Tech M&A Monthly Valuations for an Optimal Outcome

November 8, 2018



Welcome



Timothy Goddard EVP, Marketing Corum Group Ltd.

Timothy joined Corum in 2011, and oversees the company's marketing efforts globally from the headquarters near Seattle. Chief among these is Corum's extensive conference schedule, "Selling Up, Selling Out," the Merge Briefing, the Tech M&A Monthly webcast and Corum's platinum sponsorship of the World Financial Symposiums' live events and Market Spotlight series. Through these events, Corum Group serves as the world's leading educator in technology mergers and acquisitions.

Prior to joining Corum, Timothy served as marketing and product manager for GIS software startup Depiction, Inc., and previously worked in marketing for VizX Labs, a pioneering SaaS startup delivering DNA analysis tools. In addition to marketing for software startups, Tim has worked for a US Senate campaign and taught science in Rio de Janeiro.

Timothy graduated Magna Cum Laude from Bethel University in St. Paul, Minnesota, with degrees in History and Biology.

Agenda

- Welcome
- Event Report: Growth & Exit Strategies, New York City
- Event Report: Growth & Exit Strategies, Sydney
- Field Report: Tradetec
- Research Report
- Special Report: Valuations for an Optimal Outcome
- Q&A

Event Report: World Financial Symposiums NYC



Ivan Ruzic Vice President Corum Group

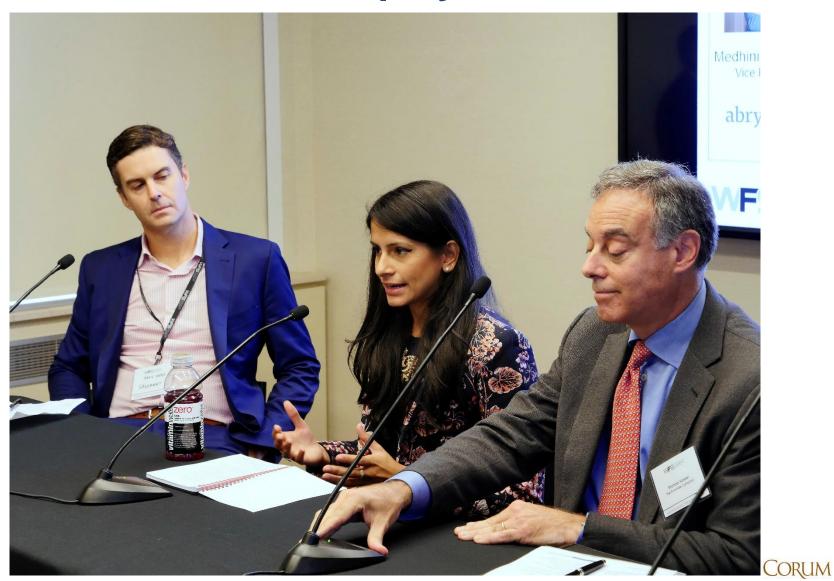
Ivan Ruzic has had a successful 30+ year career in the software business that has included virtually every senior executive role. His resume spans marquee companies such as BEA systems, Novell and Borland as well as multiple startups including his own. His international experience is extensive and in addition to the United States has been involved in mergers and acquisitions in Europe, Africa and Asia.

His success and extensive experience qualify him as an expert in building value and realizing wealth. Ivan joined Corum Group, the world's leading software M&A firm, with a specific focus on educating and helping prospective sellers maximize the value of their technology companies.





Private Equity Panel



Investors Panel



Buyers Panel



Presentation from Morgan Stanley



Building and Monetizing IP



"Fireside" Chat



Sellers Panel





Event Report: World Financial Symposiums Sydney



Daniel Bernstein
Senior Vice President
Corum Group

Daniel Bernstein has worked in a number of roles over a twenty year career in high technology, most recently as the founder and CEO of Sandlot Games Corporation, a leading casual games publisher and developer. Having sold Sandlot Games to Digital Chocolate in 2011, Daniel started a small games studio and a consulting practice where he advises larger companies such as RealNetworks and smaller high growth businesses on product development, strategic initiatives, and M&A opportunities.

Prior to Sandlot Games, Daniel Bernstein held director level positions in companies such as Wild Tangent and Monolith. An accomplished composer, Daniel also writes music for most of the games he works on.

Daniel holds a BS in Computer Science and an MA in Music Composition from the University of Virginia.

Sydney 2018

GROWTH & EXIT STRATEGIES

FOCUS EVENT





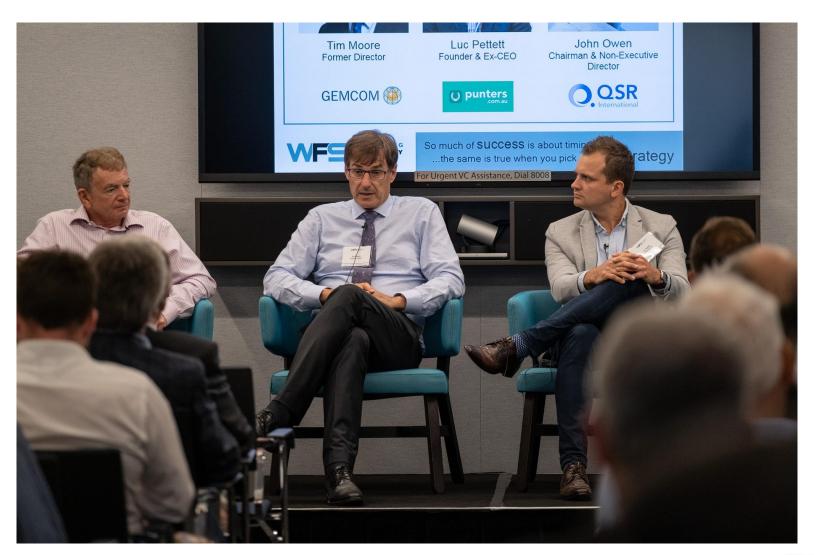
Buyers Panel



Investors Panel



Sellers Panel



Cocktails with a View



Sydney 2018

GROWTH & EXIT STRATEGIES

FOCUS EVENT



Field Report: TradeTec



David Levine Senior Vice President Corum Group



Dave joined Corum in 2015 and has a diverse background in technology and life sciences. As an executive and entrepreneur, Dave has been operating and investing in companies sitting at the convergence of commerce and eCommerce as well as innovative life science businesses for over 25 years. Recently, Dave was CEO North America for Gaxsys, an eCommerce and logistics company that is a leader in last mile logistics and fulfillment for eCommerce marketplaces.

Dave has been on both sides of the mergers and acquisitions table, having sold a life science technology company, facilitated sell side and buy side technology transactions and has also scaled multiple technology companies globally in the eCommerce, life sciences and innovation intelligence markets.

Dave sits on boards of numerous public and private companies, including one that recently filed for an IPO.



Corum Research Report



Elon Gasper EVP, Research



Yasmin Khodamoradi Director, Client Services



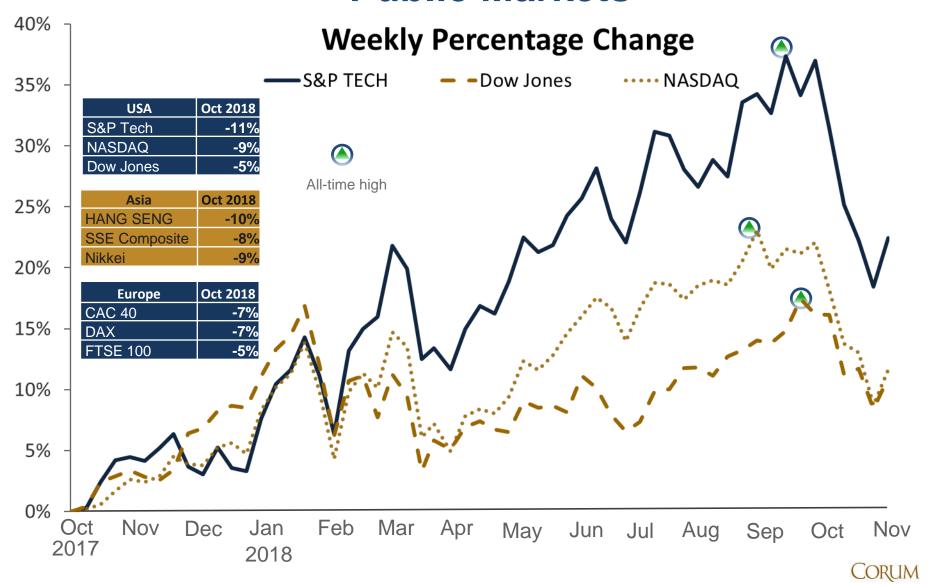
Amber Stoner Director of Research



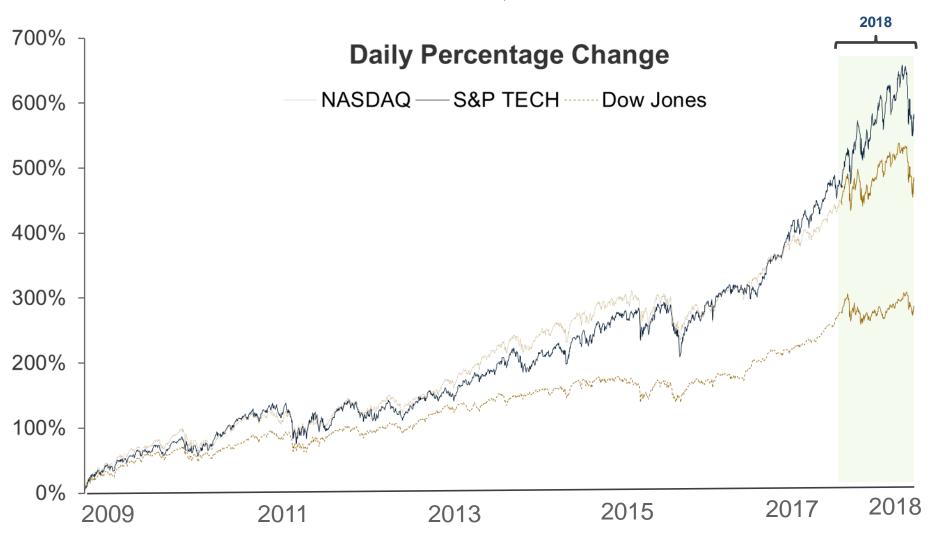
Alden Mendoza Research Analyst



Public Markets



The Bull Market, 2009-Present



Corum Index

Market

Transactions

Megadeals

Largest Deal

Pipeline

Private Equity Platform Deals

VC Backed Exits

Attributes

Cross Border Transactions Start-Up **Acquisitions Average Life**

of Target

Oct. 2017

273

4

\$3.6B

Oct. 2017

24

40

Oct. 2017

32%

14%

15 yrs

Oct. 2018

342

8

\$34B

Oct. 2018

30

80

Oct. 2018

36%

15%

16 yrs

25%

100%

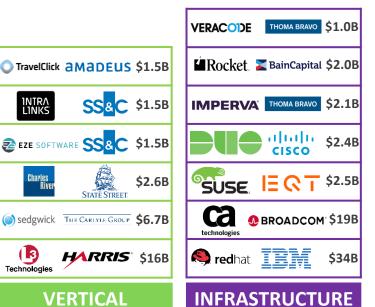
844%

25%

100%







Clarion 'Faurecia \$1.3B pandora (((SiriusXM))) \$3.2B G SHANDA GAMES \$4.4B **CONSUMER**

> \$8.9B \$10B

\$21B

\$30B

\$63B









INTRA LINKS

Technologies

Target: Red Hat [USA] Acquirer: IBM [USA]

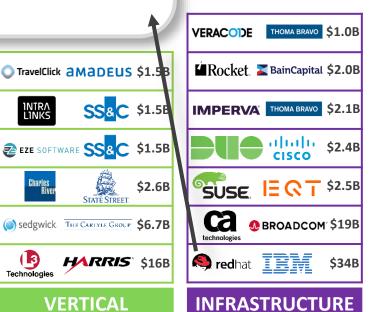
Transaction Value: \$34B (10.8x EV/Sales)

Enterprise open source solutions

The largest software deal in history







Clarion 'Faurecia \$1.3B pandora" (((SiriusXM))) \$3.2B G SHANDA GAMES \$4.4B

CONSUMER

\$8.9B

\$10B

\$21B

\$30B

\$63B

CORUM









Target: FNZ Group [HIG Private Equity] [General Atlantic] [United Kingdom]

Acquirer: CDPQ / Generation Investment Management [Canada]

Transaction Value: \$1.5B
- Wealth management SaaS

One of the largest global FinTech transactions in 2018

\$10B



\$8.9B







VERTICAL INFRASTRUCTURE

\$21B

\$30B

\$63B

CORUM







Target: L3 Technologies [USA]

Acquirer: Harris Corporation [USA]

Transaction Value: \$16B

Military communication and electronic systems

Boosts Harris' share in the military communications market



\$8.9B









\$10B

\$21B

\$30B

VERTICAL

\$63B

CORUM



Public Valuation Multiples



Oct. 2018

Corum Analysis





4.4x

Knocked down to 2-year lows...





18.1x

...with EBITDA ratios holding up a bit better – only a 1-year low.



Deal Spotlights: Healthcare







Target: Noona Healthcare [Finland]

Acquirer: Varian Medical Systems [USA]

- Cloud-based mobile service for capturing patient-reported outcomes





PointClickCare

Target: COMS Interactive [USA] **Acquirer:** PointClickCare [Canada]

Point-of-care clinical decision support SaaS



Deal Spotlights: Healthcare







Target: Rubixis [USA]

Acquirer: TransUnion [USA]

- Healthcare revenue cycle analytical platform







Target: goBalto [USA] Acquirer: Oracle [USA]

- SaaS clinical research tool



Deal Spotlights: Education







Target: Cambium Learning Group [USA]

Acquirer: Veritas Capital [USA]

Transaction Value: \$685.2M (4.7x EV/Sales and 18.6x EV/EBITDA)

- Educational support services and software

gradescope





Target: Gradescope [USA]

Acquirer: Turnitin [Insight Venture Partners] [USA]

- Grading platform for schools and departments



Deal Spotlights: 3D Modelling

BRICSYS





Target: Bricsys [Belgium]
Acquirer: Hexagon [Sweden]

- Solutions for 2D drafting, 3D direct modeling, sheet metal design and BIM







Target: Agency9 [Sweden]

Acquirer: Bentley Systems [USA]

- Web and mobile based solutions for 3D visualization of geographic information and maps





Bentley®

Target: Legion [United Kingdom] **Acquirer:** Bentley Systems [USA]

- Simulation and modeling software for analyzing foot traffic



Vertical Application Software Market

Deal Spotlight: Government







Target: Everyone Counts [USA]

Acquirer: Votem [USA]

- Secure electronic voting solutions
- Votem's second acquisition since its launch in 2016



IT Services Software Market

Public Valuation Multiples



Oct. 2018

Corum Analysis





1.2x

Still historically high despite market decline...





11.0x

...with EBITDA value metrics dipping down to early 2017 numbers.



Deal Spotlights: Azure SI









Target: Corporate Network Integration [Australia] **Acquirer:** Logicalis Group [Datatec] [United Kingdom]

- Managed information technology services





Deloitte.

Target: Mexia Consulting [Australia]

Acquirer: Deloitte [USA] - Azure IT consulting services







Target: ISI Expert [France]

Acquirer: SoftwareONE AG [Switzerland] - Azure digital transformation services



Deal Spotlight: Al-Enabled Automation Services







Target: Symphony Ventures [United Kingdom]

Acquirer: Sykes Enterprises [USA]

Transaction Value: \$67.5M

- Al-enabled repetitive task automation services
- Provides Sykes with automation-led customer engagement expertise



Deal Spotlights: Security and Cybersecurity Services







Target: FusionStorm [USA]

Acquirer: Computacenter [United Kingdom]

Transaction Value: \$70M

- IT consulting, cloud/managed and security services

SYGNIA



TEMASEK HOLDINGS

Target: Sygnia [Israel]

Acquirer: Temasek Holdings Private [Singapore]

Transaction Value: \$250M

- Cyber technology consulting and incident response services



Deal Spotlight: Government SI

GENERAL DYNAMICS

Citizen-engagement centers assets





Target: General Dynamics Information Technology (citizen-engagement

centers assets) [USA]

Acquirer: MAXIMUS [USA] **Transaction Value:** \$400M

- GD's IT citizen engagement centers in the U.S. federal civilian market
- Strengthens MAXIMUS' position in managing federal government programs



Public Valuation Multiples



Oct. 2018

Corum Analysis





4.4x

Decline cushioned by growing importance and value of security.



17.8x

Profitable, foundational technology companies retaining value amidst decline.

Megadeals H2 2018 to Date







Target: Rocket Software [Court Square Capital Partners] [USA]

Acquirer: Bain Capital Private Equity [USA]

Transaction Value: \$2B

- Enterprise infrastructure software









IT SERVICES HO

\$21B

\$30B

INFRASTRUCTURE

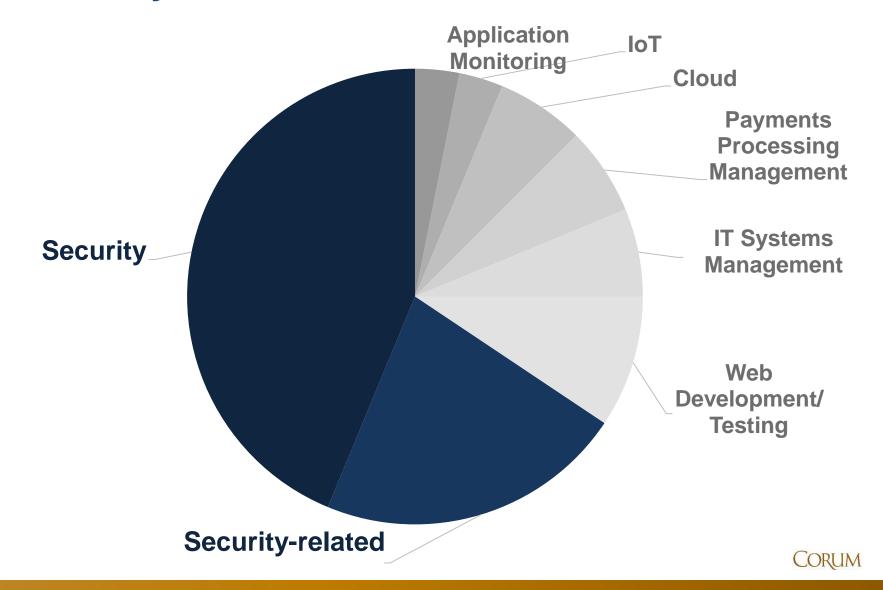
\$63B

\$8.9B

\$10B

CORUM

Security Dominates Infrastructure Volume





Deal Spotlight: Container-based application security







Target: Layered Insight [USA]

Acquirer: Qualys [USA] **Transaction Value:** \$12M

- Software for visibility and control of containerized applications
- Underscores Qualys' steady shift toward container runtime security



Deal Spotlights: Cloud Infrastructure Security







Target: Dome9 Security [Israel]

Acquirer: Check Point Software Technologies [Israel]

Transaction Value: \$175M

- SaaS to deliver security and compliance across public cloud infrastructure environments







Target: RedLock [USA]

Acquirer: Palo Alto Networks [USA]

Transaction Value: \$173M - Internet security software







Target: FittedCloud [USA]
Acquirer: Apptio [USA]

- Machine learning-based cloud optimization software



Deal Spotlight: Endpoint Security







Target: Total Defense [USA]

Acquirer: Marlin Equity Partners [USA]

- Subscription-based endpoint security software
- Aimed to strengthen cyber-defense capabilities of Total Defense



Deal Spotlights: Network Security

VERSIVE





Target: Versive [USA]

Acquirer: eSentire [Canada]

- First ever acquisition by eSentire







Bitdefender

Target: RedSocks Security [Netherlands]

Acquirer: Bitdefender [Romania]

- Solutions to detect suspicious network behaviour and combatting cybercrime



Deal Spotlights: Identity Authentication







Target: Vix Verify Global [Australia] **Acquirer:** GB Group [United Kingdom]

Transaction Value: \$27.3M

- Identity verification and location intelligence software







Target: Acuant [USA]

Acquirer: Audax Private Equity [USA]

- Software for images and text extracting from ID documents







Target: Akamai Technologies (identity services division) [USA]

Acquirer: Verimatrix [USA]

- Akamai's self-service authentication SaaS for content providers and video service operators



Deal Spotlight: Security Event Management







Target: CorreLog [USA]

Acquirer: BMC Software [KKR] [USA]

- IT security log management and event correlation software
- Brings security management into BMC's roster of mainframe solutions

Megadeals H2 2018 to Date

VERACODE Sold to



THOMA BRAVO

Target: Veracode Software [Broadcom] [USA]

Acquirer: Thoma Bravo [USA]

Transaction Value: \$1B

Cloud code analysis and vulnerability SaaS

ENGILITY 5/1/5 \$1.5B \$1.5B © CDPO Clarion 'Faurecia \$1.3B **CVC** \$1.8B ConvergeOne pandora" (((SiriusXM))) \$3.2B Ascentu | digital Realty \$1.8B SUNTEL AtoS \$3.4B SHANDA GAMES: CHT・世纪华通 \$4.4B **IT SERVICES**

■ SendGrid (::) twilio \$1.7B accruent @ FORTIVE \$2.0B HORTONWORKS Cloudera \$2.0B acxion | \$2.3B Marketo Adobe \$4.8B dun & bradstreet THI Thomas H. Lee Partners \$5.4B





HORIZONTAL

\$30B

INFRASTRUCTURE

\$63B

\$8.9B

CONSUMER

\$10B

\$21B

CORUM

Corum Research Report



Elon Gasper EVP, Research



Yasmin Khodamoradi Director, Client Services



Amber Stoner Director of Research



Alden Mendoza Research Analyst



Special Report:

Valuations for an Optimal Outcome





Stephen King Vice President Corum Group

Software Companies are Valued Differently

Software Companies Differences

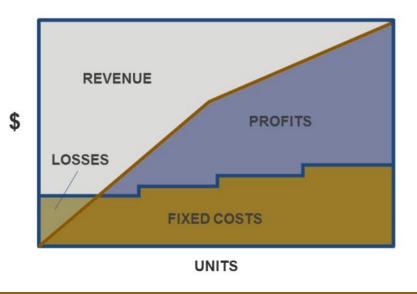
	Traditional Family Firm	Software Company
Avg. Age of Company	30+ years	8 years
Avg. Age of CEO	60+ years	38
Reasons for Selling	No Proper Heir, Retiring	Liquidity, Timing
Value	Tangible Assets	Intangible Assets
Margins	Low	High
Sales	Regional	Nat'l/Int'l
Technology Changes	Slow	Rapid
Competition	Well Known	Diverse
Entry Barriers	High	Low

Software Companies Differences

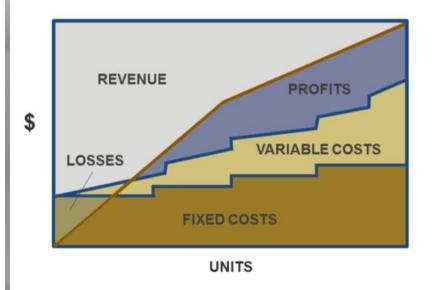
	Traditional Family Firm	Software Company
Avg. Employee Age	40+	30
Co. Growth Rate	Minimal	Rapid
Credit	Bank Lines on Assets, Invent., A/R	Credit Card
Mgmt. Experience	High	Minimal
Primary Advertising	Yellow Pages, Local Papers	Constantly Evolving
Revenue Stream	Predictable	Volatile
Valuation Methods	**Traditional	*Innovative

Traditional Enterprise Vs. Software

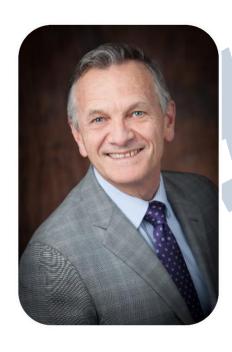
Typical Software Company-No Variable Costs



Typical Traditional Business-Costs rise with revenue



Software companies are more valuable



Martin Lowrie Vice President Corum Group

Understand the Purpose of Your Valuation



Marc O'Brien Vice President Corum Group

The Top 10 Valuation Methods

10 Ways to Value a Company

- Sales multiple Public peer group
- Earnings multiple Public peer group
- Comparable M&A transaction analysis
- Discounted cash flow (DCF)
- Replacement cost analysis
- Dollars per R&D Developer
- Internal rate of return (IRR)
- Liquidation value
- Book value
- Internal Transaction Price



Serge Jonnaert Vice President Corum Group

Present Your Valuation in Context



Jeff Brown Senior Vice President Corum Group

Pro Forma Earnings Should Be Cautious and Supportable

Financial Statements

Past Financial Statements

Year 1Financials

Year 2 Financials

Year 3 Financials

Future Projections

Current Year Financials

Year 1Projected
Financials

Year 2
Projected
Financials

Year 3
Projected
Financials



Lonnie Schilling Vice President Corum Group

Start with Analysis of a Public Peer Group

Example Public Valuation Comparables

		Trailing 12-Month Multiples			Forward	Multiples
Ticker	Company	Sales	Earnings		Sales	Earnings
ВМС	вмс	3.72 x	11.36 x		3.41 x	14.96
CA	CA Technologies	2.61 x	7.12 x		2.46 x	12.05
CVG	Convergys	0.66 x	12.18 x		0.78 x	11.59
EGAN	eGain Communications	0.95 x	5.86 x		N/A	N/A
ININ	Interactive Intelligence	2.89 x	18.90 x		2.30 x	29.23
NICE	NICE Systems	2.79 x	18.72 x		2.43 x	17.52
PEGA	Pegasystems	3.97 x	41.23 x		2.98 x	28.35
RNOW	RightNow Technologies	4.08 x	42.95 x		3.34 x	41.97
SPRT	Support.com	6.25 x	nm		3.56 x	nm
SYMC	Symantec	2.32 x	7.97 x		2.16 x	11.29
VRNT	Verint Systems Inc	2.40 x	20.38 x		2.21 x	13.43
	Median Multiple	2.79 x	15.45 x		2.44 x	14.96 x
	After 25% Liquidity Discount	2.10 x	11.59 x		1.83 x	11.22 x
	Applied Financial Metric	\$4,300,000	\$900,000		\$7,500,000	\$1,742,000
	Implied Value	\$9,000,000	\$10,400,000		\$13,725,000	\$19,550,000

(in \$millions)





Mattias Borg Vice President Corum Group

Comparative Analysis is Perishable

Example Private M&A Comparables

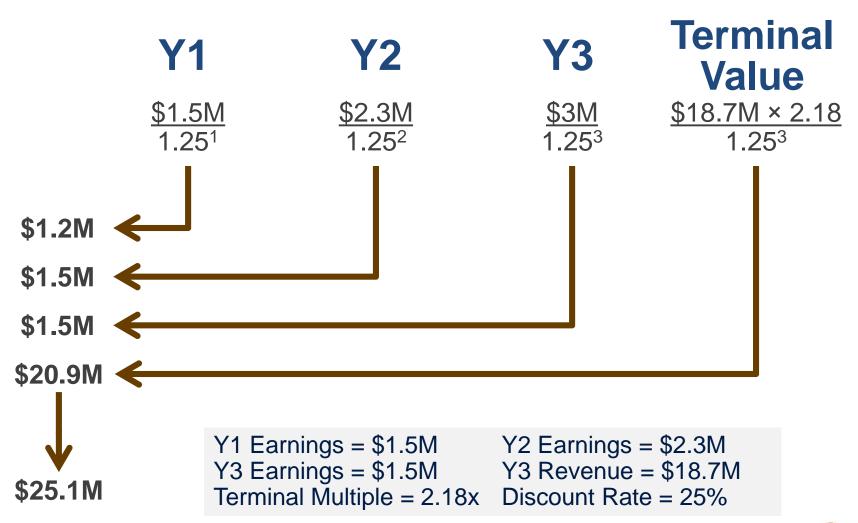
<u>-</u>		_			
Buyer	Seller	Date Announced		Seller Revenue TTM	EV/S Multiple
Consona Corp. [fka Made2Manage Systems] SupportSoft's enterprise business, which provides enterproviders, corporate IT departments and managed servi	SupportSoft Inc. (Enterprise business) orise technical support software and services to digital service ce providers globally.	Apr-17	\$20.0	\$42.1	0.48 x
Alcatel-Lucent Provides Interent and IP-based cable television service	Motive Communications, Inc. management software to telecommunications service providers.	Jun-18	\$67.8	\$64.4	1.05 x
	Art Technology Group, Inc. ftware as a service (SaaS) for businesses globally. Software mail marketing, business analytics, content management and	Nov-16	\$1,000.0	\$193.9	5.16 x
Pitney Bowes Inc. Provides customer interaction management, analytics ar	Portrait Software and optimization software for businesses globally.	Jun-16	\$64.1	\$23.3	2.75 x
Pegasystems Inc. Provides customer experience management (CEM) softs sectors.	Chordiant Software, Inc. ware for the telecom, healthcare, insurance and financial services	Mar-16	\$161.5	\$76.3	2.12 x
	Mettoni Group Ltd ent and customer care software and telecommunications expense es globally. Software is compatible with Cisco, Nortel and Avaya	Apr-18	\$22.6	\$25.7	0.88 x
Support.com [fka SupportSoft Inc.] Provides technology support and repair services to custo Internet.	YourTechOnline.com Inc. omers in North America. Services are delivered remotely over the	May-17	\$2.7	\$2.3	1.17 x
Convergys Corporation Provides interactive voice response and call center auto	Intervoice, Inc. [Intervoice-Brite, Inc.] mation software to enterprises and telecommunications markets.	Jul-18	\$335.0	\$206.2	1.62 x
salesforce.com Provides contact center and sales content management customer service-focused information.Customers include Wanadoo and Zurich North	InStranet software to businesses. Applications automate the dispersal of a 3M, AXA, BNP Paribas, France Telecom, Orange, SFR Cegetel,	Aug-16	\$31.5	\$15.0	2.10 x
Art Technology Group, Inc. Provides chat and email-based customer service automates.	InstantService, Inc. ation and analytics software as a service (SaaS) for businesses.	Jan-16	\$17.0	\$5.5	3.09 x
OpSource, Inc.	LeCayla Technologies Limited	Feb-15	\$1.0	\$0.2	5.00 x
Provides customer metering, on-boarding and billing sof applications software providers. Software records and reper use and metered basis.	tware for software as a service (SaaS) and web based eports software usage allowing providers to offer SaaS on a pay	Med	lian Sale	s Multiple	2.10x
		lmp	lied Valu	e \$9,000,0	00



Allan Wilson Senior Vice President Corum Group

DCF is the Most Commonly Used Method Across Sectors

Calculating Discounted Cash Flow (DCF)





Bruce Lazenby Vice President Corum Group

Build vs Buy is the Foundation of Replacement Cost Valuations



Jaber Tannay Vice President Corum Group

Weighted
Averages Should
Support Strategy
& Market Dynamics

Weighted Valuations

Comparable Public Company Analysis	Financial Metric	Applied Multiple	Implied Value	Weight	Weighted Value
Trailing Multiples					
Enterprise Value/TTM Revenue	4,300,000	2.10 x	9,000,000	8.3%	750,000
Trailing P/E	900,000	11.59 x	10,400,000	8.3%	870,000
Forward Multiples					
Enterprise Value/FY Revenue	7,500,000	1.83 x	13,725,000	8.3%	1,100,000
Forward P/E - FY Earnings	1,742,000	11.22 x	19,550,000	8.3%	1,600,000
			Total Weighting of Method	33.3%	4,320,000
Comparable Transaction Analysis	4,300,000	2.1 x	9,000,000	33.3%	3,000,000
Discounted Cash Flow Analysis			21,750,000	33.3%	7,200,000

Total Weighted Fair Market Value \$14,500,000

Assumptions/Definitions:

EV = Enterprise Value (Market Capitalization + Debt - Cash)

Bonus Tip: When to Present Your Valuation



Joel Espelien President Corum Group

Joel Espelien has worked in a number of roles over a twenty year career in the technology industry. Most recently Joel served as Senior Advisor to Karmel Capital, where he advised on corporate spin-offs and M&A transactions, including the private-equity backed purchase of DivX LLC from Rovi Corporation and subsequent sale to Neulion, Inc, as well as the successful spin-off of Snaptracs, Inc. and its Tagg wireless pet tracking product from Qualcomm and the eventual two-stage sale to Whistle Labs and Mars Petcare. Joel has also served on the boards of multiple venture-backed companies resulting in successful exits, including AI startup IQ Engines (acquired by Yahoo) and IoT-for-AgTech pioneer 640 Labs (acquired by Monsanto/Climate Corporation). Joel has also written extensively on the future of video in his capacity as Senior Analyst for the Diffusion Group where he published 14 industry research reports as well as a widely recognized weekly blog.

Previously, Joel was the Chief Business Officer, SVP of Strategy and General Counsel of PacketVideo, a pioneer in the mobile video market. While at PacketVideo, Joel led corporate development activities, including multiple buy-side acquisitions in the US and Europe, a groundbreaking technology partnership with Google that helped launch Android, a private-equity backed MBO and ultimately the sale of the company to NTT DoCoMo (Japan).

8 Stages for an **Optimal Outcome**



Stage 5: Negotiation

- Organize and host final visits
- Provide structure & valuation guidance
- Create an auction environment
- Negotiate with top bidder(s)
- Sign Letter of Intent (L.O.I.)
- Inform other bidders of No Shop



Upcoming Conference Schedule

Selling Up Selling Out (SUSO) - Ready to go to market? During this half-day workshop, learn to prepare, position, research, value, negotiate, and execute due diligence for maximum price and structure. This is the most attended Tech M&A event ever – participants have done over \$1 trillion in transaction value.

Merge Briefing (MB) - The Merge Briefing is a 90-minute executive briefing providing a current M&A market update (trends, valuations, etc.), as well as a brief overview of the Tech M&A process: "8 Steps To An Optimal Outcome."

110V. IS. Fladuc - IVID 110V. ZI. LUIIUUII - IV	Nov. 13:	Prague – MB	Nov. 21:	London – M
---	----------	-------------	----------	------------

After the Deal – Celebration



www.corumgroup.com

