the near future but only on a relatively modest basis. Although the Company maintains adequate cash reserves at the present time, there can be no assurance the Company will not need to raise additional working capital in the future should operating losses resume.
- **Need to defend patents and other intellectual property** – TEUM currently holds a number of US and International patents on its services and related technologies, some of which expire in the near future. The Company may be required to defend its patents in the US and overseas in the future, and there can be no assurance these defenses will be successful.
- **Need to integrate acquisitions and mergers** – TEUM has completed several major acquisition/mergers in recent months, and the Company’s management team will need to successfully integrate these new companies into their ongoing operations. There can be no assurance that these integrations will proceed without some type of difficulties or delays to ongoing operations of the Company.

Robert M. Wasserman

**Pareteum**  
**Consolidated Statements of Operations and Comprehensive Loss**  
 (In 000s, except per share data)

FYE December	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018E	2019E
Revenues	\$47,361	\$44,359	\$43,651	\$37,168	\$32,233	\$29,202	\$19,452	\$20,356	\$31,015	\$12,856	\$13,548	\$32,000	\$100,000
Cost of service	45,609	43,336	41,453	35,121	28,723	23,003	9,389	6,689	5,926	3,659	3,684	8,960	45,000
Gross Profit	1,752	1,023	2,198	2,047	3,510	6,199	10,063	13,668	25,089	9,197	9,864	23,040	55,000
Operating Expenses:													
Product development						6,804	6,091	7,229	4,543	3,544	1,480	4,000	12,500
Sales and marketing						3,707	3,139	2,394	2,634	1,341	1,575	3,500	11,500
General and administrative						11,492	15,063	12,603	11,650	11,708	10,097	12,000	21,000
Depreciation and amortization						5,710	6,601	8,220	6,624	4,247	4,533	4,000	6,000
Total operating expenses	13,105	15,470	12,738	20,521	29,186	27,713	30,894	30,445	25,451	20,839	17,685	23,500	51,000
Income (loss) from operations	(11,353)	(14,447)	(10,540)	(18,474)	(25,676)	(21,514)	(20,832)	(16,777)	(362)	(11,642)	(7,821)	(460)	4,000
Other Income													
Interest income	101	42	161	240	107	248	104	128	106	112	172	200	200
Interest expense	(849)	(499)	(939)	(1,803)	(201)	(1,870)	(3,135)	(5,176)	(1,488)	(1,228)	(5,063)	(400)	(200)
Other expense (gain)	1,470	(1,602)	(5,790)	(74,102)	(164)	704	(843)	(3,216)	(3,279)	(17,945)	(864)	(8,000)	(4,000)
Income (loss) before tax	(10,631)	(16,506)	(17,108)	(94,138)	(25,935)	(22,432)	(24,705)	(25,042)	(5,023)	(30,703)	(13,576)	(8,660)	0
Provision for income taxes	1	1	1	1	0	289	(200)	217	(17)	38	107	0	0
Net income (loss)	(10,631)	(16,507)	(17,109)	(94,139)	(25,935)	(22,721)	(24,505)	(25,259)	(5,006)	(30,741)	(13,683)	(8,660)	0
Basic income per share	(\$27.89)	(\$13.64)	(\$7.99)	(\$33.30)	(\$6.21)	(\$5.19)	(\$5.05)	(\$3.70)	(\$0.79)	(\$4.67)	(\$0.84)	(\$0.12)	\$0.00
Diluted income per share	(\$27.89)	(\$13.64)	(\$7.99)	(\$33.30)	(\$6.21)	(\$5.19)	(\$5.05)	(\$3.70)	(\$0.79)	(\$4.67)	(\$0.84)	(\$0.11)	\$0.00
Basic shares outstanding	381	1,211	2,142	2,827	4,173	4,453	5,050	5,908	6,328	6,739	16,338	70,000	110,000
Diluted shares outstanding	381	1,211	2,142	2,827	4,173	4,453	5,050	5,908	6,328	6,739	16,338	80,000	110,000
Key ratios:													
Revenue growth		-6.3%	-1.6%	-14.9%	-13.3%	-9.4%	-33.4%	4.7%	52.4%	-58.6%	5.4%	136.2%	212.5%
Gross margin	3.7%	2.3%	5.0%	5.5%	10.9%	21.2%	51.7%	67.1%	80.9%	71.5%	72.8%	72.0%	55.0%
S G & A/sales						52.0%	93.6%	73.7%	46.1%	101.5%	86.2%	48.4%	32.5%
Depreciation, amort, non-cash comp						\$12,544	\$15,365	\$12,615	\$13,000	\$13,011	\$9,951	\$8,000	\$10,000
Operating margin	-24.0%	-32.6%	-24.1%	-49.7%	-79.7%	-73.7%	-107.1%	-82.4%	-1.2%	-90.6%	-57.7%	-1.4%	4.0%
Cash Flow/share	(\$27.89)	(\$13.64)	(\$7.99)	(\$33.30)	(\$6.21)	(\$2.29)	(\$1.81)	(\$2.14)	\$1.26	(\$2.63)	(\$0.23)	(\$0.01)	\$0.09
EBITDA/share	(\$29.78)	(\$11.93)	(\$4.92)	(\$6.54)	(\$6.15)	(\$2.01)	(\$1.08)	(\$0.70)	\$2.00	\$0.20	\$0.13	(\$0.01)	\$0.09

**Balance Sheets**

(\$000s)

	12/31/17	9/30/18
<b>Assets:</b>		
Cash and equivalents	\$13,538	\$18,435
Restricted cash	200	430
Accounts receivables, net	2,058	7,200
Prepaid expenses & other current	900	943
Total current	16,696	27,008
Other long term assets	91	39
Note receivable	595	588
Property and equipment	4,714	3,945
Long-term Investments	3,230	3,230
<b>TOTAL ASSETS</b>	<b>\$25,326</b>	<b>\$34,809</b>
<b>Liabilities:</b>		
Accounts payable	\$1,979	\$2,796
Current lease obligations	0	0
Net billings in excess of revenues	243	123
Accrued expenses	5,250	3,891
9% unsecured Sub Note	66	90
Senior secured loan - short-term	0	0
Total current	7,538	6,901
Derivative liabilities	1,598	
Other long-term liabilities	151	95
Convertible note	618	
Senior loan - long-term	0	0
Net billings - long-term	0	0
<b>TOTAL LIABILITIES</b>	<b>9,905</b>	<b>6,996</b>
Stockholders' equity	15,422	27,814
<b>TOTAL LIAB &amp; EQ</b>	<b>\$25,326</b>	<b>\$34,809</b>

**Quarterly Earnings Comparisons**

	March	June	Sept	Dec	Total
<b>Revenues (in \$Mill)</b>					
2010	\$9,944	\$9,674	\$9,040	\$8,510	\$37,168
2011	8,508	7,791	7,797	8,137	32,233
2012	8,581	7,085	6,699	6,837	29,202
2013	6,240	3,564	4,124	5,524	19,452
2014	5,384	5,072	7,299	7,870	25,625
2015	5,013	19,244	3,486	3,272	31,015
2016	3,274	3,267	3,171	3,144	12,856
2017	2,795	3,239	3,499	4,015	13,548
2018E	4,113	6,003	8,008	9,495	32,000
2019E					100,000
<b>Earnings per Share</b>					
2010	(\$0.17)	(\$0.18)	(\$0.25)	\$0.20	(\$33.30)
2011	0.04	0.01	(0.01)	0.00	(6.21)
2012	(0.05)	(0.04)	(0.05)	0.28	(5.19)
2013	(0.04)	(0.07)	(0.03)	(4.91)	(5.05)
2014	(0.04)	(0.04)	(0.04)	(0.03)	(3.70)
2015	(0.01)	0.06	(0.03)	(0.81)	(0.79)
2016	(0.66)	(0.43)	(0.08)	(3.50)	(4.67)
2017	(0.14)	(0.10)	(0.16)	(0.44)	(0.84)
2018E	(0.04)	0.03	(0.07)	(0.03)	(0.11)
2019E					0.00

Source: Dawson James Securities, Inc. estimates; Company documents

**Important Disclosures:**

**Price Chart:**



**Price target and ratings changes over the past 3 years:**

- Updated – Buy – September 22, 2017 – Price Target \$2.10 (from Price Target of \$2.25 or \$56.25 after 1-25 reverse split)
- Update – BUY – April 4, 2018 – Price Target increased to \$3.10
- Update – BUY – October 25, 2018 – Price Target increased to \$5.00

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	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	36	88%	10	28%
Market Perform (Neutral)	5	12%	0	0%
Market Underperform (Sell)	0	0%	0	0%
<b>Total</b>	<b>41</b>	<b>100%</b>	<b>10</b>	<b>24%</b>

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