Company

Global Markets Research

Deutsche Bank

6 September 2011

Tangoe, Inc.

Reuters: **TNGO.OQ** Bloomberg: **TNGO US** Exchange: **NMS** Ticker: **TNGO**

Initiating coverage with a Buy

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Market leader in Communications Lifecycle Management
Tangoe is the clear market leader in the emerging segment of communications lifecycle management. Over the past decade, Tangoe has developed a platform to help enterprises manage and optimize their telecommunications spending. We believe Tangoe's comprehensive solution, robustly growing recurring revenue (>25% organically) and global reach gives investors an opportunity to own a quality stock early in its public life. We initiate coverage with a Buy rating and $17 price target.

Early stage market with abundant growth prospects
Tangoe serves the global CLM market of enterprises that spend over $400bn each year in telecom services. With about $14bn in expenses under management, Tangoe is 3x larger than its closest competitor in the space, which today is highly fragmented and predominantly consulting services-oriented. We believe Tangoe's product-oriented approach and a multi-tenant SaaS platform provides scale and margin leverage over time. Tangoe has also taken advantage of the fragmentation to make five key acquisitions since 2007, entering new segments, geographies or acquiring a customer base. The company's recent partnerships with global system integrators IBM, Dell, HP and Xerox, significantly expand its reach. Tangoe's solution supports 1,700 operator billing models in 180 countries, 125 currencies and 16 languages, providing significant barriers to entry.

Sticky solution with high visibility
Tangoe's bundled technology and services generally pay for themselves within the first year, creating a sticky solution and a recurring revenue stream. The 2-5 year contracts and proven deployment methodology provide high visibility into future revenues, typically 70% in the year ahead and 90% a quarter ahead. Customers deploying Tangoe's solution benefit immediately from the automation of bill processing, a tedious monthly ritual at most enterprises globally. Customers can also reduce their spending by detecting errors, optimizing contracts, provisioning new service or device and managing mobile devices remotely.

Buy rating and a $17 price target
Our $17 price target is based on a CY13 uFCF/share estimate of $0.48, an EV/uFCF/G multiple of 1.2x (slight premium to the peer group given market leadership), and an estimated five-year growth rate, net of dilution, of 26%. Risks include execution risk from integrating acquisitions, delayed profitability from new projects not ramping fast enough and customers taking expense processing in-house after early gains from Tangoe's platform. See also pp. 31-33.

Forecasts and ratios

Year End Dec 31	2010A	2011E	2012E
3Q EPS	0.03	**0.06**	0.10
FY EPS (USD)	0.13	**0.25**	0.39
Revenue (USDm)	68.5	**101.8**	120.0
EV/Sales (x)	–	**3.1**	3.1
EV/FCF (x)	0.0	**36.5**	23.3

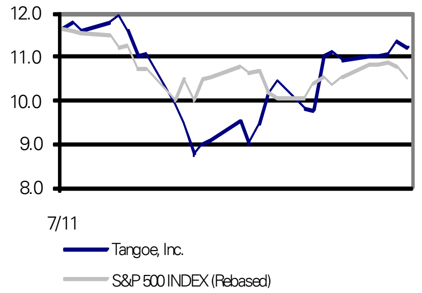
Source: Deutsche Bank estimates, company data

Coverage Change

Buy

Price at 2 Sep 2011 (USD)	**11.22**
Price target	**17.00**
52-week range	**11.92 - 8.75**

Price/price relative



Performance (%)	1m	3m	12m
Absolute	-5.9	–	–
S&P 500 INDEX	-6.4	-10.6	7.7

Stock & option liquidity data

Market cap (USDm)	362.4
Shares outstanding (m)	32.3
Free float (%)	100
Volume (2 Sep 2011)	12,682
Option volume (und. shrs., 1M avg.)	–

Deutsche Bank Securities Inc.

Model updated:04 September 2011

Running the numbers

North America

United States

Application Software

Tangoe, Inc.

Reuters: TNGO.OQ Bloomberg: TNGO US

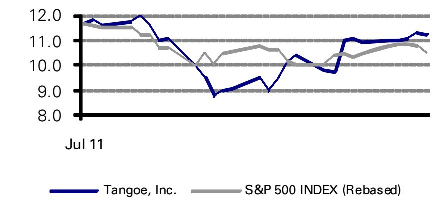
Buy

Price (2 Sep 11)	USD 11.22
Target price	USD 17.00
52-week Range	USD 8.75 - 11.93
Market Cap (m)	USDm 362 EURm 255

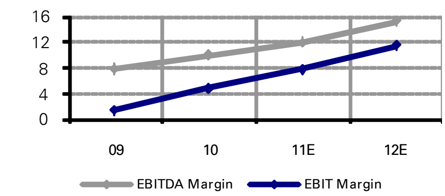
Company Profile

Tangoe, Inc. provides on-demand communications lifecycle management (CLM) software and related services to enterprises, including large and medium-sized businesses and other organizations. The company's on-demand software and related services enable enterprises to manage and optimize the processes and expenses associated with the lifecycle of an enterprise's fixed and mobile communications assets and services. Tangoe, Inc. was founded in 2000.

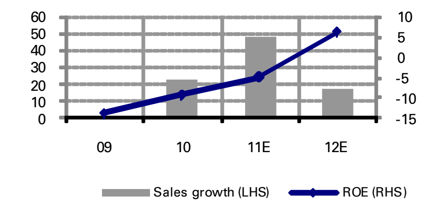
Price Performance



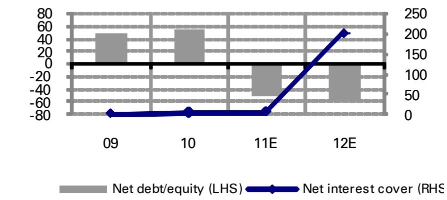
Margin Trends



Growth & Profitability



Solvency



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Fiscal year end 31-Dec	2009	2010	2011E	2012E
Financial Summary				
DB EPS (USD)	-0.11	0.06	0.14	0.24
Reported EPS (USD)	-0.11	-0.06	-0.09	0.16
DPS (USD)	0.00	0.00	0.00	0.00
BVPS (USD)	0.80	0.71	2.95	2.79
Valuation Metrics				
Price/Sales (x)	nm	nm	3.6	3.6
P/E (DB) (x)	nm	na	80.9	47.5
P/E (Reported) (x)	nm	nm	nm	68.3
P/BV (x)	0.0	0.0	3.8	4.0
FCF yield (%)	na	na	2.4	3.7
Dividend yield (%)	na	na	0.0	0.0
EV/Sales	nm	nm	3.1	3.1
EV/EBITDA	nm	nm	26.2	20.3
EV/EBIT	nm	nm	39.9	26.8
Income Statement (USDm)				
Sales	56	68	102	120
EBITDA	4	7	12	18
EBIT	1	3	8	14
Pre-tax profit	-2	-1	3	8
Net income	**-3**	**-2**	**-3**	**6**
Cash Flow (USDm)				
Cash flow from operations	**2**	**3**	**10**	**18**
Net Capex	-1	0	-1	-2
Free cash flow	**2**	**3**	**9**	**16**
Equity raised/(bought back)	-1	-3	-24	0
Dividends paid	0	0	0	0
Net inc/(dec) in borrowings	0	0	0	0
Other investing/financing cash flows	-1	0	62	0
Net cash flow	**0**	**0**	**47**	**16**
Change in working capital	*0*	*-1*	*2*	*0*
Balance Sheet (USDm)				
Cash and cash equivalents	6	6	53	68
Property, plant & equipment	2	2	3	3
Goodwill	18	18	23	23
Other assets	31	33	47	49
Total assets	**56**	**59**	**125**	**142**
Debt	15	17	5	6
Other liabilities	22	23	25	29
Total liabilities	**38**	**39**	**30**	**35**
Total shareholders' equity	**19**	**19**	**95**	**107**
Net debt	*9*	*11*	*-48*	*-62*
Key Company Metrics				
Sales growth (%)	nm	22.5	48.7	17.9
DB EPS growth (%)	na	na	139.9	70.5
Payout ratio (%)	nm	nm	nm	0.0
EBITDA Margin (%)	7.8	10.0	11.8	15.2
EBIT Margin (%)	1.5	4.9	7.7	11.5
ROE (%)	-13.8	-9.2	-5.0	6.2
Net debt/equity (%)	49.6	55.4	-50.0	-57.6
Net interest cover (x)	0.3	1.7	4.8	199.8
DuPont Analysis				
EBIT margin (%)	1.5	4.9	7.7	11.5
x Asset turnover (x)	1.0	1.2	1.1	0.9
x Financial cost ratio (x)	-1.9	0.4	0.8	1.0
x Tax and other effects (x)	1.7	-1.3	-0.5	0.5
= ROA (post tax) (%)	**-4.6**	**-3.1**	**-3.1**	**4.7**
x Financial leverage (x)	3.0	3.0	1.6	1.3
= ROE (%)	**-13.8**	**-9.2**	**-5.0**	**6.2**
annual growth (%)	*na*	*32.9*	*45.7*	*na*
x NTA/share (avg) (x)	0.8	0.7	1.8	2.6
= Reported EPS	**-0.11**	**-0.06**	**-0.09**	**0.16**
annual growth (%)	*na*	*41.5*	*-38.6*	*na*

Source: Company data, Deutsche Bank estimates

Investment thesis

Outlook

Tangoe is the clear market leader in the emerging segment of communications lifecycle management. Over the past decade, Tangoe has developed a platform to help enterprises manage and optimize their telecommunications spending. We believe Tangoe's comprehensive solution, robustly growing recurring revenue (>25% organically) and global reach give investors an opportunity to own a quality stock early in its public life.

With about $14bn in expenses under management, Tangoe is 3x larger than its closest competitor in the space, which today is fairly fragmented and predominantly services-oriented. We believe Tangoe's product-oriented approach and a multi-tenant SaaS platform provides scale and margin leverage over time. Tangoe has taken advantage of the fragmentation to make five key acquisitions since 2007, entering new segments, geography or acquiring a customer base. And the company's recent partnerships with global system integrators IBM, Dell, HP and Xerox significantly expand their reach. The global presence developed over the past decade supports 1,700 operator billing models in 180 countries, 125 currencies and 16 languages providing significant barriers to entry.

Tangoe's bundled technology and services generally pay for themselves within the first year, creating a sticky solution and a recurring revenue stream. Tangoe's 2-5 year contracts and proven deployment methodology provide high visibility into future revenues, typically 70% in the year ahead and 90% in the quarter ahead. Customers deploying Tangoe's solution benefit immediately from the automation of bill processing, a tedious monthly ritual at most enterprises globally. Customers can also reduce their spending by detecting errors, optimizing contracts, provisioning new service, managing mobile devices remotely and device disposal/recycling.

Valuation

We believe it's best to value companies like Tangoe based on their cash flows. Our $17 price target is based on a CY13 uFCF/share estimate of $0.48, an EV/uFCF/G multiple of 1.2x (in line with the peer group), and a five-year growth rate, net of dilution, of 23%. We cross-check our valuation with a DCF analysis, shown on pages 32-33.

Risks

Risks include execution risk from integrating acquisitions, delayed profitability from new projects not ramping fast enough and customers taking expense processing in-house after early gains from Tangoe's platform. Some customers may also perceive aggregated customer data as a privacy issue.

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Investment Positives

Commanding lead in a nascent, specialized market segment

Tangoe is the clear market leader in the emerging segment of telecom expense management (TEM), with global scale and a rapidly growing adjacency into mobile device management. Tangoe offers a complete portfolio that includes fixed and mobile TEM solutions, particularly attractive to multinational corporations who can consolidate their cost savings on to a single platform. The bundled technology and services measurably reduce telecom expenses, with payback typically within the first year.

Powerful barriers to entry

Tangoe is the largest provider in the TEM software space with roughly 8% market share, based on annual recurring revenues. The next nearest competitor is less than a third the size in a still-fragmented market dominated by consulting firms and relatively few purely product-oriented solutions. Tangoe currently manages about $14bn telecom expenses annually in a market of over $400bn globally, allowing abundant room to grow over time. Tangoe's global presence developed over the past decade, with support for 1,700 operator billing models in 180 countries, 125 currencies and 16 languages provide significant barriers to entry.

Acquisitions accelerate market share, backed by strong organic analysis

Tangoe has made five acquisitions since 2007, each of which enabled the company to gain market share as well expand its portfolio. In addition, organic revenue consistently grew over 20% (over 25% for recurring) during this period, together delivering revenue CAGR of almost 50% since 2007.

Scale benefits from a product-oriented approach

Tangoe's on-demand software platform provides customers relatively quick deployment that drives high automation rates after the initial setup. The scalable multi-tenant architecture has the potential to cannibalize a largely consulting-oriented market that is over $500m in size, since product effectiveness is consistently higher and these scale benefits result in higher margins over time.

Highly visible recurring revenue

Tangoe's contract term ranges from 24 months to 60 months with ASP's ranging from $150k-200k. Tangoe's revenue mix is 90% recurring given the nature of monthly telecom bills. Multi-year contracts and the convenience of automating a historically manual process tend to create a sticky solution with customers. Retention rates have been consistently over 90%, with any loss typically due to customers exiting the market altogether, e.g., through consolidation or M&A.

Diversified, blue-chip customer base

Tangoe has flagship customers across the financial, healthcare, technology, consulting, and transportation verticals. Some leading customers are Bank of America, Novartis, Dell, IBM and FedEx. No single customer accounted for more than 10% of total revenue for 2008, 2009 or 2010. Today, most customers are US-based multinationals, but a new sales office in the Netherlands should help expand the company's footprint into Western Europe, a market only slightly behind the US in the development of TEM solutions.

Strong channel partners expand reach

In an effort to expand reach and accelerate global growth, Tangoe has signed on leading system integration firms, including IBM, Dell, HP, Xerox and 16 other regional firms. Share or partner-driven revenue is relatively small today, but over 20% of new bookings are coming from the channel, a share we expect to grow over time.

Investment Risks

Once early gains are captured in reducing costs, customers may take efforts in-house
Customers pay a percentage of savings to Tangoe. Once systematized, customers could decide to save themselves the payment to Tangoe by taking the processing of invoices in-house. There have been no recent incidents of customer loss in such a fashion.

People-intensive model could hurt margins if customers don't ramp up as planned
Integrating the customer's IT environment into Tangoe's infrastructure is a complex task and delays could impact margins. The company has a standardize approach developed over the past decade, but rapid growth into new geographies and use of partners to deliver solutions may impact the margin profile.

Acquired assets may not get integrated efficiently
The company's growth has benefited from five acquisitions made since 2007. While each of these acquisitions has improved the company's strategic position in the market and the relatively low multiples paid have helped accretion, integration of future acquisitions could become more complex as the company grows larger.

Aggregated customer data could be perceived as a privacy or competitive risk
Tangoe's knowledgebase of contracts and best practices is built up over time by aggregating historical data, which some customers might consider risky from a privacy perspective. Any dramatic changes in the regulatory environment may also impact Tangoe's ability to compete internationally.

Large customers or resellers such as IBM and Dell could concentrate revenues
Loss of a large customer or channel could significantly impact the business. Current customer count of over 600 and no customer over 10% of revenue reduce this likelihood.

Lack of up-front billings suppress cash flow as compared to typical SaaS model
The company bills customers monthly in arrears as new invoices are processed. Unlike the typical SaaS company, where advance billing results in significant deferred revenue build-up, Tangoe's business model does not benefit from up-front cash payments. However, future cash flows should grow higher with the number of customers and expenses under management.

Channel approach and expansion into new geographies increase cost profile
The company's efforts to expand internationally by partnering with local resellers and by establishing local offices could increase costs and reduce margins during this expansion.

Industry Overview

Communications Lifecycle Management (CLM)

The telecom industry has seen significant change over the past decade, with the growth in VoIP, mobile voice and data services, and changes in regulatory regimes globally, most of which caused dramatic changes in tariffs and the competitive landscape. As corporations began to expand globally, spending on telecom services took on a much more significant role. Enterprises are increasingly seeking solutions to effectively and efficiently manage, control and optimize their expanding communications assets, services, usage and associated expenses. The CLM market provides solutions to help meet this demand. The CLM market consists of the telecommunications expense management, or TEM, market and the mobile device management, or MDM, market, which is an emerging market adjacent to TEM.

Corporations globally spend over $400bn annually on telecom services, which include office phones, internet and data connectivity, wireless voice and data services and more recently, the remote management of mobile devices used by staff. Inefficient management of these expenses, including overpayments due to billing errors, often results in enterprises incurring significant avoidable expenses. Below we discuss some common trends driving the uptake of CLM solutions.

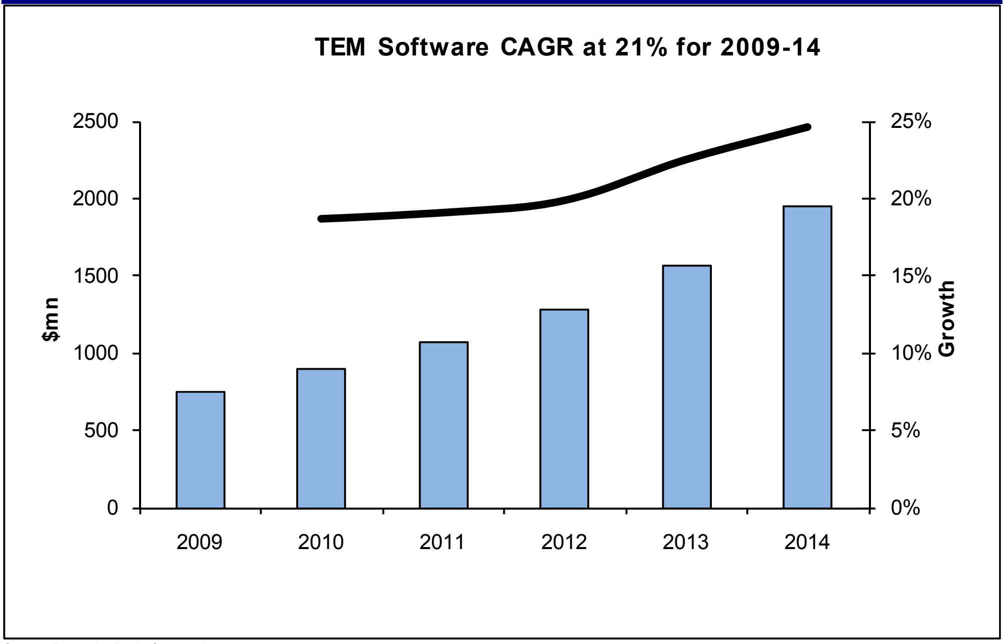
Large volume and complexity of bills
A company's communications infrastructure is critical for its smooth operations. With advancing technology, communication infrastructure has encompassed a growing diversity of technologies. Billing systems vary across operators, each with varying payment terms. And different countries have different regulatory and tax regimes. Multi-national companies have to contend with multiple operators, currencies, languages and regulatory requirements. This provides a ripe opportunity for telecom expense management.

Significant increase in the number of mobile users and what devices are used for
Mobile devices and their use for both voice and data applications looks dramatically different today than it did just five years ago. Not only are more people roaming with their devices as they travel, many are using smartphones and tablets to access enterprise applications remotely in addition to making plain old phone calls. The need to manage expenses and devices is amplified by IT security and policy concerns as several personal devices are provisioned for corporate use and vice versa. Gartner estimates worldwide converged mobile device enterprise shipments grew at a CAGR of 54% from 2005-10. And mobile applications deployed by enterprises will grow at 30% in 2011.

Dynamic changes in communication infrastructure and services creates a need for TEM
Telecommunication expenditure, ranging 1%-3% of revenue, is a significant portion of an enterprise budget. Gartner estimates TEM services to grow at a double-digit compound annual growth rate through 2014. There are roughly 300 TEM vendors globally with about $1bn market size in 2011. The top 10 software-oriented vendors account for about $200m in recurring revenue. The rest is a highly fragmented mix of services-oriented firms who perform custom projects for clients. These projects typically don't use a robust technology back-end and have low repeatability across customers.

Note the distinction between telecom expenses (over $400bn annually) and the TEM vendor space, which is estimated at about $1bn per year. The latter is the collective revenue of vendors who provide TEM solutions to optimize the $400bn annual spend. The market size for mobile device management, MDM, is estimated by IDC to be about $300m in 2010, growing to $1.2bn in 2015. Depending on the definition and scope of MDM, various industry analysts size this market ranging from a few hundred million dollars to a billion dollars or more per year. We believe $300m is a reasonable estimate for 2010 given the plethora smartphones and tablets hitting the market and the number of enterprise applications being made available on them. We estimate MDM should grow by 25% y/y or more, over the next five years.

Figure 1: TEM solutions market sizing



Source: Deutsche Bank, Gartner data

Figure 2 below breaks out the significant categories within TEM. These are the typical categories one would expect to see. We back out consumer-related spending and assume that about 25% of enterprise spend is on mobile.

Figure 2: Market Opportunity

	2010	Projected CAGR
Global telecom services ($bn)	$1,588	2%
Fixed voice services	$365	
Fixed data services	$241	
Fixed internet services	$90	
Total Market Fixed data	$696	
Less: Consumer fixed services	-$366	
Estimated Enterprise Fixed services ($bn)	$330	1%
Mobile Voice services	$647	
Mobile Data services	$245	
Total Mobile services market	$892	
Mobile % of enterprise spend	25%	
Estimated enterprise Mobile services ($bn)	$100	15%
Total Enterprise Fixed, Mobile and MDM($bn)	$430	

Source: Deutsche Bank, Company estimates, Gartner

Mobile Device Management (MDM) is a relatively new area where typical functions include:

- Device provisioning, configuration and inventory management
- Distributing software, including OS updates, over the air directly to the device
- Managing the software image remotely so user doesn't install disallowed software
- Backup/restore capability for content on the device
- Security and policy administration for the device
- Device monitoring and "remote kill" if the device is lost, stolen or if employee leaves the firm
- Mobility management: roaming management, location reporting, etc.

Obviously the capabilities of each device determine the level of functionality that can be made available via an MDM platform. Enterprise-oriented devices like the BlackBerry were built with many of these capabilities in the back-end infrastructure. And many consumer-oriented devices like the iPhone and Android have an ecosystem of third-party software vendors building such capabilities. Vendors in MDM range from small pure-play shops to large enterprise software and security vendors.

Market penetration assumptions and scenarios

Considering the global enterprise telecom spend of $430bn, Tangoe currently manages about $14bn, just 3% of this industry revenue stream. With such low penetration today and with Tangoe being the leading player, the opportunity ahead is large and attractive.

In our scenario analysis below, we change market penetration each year by 100 bps/120bps/150bps y/y in our base case/optimistic case/aggressive case. It is worth noting that a small increase in penetration levels acts as a powerful lever, almost doubling revenue from $360m revenue in 2020 in the base case scenario to over $600m in revenue with an aggressive scenario.

Figure 3: Market penetration scenario analysis

Base Case	2007A	2008A	2009A	2010A	2011E	2012E	2013	2014	2015	2016	2017	2018	2019	2020
Net Revenues $mn)	21.05	37.53	55.92	68.47	101.80	120	140	164	192	223.1	255.4	288.8	323.5	359.5
Growth (%)		*78.3%*	*49.0%*	*22.5%*	*48.7%*	*17.9%*	*16.7%*	*17.1%*	*17.1%*	*16.2%*	*14.5%*	*13.1%*	*12.0%*	*11.1%*
Rev$ managed (mn)				9,000	13,700	18,360	23,201	28,228	33,447	38,864	44,483	50,312	56,357	62,623
Revenue Share (%)				0.76%	0.74%	0.65%	0.60%	0.58%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%
Global enterprise spend on telecom		405,199	413,303	421,569	430,000	438,600	447,372	456,319	465,446	474,755	484,250	493,935	503,814	513,890
Growth (%)			2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
(% of TAM into total w orldw ide installed base)		0%	0%	2.1%	3.2%	4.2%	5.2%	6.2%	7.2%	8.2%	9.2%	10.2%	11.2%	12.2%

Optimistic Scenario	2007A	2008A	2009A	2010A	2011E	2012E	2013	2014	2015	2016	2017	2018	2019	2020
Net Revenues $mn)	21.05	37.53	55.92	68.47	101.80	133.3	173.2	214.6	257.6	302.3	348.6	396.6	446.5	498.1
Growth (%)		*78.3%*	*49.0%*	*22.5%*	*48.7%*	*31.0%*	*29.9%*	*23.9%*	*20.0%*	*17.3%*	*15.3%*	*13.8%*	*12.6%*	*11.6%*
Rev$ managed (mn)				9,000	13,700	19,237	24,990	30,966	37,171	43,611	50,294	57,228	64,418	71,873
Revenue Share (%)				0.76%	0.74%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%
Global enterprise spend on telecom	0	405,199	413,303	421,569	430,000	438,600	447,372	456,319	465,446	474,755	484,250	493,935	503,814	513,890
Growth (%)			2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
(% of TAM into total w orldw ide installed base)		0%	0%	2.1%	3.2%	4.4%	5.6%	6.8%	8.0%	9.2%	10.4%	11.6%	12.8%	14.0%

Aggressive Scenario	2007A	2008A	2009A	2010A	2011E	2012E	2013	2014	2015	2016	2017	2018	2019	2020
Net Revenues $mn)	21.05	37.53	55.92	68.47	101.80	146.6	197.3	250.1	304.9	361.8	420.8	482.0	545.6	611.4
Growth (%)		*78.3%*	*49.0%*	*22.5%*	*48.7%*	*44.0%*	*34.7%*	*26.7%*	*21.9%*	*18.7%*	*16.3%*	*14.6%*	*13.2%*	*12.1%*
Rev$ managed (mn)				9,000	13,700	20,553	27,675	35,073	42,756	50,733	59,011	67,600	76,509	85,748
Revenue Share (%)				0.76%	0.74%	0.71%	0.71%	0.71%	0.71%	0.71%	0.71%	0.71%	0.71%	0.71%
Global enterprise spend on telecom		405,199	413,303	421,569	430,000	438,600	447,372	456,319	465,446	474,755	484,250	493,935	503,814	513,890
Growth (%)			*2.0%*	*2.0%*	*2.0%*	*2.0%*	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
(% of TAM into total w orldw ide installed base)		0%	0%	2.1%	3.2%	4.7%	6.2%	7.7%	9.2%	10.7%	12.2%	13.7%	15.2%	16.7%

Source: Deutsche Bank, company data

Competition

As described in the Industry section above, Tangoe operates primarily in the TEM domain with a growing presence in mobile device management (MDM). Tangoe is the only company that has a presence in both TEM and MDM space. Tangoe is ranked a leader in Gartner's TEM "Magic Quadrant" for the breadth and completeness of its portfolio, process management and advisory services.

Within the MDM space, Gartner rates Tangoe a "Challenger" with competitive products that address the basic needs of MDM. Industry analyst IDC estimates Tangoe's market share in MDM to be about 2% in 2010 as larger vendors such as Sybase (part of SAP), Microsoft, HP, IBM and Symantec take the top five spots in the space, collectively with about 48% market share. Clearly, Tangoe is a small player in MDM, but its offering sold with TEM is likely more attractive to enterprise clients who don't want to invest in a large, standalone MDM solution.

Market leader with significant lead vs. competition
Tangoe is far ahead of its competitors in the domain of telecom expense management. Based on estimates of software-based vendors with a recurring revenue model, Tangoe is roughly 33 percentage points ahead of its nearest competitor in terms of the recurring FY2011E revenue.

Figure 4: TEM market share overview

2011			
TEM Company	**Recuring Revenue**	**% of TEM SW Mkt**	**Description**
Tangoe	$90m	43%	Tangoe is the leading global provider of Communications Lifecycle Management (CLM) software and related services to a wide range of global enterprises.Currently supports more than 500 active clients
		Tier 1 Competitors (roughly $20m in recurring annual revenue)	
Rivermine (w/MBG)	~$20m	10%	Rivermine, a division of Emptoris, Inc.,provides automated solutions (both on-demand software and managed services) that enable organizations to gain visibility into, and control over, their communications spend.Sodexo, Fannie Mae, IKON Office Solutions, and many more
Symphony	~$20m	10%	Symphony SMS maximizes ROI for clients by prodiving CLM and MDM solutions to its clients for saving telecom expense
Profitline	~$20m	10%	ProfitLine is a global provider of Telecom Expense and Mobility Management Services. ProfitLine's TLM Savings Suite allows Clients to focus on their core business while reducing telecom spend and management costs, increasing productivity and improving user satisfaction
		Other Competitors (roughly $10m in recurring annual revenue)	
IBM	$15m	7%	(Tangoe partner)
Vodafone/TnT	~$10m	5%	
Invoice Insight	~$10m	5%	Insight’s Telecom Expense Management (TEM) Solution, InsightTEMSM,
HP (EDS)	$10m	5%	(Tangoe partner)
Top 10 ARR ~$210m			

Source: Deutsche Bank

Other notable competitors fall in three broad groups:

- **Large SI firms with global presence**: focus on multinational customers and a vendor- neutral, consulting-oriented approach: Accenture, CSC, Dell (Perot Systems), IBM Global Services, HP (EDS), Xerox (ACS) fall in this group. Note that IBM is Tangoe's largest partner and Dell, HP and Xerox are new partnerships.
- **Large telcos**: AT&T and Vodafone provide TEM services to their large enterprise clients. However, since these services are provided by the operator themselves, in many markets via private-label offerings, there is a heavier services and consulting component and a perceived lack of neutrality.
- **Smaller consulting and product providers**: Anatole (France), Asential, Avalon Avotus, Ezwim (Netherlands), MDSL (UK), Telesoft, TNX, Ttmobiles (UK) and Veramark. Each of these vendors specializes in a region, fixed or mobile, size of customer, BPO model, etc., with revenues ranging from $5m to $15m annually.

Competition in the MDM space is much more fragmented at the lower end of the market. However, as discussed above, the top five players own about half the market. But given the rapidly evolving smartphone and tablet marketplace, we could see many of the following specialty vendors make headway on their own, or get acquired by larger firms: AirWatch, Boxtone, Capricode (Finland), Excitor (Denmark), FancyFon (Ireland), Fiberlink, Fixmo, Fromdistance (Estonia), IBELEM (France), MobileIron, Good Technology (best known for push email platform), Zenprise, etc.

Traditional security firms like Symantec, McAfee, and connectivity software companies like Smith Micro consider MDM an adjacent space to expand their core offering.

Company Background

Tangoe is a leader in global provider of communications lifecycle management (CLM) to large and medium-sized businesses. CLM encompasses the entire lifecycle of an enterprise's communications assets and services like planning, sourcing, procurement, invoice processing, expense allocation, accounting etc. Its on-demand Communications Management Platform is a suite of software designed to manage and optimize the complex processes and expenses associated with CLM for both fixed and mobile communications assets and services. It sells its on-demand software and related services primarily on a subscription basis under contracts that typically have terms ranging from 24 to 60 months. Customers are invoiced monthly in arrears based on expenses processed. For any new deal, the average ASP is $150K-$200K. A part of its revenue (~10%) comes from strategic consulting services, which involve process management and IT integration into the customer’s environment.

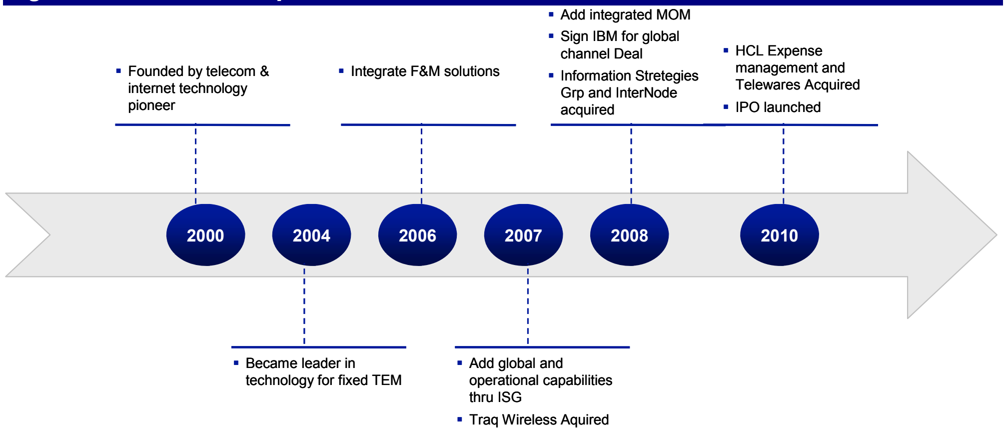
The company was formed in February 2000. Since then it has grown to over 600 end customers ranging from large global, multi-location companies with more than 350,000 employees to single-location companies with just 150 employees. Revenues have increased from $21m in FY2007 to 68m in FY2010 reflecting a CAGR of 48%. The organic revenue has grown at a growth rate of 46% y/y in FY2008, 21% y/y in FY2009 and 22% y/y in FY2010. Its employee base is of 757 full time employees of whom 68 are in sales and marketing. Headquartered in Orange, Connecticut, it has facilities across the United States, China and a new European headquarters in The Netherlands.

Figure 5: Company locations

<table>
<tr><td rowspan="2">Location</td><td colspan="2">Headquarters</td><td colspan="3">Geographic locations</td></tr>
<tr><td colspan="2">Orange, CT</td><td>United States</td><td>China</td><td>Netherlands</td></tr>
<tr><td rowspan="2">Customers</td><td colspan="5">Description</td></tr>
<tr><td colspan="5">Its clients range from large global, multi-location Fortune 500 companies across multiple industries to single-location companies with just 150 employees</td></tr>
<tr><td rowspan="3">Revenues</td><td colspan="3">Revenue Growth (FY10)</td><td colspan="2">Revenue Contribution (FY10)</td></tr>
<tr><td>TR</td><td>Recurring tech and services</td><td>Consulting & Licenses</td><td>Recurring tech and services</td><td>Strategic const & S/W licenses</td></tr>
<tr><td>22.5%</td><td>25.4%</td><td>8.7%</td><td>84%</td><td>16%</td></tr>
<tr><td>Human Resources</td><td colspan="5">As of Mar 31, 2011, the company had more than 757 employees, with offices with 68 in sales and marketing, , 93 in implementation and data management services, 22 in strategic consulting, 310 in client services, 94 in research and development</td></tr>
</table>

Source: Deutsche Bank, company data

Figure 6: Timeline of key events



Source: Deutsche Bank, company data

Products & Services

Tangoe's on-demand software and related services enable enterprises to manage and optimize the complex processes and expenses associated with the complete lifecycle of an enterprise's fixed and mobile communications assets and services. Its Communications Management Platform is a suite of software designed to manage and optimize the complex processes and expenses associated with this lifecycle for both fixed and mobile communications assets and services. Tangoe's customers engage its client services group to manage their communications assets and services using Communications Management Platform. Its solution has comprehensive capabilities and for the client it reduces expenses, optimizes service agreements, and improves control and visibility. Its product portfolio consists of two parts:

1. Communications Management Platform (CMP): An on-demand suite of software designed to manage and optimize the complex processes and expenses associated with the complete lifecycle of an enterprise's fixed and mobile communications assets and services. This includes expense management related to telecom services, both fixed and mobile, as well as a suite of mobile device management services that help enterprises manage an increasingly mobile workforce. CMP also integrates with customers' critical third-party enterprise systems. CMP implements the baseline policies that govern internal and external enterprise communications interactions. CMP also provides customers with comprehensive business intelligence, including historical, trend and predictive analytics, dashboards and reporting capabilities. Information is provided in real-time with flexible views of activity for all aspects and stages of the communications lifecycle. Tangoe sells CMP in three standard bundles:
   - Asset Management : It provides full asset procurement, provisioning, tracking and disposal capabilities for fixed and mobile communications assets and services
   - Expense Management: It provides automated processing and services to manage every aspect of the fixed and mobile communications billing function, from receipt to payment.
   - Usage Management: It provides enterprises with visibility and control over how communications assets and services are being used in fixed and mobile environments through a combination of real-time and historical usage tracking as well as corporate communications and security policy enforcement
2. Strategic Consulting and Other Services: A comprehensive set of strategic consulting services that address all areas of CLM for fixed and mobile environments. These services can be contracted separately or in conjunction with CMP. These include sourcing, bill auditing, Inventory optimizing, mobile optimization and policy administration.

Figure 7: Product portfolio

Source: Company presentation; Used with permission

Figure 8: Product overview

Products/Services	Description
Communications Management Platform	
Telecom Expense Management	Optimize every critical process within communications environment like invoice management, inventory management, reporting and analytics, audit and assurance, provisioning, call rebilling, rate plan optimization, direct bill payment, help desk, device recycling
Mobile Device Management	Reduce smartphone costs, increase smartphone security and compliance, manage device applications remotely, provide centralized management and control, deploy iPads with device, network access, and application security policies, enforce security policies for Android devices
Strategic Consulting	
Mobile Optimization	Negotiating the best rates, ensuring the effective utilization of the established rate plans, client's employees are utilizing the appropriate services and plans, maximizing user deployments, and minimizing mobile service costs
Carrier Contract Negotiations	Encompasses discovery and set-up, strategy, price, terms and commitment levels, market rate and contract analysis price negotiations, terms and conditions analysis/negotiation, contract finalization, compliance verification
Benchmarking Services	Provides clients with services demand sets and target rates that enable them to assess how competitive their current agreements and future negotiations are against current market conditions and trends
Historical Bill Audit	Identify errors, document the root cause of the problem, manage the dispute process, recover the overpayments, and provide recommendations to prevent reoccurring issues
Carrier Transition Assurance	Ensure service migrations occur with zero negative impact to user services and operational uptime

Source: Deutsche Bank, company data

Customers

Tangoe has about $14bn of telecom expenses under management catering to over 615 end customers. End customers range from large global, multi-location companies with more than 350,000 employees to single-location companies with just 150 employees. No single end customer accounted for more than 10% of its total revenue for 2008, 2009 or 2010. No single strategic alliance partner accounted for more than 10% of its total revenue for 2008. However, IBM accounted for 12% and 11% in sales during 2009 and 2010, respectively. Tangoe's customers include insurance providers, retailers, computer technology manufacturers, financial service providers, pharmaceuticals, hotel franchisers, etc., virtually penetrating every industry in managing their communication expenditure. A glimpse of some clients below:

- Midwest-based Fortune 500 insurance provider
- Fortune 500 computer and business services provider
- Leading US-based provider of security products and services
- Northeast-based Fortune 500 distributor of electronic components
- Fortune 500 provider of global payroll and business services
- West coast provider of energy services
- Fortune 500 worldwide leader in retail entertainment and book sales
- West coast provider of retail marketing and research services
- Fortune 500 worldwide hotel franchiser
- Northeast-based manufacturer of polymers and chemicals
- Top 30 Fortune 500 computer and technology manufacturer and distributor
- Big Four global financial services provider
- New England-based designer and manufacturer of video media
- Top 20 Fortune 500 technology company
- One of the nation's largest independent hotel operators
- Northeast-based Fortune 500 industrial manufacturer
- Southeast-based leader in clinical laboratory and diagnostic technology
- Global Fortune 200 financial provider and credit card lender
- West coast-based Top 20 Fortune 500 pharmaceutical provider
- One of the ten largest banks in the US, operating in the Midwest.
- New England-based provider of scientific and technical instruments

Summary of customer diligence

We conducted several diligence calls across Tangoe's customer base, ranging from relatively small to fairly large.

Consistent themes from customers

Customers acknowledged Tangoe's deep domain expertise in operator contracts, billing and geographic variations. They also described the maturity of Tangoe's processes and consistency in their deployment methodology that gets projects ramped quickly. Larger accounts also appreciate the high level of executive involvement even after the project is up and running.

Other highlights:

- Fixed and Mobile TEM widely deployed MDM and new device recycling service gaining traction, particularly with larger enterprises who are introducing consumer-oriented devices into their enterprise environment.
- Customer feedback on features makes it back into product
- On-demand platform attractive to many customers since they don't want to staff TEM internally or invest in their own equipment
- Some customers have been using the product for over 5 years are still happy with results. One customer said, "We got back $3 for every $1 we spent with Tangoe."
- Customer perception is that fixed and mobile are two different products, which they are today. Architecture work is on-going to create a common product.
- Early days of international expansion were rocky. New office in Amsterdam helps with European deployments (second largest TEM market)
- Former HCL customers were pleased about Tangoe's acquisition

Customer case study summary show measurable ROI
Although Tangoe does not disclose contract details, its ASP ranges from $150k- $200k, with top 100 customers approaching $600k. We have summarized snap shots of successful customer case studies below.

Figure 9: Summary of case studies

Customer Description	Communications Environment	Savings impact
US-based benefits management company	2,200 mobile devices $1.8m annual expenditure	25% savings Disconnected 200 un-used phones ROI of over 400% in first year
Global medical technology company	3,300 mobile devices 32 countries $4.5m annual spend with 4 carriers	ROI of over 200% in the first year
Global information and analytics management company	23 service contracts in 18 countries	$575K recovered expenses in the first year; $3.1m savings over life of contract
Global high-tech instrument company	2,400 invoices in 30 countries, 14 languages 185 carriers	Consolidated bill processing to one location Direct pay in 18 countries

Source: Company filings

Savings continue to accrue over time

The value proposition that clients derive out of implementing Tangoe solutions ranges from reducing errors that typically affect 25% of all bills to lowering ongoing cost by 20%-40%. Without streamlined expense management, companies lose between $500k to $50m each year. Tangoe manages spend 3x larger and 5x more devices than its closest competitor, given its breadth and strength in product spectrum, now about $14bn in expenses and 1.8m mobile devices.

After the initial gains in the first year, Tangoe continues to optimize contracts based on market rates and manages turnover in devices, voice/data plans, applications on devices, etc.

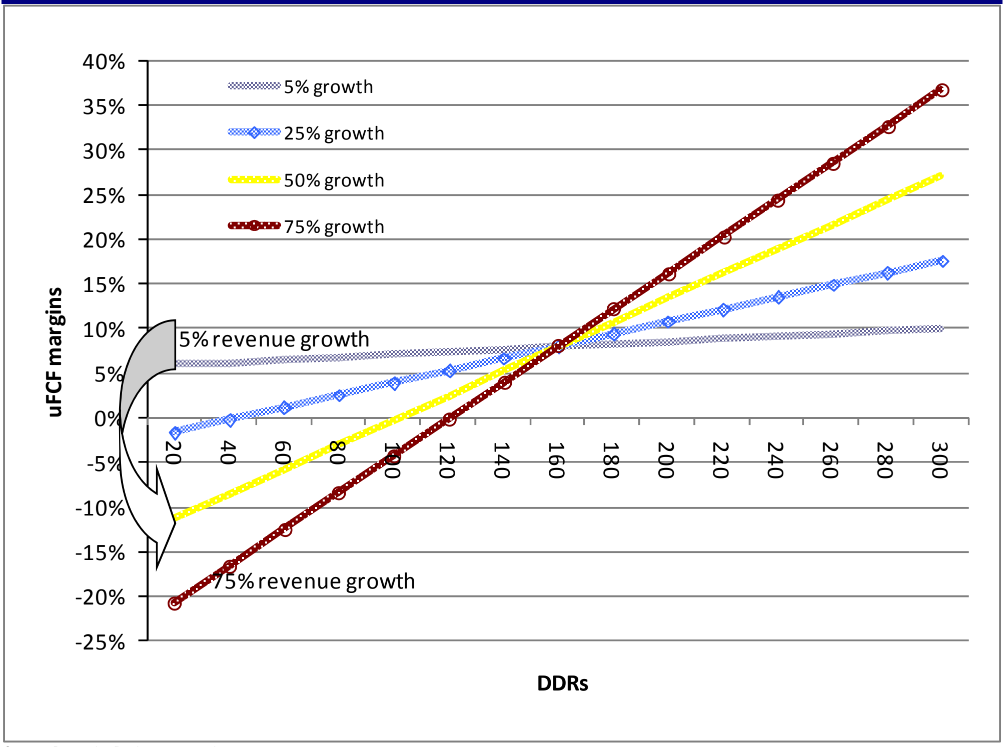
Business Model

Tangoe generates its revenues from subscriptions and services related to its Communications Management Platform. These services include help desk, asset procurement and provisioning, and carrier dispute resolution. The recurring technology and services revenue is recognized ratably over the contract term. Tangoe licenses its on-demand software primarily on a subscription basis under agreements with terms ranging from 24 to 60 months.

The company bills its customers on a monthly basis in arrears and hence does not have significant deferred revenues on its balance sheet. We note this significant difference from our other SaaS coverage, where annual or quarterly pre-payments are standard and cash collected up front with subsequent ratable revenue recognition boosts the cash flow margins for these companies.

Figure 10 below shows the significant impact pre-payments (shown as days deferred revenue, or DDR) can have on a company's unlevered free-cash-flow margins. Note the difference in the theoretical cash flow margins for a company growing revenue at 25% with DDR of 40 (a profile similar to Tangoe), compared to another company growing at the same revenue rate but with DDR of 100 (typical of a SaaS company in our coverage). Prepayments boost uFCF margin by about 4% points in this scenario, with an assumed baseline of 8% uFCF margin. Investors should take this into consideration when studying Tangoe. We discuss this further in the Valuation section.

Figure 10: Sensitivity of pre-payments (DDRs) to cash flow margins



Source: Deutsche Bank, company data

Implementation and services fees related to the Communications Management Platform are recognized ratably over the expected life of the customer relationship. Historically, a high percentage of subscription-based customers renew their agreements with terms similar to their original contracts. These multi-year contracts also have significant exit clauses to ensure their full revenue potential.

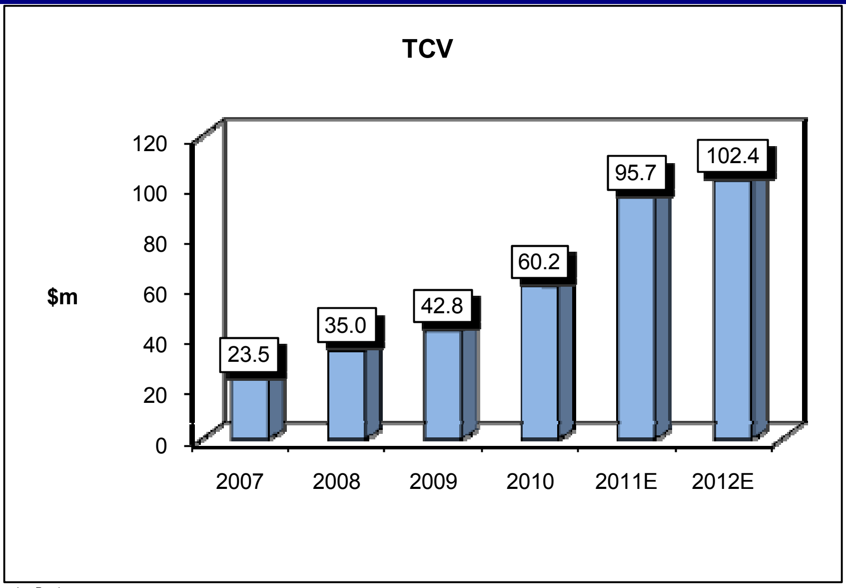
The main driver for Tangoe's revenue is the amount of communications spend that it manages for fixed line and mobile voice/data contracts and the number of mobile devices that it manage for mobile device contracts. The customers are subject to a minimum charge for up to a specified threshold amount of communications spend or number of mobile devices under management and additional charges are levied to the extent those specified thresholds are exceeded.

In addition to the subscription fees, a small part of revenue is also generated from strategic consulting, software licenses (from legacy on-premise customers) and mobile device activation fees (MDM product). Strategic consulting consists primarily of fees charged for contract negotiations and bill audits. Contract negotiation fees include both fixed project fees and incentive fees which is driven by the amount of savings that Tangoe is able to generate over the customer's existing communications rates. These fees are recognized when the customer and carrier execute the contract.

Historically most of Tangoe's revenue have come from within the United States. It intends to build its international sales operations by increasing direct sales force abroad expecting its international revenue to increase in absolute dollars and as a percentage of total revenue.

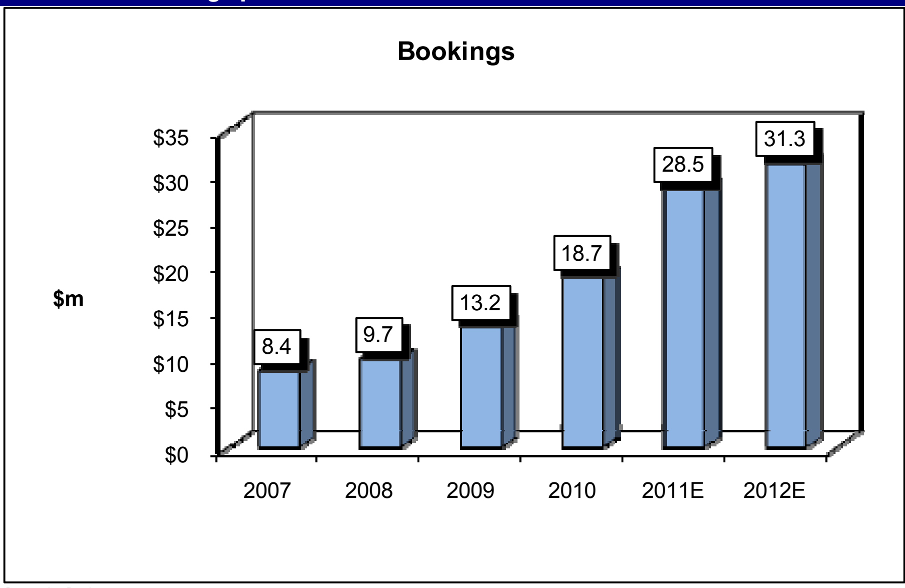
In order to maintain and extend its position of market leader in global provider of CLM solutions Tangoe plans to continue enhancing its service offerings, develop additional software capabilities and localize applications for new geographies. It aims to broaden existing customer relationships and acquire new customers by marketing its solution to enterprises that do not have a CLM solution. Tangoe is hiring additional international sales and operations personnel and targeting new customers in foreign markets and global operations of existing customers.

Figure 11: TCV growth



Source: Deutsche Bank

Figure 12:ARR Bookings profile



Source: Deutsche Bank

Tangoe's bookings growth indicates positive momentum increasing from $9.7m in FY2008 to $18.7m in FY2010 at a CAGR of 39%.The expected ARR for FY2011 is $28.5m (with contribution from the HCL and Telwares acquisitions) and that of FY2012 is $31.3m. Of the new bookings, 40% - 60% come from the company's direct sales efforts and 20%- 30% come via the partner. IBM is the oldest channel partner and now brings in over 10% of new bookings, while the new partners, Dell (via Perot), HP (via EDS) and Xerox (via ACS) are still relatively early in their ramp.

The TCV is also showing a positive trend with the TCV increasing from $23.5m in FY2007 to $60.2m in FY2010 reflecting a CAGR of 37%. The Adjusted EBITDA margin for Tangoe is 10% in FY2010 with retention rate >90%. In addition to +20% organic revenue growth,

Tangoe started the transition to SaaS in 2006. Revenue from recurring mix has increased from 28% recurring in 2006 to 84% in 2010. 1Q11 showed 89% recurring mix, 90% in 2Q11. Tangoe has seen 22 consecutive quarters of revenue growth.

Tangoe's main focus is on the sales and marketing efforts to increase its recurring technology and services-related customer base. It aims to increase the recurring technology and services revenue in absolute dollars and as a percentage of total revenue over the next 12 months. With a retention rate of over 90% and recurring revenues already at 90%, we expect margins to improve over time as scale increases.

Employees

The number of employee in Tangoe has increased from 184 in Dec 2007 to 757 in Mar 2011. The headcount includes 68 in sales and marketing, 125 in account management and help desk services, 93 in implementation and data management services, 22 in strategic consulting, 310 in client services, 94 in research and development and 45 in G&A.

Latest News

Jul 15, 2011 — Tangoe, Inc. announced the launch of Tangoe University™, a members-only online resource for Communications Lifecycle Management news, expert insight, and information

May 17, 2011 — Tangoe, Inc. announced the expansion of the Tangoe User Group (TUG) board including the appointment by Tangoe of two co-chairpersons

May 6, 2011 — Following the recent launch of its Executive Seminar Series in New York, NY and Boston, MA, Tangoe, Inc. announced it has added additional cities to this year's seminar schedule including Chicago, IL, Stamford, CT, and Dallas, TX

Apr 28, 2011 — Tangoe, Inc. announced the newest version of its Mobile Device Management (MDM) platform suite

Apr 6, 2011 — Tangoe, Inc. announced it has been awarded a patent for mobile device authorization, configuration, provisioning, and administration

Mar 30, 2011 — Tangoe, Inc. announced the opening of its European headquarters in Amsterdam

Mar 18, 2011 — Tangoe, Inc. and Telwares Inc. announced Tangoe's acquisition of Telwares' telecom expense management business

Feb 16, 2011 — Tangoe, Inc. announced it will continue its successful executive seminar program by hosting a half-day information session on the strategies for securing and negotiating global telecom contracts in Boston on Thursday, March 3, 2011

Jan 31, 2011 — Tangoe, Inc. announced that it has entered into an agreement with HCL Technologies to formalize a strategic alliance and acquire all existing HCL Telecom Expense Management (TEM) customer agreements and operations

Jan 13, 2011 — Tangoe, Inc. announced it has been designated a Leader by Gartner, Inc. in its "Magic Quadrant for Telecom Expense Management", published December 2010

Management

Albert R. Subbloie, Jr., President and Chief Executive Officer
Mr. Subbloie's detailed knowledge of the company provides a critical contribution to its board of directors. Prior to Tangoe, Mr. Subbloie served as President and CEO of FreeFire, Inc., Executive Vice President of Business Development of TeleTech Holdings, Inc, President and CEO of Information Management Associates, Inc., board of directors of buyingedge.com, Inc., Operative, Inc., Acsis, Inc. He holds a degree in Economics from Trinity College.

Gary R. Martino, Chief Financial Officer
Mr. Martino was also a member of our board of directors from February 2000 to March 2007. Prior to Tangoe, Mr. Martino was a Managing Director of Riverside Advisors, financial consultant to 6FigureJobs.com, Inc., Executive Chairman of IMA, President of IMA's buyingedge.com, Inc. Mr. Martino received his B.S.B.A. from Georgetown University.

Albert M. Rossini, Executive Vice President, Global Sales
Mr. Rossini joined Tangoe in 2006. Prior to which he served as Senior Vice President, Sales and Services of HSS, Inc., Senior Vice President of Sales and Marketing for Elcom International, managed both national and international campaigns for Nynex Corporation and Digital Equipment Corporation. He holds a B.A. from the University of Connecticut.

Charles D. Gamble, co-founded Tangoe and Senior Vice President, Fixed Solutions
Mr. Gamble has been with Tangoe since Feb 2000. Prior to Tangoe, Mr. Gamble served as President and COO of a large consumer electronics internet retailer and launched the ISP division for Progressive Concepts, Inc. He Mr. holds an M.B.A. from the Wharton Business School and a B.A. from Georgetown University.

Scott E. Snyder, Senior Vice President, Mobile Solutions
Mr. Snyder holds this position in Tangoe since October 2008. Prior to Tangoe he was the COO of Traq from August 2006. He was also with Trilogy Software, Inc., leading product direction and development. Mr. Snyder holds M.S. and B.S. degrees from the University of Michigan.

Julie Palen - Senior Vice President, Mobile Device Management Solutions
Prior to its merger with Tangoe in December 2008, Julie was president and CEO of InterNoded, Inc. With more than eighteen years experience in the technology industry and a decade of experience in wireless consulting, development, and management, Julie lead an executive team that drove strategic partnerships with RIM, Nokia, Good, Microsoft, IBM, Cingular, Sprint, and Verizon Wireless

Robert Whitmore - Senior Vice President, Professional Services
With over twenty years of technology, telecommunications, and operations experience, Robert brings a wealth of knowledge and experience to Tangoe. As Senior Vice President of Professional Services, Robert oversees Tangoe's strategic sourcing, bill audit, and strategic consulting professionals. Prior to that, Robert worked for Kraft Foods and General Electric, where he graduated from GE's Information Systems Management Program

Charles Gamble, Founder, Senior Vice President, Customer Account Management
Charlie brings eighteen years of experience to Tangoe, leading the professional services organization and playing a lead role in the company's most important fixed communications consulting engagements. Charlie earned his MBA from the Wharton Business School.

Don Farias, Vice President, Expense Management Operations

Don brings close to twenty years of experience in telecommunications, network engineering, operations and financial management controls to Tangoe. Don secured his undergraduate degree from Johnson & Wales University in Business Administration and Computer Science as well as his masters in Business Administration from New York University and a Master in Telecom Management from University of Southern California.

David Alley, Vice President, Human Resources

Dave has over 25 years experience in the field of Human Capital Management and is responsible for all of Tangoe's global Human Resource initiatives. Dave is certified as a Senior Professional in Human Resource (SPHR) and is a graduate of the Management and Leadership Program at the prestigious Aspen Institute in Colorado.

Investors and Corporate Governance

Tangoe Board of Directors established three committees viz. Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee. The composition of these committees is depicted in the table below:

Figure 13: Governance structure

Directors	Committees		
	Audit	Compensation	Nomination and corporate governance
Mr. Coit	M		
Mr. Kaiser	C	M	
Mr. Kokos	M		M
Mr. Golding		C	
Mr. Walley		M	M
Mr. Kimzey			C
M = Member, C = Chairperson			

Source: Deutsche Bank, company data

Audit committee is primarily responsible for supervising their corporate accounting and financial reporting process. Compensation committee is mainly responsible for reviewing and directs policies pertaining to compensation and benefit of management and employees. Nominating & Corporate Governance committee chiefly administers and assists the board of directors in evaluating and advising nominees for directorship during elections.

Figure 14: Share ownership

	Shares	%ownership
Edison Venture Fund	4,469,312	12.7%
Sevin Rosen Funds	3,499,224	10.0%
Investor AB	2,760,943	7.9%
North Atlantic Capital	2,054,351	5.9%
Subbloie Jr., Albert R	1,455,753	4.1%
Palen, Julie	554,421	1.6%
Martino, Gary R	325,953	0.9%
Rossini, Albert M	218,671	0.6%
Gamble, Charles D	177,925	0.5%
Kokos, Gerald G	2,839	
Insider ownership	15,519,392	
Free float shares	19,880,608	
Shares Outstanding	35,100,000	
Float(%)	56.6%	

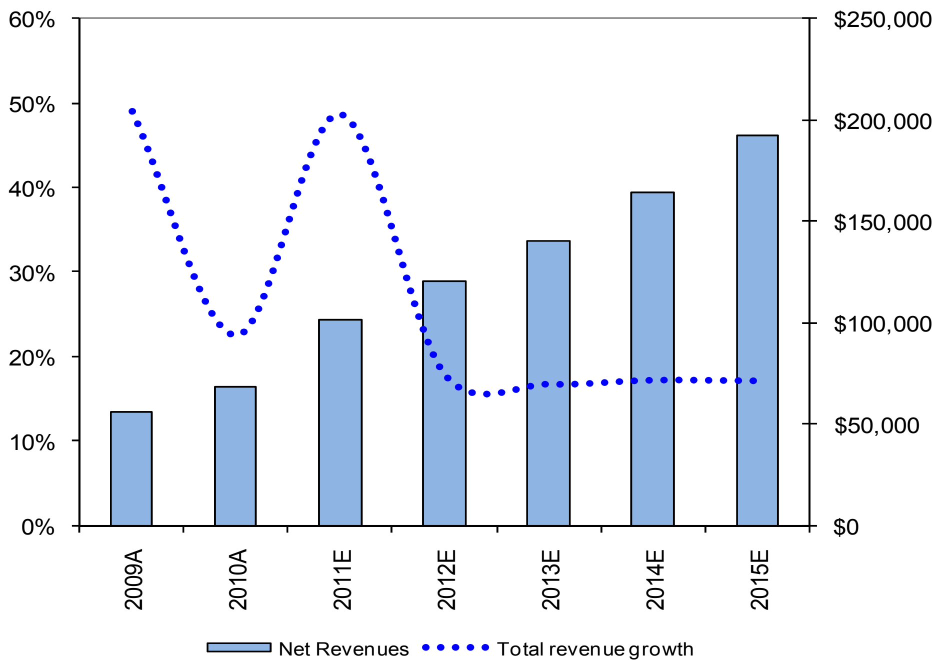
Source: Deutsche Bank, CapitalIQ

Ownership structure shows the three VCs still holding over a third of the shares, CEO holding about 4% and other executives holding another 4%. A float of about 20m shares should allow for adequate liquidity in trading volumes.

Financials

Tangoe revenues have grown steadily in the past four years, from $21m in 2007 to $68m in 2010, a CAGR of 48%. We expect the growth momentum to continue as Tangoe leverages its position as the leading provider of CLM solutions. The revenue is mostly recurring with more than 90% visibility going into each quarter and about 70% a year ahead. Acquisitions drove total revenue growth in tandem with strong organic growth, as shown in Figures 15-16 below.

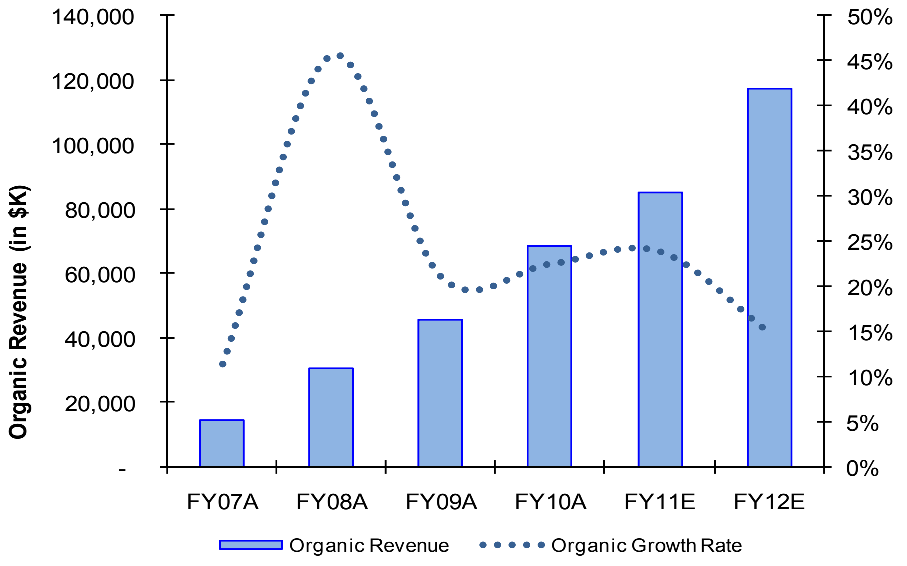
Figure 15: Revenue profile



Source: Deutsche Bank, company data

With 22 quarters of continuous sequential growth, Tangoe's organic revenues have grown from $14.3m in FY2007 to $68.5m to FY2010 reflecting a CAGR of 68%. We expect the organic revenue to grow a bit slower as the revenue base grows.

Figure 16: Organic growth



Source: Deutsche Bank, company data

Despite significant acquisitions, the above analysis shows robust organic growth at 35-40% since 2007. However, we are modeling organic growth rate at 18-20% to factor in conservatism in the model.

Inorganic route helps land-grab strategy

Tangoe has made five key acquisitions since 2007 to expand its product and customer footprint. The company's acquisitions are based on three key motivations:

- Expand technology assets
- New geographies
- New customers

The company has been disciplined about sales multiples for these acquisitions, typically paying 2x-3x of sales at the high end and below 1x at the low end, depending on the type of asset and percentage of recurring revenue. Traditional software M&A multiples are usually higher, with our 10-year industry database showing acquirers paying 4x-6x maintenance multiples in public company software M&A. Tangoe's gradually increasing operating margins during this period also indicates they are effective in the integration process.

Also of note is the fact that executives from the acquired companies generally have stayed on at Tangoe to run their respective business as a division within Tangoe, another sign that these integrations are effective.

Figure 17 shows a summary of the acquisitions. We describe them in more detail below the exhibit.

Figure 17: Summary of acquisitions

Announced Date	Target	Size ($mm)	Rationale and business synergy
Mar-09-2007	Traq Wireless, Inc	20.7	Provider of software and services that focuses on wireless expense management for enterprises. It had a recurring model
Jul-28-2008	Information Strategies Group, Inc	11.9	Provider of communications and information technology expense processing services and technologies. It had a recurring model
Dec-23-2008	InterNoded, Inc	3.3	Provider of mobile device management solutions.
Jan-25-2011	HCL Expense Management Services Inc	6.4	Provider of telecommunications expense management, invoice processing and mobility management solutions and acquisition of key customers
Mar-16-2011	Telwares, Inc.	7	Provider of telecommunications expense management, invoice processing and mobility management solutions and acquisition of key customers
	Total consideration paid	**$49.30**	

Source: Deutsche Bank, company data

Traq brought wireless TEM capabilities to Tangoe's organic fixed TEM platform. Traq also helped Tangoe accelerate its transition to a recurring revenue model, as most of Traq's revenue was recurring. The mobile TEM and fixed TEM products remained separate, mostly since operators providing these services continue to retain separate billing systems and end-users of fixed line services vs. mobile services are also different within the typical enterprise. Specifically, fixed-line services in the enterprise are related to desk phones and data connectivity, where the end user is seldom involved in provisioning, bill payments, etc. On the other hand, with mobile devices, enterprises have a mix of corporate-liable and individual-liable devices, and end users are typically involved in the payment of bills, either directly or through their IT department.

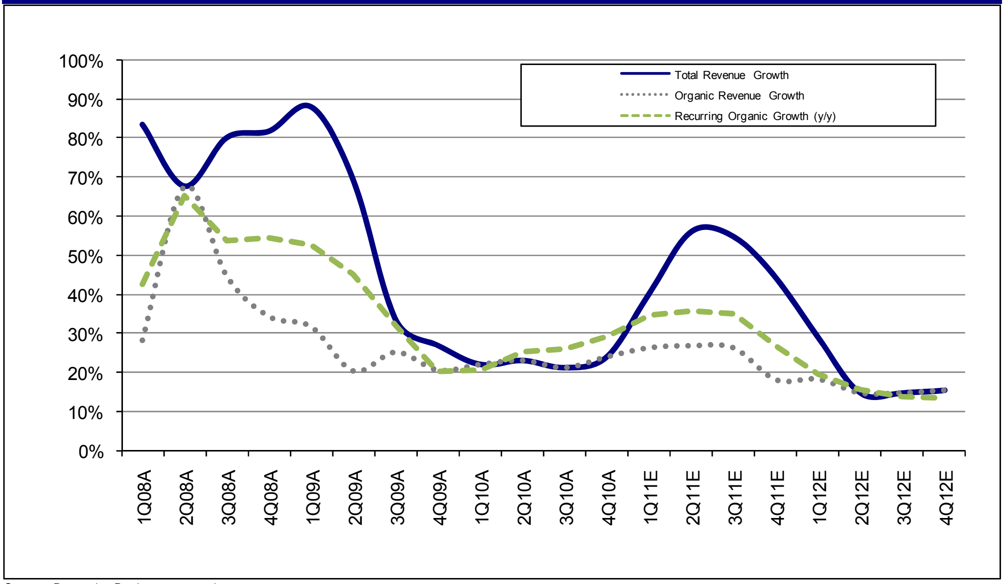
Information Strategies Group (ISG) had a fixed TEM product with a recurring revenue model. ISG also brought international capabilities to Tangoe's solution. By July 2008, over half of Tangoe's revenues were recurring in nature. By the end of 2008, Tangoe crossed the 80% threshold with the addition of ISG to the revenue mix.

Internoded was Tangoe's foray into Mobile Device Management (MDM). By the second half of 2008, MDM had begun to get the attention of enterprises as the iPhone and Android devices were becoming mainstream, applications were proliferating and enterprises were looking for solutions to manage these typically individual-liable devices in a corporate environment. MDM was a natural adjacency to TEM and Tangoe expanded its market definition to include device-oriented services, calling it CLM. Internoded's platform has evolved in its capabilities since the acquisition but remains a standalone part of Tangoe's portfolio.

HCL Expense Management Services and **Telwares** acquisitions were both clearly a strategic expansion of operations and enlargement of the customer base, with the potential to cross-sell to the customers of HCL and Telwares the capabilities of Tangoe's existing solution. Through this acquisition the company added more than 100 customers with aggregate annual telecommunications expense under management in excess of $3 billion. Both acquisitions were made in 1Q11, just before Tangoe's IPO. We believe the price paid for both was below 1x sales, as both businesses had declining revenues and limited technology differentiation.

Our analysis of organic revenues indicates that the company has been consistently growing total revenue at over 20% for the past three years, with recurring revenues growing organically over 25%.

Figure 18: Organic Revenue profile

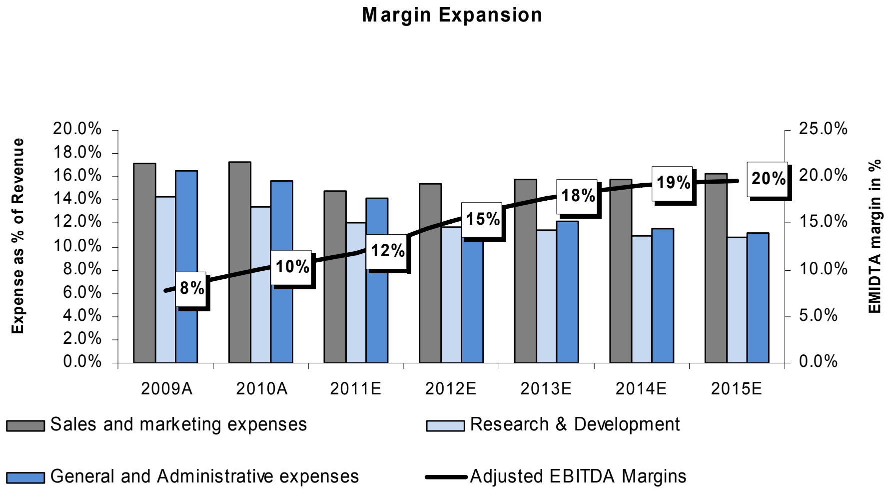


Source: Deutsche Bank, company data

We expect EBITDA margin to grow at a slower pace near-term since Tangoe plans to investments in technological and process improvements along with overseas expansion. The EBITDA is expected to increase from $6.8M to $12m (74% growth) in 2011. We expect the cost of recurring technology and services revenue which consists of costs associated with data center operations, customer product support centers and client services group to remain relatively stable on an annual basis.

Tangoe's business model comes with lower gross margins because of higher proportion of consulting and service content associated with taking new customers live. Like other companies in our coverage with technology-enabled services, human capital involved in implementing its solutions naturally suppresses gross margins as compared to more "pure" SaaS models. Specifically, gross margin is expected to decrease to 53% in 2011 due to acquisition of HCL and Telwares which had gross margins significantly below corporate average compared to 56% for Tangoe last year. With increasing focus on expanding software functionality of current offerings R&D expense is expected to increase in dollar terms but decrease in percentage terms, over time. R&D, G&A and Sales marketing investments are expected to be up by 35%, 23% and 27% in 2011 due to increased focus on technological and process improvements.

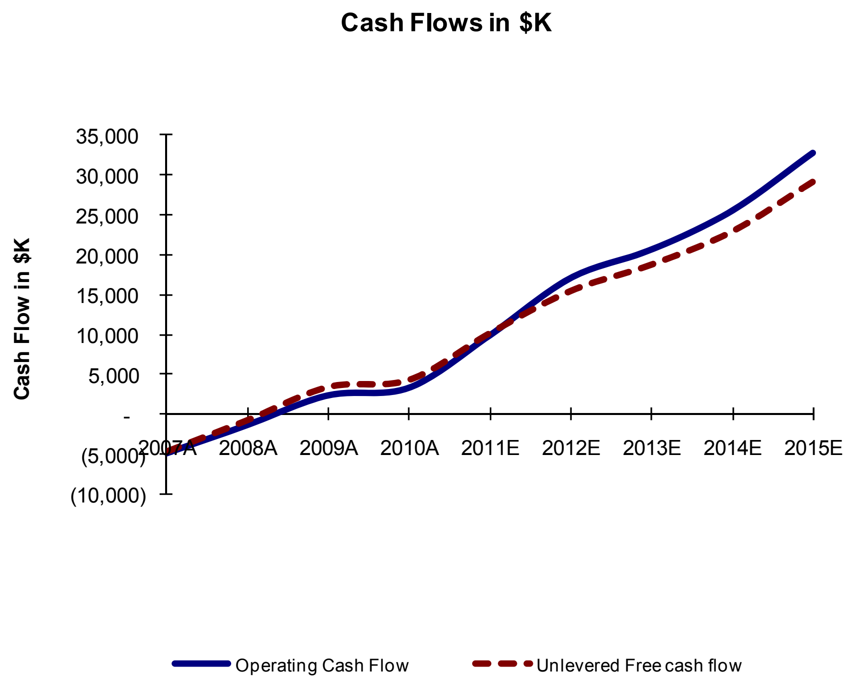
Figure 19: Margin expansion



Source: Deutsche Bank, company data

Operating cash flow has been positive for full year 2009 and 2010. It is likely to increase post debt repayment as net interest expense is expected to decrease by 117% from FY11 to FY12 which should effectevly increase the net income. Cash flow from financing will show a one-time inflow from the IPO. The uFCF margin grew from (2%) in 2008 (critical mass of SaaS transition) to 6% in 2010. It is projected to grow to 11% in 2012. The capex is about 2% of revenue.

Figure 20: Cash flow profile



Source: Deutsche Bank, company data

Valuation

Tangoe's subscription model is driven by a relatively steady, recurring revenue stream from multi-year contracts as well as new in-year bookings. We believe it is best to value subscription-based companies on a growth-adjusted unlevered free cash flow basis. Our $17 price target is based on a CY13 uFCF/share estimate of $0.48, an EV/uFCF/G multiple of 1.2x (slight premium to group given market leadership), and a five-year growth rate, net of dilution, of 26%.

Figure 21: PEG table

Price Target Sensitivity Based Upon CY13E EV/uFCF/Growth

		EV/uFCF/G Multiples				
		0.8x	1.0x	1.2x	1.4x	1.6x
-20%	$0.38	$9.94	$11.92	$13.91	$15.90	$17.88
-10%	$0.43	$10.98	$13.22	$15.45	$17.69	$19.92
DB Est. *	**$0.48**	$12.03	$14.52	**$17.00**	$19.48	$21.97
10%	$0.53	$13.08	$15.81	$18.55	$21.28	$24.01
20%	$0.57	$14.13	$17.11	$20.09	$23.07	$26.05

		EV/uFCF/G Multiples				
		0.8x	1.0x	**1.2x**	1.4x	1.6x
	16%	$7.84	$9.33	$10.82	$12.31	$13.80
	21%	$9.94	$11.92	$13.91	$15.90	$17.88
LTG	**26%**	$12.03	$14.52	**$17.00**	$19.48	$21.97
	31%	$14.13	$17.11	$20.09	$23.07	$26.05
	36%	$16.23	$19.70	$23.18	$26.66	$30.14

LT FCF Gr	28%	Cash/Share	$1.55
Options dilution	-2%		
LTG - FCF/Sh [(1)]	26%		

Historical P/E/G Ratios

	S&P Tech	NASDAQ
Average '92-'98	2.0x	2.0x
Median '92-'98	2.0x	1.8x

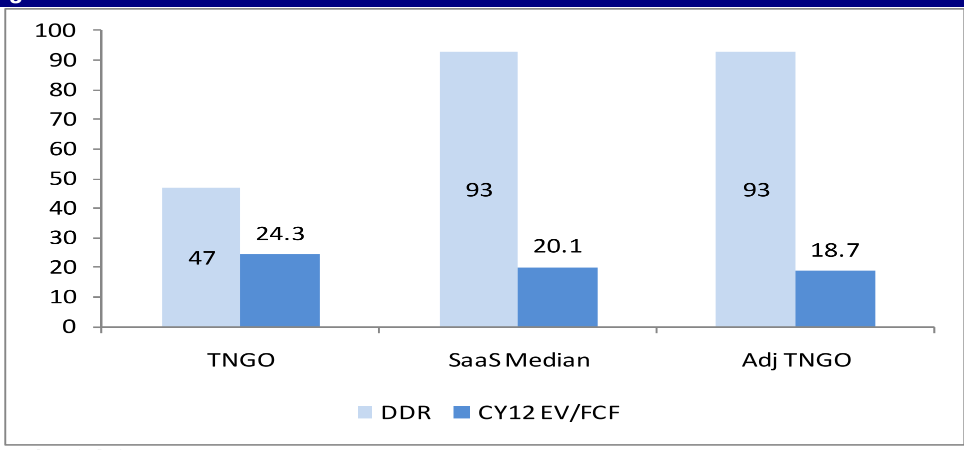
Relative EV/uFCF/G Ratios

	2011	2012
SaaS Software Group		
Average	1.1x	0.8x
Median	1.0x	0.8x
Software Group		
Average	1.0x	1.0x
Median	1.0x	0.8x

Source: Deutsche Bank

Continuing our discussion from Figure 10, we note that since Tangoe doesn't bill customers in advance, relative to other SaaS companies, its days of deferred revenue (DDR) metric is relatively low, in the 47 range vs. our SaaS median of 93. The current valuation for Tangoe, therefore, is distorted by this fact, although the recurrent nature of its revenues is very similar to other SaaS companies. If Tangoe were to bill customers in advance and had DDRs of 93 (median for our SaaS coverage), its unlevered cash flow margins would increase significantly, from our CY12 estimate of 13% to 17%, based on the analysis shown in Figure 11 earlier. This would drive down the EV/FCF multiple, which is at 24.3x currently, to 18.7x. We illustrate this in Figure 22 below.

Figure 22: EV/FCF at different DDR levels



Source: Deutsche Bank

We have also used a DCF valuation with 9% WACC and 16x terminal multiple. Figures 23-25 below show the underlying assumptions.

Figure 23: WACC

	Ticker	Stock Price	Beta[5]	Market Value ($MM) Equity	LT Debt[6]	Debt/ Equity	Leveraging Factor[7]	UnLeveraged Beta[8]
COMPARABLE COMPANIES								
Salesforce.com	CRM	$126.58	1.28	$17,088	$498	2.9%	1.03	1.24
Tangoe	TNGO	$11.00	0.57	$345	$12	3.4%	1.03	0.55
Servicesource	SREV	$16.57	1.20	$1,126	$1	0.1%	1.00	1.20
Intralinks	IL	$9.00	2.26	$487	$126	25.9%	1.23	1.83
Cornerstone on Demand	CSOD	$15.68	1.06	$754	$7	0.9%	1.01	1.05
Convio	CNVO	$9.30	0.94	$170	$0	0.0%	1.00	0.94
SPS Commerce	SPSC	$18.39	0.75	$220	$0	0.0%	1.00	0.75
Successfactors	SFSF	$23.12	1.81	$1,929	$0	0.0%	1.00	1.81
Concur Technologies	CNQR	$40.79	1.41	$2,201	$228	10.4%	1.09	1.29

Average UnLeveraged Beta	1.19
Median UnLeveraged Beta	1.20
Modeled Beta	0.55

Current Debt/ Capital	Debt/ Equity	Effective Unleveraged Beta	Leveraging Factor	Leveraged Beta[9]	Cost of Equity[10]	Cost of Debt	% of Equity	% of Debt	Current WACC
3.3%	3.4%	0.55	1.03	0.57	8.70%	5.05%	96.7%	3.3%	8.57%
5.8%	6.2%	0.55	1.06	0.58	8.83%	5.05%	94.2%	5.8%	8.59%
8.3%	9.1%	0.55	1.08	0.60	8.95%	5.05%	91.7%	8.3%	8.59%
10.8%	12.1%	0.55	1.11	0.61	9.09%	5.05%	89.2%	10.8%	8.60%
13.3%	15.4%	0.55	1.14	0.63	9.23%	5.05%	86.7%	13.3%	8.61%
15.8%	18.8%	0.55	1.17	0.65	9.38%	5.05%	84.2%	15.8%	8.62%
18.3%	22.4%	0.55	1.20	0.67	9.55%	5.05%	81.7%	18.3%	8.63%
20.8%	26.3%	0.55	1.24	0.68	9.72%	5.05%	79.2%	20.8%	8.64%
23.3%	30.4%	0.55	1.27	0.71	9.90%	5.05%	76.7%	23.3%	8.65%

Source: Deutsche Bank

Figure 24: 5-year financial model summary

	FY06A	FY07A	FY08A	FY09A	FY010A	FY11E	FY12E	FY13E	FY14E	FY15E	FY16E	FY17E	FY18E
Revenues	13	21	38	56	68	102	120	140	164	192	225	263	308
Growth			*78%*	*49%*	*22%*	*49%*	*18%*	*17%*	*17%*	*17%*	*17%*	*17%*	*17%*
Net Income	-5	-9	-5	-2	3	8	15	17	23	30	35	41	48
Free Cash Flow		-4.8	-0.8	3.4	4.2	10.1	15.4	18.7	22.9	29.2	37.3	48.2	62.2
						138%	*52%*	*21%*	*22%*	*27%*	*28%*	*29%*	*29%*
Share Count	21.3	22.1	23.3	23.3	27.3	32.3	38.5	39.3	40.0	40.9	41.7	42.5	43.4
			5%	*0%*	*17%*	*18%*	*19%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*
FCF per share	$0.00	($0.22)	($0.04)	$0.14	$0.16	$0.31	$0.40	$0.48	$0.57	$0.71	$0.90	$1.13	$1.43
FCF Margins		*-22.7%*	*-2.2%*	*6.0%*	*6.2%*	*9.9%*	*12.9%*	*13.4%*	*14.0%*	*15.2%*	*16.6%*	*18.3%*	*20.2%*

Source: Deutsche Bank

Figure 25: DCF

Present Value of Terminal Value per share [1]					
FY17E FCF per share	$1.13	$1.13	$1.13	$1.13	$1.13
Enterprise Value/FCF Multiple	**13x**	**15x**	**17x**	**19x**	**21x**
FY17E Terminal Value per share	$14.20	$16.47	$18.74	$21.00	$23.27
Discount Rate					
8.0%	$8.72	$10.11	$11.51	$12.90	$14.29
8.5%	$8.47	$9.82	$11.18	$12.53	$13.88
9.00%	$8.23	$9.54	$10.85	$12.17	$13.48
9.5%	$7.99	$9.27	$10.54	$11.82	$13.10
10.0%	$7.76	$9.00	$10.24	$11.48	$12.72

Cash Position per share $1.55

Total Equity Value [2]					
Discount Rate	13x	15x	17x	19x	21x
8.0%	$13.58	$14.97	$16.36	$17.76	$19.15
8.5%	$13.27	$14.62	$15.97	$17.33	$18.68
9.0%	$12.97	$14.28	$15.60	$16.91	$18.22
9.5%	$12.68	$13.95	$15.23	$16.51	$17.78
10.0%	$12.40	$13.64	$14.88	$16.12	$17.36

"Fair Value" Current Stock Price Matrix					
Shares Dilution rate	3.0%	2.5%	2.0%	1.5%	1.0%
Discount Rate					
8.0%	$22.93	$20.46	$16.36	$22.33	$23.42
8.5%	$22.37	$19.97	$15.97	$21.79	$22.85
9.0%	$21.82	$19.49	**$15.60**	$21.27	$22.30
9.5%	$21.29	$19.03	$15.23	$20.76	$21.77
10.0%	$20.78	$18.59	$14.88	$20.27	$21.25
12 Month Price Target [3]			$ 17.00		

(1) Terminal Value = FY16 FCF times range of FCF multiples discounted based on range of WACCs
(2) Equity Value = PV of terminal Value + sum of discounted cashflows
(3) Deutsche Bank estimates

Source: Deutsche Bank

The authors of this report wish to acknowledge the contribution made by Vinay Kumar Hande and Mohammad Shuja Khan, employees of Irevna, a division of CRISIL, a third-party provider of offshore research support services to Deutsche Bank.

Figure 26: Income statement

Tangoe
Income Statement
(dollars in thousands, except EPS)
FYE Dec-31

Deutsche Bank Securities
Tom Ernst - 866.812.7891
Nandan Amladi - 212.250.4570

	Fiscal Year ends 2010				Fiscal Year ends 2011			
	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Jun-11	Sep-11	Dec-11
	1Q10A	2Q10A	3Q10A	4Q10A	1Q11A	2Q11E	3Q11E	4Q11E
Net Revenues	**$15,955**	**$16,705**	**$17,138**	**$18,676**	**$22,341**	**$26,047**	**$26,500**	**$26,912**
Recurring technology and services	13,260	13,891	14,570	15,982	19,927	23,510	24,320	24,923
Strategic consulting, software licenses and other	2,695	2,814	2,568	2,694	2,414	2,537	2,180	1,989
Recurring technology and services	5,782	6,675	6,720	7,173	9,057	11,258	11,712	11,698
Strategic consulting, software licenses and other	1,301	687	892	994	1,272	1,245	805	734
Total cost of revenue	7,052	7,286	7,524	8,039	10,180	12,503	12,517	12,432
Gross profit	8,903	9,419	9,614	10,637	12,161	13,544	13,983	14,480
Sales and Marketing	2,723	2,948	2,935	3,250	3,525	3,181	4,108	4,173
Research & Development	2,240	2,275	2,294	2,364	2,821	2,833	3,296	3,309
General and administrative	2,491	2,567	2,570	3,049	3,264	4,436	3,313	3,393
Public company costs							250	250
Depreciation	258	270	276	287	299	356.00	346	348
Operating Income	1,191	1,359	1,539	1,687	2,252	2,738	2,672	3,007
Decrease (increase) in fair value of warrants for redeemable convertible							-	-
Interest (expense) and income	(532)	(531)	(523)	(398)	-655	-774	-108	-101
Pretax income	659	828	1,016	1,289	1,597	1,964	2,564	2,906
Provision for Taxes	64	49	69	113	126	180	308	284
Adjusted Net Income	**595**	**779**	**947**	**1,176**	**1,471**	**1,784**	**2,256**	**2,621**
Adjusted EBITDA	**1,449**	**1,629**	**1,815**	**1,974**	**2,551**	**3,094**	**3,018**	**3,355**
Diluted EPS	**$0.03**	**$0.03**	**$0.03**	**$0.04**	**$0.06**	**$0.06**	**$0.06**	**$0.07**
Diluted EPS (incl. Stock Options)	$0.02	$0.01	$0.02	$0.01	$0.02	$0.03	$0.04	$0.05
Pro Forma Fully diluted Shares	23,418	28,631	28,631	28,631	26,244	29,867	35,100	38,000
GAAP Diluted shares	4,399	4,399	4,399	4,399	4,672	4,672	4,672	4,672
Equity based	209	450	509	760	835	931	861	869
Amortization of intangibles/debt issuance cost	614	609	583	632	709	757	653	665
Other Adjustments	647	(45)	(42)	323	540	2,011	2,172	-
Reported Earnings	**(875)**	**(235)**	**(103)**	**(539)**	**(613)**	**(1,915)**	**(1,430)**	**1,087**
GAAP EPS*	($0.20)	($0.05)	($0.02)	($0.12)	($0.02)	($0.06)	($0.04)	$0.03
						($2,528.00)		
Key Metrics								
Net Cash and Equivalents	-68,892	-68,770	-68,000	-8,962	-18,794	-12,960	51,460	49,901
Net Cash Per Share	($2.94)	($2.40)	($2.38)	($0.31)	($0.72)	($0.43)	$1.47	$1.31
Days Sales Outstanding (reported)	73	77	73	69	81	73	78	75
Days Deferred Revenue	48	46	47	49	44	36	42	43
Adjusted EBITDA	1,449	1,629	1,815	1,974	2,551	3,094	3,018	3,355
Revenue Mix								
Recurring technology and services	83%	83%	85%	86%	89%	90%	92%	93%
Strategic consulting, software licenses and other	17%	17%	15%	14%	11%	10%	8%	7%
Margin Analysis								
Recurring technolgy margins	56.4%	51.9%	53.9%	55.1%	54.5%	50.8%	51.8%	53.1%
Strategic consulting margins	51.7%	75.6%	65.3%	63.1%	47.3%	63.1%	63.1%	63.1%
Gross Margin	55.8%	56.4%	56.1%	57.0%	54.4%	52.0%	52.8%	53.8%
Sales and marketing expenses	17.1%	17.6%	17.1%	17.4%	15.8%	14.5%	15.5%	15.5%
Research & Development	14.0%	13.6%	13.4%	12.7%	12.6%	11.5%	12.4%	12.3%
General and Administrative expenses	15.6%	15.4%	15.0%	16.3%	14.6%	14.7%	12.5%	12.6%
Operating income	7.5%	8.1%	9.0%	9.0%	10.1%	10.5%	10.1%	11.2%
Interest and other income net	-3.3%	-3.2%	-3.1%	-2.1%	-2.9%	-3.0%	-0.4%	-0.4%
Pretax income	4.1%	5.0%	5.9%	6.9%	7.1%	7.5%	9.7%	10.8%
Tax rate	9.7%	5.9%	6.8%	8.8%	7.9%	10.2%	12.0%	9.8%
Net income	3.7%	4.7%	5.5%	6.3%	6.6%	0.0%	0.0%	0.0%
Adjusted EBITDA Margins	9.1%	9.8%	10.6%	10.6%	11.4%	11.9%	11.4%	12.5%
Growth Analysis								
Year-Over-Year								
Total revenue growth	21.9%	22.9%	21.1%	23.9%	40.0%	55.9%	54.6%	44.1%
Recurring Technology growth	21%	25%	26%	29%	50%	69%	67%	56%
Strategic consulting growth	29%	12%	-1%	-1%	-10%	-10%	-15%	-26%
Operating income	-944.7%	870.7%	327.5%	265.2%	44.4%	71.6%	66.4%	54.6%
EPS	-183.6%	-197.9%	-400.1%	-601.4%	120.6%	119.5%	94.3%	68.0%
Adjusted EBITDA Growth	103.8%	59.1%	43.3%	45.6%	76.1%	89.9%	66.3%	70.0%
Sequential								
Total revenue growth	5.8%	4.7%	2.6%	9.0%	19.6%	16.6%	1.7%	1.6%
EPS	(410.2%)	7.1%	21.6%	24.2%	36.5%	6.6%	7.6%	7.3%

	Fiscal Year Ends in December							
	2006A	2007A	2008A	2009A	2010A	2011E	2012E	2013E
Net Revenues	**$12,879**	**$21,047**	**$37,526**	**$55,917**	**$68,474**	**$101,800**	**$120,000**	**$140,000**
Recurring technology and services	3,578	14,174	27,839	46,005	57,703	92,680	109,204	128,719
Strategic consulting, software licenses and other	9,301	6,873	9,687	9,912	10,771	9,120	10,796	11,281
Recurring technology and services	629	6,982	14,720	20,538	26,350	43,725	49,142	55,860
Strategic consulting, software licenses and other	3,845	2,821	3,043	4,360	3,874	4,055	3,973	4,092
Total cost of revenue	4,474	9,803	17,713	24,783	29,901	47,631	53,115	59,952
Gross profit	8,405	11,244	19,813	31,134	38,573	54,169	66,885	80,048
Sales and Marketing	4,416	5,954	7,683	9,576	11,856	14,986	18,485	22,186
Research & Development	5,913	7,021	5,807	7,982	9,173	12,259	14,067	16,591
General and administrative	2,929	5,389	7,439	9,218	10,677	14,405	14,910	17,389
Public company costs						500	1,200	
Depreciation	299	1,911	2,709	3,537	1,091	1,349	1,654	4,413
Operating Income	(5,152)	(9,031)	(3,825)	821	5,776	10,669	16,569	19,469
Decrease (increase) in fair value of warrants for redeemable convertible	0	39	(66)	(184)	-	-	-	-
Interest (expense) and income	-198	-540	-1,116	-2,178	-1,984	-1,638	-69	-72
Pretax income	(5,350)	(9,532)	(5,007)	(1,541)	3,792	9,031	16,500	19,397
Provision for Taxes	54	-76	23	264	295	898	1,614	1,898
Adjusted Net Income	**(5,404)**	**(9,456)**	**(5,030)**	**(1,805)**	**3,497**	**8,133**	**14,886**	**17,499**
Adjusted EBITDA	**(4,853)**	**(7,120)**	**(1,116)**	**4,358**	**6,867**	**12,018**	**18,223**	**23,882**
Diluted EPS	**($0.25)**	**($0.43)**	**($0.22)**	**($0.08)**	**$0.13**	**$0.25**	**$0.39**	**$0.45**
Diluted EPS (incl. Stock Options)	($0.26)	($0.44)	($0.30)	($0.11)	$0.06	$0.02	$0.24	$0.30
Pro Forma Fully diluted Shares	21,295	22,147	23,282	23,318	27,328	32,303	38,477	39,253
GAAP Diluted shares	2,373	3,088	4,046	4,311	4,399	4,672	4,672	4,672
Equity based	37	279	**1,929**	749	1,928	3,496	5,784	5,736
Amortization of intangibles/debt issuance cost	-	-	-	-	2,438	2,784	2,781	-
Other Adjustments	-	-	-	-	883	4,723	-	-
Reported Earnings	**(5,441)**	**(9,735)**	**(6,959)**	**(2,554)**	**(1,752)**	**(2,871)**	**6,321**	**11,763**
GAAP EPS*	($2.29)	($3.15)	($1.72)	($0.59)	($0.40)	($0.10)	$0.16	$0.30
Key Metrics								
Net Cash and Equivalents	0	0	-10,352	-8,250	-8,962	49,901	64,862	80,570
Net Cash Per Share	0	$0.00	($0.44)	($0.35)	($0.31)	$1.31	$1.67	$2.04
Days Sales Outstanding (reported)	0	-	86	69	69	75	73	67
Days Deferred Revenue	0	-	53	47	49	43	45	42
Adjusted EBITDA	(4,853)	(7,120)	(1,116)	4,358	6,867	12,018	18,223	23,882
Revenue Mix								
Recurring technology and services	28%	67%	74%	82%	84%	91%	91%	92%
Strategic consulting, software licenses and other	72%	33%	26%	18%	16%	9%	9%	8%
Margin Analysis								
Recurring technolgy margins	82.4%	50.7%	47.1%	55.4%	54.3%	52.8%	55.0%	56.6%
Strategic consulting margins	58.7%	59.0%	68.6%	56.0%	64.0%	55.5%	63.2%	63.7%
Gross Margin	65.3%	53.4%	52.8%	55.7%	56.3%	53.2%	55.7%	57.2%
Sales and marketing expenses	34.3%	28.3%	20.5%	17.1%	17.3%	14.7%	15.4%	15.8%
Research & Development	45.9%	33.4%	15.5%	14.3%	13.4%	12.0%	11.7%	11.9%
General and Administrative expenses	22.7%	25.6%	19.8%	16.5%	15.6%	14.2%	12.4%	12.4%
Operating income	-40.0%	-42.9%	-10.2%	1.5%	8.4%	10.5%	13.8%	13.9%
Interest and other income net	-1.5%	-2.6%	-3.0%	-3.9%	-2.9%	-1.6%	-0.1%	-0.1%
Pretax income	-41.5%	-45.3%	-13.3%	-2.8%	5.5%	8.9%	13.8%	13.9%
Tax rate	-1.0%	0.8%	-0.5%	-17.1%	7.8%	9.9%	9.8%	9.8%
Net income	-42.0%	-44.9%	-13.4%	-3.2%	5.1%	8.0%	12.4%	12.5%
Adjusted EBITDA Margins	-37.7%	-33.8%	-3.0%	7.8%	10.0%	11.8%	15.2%	17.1%
Growth Analysis								
Year-Over-Year								
Total revenue growth		63.4%	78.3%	49.0%	22.5%	48.7%	17.9%	16.7%
Recurring Technology growth		296.1%	96.4%	65.3%	25.4%	60.6%	17.8%	17.9%
Strategic consulting growth		-26.1%	40.9%	2.3%	8.7%	-15.3%	18.4%	4.5%
Operating income		75.3%	-57.6%	-121.5%	603.5%	84.7%	55.3%	17.5%
EPS		68.3%	-49.4%	-64.2%	-265.3%	96.7%	53.7%	15.2%
Adjusted EBITDA Growth		46.7%	-84.3%	-490.5%	57.6%	75.0%	51.6%	31.1%
Sequential								
Total revenue growth								
EPS								

Source: Deutsche Bank

Figure 27: Balance sheet

Tangoe
Balance Sheet (in thousands)
FY Ends December

Balance Sheet	Dec-08 4Q08A	Dec-09 4Q09A	Mar-10 1Q10A	Jun-10 2Q10A	Sep-10 3Q10A	Dec-10 4Q10A	Mar-11 1Q11A	Jun-11 2Q11E	Sep-11 3Q11E	Dec-11 4Q11E	Dec-12 4Q12E	Dec-13 4Q13E
Cash and equivalents	6,554	6,163	4,114	4,092	4,392	5,913	6,876	8,981	54,110	52,592	67,964	86,646
Accounts receivable	11,384	11,517	12,883	14,345	13,880	14,295	20,191	21,007	23,066	22,489	25,052	28,273
Prepaid expenses and Other current assets	869	1,585	1,537	1,067	1,585	1,395	1,488	1,418	1,590	1,615	1,241	2,658
		-										
Total current assets	18,808	19,265	18,534	19,504	19,857	21,603	28,556	31,406	78,766	76,696	94,257	117,577
Computers, furniture and equipment - NET	1,625	1,761	1,660	1,741	1,814	1,795	2,508	2,610	2,734	2,871	2,949	3,132
Security deposits in non current assest	453	573	1,323	1,652	1,889	1,925	2,727	3,744	2,175	2,209	4,653	7,216
Goodwill	16,191	17,636	17,636	17,636	17,636	17,636	22,893	22,893	22,893	22,893	22,893	22,893
Intangible assets	16,422	16,843	18,125	17,422	16,743	15,785	20,869	21,683	21,030	20,365	17,584	14,968
Cash Held in Escrow	1,375	-										
Total Assets	**54,874**	**56,078**	**57,278**	**57,955**	**57,939**	**58,744**	**77,553**	**82,336**	**127,598**	**125,034**	**142,337**	**165,785**
Accts payables and accruals	2,745	2,858	3,677	3,931	4,214	3,303	4,434	5,894	5,300	5,382	6,205	7,596
Accrued Expenses	2,802	2,285	1,662	2,600	2,700	3,364	4,544	5,367	5,565	5,652	6,515	5,697
Long term debt —current portion	6,609	4,421	4,502	4,821	4,823	453	9,430	10,555	5,300	-	-	-
Line of Credit		5,000	5,000	5,000	5,000	5,500	-	-	-	-	-	-
Capital leases—current portion	200	177	162	248	328	392	-	-	-	-	-	-
Deferred Revenue	6,228	6,881	8,460	8,450	9,005	8,304	8,973	8,492	10,079	10,504	12,409	14,445
Total current liabilities	18,584	21,622	23,463	25,050	26,070	21,316	27,382	30,308	26,244	21,538	25,129	27,737
Deferred rent and other non-current liabilities	1,298	2,480	3,972	3,760	3,554	3,099	3,642	771	2,650	2,691	3,102	6,076
Long term debt —less current portion	15,408	11,725	10,264	9,256	7,946	11,319	22,028	21,170	-	-	-	-
Capital lease —less current portion	200	208	163	295	397	457	-		-	-	-	-
Deferred Revenue - Long Term	712	959				1,788	2,036	2,036	2,287	2,384	3,102	3,278
Warrants for redeemable convertible preferred st	328	512	1,110	1,065	1,022	1,346	2,598	4,072	3,081	3,129	3,607	3,798
Total liabilities	36,530	37,506	38,972	39,426	38,989	39,325	57,686	58,357	34,263	29,742	34,940	40,890
Redeemable Convertible Preferred Stock	53,826	57,604	58,607	59,551	60,495	61,441	62,391	63,336	-	-	-	-
Total stockholder's equity	(35,482)	(39,032)	(40,301)	(41,022)	(41,545)	(42,022)	(42,524)	(39,357)	93,335	95,291	107,396	124,896
Total Liabilities and SE	**54,874**	**56,078**	**57,278**	**57,955**	**57,939**	**58,744**	**77,553**	**82,336**	**127,598**	**125,034**	**142,337**	**165,785**
Analysis												
Cash, equivalents, ST Investments	6,554	6,163	4,114	4,092	4,392	5,913	6,876	8,981	54,110	52,592	67,964	86,646
Cash per share	$0.28	$0.26	$0.18	$0.14	$0.15	$0.21	$0.26	$0.30	$1.54	$1.38	$1.75	$2.19
Long-term liabilities	16,906	14,413	73,006	72,862	72,392	14,875	25,670	21,941	2,650	2,691	3,102	6,076
Debt per share	$0.73	$0.62	$3.12	$2.54	$2.53	$0.52	$3.71	$3.21	$0.23	$0.07	$0.08	$0.15
Book value per share	-$1.5	-$1.7	-$1.7	-$1.4	-$1.5	-$1.5	-$1.6	-$1.3	$2.7	$2.5	$2.8	$3.2
Deferred revenue	6,940	7,840	8,460	8,450	9,005	10,092	11,010	10,528	12,367	12,888	15,512	17,723
% y/y growth		13%	1%	15%	23%	29%	30%	25%	37%	28%	20%	14%
% q/q growth		7%	8%	0%	7%	12%	9%	-4%	17%	4%	7%	5%
Days Deferred Revenue (DDR)	53	47	48	46	47	49	44	36	42	43	45	42
Days Sales Outstanding (DSO)	86	69	73	77	73	69	81	73	78	75	73	67
Working capital	224	(2,357)	(4,929)	(5,546)	(6,213)	287	1,174	1,098	52,522	55,158	69,128	89,840
Current ratio	1.0x	0.9x	0.8x	0.8x	0.8x	1.0x	1.0x	1.0x	3.0x	3.6x	3.8x	4.2x
ROE	12%	1%	2%	1%	0%	1%	1%	5%	-5%	1%	2%	3%
ROA	-8%	-1%	-2%	0%	0%	-1%	-1%	-2%	-1%	1%	1%	2%

Source: Deutsche Bank

Figure 28: Cash flow statement

Tangoe
Cash Flow Statement (in thousands)
(FY:12)

	Mar-10 1Q10A	Jun-10 2Q10A	Sep-10 3Q10A	Dec-10 4Q10A	Mar-11 1Q11A	Jun-11 2Q11E	Sep-11 3Q11E	Dec-11 4Q11E	2007A	2008A	2009A	2010A	2011E	2012E	2013E
CASH FLOW FROM OPERATING ACTIVITIES:															
Net income/(loss)	(875)	(235)	(103)	(539)	(613)	(1,390)	(1,430)	1,087	(9,735)	(6,959)	(2,554)	(1,752)	(2,346)	6,321	11,763
													-	-	-
Adjustments to reconcile net loss to net cash used in operating activities:									-	-	-	-	-	-	-
Amortization of debt discount and imputed interest expense	24	23	24	24	180	195			32	53	192	95	375	-	-
Amortization of IBM warrants	7	2	4	13	19	30			-	-	-	26	49	-	-
Depreciation & amortization	871	879	860	919	1,008	1,123	999	1,013	1,911	2,709			4,143	4,435	4,413
Stock-based compensation expense	209	450	509	760	835	932	861	869	279	1,928	749	1,928	3,497	5,784	5,736
Non-cash expense related to issuance of warrants	-	-	-	-					-	-					-
Increase (decrease) in deferred rent liability	(104)	(137)	(142)	(111)	(125)	(20)	1,879	41	199	193	(380)	(494)	1,775	411	2,974
Allowance for doubtful accounts	12	10	10	175	11	12			205	137	9	207	23	-	-
Deferred Income taxes	48	47	48	48	126	3			-	62					-
Incr. (Decr.) in fair value of warrants for redeemable pfd stock	648	(45)	(42)	323	541	1,474	(991)	48	(39)	80	183	884	1,072	478	191
									-		-		-	-	-
Changes in operating assets and liabilities:									-		-	-	-	-	-
(Incr.) Decr. in accounts receivable	(1,379)	(1,472)	455	(590)	(1,606)	(826)	(2,059)	578	(1,040)	(1,596)	(141)	(2,986)	(3,914)	(2,563)	(3,220)
(Incr.) Decr. in prepaid expenses	48	471	(518)	(501)	94	74	(172)	(25)	258	(323)	(26)	(500)	(29)	374	(1,418)
(Incr.) Decr. in deposits & other assets	(19)	43	(637)	(629)	(444)	54	1,569	(34)	264	(36)	(133)	(1,242)	1,145	(2,445)	(2,562)
Incr. (Decr.) in accounts payable	348	(9)	230	(397)	814	781	(594)	82	708	392	112	172	1,083	822	1,391
Incr. (Decr.) in accrued liabilities and others	(916)	800	532	664	(424)	500	198	87	(45)	573	(198)	1,080	361	863	(818)
Incr. (Decr.) in deferred revenues	620	(10)	554	1,088	713	(493)	1,839	521	2,200	1,524	882	2,252	2,580	2,624	2,212
									-	-	-	-	-	-	-
									-	-	-	-	-	-	-
									-	-	-	-	-	-	-
Net cash provided by operating activities	(458)	817	1,784	1,246	1,129	2,449	2,099	4,268	(4,803)	(1,263)	2,431	3,389	9,945	17,104	20,661
CASH FLOW FROM INVESTING ACTIVITIES:															
Capital expenditures (net of capital leases originated)	(157)	(351)	(348)	(269)	(86)	(265)	(470)	(486)	(513)	(671)	(1,258)	(1,125)	(1,307)	(1,732)	(1,979)
Capital leases originated	-	272	266	122					-	-	598	660	-	-	-
Capital expenditures (net of capital leases originated)	(157)	(79)	(82)	(147)	(86)	(265)	(470)	(486)	(513)	(671)	(660)	(465)			
Cash paid in connection with acquistions	-	-	0	(952)	(8,166)	(0)			(1,979)	(13,425)	(965)	(952)	(8,166)	-	-
									-	-	-	-	-	-	-
Net cash used in investing activities	(157)	(79)	(82)	(1,099)	(8,252)	(265)	(470)	(486)	(2,492)	(14,096)	(1,625)	(1,417)	(9,473)	(1,732)	(1,979)
												-	-	-	
CASH FLOW FROM FINANCING ACTIVITIES:												-	-	-	
Net incr. (decr.) debt	(1,462)	(768)	(1,216)	434	7,881	47	(26,425)	(5,300)	3,747	13,451	(579)	(3,012)	(23,797)	-	-
Repayment of settlement liab	-	-	(200)	-		-	-	-	(175)	(175)			-	-	-
Costs incurredin securing financing	-	-	-	-					(88)	-	(85)	-	-	-	-
Payments made to repurchase securities	-	-	-	-					-	-	(408)	-	-	-	-
Proceeds from exercise of stock options and warrants	28	8	15	249	205	(126)			334	137	75	300	79	-	-
Proceeds from repayment of notes receivable	-	-	-	691					-	-	-	691	-	-	-
Proceeds from issuance (Repurchase) of stock							69,925		-	7,258	-	-	69,925	-	-
											-	-	-	-	-
Net cash (used in) provided by financing activities	(1,434)	(760)	(1,401)	1,374	8,086	(79)	43,500	(5,300)	3,818	20,671	(1,197)	(2,221)	46,207	-	-
Exchange rate fluctuation						(0)						-	(0)		-
Increase (decrease) in cash and cash equivalents	(2,049)	(22)	301	1,520	963	2,105	45,129	(1,517)	(3,477)	5,312	(391)	(250)	46,679	15,371	18,682
Cash and cash equivalents at beginning of period	6,301	4,252	4,230	4,531	6,051	7,015	9,119	54,248	4,858	1,381	6,692	6,301	6,051	52,731	68,102
Cash and cash equivalents at end of period	4,252	4,230	4,531	6,051	7,015	9119	54,248	52,731	1,381	6,692	6,301	6,051	52,731	68,102	86,784
					1,129	**2,442**	**1,488**	**4,015**							
Free cash flow												-2%	-1%	-1%	
Cash flow from operations	(458)	817	1,784	1,246	1,129	2,449	2,099	4,268	(4,803)	(1,263)	2,431	3,389	9,945	17,104	20,661
- Capex	(157)	(351)	(348)	(269)	(86)	(265)	(470)	(486)	(513)	(671)	(1,258)	(1,125)	(1,307)	(1,732)	(1,979)
Free cash flow	(615)	466	1,436	977	1,043	2,184	1,629	3,783	(5,316)	(1,934)	1,173	2,264	8,638	15,371	18,682
Per share	($0.03)	$0.02	$0.05	$0.03	0	0	0	$0.10	($0.24)	($0.08)	$0.05	$0.08	$0.27	$0.40	$0.48
- net interest income	532	531	523	398	603	695	95	91	539	1,116	2,178	1,984	1,485	62	65
Unlevered Free cash flow	(83)	997	1,959	1,375	1,646	2,879	1,724	3,874	(4,776)	(818)	3,351	4,248	10,123	15,434	18,747
Per share	($0.00)	$0.03	$0.07	$0.05	0	0	0	$0.10	**($0.22)**	**($0.04)**	**$0.14**	**$0.16**	**$0.31**	**$0.40**	**$0.48**
uFCF Margins									-23%	-2%	6%	6%	10%	13%	13%

Source: Deutsche Bank

Figure 29: Comp sheet

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				MARKET CAP	Net Cash	NET CASH PER SH	Sales CY10A	Sales CY11E	Sales CY12E	TEV/SALES CY10A	TEV/SALES CY11E	TEV/SALES CY12E	EPS CY10A	EPS CY11E	EPS CY12E	P/E CY10A	P/E CY11E	P/E CY12E	FCF/Share CY10A	FCF/Share CY11E	FCF/Share CY12E	EV/FCF CY10A	EV/FCF CY11E	EV/FCF CY12E
Enterprise and Security																								
		Price	Rating	2-Sep-11																				
Adobe	ADBE	$24.15	Buy	$12,227	$1,125	$2.61	$3,800	$4,181	$4,600	2.9x	2.7x	2.4x	$1.94	$2.30	$2.55	12x	11x	9x	$2.10	$2.70	$3.12	10.2x	8.0x	6.9x
Check Point Software	CHKP	$53.06	Hold	$11,385	$2,690	$12.54	$1,098	$1,244	$1,348	9.3x	8.2x	7.6x	$2.48	$2.82	$3.08	21x	19x	17x	$3.03	$3.30	$3.50	13.4x	12.3x	11.6x
Citrix Systems	CTXS	$57.35	Buy	$10,977	$1,581	$8.26	$1,875	$2,181	$2,416	5.4x	4.6x	4.2x	$2.08	$2.40	$2.76	28x	24x	21x	$2.78	$3.25	$3.95	17.6x	15.1x	12.4x
Fair Isaac	FICO	$23.85	Hold	$969	($238)	($6.45)	$610	$627	$649	2.0x	1.9x	1.9x	$1.50	$1.84	$1.86	16x	13x	13x	$2.74	$2.70	$2.80	11.1x	11.2x	10.8x
Fortinet, Inc.	FTNT	$18.40	Buy	$3,016	$468	$2.86	$325	$403	$463	8.2x	6.6x	5.8x	$0.29	$0.35	$0.44	64x	52x	42x	$0.64	$0.82	$0.87	24.3x	19.0x	17.9x
Informatica	INFA	$38.43	Buy	$4,348	$564	$4.99	$650	$782	$900	5.8x	4.8x	4.2x	$1.12	$1.38	$1.62	34x	28x	24x	$0.71	$1.16	$1.48	47.2x	28.9x	22.6x
Microsoft	MSFT	$25.80	Buy	$219,558	$48,983	$5.76	$66,690	$72,206	$77,012	3.5x	3.2x	3.0x	$2.35	$2.81	$2.82	11x	9x	9x	$2.60	$2.67	$3.19	7.7x	7.5x	6.3x
Nuance Communications	NUAN	$17.61	Buy	$5,596	($359)	($1.59)	$1,228	$1,454	$1,677	4.8x	4.1x	3.6x	$1.18	$1.47	$1.71	15x	12x	10x	$0.93	$1.16	$1.40	20.6x	16.6x	13.7x
Oracle	ORCL	$26.97	Hold	$139,273	$14,076	$2.50	$32,337	$37,188	$39,716	3.9x	3.4x	3.2x	$1.92	$2.30	$2.36	14x	12x	11x	$1.82	$2.29	$2.40	13.4x	10.7x	10.2x
PROS Holdings	PRO	$15.10	Buy	$414	$62	$2.25	$74	$96	$115	4.8x	3.7x	3.1x	$0.24	$0.32	$0.40	62x	47x	38x	($0.27)	$0.30	$0.52	NM	42.6x	24.5x
Red Hat, Inc.	RHT	$37.27	Hold	$7,316	$1,267	$6.45	$860	$1,055	$1,166	6.9x	5.6x	5.1x	$0.77	$1.00	$1.10	49x	37x	34x	$1.20	$1.45	$1.54	25.6x	21.3x	20.0x
Symantec	SYMC	$16.36	Hold	$12,515	$312	$0.41	$6,048	$6,692	$7,039	2.0x	1.8x	1.7x	$1.44	$1.60	$1.77	11x	10x	9x	$1.93	$2.14	$2.35	8.3x	7.5x	6.8x
Vmware	VMW	$88.08	Buy	$37,916	$3,253	$7.56	$2,857	$3,731	$3,999	12.6x	9.7x	9.0x	$1.51	$2.11	$2.29	58x	42x	38x	$2.34	$3.32	$4.11	34.5x	24.3x	19.6x
									Group Median ==>	4.8x	4.1x	3.6x			Group Median ==>	21.4x	18.8x	17.2x			Group Median ==>	15.5x	15.1x	12.4x
									Group Mean ==>	5.6x	4.6x	4.2x			Group Mean ==>	30.5x	24.2x	21.3x			Group Mean ==>	19.5x	17.3x	14.1x
Cloud Computing and SaaS																								
Ariba	ARBA	$26.12	Buy	$2,476	$194	$2.66	$366	$474	$553	6.2x	4.8x	4.1x	$0.75	$0.82	$1.04	35x	32x	25x	$0.87	$0.80	$1.32	27.1x	29.2x	17.8x
Aspen Technology	AZPN	$15.97	Buy	$1,499	$151	$1.61	$177	$209	$279	7.6x	6.5x	4.8x	($0.78)	($0.35)	$0.05	NM	NM	NM	$0.45	$0.51	$0.93	32.2x	27.9x	15.4x
Concur Technologies	CNQR	$39.03	Hold	$2,176	$322	$5.52	$306	$367	$438	6.1x	5.1x	4.2x	$0.80	$0.82	$0.99	49x	48x	40x	$1.16	$0.93	$1.48	28.8x	36.1x	22.6x
DemandTec	DMAN	$6.02	Buy	$194	$65	$2.03	$80	$90	$102	1.6x	1.4x	1.3x	($0.03)	($0.03)	$0.14	NM	NM	43x	$0.10	$0.09	$0.19	39.3x	43.9x	21.3x
Intralinks	IL	$8.68	Buy	$477	($30)	($0.54)	$184	$216	$260	2.8x	2.3x	2.0x	$0.27	$0.50	$0.71	33x	17x	12x	$0.74	$0.93	$1.20	12.4x	9.9x	7.7x
Intuit	INTU	$47.35	Buy	$14,821	$1,411	$4.51	$3,554	$3,994	$4,426	3.8x	3.4x	3.0x	$2.03	$2.60	$2.99	23x	18x	16x	$2.35	$2.97	$3.36	18.2x	14.4x	12.8x
Motricity	MOTR	$2.10	Hold	$95	$3	$0.07	$133	$131	$140	0.7x	0.7x	0.7x	$0.39	($0.03)	$0.07	5x	NM	31x	($0.24)	($0.84)	$0.06	NM	NM	33.3x
Netsuite	N	$30.26	Hold	$2,101	$106	$1.53	$193	$234	$280	10.3x	8.5x	7.1x	$0.13	$0.15	$0.29	NM	NM	NM	$0.18	$0.36	$0.43	NM	79.1x	66.7x
NeuStar	NSR	$23.89	Hold	$1,792	$399	$5.36	$527	$595	$650	2.6x	2.3x	2.1x	$1.40	$1.75	$1.90	17x	14x	13x	$1.41	$2.19	$2.45	13.1x	8.5x	7.6x
Realpage	RP	$19.51	Buy	$1,378	$87	$1.08	$188	$263	$327	6.9x	4.9x	3.9x	$0.19	$0.35	$0.48	NM	56x	41x	$0.29	$0.60	$0.75	62.6x	30.8x	24.5x
Salesforce.com	CRM	$123.61	Buy	$17,733	$1,252	$8.97	$1,657	$2,230	$2,750	9.9x	7.4x	6.0x	$1.22	$1.32	$1.94	NM	94x	64x	$2.66	$2.72	$3.60	43.1x	42.2x	31.8x
Successfactors	SFSF	$20.83	Buy	$1,729	251	$4.43	$209	$312	$385	7.1x	4.7x	3.8x	$0.07	$0.06	$0.15	NM	NM	NM	$0.57	$0.49	$0.80	28.9x	33.6x	20.5x
Synchronoss	SNCR	$24.55	Buy	$943	143	$3.95	$170	$227	$275	4.7x	3.5x	2.9x	$0.69	$0.84	$1.07	36x	29x	23x	$0.19	$0.47	$1.12	NM	43.8x	18.3x
Taleo Corporation	TLEO	$23.91	Buy	$1,053	$148	$3.33	$242	$322	$385	3.7x	2.8x	2.4x	$0.78	$0.99	$1.20	30x	24x	20x	$0.49	$0.60	$1.33	42.2x	34.4x	15.5x
Tangoe	TNGO	$11.22	Buy	$394	$49	$1.47	$68	$102	$120	5.0x	3.4x	2.9x	$0.13	$0.25	$0.39	88x	45x	29x	$0.16	$0.31	$0.40	62.8x	31.1x	24.3x
Vmware	VMW	$88.08	Buy	$37,808	$3,253	$7.56	$2,857	$3,731	$3,999	12.6x	9.7x	9.0x	$1.51	$2.11	$2.29	58x	42x	38x	$2.34	$3.32	$4.11	34.5x	24.3x	19.6x
									Group Median ==>	6.1x	4.7x	3.8x			Group Median ==>	34x	32x	29x			Group Median ==>	33.4x	31.1x	20.1x
									Group Mean ==>	5.8x	4.5x	3.8x			Group Mean ==>	37x	38x	30x			Group Mean ==>	36.6x	32.6x	22.5x

Source: Deutsche Bank

Figure 30: Operating metrics

	Sales Growth			EPS Growth			FCF/share Growth			Gross Margins			Operating Margins			uFCF Margins			DDRs			CapX/annual revs		
	CY10A	CY11E	CY12E	CY10A	CY11E	CY12E	CY10A	CY11E	CY12E	CY10A	CY11E	CY12E	CY10A	CY11E	CY12E	CY10A	CY11E	CY12E	CY10A	CY11E	CY12E	CY10A	CY11E	CY12E
Enterprise and Security																								
Adobe	29%	10%	10%	26%	19%	11%	15%	28%	16%	91%	91%	91%	10%	11%	11%	28%	33%	34%	34	33	33	4%	3%	4%
Check Point Software	19%	13%	8%	21%	14%	9%	0%	9%	6%	88%	89%	88%	57%	57%	58%	59%	57%	56%	131	132	155	0%	1%	1%
Citrix Systems	16%	16%	11%	15%	16%	15%	31%	17%	22%	91%	91%	92%	26%	26%	28%	28%	29%	31%	132	144	164	4%	5%	4%
Fair Isaac	-1%	3%	4%	1%	22%	1%	-9%	-1%	4%	70%	70%	70%	18%	21%	20%	18%	18%	18%	27	28	25	2%	2%	2%
Fortinet, Inc.	29%	24%	15%	39%	23%	24%	0%	28%	6%	64%	63%	64%	6%	6%	6%	32%	33%	31%	243	267	266	1%	1%	1%
Informatica	30%	20%	15%	24%	24%	18%	-18%	64%	28%	84%	85%	85%	26%	28%	28%	12%	17%	19%	82	91	88	1%	1%	1%
Microsoft	14%	8%	7%	25%	19%	0%	-100%	3%	20%	80%	78%	76%	39%	39%	38%	33%	31%	35%	61	61	61	-41%	-37%	-41%
Nuance Communications	11%	18%	15%	7%	24%	17%	3%	24%	21%	69%	70%	70%	33%	35%	36%	24%	25%	27%	68	60	60	3%	2%	3%
Oracle	39%	15%	7%	27%	20%	3%	18%	26%	5%	76%	77%	78%	43%	45%	45%	29%	32%	31%	60	62	50	1%	1%	1%
PROS Holdings	8%	29%	20%	-33%	34%	22%	-170%	NM	74%	73%	73%	73%	13%	14%	15%	-10%	9%	12%	116	109	97	2%	5%	2%
Red Hat, Inc.	20%	23%	11%	-46%	31%	9%	20%	20%	6%	86%	84%	85%	24%	25%	26%	27%	27%	26%	287	262	270	4%	4%	3%
Symantec	1%	11%	5%	-9%	11%	11%	16%	11%	10%	85%	86%	86%	26%	26%	27%	24%	24%	26%	167	191	188	5%	4%	2%
Vmware	41%	31%	7%	51%	39%	9%	15%	42%	24%	88%	88%	86%	28%	30%	34%	35%	38%	44%	200	190	185	7%	8%	6%
Group Median ==>	**19%**	**16%**	**10%**	**21%**	**22%**	**11%**	**3%**	**22%**	**16%**	**84%**	**84%**	**85%**	**26%**	**26%**	**28%**	**28%**	**29%**	**31%**	**116**	**109**	**97**	**2%**	**2%**	**2%**
Group Mean ==>	**20%**	**17%**	**10%**	**11%**	**23%**	**11%**	**-14%**	**22%**	**18%**	**80%**	**80%**	**80%**	**27%**	**28%**	**29%**	**26%**	**29%**	**30%**	**124**	**125**	**126**	**-1%**	**0%**	**-1%**
Cloud Computing and SaaS																								
Ariba	8%	30%	17%	8%	9%	27%	-5%	-7%	64%	66%	68%	70%	19%	18%	21%	22%	16%	23%	125	111	113	3%	9%	5%
Aspen Technology	-21%	18%	34%	NM	NM	NM	274%	15%	81%	67%	75%	79%	-42%	-20%	1%	23%	24%	33%	185	225	201	2%	2%	1%
Concur Technologies	19%	20%	19%	5%	3%	20%	1%	-20%	60%	73%	72%	73%	23%	21%	22%	21%	14%	19%	67	78	88	6%	9%	5%
DemandTec	1%	13%	13%	-125%	NM	NM	NM	-10%	107%	69%	68%	69%	0%	-1%	5%	4%	3%	6%	179	179	179	3%	6%	5%
Intralinks	31%	17%	20%	NM	87%	43%	-25%	25%	29%	81%	81%	82%	24%	24%	24%	22%	24%	25%	66	83	81	12%	11%	7%
Intuit	12%	12%	11%	13%	28%	15%	-10%	26%	13%	82%	83%	83%	29%	32%	32%	21%	23%	24%	50	57	19	6%	4%	4%
Motricity	17%	-2%	7%	-100%	-107%	NM	-131%	NM	NM	23%	22%	23%	8%	12%	10%	-8%	-29%	2%	2	2	2	13%	31%	11%
Netsuite	16%	21%	20%	141%	19%	96%	NM	99%	18%	72%	74%	76%	5%	5%	7%	7%	11%	11%	140	142	142	3%	3%	2%
NeuStar	8%	13%	9%	4%	25%	9%	118%	55%	12%	0%	0%	0%	13%	15%	15%	20%	28%	28%	48	50	46	7%	8%	7%
Realpage	34%	40%	24%	44%	80%	38%	-12%	103%	26%	65%	65%	66%	13%	17%	20%	11%	16%	16%	93	89	93	6%	5%	4%
Salesforce.com	27%	35%	23%	7%	8%	47%	79%	2%	33%	82%	82%	82%	14%	12%	15%	23%	17%	19%	184	187	200	5%	6%	5%
Successfactors	37%	49%	23%	NM	-16%	151%	203%	-14%	63%	76%	72%	73%	2%	1%	3%	22%	13%	17%	342	285	299	3%	2%	3%
Synchronoss	32%	33%	21%	23%	22%	27%	-66%	146%	139%	54%	55%	55%	22%	21%	21%	4%	8%	16%	12	24	18	9%	7%	7%
Taleo Corporation	21%	33%	20%	1%	27%	21%	-59%	23%	123%	70%	70%	71%	14%	14%	14%	9%	8%	15%	124	125	138	6%	5%	4%
Tangoe	22%	49%	18%	NM	97%	54%	8%	102%	28%	70%	70%	71%	14%	14%	14%	8%	11%	12%	49	43	45	2%	1%	1%
Vmware	41%	31%	7%	51%	39%	9%	15%	42%	24%	88%	88%	86%	28%	30%	34%	35%	38%	44%	200	190	185	7%	8%	6%
Group Median ==>	**21%**	**25%**	**20%**	**7%**	**22%**	**33%**	**1%**	**24%**	**33%**	**70%**	**70%**	**71%**	**14%**	**14%**	**15%**	**20%**	**14%**	**17%**	**100**	**89**	**93**	**6%**	**6%**	**5%**
Group Mean ==>	**20%**	**26%**	**18%**	**1%**	**17%**	**53%**	**27%**	**25%**	**55%**	**64%**	**64%**	**65%**	**11%**	**13%**	**15%**	**15%**	**13%**	**18%**	**116**	**114**	**113**	**6%**	**7%**	**5%**

Source: Deutsche Bank

Appendix 1

Important Disclosures

Additional information available upon request

Disclosure checklist			
Company	**Ticker**	**Recent price***	**Disclosure**
Tangoe, Inc.	TNGO.OQ	11.22 (USD) 2 Sep 11	1,2,7

*Prices are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is sourced from Deutsche Bank and subject companies.

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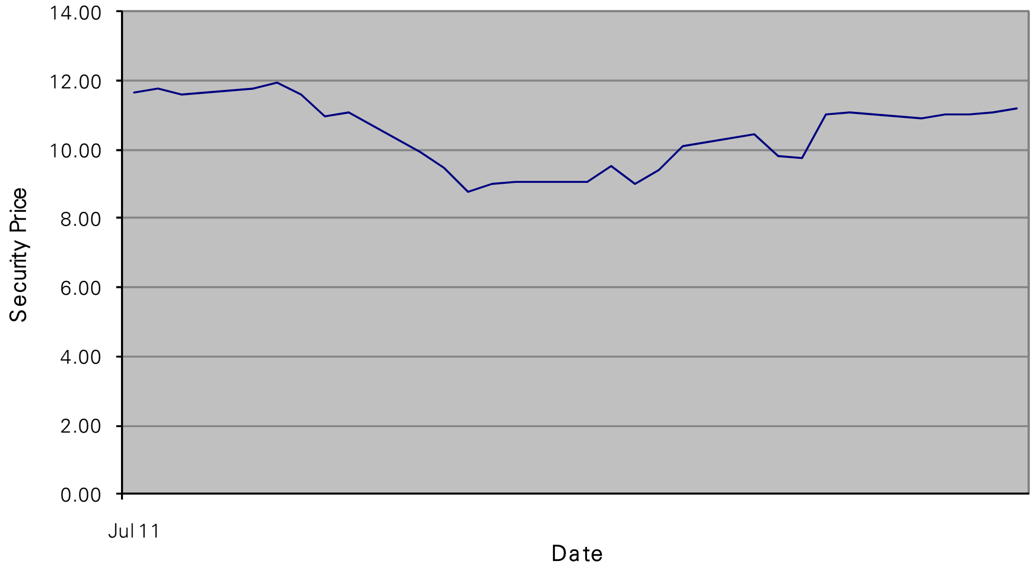
Historical recommendations and target price: Tangoe, Inc. (TNGO.OQ)

(as of 9/2/2011)



Previous Recommendations

Strong Buy
Buy
Market Perform
Underperform
Not Rated
Suspended Rating

Current Recommendations

Buy
Hold
Sell
Not Rated
Suspended Rating

*New Recommendation Structure as of September 9, 2002

Equity rating key

Buy: Based on a current 12- month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus pro-jected dividend yield) , we recommend that investors buy the stock.

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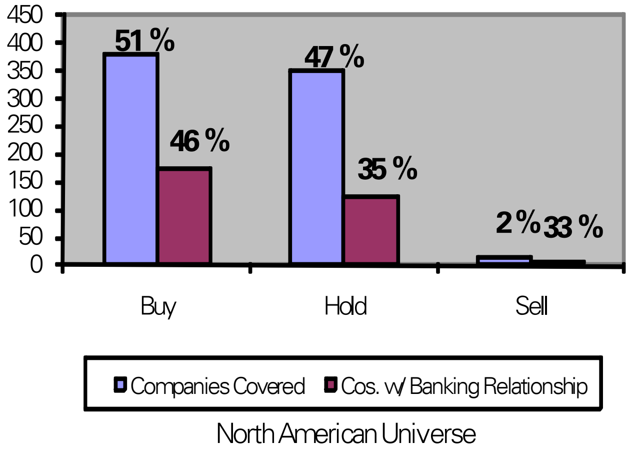
Sell: Expected total return (including dividends) of -10% or worse over a 12-month period

Equity rating dispersion and banking relationships



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